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COMMUNITY HEALTH INSURANCE AS A VIABLE MEANS OF  
INCREASING ACCESS TO HEALTH CARE FOR RURAL  
HOUSEHOLDS IN UGANDA

By

Janestic Mwende Twikirize

A THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF  
PHILOSOPHY IN THE DEPARTMENT OF SOCIAL DEVELOPMENT,  
FACULTY OF HUMANITIES, UNIVERSITY OF CAPE TOWN.

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## ABSTRACT

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This study investigated the viability of community health insurance (CHI) as a means of increasing access to health care for rural households in Uganda. This was against the background that health care is a basic need and right and that, despite this, households especially in the rural parts of Uganda are still lacking effective access to health care. The study is informed by different theories of justice in health care delivery, namely, the libertarian, egalitarian and utilitarian theories. It also borrows concepts from Andersen's (1968) behavioural model of health services access and utilization as well as Kutzin's (2001) framework for analysis of health financing arrangements to assess the viability of CHI as a strategy to increase access to health care.

Using a case study of Kisiizi health insurance scheme in Rukungiri district in southwestern Uganda, quantitative and qualitative approaches were engaged to conduct the study. Data was collected through a survey involving 260 households, three focus group discussions, twelve in-depth interviews and various secondary sources. Bivariate analysis and thematic and content analysis were undertaken.

The findings indicate that CHI increases access to health care by reducing financial barriers. The results show no significant socio-economic differences between members and non-members of the CHI scheme; increasing levels of enrolment; and reasonably stable levels of treatment cost recovery by the scheme. Utilization of government health care is limited to between 20-30% of the population. Households that enrol in CHI are more likely to seek early treatment for illnesses. At household level, because of enrolment of whole households, there is improved equity in access to care with regard to gender and age. Some threats to the full-scale adoption of CHI include the limited providers of an acceptable quality and exclusions from the benefits package. It is argued that CHI can be financially sustainable with minimal external support. This case study does indicate that CHI is a viable health care strategy for the Rubabo county of Uganda but further research needs to be done on a much wider scope. The study recommends adoption of CHI as a transitional mechanism targeting subsidies to the very poor to improve equity in access to health care and collective support for CHI in order to strengthen its sustainability.

## DECLARATION

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I, Janestic Mwendu Twikirize, hereby declare that this thesis is my own unaided work; and that the assistance obtained has been only in the form of professional guidance and supervision; and that no part of this thesis has been submitted in the past for a degree at any other University; and that the information used in this thesis has been obtained by me while registered as a candidate for the degree of Doctor of Philosophy in Social Development, University of Cape Town.

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Sign

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Date

University of Cape Town

## DEDICATION

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*To the Great Physician who gave me a new lease on life in 2004*

University of Cape Town

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May God richly reward all of you.

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## LIST OF ACRONYMS

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AHSPR	Annual Health Sector Performance Report
CBO	Community Based Organisation
CHF	Community Health Financing /Fund
CHI(S)	Community Health Insurance (Scheme)
CMR	Child Mortality Rate
DDHS	District Director (-ate) of Health Services
DFID	Department for International Development
DRC	Democratic Republic of the Congo
FGD	Focus Group Discussion
GoU	Government of Uganda
HC-I	Health Centre One
HC-II	Health Centre Two
HC-III	Health Centre Three
HC-IV	Health Centre Four
HSD	Health Sub-District
HSSP	Health Sector Strategic Plan
IFI	International Financial Institutions
ILO	International Labour Organisation
IMF	International Monetary Fund
IMR	Infant Mortality Rate
ITN	Insecticide Treated (Mosquito) Net
KI	Key Informant
MDGs	Millennium Development Goals
MHCP	Minimum Health Care Package
MHO	Mutual Health Organisation
MMR	Maternal Mortality Ratio
MoH	Ministry of Health
NGOs	Non-Governmental Organisations
NHIS	National Health Insurance Scheme
NRM	National Resistance Movement
NSSF	National Social Security Fund
OOP	Out-Of-Pocket

PEAP	Poverty Eradication Action Program
PFP	Private-For-Profit (sector)
PHC	Primary Health Care
PNFP	Private-Not-For-Profit
PPPH	Public-Private Partnership in Health
PRE	Proportionate Reduction in Error
SAPs	Structural Adjustment Programs
SEWA	Self-Employed Women's Association
SWAp	Sector-Wide Approach
TFR	Total Fertility Rate
THETA	Traditional and Modern Health Practitioners Together Against (HIV) AIDS and other Diseases
U5MR	Under-5 Mortality Rate
UAC	Uganda AIDS Commission
UBOS	Uganda Bureau of Statistics
UCBHFA	Uganda Community Based Health Financing Association
UCMB	Uganda Catholic Medical Bureau
UDHS	Uganda Demographic and Health Survey
UMMB	Uganda Muslim Medical Bureau
UN	United Nations
UNCST	Uganda National Council for Science and Technology
UNHS	Uganda National Household Survey
(U)NMHCP	Uganda National Minimum Health Care Package
UPMB	Uganda Protestant Medical Bureau
USAID	United States Agency for International Development
WDR	World Development Report
WHA	World Health Assembly
WHO	World Health Organisation

## GLOSSARY OF TERMS

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**Insurance:** Refers to the equitable transfer of the risk of a potential loss, from one entity to another, in exchange for a premium and duty of care. It is a form of contract in which one party agrees to compensate another party for any losses or damages caused by risks specified in the contract in exchange for payment of a lump sum or periodic amount of money to the first party.

**Health Insurance:** This is a type of insurance, in terms of which the insurer pays the medical costs of the insured if the insured becomes sick due to causes specified in the agreement (insurance contract).

**Community Health Insurance:** A process of securing financial access to health care through periodic payments of premium instead of out-of-pocket (OOP) payments at the time of service delivery. It is a mechanism of financing health services by spreading the risk evenly among policyholders. It is generally considered as a form of micro-insurance.

**Viability:** This concept denotes the degree of worthiness and practicability in adopting a certain strategy.

**Access:** Refers to the opportunity to make use of a given object or service. Access can be social, geographical or financial. Geographical access to health care is measured in terms of distance and has been set by the World Health Organisation at a maximum of 5 kilometres from a health facility. Financial access relates to affordability of the cost of health care.

**Rural:** In this study, it refers to an area that is outside a gazetted city, municipality or town council. In Uganda, a rural area is mainly characterized by peasant/subsistence farming as the major source of livelihood.

**Household:** People living together in a single homestead. The concept is distinct from a polygamous setting where there is more than one household in a given homestead.

In that case, each group of persons with one caretaker is considered as a separate household, even when they are all related to the same household head.

**Rural household:** A household permanently residing in a rural area

**Scheme-member:** A household or person that is currently (i.e. at the time of the study) enrolled in a community health insurance scheme.

**Non-scheme-member:** A household or person that is not currently enrolled in the community health insurance scheme.

**Scheme-drop-out:** A household or individual that was once a member of a CHI scheme but was not enrolled in the scheme at the time of the study.

**Catastrophic health expenditure:** Expenditure at such a high level as to force households to reduce spending on other basic goods (e.g. food or water), to sell assets, or to incur high levels of debt, and ultimately to risk impoverishment (McIntyre, 2007).

**Co-payment:** Out-of-pocket partial payment by a health insurance member for health services used in addition to the amount paid by the insurance scheme.

# CHAPTER ONE

## INTRODUCTION

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### 1.1 General Background

Good health is a pre-requisite for the development of any household, community or country. It is linked to increased enrolment and improved performance at school, high labour productivity, and is generally an indicator of the level of socio-economic development of a country. Access to health care is also a universal human right<sup>1</sup>. Despite this, access to health care remains a challenge. It is estimated that 1.3 billion people worldwide lack effective and affordable access to health care (Preker et al, 2002; International Labour Organisation [ILO] et al, 2005). The bulk of these people are found in developing countries. In Africa, for example, more than 50% of the population lacks access to modern health care despite the fact that the continent bears the highest burden of disease worldwide<sup>2</sup> (World Health Organisation [WHO], 2005; Kaseje, 2006). Besides the poor having limited geographical access to health services, they also lack financial access to health care due to low purchasing power at household level. People simply cannot afford to pay for health care and, at the same time, governments lack the necessary resources to provide adequate care. The poor are most vulnerable as they are less able to meet the cost of health care, as well as less able to recover from the financial consequences of out-of-pocket (OOP) payments and loss of income associated with ill health. In general, the majority of the poor lack social security to guard against the impact of ill health (ILO et al, 2005). Consequently, households are caught up in a vicious cycle of poverty and ill health.

Uganda's Poverty Eradication Action Plan (PEAP), which is the national development framework, and medium-term planning tool, recognises ill health as a leading cause and effect of poverty (Uganda, 2004). In terms of this, health forms a critical element of the human development pillar of the PEAP (Uganda, 2004, 2006). Uganda's National Health Policy (1999) also recognises health as a critical element of poverty eradication programmes. This policy is hence designed in the context of the broader objectives of

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<sup>1</sup> See <http://www.un.org/overview/rights.html>.

<sup>2</sup> Seventy two percent (72%) of deaths in Africa are caused by diseases that are highly preventable and treatable. Malaria, diarrhoeal diseases and respiratory tract infections alone account for 51% of deaths in the region (WHO, 2005).

the national PEAP as well as the Millennium Development Goals (MDGs)<sup>3</sup>. Uganda is one of the few countries in Africa that have re-introduced free health services<sup>4</sup>. However, there is still the challenge of poor quality services manifested in frequent drug stock-outs, inadequate and under-motivated health personnel, overcrowding and limited financial resources – all of which render government health care services inadequate and not accessible to all.

## **1.2 The Research Context**

Health and health care provisioning are a global concern. However, it is crucial to understand the specific context in which health care is sought and promoted as what works in a particular context may not necessarily work in another. This section contextualises the research agenda by highlighting the national context in which access to health care and the mechanisms of ensuring such access are being investigated. The section summarises the general geo-political and socio-economic situation in Uganda, gives an overview of social security issues (this is crucial because health care provision forms a basic component of social security), and illuminates primarily the health sector issues in the country. This sets the stage for crystallizing the research problem later on in the chapter.

### **1.2.1 Uganda: General Overview**

Uganda is situated in the great lakes region of East Africa. It is bordered by the Democratic Republic of the Congo (DRC) in the West, Kenya in the East, Sudan in the North, Tanzania in the South and Rwanda in the South East. It is a land-locked country covering an area of 241,551 km<sup>2</sup>. Map 1 shows the location and administrative divisions of Uganda.

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<sup>3</sup> These are goals for development and poverty eradication contained in a United Nations Millennium Declaration signed in 2000 by 189 countries, which commits all member states to the realization of the Millennium Development Goals (MDGs) by 2015. There are 8 goals in total, and 3 of these relate directly to health, namely, reducing child mortality, improving maternal health, and combating HIV/AIDS, malaria and other diseases (Travis et al, 2004).

<sup>4</sup> Free health care was provided in the period following independence, through the 1970's and 80's until 1993, when user fees were introduced in public health facilities.



dependency ratio of 116. The country's major economic activity is agriculture. Nearly 71% of the productive age group are subsistence farmers. The population is predominantly rural, with only 12.3% of the population residing in urban areas (UBOS and Macro International, 2007).

With regard to its socio-cultural composition, Uganda is composed of a variety of religions with the majority of the population being Christians. Catholics (42.4%) and Protestants (34.5%) form the majority of the Christian sub-sects. Others include the Pentecostals (8.1%), Seventh Day Adventists (1.9%), and others (1.9%). Islam is practiced by 11.2% of the population (UBOS and Macro International, 2007). Religion in Uganda has been significant in the development of the social sector with key services development being traced back to the early Christian missionaries. Religious based organisations operate more than a third of the hospitals and 24% of the lower level health facilities in the country (World Bank, 2005; Uganda, 2006). The Protestant and Catholic medical bureaux also run major medical stores (Joint Medical Stores) that are key suppliers of medicines in the country. Hence, religion plays a key role in health service delivery.

In terms of its development, Uganda has recorded impressive economic growth rates since the early 1990's with an average growth rate of over 6% per annum (Uganda, 2007b). The percentage of the population living below the poverty line<sup>5</sup> declined from 54% in 1992/1993 to 44% in 1995/96 and 31% in 2006 (Sewanyana et al, 2004; UBOS & Macro International, 2007). However, Uganda is still ranked among the poorest countries of the world: it is at 154<sup>th</sup> position out of 177 countries, with a human development index (HDI) of only 0.505 (United Nations Development Programme [UNDP], 2007a). According to the 2005/06 National Household Survey (UBOS, 2007), nearly 8.4 million Ugandans lived in absolute poverty in 2005/2006. The majority of the poor reside in rural areas (42.7% of the rural population fall below the poverty line). The country exhibits significant levels of inequality, which have been rising since 1997. The Gini-coefficient, a measure of income inequality, rose from 0.35 in 1997/8 to 0.43 in 2003 (Uganda, 2003, 2004). Poverty correlates with low levels of education,

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<sup>5</sup> The poverty line is set at 1 dollar a day per capita. Those who live on less than a dollar per day are considered to be living in absolute poverty.

health, nutrition and generally inadequate social conditions, which become worse for those in the lowest socio-economic quintile.

### **1.2.2 Uganda's Health Indicators**

Despite improvements in economic development, Uganda's health outcomes have remained low and the health of the population is generally poor. The total fertility rate (TFR) is 6.7 children per woman. Life expectancy at birth is only 49.7 years. The Maternal Mortality Ratio (MMR) is 435 deaths per 100,000 births; the Infant Mortality Rate (IMR) is 76 deaths per 1,000 live births while the Under-five Mortality Rate (U5MR) is 137 deaths per 1,000 live births (UBOS & Macro International, 2007). Both the MMR and U5MR are some of the highest in the world (World Bank, 2005). Similar to differences in income, there are socio-economic differences in the health outcomes across the population. For example, nationally the IMR is 76 deaths per 1,000 live births, whereas in the lowest socio-economic quintile it is 105.7 deaths per 1,000 live births (compared to 60.2/1,000 live births among the highest socio-economic quintile (Uganda, 2005). The Uganda Demographic and Health Survey (UDHS) (2006) indicates that while the TFR for rural areas is 7.1 (urban 4.4), contraceptive prevalence rate is only 15.1%, with 42.6% of rural women reporting unmet needs for family planning. In addition, only 25% of rural women deliver their babies with the assistance of a health professional, compared to 80% in urban areas (UBOS & Macro International, 2007). With regard to health seeking behaviour, the above survey (UDHS, 2006) noted that in the rural areas, out of 2,921 under-5 children who had developed malaria in the 2 weeks preceding the survey, only 29.2% had taken any anti-malarial drug. The report linked this to inadequate access to treatment, possibly due to the perceived cost of health care.

There is generally a high burden of disease in the country. Over 70% of life years lost to premature deaths are attributed to preventable diseases (Uganda, 1999; World Bank, 2005). Prenatal and maternal conditions, malaria, acute respiratory tract infections, HIV/AIDS, and diarrhoea together account for over 60% of the total national death burden. While HIV prevalence in the general population decreased from 18% in 1992 to 6.4% in 2004, it appears to have stagnated between 6.0 and 6.4% since 2000 (Uganda AIDS Commission [UAC], 2007). Disease prevalence in Uganda

increased from 29% to 40% between 2002 and 2006 (UBOS, 2006). Apart from the high burden of communicable diseases, there is an urgent situation with regard to non-communicable diseases such as diabetes, mental illness, cancer, hypertension and chronic heart disease. A combination of these exacerbates the need for effective access to health care to prevent poor health.

Geographical access to health facilities improved from 49% in 1992 to 72% in 2005 (Uganda, 2003, 2008). However, as noted in the 2006 National Household Survey, this does not necessarily guarantee access to health care (UBOS, 2006). The rural households are especially disadvantaged in accessing health care. For example, there are severe disparities in geographical access to health care, ranging from 7% for some remote districts to 100% in Kampala city (ibid).

### **1.2.3 Uganda's Social Security Framework**

The Universal Declaration on Human Rights<sup>6</sup> and the UN Covenant on Economic, Social and Cultural Rights<sup>7</sup> underscore health care as a form of social security. Social security is broadly concerned with the direct role that public action plays in reducing human deprivation and eliminating vulnerability (Ahmad et al, 1991). This definition embraces all such welfare programs as provision of health care and education, food subsidies, as well as those more direct forms of state-administered schemes such as social assistance and social insurance. The narrow and operational definition of social security is that it is a regulated mechanism of protecting people against social contingencies such as loss of income. Besides state-administered schemes, there also exists informal social security, which is unregulated, voluntary and often embedded within the community context. In presenting the social security framework for Uganda, all these perspectives of social security are taken into account.

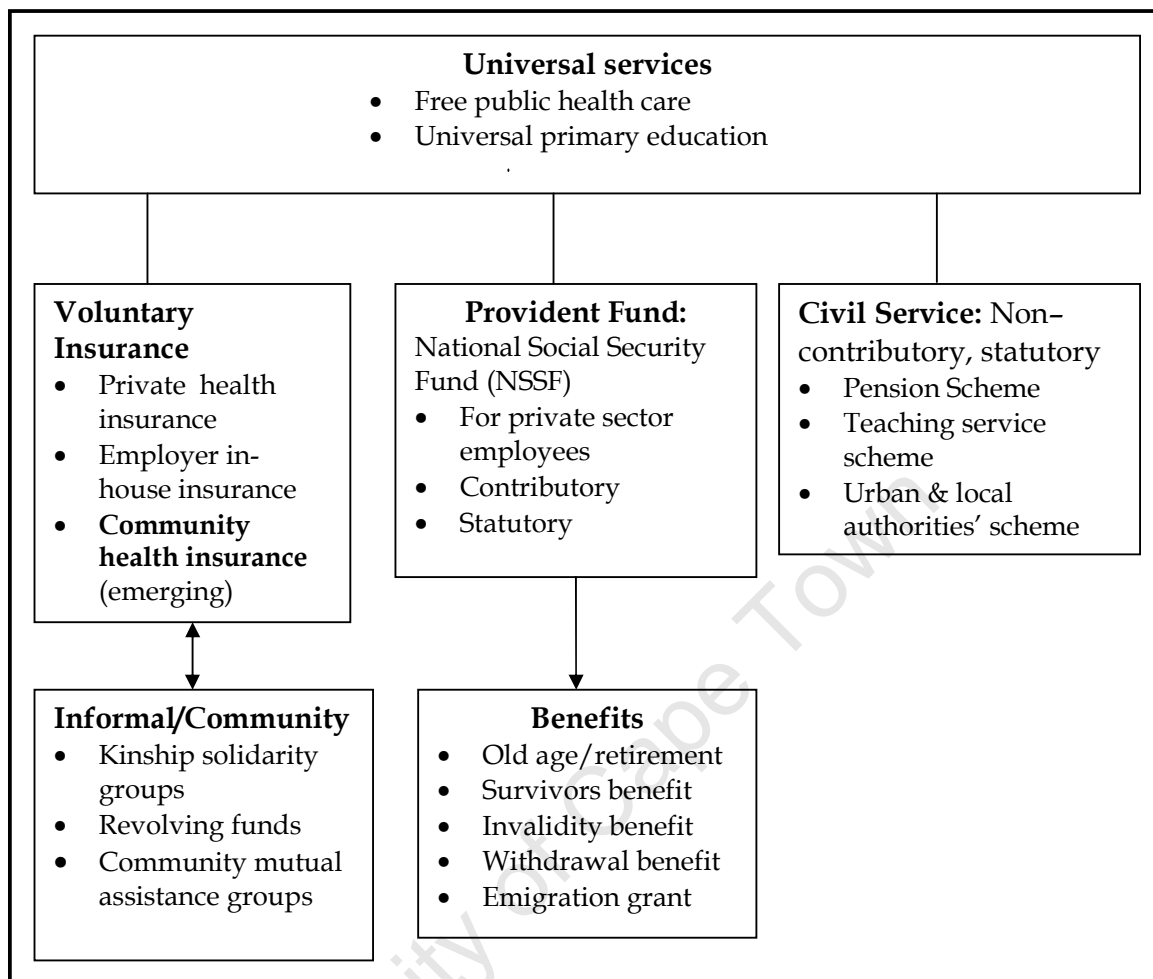
In Uganda, responses to the social security comprise of broad programs contained in the PEAP. There are some social security arrangements in place, which in a broader sense include the provision of basic health care free of charge in public health facilities. Figure 1 indicates the framework.

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<sup>6</sup> See, <http://www.un.org/overview/rights.html>

<sup>7</sup> See, <http://www2.ohchr.org/english/law/pdf/cescr.pdf>

**Figure 1: Uganda's social security framework**



Source: Based on the National Social Security Fund Act, (1985), Dau (2003), and Kasente et al (2002)

Uganda's formal social security is still undeveloped. The only prominent scheme is the National Social Security Fund (NSSF), a provident fund for private sector employees. It is a form of social insurance, where members contribute through their pay cheques (20% of their salaries<sup>8</sup>) and they receive a lump sum payment in the event of a defined contingency. The benefits covered include old age benefits, survivors' benefits (for dependent relatives of a member of the fund upon his/her death), invalidity benefits, withdrawal benefits and emigration grants for members who emigrate permanently from Uganda. The strength of the scheme is that it offers financial protection for members during a period when they are no longer able to earn an income. Secondly, because it offers a lump sum payment, an individual member

<sup>8</sup> The employer contributes 15% and the employee 5%.

can invest his/her accumulated earnings upon receipt so that he/she maintains a standard of living that is close to what they enjoyed while in active employment. The major weakness is that it has an extremely limited coverage since it is restricted to about 1% of the population, employed in the formal private sector (UBOS, 2006). Thus, its contribution to the goal of protecting the poor against deprivation and vulnerability and consequently reducing poverty is still negligible. Arguably, the NSSF contributes to the widening gap between the poor and the rich. Instead of protecting the poor, it protects the living standards of the relatively well off. It is also evident that health cover is conspicuously omitted from the benefits packages. The only health insurance coverage is available through private health insurance, which can only be afforded by the minority, whose employers offer it as part of their employment benefits. However, this privilege is lost when they leave their organisations. Ideologically, it may seem a good idea for government to offer free health care to its citizens, but due to financial constraints, it may not be able to meet the demand for quality health care in the short and medium term.

The government also runs parallel social security schemes for its civil servants and a separate one for those in the teaching service. The benefits are in form of regular payments upon retirement. The schemes are non-contributory and are financed through budgetary allocations by government. This implies that, government despite collecting revenue from all taxpayers both in the civil (or public) sector and in the private sector, including the informal sector, offers social protection only for a minority who are employed in the civil service. Even then, the proportion of the population covered is only 1% since the total civil service employs only about 244,000 people (UBOS, 2006). Consequently, formal social security in Uganda covers only 2% of the total population, and this excludes the poor and the majority of rural residents, since most of them are not part of the formal sector.

Ostensibly, the government of Uganda (GoU) offers universal social services to the whole population, notably in the education and health sector. Since 1996, the government has offered free primary education. Furthermore, free health care was introduced in all government health facilities in 2001. Ideally, universal health services funded through general taxation should offer financial protection against the cost of

illness. The challenge lies in whether a developing, highly debt-ridden country like Uganda can provide good quality health care to the whole population given its narrow resource base. Currently the government commits 9.6% of its total budget to the health sector (Uganda, 2008), and even with donor support only about 30% of the required minimum health sector expenditure is covered (ibid). Anecdotally, less than 30% of the population are accessing free health care at public health facilities, while more than 50% make out-of-pocket (OOP) payments for health care at the point of service delivery. Thus the limited level of social security, particularly with regard to health care, is evident.

At the local level, communities provide most social security to their members against the risks and vulnerabilities posed by poverty, unemployment, emergencies and other inevitable life cycle factors (Kasente et al, 2002). These arrangements are informal, voluntary and at micro-level. Due to the absence of state organised social security arrangements at community level, families and groups attempt to provide their own protection, although they are constrained by inadequate resources. Common groups such as burial societies, revolving funds, kinship solidarity groups and mutual health organisations are some of the forms of informal social security arrangements in Uganda. These commonly exist in the rural areas but also among the urban poor. When Community Health Insurance (CHI) was first introduced in Uganda, it was designed around existing solidarity groups (Musau, 1999).

#### **1.2.4 Uganda's National Health Policy**

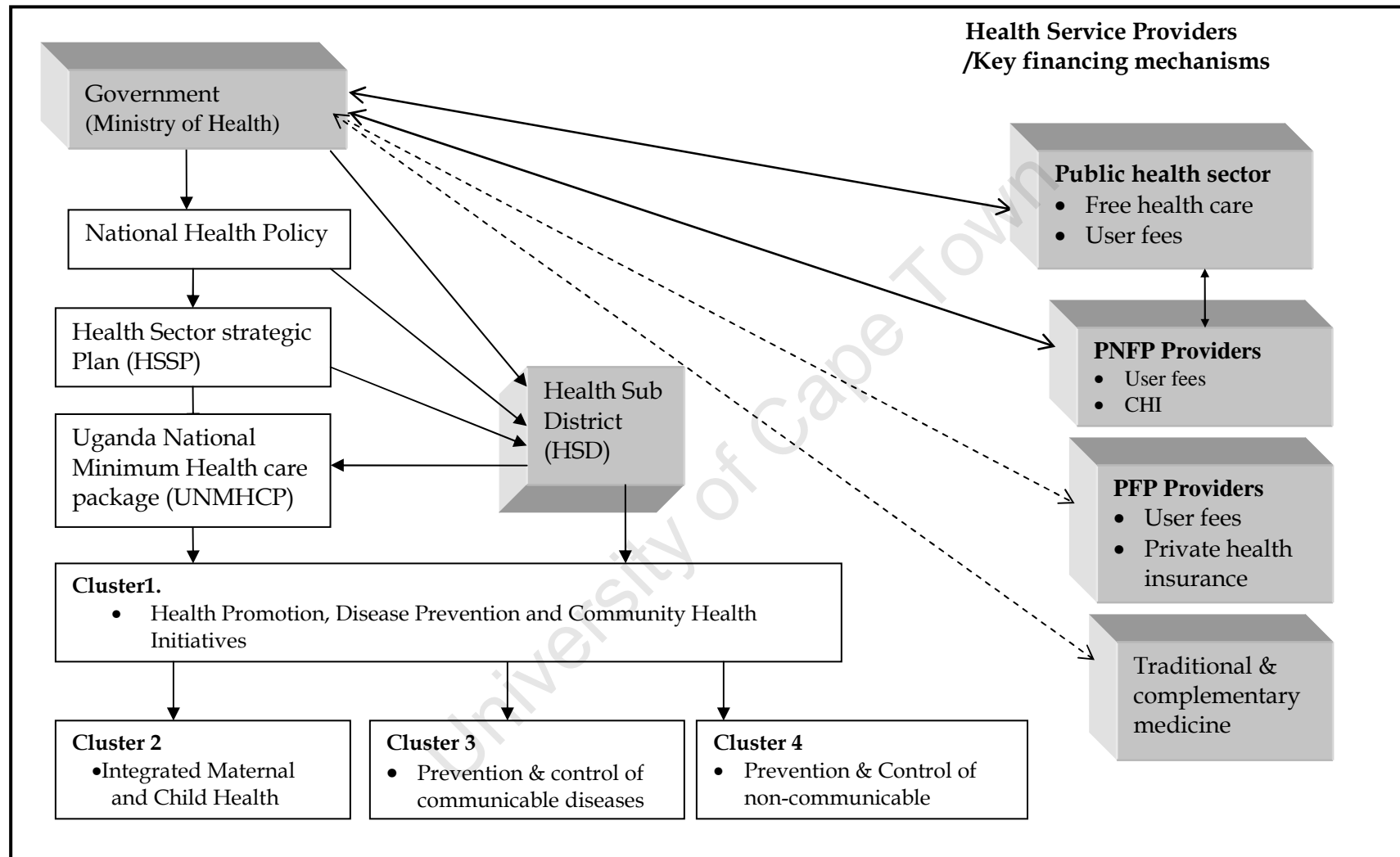
Uganda's current health policy came into effect in 1999. Its major goal is to ensure good health for all people in Uganda. Its stated objective is the reduction of morbidity and mortality, while the major strategy is through a provision of a basic package of health services - the Uganda National Minimum Health Care Package (UNMHCP). Some of the key guiding principles for this policy include equity with regard to access to health care, quality of care, efficiency and accountability, gender mainstreaming, and collaboration and partnership with the private sector.

In line with the national health policy, a five-year Health Sector Strategic Plan (HSSP) was drawn up in 2000 and reviewed in 2005. Both documents emphasize the reduction of morbidity and mortality through the provision of a UNMHCP in a decentralized health delivery structure. The package encompasses preventive, supportive and curative aspects of health care.

#### **1.2.4.1 The Health Care Delivery Structure**

The GoU, through the Ministry of Health (MoH) is responsible for overseeing the delivery of health services to the population. The system operates under a decentralized service structure, in terms of which local governments are responsible for planning and supervising the delivery of health services. The private sector is considered a key actor in the national health system. Recognised health service providers in the private sector include the Private-Not-For-Profit providers (PNFP), the Private-For-Profit providers (PFP), and the Traditional and Complementary Medicine Practitioners. According to a 2006 health facility inventory (Uganda, 2006), there are 104 hospitals in the country. Of these, 57 are public (government), 44 are PNFP and three are PFP hospitals. Different health financing mechanisms thus co-exist within the health system, although the official policy in public health facilities is the provision of free health care. Figure 2 indicates the framework for the delivery of health services in Uganda.

**Figure 2: Framework for the delivery of health services in Uganda**



Note:  $\longleftrightarrow$  denotes a strong partnership;  $\dashrightarrow$  denotes a weak partnership

Source: Based on Uganda's health policy (1999) and the Health Sector Strategic Plan 2005/2006-2009/2010

The health care delivery system in Uganda is under the oversight of the MoH. It is guided by a National Health Policy and a HSSP. The UNMHCP, which is the adopted strategy, consists of “*cost-effective interventions that address the major cause of disease and death in the communities*” (Uganda, 1999: 9). It has been clustered into 4 broad areas each with a focus on particular health conditions. Cluster 1 includes health promotion, disease prevention and community health initiatives, and cuts across the other clusters. It recognises the role of preventive and community health care as well as the participation of communities in health care planning and delivery. Cluster 2 includes integrated maternal and child health; Cluster 3, covers the control of communicable diseases (STI/HIV/AIDS, TB, malaria); and Cluster 4 deals with the management of non-communicable diseases (injuries, disabilities, rehabilitative health, mental health, gender based violence, oral health, and palliative care). Theoretically, a mix of these services offers basic health care to individuals in communities in all parts of the country.

- ***Decentralized Health Service Delivery: the Health Sub-District***

Until 1993, the health sector was highly centralized, with the MoH directly involved in service delivery. In 1993, all service delivery was decentralized to the districts in line with the Local Governments Act (Uganda, 1997). Only hospitals providing referral services and medical training remain the responsibility of the MoH. The main role of the MoH is to develop policies and guidelines as well as to monitor and provide logistical support (Uganda, 1999). The health sub-district (HSD) is the focal point of health services delivery. The HSD is a health service zone within each district, whose primary aim is the further decentralization of health service delivery to lower levels. The leadership of the HSD is normally based at either a public or PNFP hospital or at an upgraded Health Centre IV (HC-IV). It oversees other lower level health centres (i.e. HC-I, HC-II, and HC-III) within a given geographical boundary that is known as a constituency (which serves approximately 100,000 people). The rationale for decentralization is to bring services nearer to the people, to increase equity of access to essential services and to foster local community participation in the planning, management and delivery of health care.

- *Public-Private Partnership in Health*

Although the government recognises the broad private sector as a key player in health care provision, it has only engaged in active partnership with the PNFP sector. This is based on the belief that this sector is motivated by concern for the welfare of the population, in contrast to the PFP sector, which is driven by profit motives. A policy on public-private partnership in health (PPPH) has been enacted, premised on the fact that this partnership can significantly contribute to the attainment of equity, access, efficiency and sustainability of health care in Uganda (Uganda, 2002). The relationship between government and the rest of the private sector is rather more one of regulation and monitoring than active partnership.

The PNFP sector comprises facility-based providers and non-facility based providers. The facility based PNFP providers are mostly religious based, existing under three major umbrella organisations, namely, the Uganda Catholic Medical Bureau (UCMB), Uganda Protestant Medical Bureau (UPMB) and Uganda Muslim Medical Bureau (UMMB). These account for over 40% of hospitals in the country, with a considerable percentage of their health facilities located in the rural areas (World Bank, 2005; Uganda, 2006). In addition, more than a half (60%) of the 214 HSDs is PNFP based. Under the decentralized health system, local governments are permitted to contract out services to PNFP health service providers.

Partnerships between the public and the PNFP sectors take the form of regular joint planning and coordination meetings, policy formulation and development, HSD management, seconding medical officers to major hospitals operated by PNFP sector and actually paying their salaries; and financial resource mobilization and allocation<sup>9</sup>. However, government has not taken effective steps to monitor whether or not the grants given actually translate into reductions in health care costs to the consumers of health care in PNFP health units.

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<sup>9</sup> Government gives grants to selected PNFP hospitals that are directly involved in helping government to deliver the NMHCP. The aim is to offset some of the costs of health care delivery so that they (PNFP) can in turn reduce the total cost of health care charged from the users.

It should be noted that PNFP providers control a significant proportion of the health care delivery structure and at the same time charge user fees. The implication is that, despite the provision of free government health services, a significant proportion of the population still has to seek health services from private providers where they must pay for such services. Because of this demand to pay, the rural poor have limited access to health care. On occasions where they must access the service, they are forced to sell their assets in order to meet the cost of care (Derriennic et al, 2005), which pushes them deeper into poverty.

#### **1.2.4.2 The Influence of International Financial Institutions on Uganda's Health Sector**

As has happened in many developing countries (Reich, 2002), the health policy and health reforms in Uganda have been greatly influenced by the International Financial Institutions (IFIs), particularly the World Bank and International Monetary Fund (IMF). Structural Adjustment Programs (SAPs) were introduced in Uganda in 1987, and one of their goals was to reduce government expenditure as a major instrument to control inflation (Makokha, 2001) and steer economic growth. Economic growth was believed to lead, in turn, to better household incomes, which would enable people to buy services, including health, from the private sector (Okuonzi, 2004b). In line with SAPs, health sector reforms were introduced in 1993 and broadly aimed to promote the private sector in health care delivery, to restrict the role of government to policy formulation and technical guidance, and to target public spending to health promotion and disease prevention. The IFIs promoted the reforms by offering incentives, such as future financial aid, and by threatening to cut off aid if the suggested reforms were not adopted (Reich, 2002). Subsequently, health services were decentralized in 1993; user fees were introduced and partnerships with the private sector were established, with a view to supporting it to become a key provider of health care. The argument advanced for a shift from public to private health care provision was the promotion of allocative efficiency and cost-effectiveness (Turshen, 1999).

User fees were introduced in 1993 as one of the key methods to finance health care. The fees were also expected to promote efficient use of resources and improve the quality of

health care. The objective seems to have failed and the fees were officially abolished in 2001, largely in response to a World Bank commissioned study, namely, Uganda Participatory Poverty Assessment Review (Uganda, 2000), which indicated that the poor had extremely limited access to health care. Other studies on the impact of user fees yielded mixed results (see Section 2.3.5: 37 for a detailed discussion on user fees in Uganda).

The World Bank was also influential in the promotion of the Minimum Health Care Package (MHCP) that replaced the 1987 WHO strategy of Primary Health Care (PHC). PHC had promoted the participation of communities in health services management but was considered too reliant on the public sector (Turshen, 1999). This minimum health care package has been adopted as the major strategy of health care provision in Uganda. It is expected to promote efficient use of resources since it claims to focus on cost-effective interventions.

On the whole, IFIs and other bilateral donors have largely influenced the health policy-making process in Uganda and still play a crucial role in financing the health sector budget. According to Turshen (1999), the outcome of SAPs in Africa manifested a position that macro-economic stability takes precedence over poverty reduction. Uganda is a perfect example of this. Despite impressive economic gains, health care has largely remained inefficient, leading to stagnant or even worsening key health indicators for Uganda (Okuonzi, 2004a; UNDP, 2007b).

#### **1.2.4.3 Challenges in Delivering Uganda's National Minimum Health Care Package**

Although the strategies and targets of the HSSP may seem impressive, they have not resulted in corresponding visible improvements in the health status of Uganda's population (Section 1.2.2: 5). For example, although geographical access to health facilities has improved in that 72% of the population live within a 5 kilometre radius<sup>10</sup> of the nearest health facility (UBOS, 2005), it does not guarantee access to basic health care.

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<sup>10</sup> The indicator for geographical accessibility is a radius of 5 kilometres from any health centre irrespective of the type of provider or level of health facility. Five kilometres is considered an acceptable walking distance for health care seekers (Parkr et al, 2006).

The nearest health facility could be an ill-equipped health post at local council level II (HC-II). The most recent National Household Survey (UBOS, 2006) reports that the average distance from a household to the nearest hospital is 27 km, and that walking is the primary means of transport. Besides this, there are continued disparities in access to health care between and within regions, ranging from 7% in Northern Uganda (Kotido district) to 100% in Kampala city.

The HSSP II (Uganda, 2005b) acknowledges that the key constraints in the delivery of the UNMHCP include under-funding of the health sector; inadequacies in the production, recruitment and retention of trained health personnel; frequent stock-out of essential medicines; and lack of equipment for making the new health services delivery structure fully operational. Currently, the cost of delivering the UNMHCP is much higher than can be afforded. According to the national health financing strategy (Uganda, 2005) the minimum financing requirement to deliver the UNMHCP is US\$ 28 per capita, with a minimum of US\$ 3.5 per capita spent on drugs. However, government has only been able to provide US\$ 7.8 per capita (Uganda, 2008), which is clearly far too little. Overall, government allocates 9.6% of the national budget to the health sector. As a result, the sector receives less than 50% funding of what is required to ensure full access of the population to the minimum health care services (Uganda, 2005). For example, only 30% of the HSSP I was funded (ibid). Although the policy promises a free health care system funded through general taxation, the narrow tax base makes this impossible. In 2006 (during presidential campaigns), graduated tax was abolished, making it even harder for local governments to collect local revenue for service delivery. As the World Development Report (WDR) (2004) contends, it is difficult for public spending to create quality services and to reach the poor (World Bank, 2003: 40).

Uganda's health system is also constrained by an inadequate number of trained health personnel to service the well laid out decentralized structures. For example, the total number of medical doctors in both government and the PNFP sector is only 953. Of these, more than 200 are employed in the two national referral hospitals, while another 305 are in PNFP hospitals (Uganda, 2005b). The MoH estimates the staffing gap for all districts

and regional referral hospitals to be 4,909, while for lower level health centres including the HSD, the staffing gap is estimated at 1,082. Thus, whereas the policy stipulates that a Health Centre III (HC-III) should have a resident medical doctor, in practice this has not been realized and may not be in the short term<sup>11</sup>. Thus, a number of health units, especially in the rural areas (30% of all HC-IIs) are staffed only by nursing assistants and, according to the human resources inventory (2004), 65 HC-IIs were not staffed at all (Uganda, 2005). Under such circumstances, it is not surprising that a significant number of people seek alternative health service providers who are more likely to meet their needs, including traditional healers, private clinics and drug shops (which are in most cases unregulated), as well as PNFP providers. All these alternative providers charge fees for their services. In view of these difficulties, there is definitely a need to consider alternative mechanisms of minimizing the financial barriers to health care for the poor, while at the same time maintaining an acceptable level of quality of services.

It is due to these severe resource constraints that government still finds it difficult to deliver the basic health care package to the population, notwithstanding the free health care policy. In view of these challenges, Uganda's health care system needs a serious strategy review. Additional mechanisms of increasing access to health care, especially for rural households, need to be considered.

### **1.3 The Case for Community Health Insurance**

Community Health Insurance (CHI) is part of the broader community health financing (CHF) strategy. CHF refers to any scheme that is voluntary in nature, where the community pays for health care and is involved in the control and management of health resources (Preker et al, 2002). Examples of CHF include micro-insurance or CHI, community health funds, mutual health organisations (MHOs), revolving drug funds, and community involvement in user fee management. CHI is defined as any scheme that is managed and operated by any organisation other than government or PFP company, which provides risk pooling to cover the costs or part of the costs of health care services

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<sup>11</sup> There are no practical incentives to attract trained medical officers at lower levels, who are situated in rural areas. In urban areas, they can afford to work in more than one health facility and at the same time to operate private clinics in order to realize more income.

(Musau, 1999; Preker et al, 2002). In Africa, CHI takes the form of local initiatives with voluntary membership. The members are required to pay a fixed amount of money periodically in return for a defined package of health services such as in-patient care. Examples of countries where CHI has been relatively successful include the DRC (Criel et al, 1998), Rwanda (Musango et al, 2006) and Senegal in West Africa, where the average household enrolment percentage in CHIs in the Thies region reached 68%, with some schemes realizing a 90% enrolment level (Jutting, 2001).

The Uganda government through the MoH recognised CHF as a possible option for financing health care in 1995. The government, with support from the United Kingdom's Department for International Development (DFID) initiated the CHF project to spearhead the establishment of CHI schemes. The first scheme was launched in 1996 at Kisiizi missionary hospital in Rukungiri district. It was piloted as an alternative health financing strategy at a time when the official policy of government was cost sharing (user fees). The already existing community groups that exhibited features of risk sharing and resource pooling motivated the establishment of this scheme. These were in the form of stretcher (*engozi*<sup>12</sup>) and burial groups. In these groups, for example, households pool resources to assist in transporting the sick and the dying. The logic for introducing CHI was that if people could save for and pool resources in preparation for death, then they could also prepare for illness if properly mobilized and sensitized. Other schemes subsequently sprang up in different parts of the country, all of them linked to the PNFP sector.

In 2001, there was a fundamental change in the country's health financing policy; cost sharing was abolished and free services introduced in all government health facilities. At the same time, the donor funding policy changed from direct project funding to the

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<sup>12</sup> *Engozi* is a form of stretcher made out of local materials, mainly papyrus reeds, which is used to carry sick people to hospitals or to carry dead bodies from the hospital to the burial grounds. It is a form of 'ambulance' commonly used in mountainous areas in Uganda, due to a lack of formal means of transport. Because a single household cannot afford its own *engozi*, groups of households co-own one. Secondly, the group was necessary to carry the sick or dead person, as it required at least 4 or more persons to carry the stretcher containing the person. If a household were not a member of the group, then it would have to incur the full expense in case of sickness or death. At worst, such a household would be completely neglected as a form of community sanction against individualism. The practice effectively reinforces the concept of risk sharing and resource pooling, which underlies insurance.

Sector-Wide Approach (SWAp), where donor funds are channelled through the national budget. Thus, government and donor support to the schemes was withdrawn. Notwithstanding these changes, the schemes continued operating. Currently, there are about 20 schemes operating in different parts of the country (UCBHFA, 2007)

The need to consider and evaluate the viability of CHI in improving access to health care for rural households is based on five main arguments.

- Firstly, there is empirical evidence that the GoU does not have or at least has not committed adequate financial resources to support a universal health care system (refer to Section 1.2.2: 5). The continued running of private wards in government health facilities and the proposed National Health Insurance Scheme (NHIS) are further proof of the inadequacy of the free health care system.
- Secondly, the PNFP sector is a significant actor in the delivery of health care, owning over 40% of all hospitals in Uganda, as well as 60% of the 214 HSDs (Uganda, 2006). Since the PNFP sector charges user fees, the implication is that a significant proportion of the population still pays for health care even though government health services are free. Considering the high levels of poverty, it is important to consider a means of increasing access for the population while at the same time protecting them against the adverse economic effects of the cost of health care. CHI theoretically appears to contribute to this goal.
- Thirdly, social health insurance, which is the focus of the proposed NHIS, targets the formal sector employees who constitute only 2.8% of the labour force (UBOS, 2007). Even then, about 36% of that working class are classified as the working poor, earning less than US \$50 per month (UBOS, 2002). It is therefore likely that such a category of workers will not willingly embrace the social health insurance scheme. In any case, the scheme excludes the majority of the rural population since 71% of the labour force is engaged in subsistence agriculture.
- Fourthly, the role played by private health insurance in Uganda is almost negligible. These schemes cover less than 1% of the working population, mainly

those who are employed by international agencies and large parastatal organisations.

- Finally, the prepayment and risk sharing aspects of CHI at least in theory reduce financial barriers to health care for populations that would otherwise be excluded from effective access.

It is against this background that the study sets out to examine the viability of CHI as an option in improving access to basic health care in Uganda with specific reference to southwestern Uganda.

#### **1.4. The Research Problem**

There is increasing consensus that mechanisms of health care financing that do not require OOP spending provide greater financial protection (WHO,2000; Hsiao, 2001; ILO et al, 2005; Baeza & Packard, 2007; McIntyre, 2007) and should therefore be pursued in promoting access to health care. Section 1.2.4: 9 of this thesis illustrates Uganda's endeavours to provide basic health care to the population. The major policy option has been the provision of free health services through government facilities. It appears that this idealistic mechanism of ensuring equitable access to health services has not translated into effective access to health care, especially not for the rural households (WHO, 2005; World Bank, 2005). A large proportion of the population still have to make OOP payments for health care especially to private providers due to shortfalls in the free health care system (Section 1.2.4.3: 15). This impedes effective access to health care for the majority of the poor in the rural areas of Uganda. Currently, Uganda's MoH is in the advanced stages of introducing a NHIS, which lists CHI as a key aspect alongside the mandatory social health insurance for those employed in the formal sector. Various authors such as Criel, 1998; Criel et al, 1998; Jutting, 2001 and Carrin et al, 2005 indicate that CHI has the potential to increase access to health care for consistent members of the schemes. Most of the studies in this area were done in Asia and West Africa, with a few studies having been conducted in East Africa (Kalk et al, 2005; Musango et al, 2006; Schmidt et al, 2006). CHI schemes have been attempted in some areas in Uganda, particularly through the PNFP sector, as an alternative for increasing access to health

care. However, little has been documented so far about CHI in Uganda. The purpose of the current study, therefore, is to analyse some of the aspects that could indicate the feasibility of adopting CHI as a complementary strategy in increasing access to health care for rural households. The study illuminates the complexities of accessing free health care in Uganda, and interrogates the potential of CHI to extend health care to rural households. The profiles of households enrolling in one particular scheme are examined in comparison with households not enrolled in the scheme, in order to determine the inclusiveness of CHI. In view of the importance of the design on the viability of any intervention, the study examines the design adopted in implementing CHI in Uganda and how this could affect its viability. The current performance of the one CHI scheme is also scrutinised in order to highlight the extent of its success or failure in improving access to health care for rural households.

## **1.5 Purpose of the Study**

The overall purpose of the study was to explore the viability of using CHI to improve access to basic health care for households in Uganda.

The topic can thus be summarised in the following question: *“Community health insurance as a viable means of increasing access to health care for rural households in Uganda”*

### **1.5.1 Main Research Questions**

- 1 (a) What are the factors that affect access to free health care in the rural areas of Uganda?
  - (b) What health care is being sought by community members, other than formal health care?
- 2 What are the socio-economic/health profiles of households that enrol/do not enrol in CHI schemes?
- 3 (a) What scheme-design features facilitate the enrolment of community members into CHI schemes?
  - (b) What scheme-design features hinder enrolment in CHI schemes?
- 4 What is the current performance of CHI in Uganda and hence its viability?

### **1.5.2 Objectives of the Study**

The specific objectives of the study were:

1. *To ascertain the factors facilitating/inhibiting access to free health care in the rural areas in Uganda*

It is assumed that the major source of health care for rural households is the formal health care system. It is also assumed that there are obstacles to accessing free health care in Uganda, and further, that members of CHI schemes have greater access to health care because they are insured.

2. *To analyse the socio-economic/health profiles of households enrolling/not enrolling in CHI*

It is assumed that, despite their poor incomes, rural households are willing and able to make a contribution to CHI. Therefore CHI can reach out to households from varying socio-economic backgrounds. However, there will be households unable to afford CHI.

3. *To examine scheme design features that influence the viability of CHI*

It is assumed that enrolment is not just influenced by socio-economic characteristics of households but also by the ways in which an intervention is designed (supply side factors). These features could either encourage or discourage enrolment.

4. *To assess the current performance of Kisiizi health insurance scheme*

The current performance of CHI in part indicates its potential for growth and sustainability, and therefore it is assumed that by analysing its performance, one can have a better understanding of its viability.

### **1.6 Significance of the Study**

Equitable access to health care has been a daunting challenge not only at macro but also at micro levels in developing countries. In Uganda, a significant proportion of the population lack access to health care. As a result, the country's health indicators are

among the poorest in the world (Section 1.2.2: 5). There have been attempts at different strategies to improve access to health care such as the decentralization of health services, the introduction of user fees and its consequent abolition, and the introduction of free health care. Currently, there appears to be a realization that free health care is not in essence translating into effective access to health care due to the deteriorating quality of care in public health facilities. Meanwhile, schemes that involve prepayment for health care are gaining international attention and support (WHO, 2000; Hsiao, 2001; ILO et al, 2005; McIntyre et al, 2005; Baeza & Packard, 2007; McIntyre, 2007). At the national level, debates on the introduction of a NHIS have been ongoing, and CHI is one of the components of the proposed scheme. The study therefore is significant in as far as:

- It provides a deeper insight into the complexities of accessing health care and the use of health insurance.
- It provides a critique of the current health policy, questioning the feasibility of the free health care system.
- It is focused in a rural area of Rukungiri district, known for its high morbidity levels, particularly from malaria (UBOS, 2006).
- It is a sizeable case study involving 260 households, 12 key informants and 3 focus groups; it also makes use of both quantitative and qualitative methods, hence strengthening the reliability of the findings.

Lack of access to health care is a major social problem in contemporary society and impacts particularly on the development of the poor and marginalised. This study highlights the role that community members can play in their own social development. It reinforces the importance of community organisation in achieving better access to quality health care, thus promoting the goals of social protection. It is hoped that the findings of the study will inform the health planning and policy making process in Uganda.

### **1.7. Scope of the Study**

The study investigates CHI as a means of improving access to health care at community level. Kisiizi health insurance scheme, in southwestern Uganda is used as the case study. The level of access to free health care, the facilitating factors and hindrances to accessing

free health care are examined in order to understand the context in which CHI is emerging. Characteristics of households that are enrolling or not enrolling in CHI will be examined in order to assess how socially inclusive and equitable CHI can be. In addition, the design aspects as well as the current performance of the scheme will be analysed, highlighting the opportunities for and constraints of the viability of CHI in Uganda. The sample population included members and non-members of the CHI in the local communities of Rubabo County, Rukungiri district in southwestern Uganda. The sample size was 260 households (130 members and 130 non-members of CHI).

## **1.8 Organisation of the Thesis**

The thesis is organized into eight chapters. Chapter 1 gives the introduction and general background to the study. It defines the research problem and highlights the objectives for the study. Chapter 2 presents the theoretical underpinnings of the study, reviews the relevant literature, and maps the conceptual framework for the study. The methodological approach to the study is explained in Chapter 3. Chapters 4 to 7 present the findings. More specifically, Chapter 4 examines the key issues surrounding access to health care in Uganda, particularly focusing on the present opportunities and challenges in accessing free health care. Chapter 5 analyses the characteristics of households who enrol and those who do not enrol in CHI. The design features of CHI as well as the current performance of Kisiizi health insurance scheme are examined in Chapters 6 and 7 respectively. The last chapter (8) gives key conclusions, and presents the issues and recommendations emerging from the study.

## CHAPTER TWO

### MAPPING THE CONCEPTUAL FRAMEWORK

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#### 2.1 Introduction

In the preceding chapter, the context of the study was laid out and the research problem explained. It was indicated that there is a need to assess complementary strategies to improve access to health care because of the challenges faced in the current health delivery and financing systems. This chapter attempts to map out the conceptual framework for the current study by firstly presenting some theoretical perspectives on health care systems and access to health care. Relevant literature is reviewed, in particular with regard to CHI as an emerging strategy in improving access to health care. CHI is examined with regard to its evolution, design features, enabling factors and obstacles to its viability. Its application in the context of free basic health care is also discussed. Finally, research gaps are identified, which affirm the need for this particular study.

#### 2.2 Theoretical Review

Three major groups of theories have influenced the design of health care delivery across countries, namely, the free market or libertarian theories, the egalitarian (marxist theories), and the utilitarian theories. These three are commonly referred to as theories of justice (Stefanini, 1999; Cookson & Dolan, 2000). They offer divergent approaches to the delivery of health services and the achievement of equity in access to health care. They help to explain how health systems operate, as well as influencing the strategies a health system may choose to adopt to ensure equitable access to health care. Similarly, there are theories and models that explain access to and utilization of health care. Of particular interest to this study is Andersen's behavioural model of health services access and utilization. This section reviews these theories and models in order to inform the current research. It should be noted from the beginning that these theories and models are being reviewed to provide a conceptual background to the study and not for purposes of testing them in any way.

### 2.2.1 Libertarian Theory

Developed by economists, this theory is based on the free market economy and is greatly influenced by neo-liberal thinking. It is normally linked to the work of theorists like Adam Smith<sup>13</sup> and John Lock (Beauchamp, 1991) who advocate the free market economic system. The theory is premised on the belief that individuals and not states or other groups of any kind are primary in such a system. A market is seen simply as an adjustment mechanism for supply and demand, which permits the exchange of goods and services between consumers and producers without the need for government intervention (Donaldson & Gerard, 1993), and that these markets will coordinate the production of goods and distribution of goods and services better than any other institution (Kukathas, 2009). Hence, the theory's cardinal principle is to help individuals assume control of their lives. The theory relies on the belief that people can make informed and rational choices and that a free market will best satisfy their needs and optimise efficiency (Hsiao, 1995). It also presumes that, on the one hand, consumers seek to maximize the utility of a good or service while, on the other hand, producers seek to maximize profit. In relating this theory to health care, Donaldson & Gerard observe:

*When applied to health care, it means that fully informed and knowledgeable consumers will weigh up the costs and benefits of health care relative to other goods. They will spend that amount of money on health care, which maximizes their wellbeing. This will result in the appropriate amount of resources being allocated to health care overall and to different types of health care, (i.e. there will be allocative efficiency). At the same time, health care producers, seeking to maximize profits, will produce consumers' most highly valued types of health care at least cost, so behaving in a technically efficient manner. This combination of technical and allocative efficiency ensures that consumers' well-being is maximized at least cost (Donaldson & Gerard, 1993: 15).*

Two value judgements underlie the libertarian theory, namely, that consumers are fully knowledgeable and informed and that they are the best judges of their own wellbeing; and that the prevailing distribution of income is fair and that consumers are appropriately empowered by their prevailing level of disposable income. In reality, however, neither of these assumptions holds true. Knowledge is rarely shared equally between providers and consumers of health care, and neither is there a fair distribution of income in society. The libertarian theory also views health care as part of society's reward

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<sup>13</sup> Adam Smith is considered as the founding father of economics, based on his 1776 publication *The Wealth of Nations* (Todaro, 1992).

system (Wagstaff & Doorslaer, 1998). The underlying argument is that people should be able to use their income and wealth to get more or better health care than their fellow citizens if they so wish. Thus, proponents of this theory suggest a private health care delivery system where health is provided or accessed according to willingness and ability to pay. Government should therefore not interfere with an individual's search for appropriate care, including a right of access to health care markets (Filc, 2007).

With regard to equity, the libertarian theory views the free market as the sole legitimate and just mechanism of redistributing wealth (Stefanini, 1999), which includes health. A common libertarian maxim, according to Stefanini is, "*to each according to what is honestly acquired in a free market*" (1999: 709). The inequalities that emerge are not seen as unfair because the market rewards those who work hard and have initiative. Based on this theory, a state's health policy would promote market intervention, rolling back the state and expanding the role of the private sector in health care provision.

This libertarian ideology was advanced in the 1980's as the soundest basis for structuring all social and economic programmes, including those in the health sector (Hsiao, 1995). It greatly influenced the 1990s health care reforms, recommended by the World Bank and the IMF. These were in turn responsible for the introduction of user fees, the encouragement of private insurance schemes, decentralization and private sector expansion in the health sector (Turshen, 1999). The theory has, however, been criticized on the grounds that health cannot be subjected to free market forces since it is a common good and a universal right. Furthermore, it is argued that private markets are not able to provide complete coverage against risks of sickness and in most cases exclude the neediest (ibid). Donaldson & Gerard (1993) argue that health care is characterised by risk and uncertainty (associated with contracting illness), and by asymmetrical distribution of information about health care between providers and consumers. These, combined with other externalities, such as income inequalities, render market forces inappropriate and call for government intervention.

### 2.2.2 Egalitarian Theory

This theory has its roots in the Marxist ideology, which emphasises the principle of distribution according to need, coupled with the principle of “*from each according to his ability to pay*” (Wagstaff & Doorslaer, 1998; Stefanini, 1999). Prominent twentieth century egalitarian theorists include John Rawls (with his 1971 book, *A Theory of Justice*) and Amartya Sen who mainly used the concept of *welfarism* (Cappelen & Norheim, 2005). The egalitarian theory views health care as a right of everyone, and holds that it should not be influenced by income or wealth. Egalitarian theorists base their claims on universal moral equality, with the assumption that human beings are of equal worth and should therefore have an equality of condition, i.e. a condition where everyone alike, to the fullest extent possible, has his or her needs and wants satisfied (Hsiao, 1995; Filc, 2007). Justice in health care provision is viewed as the assignment of resources to those with the greatest need, so that inequities are removed and equality is achieved (Bole & Bondeson, 1991; Cookson & Dolan, 2000; Stefanini, 1999). The role of the state in health service provision is emphasised, as are equity considerations. The theory promotes central planning and relies on the belief that the government has the ability to advance the welfare of its entire population as well as to manage public sector operations efficiently (Hsiao, 1995). The egalitarian viewpoint suggests that a state sector should predominate, with health care being distributed according to need and financed according to ability to pay, which is the model currently adopted by Uganda (to some extent). Government-provided health care is considered a just means of satisfying the needs of all citizens (Turshen, 1999). The theory does not seem to give much attention to economic costs and hence it may be idealistic, with limited application, particularly in developing countries where resources are scarce and poverty levels are high. The state’s resources are constrained by a low tax base, and consequently an attempt to provide universal services is likely to result in inadequate provisioning and questionable quality of care in many instances. Mackintosh and Tibandebage (2002) highlight the paradox in most developing countries, where, though motivated by egalitarian principles to provide universal health care, market liberalism forms a key characteristic of the system. Hence, the egalitarian objectives fail to take effect. In view of this, some authors (Stefanini, 1999) suggest that resources be directed to where the need is greatest rather than leaving service provision to the

vagaries of the market. Another criticism of the theory relates to its lack of sensitivity to efficiency. It is meaningless to focus on equalising opportunities to ineffective health care. Some (Stefanini, 1999) have argued that concentrating resources on those most in need can deprive others who could have realized maximum utility from the intervention, as advocated by the utilitarian theory.

### **2.2.3 Utilitarian Theory**

This theory offers a middle ground in approaches to social service provisioning and access. It considers the effects and consequences of human action and not so much the principles that are followed (Stefanini, 1999). Utilitarian theorists, like libertarians, tend to favour the free market approach to social service provision. The difference is that, while the libertarian theory emphasises the extent of justice, which underlies a particular system, utilitarian theorists are more concerned with the outcome of an action, approach or intervention. Utilitarian theorists argue that what is necessary is the production of desirable results while minimizing undesirable results, i.e. achieving maximum benefit for the highest number of people. Maximizing the sum of welfare, applying the notion of efficiency and hence allocating resources according to the likelihood of success are basic principles underlying utilitarianism (Wagstaff & Doorslaer, 1998; Cookson & Dolan, 2000). In the health sector, it is therefore necessary to reach a compromise between limited resources and virtually infinite demand so that health outcomes are maximized and costs minimized for the majority of the population.

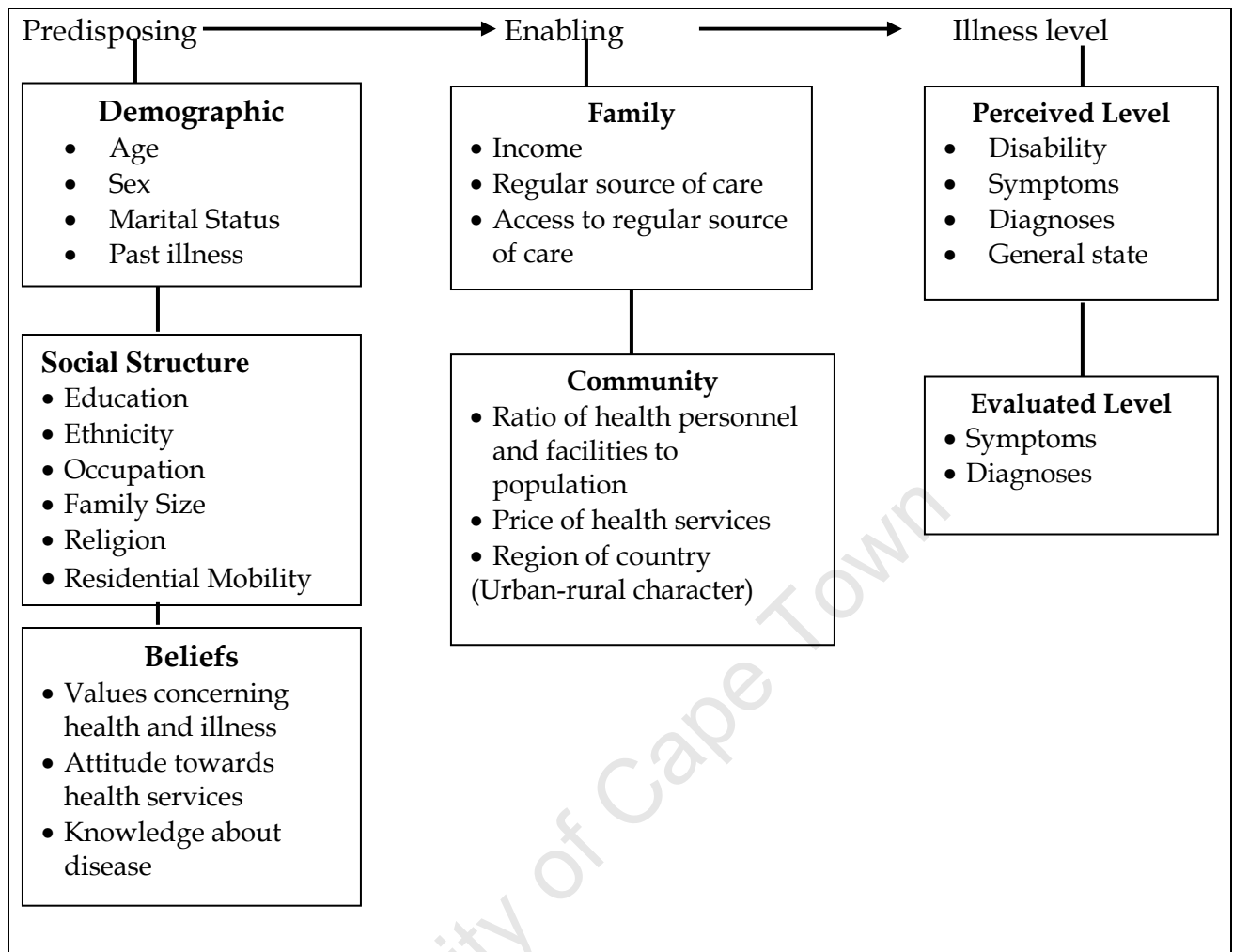
Utilitarian theory has been linked to the promotion of a National Minimum Health Care Package (NMHCP), which emphasises efficiency and cost-effectiveness of interventions (Stefanini, 1999; Uganda, 1999). The theory has been criticized for over-emphasizing cost calculations in order to estimate benefits for the majority. Secondly, according to Drane (1990, cited in Stefanini, 1999), benefits for the majority may involve terrible costs for the smaller groups who are excluded. The theory advocates a consideration of financial affordability by the state before making the choice to provide free health services for everybody.

The key theories or ideologies that underpin health systems and approaches to health care provision have different implications for equity of access to health care. However, as Wagstaff & Doorslaer (1998) observe, in most countries, health care is delivered and financed by a mixture of systems and there are traces of each ideology in policy-making. For example, although Uganda professes, and has tended towards egalitarian principles in policy, in practice, health care delivery is as well characterised by liberal ideologies with market forces determining access. In the following section, a model of access to health care will be reviewed, with a view to conceptualising some of the factors that determine access to and utilization of health care.

#### **2.2.4 Andersen's Behavioural Model of Health Services**

The behavioural model of health services was first developed in 1968 by Ronald Andersen to explain why families use health services, to define equitable access to health care and to assist in developing policies to promote equitable access (Andersen, 1968, 1995; Andersen & Newman, 2005). It has been widely used to explain access to health care (Goldsmith, 2002; Andersen & Newman, 2005; Fouladbakhsh & Stommel, 2007). The model initially focused on the family as the unit of analysis because, as Andersen (1995) argues, the health care an individual receives is most certainly a function of the demographic, social and economic characteristics of the family as a unit. Access to and utilization of health services is seen as a function of three elements, namely, individual characteristics, the environment in which the individual lives, and some interaction of these individual and societal forces. These translate into three classes of determinants, namely, predisposing, enabling and need factors (variables). Figure 3 illustrates the model.

**Figure 3: The behavioural model of health service access and utilisation**



Source: Andersen and Newman (2005)

According to the model, use of any health service is dependent on the predisposition of the individual to consume the service, his ability to secure the service, and his level of illness. According to the authors, demographic factors such as age and gender (sex) may compel someone to want to seek health care or may suggest that certain individuals are more likely to need health care. Conversely, social structure refers to and is measured by those factors that determine one's status in a community, and one's ability to cope with problems that arise and to command the resources needed to deal with these problems. Such factors may include education, occupation, family size, social networks and interactions as well as culture. It also includes characteristics of the general environment, such as the presence of social services. Similarly, the beliefs that people have about health and health services may determine how often they use those services and the efforts they

make to access these services. If people do not perceive any need for health care, then they will not make an effort to access that care.

Enabling factors represent the means available to the individual to secure the service. Both community and family or personal resources must be present for effective access to health care. Such resources include the availability of health services, the existence of personnel within easy reach, and individual means to access those services. Such means relate to income, travel and waiting time at the health facility and the type of health service provider. Illness level influences the immediate use or willingness of the individual to seek health care.

The behavioural model provides a suitable theoretical framework because of its ability to identify factors related to access to health services and its applicability to populations in diverse contexts. The current study borrows some concepts from the above model to assess in particular the characteristics of households that enrol in CHI vis-à-vis those who do not do so (Chapter 5). By its very nature, CHI is voluntary and so is the decision to enrol in the scheme. Both individual characteristics and societal forces are therefore seen to influence the adoption and success of CHI and the extent to which this will lead to increase in access to health care.

## **2.3 Health Care Financing Options**

Various authors (Donaldson & Gerard, 1993; Criel, 1998; Bennett & Gilson, 2001; Preker et al., 2002; McIntyre et al, 2005; McIntyre, 2007) suggest five major financing mechanisms for health care systems, namely, tax based financing, OOP payments or user fees, social health insurance, private health insurance and CHI.

### **2.3.1 Tax-based Financing**

Under this arrangement, health services are funded through the government budget and are provided 'free' of charge to the consumers. Strictly speaking, this is not quite correct, as the consumer's contribution is part of their total tax payment. Funds for such services could also accrue from deficit financing whereby domestic or international loans are secured to fund government activities over and above the general tax revenue (McIntyre,

2007). The system is guided by the egalitarian theory (Section 2.2.2: 28), which recognises that everyone has a right to health care, irrespective of their level of income; as such, it is considered the most progressive form of health financing (Donaldson & Gerard, 1993; McIntyre et al, 2005; WHO, 2006; McIntyre, 2007). It is generally acknowledged that the system of direct taxation removes the problem of adverse selection because of the absence of competition between financial intermediaries. It also redistributes wealth according to health status and income (Donaldson & Gerard, 1993; Carrin, 2003). Donaldson & Gerard (1993) further argue that under this system, individuals are effectively charged a form of community rate: one, which is dependent on the ability to pay but not on previous experience of illness, thus making it a more equitable system of health financing. However, a number of weaknesses within the tax-based financing system render it inefficient. Several authors (Kutzin, 2001; Carrin, 2003; WHO, 2006; Baeza & Packard, 2007) argue that the system is constrained by inadequate public resources, particularly in middle and low income countries. This implies that only a part of the population can be reached with these services and that, even if they are reached, the amount of benefits offered is generally insufficient. Because of this, the system yields theoretical results in several countries:

*...coverage through general taxation is only theoretical for parts of the population that lack effective physical and financial access to services of adequate quality. Hence, what in several countries is a constitutional guarantee of access to all is in fact an empty promise or at least an unfulfilled one (Kutzin, 2001: 191)*

Other authors (Preker et al, 2002; Gwatkin et al, 2004) agree that tax-based financing may in fact lead to inequitable access to services. Preker et al (2002) argue that public policies, which in theory offer health care to the whole population from general taxes may unwittingly shunt scarce health care resources away from the poor to segments of the population with more political influence. As a result, service delivery is often inequitable, and biased towards urban areas and hospitals rather than the rural poor. This is explained by the fact that in the developing world, a limited tax base provides low level funding for major sectors including the health sector. Gwatkin et al (2004) contend that in most cases tax funded services provide greater benefits for the well off, since they have the political muscle and connections to access the services. The authors recommend that,

to improve equity, the poor segments of society should be directly targeted rather than the whole population.

### **2.3.2 Out-of-Pocket Payments**

This involves payment for health services at all levels of service delivery at the time of receiving the service. OOP payments can either be in the form of user fees, which are normally paid at public health facilities as well as direct payments to private providers (McIntyre et al, 2005). Co-payments made by members of a health insurance scheme, which reimburses only a portion of the cost of care, are also another form of OOP payment (McIntyre, 2007). User fees are normally constituted by payment per item of service received or to be received; in other words, individual acts of diagnosis, treatment, and drugs are added together and billed to the patient. The fee is normally paid at the time of use to the provider who retains it either partially or totally. This mechanism of health care financing was previously and strongly supported by the IFIs as an integral part of SAPs and as a conditionality for lending (McIntyre et al, 2005). User fees were also seen as not only a revenue generating mechanism but also as a means of improving community involvement in the management of health services. In most developing countries, the design and implementation of user fees has been poor. It does not provide any incentive to exempt the poor from payment. Due to its very nature, OOP payments are considered the most regressive form of financing health services. McIntyre et al (2005) explain that this is because the poor tend to bear the greatest burden of ill health and therefore bear the greatest financing burden since payment is directly linked to the use of health services. Various authors (Bennett & Gilson, 2001; McIntyre et al, 2005; McIntyre, 2007) observe that user fees often result in less people using health services and in some cases lead to further impoverishment at household level, especially amongst the vulnerable populations. Of recent, the World Bank, which was the chief protagonist of OOP payments, particularly user fees, is softening its position and instead recommending prepayment mechanisms, such as insurance (Preker & Carrin, 2004; McIntyre et al, 2005)

### **2.3.3 Social Health Insurance**

This is a compulsory (mandatory) prepayment scheme where health care is provided in exchange for a fee usually levied on earnings (Wagstaff & Doorslaer, 1998). Only certain

groups, usually the formally employed, are legally required to enrol in such schemes. Only those who become members are entitled to benefits (McIntyre et al, 2005). This feature distinguishes it from the NHIS, which is universal and covers the entire population, irrespective of whether one has contributed or not. In such cases, the government fully subsidizes the contributions of vulnerable groups or individuals. Contributions to social health insurance are normally community rated, i.e. based on the average expected cost of health service use by the entire insured group and not by that of an individual or subgroup (McIntyre et al, 2005; McIntyre, 2007). Everyone above a certain level of income pays a fixed percentage of his/her income to the insurance fund. Social health insurance minimizes catastrophic health expenditure, borrowing and dependence on weak social safety nets by individuals and households (WHO, 2006). It can also free up general revenues spent for providing health care to middle and upper income households and reallocate them to public health and subsidization of the poor (Berman et al, 2001). However, it also tends to redirect resources away from the poor to the relatively rich, since those with lower wages would still have to pay a substantial part of their income to the insurance fund. Further, it may work as a disincentive to employers, since it is a cost on their part (they have to pay a certain percentage of their workers' salary to the insurance fund). Thirdly, even with universal coverage, inequitable access remains a problem, since those outside the formal sector employment are not covered (Berman et al, 2001). Kutzin (2001) argues that social health insurance may result in new costs to the health system through the creation of new organisations, paying providers and providing services, which may in turn lead to inefficiencies in the health system. Another complication pointed out by Kutzin is the potential of health insurance arrangements to exacerbate inequity, where the economically advantaged (in other words, those who are employed in the formal sector) get better benefits by virtue of the fact that they are insured. This implies that financial protection is only being offered to the well off, expanding the gap in health care utilization between the rich and poor. In Africa social health insurance is limited, with less than 10% of the population covered (Mwabu et al, 2002; McIntyre et al, 2005). Kenya, Burundi and Tanzania are some of the countries that have some form of social health insurance, while in South Africa and more recently in Uganda, there are ongoing debates about introducing the scheme.

### **2.3.4 Voluntary Health Insurance**

Voluntary health insurance is usually contrasted with the mandatory, publicly financed and publicly managed insurance (Sekhri & Savedoff, 2005). It is mainly comprised of private-for-profit insurance and CHI, which is most common among the informal sector.

#### *a) Private Health Insurance*

This is characterised as voluntary, for-profit (commercial) coverage of health risks where the contributions come from households, individuals or their employers. Historically, it referred to employment-based insurance where the contributions are shared between the employer and the employee (McIntyre et al, 2005). The premiums paid are related to risk and they are usually so high that only a small segment of the population can afford them. Hence, it normally targets the high-income groups. WHO (2006) notes that the system works well where there is a large formal sector, a situation that is lacking in most low and middle income countries. Sekhri & Savedoff (2005) argue that those who enrol in this type of insurance often benefit from capturing government subsidies, such as private insurers dumping expensive cases on the public system. Private health insurance does not promote equity in access to health care, since the basis of benefits is the ability to pay rather than need. Currently, the market share of private health insurance in Sub-Saharan Africa is extremely small, covering only a small segment of the upper income class (Criel, 1998). Examples of countries with some level of private health insurance include Namibia, South Africa and Zimbabwe, where more than 20% of health care costs are apportioned to private health insurance.

#### *b) Community Health Insurance*

As indicated earlier (Section 1.3: 17), community health insurance is part of a general concept of CHF. CHI schemes provide risk pooling to cover the cost or part of the cost of health care. They are usually run by not-for-profit organisations and they are either provider-based or run through an intermediary organisation but with a high level of community involvement. Premiums are usually set at community rates and they are irrespective of such factors as age, sex, occupation or health risks. According to Bennett & Gilson (2001), these schemes offer considerable benefits to the poor in terms of access to

health care, where operated successfully. Bjorn (2004) in a review of CHI in low income countries argues that there is evidence that the schemes provide some financial protection by reducing OOP spending. The author however adds that they may not contribute to cost recovery if seen as a mechanism of health financing, thus they are best suited as complementary health financing mechanisms. The current study, though taking into account aspects of CHI contribution to health financing, is more focused on their benefits to the consumers of health care in as far as increasing access to quality health care is concerned.

### **2.3.5 Health Care Financing in Uganda**

In middle and higher income countries, health care is financed through general taxation, social health insurance, private health insurance and OOP user charges (Preker et al, 2002). This is possible because a significant proportion of the population is formally employed and can pay for health insurance through the pay cheque, or because the economy is strong enough to offer universal coverage through general taxes and insurance systems. The situation in developing countries is different, with majority of the population engaged in either subsistence agriculture or in informal sectors without a regular salary. At the same time, government expenditure in the health sector is inadequate to meet the health care needs of the population. A report by the International Council for Science on Health and Well-being in Sub-Saharan Africa (Parker et al, 2006) estimates that African governments spend less than 10% of their budget on health.

In Uganda, the major funding mechanisms for health care include general taxes and donor budget support, which in principle translate into the provision of free basic health care in all public health facilities. Other mechanisms include user fees in private wards of some government health facilities, direct payments to private providers (PNFP and PFP) private health insurance and, to a limited extent, CHI schemes. Inadequate financing remains the primary constraint inhibiting the development of the health sector in the country (see Section 1.2.4.3: 15). Total per capita expenditure on health from both GoU and donors is estimated at USD 7.8 (Uganda, 2008). Conversely, OOP spending was estimated at USD 9.9 per capita, thus making it (OOP) the largest source of financing for

health care (World Bank, 2005). There is still a huge financing gap between the current and the required funding levels for the sector. It is estimated that, to close the financing gap, the health sector must achieve a 15% GoU budget allocation, growing at approximately 6% per annum (Uganda, 2006).

User fees were introduced in Uganda in 1993 as a mechanism of mobilizing additional resources for health. An assessment of the policy later indicated mixed results, with reports of improved services on the one hand and inability to pay for services on the other (World Bank, 2005). Various studies (Kipp et al, 2001; Kivumbi & Kintu, 2002, Mpuga, 2002; Burnham, et al, 2004; Deiningner & Mpuga, 2004, Nabyonga et al, 2005), though highlighting the positive experiences with user fees, concluded that it was excluding the poor and the most vulnerable groups from health service utilization. Kipp et al (2001), for example, indicated that health service utilization had improved in the rural areas during the era of user fees, specifically due to improvements in the quality of care, but also argued that the system was excluding the poor from accessing basic health care. In 2001, the practice was abolished, albeit abruptly in the heat of political campaigns, and free health care was introduced in all public health facilities. Burnham et al (2004) reported that although the use of health services increased after the introduction of free health care, there were resultant negative effects, such as the loss of some autonomy by the health facility, the diminishing availability of drugs, and the loss of income to supplement health workers' salaries leading to low morale and reduction of working hours. All these negatively affected the quality of care. Other studies, (Nabyonga et al, 2005; World Bank, 2005), indicated that the utilization of health services increased for both government and private facilities; yet the abolition of user fees did not extend to the private sector, bringing into contention the argument that increased utilization was due to abolition of user fees per se. Nabyonga et al (2005) relate the simultaneous increase in utilization to differences in quality of services, and conclude that people may be willing to pay if they feel they are getting quality services.

The GoU is currently in the process of introducing a NHIS. Its envisaged goal is to develop health insurance as a complementary mechanism of health care financing and to

make good quality and affordable health care available to all Ugandan citizens. The scheme is intended to complement inadequate funding of the health sector by the government. The major focus is on social health insurance for formal sector workers. Private health insurance and CHI are listed as part of the NHIS. Social health insurance if successful will cover about 2% of the total population, who are engaged in formal sector employment (Section 1.2.3: 6), thus excluding the poor majority particularly in the rural subsistence agricultural sector. Conversely, private health insurance currently covers less than 1% of the employed population (UBOS & Macro International, 2007). Given such resource constraints, the population still finds itself in a situation where it has to make OOP payments to access health services. It is because of this that other complementary strategies to ease financial access to quality health care need to be considered.

#### **2.4 Framework for Assessing the Viability of Community Health Insurance**

CHI is part of the broader health system and is often seen as one alternative in health financing. Its analysis has to be linked to the overall goals of the health system (Carrin, 2003). According to the WHO, the final goals of any health system should include the following: health improvement (level and equity); responsiveness of the health system to the legitimate expectations of the population; and fair financing and financial risk protection (Murray & Frenk, 2000). Health improvement is reflected in the health of individuals, the average level of health of the population, and the distribution of health within the population. Responsiveness refers to the system's respect of persons (including dignity, autonomy, and confidentiality) during their interaction with the health system. Fair financing and risk protection involve ensuring that households are not impoverished or that they pay an excessive share of their income to obtain needed health care; furthermore, the contribution to the health system should reflect differences in disposable income. Carrin (2003) lists the intermediate goals of CHIs as equity in utilization, financial protection and sustainability of the intervention. The above goals are directly linked to four basic functions of the health system, which include stewardship, resource mobilization, service provision and financing. Drawing on these principles, Kutzin (2001) suggests the following framework for evaluating health financing arrangements.

### **2.4.1 Kutzin's Framework for Country-level Analysis of Health Financing Arrangements**

Kutzin's (2001) framework for analysis of health financing arrangements emphasises the 'insurance function' (i.e. access to needed care without financial barriers and/or impoverishment) among which is CHI. The overall goal is to ensure that people are guaranteed access to effective health care. Five associated functions of health financing as proposed in the framework, include revenue collection; pooling of funds; purchasing of services; provision of services and determination of the benefits package. Each of these associated functions is briefly explained below:

#### ***a) Revenue Collection***

Revenue collection is the process by which the health system determines and obtains financial contributions from households, enterprises and other organisations (Carrin 2003). While building on Kutzin's framework, Carrin lists 2 key performance criteria for revenue collection, namely, enrolment and the ratio of prepaid contributions to health care costs (cost recovery). With regard to enrolment, there is a need to assess what percentage and composition of the population is covered by the CHI scheme in relation to the target population. Broad membership is needed to make the scheme viable over the long term. In addition, membership should not be biased towards the well-off but also be open to vulnerable groups. With regard to cost recovery, Carrin (2003) notes that, the higher the volume of prepaid contributions, the more one can avoid the financial consequences of treatment costs. According to Kutzin's framework, contributions do not necessarily have to be from households alone but also from external sources. Ultimately, what matters is the aggregate ratio of contributions (including subsidies and grants) to health care expenditure.

#### ***b) Pooling of Funds (Health Care Revenues)***

'Pooling' refers to the accumulation of prepaid health care revenues on behalf of a population. In turn, health service costs are covered from the common pool. The key performance criterion here is the level of risk pooling (Carrin, 2003). Carrin argues that risk pooling is crucial because those who need health care will gain access to it in an

affordable and timely manner. Individuals or households with no insurance, in contrast, would have to bear the full burden of the health care cost. However, due to problems of adverse selection, the population may be segmented in different risk pools, with 'sicker' or poorer pools becoming unsustainable in the long term. Measures to address the problem of adverse selection, such as underwriting, tiered rating, enrolment of already existing groups, and exclusion of pre-existing and/ or high cost services from coverage, may be a good attempt to ensure financial viability of insurance schemes, and yet they detract from the effectiveness of the insurance function for the population as a whole (Kutzin 2001: 178). Therefore, health financing schemes should be analysed with respect to how they contribute to or detract from the insurance objective for the health system and the population.

### *c) Purchasing and Provider Payment*

Purchasing is used to mean the transfer of pooled resources to service providers on behalf of the population for which the funds were pooled (Kutzin, 2001). Purchasing organisations can be ministries of health, local governments, health insurance funds, or member-owned insurers. Provider payment, in contrast, refers to the methods or mechanisms used to allocate resources to providers. The mechanisms generate incentives that affect the behaviour of the providers. For example, in cases where a fee-for-service (per each item of service provided) is the mode of payment, the treatment incentive on the part of the provider may be to increase the total volume of services provided, leading to provider-led cost escalation for the scheme. Kutzin suggests that there is a need for 'active' purchasing (as opposed to purchasers being passive financial intermediaries) to regulate provider behaviour and increase efficiency. Some of the mechanisms to achieve this include:

- Engaging provider payment methods that shift some of the financial risk for patient care costs to providers in order to control cost and quality.
- Encouraging referral from a primary care gate keeper for non-emergency specialty services.

- Managing choice by pre-qualifying a group of participating primary care providers from which beneficiaries can choose, with services obtained from other providers not covered.
- Contracting selected providers and requiring them to comply with certain utilization controls and to provide services at a discounted price in return for a high volume of patients.
- Maintaining profiles of providers for purposes of monitoring and providing feedback to them on their treatment, referral and prescribing practices.
- Use of standard treatment protocols to compare the practices of contracted providers with defined clinical standards such as adherence to the national essential drugs list.

Carrin (2003) recommends a related concept of strategic purchasing as one way of ensuring access to rational and cost-effective health care. Elements of strategic purchasing re-emphasised by Carrin (2003) include determining the health care providers from whom CHI members can choose, establishing the benefits packages, setting quality standards and proposing provider payment mechanisms. He distinguishes this strategic purchasing from simple funding or reimbursement of non-specified health services by various providers with whom the CHI has no contractual relationship.

#### *d) Provision of Services*

To promote efficiency and enhance the insurance function, it is crucial to understand the market structure of service provision. Guiding questions include: to what extent is the structure of service provision competitive or monopolistic? How much autonomy do managers of provider units have, especially with respect to staff? What is the distribution of service providers – are there parts with no effective access to health care? Are there particular population groups that have limited access to health care? A promise of insurance protection is meaningless for people who do not have reasonable physical access to primary care, emergency services or necessary referral care (Kutzin 2001: 189).

#### *e) The Benefits Package*

Kutzin (2001) defines the benefits package as not just a list of services to which the beneficiaries of an insurance scheme are entitled but as those *services and means of accessing* them for which the purchaser will pay from the pooled funds. Services excluded from the benefits package are those whose provision is partially or fully financed from direct OOP payment. Key questions to ask with regard to the benefits package, thus, revolve around the following: the basis for determining entitlement to benefits, demand characteristics of different kinds of services (i.e. primary versus secondary services), and whether the package covers essential services (essential package) or services that are likely to result in catastrophic expenditure (catastrophic package). Kutzin suggests that a well coordinated benefits package involves combining community risk pooling schemes (CHI) to pay for relatively low cost services with a 'back up' insurance arrangement protecting against the cost of financially catastrophic health care. Overall, a benefits package can enhance or cripple the ability of a health financing arrangement to increase access to health care, while at the same time offering financial risk protection. Additionally, a well designed benefits package can serve as a tool to raise levels of enrolment, thereby increasing the viability of a scheme.

#### **2.4.2 Other Indicators of Viability of Community Health Insurance**

Although Kutzin's framework is central to the study, there are other significant indicators of viability of CHI. For purposes of this study, the researcher wishes to focus on equity, efficiency and sustainability.

**Equity** involves extending coverage to the poor and most vulnerable groups to protect them from the adverse impacts of health care costs. Carrin et al (2005) breaks equity down to the percentage of the population covered, as well as the distribution of enrolment across socio-economic categories. The cardinal principle is for individuals and groups to be able to access services according to need and not so much according to ability to pay. Equity in the case of CHI is measured in terms of the extent to which premiums charged are based on not just average income at community level but putting

in place mechanisms to enable households or individuals pay according to their abilities or income. The premium can thus be set on a sliding scale or as a flat fee, which would disfavour the low-income groups (Atim, 1998; Criel, 1998). Some schemes in West Africa reportedly set separate premium rates for men and women, with the latter paying relatively low premiums (Atim, 1998). Another measure taken to ensure equity is enrolment of households instead of individuals. This would ensure that all household members have a chance to access health care when they need it, instead of being restricted according to age, sex or other differences at household level. In a few cases, systematic exemptions targeted at the very poor are adopted. For example, in Rwanda, government exempts the genocide survivors from payment (Musango et al, 2006), while in Benin, a health fund was set up for the handicapped and the elderly (Atim, 1998).

**Efficiency** measures the optimal use of resources, including health services. The extent to which a scheme can minimize abuse of its services will have a direct bearing on its viability. According to Atim (1998), key issues to consider include risk management techniques adopted, mechanism of service provider payment, and benefits packages. The common risks identified among CHIs include moral hazard (unnecessary use of services by the insured), adverse selection (where the scheme attracts high risk individuals more than lower risk ones), cost escalation (rising costs related to the behaviour of both the provider and the patient), fraud and abuse (through false identity and other forms of free riding). Thus, risk management covers a range of strategies that the scheme administration will deploy to minimize the impact of the above risks. Various authors (Atim, 1998; Criel, 1998; Jutting, 2001; Bjorn, 2004) recommend common strategies that should be applied to minimize risks such as co-payments or deductibles; a mandatory referral system to avoid unnecessary use of higher-level health services; household or group coverage to reduce adverse selection; and the institution of waiting periods after subscription. If the risk management techniques are not effectively applied, then the schemes' viability in the long term is questionable. However, if they are too rigidly applied, the techniques can outweigh the very essence and objective of CHI by denying access to those who need the service most. For example, co-payments can become an

equivalent of OOP user fees, and they may thus become a bottleneck to accessing health care for poor households.

With regard to **sustainability**, it is necessary to look at the institutional setup, the administrative and managerial capacity as well as financial performance indicators (Atim, 1998). The volume of prepaid health insurance contributions is important not only in securing access but also in offsetting treatment costs, so that the health systems' resources are not depleted in the short run. The ratio of prepaid contributions (including premiums, government subsidies and grants from donors) to total health care costs needs to be evaluated in order to determine the degree of sustainability of the scheme (Carrin et al, 2005). However, care must be taken not to emphasize financial efficiency at the expense of improving access to health care for poor households. According to Ranson (2002) and Schmidt et al (2006), a trade-off exists between maintaining the schemes' financial viability and protecting members from catastrophic health expenditures. In an attempt to maximize health revenues, participation in CHI across all socio-economic categories could be compromised.

## **2.5 Community Health Insurance: Related Literature**

CHI is being recognised as an option in responding to the constraints faced by countries in ensuring effective access to health care as well as extending financial risk protection to their populations (Hsiao, 2001; Khetrapal, 2004; McInyre et al, 2005; McInyre, 2007). CHI is a common denominator for voluntary health insurance schemes organised at community level (Carrin et al, 2005). The schemes are variously referred to as micro insurance schemes, community health funds, Mutual Health Organisations (MHO), rural health insurance, medical aid schemes or societies, and revolving drug funds (Carrin et al, 2005). The main features of CHI include: voluntary enrolment, non-profit motive, active involvement of the community in management, risk pooling, resource allocation and access to health services (Atim, 1998; Musau, 1999; Preker et al, 2002). According to various authors (Preker et al, 2002; Devadasan, 2004) the goal of CHI is to increase access to health care by reducing financial barriers. The following section reviews some of the related literature on CHI including, among others, its evolution, design, strengths,

enabling factors and threats to its viability. The issue of CHI in the context of a free health care policy is also briefly debated.

### **2.5.1 Evolution of Community Health Insurance**

Community health insurance (CHI) can be traced back to the 19th century industrial revolution in Europe, which led to massive urbanisation and formal employment in factories. In Belgium, the Netherlands and Germany, new labour migrants had limited access to health care, so they pooled resources every week to establish a sickness fund that would meet the cost of treatment for the sick (Devadasan, 2004). These evolved into the current social health insurance schemes in these countries and set the stage for other CHI programs. CHIs are currently operating in a number of countries, including, Japan, India, Thailand, China, Senegal, Ghana, and Rwanda among others. Preker et al (2002) attribute this emerging alternative to inadequacies in the government health care delivery to the poor. Criel et al (2004) argue that the rationale for CHI lies in the strong need for quality health care as well as the success of social health insurance in Western Europe, which actually began as small community based health insurance schemes. According Criel et al, this experience suggests that the financing of health care through pooling of resources and risk sharing may constitute a relevant policy option for African health care systems. Preker & Carrin (2004) link the evolution of CHI in the 20<sup>th</sup> century to severe economic constraints, political instability and lack of good governance in most developing countries. The authors further explain that due to weak taxation capacity and the absence of formal mechanisms of social protection for vulnerable populations, community involvement in health care financing is unavoidable.

In Africa, the evolution of CHI schemes is linked to the 1987 WHO health sector reform strategy of Primary Health Care (PHC) and the decentralization of health services to local levels. Key aspects of this new approach to health care included community participation in the management of local health facilities and the use of fees to improve drug supply (Atim, 1998). The policy of user fees, however, became increasingly unpopular due to concerns over equity in access to health services, especially for the poor (Burnham et al, 2004; Deiningner & Mpuga, 2004; Nabyonga et al, 2005). During the same period, there

was widespread growth of grassroots organisations and the development of civil society in many African countries. This created an environment for autonomous grassroots responses to the problems that people were facing, including access to quality health care. Other authors (Preker et al, 2001; Khetrapal, 2004; Carrin et al, 2005; Kalk et al 2005) link the emergence of CHIs to the difficulties in achieving universal health coverage through general taxation. Khetrapal (2004), for example, argues that in many countries where the government funds and provides free or nearly free services for the populace, the poor often do not utilize those public health services. Instead, households use their meagre income to pay for services and drugs from the private sector. According to the author, the concept of CHI has emerged in this context.

In West Africa, where CHI schemes are most common, they take the form of Mutual Health Organisations (MHO). They are often characterized by an ethic of mutual aid and grow out of already existing community associations, which were initially set up to provide members with a wide range of (informal) social security benefits, such as funeral grants, marriage and birth allowances as well as retirement benefits (Atim, 1998; Preker et al, 2002; Jutting, 2004). Thus health care becomes an additional area of need to be covered. This latter need (health care) is unique because, unlike the former, it is highly unpredictable. This has called for special arrangements where, instead of individual savings and benefits in the ordinary mutual aid, risk sharing as well as pooling of resources is required. Hence, CHI works on the principle of insurance, where the risk is spread and the cost of health care in the event of illness is transferred from the healthy to the sick, within the same pool.

The East and Central African region is slowly picking up the concept of CHI. Examples of countries that have relatively developed CHI schemes include the DRC and Rwanda. In the DRC, one of the most successful and oldest CHIs, the Bwamanda hospital health insurance, was established by the local Catholic mission in 1986. During the first month 32,600 people (28% of the target population) joined (Criel et al, 1998). By 1993, membership had grown to 66% of the target population. In Rwanda, the voluntary CHI system exists alongside the official institutionalised Rwandese health insurance, which is

run by the state for civil servants. The state also runs a compulsory mutual health insurance for the army, which is contributory. The prisoners and genocide survivors receive free health care. Kalk et al (2005) note that Rwanda considered CHI as a means of improving the financing deficit in the health sector, especially at health centre level. The authors argue that the schemes are able to pool their risks, and that they have improved financial access to health services. Currently about 37% of the country's population is enrolled in these CHI schemes. It is important to note that 60.4% of Rwanda's population live below the poverty line (Musango et al, 2006). This suggests that CHI can actually exist in the context of low incomes. Just like in the DRC and Uganda, there is a significant presence of the PNFP sector engaged in health service provision as well as in the initiation of these schemes.

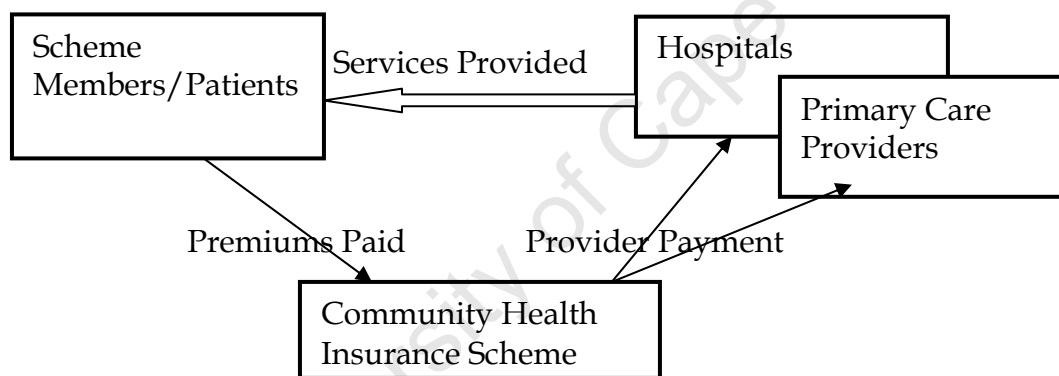
In Uganda, the concept of health insurance is relatively new. As an option for health financing, it was first proposed in the recommendations of the health policy review commission in 1987 (Uganda, 1987). In 1995, the MoH through the CHF project launched the first CHI scheme at Kisiizi hospital, a PNFP facility in Rukungiri district, southwestern Uganda (Section 1.3: 17). These schemes have continued to exist and new ones have been established even after the government abolished user fees and adopted free health care in all government health facilities. The schemes exist under an umbrella NGO, the Uganda Community Based Health Financing Association (UCBHFA). The association provides technical support, funding for operational costs, and training of staff, and to a limited extent, covers losses incurred by the schemes in their early years of operation. The MoH is effectively represented on the board of this association, indicating continuing partnership and support of the association's objective and strategy. Other key promoters of CHI in Uganda include Health Partners and Microcare. Health Partners, a USAID project, runs a distinct Health Cooperative Society, while Microcare (a health insurance company) coordinates a number of schemes in different parts of the country. Examples of active CHIs in Uganda include Kisiizi health insurance scheme, Nyakibale prepayment scheme, Comboni hospital health plan, Kiwoko Hospital Save for Life, Kitovu prepayment scheme, Mutolere hospital health scheme, School Health Made Easy,

Health group (scheme), Ishaka prepayment scheme, and Mother Care Rescue scheme (UCBHFA, 2005).

## 2.5.2 Design of Community Health Insurance Schemes

The major feature of CHI schemes is that they involve prepaid, regular contributions into a pool that are then used to cover the cost of health care for those who fall sick and seek treatment. They are different from individual savings in that they involve risk sharing and resource pooling. Benefits are paid according to need and not according to contribution. The basic form of organisation is indicated in Figure 4.

**Figure 4: How CHI schemes operate: the basic model**



Source: Bennett, 2004

As indicated in Figure 4, households enrolled in a scheme pay premiums to the CHI fund or pool. The scheme in turn pays health care providers for services and these providers offer health services as agreed upon to the members of the scheme.

### 2.5.2.1 Organisational Model

According to the literature (Atim, 1999; Arhin-Tenkorang, 2001; Devadasan, 2004; Devadasan et al, 2004b), three major types of organisational models for CHI can be identified, namely, the provider model, the insurer model and the linked model.

### **a) *The Provider Model***

This is where the scheme is initiated and managed by a health facility, usually a hospital. The health facility collects premiums from the subscribers and at the same time provides health care at either no cost or minimal co-payment at the time of receipt of service. An example is the Bwamanda hospital scheme in the DRC (Criel et al, 1999). Proponents of the provider model (Arhin-Tenkorang, 2001; Chirmulay & Devadasan, 2006) argue that the integration of insurance management and health care provision creates a strong motivation for health promotion and preventive health care in order to limit benefit claims and keep the costs low. In addition, the quality of care is usually of a level that is acceptable to the community. However, other authors (Atim, 1999; Tabor, 2005) have argued that, when CHIs are owned by health care providers, they tend to focus more on augmenting and sustaining health care revenues. This can in turn affect the acceptability of the scheme among community members. For example, Atim (1999) observes that the close association of Nkoranza community financing scheme in Ghana to Nkoranza hospital led to a belief within the community that the money collected would not be used to purchase drugs and equipment but rather to maximize the hospital's surplus income. The author argues, too, that, since under the provider model, the management of the scheme is not distinct from that of the hospital, the possible cost reduction and efficiency that would result from negotiations between the purchaser and the seller are not available. Neither the quality of care nor the fees charged are negotiable. Chirmulay and Devadasan (2006) contend that hospitals usually have limited access to the community, and are furthermore not able to communicate with them effectively. Community aspirations are rarely expressed and met, since the hospital is in charge and in most cases technocratic. This, according to the authors, makes the provider model of CHI socially weak much as it may appear technically and administratively sound. Basaza et al (2008) in a similar tone posit that the model makes it difficult to utilize primary care facilities, since services are commonly provided at hospital level. This not only threatens the viability of the scheme, but also signifies inefficient resource use in the broader health system.

### ***b) The Insurer Model***

This refers to an arrangement where premiums are collected and paid to an independent organisation, normally an NGO or micro finance institution or a local cooperative society. Members then seek health care from any health facility, and the intermediary organisation pays the bills. The Health Cooperatives in Uganda, run by Health Partners, is an example of such a model. Tabor (2005) contends that this kind of model facilitates growth in membership, since the other non-insurance activities of the organisation can attract community participation. Other authors (Chirmulay & Devadasan, 2006) argue that the model has more advantages than the provider model in developing the scheme in line with the community's needs. NGOs and Community Based Organisations (CBOs) usually have a closer relationship with the community than, for example, a private insurance company because they operate at grassroots level. Other proponents of the insurer model, such as Bennett et al (1998), argue that it encourages the development of vertical bridging linkages, which are essential for capacity building. Local communities are able to link up with NGOs and other institutions, which strengthens their capacity as well as the sustainability of interventions. Devadasan et al (2004a) contend that the NGO is able to counter the power of the provider, since it is able to engage in negotiations on behalf of the members. The shortcoming of the model is that it may not maximize community participation, and consequently the community has less control over the costs (Chirmulay & Devadasan, 2006).

### ***c) The Linked Model***

This is where the intermediary organisation collects premiums and passes them on to an insurance company. Members seek health care from a number of providers, pay the bills and then submit the receipts to the insurance company via the intermediary organisation for reimbursement. One of the advantages of this model is that it encourages risk sharing on a large scale, since smaller risk pools are merged with the larger ones of the insurance company (Chirmulay & Devadasan, 2006). Chirmulay & Devadasan (2006) note that its major disadvantage is that the benefits package is inflexible and not aligned to the needs of the local community. It is normally run like the traditional medical claim policy with its exclusions and limitations. The model also has limited affordability, since the

premium is set by the insurance company on an actuarial basis and is therefore not aligned to the ability of the local community. It also retains OOP spending, since the patient is only reimbursed for the cost of health care.

### **2.5.2.2 Other Aspects of CHI Design**

Other key aspects in the design of CHIs include eligibility and enrolment criteria, premium levels and mode of payment, benefits package, and level of community participation. Legal and institutional frameworks are also important in the design of the schemes.

#### *a) Eligibility and Enrolment*

The unit of enrolment can be an individual, a household or a group (Atim, 1998; Carrin et al, 2005; Musango et al, 2006). The literature (Carrin, 2003; Khetrapal, 2004) indicates that most CHI schemes are based on household enrolment. Households are registered as a unit and not as individual members. Where there is group enrolment, different households come together and register as a group, but the costing unit remains the household. A certain minimum percentage of the group must have paid their premiums in order for the group to be registered. Various authors (Atim, 1998; Carrin, 2003; Chirmulay & Devadasan, 2006) defend this practice because it minimizes adverse selection. Adverse selection refers to a situation where high risk members of the community have a higher probability of enrolling in the scheme than low risk ones. This may lead to faster depletion of finances, which in turn affects the sustainability of the scheme. Chirmulay and Devadasan (2006) argue that, when households are enrolled, both the healthy and the sick join, which leads to cross-subsidization within the scheme. Carrin (2003) advises that, in reviewing CHI schemes, it is important to assess whether the scheme is accessible across different population groups. With regard to this, a study commissioned by the WHO (Bennett et al, 1998) concluded that very few CHIs reach the most vulnerable populations.

### *b) Premium Rates*

A premium is the payment made for insurance. While the basic principle is that the premium should be affordable (Government of India, 2007), other factors need to be taken into account in the setting of premiums for CHI, namely, the cost of the benefits package, the degree of risk, and the approximate administrative costs. Premiums can be either risk rated or community rated. Conversely, they can be set on a flat rate, where every household makes the same contribution, or on a sliding scale, where the contribution matches the income and socio-economic status of the household. Community rating refers to a policy in which the premiums are related to the risk of the group in totality (Criel & Kegels, 1997) and also take into account the average incomes of the community in order to ensure affordability and minimize social exclusion (Chirmulay & Devadasan, 2006). Most research on CHI has indicated that appropriate premium rates are community rated (Atim, 1998; Criel, 1998; Khetrapal, 2004; Dong et al, 2005; Kalk et al, 2005; Chirmulay & Devadasan, 2006) as opposed to the conventional practice in private health insurance, where premiums are related to the amount of risk, such as the age of the target beneficiary. Chirmulay & Devadasan (2006) contend that, whereas the ideal would be to have income rated premiums, in a rural setting, it is difficult to assess income. Therefore, a community rated premium, where everybody pays a flat rate, should be adopted. The downside of community rated premiums, however, as argued by Criel and Kegels (1997), is that they may discourage people of low risk from joining the scheme, while encouraging high risk individuals to join, since they know that they will be cross-subsidized.

According to Khetrapal (2004), the use of flat rate premiums eases the procedure for revenue collection, reduces scope for manipulation, and contributes to low transactional costs. However, other studies (Atim, 1998; Criel et al, 1998; Acharya & Ranson, 2005; Dong et al, 2005) highlight the fact that these rates are regressive, since they do not take into account the differences in the socio-economic profiles of community members. Hence, they disfavour poor households who have to pay a higher proportion of their income as premium. A sliding scale system, where different rates are set for different socio-economic categories in the population, is believed to contribute to equity (Atim,

1998; Criel, 1998; Dong et al, 2005). The categories can be age, sex, observed wealth index of a household, household size and geographical distance to the provider. In terms of the mode of payment, cash or in-kind payments are the two options. Whereas the former are the most common mode of payment, in-kind premium payment has been reported. Research on the Bwamanda scheme in the DRC (Criel & Kegels, 1997; Hope, 2003) indicates, for example, that subscribers can pay in the form of agricultural produce such as potatoes. While acknowledging the difficulties in handling in-kind payments, Chirmulay and Devadasan (2006) advocate this option for rural areas, where subsistent economies are the norm and households hardly have any ready cash.

### *c) Benefits Package*

This refers to a list of services to which the beneficiaries of an insurance scheme are entitled. It includes both the services and the means of accessing these services, for which the purchaser will pay from the pooled funds (Kutzin, 2001). Bennett (2004) suggests that the effective degree of risk protection offered by an individual CHI scheme depends upon the extent to which the benefits package offered covers comprehensive services, particularly higher cost services. The choice of the benefits package depends on a number of factors, namely, the needs of the community, the cost of the package and whether it is affordable for the target population, the administrative burden in delivering the package and the availability of these services (Government of India, 2007). Dror's work (2006) demonstrates that even the poor, illiterate, rural population are able to make judicious decisions about the benefits package and should therefore be involved in its design.

In-patient care has been seen as the most likely to lead to catastrophic health expenditures for the household, and it should therefore be prioritized in the benefits package (Carrin, 2003). However, Dror (2006) and Dror et al (2007) in a study of CHI in India contend that the aggregate cost of drugs and in-patient care does not actually differ. Whereas in-patient care is rare and expensive, out-patient care and drugs, which are more frequent, may in the end cost as much. As a result, the authors support a basic benefits package that covers both out-patient care (drugs, consultations and tests) as well as in-patient care. Other authors (Gumber & Kulkan, 2000; Kutzin, 2001; Preker & Carrin,

2004; Chirmulay & Devadasan, 2006) similarly argue that a benefits package that covers both in-patient and out-patient care is more acceptable to the community and should therefore be aimed at. In addition, adding some elements of primary care to the package helps to demonstrate the advantages of scheme membership as well as to encourage members to seek early treatment (Tabor, 2005; Dror et al, 2007).

From the above section, it is clear that the benefits package is an important aspect of scheme design, because it makes the scheme either attractive or unattractive; hence, will affect enrolment and the overall viability of the CHI scheme. However, if it is not carefully designed, it could lead to high escalation of costs and render the scheme financially unsustainable.

### **2.5.3 Strengths of Community Health Insurance**

Studies done mainly in West Africa (Atim, 1998; Jutting, 2001; Musango et al, 2006) and Asia (Devadasan, 2004; Devadasan et al, 2004a,b, 2006, 2007) indicate that CHI improves access by rural and informal sector workers to much-needed health care and provides them with some financial protection against the cost of illness. Jutting (2001) observed, for example, that in Senegal, members of a MHO had better access to health care than non-members. Preker et al (2002), in an intensive literature review on CHI, also note that in Bangladesh, CHI enabled marginalised sections of the population to access quality health care through the Dhaka community hospital health insurance program. Similarly, in Rwanda, where CHIs have been embraced, health care utilization has almost quadrupled even among the low socio-economic categories of the population (Musango et al, 2006), underscoring the potential of CHI to increase access to health care. Ranson (2002) argues that prepayment (even in the absence of risk pooling) can facilitate access to expensive medical care, because it spreads costs over time and prevents people from paying at the time of treatment. By pooling resources, health insurance schemes can improve equity of access to health care. Carrin et al (2001, cited in Carrin et al, 2005) argue that risk pooling allows for transfers from low-risk to high-risk members and from wealthier to poorer members. This contrasts with the case of non-insurance where poor households have to bear the full burden of the health care cost. The argument presumes,

however, that coverage is extensive and that there is equity in enrolment in CHI schemes. In some cases, however, CHI may attract only the relatively well-off or only the sick and poorer members of the community, hence negating the advantage of risk pooling.

Another common strength of CHI cited in literature (Preker et al, 2001; Ranson, 2002; Ahuja & Jutting, 2004; Wang et al, 2005; Devadasan & Nandraj, 2006) is its ability to offer financial protection against the cost of illness. On the basis of this, some (Ranson, 2002; Ahuja & Jutting, 2004; Wang et al, 2005) have argued that CHI should not only be promoted as a tool for increasing access to health care but also be viewed as an integral part of any poverty alleviation program. Ranson (2002) and Wang et al (2005) observe that poverty due to illness poses a significant social problem in rural areas and that the prepayment features of CHI would protect households from further impoverishment. Research in mainly India (Carrin, 2003; Devadasan et al, 2005a, 2007) found significant reduction in catastrophic health expenditures among insured households as compared to non-insured households. Authors (cf. Carrin, 2003) attribute this financial protection to the high prepayment ratio associated with CHI as well as to a benefits package that includes costly in-patient care.

It has also been argued that CHI can help to increase health awareness and disease prevention through education, nutrition and self-help training (Atim, 1998). This is linked to the fact that CHI encourages community participation, and that it stirs up the interest of the community in the affairs that concern their health and wellbeing. According Atim, CHI represents community participation in health, which is a platform for influencing the priorities, resource allocation decisions and responsiveness of the health authorities to the concerns of the population on such issues as waiting time at the health centre, staff behaviour, and quality of services. In a related argument, other authors (Chirmulay & Devadasan, 2006; Ndiaye et al, 2007) point out that CHI has the potential to empower local communities to demand improvements in the quality of health care. This potential function is however limited by a lack of technical capacity, a lack of information on the health system, and in some cases inadequate participatory political culture. Golooba-Mutebi (2005), in a study of decentralization and popular participation in Uganda, argues

that community participation in social service delivery can only bear fruit when the public is not only well informed but where the political environment encourages a culture of freedom of expression, a situation that is lacking in most countries of Sub-Saharan Africa.

#### **2.5.4 Enabling Factors in the Adoption of Community Health Insurance**

Affordability of premiums is one of the key facilitating factors for effective adoption of CHI. It is also linked to the wealth and income levels of the community. Premiums that are set at community rates, bearing in mind what the community regards as affordable, will facilitate higher enrolment of members and thus contribute to the scheme's viability. In addition, the timing of premium collection matters. Bennett et al (1998) suggest that it is better to collect annual contributions during the time of harvest in rural areas, given the seasonality of their incomes. Conversely, monthly payments may create difficulties for households with seasonal income. Khetrupal (2004) suggests that a flexible payment schedule, which allows poorer households to pay in instalments, can improve enrolment.

Provision of subsidies to the poor to reduce the amount of premiums to affordable levels is another opportunity to improve the viability of CHIs. Preker et al (2002) argue that, although income may be a key constraint to participation by the poor, they are willing to participate with some level of subsidy. These subsidies could come from government or charities. In Senegal, for instance, donors pay subscriptions for street children while in Benin, a solidarity fund was set up for the aged and the disabled (Atim, 1998). It is recognised that members' contributions normally set at community level may not be enough to cover the cost of illness, calling for a need to subsidise the schemes. Kalk et al (2005) argue that the subsidies are justifiable, basing this on the same principle applied in voluntary private health insurance where the employee contributes only a percentage and the employer contributes to the employee's premium (normally higher than what the employee contributes). It should be noted, however, that the lack of sustainability of this kind of support to the schemes poses a challenge for their successful long-term viability. Other authors (Ahuja & Jutting, 2004) contend that subsidizing premiums can potentially aggravate problems of moral hazard. The authors argue that the more appropriate

intervention to generate demand for CHI is to ease access to saving and credit facilities for the poor. In this way, they would be able to afford premiums.

Another enabling factor in the viability of CHI is the availability of good quality health care. A number of studies (Alderman & Lavy, 1996; Atim, 1998; Criel & Waelkens, 2003; Jutting, 2004) have indicated that even relatively poor people are willing to pay for good quality health services. In an evaluative study of the Maliando health scheme in Guinea Conakry (Criel & Waelkens, 2003), members and non-members of the scheme expressed a willingness to enrol in the scheme if that would assure them of access to good quality health care. They referred to rapid recovery, a welcoming reception at the health centre, the availability of health officers and drugs as some of the most important features of quality. Similarly, in a rural setting in India, people expressed a willingness to pay for good quality health services instead of the poor quality government services (Mathiyazhagan, 1998). In contrast, a study done in Guinea-Conakry (Criel et al, 2002 cited in Carrin, 2003) indicates that people preferred not to enrol in CHI but to seek care from elsewhere due to the poor quality care provided through the scheme. In view of the above arguments, Jutting (2004) cautions that the quality of institutions providing health services should be analysed in-depth before introducing health insurance for the poor.

Design features of the scheme are also cited as enabling factors for its success. Preker et al (2002) argue that design characteristics can significantly affect the achievement of good targeting and equity by CHI schemes, just as they matter for large-scale public expenditure programmes. For example, the unit of enrolment can either lead to social exclusion or inclusion where even the poor gain access to health care. In a study of Rwanda's health insurance (Schneider & Diop, 2001) it was found that large families with more than five members had a greater probability to enrol in CHIs than smaller families. The explanation was that premiums were kept flat irrespective of household size up to seven members, making the average contribution per household member less for the bigger households. In a number of other studies, however, (Criel & Waelkens, 2003; Jutting, 2004,) large family size is noted to increase contributions and becomes a hindrance to enrolling in CHI schemes. Other aspects of the design, such as the timing

and nature of premiums may also affect the success of CHI. Ahuja and Jutting (2004), for example, argue that flexibility in premium payment, where small amounts are collected more often, and where both cash and in-kind payments are allowed, increases the viability of the scheme.

The viability of CHI may also be dependent upon geographical access to health care providers. Carrin et al (2005) argue that geographical proximity enhances information flow and is therefore likely to help voluntary risk sharing arrangements. Schneider and Diop (2001) relate proximity to development of trust in the provider. In their study of Rwanda's health insurance schemes, Schneider and Diop (2001) document that households who lived less than 30 minutes from the participating health facility had a much larger probability to enrol in CHI than those who lived further away. They argue that those who live closer to the health care provider are more likely to know its personnel, and that they are therefore better informed about prepayment. This builds their confidence and increases their level of enrolment. Another dimension of geographical access involves the non-health related costs associated with distance and time taken to reach the provider (Jakab & Krishnan, 2001). The indirect costs of travel and time in a rural area may outweigh the direct costs of hospitalization. Hence, the scheme will be neither attractive nor helpful to those living far away from the providers. Some measures introduced in some schemes to reduce the impact of distance on enrolment include a sliding scale of co-payments where those farther off pay relatively lower costs than those nearby (Bennett et al, 1998). But still this may not improve access due to the travel costs.

Preker et al (2002) contend that CHI schemes benefit from their connections with the overall welfare of the society in which they operate, including the system of public financing and the broader social policy underpinning the national health system. Such connections broaden the enrolment and operating capacity of the scheme and offset the disadvantages of privately run services to the population or community particularly efficiency and equity. Dror (2001) similarly argues that the viability of CHI schemes

depends on their linkage to another larger entity through social reinsurance (i.e. transfer of liability from a primary insurer to another non-profit insurance company).

The level of community involvement has also been cited as a facilitating factor in the effectiveness of CHI. People are more likely to enrol if they have been involved in the design and management of the scheme and if benefits relate directly to their health priorities or problems (Preker et al, 2002; Baltussen et al, 2006). The opportunity here lies in the fact that CHIs operate at community level, which should make it easier to involve community members in the planning and overseeing of the scheme. This creates confidence and a sense of ownership of the scheme, thus attracting more membership.

### **2.5.5 Hindrances to the Viability of Community Health Insurance**

According to various authors (Preker et al, 2002; Criel et al, 2004; Basaza et al, 2007, 2008), CHI in Africa still has limited success. Where the schemes have been introduced, only a limited number of households have joined. In Guinea Conakry, West Africa, the Maliando scheme only attracted 8% of the target population in the first year and subscriptions dropped to 6% in the second year (Criel & Waelkens, 2003). Research on this particular scheme showed that a failure to understand the concept of insurance did not explain low rates of enrolment. The target population understood health insurance principles and concepts (Criel & Waelkens, 2003). Furthermore, there does not seem to be sufficient evidence to link low enrolment rates to massive poverty and low household incomes in rural communities in Africa. For example, in Rwanda, with over 60% of the population living below the poverty line (Schmidt et al, 2006), CHI has been adopted with relative success, with over 37% of the population covered after about 7 years of existence (Diop & Butera, 2005; Musango, et al, 2006).

Criel et al (2004) contend that the success or failure of CHI cannot be dissociated from the context in which the scheme is developed. Their argument is based on the 'context-mechanism-outcome' complex, developed by Pawson and Tilly (1997, cited in Criel et al, 2004). The model attempts to show that there is no linear relationship between intervention and outcome in complex social interventions. It is therefore pertinent to

analyse and understand the factors within a given context that lead to the success or failure of a scheme before it can be recommended as a best practice to be replicated elsewhere. In line with this thinking, some authors (Dror, 2001) relate the limited interest in health insurance in Sub-Saharan Africa to differences in attitude that households in the industrialized world and Africa hold in relation to the notion of risk. It is assumed that Africans are less risk averse, i.e. not interested in investing today in order to avoid future health care expenditure. It is also assumed that they are reluctant to be involved in risk pooling that goes beyond the traditional boundaries of family, clan or ethnic group. This assumption is challenged by the findings from the Maliando MHO in Guinea Conakry (Jutting, 2004), where the population understood and appreciated the notion of insurance and risk sharing. According to this particular study, the people appreciate the schemes' re-distributive effects, which operate on a scale that goes beyond village or next of kin. Thus, the socio-economic contexts in which health services are provided as well as other social dynamics in the environment need to be taken into account when assessing CHI.

Obstacles related to scheme design could hamper the viability of CHI. Some of the commonly cited problems include adverse selection, moral hazard, cost escalation and fraud and abuse (Atim, 1998). With regard to adverse selection, if the greater majority of those joining the scheme are people with recurring health problems, then the scheme's resources will be quickly depleted, making it insolvent. However, from the equity perspective, it serves the health system's objective of providing care according to need. Atim (1998) recommends the adoption of risk minimizing techniques, such as enrolling households or groups instead of individuals, and the institution of waiting periods after subscription to discourage members from joining only after they have fallen ill. Moral hazard is the tendency of those insured to use services more intensively than they would if they were not insured (Atim, 1998). This over-consumption, which is sometimes unnecessary, can impair the financial viability of the scheme. For example, moral hazard was reported in the Bwamanda hospital scheme in the DRC (Criel et al, 1999). To minimize this, some schemes institute co-payments and mandatory referrals so that members do not skip the PHC providers for hospital services, which may result in misuse of resources for the health system.

Another potential hindrance to the viability of CHI in increasing access to health care is the use of traditional medicine/healers. Traditional medicine refers to ways of protecting and restoring health, which existed before the arrival of modern medicine. Traditional medicine is defined as the sum total of all knowledge and practices, which are used in the prevention, diagnosis and elimination of physical, mental or social imbalances, and which rely exclusively on practical experience and observation handed down from generation to generation (Akerel, 1984 cited in Sekaya et al, 2004). Methods used in traditional healing are based on social, cultural and religious backgrounds as well as on the knowledge, attitudes and beliefs that are prevalent in the community regarding physical, mental and social wellbeing and the causes of disease and disability. According to a report of the International Council for Science (the ICS regional office for Africa), over 80% of the African population depend on traditional medicine for its health needs (Parker et al, 2006). The report relates this trend to the fact that traditional medicine is often the only type of health care that is readily available. In Uganda, use of traditional medicine is prevalent just like in the rest of the Africa region. Bodeker et al (2006) estimate the ratio of traditional medicine practitioners to the population at 1:200-400, compared to the doctor-population ratio of 1:20,000 (which increases to 1:50,000 in the rural areas). Apart from easy access, use of traditional medicine is linked to cultural preference as well as the perceived inadequacy of services provided by the formal sector (Ndyomugenyi, et al, 1998). In general, if people in a given community have a higher probability and preference for using traditional medicine, then there will be challenges in promoting a strategy that is directly linked to access and use of formal health services. Thus, a high level of use of traditional medicine among members and non-members of CHI is a potential hindrance to the viability of CHI.

## **2.6 Community Health Insurance in the Context of Free Health Services**

Most of the advocacy for CHI occurs in contexts where user fees are charged, for example, in most parts of West and Central Africa and in some countries in East Africa, such as Tanzania and Rwanda (Criel & Waelkens, 2003; Mwabu et al, 2003; Schellenberg et al, 2003; Bennett, 2004; Kalk et al, 2005). Uganda's context is unique in that the official policy is the provision of free health care in all government health facilities. Such access

to free health services may act as a disincentive for households to participate in risk pooling schemes (Baeza & Packard, 2007). How then can one promote CHI, which involves payment, when the population has an option of free health care? To answer this question, it is important to take note of the health services structure in Uganda, especially the key health service providers who include not only government but private providers too (Section 1.2.4: 9). PNFP providers, in particular, play a significant role in the provision of health services in the country. This role dates back to the pre-independence period (Sembojja & Therkildsen, 1995). They normally complement or fill the gap left by inadequate government provision in social services as a whole.

Despite the re-introduction of free health services in 2001, both the PFP and the PNFP sectors have remained vibrant, with reports of increased utilization of services in the sectors corresponding to increased service utilization in government health facilities (Burnham et al, 2004; Nabyonga et al, 2005). In fact, the 2006 National Household Survey (UBOS, 2006) reported that the majority of people who fell sick in 2005/2006 sought treatment from private health service providers, and those who did not seek any medical attention gave financial cost and distance as the major barriers. As stated earlier (Section 2.3.5: 37), OOP payments remain the predominant means of financing health care in Uganda despite the free health care policy. This underlines the fact that cost of health care is still a valid obstacle to health care access and utilization, even in the context of free health care. From the perspective of quality, the PNFP sector has traditionally been perceived as providing relatively better quality services than the state (Sembojja & Therkildsen, 1995; Atim, 1998). In Uganda, all CHI schemes operate in the PNFP sector. This sector offers a national minimum health care package as prescribed by the national health policy, thus removing any conflict of objective or strategy.

Carrin (2003) argues that health systems that depend on government tax revenue have generally been constrained by insufficient funding, which renders service delivery inadequate, in terms of both quantity and quality. Other studies (Alderman & Lavy, 1996; Wagstaff, 2002; Bennett, 2004) have shown that people, including the poor, are willing to pay for better quality services rather than to receive poor quality free health care. For

example, in India, the government offers free health services to the population. In practice, however, the quality of government-provided services is considered poor and at the same time informal charges are widespread (Bennett, 2004; Devadasan et al, 2005a,b). As a result, patients resort to the private sector in search of better health care. It is due to this that CHI has emerged to assist in improving access to better quality care, while at the same time protecting against catastrophic spending. The Self-Employed Women's Association (SEWA) in India is an example of a successful CHI scheme in the context of free government health services. The scheme allows members to seek private health care of relatively better quality (Ranson, 2002).

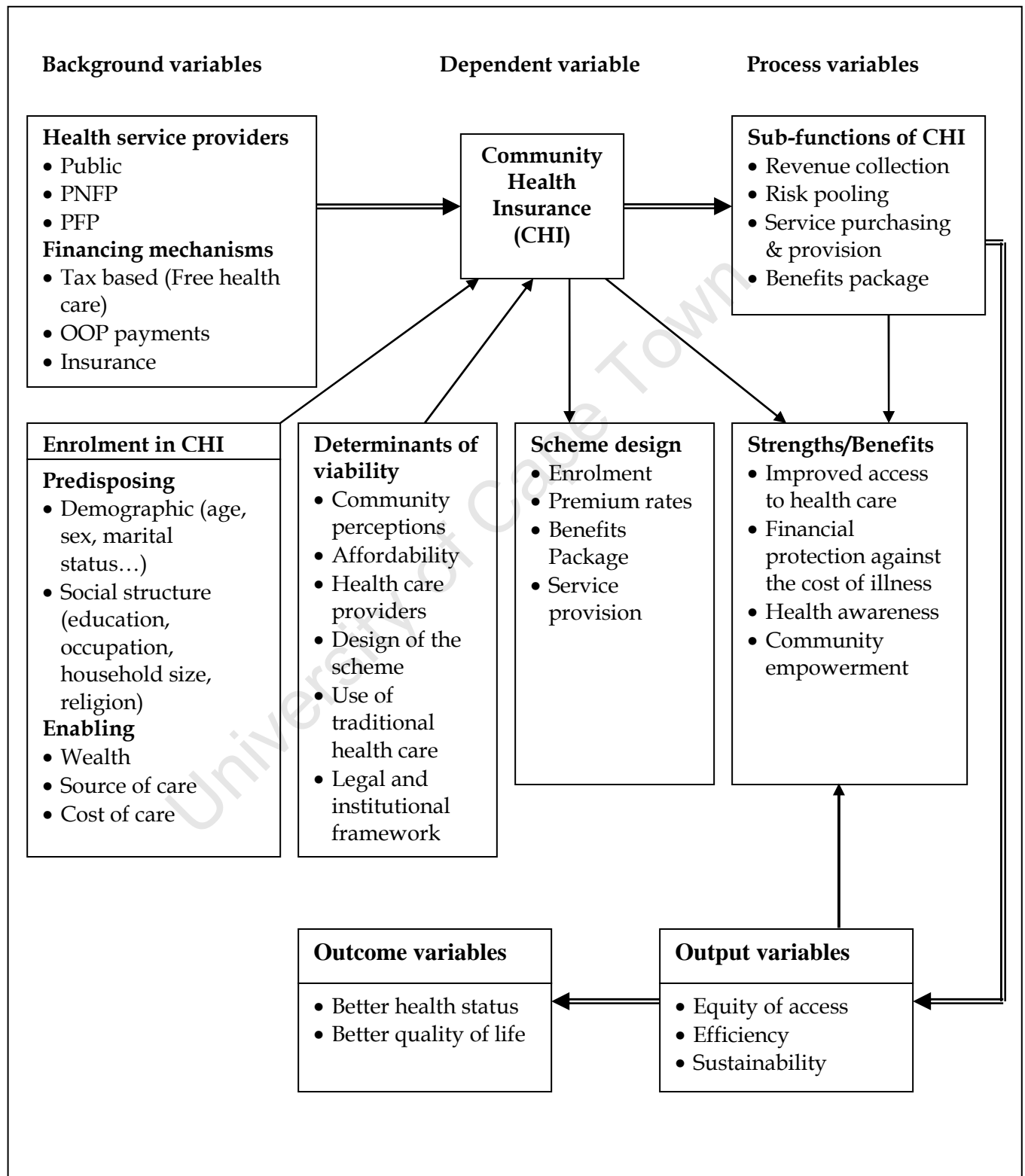
From the aforementioned, it is clear that there can still be obstacles to accessing health care even in the context of a free health care policy. One of these obstacles is the continued use of OOP payments, from either the private or even the public sector, which makes it difficult for poor households and/or individuals to access health care. To minimize some of these financial obstacles, it is proposed that CHI is an appropriate strategy.

## **2.7 Conceptual Model**

The conceptual model for the study of the viability of CHI takes into account the theoretical perspectives that underpin the study. The main variables for analysis include participation in CHI with a particular focus on the socio-economic characteristics of households that enrol and those that do not enrol in CHI. Most of these are derived from Andersen's behavioural model of health services utilization (Section 2.2.4: 30). Other variables considered are household head characteristics, household size, wealth index, occupation status, and source of income and distance to the nearest health centre. These are used to measure the degree of social inclusiveness of the scheme. Utilization of health care (both modern and traditional), perceived quality of care and the cost of premiums are also considered. Specific aspects of the CHI design to be evaluated relate to the associated functions of health systems as reviewed in Kutzin's framework for health financing arrangements, namely, revenue collection, resource/risk pooling, purchasing and the benefits package (Section 2.4.1: 40). The performance of CHI in terms of its

contribution to equity in access to health care, its efficiency and sustainability, are also examined. Figure 5 shows the detailed conceptual framework.

**Figure 5: CHI and access to health care: a conceptual framework**



The official policy of government is free health care in all government health facilities. Due to various constraints (Section 1.2.4.3: 15), the system does not meet the health care needs of the population. Because of this, a significant number of people still have to seek health care from private providers. In urban centres, there is a mix of PFP (mainly in form of doctor clinics) and PNFP providers. In the rural areas, the viable alternative source of formal health care is the PNFP providers, and these too charge user fees. In a bid to increase accessibility for rural households, some health facilities and other CBOs have come up with community based financing mechanisms; prominent among these is CHI.

CHI is supposed to serve several functions, namely, revenue collection, resource and risk pooling, and purchasing and provision of services, and determining the benefits package. These in turn should contribute to equity of access to health care. The other two intermediate goals of CHI are financial efficiency and sustainability of the intervention. The nature of households enrolling or not enrolling in the scheme indicates whether the scheme is socially inclusive or not. Both demographic and socio-economic characteristics are crucial indicators of households and population subgroups reached by CHI. Determinants of the viability of CHI may include, among others, community perceptions (acceptability), affordability of premiums, physical accessibility of health services, quality of care, level of community solidarity, the legal and institutional framework and the level of use of traditional medicine. The expected output from CHI is increased access to health care by rural households. This should in turn contribute to the achievement of better health and better quality of life for such households.

## **2.8 Issues Emerging from the Literature Review**

It is generally agreed in the literature that tax based financing (egalitarianism) is the most ideal and equitable mechanism of providing health care to the population. It was however also indicated that, due to weaknesses in government financed health care, alternatives have to be sought. CHI was proposed as an emerging alternative to realize improvements in access to health care, especially for populations outside the formal sector. The following issues emerge from the literature:

- Most literature on CHI is discussed in the context of health financing. The emphasis tends to be on CHI as an alternative health financing mechanism, viewed as a way of complementing meagre public resources. The area of interest of the current study is to discuss the potential of CHI in increasing access to health care for the rural households, and not necessarily as a significant contributor to the financing of the wider health system. The researcher subscribes to the view that the primary responsibility for financing health systems lies with the state. However, if CHI can lead to improvements in access to health care for rural households, then it is worth exploring and adopting.
- Although a number of factors have been suggested for the low levels of enrolment prevalent in CHI schemes, there is little evidence to show that particular characteristics of the population either encourage or discourage enrolment and retention in CHIs. This study will critically examine the socio-economic profiles of members and non-members of a CHI scheme in order to understand their influence on enrolment.
- Most CHI schemes reviewed in the literature exist in the context of user fees. The uniqueness of the present study is that it reviews the viability of CHI within an environment of free health care in public health facilities. Why CHI continues to exist when the population is presumed to have a cheaper or free option of public health services gives a unique dimension to this study.
- Methodologically, most studies on CHI have tended to be qualitative in nature, describing experiences of the schemes. This study uses both quantitative and qualitative approaches to assess the viability of CHI in extending healthcare to the rural households in Uganda.

The next chapter (chapter three) explains the methodological approach and research process taken in conducting this study.

## CHAPTER THREE

### RESEARCH METHODOLOGY

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#### 3.1. Introduction

This chapter introduces the reader to the methodological approach to the study. It describes the research design, the study area and population, sample size and selection, research instruments, research assistants, data collection approach, data cleaning and editing, and data analysis. Research ethics and the limitations of the study are also discussed.

#### 3.2 Research Design

A research design is a plan that “guides the investigator in the process of collecting, analyzing, and interpreting observations” (Nachmias & Nachmias, 1992: 77-78, cited in Yin, 2003b: 21). It is the logical link between the data to be collected (and the conclusions to be drawn) to the initial questions of the study. This study adopted a case study design with regard to the area selected and the CHI scheme to be analysed. A case study is understood as:

*The intensive study of a single case where the purpose of that study is at least in part to shed light on a larger class of cases (population)... Researchers may choose to observe lots of cases superficially or a few cases more intensively. We gain a better understanding of the whole by focusing on a key part (Gerring, 2007: 20, 1)*

*A case study is considered from a specified perspective and with a special interest. It is unique, one among others (Stake, 1995: 2) and always related to something general. Case studies may be descriptive or explanatory. They are often used as a pragmatic research tool in order to understand thoroughly the complexity of a given problem and to support decision making (Scholz & Tietje, 2002: 2, 5)*

Thus, a case study of Rukungiri district would be undertaken with a particular focus on Kisiizi health insurance as a CHI scheme in Uganda. This approach was deemed appropriate because the study sought to conduct an in-depth examination of CHI in an area where the scheme has existed for a comparatively long time (over ten years). Yin (2003b) has argued that the case study is the preferred strategy for investigating real life events in their natural settings because it captures both the phenomenon and its context. This approach was therefore well suited to understanding the phenomenon of CHI and

access to health care within the natural setting of the community in which it is being implemented. Scholars (Scholz & Tietje, 2002; Yin 2003b) distinguish between embedded case study and holistic case study designs. Embedded case studies (as opposed to holistic case studies) normally involve more than one unit or object of analysis and thus look at a multiplicity of evidence. This evidence is investigated at least partly in sub-units, which focus on different aspects of the case. The sub-units can often add significant opportunities for extensive analysis, enhancing the insights into the single case (Yin, 2003b). Hence, this research has adopted an embedded case study approach in that it investigated not just the CHI scheme, but other aspects too, such as the households that enrol or do not enrol in the scheme and their respective characteristics.

Consistent with case study research with its multiple sources of evidence (Scholz & Tietje, 2002; Yin, 2003a, b), a mixed methodology approach was employed, where both quantitative and qualitative methodologies were used in the execution of the study. Although this study could be primarily classified as a quantitative-descriptive design, it did involve some qualitative aspects in data collection, analysis and presentation. As various authors (Scholz & Tietje, 2002; Yin, 2003b) have argued, when findings, interpretations and conclusions are based on multiple sources, the case study data will be less prone to the quirks deriving from any single source, such as an inaccurate interview or a biased document.

According to Burns (1997: 292), *"quantitative methods count and measure occurrences in a given phenomenon."* Similarly, De Vos (2002: 142) characterises quantitative-descriptive designs *"as often of a quantitative nature, requiring questionnaires as a data collection method. Respondents are ideally selected by means of randomized sampling methods."* Based on these definitions,

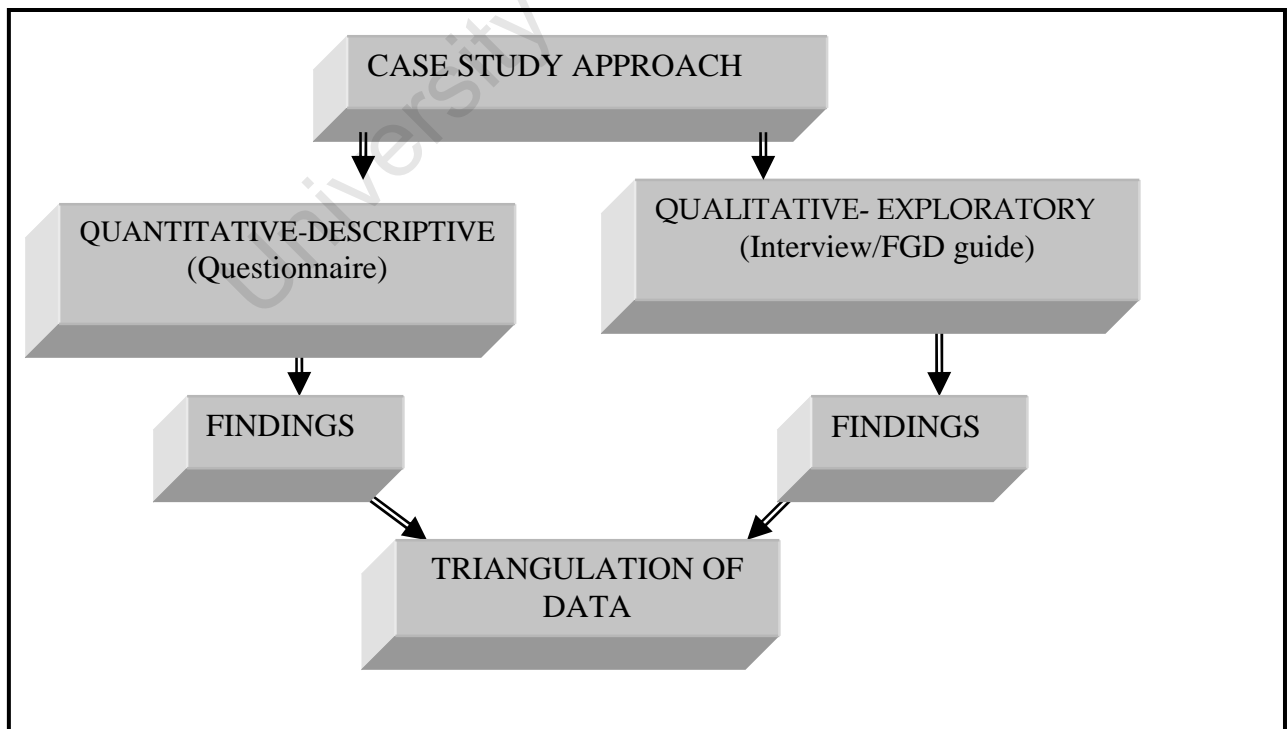
- The current study used a random sample of respondents from two clusters of (a) members of the CHI scheme and (b) non-members of the scheme; and
- A pre-coded household questionnaire was used to collect data.
- Part of the analysis involved counting and measuring the frequency of occurrence of different characteristics in the sampled population in order to draw conclusions.

Such quantitative methods were especially helpful in delineating the characteristics of households who are enrolled in the CHI scheme in contrast to those who are not, in order to draw conclusions on the question of equity of access to health care through CHI, among other objectives.

- However, the study does not claim to provide a cause-and-effect relationship between key variables, since it did not use a case-control experimental design.

The other facet of this design was its qualitative (exploratory) nature. *“Qualitative methods attempt to capture and understand individual definitions, descriptions and meanings of events”* (Burns, 1997: 292). They allow the researcher to explore the phenomenon being studied and to arrive at a detailed understanding. Hence, this aspect of the design was geared towards exploring the perceptions of community members and key informants (KI) with regard to CHI, gaining a deeper understanding of the findings, and providing an accurate explanation of the results obtained through the quantitative methods. The study design is graphically represented in Figure 6.

**Figure 6: Study design**

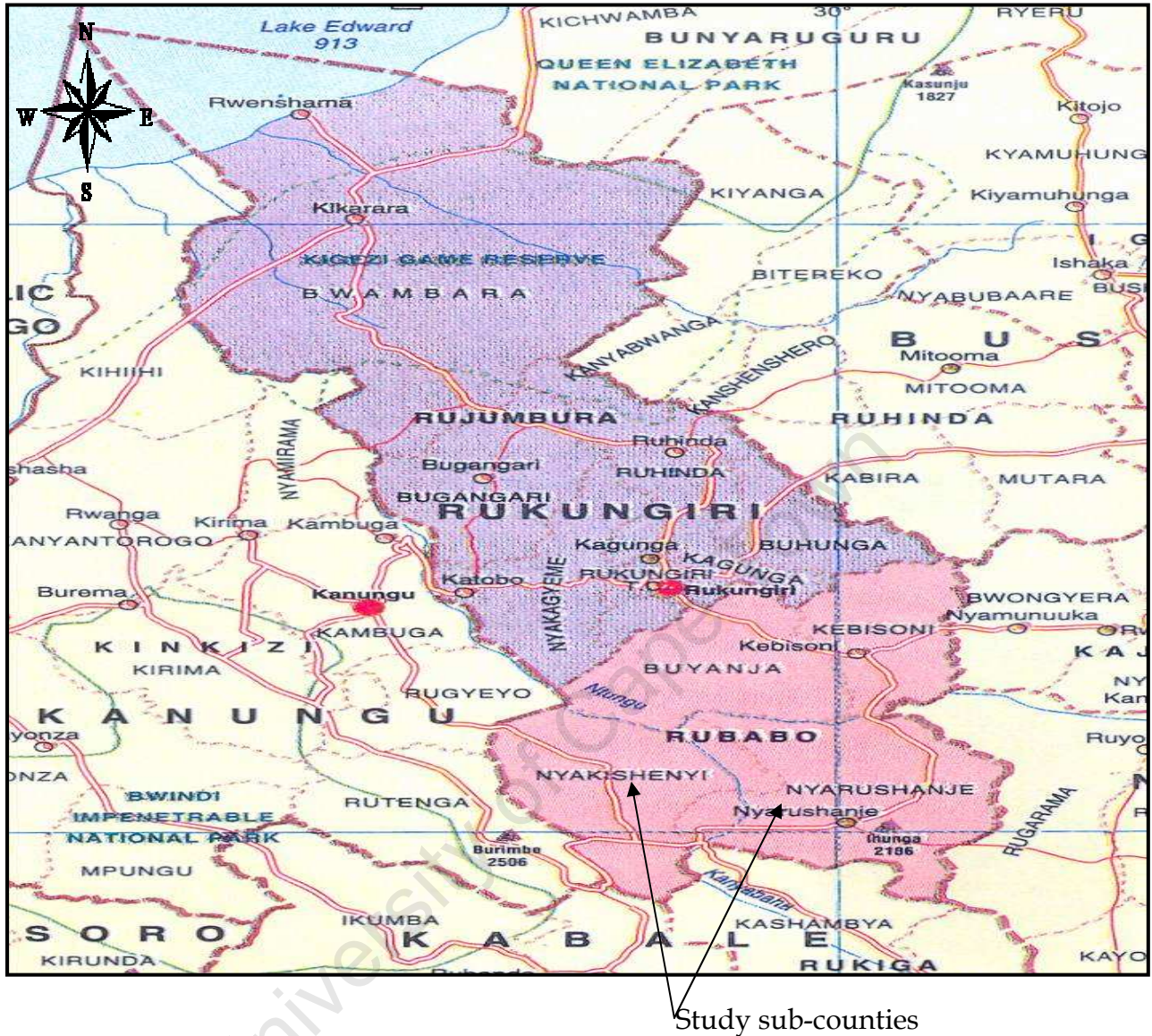


The research design was conceptualized after an extensive literature review had been undertaken. This included, among other things, an analysis of Uganda's health policy and available literature on CHI. The objectives of the study were then clearly defined in relation to the topic (Section 1.5: 21). Bearing in mind these objectives, a mixed methodology approach (quantitative and qualitative) was deemed the most appropriate for this study.

### **3.3 Study Area and Population**

The district chosen for the study was Rukungiri, which is located in southwestern Uganda, about 400 km south-west of the capital, Kampala. Rukungiri covers an area of 1,567 km<sup>2</sup> and has a total population of 308,696 persons; with approximately 40,000 households, (Uganda districts information handbook, 2007/2008). The area is predominantly rural with subsistence farming as the major economic activity. The district has the highest levels of malaria at 74.5% (UBOS, 2006), and lies within the southwestern region, which records the highest levels of child malnutrition (UBOS & Macro International, 2007). There is thus a significant need for effective health care. The district has only 2 hospitals, both of which are PNFP. It has 767 hospital beds, with a ratio of 1 bed to 368 persons (UBOS, 2006). The district was purposely selected because it has one of the oldest CHI schemes in Uganda, namely, the Kisiizi health insurance scheme, which started in 1996 as a MoH CHF project (see Section 1.3: 17). The area is therefore likely to be information-rich in respect of the use or non-use of the CHI scheme. Rukungiri district is made up of two counties, namely, Rubabo and Rujumbura, with the longest operating scheme located in the former. Therefore, Rubabo County was deliberately selected as the more specific focus of study. The County has a total population of 132,000 people. The immediate catchment area for the Kisiizi scheme is Nyakishenyi sub-county (with 31,000 people) and Nyarushanje sub-county (with 40,100 people). Hence, the estimated target population for the CHI scheme is 71,100 people (UBOS, 2007). The selected areas are shown in Map 2.

Map 2: Map of Rukungiri district showing the study area



Source: Uganda districts information handbook 2007/2008.

The local population of Rubabo County formed the study population. Both members and non-members of the CHI scheme in the local communities were regarded as part of the study population. Both men and women were included in order to mainstream gender in the CHI experience. Key persons from the MoH, the PNFP sector, the PFP sector, UCBHFA, CHI administration, and complementary and traditional medicine sector were also interviewed.

### 3.4 Sample Size and Selection

#### 3.4.1 Sample for the Household Survey

The sample for the household survey was scientifically determined using the Kish (1965) formula. This formula is used when the survey population (N) is more than 10,000 subjects<sup>14</sup>; and is best suited when the unit of analysis is the household and not individuals. The formula takes into account the amount of error that can be tolerated by the study and the proportion of the population with a particular characteristic. The aim is to maintain sufficient scientific rigor, reduce sampling errors and increase the possibility of drawing generalisations from the findings. The formula is as follows:

$$n = z^2 p (1-p) / e^2$$

Where

**n** is the required sample size

**z** is the probability lying outside the normal curve (standard normal deviate), normally set at 1.96 to correspond to the desired confidence level of 95%.

**e** is the amount of tolerated error, set at 0.05

**p** is the proportion of the population with a particular characteristic, set at 0.2. It was assumed that 20% of the population are exposed to community health insurance.

Inserting the figures into the equation:

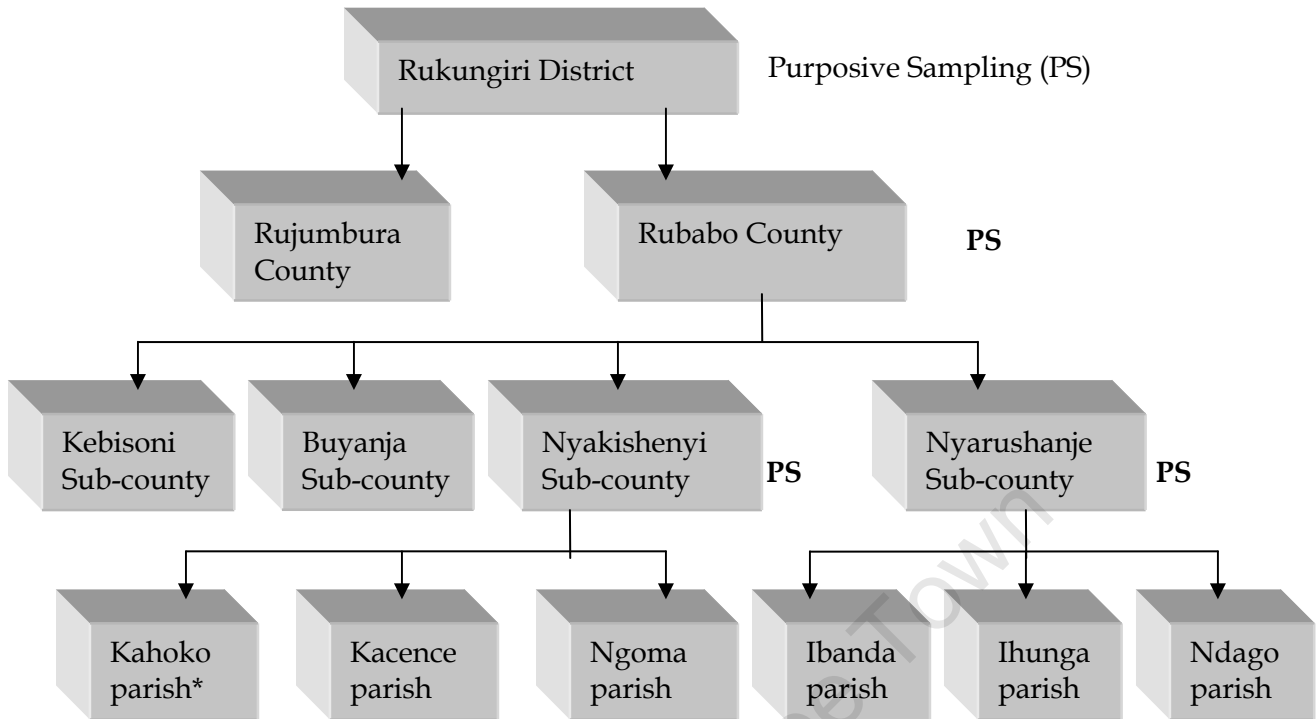
$$\begin{aligned} n &= \frac{1.96 \times 1.96 \times 0.2 \times 0.8}{0.05 \times 0.05} \\ &= 246 \end{aligned}$$

The actual number of households sampled was 260 (in order to cater for an adequate number of subjects in each stratum). The sample comprised 130 scheme-members and 130 non-scheme-members, selected from two sub-counties in Rubabo County. The detailed selection framework is indicated in Figure 7.

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<sup>14</sup> Rukungiri district has approximately 40,000 households (Uganda districts information handbook, 2007/2008)

**Figure 7: Multi-stage stratified sample selection process**



\*A parish is the local administrative unit below the sub-county, made up of numerous other local units called cells or local council 1.

Rubabo County was purposely selected for the study because it hosts the CHI scheme that was used as a case study. The county consists of four sub-counties, namely, Buyanja, Kebisoni, Nyakishenyi and Nyarushanje. Of these, the two sub-counties of Nyakishenyi and Nyarushanje were chosen because they constitute the immediate catchment area of Kisiizi hospital where the scheme operates. From each sub-county, three parishes were selected randomly, and households were in turn selected from each of these parishes. Sixty-five (65) members and 65 non-members of the CHI scheme were selected from each sub-county, thus adding up to 260 households. The sampling frame for members of the CHI was obtained from the Kisiizi health insurance scheme office. The non-scheme-member households from each parish were chosen with the assistance of the local council (1) officers (LC1)<sup>15</sup> and the local stretcher (*engozi*)<sup>16</sup> group chairpersons in the selected parishes. From each selected parish a random sample of households was drawn. The non-scheme-member households were determined to correspond as much as possible to

<sup>15</sup> The local council 1 is the lowest administrative division in Uganda's local government.

<sup>16</sup> See footnote 12 (pg 18)

the sample of the scheme-member households. This *non-proportionate stratified* sampling was preferred because of the need to conduct an in-depth analysis of the characteristics of both categories of respondents (Corbetta, 2003). Table 1 shows the sample of households taken from each parish:

**Table 1: Sample of households from each parish**

Sub-county	Parish	Scheme-members	Non-scheme-members	Total
Nyarushanje	Ibanda	20	21	41
	Ndago	22	22	44
	Ihunga	23	22	45
Nyakishenyi	Kahoko	24	24	48
	Ngoma	24	17	41
	Kacence	17	24	41
Total		130	130	260

The study respondents who consisted of heads of households were randomly selected using systematic sampling with a random start<sup>17</sup>.

### 3.4.2 Selecting the Key Informants

Key Informants were purposely selected to include 12 respondents from the key stakeholders in the various sub-sectors of the health system in Uganda, namely, the public sector, the private sector, the traditional medicine sector as well as representatives from the health insurance sub-sector. The detailed sample is indicated in Table 2.

<sup>17</sup> This was done by calculating the sampling interval (k), derived from the sampling fraction, whereby the population N is divided by the sample n.

**Table 2: Sample of key informants**

Category	No. of respondents
1 MoH (Dept. of policy, planning & development)	1
2 MoH (District directorate of health services [DDHS])	1
3 Public service provider	1
4 PNFP health service providers	1
5 CHI coordinating institution (UCBHFA)	1
6 CHI promoting institution (Microcare)	2
7 CHI administrators (project co-ordinator & field worker)	2
8 PFP sector	2
9 Complementary and traditional medicine (sector)	1
<b>Total</b>	<b>12</b>

The rationale for the mix of KIs was to collect information from all key actors in Uganda's health care system because they all have an influence on the success or failure of any given strategy.

### 3.4.3 Selecting the Focus Group Participants

Three Focus Group Discussions (FGDs) were held. The number was purposely determined to represent three categories of community members, namely, scheme-members, non-scheme-members and those who had ever enrolled in the CHI scheme but dropped out (scheme-drop-outs). Three FGDs were deemed adequate since the technique complemented the data collected through the household survey. Participants in the FGDs were purposely selected based on their knowledge of the CHI scheme, their headship of a household and their membership or lack of it in the CHI scheme. The participants were selected from the two sub-counties of Nyarushanje and Nyakishenyi in Rubabo County, where the quantitative survey was conducted. The total number of participants in the FGDs was 20, consisting of eight scheme-members, six non-scheme-members, and six scheme-drop-outs. The original target was to have 6 participants in each category but for scheme-members, all the 8 people who were contacted actually turned up for the discussion on the appointed day. The participants were selected based on their shared

characteristics in order to comply as much as possible with the principle of homogeneity (Bailey, 1994). The number of participants was deliberately limited to between six and eight in each group in order to allow meaningful discussion to take place (Babbie, 2004). Little attention was paid to gender (male and female), since the topics under discussion were not considered sensitive, and therefore both men and women would find freedom to air out their views.

### **3.5. Research Instruments**

Three main instruments were used to collect data, namely, household questionnaires, KI interview guides and focus group discussion (FGD) guides. The choice of the instruments was based on the mix of quantitative and qualitative methodology.

#### **3.5.1 The Household Questionnaire**

A standardised questionnaire with pre-coded questions relating to key research objectives, was administered to 260 respondents (heads of households), each representing a household (See Appendix B: 241). The technique adopted was a face-to-face interview as opposed to a self-administered questionnaire or a telephone interview. Face-to-face interviews were preferred because of the relatively low literacy levels in Uganda's rural community, and the lack of traceable addresses or telephone contacts. Thus, a face-to-face interview was considered more practical; moreover, it would greatly minimize non-responses with regard to all or parts of the questionnaire. Key sections of the questionnaire included: the nature of the households (demographic and socio-economic characteristics), the level of health and health seeking behaviour, access to free health care, knowledge and awareness of CHI, reasons for enrolment into CHI schemes or not, linkages of CHI to other grassroots organisations, and a household asset inventory for use as a proxy to indicate the welfare status of households. Questions were organised in such a way that scheme-members and non-scheme-members would only answer questions that were relevant to their particular category. Space was provided for interviewers to note down any detailed comments and explanations during the course of the interview, which could not be captured in the response categories.

### 3.5.2 Interview Guide

An interview guide was designed for each category of the KIs selected. The guide could not be uniformly administered to all the KIs, since specific information was being sought from particular categories of the informants as indicated in Table 2: 76. The KI interview guide sought to explore perceptions regarding the health care system in Uganda, including free health care, and the prospects of CHI as a strategy in increasing access to health care for rural households. The interview guides are contained in Appendix D (I-IX: 261).

### 3.5.3 Focus Group Discussion Guide

A Focus Group Discussion is a research technique that collects data through group interaction. The goal is to elicit participants' feelings, attitudes and perceptions about a selected topic (Puchta & Potter, 2006). FGDs can be used in an initial exploratory study for generating assumptions or in a final follow-up phase, which pursues exploratory aspects of the analysis. FGDs provide evidence about the differences and similarities in the participants' opinions and experiences as opposed to reaching such conclusions from post field experiences of separate statements or categorical responses from individual interviewees (Babbie & Mouton, 2001). The limitations of FGDs are that they seldom provide detailed opinions and experiences from individual respondents, and that there is less control about what is shared, thus requiring greater ingenuity on the part of the moderator. In this case, the FGD guide was designed as a follow-up instrument for generating further information to augment the data generated from the quantitative survey. As argued by Bailey (1994: 193), the FGDs complemented the survey by "*telling in more detail why respondents answered the way they did*" in the survey. The guide was used to solicit information from three main categories of community members, namely, members of the CHI scheme, non-members and scheme-drop-outs. Key sections of the guide included access to free (government) health care, enrolment in CHI – both the facilitative and inhibiting factors to enrolment), the design aspects of CHI and how these enhance or weaken its viability, and general recommendations on easing access to health care in a rural setting. The sample FGD guides are provided in Appendix C (1-3: 252).

### **3.6 Piloting the Research Instruments**

This phase involved piloting the household questionnaire as well as making contact with KIs and FGD participants who would later be considered for a full interview and discussions.

#### **3.6.1 Piloting the Questionnaire**

The household questionnaire was administered to 4 households in the district, which were not part of the sampled area of study. These households comprised 2 members and two non-members of the CHI scheme. The purpose was to identify any inconsistencies, vagueness and ambiguities in the design of the questions, and to gain a feel of how the respondents understood and reacted to the questions. Because of the pre-test and the reconnaissance meetings with the scheme administration, some sections were added to the questionnaire, for example, the relationship between CHI and microfinance institutions. In addition, some specific questions and response categories were refined in accordance with what the respondents during the pilot more easily understood.

#### **3.6.2 Setting up Contact with the Key Informants**

Informal discussions with selected KIs were held in order to test the interview guide and to set up appointments for in-depth interviews at a later stage. The KIs met through preliminary appointments included: the national coordinator for UCBHFA, which is the umbrella organisation for CHI schemes in Uganda; the country manager for Microcare, which is the implementer of the scheme that was studied; and the Senior Planning Officer from the MoH (the planning department is directly responsible for overseeing all CBHF activities in Uganda). The researcher also had an opportunity to attend a two-day annual general meeting of all CHI scheme managers and service providers. This provided an avenue for more informal collection of information about CHI in Uganda, which was used to refine the data collection tools.

#### **3.6.3 Mobilizing the FGD Participants**

This was done after the completion of the household survey and the initial analysis of the quantitative results. Two community guides helped to identify the potential participants based on pre-determined criteria for each of the three categories (see section 3.4.3: 76).

The respective dates and place of meeting for each category of participants were agreed upon and fixed with the participants. On the agreed dates, all participants travelled to the place of meeting, which was considered central and convenient for the majority.

### 3.7 Research Assistants

Research assistants were carefully selected, trained and employed to collect quantitative data alongside the principal researcher.

#### 3.7.1 Profile of Research Assistants

Four interviewers with some prior experience in interviewing and with a minimum of a University degree in social sciences or a related discipline were identified through a private research firm. A deliberate attempt was made to recruit interviewers who knew the local language in order to minimize misinterpretation of questions and responses. Table 3 shows the profiles of research assistants in terms of their gender, age, and qualifications, as well as the language spoken.

**Table 3: Profile of research assistants**

Research Assistant (RA)	Gender	Age	Qualification	Tribe/language spoken	Number of Interviews
RA 1-BT	Male	25	B(SWSA)	Rukiga	60
RA 2-MA	Male	26	B(ECON)	Rukiga	40
RA 3-CA	Female	21	BA (EDUC)	Rukiga	60
RA 4-LT	Female	45	BA (SS)	Rukiga	60
Researcher	Female	35	PhD candidate	Rukiga	40

#### Legend

*B (SWSA) Bachelor of Social Work & Social Administration (MA student)*

*B (ECON) Bachelor of Economics (MA student)*

*BA (EDUC) Bachelor of Education*

*BA (SS) Bachelor of Social Sciences*

#### 3.7.2 Training of the Research Assistants

The research assistants were trained by the researcher herself and oriented in the current research to make sure they understood the subject matter, the key objectives and research

questions, and the techniques of administering the questionnaire in such a way that vague or non-responses were minimized. As part of the training, the questionnaire was reviewed in detail in order to make sure that all the interviewers properly understood the questions and all the response categories. Role plays in asking questions and recording responses were conducted. This helped all the research assistants to gain a level ground on what was expected in the course of data collection. Only the household questionnaire was the object of training, since the RAs would only aid in the collection of quantitative data.

### **3.8 Data Collection Approach**

#### **3.8.1 Collecting the Quantitative Data Using the Questionnaire**

Quantitative data was collected with the use of a household questionnaire, with mostly pre-coded responses. The researcher, accompanied by all 4 research assistants, would collect data in each parish. One interviewer would interview individual household heads once. The interviewer would ask the questions and tick or fill in the appropriate response on the questionnaire. This was done because the literacy level in the study area was not adequate to permit the use of a self-administered questionnaire. The study hence realised some of the advantages of face-to-face interviews, such as a high response rate, opportunities to correct misunderstandings, and controlling for incomplete responses and answering sequences, all of which are common with self-administered and postal questionnaires (Oppenheim, 1992). Interviewer bias, which can easily arise from face-to-face interviews, was minimized through standardized questions, pre-coded responses and daily group editing to check for inconsistencies.

#### **3.8.2 Collecting the Qualitative Data**

Qualitative data was collected through FGDs, KI interviews and secondary data sources. The detailed process for each of these is discussed in the following sections.

##### ***a) Focus Group Discussions***

As indicated in Section 3.5.3: 78, three FGDs were held with community members in the study area to determine the views of scheme-members, non-scheme-members and

scheme-drop-outs of CHI. The discussions were held in one of the trading centres (Ndago parish), that was considered central to the participants' respective places of residence. The objectives of the study were explained in simple terms to the participants, and that this study was primarily for academic purposes. The aim of this was to minimize suspicions about the purpose of the research in order to create a free environment for discussion and to avoid raising any unrealistic expectations among the participants. The researcher acted as the moderator while an assistant took notes to back up the taped records. Because of the mixed gender of the participants, the moderator (a female researcher) deliberately selected a male note-taker in order to improve rapport, and enhance the freedom of participants of both sexes. The moderator made every effort to draw meaningful responses from all participants while at the same time not coercing anybody to answer any particular question. Though each individual was encouraged to participate actively, it was ultimately the views of the group rather than those of the individual participants that were of interest to the researcher. The nature of the discussion gave the moderator the necessary advantage to probe for details, while at the same time keeping the discussion focused on the key themes and objectives for the study. The moderator refrained from giving her personal opinions in order to avoid influencing participants to adopt any particular position about CHI and access to health care. All FGD proceedings were tape recorded in order to guard against loss of information or errors in recording by the note taker.

#### ***b) In-depth Interviews with Key Informants***

The researcher herself conducted all the in-depth interviews with the 12 key informants (KIs). Most of these in-depth interviews were conducted in the respective offices of the KIs, while a few were conducted in a private place on prior appointment with the KI, if the office did not provide a private, quiet environment. Tape recording was used in KI interviews with prior permission from the informant, to ensure that all information is captured. In a few cases, the KIs declined to be tape recorded, for instance, if they felt that their opinions and perceptions, especially about health care provisioning in Uganda, might not be considered *politically correct*. In such cases, the interviewer made an effort to write notes as the interview proceeded. Follow-up interviews to get clarification of some

information were done by either telephone or electronic mail with some KIs, and where possible a face-to-face meeting was rescheduled. This was particularly helpful after the initial analysis of the household data, where some findings needed to be clarified or a second opinion was deemed necessary.

A few difficulties were experienced with the in-depth interviews. Firstly, because some aspects of the research involved a review of a policy initiated by the present government, there were some political overtones in the responses from some KIs, for example, where informants refuse to perceive as positive anything to do with government. The researcher in this case made all possible effort to keep the interview as objective as possible in order to avoid bias in the information gathered. This required a lot of probing. Secondly, sometimes there were practical difficulties with arranging interviews because KIs “*tend to be ‘busy’ and often do not fulfil scheduled appointments*” (Asingwire, 2007: 84). Hence, although there were not many interviews, they turned out to be the most difficult technique of data collection in the researcher’s experience.

### *c) Secondary Data*

A review of relevant documents, some of them obtained through the KIs, was undertaken in order to capture information relevant to the research questions. An analysis of Uganda’s health policy was done in order to place the study of CHI in a proper context. Health sector policies, guidelines and sector performance reports were reviewed. Other key reports included the Uganda Demographic and Health Survey (2006) and the National Household Survey (2006), both of which provided crucial data for the background (context) information, but were also useful reference points during data interpretation and analysis. Documents specific to CHI were obtained from the UCBHFA secretariat and a few scheme documents. Newspaper articles relevant to the research questions were constantly but carefully reviewed as well and relevant aspects incorporated in the discussion of findings. The challenge faced particularly with regard to secondary data on CHI was that it was hard to come by and, some of it was largely contained in loose documents, making its use less credible.

### **3.8.3 Language Used**

The questionnaire was administered in *Rukiga*, which is the local language in the area of study. This is because the majority of the population in the study area have a low level of proficiency in the English language. All the research assistants as well as the principal researcher had a high level of proficiency in the local language, it being in fact their first language/dialect. Similarly, all FGDs were conducted and recorded in *Rukiga* and later the transcribed data was retranslated to English by the researcher herself. When interviewing the KIs, the researcher used the English language, since all of them were proficient in English.

### **3.9 Data Cleaning/Editing**

During data collection, data cleaning and editing was done to ensure consistency in the data collected and to fill in the gaps in the data where possible before leaving the field. The research team met at the end of each day during data collection, to edit the day's questionnaires. Particular emphasis was laid on completeness and consistency in the responses given for related questions. This on-going editing also allowed the researchers to identify areas for clarifying during subsequent interviews. At the end of the field work, the principal researcher re-edited all the questionnaires as a quality assurance measure before subjecting them to statistical analysis. In addition, the statistical data set was subjected to editing and cleaning in order to remove possible errors made during the data entry.

### **3.10 Data Analysis**

#### **3.10.1 Analysis of Quantitative Data**

Bivariate analysis was the major approach used for analysis, basing this on the descriptive design of the study. A computer assisted analysis was done using the Statistical Package for Social Sciences (SPSS evaluation version). A causal-comparative approach was used to establish the influence of household characteristics to membership of CHI schemes. One group of respondents comprised members of the health insurance schemes, while another comprised non-members of the scheme drawn from within the same geographical area (catchments) of an existing scheme (Kisiizi health insurance

scheme). Relationships between various population characteristics and access to basic health care through scheme membership were examined. Cross tabulations were used to compare households that are insured to households without insurance. Chi-square tests were done for selected variables to estimate the levels of significance of relationships between selected variables and enrolment in the CHI scheme. Other measures of association, namely, lambda and Cramm's V were used to estimate the strength and direction of the relationship between key variables. These are non-parametric measures, which were chosen because the data was mostly nominal and categorical. Thus, these tests were deemed more appropriate. Household and community-level factors were examined to draw conclusions on what factors are likely to influence the viability of a CHI scheme in a rural context.

### **3.10.2 Analysis of Qualitative Data**

Qualitative data analysis has been defined as a process, which entails an effort to identify themes formally and to construct hypotheses (propositional statements) as they are suggested by data and an attempt to demonstrate support for those themes and hypotheses (Bogdan & Taylor, 1975, cited in Tesch, 1990). Hence, for data from FGDs and KI interviews, thematic analysis was employed to identify emerging themes and sub-themes based on their level of recurrence within the data collected and in line with the key research questions. The data analysis followed the following procedure (Tesch, 1990)

- i. Data was transcribed from the tapes (recorded during the individual interviews and FGDs) and the transcripts printed out.
- ii. All the transcripts were read through to get a sense of the whole data set.
- iii. One transcript was taken and analysed critically in relation to categories and themes emerging from the whole set.
- iv. Using colour coding, categories and themes were grouped together
- v. An organizing system (framework) was developed, based on the research questions and the data collected.
- vi. Using the framework as a guideline, the findings were discussed (using actual quotes) in relation to the previous literature/conceptual framework.

In order to ensure in-depth analysis, qualitative data analysis was completed, the results interpreted and a separate draft report written. The same procedure was followed for the quantitative data set before finally integrating the findings. This had the advantage of thoroughness in analysis, and ensuring that no aspects of the study findings were submerged in the other. Instead, it provided a deeper and more meaningful analysis and discussion of the thesis.

### **3.10.3 Triangulation of Information**

Triangulation of information by data source was employed in order to improve on the reliability and richness of information gathered. Yin (2003a, b) argues that the most important advantage presented by triangulation (using multiple sources of evidence) is the development of converging lines of inquiry. Any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several different sources of information, following a corroboratory mode. Hence, data collected through the household survey, the FGDs, KIs, and secondary sources was linked together in order to arrive at concrete conclusions on the viability of CHI in increasing access to health care for rural households. The study findings are presented in an integrated manner in order to enhance better analysis and discussion.

### **3.11 Research Ethics**

Being ethical means conforming to accepted professional practices; as in any other field of study, ethics is also at the centre of any social science research. Strydom (in De Vos, 2002: 63) defines ethics as follows:

*A set of moral principles that are suggested by an individual or group, are subsequently widely accepted, and offer rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students. Ethical guidelines also serve as standards and as the basis on which each researcher ought to evaluate his own conduct.*

It is generally agreed that it is unethical for researchers to harm anyone in the course of research, whether emotionally or physically. The ethical issues highlighted by various authors (Bailey, 1994; Babbie & Mouton, 2001; De Vos, 2002) include, informed consent (voluntary participation of respondents) and no harm to the participants, anonymity and

confidentiality, avoiding deception of participants, objectivity in analysis and report writing, and ethical publishing practices. During the execution of this study, these key ethical issues were observed. As a crucial step in conforming to research ethics, clearance was sought and obtained from the relevant body in the country.

*a) Ethical Clearance*

Official permission to carry out the research was granted by the Uganda National Council for Science and Technology (UNCST)<sup>18</sup> after reviewing and approving the proposal (see Appendix A: 240). This letter also served as an introduction to the local district administration in Rukungiri district in order to gain entry into the community where the research was conducted.

*b) Informed Consent*

In the process of enlisting participants' consent, all the study participants were informed of how they had been selected. In particular, it was explained to them that the selection was not based on any prior knowledge about them as individuals or as members of their respective households, but rather that they had been selected by chance to provide views that would represent the entire community. The study design also involved purposive sampling of key respondents and FGD participants, which implies that there was pre-selection of respondents. Despite this, no respondents were coerced to participate in the study. The study objectives, the sample selection procedures and the role of the prospective respondents were clearly explained and consent sought from them. The interview proceeded only after and if the prospective respondent indicated their willingness to participate in the study. To encourage cooperation and consent, the researcher used the local council chairpersons of the areas as points of entry into the communities.

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<sup>18</sup> UNCST is the government body responsible for approving all research to be conducted in the country and for granting ethical clearance for the proposed research.

*c) Anonymity/ Privacy and Confidentiality*

To minimize harm to the respondents, their identities were protected and the respondents were informed beforehand of this practice. To ensure confidentiality, codes were used to track the interviews and questionnaires, instead of the actual names of the respondents. For KIs, in instances where the responses needed to be recorded verbatim, consent was sought from the respondent on whether or not they would agree to have their responses published, as well as the use of a voice recorder during the interviews. For respondents who declined to have their voice recorded, no such device was used.

*d) No Deception to the Participants*

The researcher's identity and the purpose of the research were clearly explained to the participants. This was made easier by the fact that no sensitive subject matter, procedure or method was involved. The respondents understood the nature of the research and how it would be used. To avoid any misinterpretation of the benefits of the research, it was made clear to the respondents that the study was not sanctioned by any particular government agency, and that thus there were no implicit expectations from the study, such as improvements or inauguration of health care projects in the area or more funding, as was the case with most government or corporate-sanctioned studies. The respondents understood that this research was mainly for academic purposes, and that the results could be used to improve service delivery in the future, if the responsible authorities chose to make use of the results.

*e) Actions and Competence of Researchers*

All the people involved in executing the study had the minimum qualification required to conduct research. The principal researcher was a PhD candidate under the continuous guidance of an academic supervisor. All the research assistants were university graduates in a social science or related discipline and had prior experience in research. They were mature enough to interview household heads, and their dress code was modest and fully aligned to the expectations of a rural community, where the study was conducted.

#### *f) Analysis and Report Writing*

Objectivity was maintained during data analysis and reporting. The data collected is not falsified or changed in any way beyond the necessary editing. All sources of literature or information consulted were properly acknowledged. Limitations of the study related to the sample and the design have been clearly spelt out. The researcher has maintained originality and has avoided all forms of plagiarism.

#### *g) Publishing Practice*

Any publication resulting from this study will be ascribed proper authorship that reflects those who have significantly contributed to the research project.

### **3.12 Limitations of the Study**

No single study can achieve total perfection. Hence, this study does have a number of limitations ranging from the design itself to data collection and analysis. The considered limitations and ways of minimizing their adverse effects on the study outcome are highlighted below.

#### *a) Study Design*

The main limitation of this study is associated with case study research in general, in other words, the degree of external generalisation of findings (Yin, 2003 a)<sup>19</sup>. The case study approach adopted implies that only one particular area and scheme was covered. The context in which the scheme was implemented as well as the multiplicity of other rural contexts in Uganda, may limit the extent to which the research findings can be generalized. A comparative survey of more CHI schemes could provide a basis for more concrete conclusions on the viability of CHI as a strategy in accessing health care. An attempt was made to refer to documented reports on other schemes in different parts of the country in order to gain an objective understanding and analysis of CHI in Uganda. Nonetheless, the study provides significant theoretical insights into CHI and access to health care.

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<sup>19</sup> Yin (2003 a) distinguishes between internal generalization and external generalization. The former refers to the generalisation of a conclusion within the setting or group studied. The latter refers to generalisation beyond a particular setting or group.

### *b) Data Collection*

Although a household questionnaire was used to gather information on the key variables and characteristics of respondents, information pertaining to household income was not obtainable. This was because the study population was predominantly subsistent, with no monthly income or expenditure records. The information on household income would be essential to determine which income groups are more or less likely to join CHI. As a proxy, household assets ownership, such as land, radios, bicycles, motorcycles and motor vehicles, mobile telephones, farm animals and the type of dwelling, were used to estimate the socio-economic/welfare status of households. Such estimations have been used at national level surveys (UDHS, 2006; UBOS, 2007) and by individual researchers in different contexts (Schellenberg et al, 2003; Worrall et al, 2005; Chitama, 2007), yielding valid results.

Some information, particularly that pertaining to the current financial status of the scheme under study, could not be easily obtained. This should have been crucial in determining the financial efficiency and sustainability of the scheme. However, it was possible to determine the cost recovery trends in terms of treatment cost as a percentage of the total amount of premiums collected, which helped the researcher to draw conclusions on the financial performance and sustainability of the scheme.

### *d) Data Analysis*

The quantitative data analysis was mainly descriptive. An attempt was made to correlate variables but no predictions of cause-effect relationships can be claimed. This is because most of the variables used were nominal and these limited the use of parametric measures. However, this limitation was minimized by triangulating the survey findings with the information from the Focus Group Discussions, Key Informants and secondary sources. This strengthened the thesis on CHI and access to health care for rural households.

### **3.13 Summary**

The research methodology presented in this chapter provides a context for the presentation and discussion of findings in the following chapters. Essentially, the study employed a mixed methodology approach within a case study design. This allows for the triangulation and corroboration of research findings. While bivariate analysis using SPSS was used to analyse quantitative data, thematic and content analysis was used to analyse qualitative data. The findings are presented in an integrated manner with quantitative and qualitative findings being presented and discussed concurrently. The next four chapters (4, 5, 6 and 7) present the study findings.

University of Cape Town

## CHAPTER FOUR

### ACCESS TO HEALTH CARE: OPPORTUNITIES AND CONSTRAINTS

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#### 4.1. Introduction

This chapter examines the level of access to health care in the study area, laying particular emphasis on access to free health care. The findings are linked to questions 17 to 37 (Sections C and D of the questionnaire – Appendix B: 243). They respond to objective 1 of the study, which aimed to ascertain the facilitative/impeding factors affecting access to free health care in the rural areas in Uganda. The underlying assumption was that there are obstacles to accessing free health care and that these partly account for people's enrolment in CHI, as one of the attempts to improve their access to health care. As stated in the previous chapter (Section 3.10.3: 86), the approach adopted for presenting the findings is triangulation, where findings from various data sources are integrated. The quantitative findings are presented and then compared and contrasted with findings from the qualitative and secondary data sources. Further, the findings are discussed in light of the theoretical underpinnings of the study as well as related literature. A summary of key findings is presented at the end of the chapter.

##### 4.1.1 Profile of Respondents

First, a brief profile of all the respondents is presented in order to contextualise the findings. A more detailed profile will be presented and discussed in Chapter 5, which delineates the characteristics of households that enrol in CHI schemes or not.

**Table 4: Selected characteristics of household respondents**

(N=260)

Profile	n	%
<b>Enrolment status</b>		
Scheme-member	130	50
Non-scheme-member	130	50
<b>Age of household head</b>		
18-24	5	1.9
25-29	31	11.9
30-34	37	14.2
35-39	47	18.1
40-44	42	16.2
45-49	33	12.7
50 and above	65	25.0
<b>Sex of household head</b>		
Male	219	84.2
Female	41	15.8
<b>Marital status</b>		
Single	8	3.1
Married	216	83.1
Separated/ divorced	6	2.3
Widowed	30	11.5
<b>Highest level of education completed</b>		
None	23	8.8
Primary	138	53.1
Secondary <sup>20</sup>	52	20.0
High school <sup>21</sup>	6	2.3
Vocational	11	4.2
Tertiary level	30	11.5
<b>Main occupation</b>		
Peasant farmer <sup>22</sup>	160	61.5
Petty trader/Small scale enterprise	44	16.9
Formal salaried employment <sup>23</sup>	26	10.0
Others <sup>24</sup>	30	11.5

Half of the respondents were members of the CHI scheme while the other half was non-members. A quarter (25%) of all respondents was aged 50 years and older. According to the UDHS (2006), the population distribution in terms of the rural-urban divide is such that older adults are more likely to be found in the rural areas than in the urban areas

<sup>20</sup> The secondary level is also known as the ordinary level of education. It is the level immediately after the primary level, takes 4 years and involves introducing students to numerous arts and science subjects without much specialization.

<sup>21</sup> High school is also known as the advanced level of education. It is a two-year study period preceding the tertiary (University or college) level of education.

<sup>22</sup> A peasant farmer is one whose primary focus is subsistence. He/she only sells excess produce after meeting the household's basic food requirements.

<sup>23</sup> The specific categories reported under formal employment included: teaching service, health worker and political/public administration.

<sup>24</sup> The category 'others' mainly included pit-sawing, builder, tailor, casual labourer and others.

(UBOS & Macro International, 2007). Younger adults migrate to urban centres in search of jobs.

With regard to sex, the majority of household heads are male (84.2%). This is explained by the fact that Uganda is a patriarchal society. Household-headship is automatically attributed to the man, *“who was responsible for its existence, by constructing the house and by marrying the woman or women therein and thereby establishing the family”* (Ssali, 2003: 188). As a result, he is the owner and head of the family. This pattern can only change in the absence of an adult male (husband) in the household. This explains the small number of female heads of households who in this study were commonly characterized by being widowed, separated or divorced.

More than a half of all respondents (53.1%) had attained only a primary level of education, while only 11.5% had received tertiary education. This affects the nature of employment they can obtain, as well as their ability to access and understand up-to-date information on pertinent issues, such as innovations in health and wellbeing. Access to information in turn affects the ability to make informed decisions such as whether or not to join a CHI scheme.

The main occupation of the majority of respondents (61.5%) was peasant farming. This also formed the major source of income for the households. Engagement in peasant farming implies an unstable and seasonal income, which makes it hard for such households to meet their basic needs, including health care. Only 10% of all respondents were engaged in formal salaried employment as teachers, health workers or local public administrators, among others.

The study also involved conducting three Focus Group Discussions (FGDs) with the community members. Their basic characteristics are presented in Table 5.

**Table 5: Profile of participants in the Focus Group Discussions**

	Scheme-members	Non-scheme-members	Scheme-drop-outs	Total
	n	n	n	n
<b>Sex</b>				
Male	6	3	3	12
Female	2	3	3	8
Total	8	6	6	20
<b>Age</b>				
Under 30	0	3	0	3
30-34	2	0	1	3
35-39	2	2	3	7
40-44	2	0	2	4
45 and above	2	1	0	3
Total	8	6	6	20
<b>Education level</b>				
None	0	0	0	0
Primary	4	3	3	10
Secondary	4	3	3	10
Total	8	6	6	20

Most of the participants in the three FGDs were male (12) and aged between 35 and 39 years (7). None of the participants had attained a tertiary level of education. While this was partly deliberate in order to comply with the principle of homogeneity and free participation in FGDs (De Vos, 2002), it also reflects the pattern in the general population, where only a minority have attained tertiary level of education (Table 4: 93).

Other sources of information were Key Informants (KIs) selected from the Public, Private-Not-For-Profit (PNFP), Private-For-Profit (PFP) and the traditional sectors. Twelve KIs were interviewed. Their basic descriptions are summarised in Table 6.

**Table 6: Twelve key informants interviewed**

Sector	Designation of Persons Interviewed
Public Sector (Government) (3 persons)	<ul style="list-style-type: none"> <li>• Senior Health Planner – Ministry of Health</li> <li>• Senior Health Educator – District Directorate of Health Services (DDHS), Rukungiri district</li> <li>• Health Centre III In-charge (Clinical officer): Kisiizi health centre, Rukungiri district</li> </ul>
PNFP Sector (6 persons)	<ul style="list-style-type: none"> <li>• Country Manager: Microcare</li> <li>• PHC Specialist: Microcare</li> <li>• National Coordinator: UCBHFA</li> <li>• Scheme-Manager: Kisiizi Health Insurance Scheme</li> <li>• Field worker: Kisiizi health insurance scheme</li> <li>• Hospital Administrator: Kisiizi hospital</li> </ul>
PFP Sector (2 persons)	<ul style="list-style-type: none"> <li>• Private Medical Practitioner (Accredited private insurance service provider) Rukungiri district.</li> <li>• Clinical Officer - (In-charge): Private clinic, Rubabo County, Rukungiri district</li> </ul>
Traditional Health Sector (1 person)	<ul style="list-style-type: none"> <li>• Executive Director: THETA</li> </ul>

The mix of KIs from all major sub-sectors in the health sector (Section 1.2.4: 9) strengthened the validity of the findings by avoiding the bias of self-reporting. Government has the overall stewardship of the health sector, although CHI schemes are currently being implemented almost exclusively through the PNFP sector. Other sub-sectors like the PFP and the traditional sectors also influence access to health care, and therefore their views were deemed crucial for a balanced and objective analysis.

#### 4.1.2 Presentation and Discussion of Findings

A number of factors influence access to health care, namely, geographical availability of services, financial affordability for the cost of the services, social factors such as social inclusiveness in accessing services, as well as people’s willingness to utilize the services (health seeking behaviour) (Andersen, 1995). As a precursor to access to health care, the study estimated the level of illness among the respondents, as well as their health seeking behaviour. The common sources of health care are presented, and the level of use of government’s free health services highlighted. The factors affecting access to government’s free health care are then examined. This forms a context for assessing the viability of CHI later in this report. The chapter also briefly examines the level of use of traditional healers. This is based on the assumption that a high usage of traditional healers may undermine the successful adoption of formal health care.

## 4.2 Level of Illness and Health Care Seeking Patterns

The level of illness among the population will legitimize the need for health services. Conversely, health-seeking behaviour reflects the demand for health services by the population. Both of these factors are precursors for evaluating the level of access to health care.

### 4.2.1 Level and Common Causes of Illness

Respondents were asked if they had fallen sick during the six months preceding the survey. The cause of illness was also explored. The results are shown in Table 7.

**Table 7: Level and cause of illness among respondents**

	CHI enrolment status				Total		Significance (p-Value)	Lambda <sup>25</sup>	Cramer's V <sup>26</sup>
	Member		Non-member						
	n	%	n	%	n	%			
<b>Have you fallen sick in the last 6 months?</b>									
Yes	62	47.7	74	57.4	136	52.3	.136	.092(.302)	.092 (.136)
No	68	52.3	56	42.6	124	47.7			
Total	130	100.0	130	100.0	260	100.0			
<b>Cause of illness</b>									
Malaria	27	43.5	50	67.6	77	56.6	.005*	.242 (.023)	.330 (.005*)
Others <sup>1</sup>	23	37.1	13	17.6	36	26.5			
Respiratory Tract Infection	5	8.1	9	12.2	14	10.3			
Accident	5	8.1	0	.0	5	3.7			
Diarrhoea	2	3.2	2	2.7	4	2.9			
Total	62	100.0	74	100.0	136	100.0			

*1 Other conditions most commonly reported include ulcers, asthma, hypertension, headache, child delivery, urinary tract infections, routine HIV/AIDS check up and others.*

*\*The chi-square statistic is significant at the 0.01 confidence level. Approximate significance of the value in parentheses is based on chi-square tests*

*Source: Field data, September 2007*

<sup>25</sup> Lambda is a statistical test used to measure the Proportionate Reduction in Error (PRE) that is achieved when membership of a category of one variable is used to predict category membership on the other variable. The values range from 0 to 1, with 1 representing a perfect prediction of one variable by another (Field, 2000).

<sup>26</sup> Cramer's V measures the strength of association between two categorical variables. The values range from zero to 1. The closer to 1 a value is, the stronger the association between the variables (Field, 2000).

The findings indicate a high level of illness, with more than a half of all respondents reporting an episode of illness in the six months preceding the survey. Similarly, 76% of all respondents reported that a member of their household had fallen sick during the same period (Table 25, Appendix E: 278). There were no significant differences in the prevalence and cause of illness of other household members between scheme-members and non-scheme-members. However, household respondents (who were mainly male) showed a different pattern, with non-members of the CHI scheme (57%) more likely to report an illness than scheme-members (48%). The most commonly reported cause of illness was malaria<sup>27</sup> (56.6%). This was higher among non-scheme-members by 24%. The chi-square test ( $p=0.005$ ) and other measures of association (Lambda: 0.242; Cramer's V: 0.330) indicate a significant though moderate relationship between the cause of illness and enrolment status. Qualitative information also suggested that malaria was less prevalent among scheme-members than among non-scheme-members. The scheme administration attributed the trend to the preventive measures being undertaken to reduce the incidence of common infections such as malaria and diarrhoea among the members.

*There are other preventive health care programs. For example, last year Microcare gave out subsidized ITNs [Insecticide Treated Nets]. We have also been promoting safe drinking water among the community members by providing water purification kits to member households at a subsidized cost. There is also ongoing health sensitization among the members (Scheme Manager, September 2007).*

The objective of the preventive health care programmes is to reduce disease episodes among scheme-members as part of a cost reduction strategy for the scheme. In a United Nations (UN) report, *Innovations for Sustainable Development* (UN, 2008), Microcare reveals that the preventive health care interventions are not only intended to reduce claim costs but also to overcome one of the difficulties associated with insurance, i.e. a lack of product tangibility. It is believed that when clients have received tangible items such as ITNs and jerry-cans with water purification tablets or benefited from health education sessions, they are more likely to feel that they have gained from the insurance program, even if they have not fallen ill and lodged an insurance claim. Hence, the scheme would

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<sup>27</sup> Malaria is endemic in 95% of Uganda and it is the leading cause of morbidity and mortality. Rukungiri district is ranked among the areas with very high prevalence of malaria (UBOS, 2006).

remain relevant and attractive to the community. This is consistent with other arguments advanced for tangible demonstrations of benefits of insurance (Tabor, 2005). Notwithstanding the marketing intentions of the preventive health program, it can be deduced from this section that membership in a CHI scheme has the potential to reduce the incidence of morbidity.

#### 4.2.2 Health Care Seeking Patterns

Respondents who reported an illness episode were asked to state if they had sought medical attention. The purpose of asking this question was to determine the level of utilization of formal health care, since the relevance of CHI hinged on this. The sources of health care for the last illness episode as well as the reasons for the choice of that particular source were also investigated. Table 8 indicates the health seeking patterns among respondents.

**Table 8: Healthcare-seeking patterns among respondents**

	CHI enrolment status						Significance (p-value)	Lambda	Cramer's V
	Member		Non-member		Total				
	n	%	n	%	n	%			
<b>Sought any form of treatment or health care for last illness episode</b>									
Yes	61	98.4	69	93.2	130	95.6	.146	-	.125 (.146)
No	1	1.6	5	6.8	6	4.4			
Total	62	100.0	74	100.0	136	100.0			
<b>Source of care for last illness episode</b>									
PNFP hospital	45	73.8	20	29.0	65	50.0	.001*	.410 (.001*)	.489 (.000*)
Private health facility	10	16.4	14	20.3	24	18.5			
Government health centre	4	6.6	21	30.4	25	19.2			
PNFP health centre	1	1.6	6	8.7	7	5.4			
Other	0	.0	5	7.2	5	3.8			
Government hospital	1	1.6	3	4.3	4	3.1			
Total	61	100.0	69	100.0	130	100.0			
<b>Reason for the choice of health care source</b>									
Proximity	18	29.5	30	43.5	48	36.9	.000*	.492 (.000*)	.613 (.000*)
Insurance benefit	30	49.2	0	0	30	23.1			
Good quality care	10	16.4	18	26.1	28	21.5			
Cost of care	1	1.6	13	18.8	14	10.8			
Others	2	3.3	8	11.6	10	7.7			
Total	61	100.0	69	100.0	130	100.0			

\*The chi-square statistic is significant at the 0.01 confidence level

Approximate significance of the value in parentheses is based on chi-square tests

Source: Field data, September 2007

*a) Level of formal health care seeking*

Almost all of the people who fell sick sought formal health care, with only one scheme-member and five non-scheme-members reporting that they did not seek medical attention. The figures do not show any significant differences in health seeking patterns between members and non-members of the CHI scheme. However, the qualitative investigation suggested a reduction in patient delay for the members of the insurance scheme:

*Scheme-members tend to report early for treatment since they know that they will not have to pay. This has even improved the management of conditions on the part of the health workers (Hospital Administrator, September 2007)*

*The conditions the members and non-scheme-members report to hospital in are different. Members will report for medical attention when they are not badly off. Non-scheme-members report with severe conditions because they wait at home – they have to first look for money or even hope that they can get better without seeking serious medical attention (Scheme Manager, September 2007)*

The key explanation is that membership in a CHI scheme reduces the burden of OOP payments for health care, which have been known to discourage health care seeking especially among the poor (Section 2.3.2: 34). Hence, while the study did not find significant differences in formal health care seeking between members and non-members of the CHI scheme (Table 8: 99), membership in CHI was often associated with timely treatment seeking behaviour, which is essential for the general health of the individual and the population. The findings are consistent with previous studies investigating CHI (Derriennic et al, 2005; Schneider & Hanson, 2006). Schneider and Hanson (2006) found that in Rwanda, insured persons reported less delay in care-seeking and were as a result less severely ill than the uninsured.

*b) Sources of health care for the last illness episode*

The PNFP hospital was the most common source of health care for those who reported an illness episode (50%). Other sources of care included the government health centre (19.2%) and the PFP health facility (18.5%). While the majority (73.8%) of scheme-members sought care from the PNFP health facility (an expected finding since the scheme operates in the PNFP sector), the non-scheme-members' choice was almost equally

divided between the government health centre (30.4%) and the PNFP hospital (29%). The major reasons given for the choice of health care included proximity (36.9%), insurance benefit (23.1%) and good quality care (21.5%). These factors have been reported in related studies on health seeking behaviour (Reinikka & Svensson, 2003, 2006; Lawson, 2004). The choice of the health care source as well as the factors considered for that choice are significantly associated with enrolment status ( $p=0.001$ ,  $p=0.000$  for source of care and reasons respectively). A detailed discussion on the factors that influence the choice of the health care source is presented in Section 4.5: 105 of this report.

### 4.3 Geographical Access to Health Care

Both the distance to the health facility and the means of transport available contribute to the opportunity cost of seeking health care. It is presumed that the probability of seeking formal health care would increase if the health services were nearer to the people (Amaghioniodwe, 2008). Access to health services in turn partly determines the viability of health interventions including CHI. Even if the idea of CHI was acceptable, but the facility was not accessible; it would discourage many households from enrolling in such a scheme. Acceptable geographical access to health facilities is defined as living within a 5-kilometre or a one hour walking distance from a health facility (Parker et al, 2006). Table 9 shows the estimated distance and the common means of transport to the health facility among the respondents.

**Table 9: Geographical access to any level of health facility**

	CHI enrolment status					
	Member		Non-member		Total	
	n	%	n	%	n	%
<b>Distance to nearest health unit from your home?</b>						
Less than 1 km	40	30.8	62	48.1	102	39.4
1-2 km	44	33.8	32	24.8	76	29.3
3-5km	44	33.8	30	23.3	74	28.6
More than 5 km	2	1.5	6	3.9	8	2.7
Total	130	100.0	130	100.0	260	100.0
<b>Means of transport to the health facility</b>						
Foot	103	79.2	106	81.5	209	80.4
Motor vehicle (public)	13	10.0	7	5.4	20	7.7
Motorcycle	8	6.2	10	7.7	18	6.9
Bicycle	5	3.8	6	4.6	11	4.2
Others	1	.8	1	.8	2	.8
Total	130	100.0	130	100.0	260	100.0

Source: Field data, September 2007

Almost all respondents live within a 5-kilometre distance to the nearest health facility, with close to 40% living within a distance of less than 1 kilometre to the nearest health facility. This compares well with the national average, where 63% of the population live within a 5-kilometre distance to the nearest health facility (UBOS, 2006). The reduced distance is attributed to government's recent developments in the health system, where health centres are being constructed in the communities, right from the parish to the constituency level. Although the distance to the health facility may have been reduced, it still has to be evaluated in terms of the quality of the roads and the means of transport available for the sick to travel to the health facility (Hardeman et al, 2004). The study findings indicate that the most common means of transport to the health facility is by walking (80.4%). This can pose challenges for the effective utilization of health care because it introduces other costs of travel time and energy on the part of the sick person.

#### **4.4 Usual and Preferred Source of Health Care**

While the majority of respondents (46.5%) indicated that the nearest health facility to their homes was a government HC-III, (Table 30, Appendix E: 278), the usual source of health care for most of them (63.5%) was a PNFP health facility (either a hospital or a health centre). The findings indicate low preference and utilization of government health facilities, as shown in Table 10.

**Table 10: Usual and preferred sources of health care for households**

	CHI enrolment status						Significance (p-value)	Lambda	Cramer's V
	Member		Non-member		Total				
	n	%	n	%	n	%			
<b>Usual source of health care</b>									
PNFP Hospital	99	76.2	38	29.2	137	52.7	.000*	.469 (.000*)	.510 (.000*)
Government health centre	9	6.9	49	37.7	58	22.3			
Private clinic	8	6.2	24	18.5	32	12.3			
PNFP health centre	14	10.8	14	10.8	28	10.8			
Government hospital	0	.0	5	3.8	5	1.9			
Total	130	100.0	130	100.0	260	100.0			
<b>Preferred source of health care</b>									
PNFP health facility	113	86.9	96	73.8	209	80.4	.003*	.131 (.016)	.212 (.003*)
Private health facility	16	12.3	21	16.2	37	14.2			
Government health facility	1	.8	12	9.2	13	5.0			
Private drug shop	0	.0	1	.8	1	.4			
Total	130	100.0	130	100.0	260	100.0			

\*The chi-square statistic is significant at the 0.01 confidence level

Approximate significance of the value in parentheses is based on chi-square tests

Source: Field data, September 2007

The greatest majority of scheme-members (76.2%) seek care from the PNFP hospital, while more than a third of non-scheme-members (37.7%) usually seek care from a government health centre. The chi-square tests indicate a significant relationship between the usual source of health care and enrolment status ( $p=.000$ ). The strong relationship is further indicated by the high value of both Lambda (0.469) and Cramer's V (0.510). This question was pressed further to determine respondents' health care preferences, since the usual source of health care might not be the preferred choice of health care for a household. In this regard, a significant majority of both scheme-members (86.9%) and non-scheme-members (73.8%) mentioned the PNFP health facility as their preferred source of health care. This is followed by the PFP health facility and the government health facility respectively. In contrast to the usual source of health care, the directional and symmetric tests (Lambda: 0.131; Cramer's V: 0.212) do not indicate a strong relationship between the preferred source of health care and enrolment in the CHI scheme. This implies that there are no significant differences in provider-preferences

between members and non-members of CHI. Both categories have a very high preference for the PNFP health facility compared to the government health facility, as confirmed in the FGDs.

*Kisiizi hospital is a mission hospital. This is where you can get proper treatment. At least there is availability of equipment and other things to use. We go to government when we have no money to pay at Kisiizi... It is not because we want to go to government health centres (Non-scheme-members' FGD, April 2008)*

Although it is possible to link the high preference for the PNFP health facility to the absence of a government owned hospital in the area, other studies done in different parts of the country have consistently indicated that PNFP facilities at all levels are preferred to the government health facilities. For example, Reinikka & Svensson (2003, 2006), noted that PNFP and PFP health facilities provide better quality care than their government counterparts. The PNFP facilities were in turn more likely to provide pro-poor services and services with a public good element and to charge lower prices for services than for-profit units. This would explain the high preference for PNFP health facilities among the population.

Whereas 73.8% of non-scheme-members mentioned the PNFP health facility as their preferred source of health care, interestingly, more than a third of them indicated that they usually seek care from the government health facility. This confirms the earlier assumption that the usual source of health care for a household was not necessarily their preferred choice of care. Conversely, while it is possible to link the high utilization of hospital services by scheme-members (76.2%) to better access (Criel & Kegels, 1997), it may also signify an unnecessary use of tertiary level (hospital) services by virtue of the fact that they are insured. This can contribute to inefficient use of resources in the health system as a whole (Wiesmann & Jutting, 2000; Khetrapal, 2004). Wiesmann and Jutting (2000) have argued that if no referral is required for the use of higher-level services, many people will prefer to go directly to the hospital because they expect the quality of care to be superior there. Opinions from the FGDs, however, indicated that scheme-members might be willing to use lower level services that were in some instances closer to the households.

*They should allow us to go to available nearby health centres so that we only go to Kisiizi if the health centres cannot handle the problem or if one needs admission or in case of complicated illnesses like those needing operations (Scheme-members' FGD, April 2008)*

The practice of seeking secondary level services was in this case mainly related to the design of the scheme, where currently only one provider (a hospital) was listed for use. Minor ailments that could have been handled at PHC level are reported at the hospital, undermining the efficient use of services and leading to overcrowding. In the end, this may affect the viability of the insurance scheme since over-use of services also has the potential to escalate costs.

#### **4.5 Factors that Influence the Choice of the Source of Health Care**

Responses with regard to the source of health care were cross-tabulated with reasons for the choice of that source by enrolment status of the respondent. For each source of health care, the reasons given by respondents for choosing it were examined. This was intended to streamline the inherent strengths in each type of health care provider, which in turn could be used to evaluate the system. Four key reasons were considered, namely, proximity, insurance benefit, good quality care and the cost of care. The insurance benefit was exclusive to the scheme-members and the PNFP health facility. Conversely, the cost of care was related to low cost or affordability in the government health care system. Table 11 shows the findings.

**Table 11: Reasons for the choice of health care for the last illness episode**

Source of Health care	Reason	CHI enrolment Status				Total	
		Member		Non-member		f	%
		f	%	f	%	f	%
PNFP health facility	Proximity	8	17.4	11	42.3	19	26.4
	Good quality care	8	17.4	13	50	21	29.2
	Insurance benefit	30	65.2	0	0	30	41.7
	Others	0	0	2	7.7	2	2.8
	Total	46	100	26	100	72	100.0
Private health facility	Proximity	7	70	6	42.9	13	54.2
	Good quality care	1	10	2	14.3	3	12.5
	Cost of care	2	20	4	28.6	6	25.0
	Others	0	0	2	14.3	2	8.3
	Total	10	100	14	100	24	100.0
Government health facility	Proximity	3	60	12	50.0	15	51.7
	Cost of care	0	0	10	41.7	10	34.5
	Others	2	40	2	8.3	4	13.8
	Total	5	100	24	100	29	100.0
Other	Proximity	0	0	2	40	2	40.0
	Cost of care	0	0	1	20	1	20.0
	Others	0	0	2	40	2	40.0
	Total	0	0	5	100	5	100.0

Source: Field data, September 2007

Scheme-members cited the insurance benefit, proximity and good quality care as the reasons for visiting the PNFP health facility. The non-scheme-members who visited a similar facility cited good quality care and proximity as the key reasons. However, proximity was a key influence in choosing the government health facility for both scheme-members and non-scheme-members (60%, 50% respectively). A significant proportion of non-scheme-members (41.7%) also mentioned the cost of care as a key factor in seeking government health services. This was underscored in the qualitative data.

*There is no fear of the cost. When you go to a big hospital, they can give you a bill of even 900,000 Uganda shillings (Ug.shs). So if you know that you do not have that money you try the government health centres. If they have drugs, they will give them to you. If they are not there, you go back home and buy them from shops or clinics. We go to government health centres because we do not have money to access a better alternative (Non-scheme-members' FGD, April 2008)*

Thus, government health services can serve as a safety net for the poor since there will always be a category of the population who cannot afford private health care at all.

Respondents who reportedly used PFPs cited proximity (54.2%), the cost of care (25%) and good quality services (12.5%) respectively as the key considerations. They reported that proximity and the cost of care were often better than those of PNFP health services. Furthermore, the quality of care in these (PFP) facilities was considered better than that offered by government health services. The qualitative findings also confirmed this:

*Kisiizi is far and there are costs associated with going there, especially transport...If you have an emergency, you go to the clinic because they are nearer and faster. At Kisiizi you can be delayed...When you calculate, you find that you are losing productive time. This also is forcing even scheme-members to seek care from private clinics. Instead of spending the whole day at Kisiizi, I would rather spend some money and get treatment from the clinic, go back home and do some productive work (Scheme-members' FGD, April 2008).*

*We go there (private clinics) because unlike government health centres, these clinics test the blood and tell you what you are suffering from. In case you are not responding to the treatment, they change and put you on other forms of treatment (Non-scheme-members' FGD, April 2008)*

From the aforementioned, one could conclude that the most predominant consideration for the choice of a health care source was the quality of care. From qualitative data, it appears that good quality services were often interpreted to mean availability of health personnel, drugs, and diagnostic/laboratory services<sup>28</sup>. Quality was also frequently linked to the quick recovery of the patient. The PNFP hospital was thus preferred because, *"they treat me and I recover faster. I therefore do not waste time first going to the government health centre"* (Non-scheme-member, Nyarushanje sub-county, September 2007). The findings confirm an earlier argument by some researchers (Alderman & Lavy, 1996; Nabyonga et al, 2005) that people are willing to pay for services if they feel they are getting good services. However, this willingness to pay does not always mean an ability to pay (Whitehead et al, 2001; Deininger & Mpuga, 2004), which is why there are often differences between the preferred and the usual source of health care as shown in this study (Section 4.4: 102).

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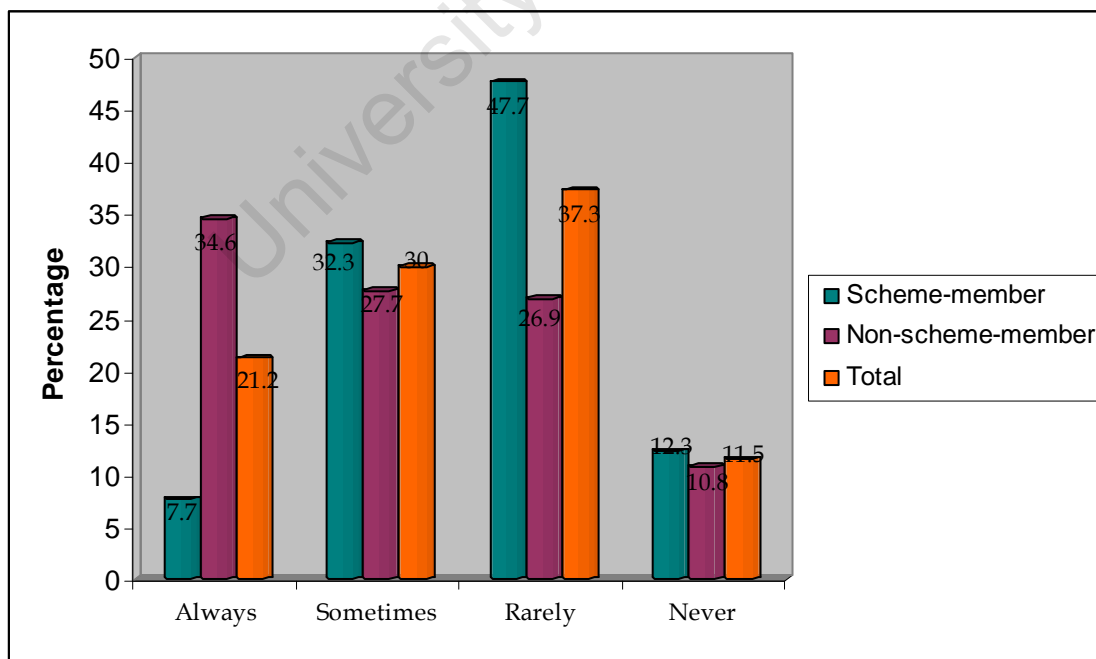
<sup>28</sup> Community perceptions of quality cannot be ignored since they have been shown to accord well with the technical evaluations of quality of care (Ensor & Cooper, 2004).

Another key consideration in the choice of the source of health care is proximity, which was prominently mentioned with regard to government health facilities. These findings indicate that, even though the government health system is credited with facilities that are closer to the people, households prefer to seek care from a source where they hope to get better services. Earlier studies on health care utilization (Akin & Hutchinson, 1999; Adhikari, 2006) have shown that sometimes the ill will bypass a free or subsidized public health facility in favour of an alternative source, which has better quality care.

#### 4.6 Level of Use of Government Health Services

This study investigated a strategy that requires households to pay for health in the context of free health care by the government. The study therefore sought to estimate the level of utilization of government health services among rural households, as well as to identify the facilitative and impeding factors in accessing free health care in order to contextualize the discussion on CHI. Respondents were asked how often they utilized the government health facilities. Figure 8 summarises these findings.

**Figure 8: Level of use of government health services**  
(N=260)



Source: Field data, September 2007

Only 20% of all respondents said they always used the government health services, while a third of them rarely used these services. As expected, non-scheme-members were more likely to report a regular use of government health services (34.6%) than scheme-members (7.7%). It is worth noting that, even among non-scheme-members there is a considerably low use of government health facilities, with 27% and 10.8% reporting that they rarely or never used the services respectively. This was also reflected in the subjective opinions of the respondents about the inadequacy of government health services:

*It is the helpless who go to government health centres. There are no services there (Non-scheme-member, Kacence Parish, Nyakishenyi Sub-county, September 2007)*

Previous research has shown that utilization of public health services increased especially for the poor after the abolition of user fees in 2001 (Mpuga, 2002; Burnham et al, 2004; Deininger & Mpuga, 2004, Nabyonga et al, 2005; Meessen et al, 2006; Yates et al, 2006). However, other studies (World Bank, 2003; Burnham et al, 2004; Xu et al, 2005; Poirier, 2006; Uganda, 2007a; Kyomugisha et al, 2008) indicate that this has not resulted in effective access to the services. Research by Burnham et al (2004), which reported an increase in utilization of outpatient services immediately after the introduction of free health care, interestingly also indicated a dramatic decrease in utilization after October 2001 (just seven months into the era of free health care policy). The results are also consistent with those contained in two key government publications, namely, the NHS, 2005/2006 (UBOS, 2006) and the Annual Health Sector Performance Report (AHSPR), 2006/2007 (Uganda, 2007a), both of which reported that the majority of people were still seeking care from private service providers and that attendance in public health facilities had stagnated or even declined. This may signify disillusionment with the public health services. It also indicates that health care is actually not free, since the majority of households are not accessing the government provided services.

The following sections examine the perceived opportunities and constraints in accessing Uganda's free health care; as provided through the government health facilities.

#### 4.6.1 Facilitative Factors (Opportunities) in Accessing Free Health Care

All respondents, despite their level of utilization of government health services, were asked to identify what they perceived to be the facilitative factors in accessing government health services. Their responses are indicated in Table 12.

**Table 12: Facilitative factors in the use of the government health services**

		CHI enrolment status				Total	
		Member		Non-member			
		n	%	n	%	n	%
What makes it easy to use the government health services?	Free services	68	52.3	84	64.6	152	58.5
	Proximity	23	17.7	10	7.7	32	12.3
	Others+	15	11.5	11	8.5	26	10.0
	Good quality services	4	3.1	7	5.4	11	4.2
	Nothing*	20	15.4	18	13.8	38	14.6
	Total	130	100.0	130	100.0	260	100.0

+Other factors mainly included: drugs for minor illnesses, lack of money to seek private health care, and lack of a viable alternative in an area.

\*Some respondents denied that there is anything 'easy' in accessing government health services and so they did not identify any facilitative factors.

Source: Field data, September 2007

Two major issues were identified as positive opportunities/facilitative factors for accessing government health care, namely, free health care and proximity. Only 4.2% mentioned good quality care. The FGDs highlighted similar findings:

*Because the health centres are closer, sometimes I attempt to go there-when the sickness is not serious...sometimes they provide simple treatment for malaria and they also distribute condoms...there are other simple drugs like panadol [a pain killer], if it's there, they give it to you. (Scheme-members' FGD, April 2008)*

Some KIs described the service as better than having nothing, arguing that when the drugs are available these services could help the poor.

*Government has the physical structures right from Health Centre II at parish level up to Health Centre IV. If you talk in terms of existence of structures, the households would be having access to health facilities. But there are serious problems that in effect render the services hard to access. Still the poor can fall back on these services whenever the drugs are available. (Private Medical Practitioner, Rukungiri district, November 2007)*

*Coverage has continued to increase. We have had two Health Centre IIIs elevated to Health Centre IVs. Also an additional 10 Health Centre IIs were set up with the help of the central government and the local government resources (KI, DDHS, Rukungiri district, September 2007)*

The relatively wider coverage of health centres ideally provides an opportunity for easy access to health care for households. However, apart from the presence of physical structures that are relatively close to the people, some respondents indicated that the service delivery there was poor. For example, 15% of all respondents (Table 12: 110) did not acknowledge any strength in the government health services. This was partly shared by some KIs, as typified by a response from a public (government) health service provider:

*The current health policy has no strengths at all. The system appears to be breaking down. People are still not accessing the services promised by the free health care policy. (Personal Interview, April 2008)*

As reiterated in the above quotation, the actual implementation of the free health care policy has so far been met by serious obstacles, which inhibit effective access to health care by the population.

#### 4.6.2 Limitations in Accessing Free Health Care

A number of limitations in accessing free health care were identified. Table 13 summarizes the responses from the household survey.

**Table 13: Inhibiting factors in accessing free health care**

		CHI enrolment status				Total	
		Member		Non-Member			
		f	%	f	%	f	%
Cause of difficulty in accessing government health services	Unavailability of drugs	91	70.0	109	83.8	200	76.9
	Lack of equipment and other facilities	32	24.6	35	26.9	67	25.8
	Low availability of health personnel	19	14.6	19	14.6	38	14.6
	Distance to the health facility	16	12.3	6	4.6	22	8.5
	Over-crowding	5	3.8	3	2.3	8	3.1
	Cost of care	7	5.4	1	0.8	8	3.1
	Long waiting hours	6	4.6	1	0.8	7	2.7
	Others	11	8.5	8	6.2	19	7.3

*Note: The percentages do not add up to 100 due to multiple responses.*

*Source: Field data, September 2007*

##### *a) Unavailability of drugs*

The most prominent among the reported limitations in accessing free government health services was the unavailability of drugs in the health facilities. Almost seventy-seven

percent (76.9%) of all respondents said it was difficult to utilize government health facilities because of a lack of drugs. The shortage of drugs was emphasized in the qualitative data as a serious setback to accessing free health care:

*...every time you go there [government health centre] you are told there are no drugs and if they are there, they are simple drugs, which cannot make you well. You have to buy drugs from somewhere else. If you cannot buy, you just go back home and wait for the illness to go or to die. If you can, you end up going to seek serious care somewhere else like at Kisiizi hospital (Non-scheme-members' FGD, April 2008)*

*...recently I took my child there. She had a swollen eye, but they did not even give her a simple ointment to put in the eye. In fact, they did not tell us anything that we could do to help the child. They just told us there are no drugs. So if they cannot provide drugs why did they (government) put the health centres there? (Scheme-members' FGD, April 2008)*

*The public health care is in essence not free. Patients are just given prescriptions to go and buy drugs. The patient does not consider that as free health care. They get disillusioned. (KI, MoH, April 2008)*

Most of the responses reflected the inadequate drug supply in the government health system. Although there was an attempt to increase drug supplies to health centres after the abolition of user fees (Nabyonga-Orem et al, 2008), it appears that the increase did not match the demand for the drugs, thus leading to frequent 'stock-outs'. Frequent drug 'stock-outs' have also been acknowledged by the MoH as a key challenge in the provision of health services. The AHSPR (2006/2007) indicates that nationally, only 34% of health units did not report a 'stock-out' of drugs. The report states that "*this frequent stock-out of drugs is closely related to the stagnation/minimal improvement in a number of output indicators as medicines availability is a very important signal of quality of services to the community*" (Uganda 2007: 35). A related study on the availability of drugs (AGHA, 2007) reported an acute shortage of drugs in most government health centres. One of the health centres covered by the above study lacked anti-malarial drugs on all three occasions during which the health centre was visited in a space of three months. And yet in Uganda, malaria is the leading cause of visits to health centres as well as hospitalization.

#### ***b) Lack of diagnostic equipment and basic facilities***

The lack of diagnostic equipment and other basic facilities such as theatres and laboratories were also identified as key impediments in utilization of free government

health services. Almost twenty-five percent (24.6%) of scheme-members and 26.9% of non-scheme-members mentioned this as an inhibiting factor in access and utilization of the services. A number of KIs also confirmed this limitation:

*The health centres that should provide services are not fully functional. There are no theatres in most Health Centre IVs and where the theatres were set up, they have not been equipped so they cannot function. They are just physically there (KI, DDHS Rukungiri district, September 2007)*

*There is the issue of not equipping the health units/centres. There are no storage facilities for drugs – assuming that the drugs were available. No basic equipment for diagnosing and treating patients. Not even a microscope is available. So what health service availability is that? (Public Health Service Provider, April 2008)*

Community members often referred to the lack of diagnostic equipment in the health centres as “*treating what they do not know*” and it came out strongly as one of the constraints to accessing care from government health facilities:

*...they do not even test you to find out the sickness you are suffering from. This patient and another and yet another are all given similar prescriptions as if you are all suffering from one condition. The problem is that they are treating what they do not know. This one is told to buy aspirin, another one aspirin and another one aspirin. Is it really true that we are all suffering from the same condition? (Non-scheme-members’ FGD, April 2008)*

With an apparent shortage of basic facilities and equipment, the quality of health care in most government health facilities is compromised, and does not meet the users’ expectations. Properly functioning equipment is as important as the availability of and access to physical facilities (Parker et al, 2006). Xu et al (2005) similarly contend that a reduction in expenditure on fees can be offset by increases in payments for other services that are no longer available in the public sector. This would still constitute a serious obstacle to effective access to health care by rural households.

### *c) Shortage of trained personnel*

Inadequate staffing of the health facilities was identified as another impediment to health care access. Respondents mentioned that they found it difficult to use public health facilities because the medical personnel were either not available or only available on certain days:

*...the doctor is in most cases absent. I think he works on particular days and on others he does not come...during weekends and holidays, they do not work, as if people do not fall sick on those days...also on market days the health centres are closed... It is difficult to get attention from a government health centre (Scheme-dropouts' FGD, April 2008).*

*When you look at the health centre, what is available? A nursing aide or nursing assistant who is not able to deliver the services and yet...even if I am poor and government has said free health care, they should give me quality care (Executive Director, THETA, May 2008)*

The DDHS office acknowledged that, although a number of health centres have been set up, they lack medical officers and other health staff. This was attributed to poor remuneration and the remoteness of some places.

*Because of the rural nature of the area, it is difficult to attract and retain qualified staff, especially when coupled with poor remuneration (KI, DDHS, Rukungiri district, September 2007)*

Other cited human resource constraints in the public sector related to low commitment among the health personnel, semi-skilled personnel staffing the health centres, and inadequate staffing levels that led to work over-load for the few personnel at the health centres.

*I think the health workers are among the least paid civil servants in the country. That is why most of them will run private clinics and yet at the same time they are still working in the government health facilities. When a patient goes to the health centre, the doctor or nurse is absent. He or she is attending to private patients at the clinic because she is looking for a way of survival (PHC Specialist, Microcare, November 2007)*

The above staffing challenges are reflected in the AHSPR (2006/2007), which indicates that the proportion of approved positions filled by trained health workers is only 38.4%, with variations from 10.4% to 92.6% (Uganda, 2007a).

From the above discussion, it appears that the free health care policy has been extremely difficult to implement and in its current *universal access* form, it could be an unrealistic target as reflected in the opinion of one of the KIs:

*...the picture on paper is so impressive. When you read about our [Uganda's] decentralized health system, you want to visit it, but when you reach on the ground, the situation is totally different. It is a paradox. At the end of the day, the poor person, who was promised free health services, does not have the service at all (Executive Director, THETA, May 2008)*

The above opinions have also been reflected in the World Development Report (WDR) (2004), which, quoting Uganda's case, observes that wide-scale public provision of health care does not always translate into substantial use of such health care (World Bank, 2003). The limitations in accessing free health care have also been highlighted in Uganda's mass media, highlighting serious obstacles to access:

*It is true the government has set up health centres in almost every sub-county. But these are skeleton structures. They have no drugs, suffer shortage of trained staff and lack basic medical equipment. People don't get cured by divine healing at the health centres. There must be drugs, medical staff and equipment to effect treatment. It is time government reviewed its national priorities with emphasis on health care (Editorial, Daily Monitor, Friday, December 28<sup>th</sup> 2007: 10)*

*...many health units, especially in rural areas have been completed but remain non-functional due to lack of equipment, workers and supplies like drugs. Of the 155 existing Health Centre IVs, only 40 are fully functioning, while 108 are equipped but lack staff. Experts have attributed the shortage of health workers to brain drain. South Africa alone has over 200 Ugandan doctors (Ouma<sup>29</sup> 2007: 6)*

*With poorly equipped health centres and the best doctors leaving the country for greener pastures in Rwanda and other countries, VIPs have to travel abroad for treatment while ordinary Ugandans die (Nganda, 2008: 3)*

The paradox is that, although the use of health services by the poor was reported to have increased since the removal of user fees (Deininger & Mpuga, 2004; Nabyonga et al, 2005); it has also been acknowledged that OOP expenses have increased, thus requiring poor patients to buy drugs from the private sector or go directly to the private sector when needing attention (Burnham et al, 2004; Xu et al, 2005; Poirier, 2006). Thus, the majority of the rural people still have to make OOP payments for the services, which is a big constraint to obtaining health care.

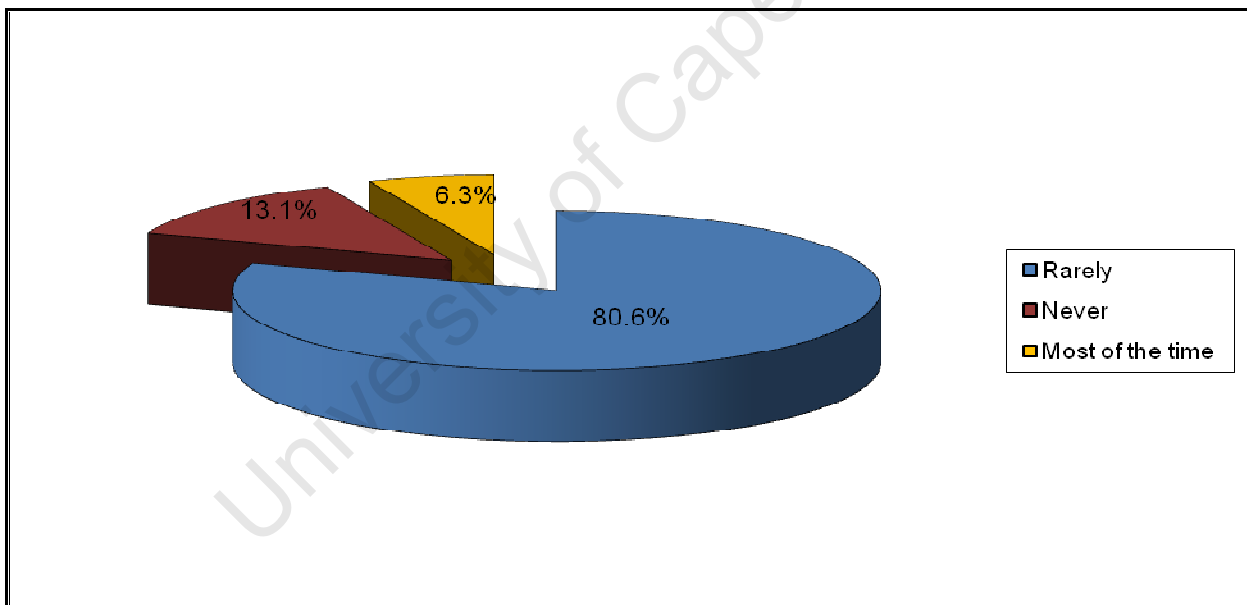
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<sup>29</sup> Reports for the New Vision, a government owned newspaper, which makes its critique of a government policy even more significant.

#### 4.7 Level of Use of Informal Health Care

The level of use of informal health care and particularly traditional healing was included in the investigation because it was assumed that high levels of use of this kind of care would influence the community's buy-in of insurance. In other words, if households considered traditional healing to be a valuable substitute for modern medical care, then they would not enrol in CHI (De Allegri et al, 2006a). Informal health care in Uganda takes the form of traditional healers, herbalists, self-medication and traditional birth attendants among others. This study focused on traditional healing. Respondents were thus asked whether people in their community used traditional healers, and what motivated these people to opt for this source of health care. The results are indicated in Figure 9.

**Figure 9: Perceived level of use of traditional healers**



*Source: Field data, September 2007*

The findings indicated minimal use of traditional healers. The practice is perceived to be limited to a few people in the community. More than 80% of all respondents believed that the use of traditional healers was a rare practice in their particular community, a finding that is related to that of Tabuti (2004). Notwithstanding this, the use of traditional healers and/or herbalists was attributed mainly to the failure of the formal health care to diagnose and treat the illness, as well as to historical links with traditional healing at the

individual household level. KIs explained that those who sought care from traditional healers did so together with the use of modern medicine:

*Traditional health care is used because of limited accessibility to formal health care, but also the two sources of care tend to serve different purposes. People go to traditional healers to consult, seek advice and treatment. On the other hand, they do not consider consultation in a health centre as health care. They go to seek treatment and get drugs. Once they don't find drugs, they don't count it as health care...* (Executive Director, THETA, May 2008)

Normally, the first source of health care sought is biomedical care. When the illness persists and/or is thought not to have been properly diagnosed, then alternative care from the traditional healers is sought. This finding concurs with other research done on traditional healing in Uganda (Ndyomugenyi, et al, 1998; Tabuti, 2004). For example, Tabuti (2004) established that people tended to use biomedical care more than traditional medicine, despite the reportedly higher levels of accessibility to traditional healers (Sekaya et al, 2004).

Generally, the study found that traditional healing as an alternative source of health care does not significantly affect the utilization of formal health care and therefore has less of an influence on the viability of CHI as a means of accessing health care. In this particular community, traditional healing is still viewed in a negative light, and therefore it is possible that people who seek this alternative source of care would not openly acknowledge it.

#### **4.8 Summary of Key Findings**

The following are considered the most significant findings in this chapter:

- *Level of Illness*

More than a half (52.3%) of all respondents reported an illness episode during the 6 months preceding the survey. The need to increase the level of access to health care is hence quite apparent and legitimate. It is worthwhile to note that more non-scheme-members (57%) than scheme-members (48%) reported an illness episode. This suggests that membership in the CHI scheme has a positive impact on reducing morbidity at household level (*Section 4.2.1: 97*).

- ***Cause of Illness***

Malaria is the leading cause of illness among the population studied (56.6%). The study indicates a significant relationship between the cause of illness and the status of enrolment in CHI ( $P=0.005$ ). Malaria as the cause of illness is 24% higher among non-scheme-members than among scheme-members. The findings suggest that enrolment in CHI has a positive effect on the reduction of malaria prevalence at household level (*Section 4.2.1: 97*).

- ***Health Seeking Patterns***

There is a high adoption of formal health care. More than 90% of the respondents who had fallen sick sought care from a formal health facility. The PNFP health facility (hospital) was the most frequently visited health facility by those who reported an illness. The high utilization of private health facilities is consistent with other findings (Burnham et al, 2004; Xu et al, 2005; Poirier, 2006) that the introduction of free health care in Uganda has not resulted in a stoppage or a significant reduction in OOP payments for health care by households. The apparent low utilization of government health facilities (19.2%) can be attributed to constraints to effective access to health care even among rural households. (*Section 4.2.2: 99*).

- ***Source of Health Care and Enrolment in Community Health Insurance***

There is a significant relationship between the source of health care and enrolment in CHI ( $p=0.001$ ). While most scheme-members visited the PNFP hospital (73.8%), the non-scheme-members visited the government (30.4%), PNFP (29%) or the PFP (20%) health facility almost evenly. The issues considered in the choice of the source of health care are the insurance benefit (which substantially reduces the cost of obtaining health care), proximity and the quality of care. Proximity, which is mostly associated with the government health facilities, is a significant opportunity for accessing health care by the households, although this is greatly compromised by the perceived low quality of care in these facilities (*Section 4.2.2: 99*).

- ***Health care Preferences***

The study clearly demonstrates a low preference for government health care by rural households (5%). 80.4% of the households surveyed would prefer to use the PNFP health facility. The gaps between the preferred and the usual sources of health care indicate that households are not accessing the kind of health care they would wish to get. The financial cost associated with obtaining care from the private sector (PNFP and PFP) is a deterrent to effective health care utilization. CHI significantly reduces this cost through its prepayment mechanism (*Section 4.4-4.5: 102*).

- ***Level of Use of Government Health care***

The level of use of government health care services is low, with only 20% of all respondents indicating that they 'always' use the services. Conversely, 35% of the respondents said they rarely use the government health facilities. Even among the non-scheme-members, regular use of government health facilities is low (35%). The findings confirm those of others, who have pointed out a persistent low use of free health care (UBOS, 2006; Uganda, 2007a). Since private service providers charge fees for services, the findings imply that the cost of care still poses a significant barrier to health care access and utilization (*Section 4.6: 108*).

- ***Facilitative and Impeding Factors in Accessing Government Health Services***

The major facilitative factors in accessing government health services as identified by the respondents include free provision of services and proximity. The key constraints in accessing the services include limited availability of drugs, equipment and trained personnel among others (*Section 4.6.1-2: 110*).

- ***Use of Traditional Health Care***

Use of traditional healing is limited to a few people in the community in which the study was undertaken. Eighty percent (80%) of the respondents indicated that the

practice is rare in their community. The reasons thought to influence the use of traditional healers include the perceived failure of the western medicine to deal with a given health problem and historical inclination or inherited practices in particular households (*Section 4.7: 116*).

It can be concluded that there is still a dire need for health services due to high levels of illness in the community. Whereas the free health care policy ideally presents the most equitable way of meeting this need (McIntyre et al, 2005), and while currently its greatest opportunity lies in the relative proximity of health care structures within the communities, there are still several challenges in accessing a proper quality of care. The constraints that led to the failure of the system in the country in the 1990's (Ablo & Reinikka, 1998 cited in Deininger & Mpuga, 2004) appear to have persisted. As argued by some (Gumber, 2001; Khetrapal, 2004), it is unlikely that the free health care policy will lead to effective access to quality health care by the population in the short and medium term. Since the majority of Ugandans still have to pay in order to access health care, it is reasonable to examine alternative means of reducing financial barriers to health care by the households. In Chapter one (*Section 1.3: 17*) and Chapter two (*Section 2.5.3: 55*), the researcher advanced arguments for considering CHI as an alternative strategy for increasing access to health care. In Chapter 5, the profiles of households enrolling or not enrolling in CHI in Uganda are examined.

## CHAPTER FIVE

### WHO ENROLS IN COMMUNITY HEALTH INSURANCE?

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#### 5.1 Introduction

The previous chapter examined the level of access to health care in Uganda, paying particular attention to the provisioning of free health care. The facilitative and impeding factors in accessing free health care were highlighted. The overriding conclusion was that there are significant obstacles to accessing free health care and that a majority of people in Uganda still have to make OOP payments for health care services from private providers. It is within the private sector, specifically the PNFP sector, that CHI has been initiated as one of the alternative mechanisms of improving access to health care. While some people have joined such schemes, others have not. This chapter attempts to delineate the characteristics of those who join CHI and those who do not, based on their socio-economic profiles. The findings presented in this chapter are linked to questions 1-16 (Sections B and C), and questions 76-80 (Section I) of the household questionnaire (Appendix B: 241). They correspond to objective 2 of the study (Section 1.5.2: 22), which sets out to analyse the socio-economic profiles of households enrolling or not enrolling in CHI. The major assumption underlying this objective was that there are socio-economic differences between those who enrol in CHI and those who do not. The objective partly addresses the question of social inclusion and equity in access to health care, which Ruger (2006: 27) refers to as "*the moral foundation of health insurance*". Equity is widely recognized as one of the key policy objectives of health care systems (Wagstaff & Doorslaer, 1998; Whitehead et al, 2001; Gwatkin et al, 2004). Thus, if the socio-economic differences between those who enrol in CHI and those who do not can be proved significant, then CHI would be said to attract a particular category of people, in which case it would not be a viable mechanism for improving access to health care.

#### 5.2 Demographic Characteristics and Enrolment in Community Health Insurance

According to the behavioural model of health services (Andersen, 1968, 1995), demographic characteristics serve as predisposing factors in access and utilization of

health services by households. In view of this, the study investigated a number of demographic characteristics, including age, sex, marital status and family size. Table 14 indicates the age, sex and marital status of the respondents, with regard to their status of enrolment in the CHI scheme. The aim is to identify whether there are differences between members and non-members of CHI, based on such characteristics.

**Table 14: Age, sex, marital status and type of marriage and enrolment in CHI**

	CHI enrolment status						Significance (p-value)	Lambda	Cramer's V
	Member		Non member		Total				
	n	%	n	%	n	%			
<b>Age of household head</b>									
18-24	2	1.5	3	2.3	5	1.9	.286	.154(.096)	.169(.286)
25-29	14	10.8	17	13.1	31	11.9			
30-34	15	11.5	22	16.9	37	14.2			
35-39	27	20.8	20	15.4	47	18.1			
40-44	19	14.6	23	17.7	42	16.2			
45-49	14	10.8	19	14.6	33	12.7			
50 and above	39	30.0	26	20.0	65	25.0			
Total	130	100.0	130	100.0	260	100.0			
<b>Sex of household head</b>									
Male	108	83.1	111	85.4	219	84.2	.610	.023 (.839)	.032(.610)
Female	22	16.9	19	14.6	41	15.8			
Total	130	100.0	130	100.0	260	100.0			
<b>Marital Status</b>									
Single	5	3.8	3	2.3	8	3.1	.725	.031(.788)	.071(.725)
Married	107	82.3	109	83.8	216	83.1			
Separated/ divorced	2	1.5	4	3.1	6	2.3			
Widowed	16	12.3	14	10.8	30	11.5			
Total	130	100.0	130	100.0	260	100.0			
<b>Type of marriage</b>									
Monogamous	100	93.5	93	85.3	193	89.4	.053	.065(.614)	.132(.053)
Polygamous	7	6.5	16	14.7	23	10.6			
Total	107	100.0	109	100.0	216	100.0			

*Approximate significance of the value in parentheses, based on chi-square tests*

*Source: Field data September 2007*

### 5.2.1 Age of Household Head

The majority of respondents were below 45 years (62.3%) with only 37.7% aged 45 years or older. This trend is manifested among both members and non-members of the CHI scheme. This corresponds to the general structure of Uganda's population, where the majority are below the age of 35 (UBOS & Macro International, 2007). It is however, noteworthy that 25% of all respondents were aged 50 years and above, reflecting the rural-urban differentials in the age structure in the general population i.e. older adult-headed households are more common in the rural areas.

The percentage of household heads aged 50 years and older is higher among scheme-members (30%) than non-scheme-members (20%). Though not statistically significant, the difference may imply that the scheme attracts the households that are headed by older adults rather than households headed by younger adults. This opinion was shared by some KIs:

*The relatively older people are associated with big households. Apart from their own children, they take care of other children who have been orphaned especially by HIV/AIDS. They therefore have a higher risk of illness within a household. Once they have understood the benefits of the scheme, they are more easily convinced to join than a young adult with relatively fewer responsibilities. (Scheme Manager, Kisiizi health insurance scheme, September 2007)*

Other authors (Okello & Feely, 2004; Dong et al, 2006; Bhat & Jain, 2006) have pointed out that there is indeed a relationship between age and enrolment in a health insurance scheme. For example, Okello & Feely (2004) found that in the Nkoranza scheme in Ghana, a larger number of older women (above 35) enrolled in the scheme than their younger counterparts. Bhat & Jain (2006) attempt to explain this relationship by relating age to maturity and therefore to more understanding and management of risk:

*In higher age groups, people have more probability of purchasing insurance.... Age signifies more risk and maybe more maturity to understand risk and to try to minimize it by purchasing health insurance. (Bhat & Jain, 2006: 20)*

A recent study of enrolment in two CHI schemes in Uganda quotes one of the young adult non-scheme-members interviewed as giving this reason for not joining the scheme: 'I wasn't bothered since I am young and not likely to fall sick' (Basaza et al, 2007: 9). In

contrast, a study done in Burkina Faso, West Africa (Dong et al, 2003) linked higher age (>50) to less willingness to pay for CHI<sup>30</sup>. Although the relationship between age and enrolment in CHI schemes does not appear to be statistically significant in the current study ( $p=0.286$ ), the scheme seems to be extending health care to households that are in relatively greater need of care by attracting even households that are headed by older adults. This is to some extent a sign of the potential of CHI to contribute towards equity in access to health care.

### **5.2.2 Sex of Household Head**

The majority of household heads are male (84.2%). As indicated in Section 4.1:94, in Uganda, household headship is vested with the man. Female headship of households is regarded as deviant (Ssali, 2003), and is therefore a rare occurrence. It occurs due to the death of a male spouse, divorce or separation, and in a few cases, where a woman has never been married.

With regard to enrolment in CHI, there are only 2% more female-headed households among scheme-members than among non-scheme-members (Table 14: 122). The chi-square test as well as other measures of association do not show any significant relationship between the sex of the household head and enrolment in CHI schemes ( $P=0.610$ ), thus implying that the sex of the household head is not an adequate predictor of enrolment in a CHI scheme. In a study of prospective CHI in Ethiopia, Asfaw and Von Braun (2004) similarly report no significant differences between male and female-headed households in respect of their willingness to pay for CHI.

Female-headed households have been categorized among the most vulnerable groups in society (Uganda, 2000; UBOS & Macro International, 2007). Thus, the assumption was that they are less represented in CHI enrolment. The fact that the sex of the household head was not a significant predictor of enrolment could imply that CHI has the potential to attract to some extent the vulnerable groups in society. However, this study did not set out to analyse the effect of gender on enrolment in CHI schemes. As a result, households

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<sup>30</sup> The study was done before implementation of the CHI scheme; the actual difference was in how much the young and the old were willing to pay for insurance. This could explain the differences in results.

were taken as a single unit without considering the intra-household decision-making processes concerning whether or not to enrol in a CHI scheme. It is however, pertinent that future studies on predictors of enrolment in CHI delineate the role of gender in making the decision to join a CHI scheme.

### **5.2.3 Marital status**

A high number of the total respondents were married (83.1%), while 11.5% of all scheme and non-scheme-members were widowed. This can be attributed to the fact that the unit of analysis was the household and that the primary respondent was the household head. This was against the background that most CHI schemes enrol households, rather than individuals. However, some aspects in the pattern of marital status with regard to enrolment are worth noting. For example, the descriptive statistics show slightly more widowed respondents among scheme-members (12.3%) than among non-scheme-members (10.8%), although the results are not significant ( $p=0.725$ ). This finding is supported by studies done in other areas where CHI schemes exist (Okello & Feely, 2004; Chitama, 2007). For example, an evaluation of the Nkoranza scheme in Ghana (Okello & Feely, 2004) showed no significant relationship between marital status and membership to a CHI scheme.

Widowhood is commonly associated with economic and social vulnerability (Uganda, 2000), and therefore one would expect to find a negative relationship between widowhood and enrolment in the CHI scheme. As stated in earlier sections of this chapter, the CHI scheme could have the potential to enrol people from different socio-economic groups, contributing to equity in access to health care. However, a firm conclusion cannot be reached without considering other facets of household socio-economic status, such as wealth. This is examined further in Section 5.4: 135 of this chapter.

### **5.2.4 Type of Marriage**

The two categories of marriage considered in this study were monogamous and polygamous marriages. Monogamy is a type of marriage where the man has one woman and they are living together. In contrast, polygamy is a type of marriage where the man

has more than one wife. The husband, and all the wives and their children may be living together and constituting one household, or each wife and her children may be living in a separate household, with the man visiting each household periodically. Within either context, polygamy has implications for the size of the family and consequently for the resources available to the man who is the head and therefore ideally responsible for the welfare of all the members of his household or households. This study sought to determine the predominant marriage type in the community and to examine any associations with enrolment in the CHI scheme.

The majority of scheme-members and non-scheme-members (89.4%) reported that they were in monogamous marriage relationships. The findings however show that the proportion of polygamous relationships among non-scheme-members (15%) is more than double that (7%) among scheme-members. This may imply that households in a polygamous context are less likely to enrol in a CHI scheme. The trend may be explained by the scheme policy, which sets strict definitions of a household for a polygamous context: each household is considered an independent entity, irrespective of the fact that two or more households may share the same head. The head would therefore have to register those entities separately. This increases the amount of premiums payable, making it more expensive to enrol in CHI. Despite these theoretical explanations, the chi-square tests and other measures of association (Lambda and Cramer's V) showed no significant relationship between the type of marriage and enrolment ( $P=0.053$ ). The plausible explanation is that within both categories, the majority of respondents were in monogamous marriages, so there would not be a marked difference between scheme-members and non-scheme-members.

Other socio-demographic characteristics examined, namely, household size, and structure and their relationship with enrolment in CHI are presented in Table 15.

**Table 15: Household size, number of children born, age of oldest child at home and enrolment in CHI**

	CHI enrolment status				Total	Significance (p-value)	Lambda	Cramer's V
	Member		Non-member					
	n	%	n	%				
<b>House hold size</b>								
1-2	11	8.5	12	9.2	23	8.8		
3-4	25	19.2	36	27.7	61	23.5		
5-6	35	26.9	47	36.2	82	31.5		
7-8	37	28.5	23	17.7	60	23.1	.041*	.185(.061)
9 and above	22	16.9	12	9.2	34	13.1		.196(.041)*
Total	130	100.0	130	100.0	260	100.0		
<b>Number of children born</b>								
None	7	5.4	6	4.6	13	5.0		
1-2	20	15.4	36	27.7	56	21.5		
3-4	42	32.3	37	28.5	79	30.4		
5-6	31	23.8	30	23.1	61	23.5	.236	.123(.031)*
7-8	21	16.2	16	12.3	37	14.2		.162(.236)
9 and above	9	6.9	5	3.8	14	5.4		
Total	130	100.0	130	100.0	260	100.0		
<b>Age of oldest child at home</b>								
Less than 1 year	0	.0	7	5.6	7	2.8		
1-4 years	10	8.1	8	6.4	18	7.2		
5-9 years	14	11.3	21	16.8	35	14.1		
10-14 years	22	17.7	24	19.2	46	18.5	.039*	.137(.079)
15-19 years	32	25.8	34	27.2	66	26.5		.217(.039)*
20 and above	46	37.1	31	24.8	77	30.9		
Total	124 <sup>a</sup>	100.0	125 <sup>a</sup>	100.0	249 <sup>a</sup>	100.0		

a The question considered all children in a household and not necessarily one's own biological children.

This explains the variations in subtotals and total

\*The chi square statistic is significant at the 0.05 confidence level. Approximate significance of the value in parentheses, based on chi-square tests

Source: Field data, September 2007

### 5.2.5 Household Size

Household sizes range from 1 to more than 9 members. More scheme-members (45.4%) have larger households (7 or more people) than non-scheme-members (27%). The chi-square tests indicate a significant (though moderate) relationship between household size and enrolment ( $p=0.041$ ). It appears that households with larger families tend to enrol in the scheme. Some plausible explanation was extracted from qualitative data where respondents associated large family size with enrolment in CHI:

*Big households normally join the scheme. If you are say three people in a home, you join the society because if all of you fall sick at the same time you can still get treatment a lot easier than when you are not in the scheme (Non-scheme-members' FGD, April 2008)*

*In most cases when a household has many children, and they are poor, they try to join the scheme. You realize that you'd rather sell a goat and pay a premium than wait for a child to fall sick and you sell your land after the hospital has billed you more than you have at the moment (Scheme-members' FGD, April 2008).*

In addition to the high risk of sickness in a large family, which the households seem to acknowledge, the average cost of premium per household member seems to favour the larger households. For example, a one-member household pays the same amount of premium as a household with four members (i.e. Ug shs.24000: Approx. US\$ 15 per year) (Microcare, no date). Similarly, a household with five members pays the same amount as one with eight members. This implies that the cost per person reduces with the increase in household size, thereby favouring the larger households.

Previous studies (Gumber, 2001; Schneider & Diop, 2001; Asfaw & Von Braun, 2004; Okello & Feely, 2004; Bhat & Jain, 2006) do not seem to have a consensus as far as the relationship between household size and enrolment in CHI is concerned. In the SEWA program in India (Gumber, 2001; Bhat & Jain, 2006), enrolment tended to decline with increase in household size. Similarly, an evaluation of the Lacor hospital health plan in Northern Uganda found that a large household size of more than 3 people was negatively correlated with enrolment (Okello & Feely, 2004). Conversely, in Rwanda (Schneider & Diop, 2001), larger households (of more than five members) had a greater probability of enrolling in CHIs than smaller households. In the Nkoranza scheme in Ghana (Okello & Feely, 2004), no significant association was found between household size and enrolment.

Asfaw and Von Braun (2004) have related the positive association between large household size and enrolment in CHI to the concept of rational decision-making. They argue that the schemes are particularly attractive to larger households because of the high risk of illness. However, the conflicting results in the studies cited reveal that the relationship is determined more by the design of the schemes than by household size *per se*. For example, in Lacor (Northern Uganda), Nkoranza (Ghana), and the Indian cases, a

premium was charged per individual person in the household, making it more expensive for larger households to enrol. In Rwanda, and in the current study's context, households are categorized according to their sizes and those who fall in the same category pay the same amount of premium irrespective of the intra-category variations in the number of people, as indicated earlier in this section.

The attraction of larger households in CHI is a positive indicator with regard to equity of access to health care. This is because of the high risk of illness in such households. However, if households with fewer members are less attracted to the scheme, it negates the principle of cross-subsidization, which is crucial for the success of the scheme. The absence of redistribution of both financial and health risks from households with more dependants to those with fewer dependants could weaken the viability of CHI in such contexts.

#### **5.2.6 Number of Children**

Ninety-five (95%) percent of all respondents have children, with the majority (54%) reporting 3 to 6 children. Only 5.4% of all respondents had 9 or more children. As happened in the case of household size, the proportion of households with 3 or more children is higher among scheme-members (79.2%) than among non-scheme-members (67.7%), which implies that CHI schemes have the potential to attract those households that are considered more vulnerable to poverty (Uganda, 2000). This finding is similar to that of studies done in other contexts (cf. Bhat & Jain, 2006).

With regard to age structure, almost a third of all respondents (31%) had a child<sup>31</sup> aged 20 years and older, still under their care. The age of the youngest child for the majority of respondents ranged between 1 and 4 years (40.2%). Members of the CHI scheme were more likely to have a child aged 20 years and older (37.1%) than non-scheme-members (24.8%). Statistical tests indicate a significant ( $p=0.039$ ), though moderate (Lambda: 0.137; Cramer's V: 0.217) relationship between the age of the oldest child at home and enrolment. This is related to the pattern in the age of the household head (Section 5.2.1:

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<sup>31</sup> The word 'child' in this context refers to all children still under the respondent's care irrespective of whether or not they are their biological children.

123). Another possible explanation is that, although older children may still be dependent on their parents for their wellbeing, they also have the potential to contribute to labour productivity particularly in the context of subsistence farming. Hence, the age structure at household level may influence a household's decision and ability to enrol in a CHI scheme.

### **5.3 Socio-economic Characteristics and Enrolment in Community Health Insurance**

Socio-economic characteristics such as religious affiliation, occupation, major source of income and education level form part of the social structure and determine one's status in society, one's ability to cope with problems that arise and one's ability to command the resources that are needed to deal with these problems (Andersen, 1968, 1995). The relationship between these characteristics and enrolment was therefore investigated. Table 16 shows the cross-tabulations between religious affiliation, occupation, and the major source of income on the one hand and enrolment in the CHI scheme on the other hand.

**Table 16: Religious affiliation, occupation, major source of income and enrolment in CHI**

	CHI enrolment status						Significance (p-value)	Lambda	Cramer's V
	Member		Non- member		Total				
	n	%	n	%	n	%			
<b>Religious affiliation</b>									
Protestant	53	40.8	56	43.1	109	41.9	.544	.023(.774)	.109(.544)
Roman Catholic	69	53.1	69	53.1	138	53.1			
Muslim	2	1.5	0	.0	2	.8			
Pentecostal	5	3.8	5	3.8	10	3.8			
others	1	.8	0	.0	1	.4			
Total	130	100.0	130	100.0	260	100.0			
<b>Occupation of household head</b>									
Peasant farmer	80	61.5	80	61.5	160	61.5	.824	.039(.731)	.090(.834)
Petty trader/Small scale enterprise	21	16.2	23	17.7	44	16.9			
Formal salaried employment	13	10.1	13	10.0	26	10.0			
Others.	16	12.3	14	10.8	30	11.5			
Total	130	100.0	130	100.0	260	100.0			
<b>Occupation of spouse</b>									
Peasant farmer	85	79.4	83	75.5	168	77.4	.277	.047(.702)	.171(.277)
Petty trader/Small scale enterprise	11	10.3	12	10.9	23	10.6			
Formal salaried employment	5	4.7	7	6.4	12	5.6			
Others.	6	5.6	8	7.3	14	6.5			
Total	107	100.0	110	100.0	217	100.0			
<b>Major source of household income</b>									
Peasant farming	74	56.9	72	55.4	146	56.2	.251	.077(.316)	.174(.251)
Commercial farming	9	6.9	2	1.5	11	4.2			
Small business	22	16.9	23	17.7	45	17.3			
Former salaried employment	14	10.8	15	11.5	29	11.2			
Grants from relatives	2	1.5	2	1.5	4	1.5			
Others	9	6.9	16	12.3	25	9.6			
Total	130	100.0	130	100.0	260	100.0			

*Approximate significance of the value in parentheses, based on chi-square tests*

*Source: Field data September 2007*

### 5.3.1 Religious Affiliation

The majority of respondents were Catholics (53.1%). Protestants (41.9%) and Pentecostals (3.8%) constituted the most common non-Catholic categories of the respondents, although there are other minority affiliations. The trend in religious affiliation in the study area is therefore not different from that at the national level (Section 1.2.1: 2). While

religious affiliation may influence the uptake of western medicine (Dong et al, 2006), in this study, it does not seem to be a significant determinant of enrolment in the CHI scheme. The relative proportion of respondents affiliated to the different religions is almost evenly distributed among scheme-members and non-scheme-members.

There seems to be little consensus in the literature concerning the influence of religion on enrolment. In the Bwamanda health plan in the DRC (Criel et al, 1999), no association was found between religious affiliation and enrolment despite the fact that the scheme is a Catholic mission establishment. Conversely, an evaluation of Lacor hospital health plan in Northern Uganda found that religion *was* associated with membership in the scheme. *“Being a protestant or a member of another non-catholic religious group decreased the odds of enrolling in the plan”* (Okello & Feely, 2004: 13). The authors argue that this is because the health service provider is a Catholic mission. The current study shows no such association. Despite the major service provider, Kisiizi hospital, being a Protestant mission, the majority who enrol in the CHI scheme are Catholics. The community’s strong attachment to the current health service provider seems to be related to its long history of providing ‘better’ quality health services (Musau, 1999; Basaza & Namara, 2003) rather than to religious nuances.

### **5.3.2 Occupation of Household Head and Major Source of Income**

As expected for a rural area, a significant majority of respondents were peasant farmers (61.5%) and this too is the main source of household income. Income is earned through the sale of extra food crops after harvest. Other occupations include petty trade (16.9%) and others (casual labour, pit sawing, building, etc) with only 10% of respondents engaged in formal employment (i.e. teaching, other civil service and health sector worker). The implication from the findings is that the majority of the households have very unstable sources of income, fluctuating with the harvest seasons of the year. This does not favour emergency spending such as OOP payment for health care.

There is a similar trend in occupation for both members and non-members of the scheme. However, the proportion of salaried workers is slightly higher (11.6%) among members

than among non-members (10%) of the CHI scheme. Overall, the statistical tests (chi-square, Lambda and Cramer's V) show no significant association between occupation, source of income and enrolment in the CHI scheme. This may be explained by the fact that this is a rural community, where the predominant occupation and source of income for members and non-members of the scheme is subsistence farming. The slight variations in salaried employment between two categories of respondents do not seem to be a significant distinguishing feature between scheme-members and non-scheme-members.

### 5.3.3 Level of Education

Education was investigated because it affects many aspects of life, including individual demographic and health behaviour (Andersen, 1995; Ensor & Cooper, 2004; UBOS & Macro International, 2007). Education and other factors such as occupation are some of the traditional measures used to assess social structure, a concept used to denote:

*...a broad array of factors that determines the status of a person in the community, his or her ability to cope with presenting problems and commanding the resources to deal with these problems (Andersen, 1995: 2).*

Hence, the underlying assumption is that better educated persons are more likely to enrol in a CHI scheme, since they are presumed to have the resources to pay for insurance. However, if higher education level translates into relatively higher incomes, then households whose heads are better educated may not be attracted to the scheme since they can afford OOP payment for health care. Against this background, the study examined the characteristics of households, with regard to the highest level of education attained by the household head and his or her spouse across the two categories of respondents (scheme-members and non-scheme-members). The results are presented in Table 17.

**Table 17: Education level and enrolment in CHI**

	CHI enrolment status						Significance (p-value)	Lambda	Cramer's V
	Member		Non-member		Total				
	n	%	n	%	n	%			
<b>Highest level of education completed</b>									
None	12	9.2	11	8.5	23	8.8	.526	.085(.426)	.127(.526)
Primary	67	51.5	71	54.6	138	53.1			
Secondary	23	17.7	29	22.3	52	20.0			
High school	4	3.1	2	1.5	6	2.3			
Vocational	8	6.2	3	2.3	11	4.2			
Tertiary level	16	12.3	14	10.8	30	11.5			
Total	130	100.0	130	100.0	260	100.0			
<b>Highest Level of education of spouse</b>									
None	8	7.2	12	10.7	20	9.0	.571	.081(.197)	.131(.571)
Primary	67	60.4	69	61.6	136	61.0			
Secondary	25	22.5	18	16.1	43	19.3			
high school	3	2.7	1	.9	4	1.8			
Vocational	1	.9	1	.9	2	.9			
Tertiary level	7	6.3	11	9.8	18	8.1			
Total	111	100.0	112	100.0	223	100.0			

Note: Approximate significance of the value in parentheses, based on chi-square tests

Source: Field data, September 2007

Fifty three percent (53.1%) of all household heads and 61% of their spouses had attained a primary level of education. Only 11.5% of household heads and 8.1% of the spouses had a tertiary level of education. With the majority of respondents having no more than a primary level of education, there is limited access to formal employment, which would in turn provide some relatively stable source of income for the households. The percentage of respondents with no education level attained at all is similar among scheme-members and non-scheme-members. Whereas the proportion of respondents who attained either a primary or secondary (ordinary) level of education is slightly higher among non-scheme-members (54.6%, 22.3% respectively) than among scheme-members (51.5%, 17.7%), the percentage of respondents who attained either advanced, vocational or tertiary levels of education is higher among members than among non-members of the scheme. This would seem to suggest that the scheme is more likely to attract people with a relatively higher level of education. When subjected to statistical tests, however, no significant relationship was found between the level of education and enrolment ( $p=0.505$ , Lambda:

0.085, Cramer's V: 0.127). The overriding view was that education is not a significant predictor of enrolment as summed up in a typical response from the FGDs:

*Education status does not really count. It is not the educated who join the scheme. That scheme is for everybody. It is not even the sickly who join the scheme. In fact if you are falling sick frequently they chase you out. The society is open to everybody. (Non-scheme-members' FGD, April 2008)*

The findings are consistent with those of some other authors (Criel et al, 1999; Gumber, 2001; Chitama, 2007) showing that, especially in a rural setting, education is not a significant predictor of enrolment in CHI schemes. However, caution has to be taken not to generalize such findings since in other contexts, education level does affect enrolment. Particularly in studies that draw samples from heterogeneous communities (such as rural and urban areas), differences in educational attainment seem to have a significant effect on the decision to enrol in CHI (Okello & Feely, 2004; De Allegri et al, 2006a). Higher education levels have been linked to better access to information and therefore better decision-making (Bhat & Jain, 2006; Dong et al, 2006), and better appreciation of risk pooling and prepayment (Okello & Feely, 2004).

Thus, it is clear that the level of education is not a significant distinguishing feature between members and non-members of CHI in the study area. The majority of household heads and their spouses in either category had lower levels of education and were subsequently engaged in peasant farming. It can thus be concluded that the CHI scheme is to some extent managing to enrol poor households and not necessarily the minority *rural elites* who are engaged in salaried employment.

#### **5.4 Wealth Profile**

Ownership of household assets, such as land, radios, bicycles, motorcycles and motor vehicles, mobile telephones and farm animals, as well as the type of dwelling, was used to estimate the socio-economic/welfare status of households. The assessment of socio-economic status using a wealth profile instead of the level of income and expenditure has been successfully applied in various studies (Schellenberg et al, 2003; Worrall et al, 2005; Chitama, 2007). The justification is that in a rural setting with insignificant levels of salaried employment or other regular sources of income, it is not realistic to estimate

regular income and expenditure or levels of wealth and poverty in monetary terms. Instead, assets that can be easily observed or asked about are used. The work of Schellenberg et al (2003) and Worrall et al (2005) indicate that the results of such asset/wealth profiles are discriminating enough to reveal inequalities in health indicators. In this study, asset ownership is cross-tabulated with the status of enrolment to analyse the influence of household wealth profile (if any) to enrolment in the CHI scheme. Table 18 shows the cross-tabulation between the type of house, land ownership and enrolment in CHI.

**Table 18: Type of house, land ownership and enrolment in CHI**

	CHI enrolment status						Significance (p-value)	Lambda	Cramer's V
	Member		Non-member		Total				
	n	%	n	%	n	%			
<b>Type of house</b>									
Semi-permanent (Iron roofed)	110	84.6	104	80.0	214	82.3	.174	.054(.069)	.116(.174)
Permanent (Brick and concrete)	15	11.5	15	11.5	30	11.5			
Mud and Wattle	5	3.8	11	8.5	16	6.2			
Total	130	100.0	130	100.0	260	100.0			
<b>Land ownership</b>									
Nil	0	.0	7	5.4	7	2.7	.020*	.154(.071)	.212(.020)*
Less than 1 acre <sup>32</sup>	49	37.7	61	46.9	110	42.3			
2 -4 acres	67	51.5	48	36.9	115	44.2			
More than 5 acres	11	8.5	10	7.7	21	8.1			
More than 10 acres	3	2.3	4	3.1	7	2.7			
Total	130	100.0	130	100.0	260	100.0			

\*The chi-square statistic is significant at the 0.05 confidence level

Note: Approximate significance of the value in parentheses, based on chi-square tests

Source: Field data, September 2007

### 5.4.1 Type of house

The most common type of house for both members and non-members of the health insurance scheme was a semi-permanent iron roofed house (82.3%). The proportion of households with an iron-roofed house is slightly higher (84.6%) among scheme-members than among non-scheme-members (80%). Conversely, the number of non-scheme-

<sup>32</sup> 1 acre is equal to approximately 0.164 hectares.

members living in a mud and wattle house (which is the lowest quality house among the categories listed) (8.5%) is more than double that of scheme-members (3.8%). Since the type of house is a proxy indicator of the level of household income, it may imply some level of influence of household income on enrolment. The chi-square test, however, did not show a significant relationship between the type of house and enrolment ( $p=0.174$ ). This could be attributed to the relatively low number of respondents who lived in a mud and wattle house, while, in contrast, the other two types of houses (semi-permanent and permanent) are almost evenly distributed among members and non-members of the CHI scheme.

#### **5.4.2 Land Ownership**

Land ownership is a significant indicator of household wealth status in the rural community. This has been highlighted in the WDR (2002) which recognises the fact that most of the world's poor earn their living from agriculture. Since the major source of livelihood in the rural parts of Uganda is subsistence farming, landlessness or limited land ownership makes a household particularly vulnerable to poverty and destitution. Land shortage in southwestern Uganda is a historical factor (Carswell, 2002) that contributes to persistent poverty. It is therefore not surprising that the majority of households (44.2%) reported having only 2 to 4 acres of land. This indicates that most households are not able to grow sufficient food or cash crops. This has serious implications for their ability to have sufficient incomes to purchase their basic requirements, including health care. While the percentage of scheme-members and non-scheme-members who reported having one acre of land or less is almost the same, more scheme-members (48.5%), than non-scheme-members (35.4%) reported ownership of at least 2 to 4 acres of land. The chi-square tests indicated a significant relationship between land ownership and status of enrolment ( $p=0.020$ ), reflecting some socio-economic differences between the members and non-members of the CHI scheme.

#### **5.4.3 Ownership of Household Assets and Farm Animals**

Another set of variables used to position a household's wealth profile or socio-economic status was ownership of basic household assets such as a radio, bicycle, cellular telephone, motorcycle or motor vehicle, as well as ownership of farm animals. Ownership

of a radio can be a measure of access to the mass media, while telephone ownership may indicate access to an efficient means of communication (UBOS & Macro International, 2007); but the latter is also currently considered a luxury, particularly in the rural areas, where it is still a rare good. Ownership of a means of transport (bicycle, motorcycle and motor vehicle) can be an indicator of the household's level of access to public services and markets as well as exposure to developments in other areas (UBOS & Macro International 2007: 18). Ownership of farm animals such as cattle, goats, sheep, pigs or poultry indicate the assets a household possesses that could be used to meet household demands. Table 19 shows the level of ownership of household assets and farm animals across the two respondent categories.

**Table 19: Ownership of household assets and farm animals and enrolment in CHI**

	CHI enrolment Status					
	Member		Non member		Total	
	f	%	f	%	f	%
<b>Household Assets</b>						
Radio	112	86.2	100	76.9	212	81.5
Bicycle	61	46.9	50	38.5	111	42.7
Cellular telephone	48	36.9	34	26.2	82	31.5
Motor cycle	8	6.2	3	2.3	11	4.2
Motor vehicle	2	1.5	3	2.3	5	1.9
Television set	1	0.8	1	0.8	2	0.8
<b>Ownership of animals</b>						
Goats/Sheep	103	79.2%	69	53.1%	172	66.2%
Poultry subsistence	51	39.2%	45	34.6%	96	36.9%
Cattle	40	30.8	24	18.5	64	24.6
None	14	10.8%	34	26.2%	48	18.5%
Other	10	7.7	9	6.9	19	7.3

Note: 'f' represents the number of responses. The figures do not add up to 100% because multiple responses were allowed.

Source: Field data, September 2007

#### **a) Ownership of household assets**

The most commonly owned household asset is a radio, though the percentage of non-scheme-members with a radio is slightly less (76.9%) than that of scheme-members (86.2%). Similarly, less non-scheme-members than scheme-members reported owning a bicycle (38.5%, 46.9% respectively), a cellular telephone (26.2%, 36.9% respectively) or a motor cycle (2.3%, 6.2% respectively). Conversely, out of only five respondents who owned motor vehicles, three were non-scheme-members. The results show that there is

some degree of difference in the wealth profiles of members and non-members of CHI, with the former likely to be in a relatively better economic status than the non-scheme-members, notwithstanding the fact that across the board, the majority of households are engaged in subsistent livelihoods.

*b) Ownership of farm animals*

There seems to be a similar trend with regard to ownership of farm animals, with less non-scheme-members reporting ownership of all types of farm animals than scheme-members. Alternatively, the percentages of non-scheme-members who do not own a single farm animal (20%) is almost double that of scheme-members (10.8%). Farm animals can be converted into cash income in times of financial need. Thus, a rural household that does not own any farm animal is in a more vulnerable situation in times of emergency financial need. Previous studies on health and poverty have shown that, in case of hospitalization, rural (poor) households would be forced to sell some of their household property in order to meet the cost of illness (Russell, 1996; Derriennic et al, 2005). In the absence of any domestic animals that can be quickly turned into cash, households would be forced to sell their most valuable asset, land (Musau, 1999), which would worsen their vulnerability to poverty and limit their access to health care.

Similar trends in enrolment have been reported in other studies. For example, in Rwanda, Schneider and Diop (2001) found that, while prepayment schemes reached the poor, the destitute did not join the schemes. Similarly, in Gulu district (Uganda), households in the third and fourth wealth quartile were more likely to join the scheme than those in the lower wealth quartiles (Okello & Feely, 2004)<sup>33</sup>.

It is apparent that households with the least wealth (assets) are less likely to enrol in CHI schemes. Participation in health insurance is not cost free but requires a minimum of income, which the most socio-economically disadvantaged households usually do not have. Some authors (Jutting, 2004) have advocated direct targeting of such households

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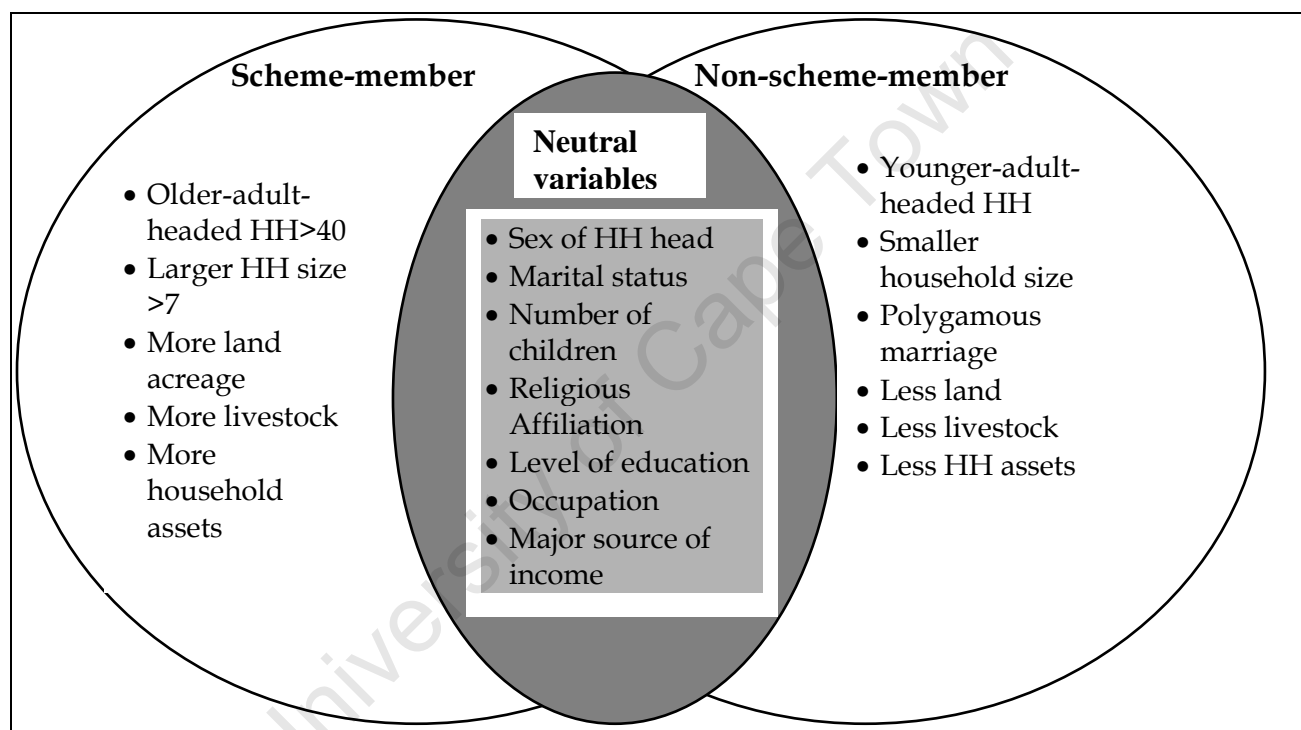
<sup>33</sup> Lacor hospital health plan in Gulu district is urban based and recruitment into the scheme is based on formal employment and cooperative societies (Okello & Feely, 2004), thus disfavouring the unemployed people.

and individuals with subsidies in order to increase their chances of benefiting from CHI schemes.

## 5.5 Summary of Key Findings

The key findings from the assessment of profiles of those who enrol (scheme-members) and those who do not (non-scheme-members) are diagrammatically presented in the figure below. The figure is based on basic differences observed in descriptive statistics.

**Figure 10: Key characteristics of scheme-members and non-scheme-members**



*Key: HH: household*

The figure attempts to delineate differences in the profiles of households that enrol in CHI and those that do not. Most socio-demographic characteristics such as the sex of the household head, marital status, number of children, religious affiliation, level of education, occupation, and major source of income revealed no significant differences between members and non-members of the CHI scheme. This suggests that the scheme has the potential to attract households from different socio-economic backgrounds.

Three characteristics showed a statistically significant relationship to enrolment, namely, household size ( $p=0.041$ ), age of oldest child at home ( $p=0.039$ ), and land ownership ( $p=0.020$ ). The positive association between land ownership and enrolment in CHI, for example, could signify exclusion of the most vulnerable households. This is because land represents a major source of livelihood and supports key economic activities in the rural setting. Other facets of the wealth index such as ownership of household assets (radio, bicycle, motorcycle and cellular telephone) and farm animals (goats, sheep, cattle, poultry) also tended to be more represented among the scheme-members compared to non-scheme-members (Section 5.4: 135). Hence, the results show some inequalities in enrolment, with the scheme appearing to attract those in a relatively better socio-economic status in the community. The results are consistent with the argument that, although CHI schemes are largely able to enrol people from low socio-economic categories, the *poorest of the poor* are left out (Schneider & Diop, 2001; Tabor, 2005).

Chapter six examines the design of the CHI scheme, highlighting the implications of specific design aspects for the viability of the scheme.

## CHAPTER SIX

### DESIGN OF THE COMMUNITY HEALTH INSURANCE SCHEME

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#### 6.1 Introduction

Chapter 5 examined the profiles of households, highlighting the relationships between household socio-economic characteristics and enrolment in CHI schemes. It concluded that, although there are no significant socio-economic differences between those who enrol in CHI and those who do not, the most vulnerable segments of the rural population are excluded from participation. However, socio-economic characteristics of households do not act in isolation to influence enrolment in CHI, and in turn its viability. As argued in Chapter 2 (Section 2.5.2: 49), design characteristics can significantly affect the viability of CHI schemes just as they can also affect large scale public health programs. This chapter describes the design features of the CHI scheme, and examines how these may influence its viability within the context of a rural community. The chapter presents the findings related to study objective number three, which seeks to examine the scheme design features. The first Section (6.2) of this chapter gives an overview of the organisational model adopted by Kisiizi health insurance scheme, highlighting the management structure and linkages to other grassroots organisations. The following sections examine the specific aspects of the scheme design with regard to risk pooling, revenue collection and purchasing/provision of services. The chapter concludes with an evaluation matrix showing the key strengths and weaknesses of the design aspects.

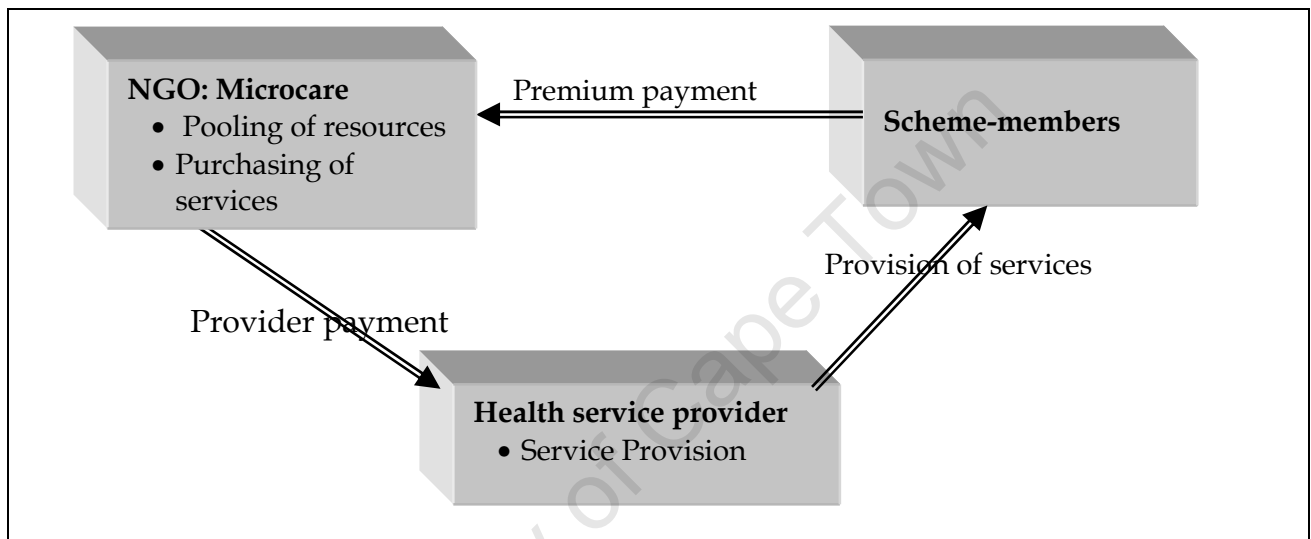
#### 6.2 Organisational Model

CHI schemes adopt different designs depending on the context within which they are operating, the initiators of the scheme, and the best practices from other areas. Three common models are mentioned in the literature, namely, the provider-based model, the insurer model and the linked model (See Section 2.5.2.1: 49 for a discussion of the different models of CHI).

Kisiizi health insurance scheme has transformed from a provider-based model to an insurer model. When the scheme started in 1996, it was owned and managed by the

hospital, which was at the same time the health service provider. The scheme was being run as a project in the wider establishment of the hospital. The hospital received the premiums and bore the losses and/or liabilities of the scheme. In 2003, the hospital passed on the ownership and management of the scheme to Microcare, an independent insurance company. This transformed the design of the scheme to an insurer model. The current model could be graphically represented as follows:

**Figure 11: Current organisational model of Kisiizi health insurance scheme**



The organization (in this case, Microcare) manages all the key functions of the scheme, including pooling of resources and purchasing of services. Premiums are paid to the organization, the members receive services from the mandated provider, and the provider (in this case the hospital) bills the organisation at the end of each month. According to the hospital administration, a number of factors motivated the change in the design of the scheme. Significant among them was that the hospital, not being an expert in insurance, lacked the capacity to manage the scheme. As a result, losses were reported:

*We were making losses and we had to incur them ourselves. Secondly, there was reduced financial support from external donors and it became difficult to run the scheme, so we decided to bring in someone who could manage it better. (Hospital Administrator, Kisiizi hospital, October 2007)*

The perceived advantages of an insurer model include better management of the scheme, since it is part of the wider operations of the insurance company (Tabor, 2005). Risks can

be reinsured<sup>34</sup>. In addition, the hospital management is freed from the responsibility of routine management of the scheme to concentrate on its primary task of providing health services. It was also argued that having an insurance company run the scheme meant that it could be supported with profit made from its commercial insurance activities in the urban centres.

*We are running that scheme as a not-for-profit scheme. Our primary goal is to increase the rural poor's access to health services. So we use the profits we make from the commercial insurance schemes to subsidize the CHI schemes. Currently the administration costs are subsidized in this way, until the scheme has become self-sustaining. (Country Manager, Microcare, September 2007)*

Scheme policy documents that were reviewed do not spell out the nature of the scheme. However, KIs from Microcare maintained that the scheme operates as a not-for-profit project. This view was shared by the hospital administration at Kisiizi:

*At first we approached Microcare for financial support to continue running the scheme but we later realized they were interested in running the scheme as part of their projects. We did not see any conflict of interest and so far they are handling the scheme as a community based intervention and not really as a commercial undertaking. (Hospital Administrator, Kisiizi hospital, September 2007)*

Hence, in principle, Kisiizi health insurance is a community-based health insurance scheme despite the fact that it is being operated by a private health insurance company. The organizational model appears to be suitable in its current form, considering the fact that insurance is a new concept in Uganda, and therefore there is a need for it to be propagated by an organization that has some level of expertise in the sector. The model adopted has been supported in the CHI literature as a form of *vertical bridging linkage* (Bennett, 1998), which underscores the role of NGOs and other institutions in building the capacity of CHI schemes in technical areas, such as financial, administration and general management of the schemes. This can boost their sustainability, as the capacity at community level is built progressively. The positive role of private organisations, particularly, NGOs has also been linked to the apparent success of CHI schemes in Rwanda where the CHI initiatives were based on partnerships between local administrators, grassroots associations, NGOs and micro-finance schemes (Busingye,

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<sup>34</sup> Reinsurance is a process whereby an insurance company enters into a contract with a third party to protect the insurance company against losses. The contract provides for the third party to pay for the loss sustained by the insurance company when the company makes payment on the original contract.

2008). Similarly, in India, the success of the SEWA program has been partly attributed to the fact that the organisation already had experience in financial services and insurance management (Jutting, 2001). Hence an insurer model of CHI may strengthen the successful adoption of CHI. As indicated in Chapter 7 (Figure 14: 166 & Figure 17: 182), positive trends in enrolment and cost recovery appear to have *coincided* with the change in the model of the scheme, from a provider model to an insurer one. However, the CHI schemes have to be cautious of the dependency syndrome that could result from top-down, non-participatory management, which may threaten the very goal of sustainability of such schemes.

### 6.2.1. Management Structure

There is a centralized structure of management, with Microcare running the scheme directly. At branch level, the scheme is coordinated by a manager who oversees the day-to-day running of the scheme and reports to the Director at the country office. Other staff at the branch office include a field officer whose task is mainly community mobilization and sensitization; a registered nurse who receives and crosschecks claim forms from the patients; a data entrant who enters all membership information into the database and crosschecks identification documents; and other support staff. The hospital administration and the community are only represented in meetings in order to get consensus on issues of interest but they have no direct powers to influence decision making with regard to the scheme. As reiterated in the FGDs, community participation is through the *engozi* leaders who represent the various enrolled groups:

*The chairpersons of community groups put in a lot of effort but they are not facilitated at all. They act as our ambassadors in the regular meetings...They act as channels of information. They take information from the community to the scheme and from the scheme to the community. (Scheme-members' FGD, April 2008)*

There was little evidence to suggest that the community representatives have any powers to influence decision making with regard to the scheme policy. However, their active involvement has the potential to stimulate increased usage of CHI and it was indeed identified as an avenue for legitimizing the viability of CHI.

## 6.2.2 Relationship of CHI to Other Grassroots Organizations

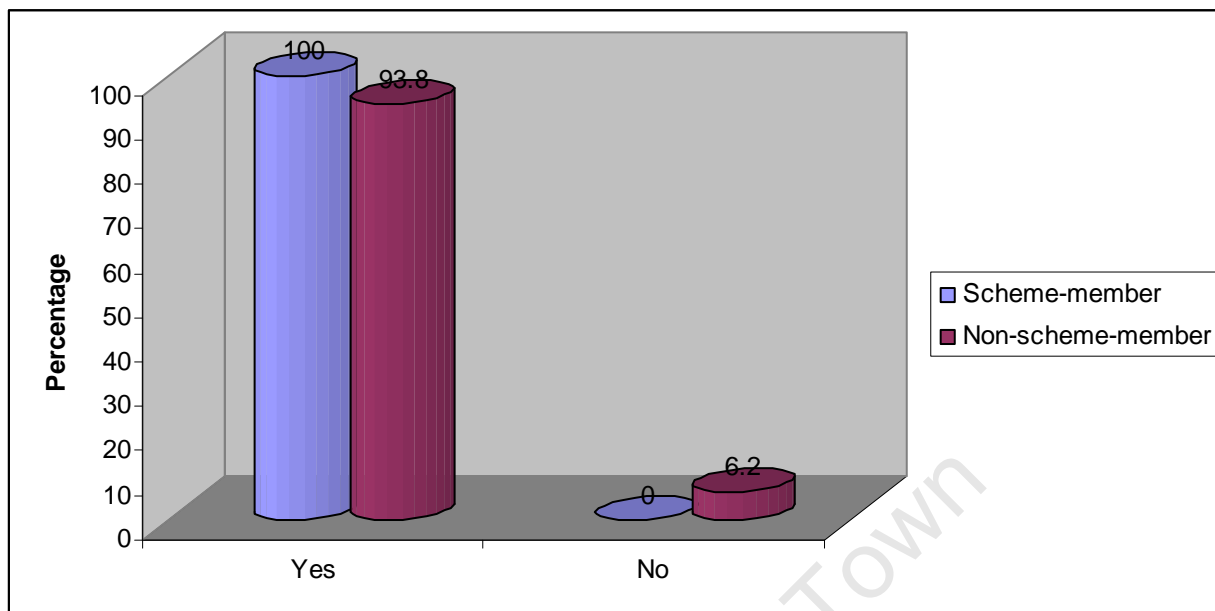
It has been argued that community solidarity, extra-community networks, vertical civil society links and other inter-societal relations at local level affect the viability of CHI (Mladovsky & Mossialos, 2008). Two types of linkages were examined in this study, namely, linkages of CHI to mutual aid groups and its linkages to microfinance. The former are believed to augment solidarity and the ethic of mutual aid that is inherent in CHI. The latter provide opportunities for enhancing the revenue collection function of the health insurance scheme.

### *a) Linkages to Mutual Aid Groups*

According to various authors (Musau, 1999; Hsiao, 2001; Jutting, 2001; Chirmulay & Devadasan, 2006), mutual associations provide a good environment for CHI to be established and sustained, since they share common features, particularly in the sense of collective action. They are a form of social capital in the sense that they promote social cohesion and solidarity. In the area of study, these associations take various forms, including burial groups where households pool resources that are used to provide support during bereavement. Stretcher groups are those that jointly own a stretcher (a form of local 'ambulance' made out of local materials, which is used to carry a sick person to hospital) so that in case a member is sick, she/he can be transported to the health facility. Savings and credit associations engage in local savings and loans at group level. Other groups revolve around religious associations, such as mothers' unions. Other associations include the local institutions, such as micro-finance associations, dairy farmers' associations and tea or coffee growers' associations. The study sought to establish whether there was any relationship between mutual aid groups and enrolment in CHI. Respondents' membership of mutual aid groups is indicated in Figure 12.

**Figure 12: Respondents' membership of mutual aid groups**

(N=260)



Source: Field data, September, 2007

Almost all respondents belonged to at least one mutual aid group (excluding CHI). Only 6.2% of the respondents, all of whom were non-scheme-members, indicated that they did not belong to any local association. The motivation to join local mutual help groups was mostly linked to the need for mutual assistance in times of emergencies:

*... if I am in a zonal group<sup>35</sup>, I know that if I die, my family will not suffer meeting burial expenses. They will be assisted. People who come for burial will get something to eat. It just works like the insurance scheme – once you are a member of those groups, you feel a bit secure because you are not alone in case of trouble. In case you cannot walk to hospital, there will be people to carry you. (Scheme-members' FGD, April 2008)*

It is apparent that the community appreciates the ethic of solidarity and mutual aid. However, the slight differences in membership to these groups between CHI members and non-members support the view that CHI thrives in an environment of trust and solidarity. It can be argued that households with a higher level of mutual association are more easily attracted to CHI than those that do not easily associate. This could imply that people who are already pooling resources and sharing risks in mutual aid groups can easily understand the principle of risk sharing and planning for future uncertainties that underlie health insurance. This finding is supported by a study in China (Zhang et al,

<sup>35</sup> A zonal group is a village-specific group that associates to achieve a common objective

2006), where a significant association was demonstrated between indicators of social capital (i.e. degrees of trust and reciprocity) and farmers' willingness to join CHF schemes. Other authors (Hsiao, 2001) have linked levels of trust and reciprocity with willingness to pay for CHI schemes to the fact that individuals with higher levels of solidarity are more ready to accept the cross-subsidization that is implicit in the CHI mechanism. However, it is possible that people who are not in mutual aid groups are those who are very poor, who barely have a means of livelihood and who therefore would not even be able to afford the meagre contributions to the mutual aid groups. Such a category of people would simply not be able to afford the cost of insurance. The chi-square tests indicated a moderately significant relationship between enrolment and membership in a mutual aid group ( $p=0.004$ ).

The mutual aid groups have the potential to contribute positively to the viability of CHI. Firstly; they provide a platform for mobilization and sensitization about CHI with the use of minimal resources. Secondly, some degree of social cohesion is generated through such groups and this can further strengthen the effective adoption of CHI:

*In our work, we have supported some groups in the communities and what I have observed is that if a community is the same – that is they are united, share similar values and beliefs, these groups can be effective. That means also that community health insurance can work in that setting unlike among the urban poor where you find that people have very varied interests. (Executive Director, THETA, May 2008)*

The majority of these community groups have their own internal rules and regulations, although this may not be documented due to the informal nature of the groups. In addition, a number of such groups are formed for mutual assistance, and therefore involve an element of resource pooling and risk sharing. Thus, the idea of health insurance, if properly explained, would not be completely strange to community members. This view was shared by a number of KIs:

*The mutual help groups have existed in these communities since time immemorial. They have not died out and they are voluntary. If people can voluntarily come together to plan for their burial, why can't they plan for their health? All they need is for the idea to be sold to them and you let them own it and manage their affairs. (National Coordinator, UCBHFA, October 2007)*

*The local community groups such as burial associations, savings and credit associations, which are spread throughout the communities, provide effective avenues for mobilization and sensitization about community health insurance. (KI, DDHS, Rukungiri, September 2007)*

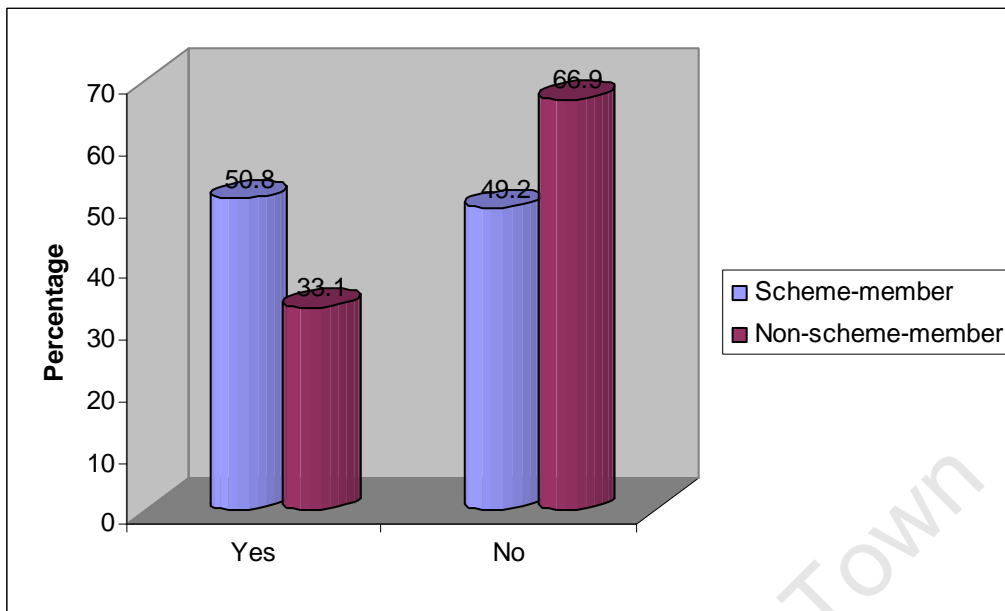
As indicated earlier in this section, almost all community members are attached to one or more groups. Other groups such as savings and credit societies, revolving fund groups, dairy farmers associations, and a number of other interest groups, which characterise rural communities in Uganda, provide an opportunity for the promotion of CHI.

#### ***b) Linkages to Microfinance***

As in a number of developing economies (Gumber, 2001), microfinance (micro-credit and micro-saving) schemes are being promoted in Uganda as part of the broader poverty reduction strategy. One of the most recently launched poverty eradication programme by the government, *Prosperity for All* (NRM manifesto, 2005) works through the microfinance associations as the major engine for rural development. Individuals are advised to form groups through which they can access low interest loans for self-help projects. Because of this initiative, there has been a proliferation of microfinance institutions at the grassroots level. Most of these operate as village banks, offering loans and savings facilities. In the area of study, two major institutions were prominent, namely, Rubabo people's bank and Uganda Microfinance Institution, which has a branch in the hospital premises, next door to the Microcare offices. The health insurance scheme management sees the availability and use of microfinance facilities as a means to reduce poverty, a view that has been supported in literature (Diop & Butera, 2005); it also promotes the idea of saving for health. In such cases, instead of the households paying directly to the insurance scheme, they pay through the microfinance institutions. With this in mind, the researcher sought to establish the extent of membership in the microfinance associations and to identify any linkages with enrolment in CHI schemes. Figure 13 shows respondents' membership to any local microfinance association.

**Figure 13: Respondents' membership of any local microfinance association**

(N=260)



Source: Field data, September 2007

Scheme-members are more likely to be members of a microfinance association than non-scheme-members (50.8% and 33.1% respectively). This is consistent with the pattern in Tanzania's community health fund (CHF), where membership of micro-credit associations was a significant predictor of enrolment in the CHF (Chitama, 2007). This may imply that people who enrol in the CHI scheme have a higher propensity to save. Conversely, it could imply that households that have easier access to micro-credit (possibly due to ownership of some form of collateral) can also easily enrol in CHI. Some authors (Preker et al, 2002) have also argued that establishing and strengthening links with formal financing networks is one way of constructing *bridging social capital* (Mladovsky & Mossialos, 2008) essential for the viability of CHI schemes. Making microfinance more available could have positive implications for the viability of CHI.

### **6.3. Risk/Resource Pooling**

Pooling refers to the accumulation of prepaid health care revenues on behalf of a population (Kutzin, 2001); or the extent to which contributions are accumulated and managed in order to spread the risk of payment of health care among all members of a pool, instead of requiring that people pay individually for their health care (Carrin, et al,

2005). The process of resource and/or risk pooling may involve enrolment of groups, households or individuals. This section examines the enrolment procedures for Kisiizi health insurance, highlighting its implications for the viability of the scheme.

### 6.3.1 Enrolment Procedure

Kisiizi health insurance scheme enrolls pre-existing groups in the community, such as the *engozi* (stretcher) groups, burial groups (to assist during bereavement), zonal groups, women's groups and various associations including teachers and farmers associations. The sub-unit for registration is the household. This means that, even if an individual were part of an existing group, he/she would not be enrolled in the scheme (unless that individual can be defined as a complete household). For a group to be registered it should comprise at least 20 households, and 50% of these should have paid at the time of registration. The underlying principle for group enrolment is to reduce adverse selection.

*Health insurance principles have this belief that at least the first 20% of those registering are not healthy. By insisting on the 50%, we attempt to ensure that both the healthy and the non-healthy join the scheme. Otherwise, it would be a sickness association. (Scheme Manager, September 2007)*

Other advantages of group enrolment identified by the respondents were that, with regard to administration, groups are easier to manage, since they already have their internal rules, regulations and local sanctions. For example, at community level, if a member does not contribute towards burial expenses for the neighbour, he/she will be abandoned by the whole neighbourhood when faced with a similar disaster. The groups are also easier to mobilize than individuals and in addition serve as channels for information sharing:

*The community already has avenues for mobilization and sensitization. The mutual help groups can be utilized to promote and strengthen community health insurance. (KI, DDHS, Rukungiri district, September 2007)*

*If a member fails to pay, the group can pool resources and pay for him or her. He can then refund the money later. The scheme does not have to engage in such administrative details with individual households. (Scheme Manager, September 2007)*

*The recruitment procedure has no big problem. We mobilize ourselves in groups and we choose our own members. We only contact the scheme for registration; so most of the internal organisation is done by the group members, which is convenient for the scheme. (Scheme-members' FGD, April 2008)*

As reflected in the quotations, group enrolment is not only beneficial to the members but also cost-effective with regard to scheme administration. This kind of design characteristic has been identified as one of the ways of promoting the success of CHI (Dong et al, 2003; De Allegri et al, 2006b; Poletti et al, 2007). It is believed that group enrolment not only reduces adverse selection but also protects the interests of vulnerable persons such as the aged, women and the poor, whose chances of participation are enhanced more through group rather than individual enrolment. However, community members also reported difficulties with group enrolment. For example, the delay in mobilizing the required number of households can prevent some households from enrolling in the scheme:

*The scheme requires that households cluster themselves in a group of at least 25<sup>36</sup> households. This has blocked some of us from joining at the time we wanted to. We mobilized 19 households in the village but we could not be registered. Other households already belonged to other groups. We have to wait until we raise the remaining number. In the meantime, others lose interest and fall out. (Non-member, Ndago parish, Nyarushanje Sub-county, September 2007)*

*Sometimes a member is not able to renew registration in time. Later when they want to pay, they are told that registration for that group has closed. We think they should soften on that so that whenever someone gets money, they can renew their registration even as individual households. (Scheme-members' FGD, April 2008)*

Despite some level of ill will of group enrolment in the community, it is considered a strong tool against adverse selection. This is especially true in a rural community with high levels of sickness and poverty. Hence, this study considers this design feature a best practice in enhancing the viability of CHI in Uganda.

#### **6.4. Revenue Collection**

Revenue collection is the process by which financial contributions are determined and obtained from subscribing entities or other sources. This section describes the premium setting procedures and current levels, the modes of payment, and co-payments by the members of the health insurance scheme.

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<sup>36</sup> The scheme policy stipulates at least 20 households in a group. The misinformation about the scheme-design could be attributed to low levels of sensitization, which in turn may contribute to low enrolment levels.

### 6.4.1 Premium Setting and Levels

Premiums can be either community rated or income rated. Community rating refers to a policy in which the premiums are related to the risk of the group in totality. The premiums will not vary according to age, sex, health risk, occupation or other profiles (Criel & Kegels, 1997; Devadasan, 2006). The premium is determined by the collective experience of all insured people in a particular community. Income rated premiums are varied according to household income (sliding scale setting). Income rating has been recommended as a fairer way of promoting equity in insurance (Dong et al, 2005), since poorer households do not have to pay the same amount as wealthier ones. In the case studied, the amount of the premium is community rated, with differences based only on the size of the household. The bigger the household, the higher the amount paid, as indicated in Table 20.

**Table 20: Current premium rates for the insurance scheme**

Family size	Annual premium (Ug shs)
1-4 persons	24,000/=
5-8 persons	32,000/=
9-12 persons	40,000/=
Any additional person	8,000/=

*Exchange rate: US\$ 1=1700 Ug shs (September 2007)*

*Source: Microcare health (Kisiizi) scheme policy (no date)*

As indicated in the above table, the amount of the premium increases with household size. However, households with an unequal number of people may in fact pay the same amount of premium, if they fall within the same size-category. This implies that the net payment made by larger households is less than that made by smaller households. Some authors (Criel & Kegels, 1997) have argued that community rated premiums discourage low risk individuals from purchasing insurance, while encouraging those who are at high risk of falling ill. This may be true to some degree in the case studied. The large households had a higher probability of enrolling in the scheme than the relatively smaller households, partly because they are favoured by the premium design (Section 5.2.5: 127). This adverse selection can threaten the viability of CHI.

In contrast, community rated premiums are consistent with the principle of simplicity of contract inherent in CHI, as argued by Tabor (2005). They remove the need to assess individual or household risk profiles, and reduce scepticism and suspicion among community members too. This kind of simplicity and non-discriminatory premium setting seems to be appreciated by scheme-members:

*The good thing about the scheme is that once you fall sick, the monetary assistance you get is not pegged on your contribution to the scheme. They cover the full cost even if it is 300,000 Ug.shs. (Scheme-members' FGD, April 2008)*

In a rural community with relatively low levels of education and exposure, it may become difficult for given households to understand why they are paying different premiums even when they have the same household size. If this happens, it could lead to low membership and/or high drop-out rates. It has also been argued that community rated premiums reduce the scope for manipulation and contribute to low transaction costs for the scheme (Khetrapal, 2004), all of which contribute to the scheme's viability. Hence, the design of a scheme in terms of premium setting can have a bearing on its viability.

#### **6.4.2 Periodicity and Mode of Payment**

The premium is paid annually (i.e. every 12 months). Initially, it used to be paid quarterly. This was extended to annual payments in order to minimize the administrative costs of collecting premiums and processing group renewals. It was also envisaged that the longer period would give households enough time to mobilize resources for payment. The scheme does not allow instalments and neither does it allow in-kind payments, as has been reported to happen in some similar schemes (Hope, 2003). While some respondents regarded annual premiums as suitable, others felt they were economically burdensome, especially to poorer households:

*The mode of payment is okay. At first they used to pay per quarter but that had its own problems. People were always on tension for the next payment and those collecting the money were overworked. Now they pay per year. Both administratively and on the part of the people paying the premium, I think it is convenient. (Hospital administrator, Kisiizi hospital, October, 2007)*

*At least they should pay once a year so that people are not on tension of raising money all the time.*<sup>37</sup> (Non-scheme-members' FGD, April, 2008)

*At first we used to make quarterly payments but when they changed to annual payments, the money became too much...we find it hard.* (Scheme-members' FGD, April 2008)

From the above quotations, it is evident that there are still mixed feelings about the mode and timing of payments. While it is administratively convenient, the lump sum payment could prevent some households from enrolling in the scheme. This perception was observed among the members of a CHI scheme in Burkina Faso, who preferred to spread their payments over a longer period of time in several instalments (De Allegri et al, 2006b). A number of enrolled groups have devised locally managed ways of saving for health insurance; for instance, member households may deposit a given amount of money into a small pool every month so that at the time of payment (in a year's time), some money is available and households just need to top up in order to come up with the required amount for renewal of registration in the CHI scheme. This kind of arrangement has been reported to have aided poorer households in Rwanda to enrol in CHI (Jutting, 2001). Thus, there is clearly a need to consider increasing the flexibility in how often the payments are made.

Some KIs also felt that flexibility in the mode of payment, particularly with regard to in-kind payments, is a reasonable way of enhancing the viability of CHI, given the fact that most rural households lack effective access to markets to turn their produce and assets into cash:

*The issue of monetarizing poverty is a big challenge...people may have no money but they have their chickens, goats, and other agricultural produce...and that is where the traditional healing system beats the western one. The traditional healers are a bit flexible. They will ask you to bring what you have. The community health insurance should be linked to a relevant economic activity. It should not be monetarized in a rural community.* (Executive Director, THETA, May 2008)

When asked why in-kind payments such as agricultural produce are not allowed, despite the fact that this is a subsistence community, the scheme manager explained that it would

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<sup>37</sup> The view represents a misinformation about aspects of the design of the scheme since in fact the premium is currently paid annually.

create difficulties in valuing, storage and marketing of produce in order to convert it into the needed cash. Since the health service providers do not accept in-kind payments, it is not considered an appropriate mode of payment from the community. Instead, households are encouraged to sell their extra produce and pay cash to the insurance scheme.

Generally, making premium payments flexible in a subsistent community can help to enhance the relevance and viability of CHI, a view that has been supported in the literature (Hope, 2003; Chirmulay & Devadasan, 2006).

### 6.4.3 Co-payments

Co-payment is the fee paid on every visit to the health facility in addition to the insurance premium. The rationale for co-payment is to reduce unnecessary use of services, for example, through reporting of minor conditions that could have been handled at PHC level. The current rates are indicated in Table 21.

**Table 21: Co-payments/registration fees for hospital visits**

Enrolment status	Fees		
	In-patient	Out-patient	Weekend/Holiday (outpatient)
Scheme-Member	5000/=	1000/=	2000/=
Non-scheme-member	20,000/=	2000/=	4000/=

*Exchange rate: US\$ 1=1700 Ug. shs (September 2007)*

*Source: Microcare health (Kisiizi) scheme policy (no date); Kisiizi hospital administrator, 2007*

It was noted in the study that the co-payment is set below the general payment made by the non-members of the scheme. Respondents did not criticize the co-payment rates but rather perceived it to be fair, given the amount of money they would otherwise have paid without insurance. However, others did not perceive it as being different from what the non-scheme members were paying:

*You just pay 1000/= for registration if you are an out-patient and 5000/= if you are admitted. That is all. Sometimes you don't even know what the total bill was – the scheme takes care of that. It is really helpful. (Scheme-members' FGD, April 2008)*

*The difference in payment especially for out-patients is not so significant. The scheme-member pays 1000/=, the non-member pays 2500/=<sup>38</sup>. There are no other benefits such as faster treatment for the scheme-members so that the non-members can be enticed to join. So some people will base themselves on such arguments to justify their not joining the scheme. (Scheme-members' FGD, April 2008)*

Co-payments have been highlighted in CHI literature as an important tool to prevent over-use of services and moral hazard (Criel & Kegels, 1997; Atim, 1998; Bennett, 2004). However, high co-payments may deter people from utilising the health services. In China, average co-payments have been set at 80% of the fees (Wang et al, 2005), which recreates a financial barrier posed by OOP payments even if the premiums are kept low. Thus, the application of co-payments as a tool against moral hazard needs to be applied with caution, or it will negate the benefits of CHI.

## **6.5 Purchasing of Services/Service delivery**

Purchasing and service delivery are processes by which pooled contributions are used to pay providers to deliver a set of health interventions to the members of a scheme. It involves not only the benefits package but also the provider arrangements through which the package is delivered.

### **6.5.1 Benefits Package**

The benefits package refers to the range of services that scheme-members can access from the hospital in exchange for premiums. The degree of risk protection offered by a CHI scheme depends upon the extent to which the benefits package covers a comprehensive range of services, particularly those that are of high cost (Bennett, 2004), as well as the relevance of the covered services to the community in which the scheme is operating (Mladovsky & Mossialos, 2008). The current study thus examined the range of services covered, the exclusions, and the extent of community participation in determining the package.

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<sup>38</sup> This represents some misconceptions about co-payment, since the amount of money indicated for the non-scheme-members does not include the cost of drugs, which definitely increases the total cost paid by the non-scheme-member at the end of the hospital visit.

Currently, the main services covered under the Kisiizi health insurance scheme include casualty and out-patient care, in-patient services, surgery, maternity, prescribed drugs, dental and optical consultation among others (the full list of covered services is indicated in Appendix G: 281). The scheme covers most of the common causes of illness and hospitalization, as spelt out in the UNMHCP (Appendix H: 282), making it relevant to the community's needs. Chronic conditions, referral and self and alcohol/drug induced accidents are not included in the benefits package. Previously, chronic conditions were covered, but these were later dropped in order to cut costs. Although this may be considered rational management in insurance principles, it has negatively affected the acceptability of the scheme among community members:

*The assistance from the scheme is very good apart from one thing – the exclusion of some sicknesses. In fact, we estimate that half of the people could have dropped out due to these exclusions. Others have been reluctant to join because of this discrimination against some sicknesses... The excluded sicknesses such as pressure, diabetes and asthma disturb people so much...It seems the scheme targets the less costly illnesses or those unlikely to happen such as accidents so that they can pay less money. (Scheme-members' FGD, April 2008)*

*Some conditions such as pregnancy<sup>39</sup> and accidents are excluded and yet these are big problems. This is a big weakness in the scheme's design. It does not attract membership. (Non-scheme-members' FGD, April 2008)*

*If they continue excluding some illnesses, more people may become disinterested and drop out. If the scheme was started to help the sick, then why do they say that this or that sickness is not covered? (Scheme-drop-outs' FGD, April, 2008)*

Some KIs shared similar sentiments about the unfairness of exclusions:

*The benefits package is unfair. Chronic conditions are excluded and yet they pose significant problems to the people. The explanation given is that they take a lot of money from the scheme – which is true but the community will not look at it that way. And so it seems as if the scheme is not being helpful to the people with the most pressing health needs. (Hospital administrator, Kisiizi hospital, October 2007)*

It is clear from all the quotations that exclusions are a significant disincentive to membership. They negatively affect the acceptability of the scheme within the community, hence weakening its ability to maintain sustained growth. The scheme

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<sup>39</sup> In the original scheme design, normal delivery was excluded from the benefits package but currently it is covered. However, the perception of exclusions remains prevalent in the community due to inadequate sensitization. This in turn threatens the viability of the scheme.

management explained that chronic conditions such as diabetes, hypertension, asthma, epilepsy, ulcers and sickle cell disease require constant treatment, and that this was draining the scheme's financial resources. The options were to increase the premium in order to cover such conditions for a few people or to retain reasonable premiums and cover the most common causes of illness in the community.

*We held a meeting with all the groups (members) and explained the dilemma. It was becoming difficult to recover treatment costs from the premiums basically due to coverage of chronic conditions. The members reached consensus that these conditions should be excluded. (Scheme-manager, September 2007)*

There exists a trade-off between exclusions and affordability of benefits. Firstly, exclusions in a CHI scheme create uncertainty at the time of illness, since the patient does not know what the diagnosis will be when he goes to hospital and whether or not it will be covered by the scheme. From a public health perspective, exclusions do not provide protection for patients that are most vulnerable, such as the chronically ill (Devadasan et al, 2007). However, an all-inclusive package would imply increases in the premiums (Dong et al, 2003, 2004), which would make the scheme unaffordable to the majority of the population. Even in the national health system, a basic package that is believed to be cost-effective is offered vis-à-vis an all-inclusive health care package (Uganda, 1999).

From this discussion, it is clear that the benefits package, though relatively comprehensive, is not fully appreciated by the community members and that it is one aspect of the scheme design that can affect the viability of CHI in a rural setting. There is need for continued dialogue with the community members in order to reach consensus on what should in fact constitute the benefits package, if the acceptability of the scheme is to be improved.

### **6.5.2 Provider Options**

Health care for the scheme-members is purchased from one provider, namely, Kisiizi hospital. There is no referral required from lower level health centres. All members, irrespective of their area of residence, have to seek care from this hospital. Apart from the fact that the hospital was the original host and manager of the scheme, it is also one of

only two hospitals in the district. Further, it enjoys good will and a historically positive perception of its quality of care among community members:

*Kisiizi has expert doctors. If they treat you, you can even spend a whole year without falling sick again. Secondly, they have very effective drugs, so even if your condition is severe, you are sure you are in the right place. (Scheme-members' FGD, April 2008)*

*The quality of care at the health facility is so crucial for the success of the scheme. If health workers are not giving attention to patients, there is no way you will convince someone to pay for such a scheme. (Private health practitioner, Rukungiri district, April 2008)*

Community members are attracted to the insurance scheme partly because of the choice of the service provider. The positive relationship between service provider options and sustainable membership in CHI has also been reported in Senegal, where the NGO hospital in the Thies region made the scheme attractive to the target population (Atim, 1998; Jutting, 2001). Thus, the choice of providers has a strong influence on the viability of CHI. It is relatively easier to market a scheme that is linked to facilities believed to provide better quality services than otherwise.

However, the study highlights growing dissatisfaction with the arrangement of a single provider of health care for scheme-members. This is partly related to the long distance and difficulties in transport to access the health facility, as well as to the waiting time at the hospital, which comes from overcrowding, as depicted in the opinions of the FGD participants.

*The way the scheme works is good but there are very limited providers. If they can allow members to seek care from lower level centres for the less severe sicknesses and only go to Kisiizi when the sickness is serious, it would cut on transport costs and also reduce overcrowding. (Scheme-members' FGD, April 2008)*

*...if members go somewhere else like in a clinic, they pay for themselves yet sometimes it's inevitable, so why would you have joined the scheme. (Non-scheme-members' FGD, April 2008)*

The fact that all scheme-members have to report to Kisiizi hospital, irrespective of how far they have to travel to get there, is a big constraint to the viability of the scheme. Although Kisiizi hospital has a reputation for good quality care, which gives strength to the scheme, members would find it much easier if there were other options where they

could report in case of illness. The scheme is also not networked with other providers or schemes in other parts of the country. Therefore, if a member fell sick and is in another part of the country at the time, he would not be able to access benefits, even if he presented his insurance card. This is partly explained by the few existing schemes, which makes networking difficult at this stage. The scheme management argued that it has been difficult to identify other providers in the area because they do not meet the required minimum standards.

*We realize that the distance to the health service provider may discourage some people from joining the scheme. We have tried to identify providers who we can work with but it is difficult. Those who have structures have no adequate staff or the staffs employed are not qualified at all. The rural households may think that whoever is found at the health centre is a doctor or clinical officer, but we scrutinize the whole setup. One of the private clinics that seem popular has an absentee doctor who comes only during the weekend. It is useless for people to pay money and you send them to a health facility where they will get half-baked services. (PHC Specialist, Microcare, November 2007)*

Accordingly, the lack of quality service providers, which undermines the government health care system, is also likely to affect the viability of CHI.

## **6.6 Summary of Key Findings**

The design of the CHI scheme was reviewed in this chapter, drawing out the key aspects that are likely to influence the viability of the scheme. The positive and negative aspects of the design of the CHI scheme are summarized in the matrix below (Table 22).

**Table 22: Evaluation of the design aspects of Kisiizi health insurance scheme**

Design aspect	Strength	Limitation
<p>Organisational design</p> <p><i>Insurer model</i></p> <p>(Section 6.2: 142)</p>	<ul style="list-style-type: none"> <li>• Separation of pooling, purchasing and service delivery functions may enhance efficiency.</li> <li>• It is possible to reinsure risks through the bigger organisation (Microcare).</li> <li>• The model supports ‘vertical bridging’ (Bennett, 1998) which has the potential to build local capacity.</li> </ul>	<ul style="list-style-type: none"> <li>• There is less active participation of the community members due to the top-down approach to management.</li> </ul>
<p>Linkages to grassroots organisations:</p> <ul style="list-style-type: none"> <li>• <i>Mutual help groups</i></li> <li>• <i>Microfinance</i></li> </ul> <p>(Section 6.2.2: 146)</p>	<ul style="list-style-type: none"> <li>• CHI has effectively made use of the existing mutual aid groups in the community.</li> <li>• The higher level of membership to mutual aid groups provides an opportunity for mobilization and marketing of the scheme.</li> <li>• Establishing linkages with local microfinance associations is one way of enhancing social capital networks essential for the viability of CHI scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• Some non-scheme-members (6.2%) were also not members of mutual help groups. This indicates a form of vulnerability that needs to be addressed through health care subsidies.</li> <li>• The linkage with local microfinance associations is not well developed. However, taking that route could also pose a challenge due to financial risk implications involved in loans.</li> </ul>
<p>Risk/Resource Pooling: <i>Mode of enrolment</i></p> <p>(Section 6.3: 150)</p>	<ul style="list-style-type: none"> <li>• Group enrolment minimizes adverse selection.</li> <li>• It encourages mutual help and cross-subsidization.</li> <li>• It enhances community participation, ownership and the sustainability of the scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• The 20-member group minimum makes it difficult for smaller groups that would like to enrol.</li> </ul>

Design aspect	Strength	Limitation
Revenue collection: <i>Premium setting and payment</i> (Section 6.4: 152)	<ul style="list-style-type: none"> <li>• Prepayment minimizes barriers to health care access posed by OOP payments.</li> <li>• Premium is community rated and not risk/income rated, and this makes it more acceptable to the community (reduces tension within the community).</li> <li>• The premium rates favour larger households, which are in most need of subsidized health care.</li> <li>• The collection of funds is through the <i>engozi</i> group leaders, which is administratively efficient/cost-effective.</li> <li>• Flat rate premiums are easier to calculate and manage.</li> <li>• Annual lump sum payments reduce the administrative costs of collecting and processing premiums for the scheme.</li> <li>• Instituting co-payments is a conventional tool against unnecessary use of services (Atim, 1998; Bennett, 2004). It is deliberately set below the market price in order to keep the scheme attractive and avoid creating another form of OOP payment for the users.</li> </ul>	<ul style="list-style-type: none"> <li>• Flat rate premiums disfavour equity in financial contribution.</li> <li>• The favouring of larger households can result in the creation of a higher-risk pool, leading to over-use of services and faster depletion of the scheme's resources, which threatens its sustainability.</li> <li>• The sanction of a waiting period after delayed premium payment is seen by the scheme-members as too restrictive and a form of punishment.</li> <li>• No instalment payments are allowed, which disadvantages the poorer households.</li> <li>• No in-kind payments are allowed, yet this is a subsistent community. This could contribute to lower enrolment levels.</li> </ul>

Design aspect	Strength	Limitation
Purchasing and provision of services: <i>Benefits Package</i> (Section 6.5.1: 157)	<ul style="list-style-type: none"> <li>• This is comprehensive and includes high risk, high cost services, particularly in-patient care.</li> <li>• It is aligned to the national minimum health care package, and it largely responds to the health needs of the community.</li> <li>• Chronic conditions are covered in emergency in-patient care, which enables access to high cost health care.</li> </ul>	<ul style="list-style-type: none"> <li>• The rationale for exclusions is not totally understood by the community. This has affected the marketability of the scheme.</li> <li>• The exclusion of chronic illnesses disadvantages a particular group of vulnerable people who have a greater need of health care.</li> </ul>
<i>Provider options</i> (Section 6.5.2: 159)	<ul style="list-style-type: none"> <li>• A popular provider was selected for service delivery.</li> <li>• The provider enjoys a positive image in the community and is well-known for providing better quality services.</li> </ul>	<ul style="list-style-type: none"> <li>• Hospital-based services introduce the inefficient use of health resources in the broader health system.</li> <li>• There is only one provider option, which retains the cost of distance and time on some users, which in turn may be an obstacle to enrolment and effective access to services.</li> </ul>

Source: Based on field data, 2007-2008

## CHAPTER SEVEN

### PERFORMANCE OF KISIIZI HEALTH INSURANCE SCHEME

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#### 7.1 Introduction

In the previous two chapters (5 & 6), the household socio-economic profiles of members and non-members of CHI as well as the design features of the scheme were discussed. Their implications for the viability of CHI were highlighted. This chapter examines the performance of CHI in Uganda, drawing from the case of Kisiizi health insurance scheme. It builds on the findings of the previous chapters in assessing the viability of CHI. This particular scheme is considered appropriate for analysis, given that it has existed for over 10 years and that it was the first to be established in the country (Section 1.3: 17). The chapter begins by highlighting the levels of enrolment, giving both the reasons for enrolment and the constraints to enrolment. The scheme's viability with regard to equity, financial efficiency, and sustainability is examined. Finally, the community's perceptions of the viability of the CHI scheme are investigated. A summary of key findings is given at the end of the chapter.

#### 7.2 Enrolment Levels

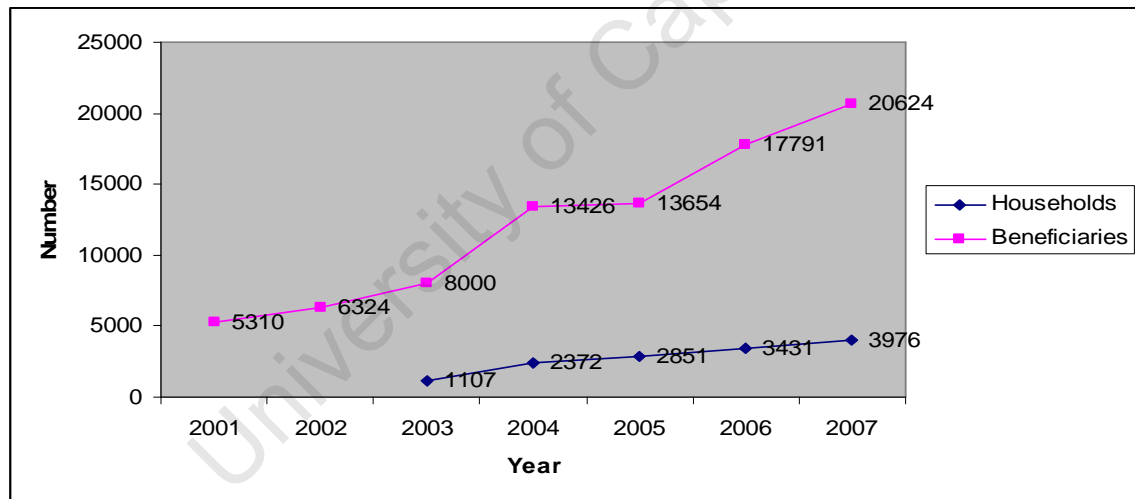
The findings indicate a high level of awareness of the CHI scheme among the sampled population (95.4%) (Refer to Figure 22-Appendix F: 280). This finding is interesting given the fact that there is no deliberate strategy in place to educate the community about CHI. Derriennic et al (2005), indicate that this may inhibit the growth of enrolment. The level of enrolment is a major indicator of the viability of CHI. Whatever potential it may theoretically have, if a scheme does not depict a sustained growth in membership, its viability will be questionable. High enrolment levels will not only increase the amount of resources collected through premiums and therefore contribute to financial sustainability

(Wiesmann & Jutting, 2000), but they will also increase the risk pool and levels of cross-subsidization where the healthy subsidize the less healthy and those with better incomes subsidize the poor. If the pool (membership) remains small, it could easily be characterized by a particular category of people such as the poor or only the sick. This adverse selection makes it hard for a CHI scheme to be viable. Hence, the study examined trends in enrolment as well as the reasons for and constraints to enrolment.

### 7.2.1 Trends in Enrolment

The study attempted to establish trends in enrolment over the years, using the available data from the scheme's records. Figure 14 shows the trends.

**Figure 14: Trends in enrolment in the CHI scheme**



Source: Data extracted from Kisiizi Health insurance scheme data base. September 2007

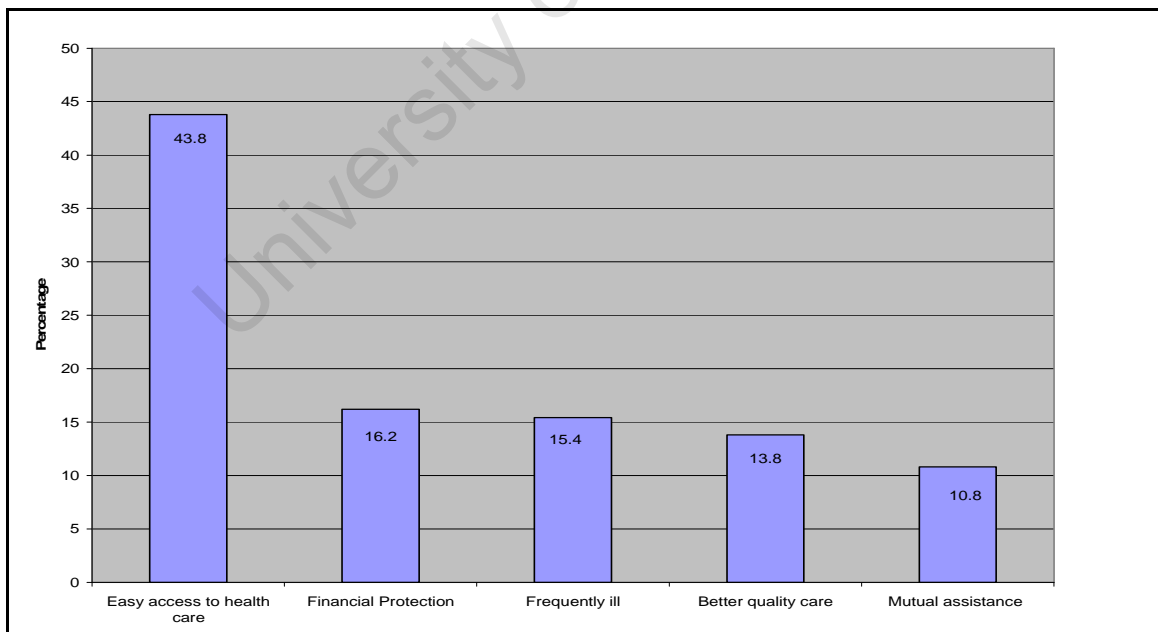
As is evident in Figure 14, the enrolment level has been growing, though the total membership is still low in relation to the target population of the area. Available information from the hospital records showed, for example, that for the year 2006-2007, scheme-members comprised about 30% (8,554) of the general out-

patient cases<sup>40</sup> (29,902). Similarly, 3,958 out of 10,583 in-patient cases (34%) belonged to the scheme (Kisiizi hospital annual report, 2006-2007). This implies that, on average, scheme-membership covers only about a third of the target population. Nevertheless, the positive trends in enrolment levels are indicative of the potential of the CHI scheme to realize sustained growth.

### 7.2.2 Reasons for Enrolment

Scheme-members were asked to state the most important reason for enrolling in the CHI scheme. This was aimed at establishing their level of appreciation of the scheme, expected benefits from the scheme and their ability to interpret the primary purpose of insurance. These are crucial driving factors for the successful adoption of the CHI strategy (De Allegri et al, 2006b, c). The findings are presented in Figure 15.

**Figure 15: Major reasons for enrolment in the CHI scheme**  
(N=130)



Source: Field data, September, 2007

<sup>40</sup> This excludes antenatal services, child immunisation, family planning services, eye clinic, physiotherapy and dental services.

As indicated in Figure 15, almost a half of all the scheme-members interviewed indicated that they joined the scheme because they believed that it provides easier access to health care. This was confirmed through the qualitative data:

*...there are complicated illnesses, which private clinics cannot handle. They refer you to Kisiizi. It is not easy to get help from elsewhere. Or if you get an accident, you'll have to go to Kisiizi. If you go there without insurance you pay something like 300,000 Ug.shs which we do not have. So if you are in the scheme it helps a lot (Scheme-members' FGD, April 2008)*

*I lost my 2 year old son to malaria because I could not raise money to take him to hospital. Very many people were dying at that time due to lack of money to seek medical attention. When they (scheme staff) explained to us the way the scheme works, I decided to join (Scheme-member, Kahoko Parish, Nyakishenyi Sub-county, September 2007)*

Other key reasons for enrolment included financial protection against the cost of illness (16.2%), frequent illness (15.4%), access to better quality care (13.8%), and mutual assistance (10.8%). Financial protection against the cost of illness was mainly interpreted in terms of the ability of a household to access medical care without being forced to sell a household asset such as land, bicycle or other assets. This protects the household from being plunged deeper into poverty.

*Why I love the scheme is that when you go to Kisiizi hospital and you are admitted, they give you all the care and treatment, give you a bill of say 300,000 Ug.shs and the scheme pays that money. You just go home without any financial burden (Scheme-members' FGD, April 2008)*

The identification of frequent illness as a major reason for enrolment (15.4%) indicates that households or individuals are able to estimate risk and base their decisions on that. This was also highlighted in the FGDS:

*I have a big family and am poor. I do not always have money to access medical care whenever needed. The scheme allows me to pay before so that I can go to hospital whenever need arises. That helps me a lot (Scheme-member, Ndago parish, Nyarushanje Sub-county, September 2007)*

Without the scheme, such families would constantly have to make OOP payments for every illness episode in the household. As members of the scheme,

however, they pay once, and they and their families are able to access medical care for the whole year (i.e. the registration period). On the one hand, attracting high risk cases (adverse selection), such as those who are most likely to fall sick, negatively affects the sustainability and profitability of an insurance scheme, since the collected premiums would quickly be used up. On the other hand, however, providing services to those with the greatest need is the cardinal goal of any health system. To minimize the effect of adverse selection, the scheme thus adopts enrolment by groups rather than by individuals in order to ensure that both the healthy and non-healthy, the poor and the relatively well-off join the scheme and share risks.

### 7.2.3 Constraints to Enrolment

Constraints to enrolment at household level were investigated with a view of finding out what might impede the success of CHI. Respondents who had never registered in a CHI scheme were asked to state their reasons for not enrolling in the scheme. The findings are presented in Table 23.

**Table 23: Reasons for not enrolling in a CHI scheme**

		n	%
Reasons for not enrolling in CHI	Unaffordable Premium	53	43.8%
	Inadequate understanding of how the scheme operates	33	27.3%
	Other competing expenditures	8	6.6%
	Enrolment requirements (Group dynamics)	6	5.0%
	Inappropriate mode of payment	6	5.0%
	No major health problems	4	3.3%
	Have access to free health care	4	3.3%
	Other	7	5.9%
	Total	121	100.0%

*Note: 9 of the 130 non-scheme-members interviewed had once joined the scheme so they did not answer this question.*

*Source: Field data, September 2007*

Two major factors were identified as impeding enrolment at household level, namely, the cost of premium (inability to pay) and inadequate understanding of how the scheme operates. The majority of the respondents (44%) cited unaffordable premiums (more precisely, their inability to pay premiums) as the primary reason for not enrolling in the scheme.

*Those who cannot afford premiums cannot join. I can even be without any dependant at home but still fail to pay the money due to poverty. (Non-scheme-members' FGD, April 2008)*

*They should reduce the amount of money paid to the scheme so that every household can afford to pay. We know that the scheme is helpful but not everyone can afford that money. If there is a way it can be reduced, many people would join the scheme. (Non-scheme-members' FGD, April 2008)*

Inability to pay premiums has been consistently highlighted in literature as one of the threats to the viability of CHI (Jutting, 2001; De Allegri, 2006b; Basaza et al, 2007; Ndiaye et al, 2007; Kyomugisha et al, 2008), with some arguing that there will always be households that are too poor to afford premiums no matter how subsidised or flexible they are (De Allegri et al, 2006b).

Whereas almost all respondents were aware of the existence of a CHI scheme in their area (Figure 22- Appendix F: 280), almost a third of the non-scheme-members had not enrolled due to a lack of adequate understanding of how the scheme operates. This is not surprising, given the fact that no systematic strategy is in place to sensitize, educate and mobilize the community to join the CHI scheme. Qualitative data confirmed these findings:

*There is a lack of proper marketing. For anything to be embraced, you need to educate the public and promote the idea. The scheme promoters do less of this, so it may be difficult for all people to understand the good there is in the scheme. Even in our community itself, there is little sensitization. They should talk about it on radio or select local leaders to go from village to village. In our village, they once brought a member of parliament, who is also a doctor, to talk about the scheme, and many people have joined as a result. (Scheme-members' FGD, April 2008)*

*The community is not well sensitized about insurance. If people knew what benefits insurance holds for them, no one would be left out. People cannot continue to rely solely on the government health system because it still has so many problems. Drugs are not always available. (KI, DDHS, Rukungiri district, September 2007)*

While some have argued that knowledge alone is not enough to influence enrolment (Criel & Waelkens, 2003), the lack of or inadequacy of knowledge has a significant impact on the decision to enrol in CHI. De Allegri et al (2006a) posit that poor knowledge of scheme components may foster sentiments of scepticism. A deliberate investment in community awareness and education programs is recommended to realise sustainable growth of CHI (Tabor, 2005; Bhat & Jain, 2006).

Other respondents (3.3%) said they had no major health problem to necessitate joining the scheme, with some stating that they had dropped out because neither they nor their household fell sick during the period they were in the scheme. This perception was also apparent in the FGDs:

*Whether you are sick or not you keep paying money every quarter. At least if they were paying once a year ...In fact I know of a man who drunk a lot of 'waragi' (local gin) so that he could at least fall sick and benefit from his money. He said he always helps others and never falls sick. (Non-scheme-members' FGD, April 2008)*

*Some people just try to 'over-reason' everything. They say 'what if I pay and I don't fall sick for a whole year'...there are others who will say they have fewer chances of falling sick so it is not necessary to join the scheme. But once a problem strikes and they are charged so much money at Kisiizi, that's when they begin to realize that their reasoning was faulty. That is when you see some trying to join and yet it is not a season for registration or there is no ready group to register with. (Scheme-members' FGD, April 2008)*

This indicates some level of misconceptions about insurance as a concept, which needs to be constantly addressed if the viability of CHI is to be strengthened.

A few respondents mentioned difficulties with group enrolment, other competing expenditures, unfavourable modes (lump sum) of payment of premiums, exclusions from the benefits package, and distance to the health facility.

*I wanted to join but my group could not afford to collect money from all the members and yet they wanted the whole group to join at once. I tried to join with another engozi group but found they had finished registering their group. If they allow us to join at household or individual level, perhaps I would join. (Non-scheme-member, Kacence parish, Nyakishenyi, September 2007)*

*I was a member of the scheme but when I got dental problems, they refused to pay for me. Also pregnancy and normal delivery was not covered. I saw that I was not benefiting, so I dropped out. (Non-scheme-member, Kacence parish, Nyakishenyi sub-county, September 2007)*

*Even when you've been a member for say 3 years, the moment you delay payment, they kick you out. They do not accept arrears or instalments. (Non-scheme-member, Ibanda parish, Nyarushanje sub-county, September 2007)*

The responses indicate anomalies related to the design of the scheme. As examined in Chapter 6, the design of the scheme can influence its viability. The cost of rigidly applying design features and rules needs to be weighed in terms of the impact on enrolment as well as the general sustainability of the scheme.

Surprisingly, access to free health care was not a major cause for lack of enrolment in the scheme (3.3%). This reiterates the recurring argument that the majority of Uganda's population is paying for health care despite the free health care policy; furthermore, it validates the need to consider additional strategies to increase access to health care.

### **7.3 Contribution of CHI to Equity**

One of the indicators suggested for measuring the viability of CHI is equity (Atim, 1998). Equity refers to the provision of services according to need. It has connotations of fair and just distribution of health resources (Donaldson &

Gerard, 1993). Equity is usually contrasted with equality, which is concerned with everyone having an equal share of services irrespective of variations in need. Equity in insurance is concerned with extension of coverage to the most vulnerable groups in order to assist them to access services while at the same time protecting them from the adverse impacts of health care costs. Equity may be indicated by the percentage of the population covered by the scheme and the distribution of enrolment across socio-economic categories (Carrin et al, 2005; Polonsky et al, 2009). There are two major dimensions of equity, namely, horizontal equity and vertical equity. Horizontal equity focuses on equal treatment of equals or equal treatment for equal need. According to Donaldson & Gerard (1993) and Green (1999) horizontal has the following features:

- Equal expenditure for equal need
- Equal utilization for equal need e.g. equal length of stay per health condition
- Equal access for equal need e.g. equal waiting time for treatment for patients with similar conditions (provides individuals with equal opportunities to use needed health services).
- Equal health/reduced inequalities in health e.g. equal age and sex adjusted standardized mortality ratios across health regions.

Conversely, vertical equity addresses the extent to which individuals who are unequal in society are treated differently. Individuals or households with different ability to pay should make appropriately dissimilar payments for health care, with higher income individuals or households paying more than those with a lower income level (McIntyre et al, 2005). According to Donaldson & Gerard (1993) and Green (1999), vertical equity criteria include:

- Unequal treatment for unequal need e.g. unequal treatment of those with treatable trivial versus serious conditions

- Progressive financing based on ability to pay e.g. progressive income tax rates and mainly income tax financed.

### **7.3.1 Horizontal Equity**

In this study, the focus of horizontal equity is on equal opportunity to access health care for those with equal needs. The variables used to assess the level of horizontal equity included: the distribution of enrolment at household and community levels, and the benefits package.

#### **7.3.1.1 Equity in Enrolment**

Various authors (Atim, 1998; De Allegri et al, 2006a, b) argue that the unit of enrolment can lead to either social exclusion or inclusion, and that it therefore has a strong bearing on equity of access to health care. Kisiizi health insurance scheme enrolls groups, and the unit of enrolment in the group is the household. Persons are not allowed to register as individuals. Group enrolment enables pooling and transfer of resources to persons with the greatest need. Those who would not have managed their health care costs as individual households are able to share costs with group members. Although every group member contributes to the costs, services are accessed only by those who fall sick and need medical attention. This kind of risk pooling is an indicator that the scheme makes significant contribution to equity of access to health care. Carrin et al 2001 (cited in Carrin et al, 2005) share a similar argument. The obligation to enrol entire households and not individual members of households ensures that every member has a relatively equal opportunity to access health services when in need.

##### ***a) Enrolment at Household Level***

At household level, equity is manifested in the opportunity, which every member of the household has, to access health care at the time of need. The study attempted to establish any inequalities in enrolment by asking respondents to

state how many members of their households are enrolled in the CHI scheme, who is not enrolled and why. Table 24 shows the findings.

**Table 24: Distribution of enrolment at household level**

		n	%
How many members of your household are not enrolled in CHI?	None	99	76.2%
	1	13	10.0%
	1-3	11	8.5%
	4-7	7	5.4%
	Total	130	100.0%
Among your household members, who is not enrolled in CHI?	Other relatives/dependants	10	32.3%
	Children above 18 years	9	29.0%
	Children 6-17	8	25.8%
	Children below 5 years	3	9.7%
	Spouse	1	3.2%
	Total	31	100.0%

*Source: Field data, September 2007*

A significant majority of scheme-members indicated that all their household members were enrolled in the scheme. Among those who reported having some members of their household not enrolled, the category, 'other dependants' and children above 18 years of age made up the majority of excluded members. Only one respondent mentioned that her spouse was not enrolled in the scheme. The other category among those least excluded are children aged five and below. Among the most frequently cited reasons for not enrolling some members of a household were that they had no direct responsibility over those members, and that certain members were away from home for significant periods in a year. The former applied mostly to distant relatives and workers in the household, while the latter applied to students who study away from home and only are at home during the holidays. As there is currently only one prescribed provider, it is not helpful to have such children/dependants enrolled in the scheme.

Research (Uganda, 2006; UBOS & Macro International, 2007) has shown that, particularly in developing countries, women and children bear a heavier burden of ill health and that, despite this, they are the most disadvantaged with regard to access to health care. This is primarily because they do not control household resources and therefore are rarely able to make OOP payments for health. The fact that the CHI scheme in this case enrolls whole households implies that a woman does not have to wait for the husband to release funds in order for her to seek medical attention, since financial access is secured beforehand, as reiterated by some KIs:

*In a community where women are the housekeepers while men go to drink (alcohol) or work outside the home, it is not unusual for a child to die at home while they are waiting for the husband to come and give money to take the child to hospital. With community health insurance, a woman does not have to wait for the husband, as long as she has the card to prove the child's registration (National Coordinator, UCBHFA, October 2007)*

From the above findings, it can be deduced that CHI has largely promoted equitable access to health care at household level. Children and adults, male and female members have a relatively equal opportunity to secure access to health care once they are members of the scheme. Other factors, however, such as difficulties in transport (especially for women and children), may limit the chances of accessing timely medical attention. CHI reduces the gap by minimizing the financial burden. A similar finding is reported by Polonsky et al (2009), who found in relation to Armenian CHI schemes that these have significantly led to increased access to health services for women, children and the elderly, groups that are considered more vulnerable to ill health.

#### ***b) Enrolment at Community Level***

Socio-economic differences in enrolment were examined in much detail in Chapter five of this thesis. The findings showed some differences in demographic characteristics of households which are enrolled and those which

are not. However, for most variables such as age, sex, marital status and the type of marriage, the difference was not statistically significant, implying an *equity-neutral* situation. Large household size was found to be strongly and positively associated with enrolment in CHI. Furthermore; households with a child aged 18 and older were more likely to be CHI members than those whose oldest child was below 18 years. Since large households are associated with more frequent illness, and therefore with a greater need for health care, the findings suggest that CHI in this particular context is contributing to horizontal equity in access to health care at community level.

However, in terms of the wealth index, the findings indicate some socio-economic differences in enrolment. One of the most valuable assets, land, showed a positive correlation with enrolment in CHI. It is likely that the households with less land, or the landless, who in most cases constitute the most vulnerable, are excluded from CHI. While most study participants suggested that other factors are relatively stronger predictors of enrolment than household income and wealth, they at the same time concur that there is a group of households who are not able to join the scheme because of a lack of any source of livelihood.

*The indigents would be the most worthy target group but they do not have any source of livelihood so they cannot join. You have to have some money to pay premiums. Government should come in to help such people. Also the rich did not join because insurance was new and they have money to access services any time they need them. (National Coordinator, UCBHFA, October 2007)*

*Most people who enrol are the poor, though the poorest of the poor miss out. They are not even in the community groups. On the other hand, the well-to-do say they can afford treatment costs when they fall sick. So there are not many civil servants in the scheme. It is mostly the non-working class who join. (Scheme-Manager, September 2007)*

Hence, there appear to be two extreme minorities who are not able to benefit from CHI; the first are the indigents because they cannot afford any level of

premium however subsidized it may be; and the second are the rich who are confident of meeting the cost of health care on an OOP basis. It should be appreciated that no single health financing mechanism can achieve total equity. Even in the free health care system, it has been noted that the *poorest of the poor* have little or no access to health care (Donaldson & Gerard, 1993; McIntyre et al, 2005).

#### **7.3.1.2 Benefits Package**

The benefits covered should reflect the most pressing health needs of the community if the health insurance scheme is to promote equity (Wiesmann & Jutting, 2000). The underlying principle is that those who are in most need of health care should in fact be accessing the required services. The study analysed the benefits package by comparing it against Uganda's minimum health care package. In Uganda, the top 5 conditions that contribute highest to morbidity and mortality (particularly premature death) include malaria, acute respiratory tract infections, diarrhoea diseases, peri-natal and maternal conditions, HIV/AIDS and tuberculosis (Uganda, 1999, 2000, 2005). A critical look at the scheme's benefits package indicates that some of these critical conditions are not addressed (HIV/AIDS and chronic conditions such as asthma and tuberculosis).

As indicated earlier (Section 6.5.1: 157), the exclusion of chronic conditions disadvantages the people who are most in need of health care. The scheme administration explained that, although chronic conditions were excluded from the benefits package, hospitalisation resulting from such conditions is covered:

*What the scheme does not cover is regular medication and check up. But if a patient is admitted due to an attack of such a condition as diabetes, hypertension and other such conditions, the scheme covers the costs. (PHC specialist, Micro care, November, 2007)*

With regard to HIV/AIDS, antiretroviral drugs are excluded, since they fall in the category of long-term treatment, which is considered too expensive for a CHI scheme. The exclusion of chronic conditions weakens the scheme's contribution to equity in access to health care since the people most in need of health care once again do not have an equal opportunity to access it. However, every insurance scheme has limitations and the services covered have to be weighed against the services most needed by the community as a whole.

### **7.3.2 Vertical Equity**

Vertical equity is reviewed in terms of contribution to health care costs according to ability to pay and is assessed with regard to premium setting and levels.

#### **7.3.2.1 Premium Setting**

Premium settings and levels were discussed in much detail in Section 6.4.1: 153. This section gives a critique of the design of the premium settings with regard to equity. Some authors (Atim, 1998; Criel et al, 1998; Dong et al, 2005) contend that flat fee premiums (which are common with community rating) disfavour the poor. They argue that a sliding scale, where households or individuals pay according to their levels of income and ability to pay, should be adopted if equity is to be achieved.

The scheme studied adopts community rated, flat premiums. They are not differentiated according to the ability of the household to pay. This would appear to contradict the equity principle. Community rated premiums have been defended based on the simplicity of the contract inherent in most CHI schemes and the complexity of assessing income differentials in a rural poor context (Tabor, 2005). Sliding scale premiums are furthermore vulnerable to abuse, since it is difficult to categorize people into different income groups and to decide who will pay which amount.

Despite the debates in respect of setting premiums, the study findings indicate that larger households, which are considered more vulnerable to poverty and disease, are more represented in the scheme than smaller ones. A critical evaluation of the premiums actually indicates that the marginal cost for insurance decreases with household size. This may suggest that, despite the lack of outright income rated premiums, the scheme is able to contribute to vertical equity through other mechanisms, such as enrolment of households and groups.

Another key aspect of vertical equity is the issue of exemption mechanisms and subsidies for the most poor (Jutting, 2004; Dong et al, 2005; Poletti et al, 2007; Kyomugisha et al, 2008). Kisiizi health insurance scheme currently has no strategy for exemptions or subsidies to the poor. The only defined vulnerable category is a group of AIDS orphans under *Hope Ministries*<sup>41</sup>, whose members are enrolled in the scheme with support from external donors. This is not an initiative of the scheme but of the hospital, which is the local organisation responsible for the group. Arrangements under which clearly defined vulnerable groups are exempted from payment have been reported elsewhere. For example, in Rwanda, the genocide survivors are exempted from premium payment (Musango et al, 2006). In other cases, NGOs collect premiums for indigents such as the disabled and the orphans, which gives these a chance to join CHI (Jutting, 2001) as one way of promoting equity in access to health care. The greatest concern in this case is the sustainability of such exemptions in case donor funding ceases.

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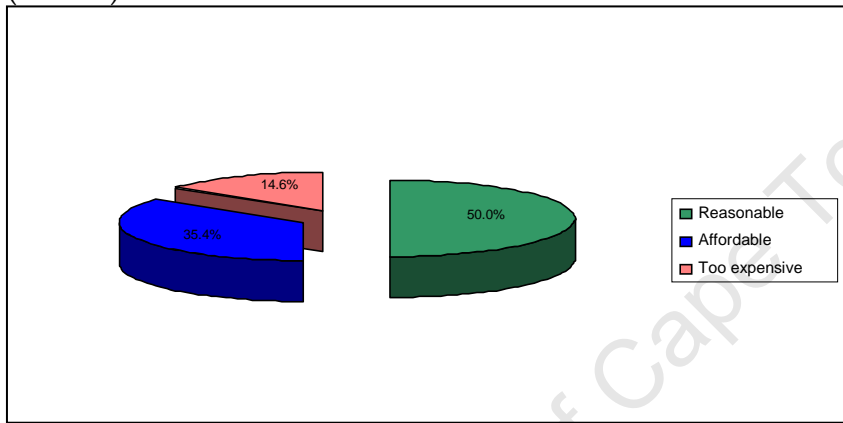
<sup>41</sup> The *Hope Ministries* are a charitable project run by Kisiizi hospital with funding from donors commonly known as *friends of Kisiizi*.

### 7.3.2.2 Perceptions of Current Premium Levels

In order to get a balanced view on premium rates, the survey attempted to determine the perceptions of scheme-members about the current premium rates. Respondents were asked to rate the current premiums. Their perceptions are indicated in Figure 16.

**Figure 16: Respondents' perceptions of the current premiums**

(N=130)



Source: Field data, September 2007

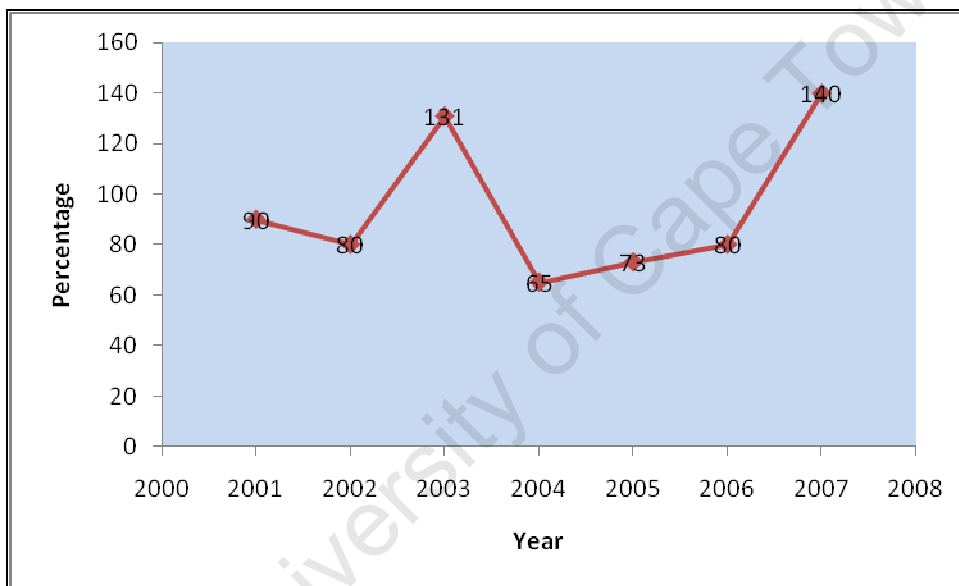
Half of the scheme-members interviewed consider the current premium rates to be reasonable. The basis of their perception has mainly to do with the range of benefits they obtain or hope to obtain from the scheme. Thirty-five (35%) percent stated that the premium is affordable, while only 15% indicated that it is expensive. However, these findings need to be considered in view of other factors, such as the reasons given by non-scheme-members for not enrolling. The fact that unaffordable premiums were highlighted as one of the factors for non-membership (Table 23: 169) shows that premium rates have not fully addressed equity issues at community level.

## 7.4 Financial Efficiency

The aspect of financial efficiency investigated was the extent of cost recovery. Cost recovery refers to the relationship between the amount of money collected

primarily through premiums, and the amount spent. According to the UCBHFA guidelines, a scheme is considered viable if it covers more than 60% of its costs or user fees. This serves as one of the indicators of financial efficiency, and thus of the sustainability of the scheme. Using the scheme's available financial records, this study established that cost recovery has been fluctuating over the years, although there are indications of consistent improvement since 2004. The trends in cost recovery for the last 7 years are presented in Figure 17.

**Figure 17: Trends in cost recovery for the CHI scheme (2001-2007)**



Source: Data extracted from Kisiizi Health insurance scheme, data base, September 2007

While there was excellent performance in cost recovery between 2001 and 2003, the percentage reduced by a half in 2004, implying that the total cost of treatment was almost double the amount of money collected through premiums. One of the reasons given for the escalating costs during this period was the malaria epidemic that hit the area, which increased the number of scheme-members seeking medical treatment. This has been linked to covariant risks (Wiesmann & Jutting, 2000), where a person's risk of needing care is dependent on his or her neighbour's health, especially in situations of natural disasters or epidemics.

Fraud and adverse selection were also identified as a challenge for cost recovery. Households with a chronically ill member were mostly joining the scheme after realizing the financial protection offered by the scheme.

*Adverse selection was a problem despite the measures taken against it; people were still finding a way around it by conniving with the group leaders. We found we were spending a big portion of money on chronic illnesses until we decided to let the patient cover routine check up and medication and the scheme to cover patients in a crisis, i.e. when they are hospitalized. (Scheme manager, September 2007)*

*In 2005, about 25 million Uganda shillings were spent on 300 visits for the chronically ill. On the other hand, we spent only 10 million on malaria, which was the leading cause of illness and admission among the members. So, which is cost-effective – look after a few members at the expense of the majority or compromise on chronic illnesses? We discussed this with the members and agreed to reduce the benefit due to chronic conditions. The other option was to increase premiums, which was not acceptable to the members. (PHC Specialist, Microcare, November 2007)*

Other threats to cost recovery raised by KIs were possible over-prescription by the service provider:

*Sometimes there is over-prescription. Different medical officers (practitioners) follow their own treatment protocols. It is rare to find practitioners following a particular treatment protocol even when the guidelines are in place. This is not only in one particular health facility. I think it is a general problem in Uganda (PHC Specialist, Microcare, November 2007)*

According to the scheme management, there are efforts to reduce such practices through joint meetings and on-going dialogue. Provider-induced demand in health insurance schemes is not a new phenomenon (Jakab & Krishnan, 2001; Jutting, 2001). It is normally linked to the provider-payment mechanism and particularly the fee-for-service approach, which gives the provider an incentive to supply unnecessary and expensive treatment.

In order to improve cost recovery, the scheme has embarked on preventive health care measures to reduce the prevalence of disease in the community,

particularly among scheme members, so that, in the end, there is a reduction in treatment expenditures (Section 4.2: 97). The scheme management also explained that, instead of increasing premiums, they have tried to encourage more groups to enrol so that there is a wider base for collection of premiums. This appears to be bearing fruit, since the figures show that cost recovery for the scheme has had an upward trend since 2004, with remarkable performance in 2007 (140%). This is consistent with a positive trend in enrolment levels during the same period (see Figure 14: 166). The study observes that, with sustained growth in membership, full cost recovery is achievable, hence strengthening the viability of the scheme. It should be noted, however, that calculation of cost recovery in this scheme, just as has been observed in most other CHI schemes (Derriennic et al, 2005), excludes administration and other operational costs. Currently, these costs are covered through donor contributions. If there is no viable donor, such costs could threaten the financial viability of the schemes even when there is 100% treatment cost recovery.

## **7.5 Sustainability**

Aspects of sustainability examined include financial performance, administrative and managerial capacity (with specific reference to available skilled manpower, the level of community participation and the legal and institutional framework). Previous assessment reports have questioned the financial viability and long-term sustainability of CHI schemes in the absence of external donor funding and underwriting (Magezi, et al, cited in Derriennic et al, 2005). As shown in Section 7.4, there is a positive trend in the recovery of treatment costs as a percentage of premiums. However, there is still heavy reliance on external assistance for other costs of the scheme. For example, in 2007, though there was a 140% treatment cost recovery, the total premiums covered only 52% of the annual budget. The remaining 48% was covered through external sources (Kisiizi Health Insurance, Annual Report, 2007). If total cost recovery was to be realized, it would imply an

increase in premiums. Given the low household incomes in the rural areas, the premiums may not be increased beyond a certain level as otherwise the majority of households would be excluded from the scheme. However, placing limitations on the benefits package may render the scheme irrelevant to the health needs of the people it is supposed to serve. Nevertheless, it is fair to state that so far the trends are a good indicator of the sustainability of the scheme. Judging the sustainability of CHI schemes based on donor dependency is unfair. As proposed by Carrin (2003), financial viability is not necessarily equal to self-financing. Several other partners, such as local and central governments, NGOs and official donors, can contribute to the scheme's resources, thereby strengthening the sustainability of CHI schemes. Even governments (in low and middle income countries) continue to depend on donor funding to sustain their systems.

With regard to administrative and managerial capacity, there are still serious challenges. The concept of health insurance generally and CHI in particular, is relatively new in Uganda, and therefore there are hardly any people with specialised training in managing such schemes. Data obtained from the UCBHFA, indicates that none of the current scheme managers has any prior training in managing such schemes. The persons employed as managers are solicited from any field of social development and/or the health profession. This lack of qualified human resources to manage and promote the schemes may threaten the sustainability of the schemes or at the very least slow down their growth, as has been argued elsewhere (Ndiaye et al, 2007).

Another important aspect of sustainability is beneficiary participation. Wiesmann & Jutting (2000) contend that, if members can identify themselves with 'their' schemes because they control the funds and have decision making power, they will be less likely to make unnecessary use of health care services

(moral hazard). In other words, beneficiaries need to be actively involved in the planning, decision making and to some extent management of an intervention. This is important in the event that the major promoter or external assistance is withdrawn. The activities and/or results of such an intervention would then be sustained at least at some minimal level. In this regard, Kisiizi health insurance scheme has registered some degree of community (beneficiary) participation in its operations. Group leaders who attend regular planning meetings with the scheme administration represent all registered groups. Information from KIs suggests some level of joint decision-making:

*We do not take decisions without consulting and agreeing with the members. The group leaders represent the people, but we also have an annual general meeting where all the members attend and key decisions are made there. (PHC specialist, Microcare, November 2007)*

*We explain to them to help them understand the implications of say exclusion or inclusion of a service on the benefits package. They can then decide what or which direction they would want the scheme to take. (Scheme-manager, September 2007)*

The groups also play an active role in mobilization, information sharing and marketing for the scheme. Each group has an executive committee that is responsible for mobilizing members for regular meetings and other joint activities. They also act as channels of communication from the scheme management to the beneficiaries and vice versa. This enhances positive feedback in the management of the scheme. The committee members work on a voluntary basis. This is important for sustainability, since it has minimal budgetary implications for the scheme. If new members have to be sensitized or old members re-sensitized, the groups act as the focal point in arranging the community sensitization meetings. Another key role played by the beneficiaries is to collect premiums at community or group level. The group leadership is responsible for collecting premiums and remitting these to the scheme. Each group has leverage on the mode of collecting the premiums, but ultimately has to

make sure that the full amount is remitted to the scheme before the expiry of the period of coverage. This has the advantage of reducing the administrative costs of the scheme. Conversely, it promotes a sense of ownership of the scheme by the beneficiaries, thereby contributing to the scheme's sustainability.

The viability of CHI partly depends on outside determinants that can hardly be influenced by the scheme, for example, a country's legal and policy framework (Wiesmann & Jutting, 2000). The legal and institutional setup includes laws and regulations that facilitate or impede the development of CHIs, internal rules and regulations within individual CHI schemes, as well as promoting institutions within the CHI environment. The study notes that CHI schemes in Uganda are currently being implemented without a policy framework or guidelines at national level. The current national health policy makes mention of CHI as a possible financing option, but it has not been officially adopted and therefore there are no guidelines for implementation. As a result, all schemes are implemented on an ad hoc basis. A key informant from the MoH equated their current operations to that of other mutual help groups in the communities:

*The community health insurance schemes are currently operating as 'engozi' or burial groups do. There is no policy and no single set of guidelines. The national health insurance bill to be tabled in parliament soon caters for them. After this, I think some national guidelines can be put in place. (KI, MoH, Personal interview, April 2008)*

This is a serious limitation to the promotion of CHI, the community's acceptance of it, and its sustainability.

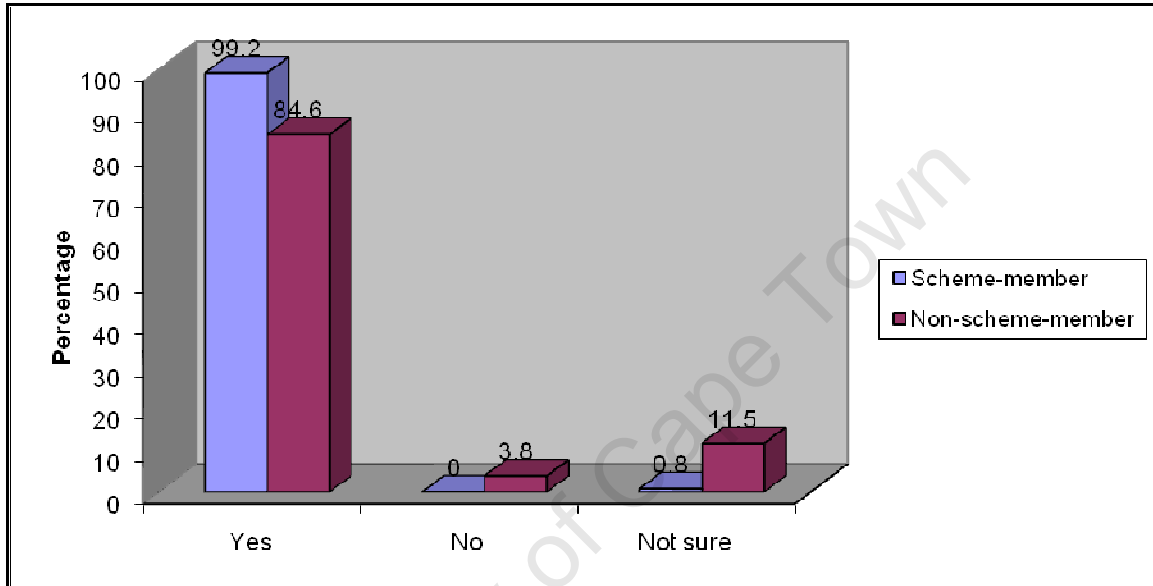
## **7.6 Perceptions of Community Health Insurance**

The study sought to determine the perception of CHI from different stakeholders particularly with regard to its viability in increasing access to health care for rural households. Such perceptions signify in part the degree of *community buy-*

in<sup>42</sup> (Derriennic et al, 2005) which is considered an integral part of the current viability and future sustainability of CHI (Franco et al, 2004). Figure 18 shows respondents' perceptions about the viability of CHI in Uganda.

**Figure 18: Is CHI a viable means of increasing access to health care?**

(N=260)



Source: Field data, September 2007

Almost all respondents believe that CHI is a viable means of increasing access to health care. As communities recognise the benefits of CHI, their decision to enrol will likely be positive.

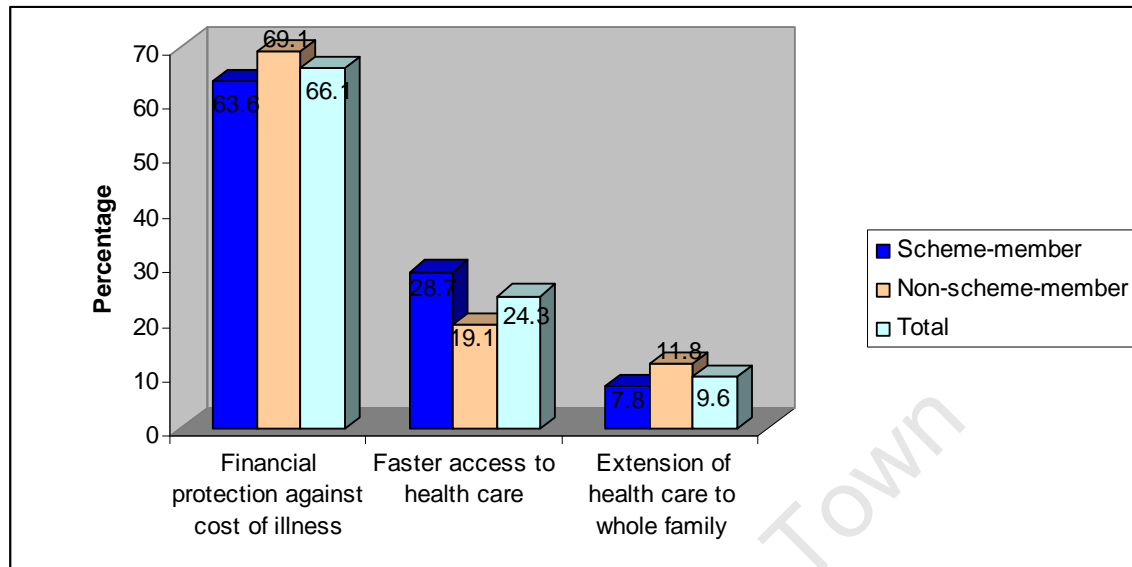
### 7.6.1 Reasons for the perceived viability of community health insurance

The reasons given for considering CHI as a viable means of increasing access to health care ranged from its ability to offer financial protection to households and faster access to medical attention to equity in access to health care particularly at household level. The responses are summarized in Figure 19.

<sup>42</sup> This term refers to the value the community places on the health scheme, and the consequent acceptance of the intervention.

**Figure 19: Reasons why CHI is considered viable**

(N=260)



Source: Field data, September 2007

The reasons for considering CHI as a viable strategy mainly revolved around the scheme's actual benefits to households. The most significant basis on which CHI is considered viable is that it offers financial protection against the cost of illness. This means that a household does not have to spend an excessive portion of their income in order to gain access to health care. In addition, households are less likely to engage in impoverishing risk-coping strategies, such as borrowing from money lenders or selling productive assets in order to meet the cost of illness (Tabor, 2005). Scheme-members often related how they had ultimately benefited financially from enrolling in CHI.

*Before I joined the scheme, I used to spend about 200,000 Ug.shs per year on health. But now I pay only 40,000 Ug.shs per year for my whole family. I am able to save and have even bought land of more than 300,000 Ug.shs. (Scheme member, Kahoko parish, Nyakishenyi Sub-county)*

*Patients are now able to seek treatment without having to wait to sell their goat or chicken. People used to die in their homes because they feared the cost. The impact can even be seen in the reduction of 'bad debts' by the hospital. (Hospital Administrator, Kisiizi hospital, October 2007)*

Interestingly, even non-scheme-members acknowledge the strengths of CHI in securing financial protection against the cost of illness. For example, 69% of non-scheme-members believe that the scheme offers financial protection against the cost of illness. This perception was supported by qualitative data:

*When scheme-members fall sick, they pay much less. If you have no money and you are not in the scheme, you get a lot of difficulties in case of a serious sickness. (Non-scheme-members' FGD, April 2007)*

The findings underscore the relationship between catastrophic health spending and household poverty. As implied in the quotations above, CHI can be effective in minimizing the risk of households being plunged deeper into poverty due to high and frequent health care costs. This is consistent with what various authors have raised as a key strength of CHI (Hsiao, 2001; Jakab & Krishnan, 2001; Jutting, 2001; Poletti et al, 2007).

Another defining factor for considering CHI as viable was the direct benefit of faster access to health care. This was intertwined with the reduction of OOP payments and consequently less delay in seeking care. Respondents reported that scheme-members are more likely to seek early treatment than non-scheme-members, as discussed earlier in Chapter 4 (Section 4.2.2: 99).

*It is mostly those in the scheme who rush to hospital when they are sick. Others first wait to see if the illness will go away without going to the hospital. If it does not, then they are forced to go. (scheme-member, Ndago parish, Nyarushanje Sub-county, September 2007)*

*Those who are not members of the insurance scheme die even when they are not supposed to die, because they delay to go to hospital. The scheme makes it easier to seek treatment. (Scheme-member, Kahoko parish, Nyakishenyi Sub-county)*

Increased access to health care because of CHI has been reported in various countries where such schemes operate, including Bangladesh (Preker et al, 2002), India (Ranson, 2002), Senegal (Jutting, 2004) and Rwanda (Musango et al, 2006), among others.

Another aspect perceived to be an indicator of the viability of CHI among community members is its potential to ease provision of health care to whole households. Technically, this is related to equity of access to health care, which was discussed in more detail in Section 7.3: 172. Respondents pointed out that the ability to extend health care to the whole household was a major indicator of the viability of CHI.

*If you are say 3 people in a home, you join the scheme because in case all of you fall sick at the same time, you can still get treatment a lot more easily than when you are not a member. (Non-scheme-members' FGD, April 2008)*

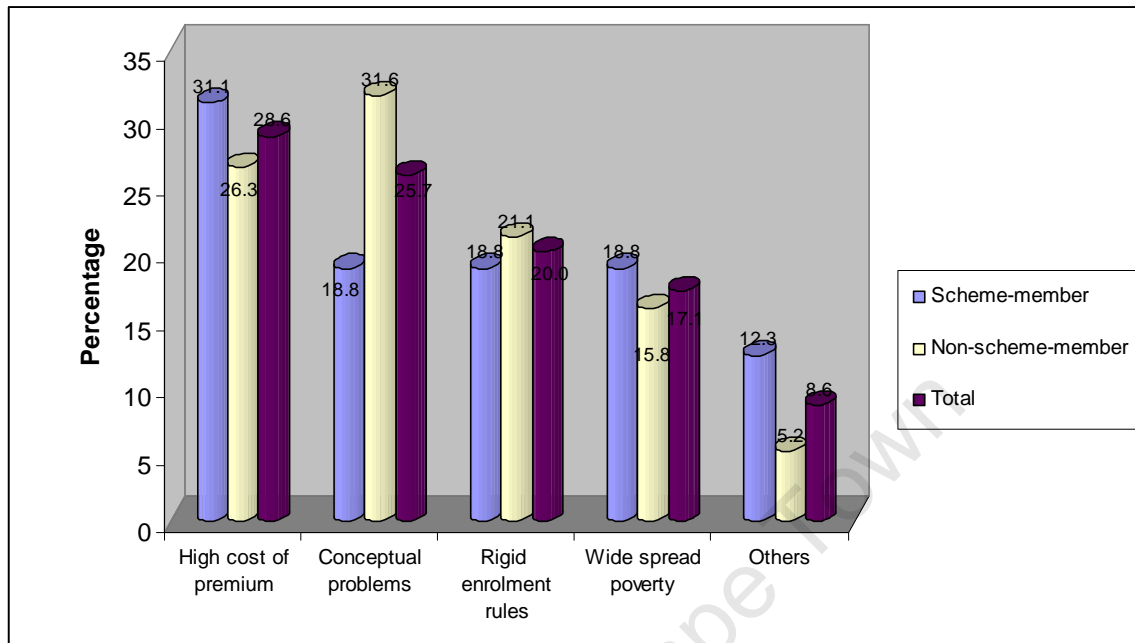
*It [CHI] reduces denial of access to health care for women and children. The scheme enrolls the whole family. Once a man has paid, the card can be presented by the woman or child or whoever appears on the card and they will receive services. They no longer have to wait for the man to release money or to decide whether or not to sell an asset in order to take the patient to hospital. In my view, CHI has contributed to equity in that sense. (Hospital administrator, Kisiizi hospital, October 2007)*

Generally, it is mainly because of the observed benefits that the community judges CHI to be a viable strategy in increasing access to health care for rural households. However, the difficulties in its adoption are also acknowledged, as discussed in the following section.

### **7.6.2 Perceived hindrances to the viability of community health insurance**

The most commonly mentioned hindrances to the viability of CHI were unaffordable premiums (28.6%) and inadequate understanding of the concept or some aspects of CHI (25.7%) as indicated in Figure 20.

**Figure 20: Reasons why CHI may not be viable**  
(N=260)



Source: Field data, September, 2007

While some respondents argued that the costs of premiums are too high (28.6%), others attributed the inability to pay to widespread poverty (17%) and not to the costs of premiums *per se*. This too was reflected in the qualitative data from the FGDs:

*We have low incomes, limited land, which is tired and unproductive. So there is generally no money in the community. And yet there are also many other competing expenditures such as school fees. Hence, although the scheme is good, sometimes it becomes difficult for us to stay in the scheme. (Scheme-members' FGD, April 2008)*

Some respondents argued that poverty should in fact be the reason for joining the scheme:

*Poverty is not a big issue because what the people spend on alcohol consumption in a year is much more than what they have to pay for insurance or in the hospital. People just need to be sensitized about the importance of planning for health. (Non-member, Kahoko parish, Nyakishenyi Sub-county)*

The issue of priority setting and moral judgement, as reflected in the above quotation, has come up elsewhere in the community's discussions of obstacles to the adoption of CHI. For example, in Guinea-Conakry, FGD members referred to *"those who drink more in a day than the annual premium" and "those who do not realize the importance of safeguarding their health"* (Criel & Waelkens, 2003: 1212), as some of the explanations for their inability to enrol in CHI schemes, which in turn threatens the viability of such schemes. However, a lack of financial resources at household level to meet the cost of premiums does still pose a significant threat to its successful adoption. This is largely attributed to widespread and absolute poverty. As Jutting (2001) argues, if people are struggling for survival every day, they are less likely to pay premiums in advance in order to use services at a later point in time.

Other factors perceived as threats to the viability of CHI included the design features of the scheme, particularly the need for group enrolment, the exclusions from the benefits package, and the limited provider options. It is interesting to note that, for non-scheme-members, the most significant threat to the viability of CHI are conceptual problems (31.6%), and yet previously, the majority of them (44%) had listed unaffordable premiums as the cause for their lack of enrolment (Table 23: 169). This may imply that poverty and ignorance have a negative synergetic impact on the viability of CHI. Promoting an adequate understanding of CHI could serve as a first step towards making a positive impact on enrolment and enhancing the adoption of CHI even in a poor rural setting.

Overall, the community has a positive perception of CHI as a concept, although the limitations in its adoption are also acknowledged.

## 7.7 Summary of Key Findings

The performance of CHI was reviewed in this chapter with specific reference to Kisiizi health insurance scheme. The key findings include the following:

### *Enrolment levels*

- The scheme exhibits a steady upward trend in enrolment and membership levels from 1,107 households (5,310 members) in 2001 to 3,976 households, with 20,624 members in 2007. The membership represents about a third of the target population in the hospital's catchment area. The study also shows that, for example, for the year ending 2006, 30% of the total out-patients and 34% of in-patients were scheme-members, underscoring the contribution of CHI to access to health care. Sustained growth and retention of membership indicates that the scheme is in fact acceptable to the community (Tabor, 2005), which has a positive influence on its viability (Section 7.2: 165).
- Key reasons for enrolment in the scheme include ease of access to health care (43.8%), financial protection against the cost of illness (16.2%), and high frequency of illness at household level (15.4%). These reasons reflect people's ability to interpret the primary purpose of insurance, and the benefits of better access to health care. They also represent *community buy-in*, which is an integral part of the current viability and future sustainability of CHI (Franco et al, 2004) (Section 7.2.2: 167).
- The major constraints to enrolment include unaffordable premiums (43.8%) and inadequate understanding of the scheme (27.3%), among others. Notably, access to free health care, which would be an intuitive factor for lack of enrolment in CHI, is not a prominent reason (3.3%). However, the inherent design of the scheme, particularly with regard to

limited provider options (service provisioning) is a limitation to enrolment. The costs of travelling long distances to the health facility and the prevalence of long waiting times at the facility lessen the attractiveness of the scheme. The restrictive provider options are partly attributed to the limited distribution of 'quality' health service providers in the area. Hence, the lack of quality service providers, which undermines the government health care system, is also likely to affect the viability of CHI (Section 7.2.3: 169).

#### *Contribution of CHI to equity in access to health care*

- Over 75% of scheme-members have all their household members enrolled in the CHI scheme. However, the scheme has not fully achieved equity in enrolment at community level, since there are some indicators of socio-economic differences in enrolment. Qualitative data showed that the most vulnerable groups are not able to enrol in CHI without some form of subsidy (Section 7.3: 172).

#### *Financial efficiency*

- The scheme exhibits a steady upward trend in treatment cost recovery since 2004 (from 65% to 140% in 2007). According to the UCBHFA guidelines, this scheme would thus be considered financially viable. However, the study notes that only treatment costs are included in the calculation of cost recovery. Administrative and other operational costs could escalate and render the scheme inefficient in the absence of viable external financial support (Section 7.4: 181).

#### *Sustainability*

- So far, the trends in cost recovery are a good indicator of the scheme's financial sustainability (140% in 2007). Kisiizi health insurance scheme has

also registered some degree of community (beneficiary) participation in its operations. Group leaders who attend regular planning meetings with the scheme administration represent all registered groups. This is an important aspect of sustainability because, in the event that the major promoter or external assistance is withdrawn, the activities and/or results of such an intervention would be sustained at least at some minimal level (Wiesmann & Jutting, 2000) (Section 7.5: 184)

- One of the key threats to sustainability identified by the study is the apparent lack of a policy framework or guidelines at national level for the effective promotion and operations of the schemes. Secondly, there are gaps in managerial capacity due to a lack of personnel with specialized training and prior experience in managing such projects. This may slow down the growth of CHI (Section 7.5: 184).

#### *Perceptions of the viability of community health insurance*

- The community has a positive perception of CHI, with 92% of both members and non-members of the scheme considering CHI as a viable means of increasing access to health care for the rural households. They identify two key strengths in CHI, namely, financial protection against the cost of illness (66.1%) and faster access to medical care (24.3%). This represents a crucial step in promoting the strategy and strengthening the membership base. Threats to the viability of CHI identified by the study participants include inability to pay premiums, lack of proper understanding of insurance concepts, and scheme design features – particularly exclusions from the benefits package, limited provider options and group enrolment (Section 7.6: 187).

Generally, aspects of community health insurance reviewed in this chapter with regard to enrolment levels and trends, contribution to equity, efficiency and sustainability indicate that CHI has potential for growth and sustainability. In the final chapter, a general summary of findings is given, as well as key conclusions, emerging issues and recommendations drawn from the study.

University of Cape Town

## CHAPTER EIGHT

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

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#### 8.1 Introduction

The study investigated the viability of CHI as a means of increasing access to health care for rural households in Uganda. This was against the background that health care is a basic need and right and that, despite this, households especially in the rural parts of Uganda are still lacking effective access to health care. Previous interventions such as health user fees were abolished due to their adverse effects on access to health care, and a new policy of free health care was introduced. However, the study findings indicate that the majority of the population is unable to access this free health care due to various problems. CHI has emerged in this context as one of the strategies to improve access to health care. In this concluding chapter, a review of the key findings is provided and the main conclusions presented in the subsequent section. Furthermore, a concise overview of key emerging issues is presented. Lastly, this chapter provides some policy implications and recommendations, based on key conclusions from the study and suggests areas for further research in the field of CHI and access to health care.

#### 8.2 Summary of Findings

The following are the key findings pertaining to each specific objective of the study.

*Objective 1: To ascertain the facilitating or impeding factors affecting access to free health care in the rural areas of Uganda*

- There is a high level of illness in the community. Fifty-two percent (52.3%) of all respondents reported an illness episode during the 6 months

preceding the survey. More non-scheme-members (57%) than scheme-members (48%) reported an illness episode (Section 4.2.1: 97).

- Malaria is the leading cause of illness among the population studied (56.6%). There is a significant relationship between the cause of illness and the status of enrolment in CHI ( $p=0.005$ ). Malaria as the cause of illness is 24% higher among non-scheme members compared to scheme-members (Section 4.2.1: 97).
- The PNFP health facility (hospital) was the most frequently visited health facility. Only 5% of the households prefer to use the government health facilities, while 80.4% would prefer to use the PNFP health facility (Section 4.4: 102).
- The level of use of government health care services is low, with only 20% of all respondents indicating that they 'always' use these services (Section 4.6: 108).
- The major facilitative factors in accessing government health services as identified by the respondents include free provision of services and proximity (Section 4.6.1: 110).
- The key constraints in accessing the free government services include limited availability of drugs, equipment and trained personnel among others (Section 4.6.2: 111).
- Use of traditional healing is limited to a few people in the community in which the study was undertaken. Eighty percent (80%) of the respondents

indicated that use of traditional healing is rare in the community (Section 4.7: 116).

*Objective 2: To analyse the socio-economic profiles of households enrolling or not enrolling in CHI*

- There are more households headed by older adults (45 years and above), more female-headed households and more widows/widowers among scheme-members than among non-scheme members. However, the differences are not statistically significant (Section 5.2: 121).
- The size of the household had a significant relationship with enrolment in the CHI scheme ( $p=0.041$ ), as did the age of the oldest child at home ( $p=0.039$ ). Scheme-members have relatively larger household sizes, with 45.4% having seven or more household members, compared to only 27% among non-scheme members. Similarly, scheme-members are more likely to have a child aged 15 years or older (63%) than non-scheme-members (52%) (Section 5.2: 121).
- The following variables are not significantly related to enrolment in CHI: religious affiliation; education level, occupation, and major source of income (Section 5.2: 121).
- The analysis of the wealth profile shows a significant relationship between land ownership and enrolment in CHI ( $p=0.020$ ). Ownership of other household assets (radio, bicycle, motorcycle and cellular telephone) is consistently higher among scheme-members than among non-scheme members. Similarly, more scheme-members reported ownership of any farm animal (goats, sheep, cattle, or poultry) than non-scheme-members. Hence, the results show some inequalities in enrolment, with the scheme appearing

to attract those with a better socio-economic status in the community (Section 5.4: 135).

*Objective 3: To examine scheme design features that influence the viability of community health insurance*

- The scheme's organisational design follows the insurer model where an intermediary organisation, Microcare, collects and pools revenue, and purchases the services on behalf of the scheme-members. Positive trends in enrolment and treatment cost recovery appear to have *coincided* with the change in the model of the scheme, from a provider model to an insurer model (Section 6.2: 142).
- The scheme has linkages to grassroots organizations especially mutual aid groups. Almost all respondents belonged to at least one mutual aid group (excluding CHI). Only 6.2% of the respondents, all of whom were non-scheme-members, indicated that they did not belong to any local mutual aid group. The scheme has no direct linkage to local microfinance associations, but the findings indicate that scheme-members are more likely to be members of a microfinance association than non-scheme-members (50.8% and 33.1% respectively) (Section 6.2.2: 146).
- The unit of enrolment in the scheme is a group of households. The rationale is to reduce adverse selection (Section 6.3: 150).
- Premiums are community rated and not risk/income rated, and this makes them more acceptable to the community. Premiums are calculated according to household size and not according to the number of people in the household, hence reducing the unit cost for the larger households. The

premiums are collected annually. No in-kind payments and no instalments are allowed (Section 6.4: 153).

- Co-payments have been instituted to guard against unnecessary use of services. They seem to be an acceptable aspect of the scheme design as there were no ill feelings about them among the community members.
- The benefits package covers both in-patient and out-patient care. It excludes chronic conditions, such as hypertension, tuberculosis, asthma and routine HIV/AIDS medications. These exclusions are a threatening the acceptability of the scheme among community members and hence affecting its long term viability (Section 6.5.1: 157)
- Service delivery is through one single recommended provider, viz. a PNFH hospital. There is no referral required from lower level health units (Section 6.5.2: 159).

***Objective 4: To assess the current performance of CHI in Uganda***

- The scheme exhibits a steady upward trend in enrolment and membership levels from 1,107 households (5,310 members) in 2001 to 3,976 households (20,624 members) in 2007. The membership represents about a third of the target population in the hospital's catchment area (Section 7.2: 166).
- Key reasons for enrolment in the scheme include ease of access to health care (43.8%), financial protection against the cost of illness (16.2%), and high frequency of illness at household level (15.4%) (Section 7.2.2: 167).
- The major constraints to enrolment include unaffordable premiums (43.8%) and inadequate understanding of the scheme (27.3%) among others. Access

to free health care, which would be an intuitive factor for lack of enrolment in CHI, is not a prominent reason (3.3%). Limited provider options (service provisioning), however, do limit enrolment. The restrictive provider options can be partly attributed to the limited distribution of 'quality' health service providers in the area (Section 7.2.3: 169).

- Over 75% of scheme-members have all their household members enrolled in the CHI scheme. However, the scheme has not fully achieved equity in enrolment at community level since there are some indicators of socio-economic differences in enrolment. Qualitative data showed that the most vulnerable groups are not able to enrol in CHI without some form of subsidy (Section 7.3: 172).
- The scheme exhibits a steady upward trend in treatment cost recovery since 2004 (from 65% to 140% in 2007). Only treatment costs are included in the calculation of cost recovery. However, administrative and other operational costs could escalate and render the scheme inefficient in the absence of viable external financial support (Section 7.4: 181).
- Key indicators of sustainability of CHI included the positive trend in treatment cost recovery (140% in 2007), growth in enrolment, and a moderate degree of community (beneficiary) participation (Section 7.5: 184).
- The key threats to sustainability of CHI are the apparent lack of a policy framework at national level; and gaps in managerial capacity due to lack of personnel with specialized training and prior experience in managing such projects. This may slow down the growth of CHI (Section 7.5: 184).

### 8.3 Conclusions

Major conclusions drawn from the study, in line with the specific objectives, include the following.

*Objective 1: To ascertain the facilitating or impeding factors affecting access to free health care in the rural areas of Uganda*

- There is still a dire need for health services due to high levels of illness in the community.
- Proximity is a key strength in the government health care system, but it is counteracted by serious constraints in the system: limited availability of drugs, equipment and trained personnel
- Free health care is not accessible to all as intended by the current health policy, hence the need to consider additional strategies to increase access to health care
- Because of the significant role played by the private sector, financial constraints to accessing health care are still strong despite the free health care policy.
- Enrolment in CHI has a positive effect on the reduction of illness at household level; but more significantly, it reduces delays in treatment seeking by the sick.
- Traditional healing practices would not pose a serious threat to the viability of CHI since they do not appear to significantly affect the uptake of biomedical care.

*Objective 2: To analyse the socio-economic profiles of households enrolling or not enrolling in CHI*

- In general, CHI has the potential to attract households of all socio-economic backgrounds, except perhaps the poorest of the poor.
- Some significant differences in the wealth profile/asset ownership confirm the argument that, although CHI schemes are generally able to enrol people from low socio-economic categories, the 'poorest of the poor' are left out (Schneider & Diop, 2001; Tabor, 2005).

*Objective 3: To examine scheme design features that influence the viability of community health insurance*

- The insurer model of community health insurance enhances its viability. Separation of pooling, purchasing and service delivery functions may enhance efficiency. The model supports 'vertical bridging' (Bennett, 1998), which has the potential to build local capacity and strengthen the viability of CHI.
- CHI has effectively made use of the existing mutual aid groups in the community. The higher level of membership of mutual aid groups provides an opportunity for mobilization and marketing of community health insurance in such communities.
- Group enrolment in CHI minimizes adverse selection. Registration of whole households contributes to the equity objective in health care access. Both aspects strengthen the viability of CHI.
- Prepayment that is inherent in CHI minimizes barriers to health care access posed by OOP payments.

- Annual lump-sum payments reduce administrative costs of collecting and processing premiums; but the lack of instalments and in-kind payments disadvantages the poorer households. This could pose a threat to the viability of CHI.
- The community rated premiums favour larger households, which are most in need of subsidized health care. However, this can result in the creation of a higher-risk pool leading to over-use of services and faster depletion of the scheme's resources, which threatens its sustainability.
- The benefits package is relatively comprehensive, aligned to the national minimum health care package, and relevant to the health needs of the local community. However, exclusion of chronic conditions disfavors groups of people who are in most need of health care and financial risk protection. It is a major factor discouraging enrolment in CHI, and hence its viability.
- Popular providers, whom the community has confidence that they provide better quality services are crucial in ensuring the viability and success of CHI. The fact that there is only one provider means that the costs to the users of travelling to the facility and time spent waiting there for treatment remain high, which may be an obstacle to enrolment and effective access to services.
- Hospital-based health care, which the current CHI design encourages, introduce inefficient use of health resources in the broader health system, and might conflict with the strategic direction of the national health policy.

***Objective 4: To assess the current performance of CHI in Uganda***

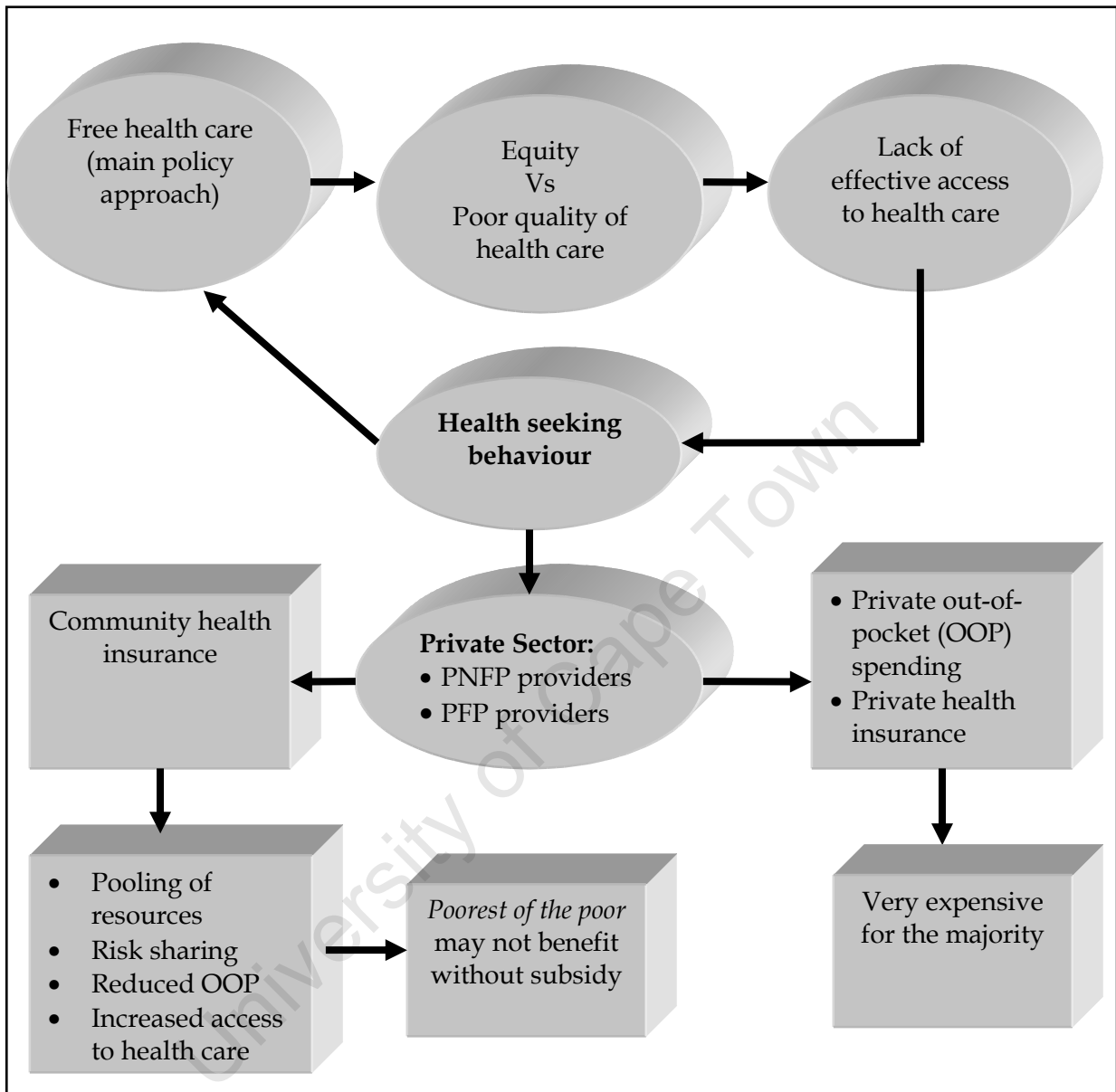
- The widespread awareness of CHI is a crucial step in promoting the strategy within the community. However, the lack of adequate information on the operations of CHI due to the absence of a deliberate sensitization and marketing strategy affects its current performance.
- Sustained growth and retention in membership indicates that CHI is in fact acceptable (Tabor, 2005), and this has a positive influence on its viability.
- The reasons for enrolment in CHI reflect people's ability to interpret the primary purpose of insurance, and the benefits of better access to health care. They also represent *community buy-in* an integral part of the current viability and future sustainability of CHI (Franco et al, 2004).
- CHI can co-exist with the free health care policy because of the poor performance of government health services, and the high preference of the PNFP sector by the population.
- CHI can be financially viable with steady growth in enrolment. However, in its infancy stages it is important to obtain external financial cushioning.
- The lack of quality service providers, which undermines the government health care system, is also likely to affect the viability of CHI in Uganda.
- The absence of a policy and institutional framework can adversely affect the promotion of CHI and subsequently its sustainability and effectiveness in increasing access to health care.

The general conclusion from the study is that community health insurance is a viable means of increasing access to health care for rural households in Uganda, though not without challenges.

#### **8.4 Key Emerging Issues**

Uganda has undergone a number of policy changes in the health sector since independence in 1962. Free health care seemed to have worked with some degree of success in the period immediately following independence, but the socio-political turmoil of the 1970s and early 1980s had a negative impact on it. Cost sharing was then instituted under immense pressure from the International Financial Institutions as part of the Structural Adjustment Programs. Despite its potential strengths, cost sharing led to serious equity problems where the poor were unable to access services. In 2001, cost sharing was abolished and universal 'free' health care introduced. Although it is an ideal policy, in practice, it has not led to universal access to health care especially among the poor rural populations. This study has demonstrated that the free health care policy is not fully operational and quality health services are not available to the entire population. Only about 30% of the population attempts to access free health care from the public health facilities, and even then they are not guaranteed the services. Consistent with other reports (AGHA, 2007; Uganda, 2007a), this study has highlighted the fact that the free health care system is marred by frequent drug stock-outs, shortages of health personnel, equipment and supplies, and generally poor quality of care. A summary of the key emerging issues, as crystallized by this study, is diagrammatically presented in Figure 21.

**Figure 14: Summary of emerging issues**



#### 8.4.1 Free Health Care: Equity Vs Quality of Services

The free health care policy has failed to take off and meet the needs of the majority of the population in Uganda. It appears that *quality has been sacrificed at the altar of equity*. In essence, free health care exists in principle but not in practice. The quality of that free health care has been compromised to such an extent that few people are actually able to benefit from it. While physical structures do exist

relatively closer to the population (Section 4.3 & 4.6), there is no effective access to the services, mainly due to lack of supplies, personnel and basic equipment. Households and individuals are left with no choice but to seek expensive care from the private providers (both for-profit and not-for-profit), where the quality of care is perceived as relatively better than the free health care in the public sector. The major mechanism of payment especially for the PFP providers is OOP payment, which remains a key impediment to access.

#### **8.4.2 Health Seeking Behaviour: Community Members are Not Just Passive Recipients of Services**

Community members are not just passive recipients of health services and health care. They may be selective in making choices about what constitutes good health care. Some may not be comfortable with a service just because it is free. Similar to other studies (Alderman & Lavy, 1996; Nabyonga et al, 2005), which show that a substantial majority of the population are willing to pay for better quality health care, this study has demonstrated that the majority of rural households would rather pay for relatively better health care from private providers than receive poor quality services from the public sector. It is acknowledged, however, that *willingness* to pay is not synonymous with *ability* to pay. If the state machinery cannot guarantee a fair quality of 'free' health care, then mechanisms have to be put in place to enable households to access health care of an acceptable quality without reintroducing the obstacle of OOP payments. Arrangements, which involve prepayment and pooling of resources, while at the same time sharing risks, could hold such a promise. Government needs to consider a partnership with the CHI schemes that will make quality health care a reality for the majority of Uganda's people.

#### **8.4.3 The Role and Implications of the Private Health Sector**

The study has shown that, despite government's free health care policy, the majority of the population still prefer to and actually do seek health care from the

private providers. The growth of the private health sector suggests that the belief that health care should be provided by the state is not without practical challenges. It is evident that, for the near future, people will have to take some responsibility for meeting the cost of health care through the private sector. Even if the quality of services in government health facilities were to be improved to an acceptable level, the private sector remains a key partner in health service provision. This implies that households, especially in areas under-served by the government, still have to meet the cost of health care – even for the basic health care package. The GoU works in partnership with the private health service providers. In areas where private health facilities are present, no parallel government facilities have been set up, as this is seen as an inefficient use of resources. The implication is that households in these localities have to pay for health care despite the notion of a free health care policy. An emerging alternative to offset the financial barriers to access is the private health insurance. This targets the formal sector and remains extremely expensive for the majority of rural populations, which are mainly poor. Such households need to be helped to overcome barriers to access through easier means of paying for health care. One way of achieving this is to facilitate the use of CHI.

#### **8.4.4 Community Health Insurance (CHI) Increases Access to Health Care**

Consistent with studies done elsewhere (Section 2.5: 45), this study has shown that CHI increases access to health care for rural households. Households that enrol in CHI are more likely to seek early treatment for illnesses, as well as to seek health care from providers of their choice. At household level, because whole households are enrolled in CHI, there is improved equity in access to care with regard to gender and age. Women and children can easily access health care since the cost of care is tremendously reduced through prepayment mechanisms. The study also confirms that CHI offers financial protection against the cost of illness. Both quantitative and qualitative data from all the categories of

respondents confirmed this argument. This is based on two key features of CHI, namely, prepayment mechanisms, and resource pooling and risk sharing arrangements. Firstly, the fact that people do not wait to fall sick in order to mobilize resources but that they instead contribute to the scheme beforehand means that they are not, for example, under pressure to sell their valuable assets in order to meet the cost of care. Secondly, many people contribute to a pool and only those who fall sick in a given period benefit from these contributions. Ultimately, the total cost of health care on the household is much less than what they would have paid without insurance. The study identifies this reduced cost of health care as one of the key strengths of CHI, as attested to by both members and non-members of the scheme (Section 7.6: 187). Hence, individuals can have access to high cost hospital care with relative ease. This also encourages such households to seek early treatment as indicated earlier, since they are not afraid of the costs.

#### **8.4.5 The Poorest of the Poor do not Afford CHI without Subsidies**

Another key issue from this study is that the poorest of the poor such as the landless are left out of the social security networks. Although CHI schemes are largely able to enrol people from low socio-economic categories, the *poorest of the poor* are not able to enrol without some form of subsidy. It was also evident that the non-scheme members were more likely to report not being in any mutual aid group or micro-finance association. Such a category of people fail to benefit from the risk pooling arrangements offered by community health insurance. The government should consider making free health only available for the very poor so that those who are in position to pay for health can do so. The monies freed up can then be used to improve the free services to the poor. Another alternative is for the government to subsidize the premiums of the poor to enable them to enrol in CHI.

## **8.5 Policy Implications and Recommendations**

Based on the study findings, emerging issues and conclusions, the following policy implications are drawn. While some relate to general access to health care in Uganda in view of the current policy, other recommendations are specifically related to CHI as a strategy for accessing health care.

### **8.5.1 Redesign the Free Health Care Policy**

It is generally agreed that free health care or tax based financing is the most ideal way of ensuring equitable access to health care (Section 2.3.1: 32). However, the study has shown that this policy approach has failed to deliver the promised outcomes. The study does not call for a scrapping of the policy since it has its own strengths, but for its redesigning. In a bid to ensure universal access, the quality of health care has been severely compromised. It is therefore suggested that, if the policy is retained, selective provisioning could be considered instead of universal access. Policy makers might consider targeting free health care services to those who are unable to pay, i.e. a particular category of the population, based on either geographical location or other socio-economic indicators. Those who are able to pay could then continue contributing directly to health care costs. The advantages of this approach would be that those most in need could access the free limited health resources whilst those able to pay could subsidize a better health delivery system. The original health policy had some elements of this through the operation of private wards in government hospitals. Because the use of these private services vis-à-vis free health care was left open and voluntary, it has not decongested the free health care system. Some authors (Preker et al, 2002; Gwatkin et al, 2004) have argued that universal free health care actually benefit the well-off, because they have the social and political connections to access the few services that exist. This leaves the poor and most vulnerable without adequate quality services. Targeting the free health care to this most vulnerable group might be more feasible and meaningful.

### **8.5.2 Community Health Insurance as a Transitional Mechanism**

The emerging CHI schemes are one of the attempts to offset the effects of OOP spending. They offer an opportunity to pool risks and resources and thereby to increase access to health care for households that would otherwise find it difficult to meet the financial cost of health care on an OOP basis. It is the considered view of the researcher that CHI is a viable alternative in increasing access to health care for rural households who are increasingly finding it difficult to access the promised free health care by the government. However, this thesis does not argue for the replacement of the free health care policy with CHI. Instead, CHI can be promoted as a transitional and supplementary strategy (operating in the PNFP sector) while efforts and adequate resources and systems are being assembled to ensure effective provision of public health care. Alternatively, a hybrid of free health care and insurance (including CHI) can be pursued in the design of the health policy. This is because there is already a mix of health care delivery systems comprising both public and private sectors.

### **8.5.3 The Need for a Policy Framework for Community Health Insurance**

This study has demonstrated the potential viability of CHI as a means of increasing access to health care. However, it has also been noted that CHI has been operating without any policy or legal framework, which poses a threat to its sustainability and development (Section 7.5: 184). While the health policy (Uganda, 1999) and the NRM campaign manifesto make mention of CHI as a possible health financing option, no policy on CHI has been developed thus far. Developing policy guidelines for CHI would increase its legality and acceptability within the public arena. This could in turn boost and motivate local communities to establish and participate in CHI. Some of the issues to be considered in formulating the policy would be, for example, the primary objectives to be served by CHI. Should it be promoted as an alternative financing option for the larger health system or as a safety net for increasing access to

health care for the rural and informal sectors? This thesis suggests the latter policy objective. Other key aspects that need to be addressed in the policy are the sectors to house CHI, the promoting institutions and the monitoring framework. For a start, CHI should continue to be housed in the PNFP sector, since the public sector is already providing free health care. The PFP sector may not be appropriate since it is essentially profit-driven, whereas CHI seems to target the poorer sections of the population.

#### **8.5.4 Collective Support for the Sustainability of Community Health**

##### **Insurance**

There is no doubt as to whether CHI increases access to health care for rural households. This study has also demonstrated a positive perception of and a willingness by the community to embrace CHI. However, these positive aspects alone cannot lead to its sustained growth and development. The predominance of poverty, the presence of vulnerable groups, and the high prevalence of disease all imply that the development of CHI cannot be left to the local community alone. There is a need for concerted support from key stakeholders including government, donors, civil society and the community. Financial and technical support is mainly required in building the administrative capacity of the schemes, and in providing subsidies to reduce premium levels and to make them more affordable for the majority of households.

##### **8.5.5 Subsidising the very poor**

The study has shown that, although rural households do enrol in CHI, the very poor sections of the community do not enrol. Households like those of the landless, those headed by children, and those of the elderly could be subsidized either by the government or by soliciting external support to enable them to join the schemes. Subsidies are justifiable, based on the same principle applied in social health insurance where the employee contributes only a percentage and the employer contributes to the employee's premium (normally higher than what

the employee contributes) (Kalk et al, 2005). While the difficulties in selecting and targeting the very poor are acknowledged, the process could be eased by adopting generally visible characteristics such as orphan-hood, landlessness or geographical locality. Actively involving the local population in identifying households and individuals who qualify for subsidies could also ease the process. This has been attempted with some degree of success in Rwanda, where genocide victims are exempted from payment (Diop & Butera, 2005). Possible sources of subsidies include the government, external donors and NGOs. Some authors (Kyomugisha et al, 2008) have argued that expecting the government to subsidize CHI would put a strain on government, which should be using all its resources to improve the quality of free health care in public facilities. It must be recognised that government is already in active partnership with the private sector. The government does not establish parallel health structures, especially where PNFP structures already exist. Nevertheless, the free health care policy cannot be imposed on this private sector, so the PNFP providers continue to charge user fees. Therefore supporting the development of CHI through subsidies would help more people in the catchments areas to access PNFP services with greater ease. With regard to external donor support, as long as CHI schemes are not for profit, they can develop proposals for financial support in the same way that other third sector organizations do. This would however call for technical support from more advanced agencies within the respective communities.

#### **8.5.6 Need for On-going Evaluation and Flexibility of Scheme Design**

##### **Features**

The study findings have demonstrated that, despite the technical rationality of elements of the design of a CHI scheme, these can adversely affect its viability through their negative impact on enrolment. Two key questionable design features emerged as crucial for enrolment, namely, the benefits package and the

provider options. Probably the most misunderstood and unacceptable element of the design is the exclusion of some illnesses from the benefits package. Neither scheme-members nor non-scheme-members fully understand the rationality of exclusions, much as it makes sense to the scheme promoters and administrators. While the study indicated that the benefits package is largely comprehensive (covering both in-patient and out-patient care, and the common causes of illness), it excludes chronic conditions and self-inflicted injury among others. Although there do not appear to be many complaints about self-inflicted injury, the issue of chronic conditions was a recurrent one, particularly in the FGDs. The scheme administration regards the exclusions as a cost control mechanism, but the community considers it as discrimination against those who need health care the most. To address this, more community dialogue is needed in determining the benefits package. This would reduce suspicion towards the scheme, increase the community's acceptance of it, and subsequently increase enrolment levels.

Another significant consideration is the need to adopt and strengthen the referral system if CHI is going to be viable. As highlighted in Section 6.5.2: 159 of this thesis, the lack of referral leads to the inefficient use of resources on the supply side, as well as to overcrowding at the hospital level, which in turn results in long waiting hours and inadequate attention to patients. All these compromise the quality of care, and this poses a great threat to the viability of CHI. Developed referral procedures where minor illnesses are handled at lower level units and only severe cases are referred to hospital care are useful strategies for improving the viability of CHI. However, the challenge is that if CHI is to be housed in the PNFP sector as suggested in this thesis, there are not many functional lower level health units of this nature within the communities. Partnerships with the public sector units might create confusion of interest and roles. Carefully developed partnerships with selected PFP clinics and PNFP clinics where these exist, however, could in part address the problem.

## 8.6 Suggestions for Further Research

This study adopted a case study approach and was therefore limited in scope and geographical coverage. Future studies could investigate more CHI schemes in Uganda, and also consider different regions of the country, as these may present different contexts for the development of CHIs. This may be useful in reaching more specific and practical conclusions on the viability of CHI in Uganda.

Although this study highlighted the perceptions of the community and of some stakeholders in the health sector about the viability of CHI, it was limited to the core health sector. For CHI to succeed, it would need multilevel and multi-sectoral support of different actors in this field. Thus, future research on CHI would need to investigate their perceptions and readiness to support such a strategy.

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**APPENDIX A**  
**ETHICAL CLEARANCE LETTER**

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**Uganda National Council For Science and Technology**

*(Established by Act of Parliament of the Republic of Uganda)*

Your Ref:.....  
                  SS 2065  
Our Ref:.....

Date:.....  
                  01/02/08

Mrs. Janestic Twikirize Mwende  
c/o Department of Social Work and Social Administration  
Makerere University  
P.O Box 7062  
Kampala

Dear Mrs. Twikirize Mwende,

**RE: RESEARCH PROJECT, "IS COMMUNITY HEALTH INSURANCE A VIABLE MEANS OF INCREASING ACCESS TO HEALTH CARE FOR RURAL HOUSEHOLDS IN UGANDA?"**

This is to inform you that the Uganda National Council for Science and Technology (UNCST) approved the above research proposal on **January 16, 2008**. The approval will expire on **January 16, 2009**. If it is necessary to continue with the research beyond the expiry date, a request for continuation should be made in writing to the Executive Secretary, UNCST.

If it is necessary to continue with the research beyond the expiry date, a request for continuation should be made in writing to the Executive Secretary, UNCST. Any problems of a serious nature related to the execution of your research project should be brought to the attention of the UNCST, and any changes to the research protocol should not be implemented without UNCST's approval except when necessary to eliminate apparent immediate hazards to the research participant(s).

This letter also serves as proof of UNCST approval and as a reminder for you to submit to UNCST timely progress reports and a final report on completion of the research project.

The Resident District Commissioner of Rukungiri District in which the study will be conducted is informed by copy of this letter, and is kindly requested to give you the necessary assistance to accomplish the study.

Yours sincerely,

Leah Nawegulo  
for: Executive Secretary

**UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY**

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*LOCATION / CORRESPONDENCE*

Plot 3/5/7, Nasser Road  
P.O. Box 6884  
KAMPALA, UGANDA.

*COMMUNICATION*

TEL: (256) 414-250499, (256) 414-705500  
FAX: (256) 414-234579  
E-MAIL: [uncst@starcom.co.ug](mailto:uncst@starcom.co.ug)  
WEBSITE: <http://www.uncst.go.ug>

## APPENDIX B

### HOUSEHOLD QUESTIONNAIRE

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**IS COMMUNITY HEALTH INSURANCE A VIABLE MEANS OF INCREASING ACCESS TO HEALTH CARE FOR RURAL HOUSEHOLDS IN UGANDA?**

**SECTION A: Identification**

Interview No	Name of Interviewer
Date of Interview	Sub-county
Parish	Village
Respondent Status <b>Member</b> 1          Non Member 2	
Status of Interview: Complete <input type="checkbox"/> Incomplete <input type="checkbox"/> To be completed (Date.....)	

**Section B: Demographic Information**

No.	Question	N/A	Comment
<b>Qn1</b>	Age of household head 1. Less than 18..... 2. 18-24..... 3. 25-29..... 4. 30-34..... 5. 35-39..... 6. 40-44..... 7. 45-49..... 8. 50 and above.....		
<b>Qn2</b>	Gender of household head 1. Male 2. Female		
<b>Qn3</b>	Marital Status 1. Single..... 2. Married..... 3. Separated/Divorced..... 4. Widowed..... 5. Cohabiting.....		
<b>Qn4</b>	If married, what type of marriage are you in? 1. Monogamous 2. Polygamous		
<b>Qn5</b>	Number of children born 1. None..... 2. 1-2..... 3. 3-4..... 4. 5-6..... 5. 7-8..... 6. 9 and above.....		

	QUESTION	N/A	COMMENT
<b>Qn6</b>	Age of oldest child at home 1) Less than 1 year 2) 1-4 years 3) 5-9 years 4) 10-14 years 5) 15-19 years 6) 20 and above		
<b>Qn7</b>	Age of youngest child at home 1) Less than 1 year 2) 1-4 years 3) 5-9 years 4) 10-14 years 5) 15-19 years 6) 20 and above		
<b>Qn8</b>	What is your religious affiliation? 1) Protestant 2) Roman Catholic 3) Muslim 4) Pentecostal 5) Other (specify) .....		

**Section C: Socio-economic Profile**

	QUESTION	N/A	COMMENT
<b>Qn9</b>	Occupation of household head 1) Peasant farmer 2) Petty trader/smaller scale enterprise 3) Civil servant (Administration) 4) Teaching service (specify level) 5) Health worker (specify position) ..... 6) Other (specify) .....		
<b>Qn10</b>	Occupation of spouse 1) Peasant farmer 2) Petty trader (small scale enterprise) 3) Civil servant (Administration) 4) Teaching service (specify level) ..... 5) Health worker (specify position) ..... 6) Other (specify) .....		
<b>Qn11</b>	Highest level of education completed 1) None 2) Primary 3) Secondary (Ordinary level) 4) High School (Advanced 'Level) 5) Technical/college level 6) University degree 7) Other (specify) .....		

	QUESTION	N/A	COMMENT
<b>Qn13</b>	Level of education of spouse 1. None 2. Primary 3. Secondary (Ordinary 'level) 4. High School (Advanced 'Level) 5. Technical/college level/Vocational 6. University degree 7. Other (specify) .....		
<b>Qn14</b>	Major source of income 1. Peasant farming 2. Commercial farming 3. Small business (petty trade) 4. Formal salaried employment 5. Grants from relatives 6. Other (specify) .....		
<b>Qn15</b>	Other source of income 1. Peasant farming (sale of bonus agricultural produce) 2. Commercial farming (Dairy farming, poultry keeping, medium scale crop farming) 3. Small business (petty trade) 4. Formal salaried employment 5. Grants from relatives 6. Other (specify) .....		
<b>Qn16</b>	Number of people in household 1) 1-2 2) 3-4 3) 5-6 4) 7-8 5) 9 and above		

**Section C: Health Profile**

<b>Qn17</b>	Have you fallen sick in the last one month?	N/A	Comment
	1) Yes 2) No		
<b>Qn18</b>	What was the cause of illness? 1) Malaria 2) Diarrhoeal diseases 3) Respiratory tract infections 4) Accident/injury 5) Other (specify) .....		
<b>Qn19</b>	Where did you seek treatment for the sickness? 1) Government health centre 2) Government hospital 3) PNFP health centre 4) PNFP hospital 5) Private clinic 6) Traditional healer 7) Other (specify) .....		
	8) Did not seek treatment		

	QUESTION	N/A	COMMENT
<b>Qn20</b>	What was the reason for your choice of health care source? 1) Proximity 2) Cost of care 3) Good quality care 4) Insurance benefit 5) Other (specify) .....		
<b>Qn21</b>	Which other member of your household fell sick during the last one month? 1) none 2) child (below 5 years) 3) Child (Above 5 years) 4) Spouse 5) Other relative (specify) .....		
<b>Qn22</b>	What was the immediate cause of illness? 1) Malaria 2) Diarrhoeal diseases 3) Respiratory Tract infections 4) Accident/injury 5) Other (specify) .....		
<b>Qn23</b>	Where did they seek health care from? 1) Government health centre 2) Government hospital 3) PNFP health centre 4) PNFP hospital 5) Private clinic 6) Traditional healer 7) Other (specify) ..... 8) None		
<b>Qn24</b>	What was the reason for the choice of that health care? 1) Proximity 2) Cost of care 3) Good quality care 4) Insurance benefit 5) Other (specify) .....		

**Section D: Access to Free health care**

<b>Qn25</b>	How far is the nearest health unit from your home? 1) Less than 1 km..... 2) 1-2 km ..... 3) 3-5 km..... 4) More than 5 km .....					
		1	0			
		1	0			
		1	0			
		1	0			

<b>Qn26</b>	How long does it usually take you to reach the health centre? 1) Less than 1 hr 2) less than 2 hrs 3) less than 3 hrs 4) less than 4 hrs 5) More than 4 hrs	1 1 1 1 1	0 0 0 0 0		
<b>Qn27</b>	What means of transport do you use to visit the health centre? 1) Foot..... 2) Motorcycle..... 3) Bicycle..... 4) Motor vehicle..... 5) Others (specify).....	1 1 1 1 1	0 0 0 0 0		
	QUESTION		N/A		COMMENT
<b>Qn28</b>	What is your usual source of health care? 1) Government health centre 2) Government hospital 3) PNFP health centre 4) PNFP hospital 5) Private clinic 6) Traditional healer 7) Other (specify) ..... 8) None				
<b>Qn29</b>	Would you say you as a household use the government health facility for medical care: 1) Always 2) Sometimes 3) Rarely 4) Never				
<b>Qn30</b>	What makes it easy to use the government health centre? 1) Free services 2) Proximity of health facility 3) Availability of health personnel 4) Good quality services 5) Other (specify) .....				
<b>Qn31</b>	What makes it difficult to access the government health facility? 1) Distance to health facility 2) Cost of care 3) Limited health personnel at the facility 4) Lack of equipment and other facilities 5) Over crowding 6) Long waiting hours 7) Unavailability of drugs 8) Other (specify) .....				

<b>Qn32</b>	What is your preferred choice of health care? 1) Government health facility 2) PNFP health facility 3) Private health facility 4) Private drug shop 5) Traditional healer 6) Other (specify) .....		
<b>Qn33</b>	State and circle the most appropriate reasons for your answer in (26) above: 1) Free services 2) Proximity of health facility 3) Availability of health personnel 4) Good quality services 5) Other (specify) .....		

**Section E: Enrolment in community health insurance**

<b>Qn34</b>	Do you know of any health insurance scheme in your community? 1) Yes 2) No		
<b>Qn35</b>	Have you ever enrolled in a CHI scheme? 1) Yes 2) No		
<b>Qn36</b>	If no, why have you not enrolled in the CHI scheme? 1) I do not know of any scheme 2) Have access to free health care 3) No major health problems experienced 4) Cost of premium is high 5) Large family size 6) Other competing expenditures 7) Inappropriate mode of payment 8) Distance to prescribed health facility 9) Poor quality of services at health facility 10) Other (specify) .....		
<b>Qn37</b>	If yes, when did you first enrol (state: M/Y) .....		
<b>Qn38</b>	Are you currently enrolled in a CHI scheme? 1) Yes 2) No		
<b>Qn39</b>	If yes, what was the most important reason for your enrolment in a CHI scheme? 1) Easy access to health care 2) Frequently ill 3) Mutual assistance as a community 4) Better quality care 5) Other benefits (specify) 6)		

<b>Qn40</b>	How many members of your household are enrolled in the CHI scheme? 1) All 2) 1 3) 1-3 4) 4-7 5) 8 and above		
<b>Qn41</b>	How many members of your household are not enrolled? 1) None 2) 1 3) 1-3 4) 4-7 5) 8 and above		
	QUESTION	N/A	COMMENT
<b>Qn42</b>	Who is not enrolled in your household? 1) children below 5 years, 2) children 6-17 3) children above 18 years 4) spouse 5) grandparents 6) other dependants		
<b>Qn43</b>	What are the reasons for those members of your household not enrolled in the scheme? 1) Cost of insurance 2) Not frequently ill 3) Not my responsibility 4) Lack of interest 5) Other (specify) .....		
<b>Qn44</b>	If no, when did you cease to be a member of the scheme (State: M/Y) .....		
<b>Qn45</b>	What was the major reason for your dropping out of the scheme? 1) Access to free health care 2) No major health problems experienced 3) Cost of premium is high 4) Large family size 5) Other competing expenditures 6) Inappropriate mode of payment 7) Distance to prescribed health facility 8) Poor quality of services at health facility 9) Other (specify) .....		
<b>Qn46</b>	Do you plan to enrol again in the health insurance scheme? 1) Yes 2) No		

**Section F:Scheme Design Features**

	QUESTION	N/A	COMMENT
<b>Qn47</b>	How did you come to know about CHI scheme? 1) Family 2) Local councillors 3) Mutual help group 4) Health centre 5) Other (specify) .....		
<b>Qn48</b>	What is the mode of your enrolment? 1) Individual 2) Household 3) Group 4) Other (specify) .....		
	QUESTION	N/A	COMMENT
<b>Qn49</b>	Are you aware of the benefits you are entitled to as a member of the scheme? 1) Yes 2) Partly 3) Not at all		
<b>Qn50</b>	If yes/partly, state any benefits that you are aware of? (Tick all mentioned) 1) All health care needs 2) Outpatient care 3) Inpatient care 4) Surgeries 5) Child deliveries 6) Accidents and other emergencies 7) Dental care 8) Eye care 9) Referral 10) Ambulance 11) Other (specify) .....		
<b>Qn51</b>	Are you aware of any excluded health services from the benefits package? 1) Yes 2) No		
<b>Qn52</b>	If yes, state any exclusion that you are aware of? 1) None 2) Outpatient care 3) Inpatient care 4) Surgeries 5) Child deliveries 6) Accidents and other emergencies		

	<ul style="list-style-type: none"> <li>7) Dental care</li> <li>8) Eye care</li> <li>9) Referral</li> <li>10) Ambulance</li> <li>11) Other (specify) .....</li> <li>12) Do not know</li> </ul>		
<b>Qn53</b>	<p>How do you rate the current premium costs?</p> <ul style="list-style-type: none"> <li>1) Affordable</li> <li>2) Too expensive</li> <li>3) Reasonable</li> </ul>		
<b>Qn54</b>	<p>What aspect of the current scheme design do you find most appropriate? (Specify reason in comments section)</p> <ul style="list-style-type: none"> <li>1) Premium rates</li> <li>2) Mode of payment</li> <li>3) Mode of enrolment</li> <li>4) Provider options</li> <li>5) Benefits package</li> <li>6) Other (specify) .....</li> <li>7) Nothing</li> </ul>		

	QUESTION	N/A	COMMENT
<b>Qn55</b>	<p>What aspect of the current scheme design do you find inappropriate? (Specify reason in comments section)</p> <ul style="list-style-type: none"> <li>1) Premium rates</li> <li>2) Mode of payment</li> <li>3) Mode of enrolment</li> <li>4) Provider options</li> <li>5) Benefits package</li> <li>6) Other (specify) .....</li> <li>7) Nothing</li> </ul>		

**Section G: Sources of Informal Health care**

<b>Qn56</b>	<p>Would you say that most people in your community seek formal health care (western medicine and care) when they are sick?</p> <ul style="list-style-type: none"> <li>1) All the time</li> <li>2) Sometimes</li> <li>3) Rarely</li> <li>4) Never</li> <li>5) Do not know</li> </ul>		
<b>Qn57</b>	<p>What are the major reasons why some people do not report to health facilities when they are sick?</p> <ul style="list-style-type: none"> <li>1) Long distance to health facility</li> <li>2) Cost of health care</li> <li>3) Lack of drugs at the health facility</li> <li>4) Lack of medical personnel</li> <li>5) Long waiting hours</li> <li>6) Use of traditional medicine</li> <li>7) Negative attitude towards formal health care</li> <li>8) Ignorance of need for health care</li> <li>9) Other (specify) .....</li> </ul>		

<b>Qn58</b>	Do you think people in your community use traditional healers? 1) Yes 2) No		
<b>Qn59</b>	Would you say they use them: 1) Most of the time 2) Rarely 3) Never		
<b>Qn60</b>	What do you consider to be the reason for use of traditional healers by some people in your community? 1) Trust in efficiency of the healing methods 2) Cheaper cost of medicines 3) Traditional healers readily accessible 4) Cultural factors (beliefs and practices) 5) Unavailability of free formal health care 6) Other (specify) .....		

**Section H: Perception towards Community Health Insurance**

	QUESTION	N/A	COMMENT
<b>Qn61</b>	Do you consider community health insurance to be a viable option for increasing access to health care for you? 1) Yes 2) No (Go to question 62) 3) Do not know		
<b>Qn62</b>	If yes, in what way is it viable? 1) Faster access to health care 2) Financial protection against cost of illness 3) Extension of health care to whole house hold 4) Other (specify) .....		
<b>Qn63</b>	If no, why is it not a viable option? 1) High cost of premium 2) Widespread poverty 3) Rigid regulations for enrolment 4) Poor quality care 5) Presence of free government healthcare 6) Negative cultural beliefs and attitudes towards insurance 7) Other (specify).....		
<b>Qn64</b>	What is the best strategy that can be adopted to improve access to health care for people in your community? 1) Improve free health care 2) Cost sharing 3) Private health care 4) Other (specify).....		

**Section I: Wealth Index**

	QUESTION	YES	NO	N/A	COMMENT
<b>Qn65</b>	Type of house (Observe) 1) Mud & Wattle 2) Semi-permanent (Iron roofed) 3) Permanent (Brick & concrete) 4) Other (specify)	 <b>1</b> <b>1</b> <b>1</b> <b>1</b>	 <b>0</b> <b>0</b> <b>0</b> <b>0</b>		
<b>Qn66</b>	Household assets (Tick all that apply) 1) Bicycle 2) Motor cycle 3) Motor vehicle 4) Radio 5) Television set 6) Cellular telephone	 <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	 <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b>		
<b>Qn67</b>	Ownership of animals (Circle all that apply) 1) Cattle..... 2) Goats/sheep..... 3) Poultry (large scale/subsistence) 4) Other (specify) ..... 5) None	 <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	 <b>0</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b>		State number

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## APPENDIX C

### FOCUS GROUP DISCUSSION GUIDES

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**Is community health insurance a viable means of increasing access to health care for rural households?**

*FGD guide (1): Scheme-members*

#### **Screening Questions**

- a) Head of household or spouse  
Yes (recruit into group)  
No (Drop)
- b) Have you heard about community health insurance?  
Yes (proceed)  
No (drop)
- c) Are you a member of community health insurance?  
Yes (proceed)  
No (drop)

#### **Section A: Level of Access to Health Services**

1. What are the alternative health service providers in the community?
2. What are some of the strengths/good points in seeking care from government health facilities in this area?
3. What problems have you experienced in trying to seek care from government health facilities? Probe for:
  - Shortage of drugs
  - Limited health personnel
  - Overcrowding
  - Lack of some facilities like laboratories
  - Others
4. In case you cannot get health care/medical attention from the government health facilities, where else do you commonly report for care? Probe on:
  - Private clinics
  - Drug shops
  - PNEP health facilities
  - Traditional healers

(Ask for what influences their decisions on where to go)

#### **Section B: Community Health Insurance**

5. You are participating in this discussion because you said you know about community health insurance.

- a) What benefits have you, your household or community realized or observed from being a member of community health insurance?
- b) What difficulties have you so far encountered in being a member of community health insurance?
6. Some people in this community have joined community health insurance, while others have not. Can you characterize a typical household that is a member of community health insurance?
  - Wealth status (land, type of house, plantation, other assets)
  - Education status
  - Gender
  - Household size
  - Level and frequency of illness
  - Others
7. Can you characterize a typical household that is not a member of community health insurance? (refer to probes in 14 above)
8. What are the different factors that influence/enable some households to join community health insurance while others do not?

### **Section C: Design of Community Health Insurance**

9. What is your opinion about the way the community health insurance scheme works?
  - Risk pooling, resource pooling, prepayment
  - Current ownership/management of the scheme?
  - Community participation in the scheme (Do you think the community can do more to help in the proper running of the scheme?)
  - Enrolment procedures (whole households, groups, minimum number of households in groups)
  - Benefits package (in-patient care, out-patient care, exclusions)
  - Provider options (Hospital vs. primary care, one vs. many providers, PNFP vs. private or a mix of providers)
  - Premium levels
  - Mode of payment, co-payments
10. a) What are the common complaints about the scheme design that are likely to affect some people's ability or interest to join the scheme?
   
 b) In what way can such obstacles be minimized in order for more people to join?
11. Most people in this community are members of mutual help groups such as *engozi* groups.
  - What attracts people to join such groups?

- Are there some people who do not join such groups? Why don't they join?
- What would attract more of the households who join mutual help groups to join community health insurance too?
- Is there a way in which enrolment of these groups may bar some people from joining CHI? How? Why?

**Section D: Opportunities for CHI and General Recommendations**

12. What factors have made it possible for CHI to operate in this community
13. What may make it difficult for CHI to continue operating or to scale up its operations in Uganda?
14. What do you think needs to be done to strengthen CHI or make it sustainable?
15. Would you say that it is desirable for CHI to continue operating in this community? Would you recommend it to be adopted in other rural areas of Uganda?
16. What other suggestions would you make to help rural households have better access to health care? (Probe: Strategies to be adopted at policy level, implementation - or service delivery, community's involvement etc.)

**Thank you very much for your time and participation**

## *FGD guide (2): Non-scheme-members*

### **Screening Questions**

- a. Head of household or spouse
  - Yes (recruit into group)
  - No (drop)
- b. Have you heard about community health insurance?
  - Yes (proceed)
  - No (drop)
- c. Are you a member of community health insurance?
  - No (proceed)
  - Yes (drop)

### **Section A: Common Health Problems and Level of Access to Health Services**

1. What are the alternative health service providers in the community?
2. What are some of the strengths/good points in seeking care from government health facilities in this area?
3. What problems have you experienced in trying to seek care from government health facilities? Probe for:
  - Shortage of drugs
  - Limited health personnel
  - Overcrowding
  - Lack of some facilities like laboratories
  - Others
4. In case you cannot get health care/medical attention from the government health facilities, where else do you commonly report for care? Probe on:
  - Private clinics
  - Drug shops
  - PNFP health facilities
  - Traditional healers

(What influences their decisions on where to go?)

### **Section B: Community Health Insurance: Awareness and differentials in Enrolment**

5. You are participating in this discussion because you said you know about community health insurance. Can you share briefly what you have heard about or know about community health insurance?
  - Risk sharing, resource pooling, prepayment
6. Some people in this community have joined community health insurance, while others have not. Can you characterize a typical household that is a member of community health insurance?
  - Wealth status (land, type of house, plantation, other assets)

- Education status
  - Gender
  - Household size
  - Level and frequency of illness
  - others
7. Can you characterize a typical household that is not a member of community health insurance? (refer to probes in 14 above)
  8. What are the different factors that influence/enable some households to join community health insurance while others do not?
  9. Do you think community health insurance helps households who enrol to get better access to health care than those who do not? In what way? If not, why not?

### **Section C: Design of Community health insurance**

10. I would like you to comment on the strengths (positive) and weaknesses (negative) of the following aspects of the scheme (*For non-members give a brief explanation on each of the components, with a view of understanding if in fact some may not have joined the scheme due to the way it is designed*).
  - Enrolment procedures (whole households, groups, minimum number of households in groups)
  - Benefits package (in-patient care, out-patient care, exclusions)
  - Provider options (hospital vs. primary care, one vs. many providers, PNFP vs. private or a mix of providers)
  - Premium levels
  - Mode of payment, co-payments
11. Most people in this community are members of mutual help groups such as *engozi* groups;
  - What attracts people to join such groups?
  - Are there some people who do not join such groups? Why don't they join?
  - What would attract more of the households who join mutual help groups to join community health insurance too?
  - Is there a way in which enrolment of these groups may bar some people from joining CHI? How? Why?

### **Section D: Opportunities for CHI and General Recommendations**

12. What factors have made it possible for CHI to operate in this community
13. What may make it difficult for CHI to continue operating or to scale up its operations in Uganda?
14. Would you say that it is desirable for CHI to continue operating in this community? Would you advocate it to be adopted in other rural areas of Uganda?
15. What needs to be done to strengthen CHI or make it sustainable?

16. What other suggestions would you make to help rural households have better access to health care? (Probe: Strategies to be adopted at policy level, implementation – or service delivery, community's involvement etc)

**Thank you very much for your time and participation**

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### *FGD guide (3): Scheme-drop-outs*

#### **Screening Questions**

- a. Head of household or spouse
  - Yes (recruit into group)
  - No (Drop)
- b. Have you heard about community health insurance?
  - Yes (proceed)
  - No (drop)
- c. You have ever joined community health insurance scheme but are no longer a member?
  - Yes (proceed)
  - Never joined (drop)
  - Current member (drop)

#### **Section A: Common Health Problems and Level of Access to health services**

1. What are the alternative health service providers in the community?
2. What are some of the strengths/good points in seeking care from government health facilities in this area?
3. What problems have you experienced in trying to seek care from government health facilities? Probe for:
  - Shortage of drugs
  - Limited health personnel
  - Overcrowding
  - Lack of some facilities like laboratories
  - Others
4. In case you cannot get health care/medical attention from the government health facilities, where else do you commonly report for care? Probe on:
  - Private clinics
  - Drug shops
  - PNFP health facilities
  - Traditional healers

(What influences their decisions on where to go?)

#### **Section B: Community Health Insurance: Differentials in Enrolment**

5. Some people in this community have joined community health insurance, while others have not. Can you characterize a typical household that is a member of community health insurance?
  - Wealth status (land, type of house, plantation, other assets)
  - Education status
  - Gender
  - Household size
  - Level and frequency of illness e.t.c

6. Can you characterize a typical household that is not a member of community health insurance? (refer to probes in 14 above)
7. What are the different factors that influence/enable some households to join community health insurance while others do not?
8. Do you think community health insurance helps households who enrol to get better access to health care than those who do not? In what way? If not, Why not?

### **Section C: Design of Community Health Insurance**

9. What is your opinion about the way the community health insurance scheme works?
  - Risk pooling, resource pooling, prepayment
  - Current ownership/management of the scheme?
  - Community participation in the scheme (Do you think the community can do more to help in the proper running of the scheme?)
  - Enrolment procedures (whole households, groups, minimum number of households in groups)
  - Benefits package (in-patient care, out-patient care, exclusions)
  - Provider options (hospital vs. primary care, one vs. many providers, PNFPP vs. private or a mix of providers)
  - Premium levels
  - Mode of payment, co-payments
10. a) What are the common complaints about the scheme design that are likely to affect some people's ability or interest to join the scheme?  
 b) In what way can such obstacles be minimized in order for more people to join?
11. Most people in this community are members of mutual help groups such as *engozi* groups.
  - What attracts people to join such groups?
  - Are there some people who do not join such groups? Why don't they join?
  - What would attract more of the households who join mutual help groups to join community health insurance too?
  - Is there a way in which enrolment of these groups may bar some people from joining CHI? How? Why?

### **Section D: Opportunities for CHI and General Recommendations**

12. What factors have made it possible for CHI to operate in this community
13. What may make it difficult for CHI to continue operating or to scale up its operations in Uganda?
14. What do you think needs to be done to strengthen CHI or make it sustainable?

15. Would you say that it is desirable for CHI to continue operating in this community? Would you advocate it to be adopted in other rural areas of Uganda?
16. What other suggestions would you make to help rural households have better access to health care? (Probe: Strategies to be adopted at policy level, implementation – or service delivery, community's involvement etc)

**Thank you very much for your time and participation**

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**APPENDIX D**  
**KEY INFORMANT INTERVIEW GUIDES**

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**Key Informant Interview Guide**

**General Introduction**

I am a Ugandan, pursuing a doctoral degree in Social Development at the University of Cape Town (South Africa), Department of Social Development. As part of the requirements for this degree, I am undertaking a research project on the topic, '*community health insurance a viable means of increasing access to health care for rural households in Uganda?*' In order to obtain an objective analysis and conclusion on the above question, it was deemed necessary to get responses from as many stakeholders in Uganda's health sector as possible. You have been selected as one of the resource persons that can provide meaningful information and opinion on this subject. The information obtained will be kept confidential, as no personal particulars will be revealed during or after this research process. The responses will be utilized to develop an academic discussion on the viability of community health insurance in increasing access to health care for rural households. I appreciate your cooperation and willingness to share your views on this subject.

Janestic Twikirize

Date.....

Email: [mwnjan001@uct.ac.za/](mailto:mwnjan001@uct.ac.za)

[jtwikirize@ss.mak.ac.ug](mailto:jtwikirize@ss.mak.ac.ug)

Tel. 256 71 2 875798

**Section A: Respondent Identification**

Date of Interview:
Interviewer Code:
Respondent Code:
Designation of Respondent:
Department:
Interview outcome: Complete.....Incomplete.....(Tick)
To be continued (Date & place of next appointment):.....

*Interview Guide (I): Ministry of Health (Health, Planning department)*

**Required Documents:**

- Uganda health financing strategy
- Health sector strategic plan I – Evaluation or Review report
- The baseline report on the national health insurance

**A National health policy and access to health care**

- 1) Uganda has been implementing the free health care policy since 2001? What are some of the outstanding achievements of the strategy since its inception in 2001?
- 2) What have you observed or documented as the major constraints/challenges with the strategy of free health care in Uganda?
- 3) Would you say free health care is still practicable given the above challenges?
- 4) Government is in close partnership with the Private-Not-For-Profit sector. The sector still charges fees for its services. How does this relate with or affect government's strategy of making health care affordable for all especially for households in the rural areas?

**B Viability of community health insurance**

- 5) The Ministry of health initiated community health insurance and sold the idea to the PNFP sector. At one time (in 2001) it was ruled that CHI was not proving a viable health financing strategy, but the government has continued to support it and it is even being considered an option in the NHIS: The Ministry of Health is also represented on the board of the Community based Health Financing Association and gives some financial support to the association.
  - a) What is the envisaged relationship between community health insurance on the one hand and government's official policy of free health care on the other?
  - b) What is your perception of community health insurance as a strategy of improving access to health care for the rural households?
    - Strengths
    - Weaknesses
    - Facilitating factors
    - Hindrances
    - Future prospects

- c) In addition to extending financial support, are there other ways in which government (Ministry of Health/ DDHS) assists/promotes community health insurance schemes?
- Government subsidies and grants
  - Technical support: training, personnel
  - Policy and legal framework
- 6) Are there any specific strategies that government plans to adopt in order to promote CHI? Or is it being left to the PNFP sector?
- Currently not a priority?
  - Accommodated?
  - To be considered in future
- 7) Do you think it is necessary to adjust the free health care policy to cater a particular social economic class? If government officially promotes CHI alongside the proposed social health insurance, what would be the logic underlying the free health care policy?
- 8) In your view, would community health insurance be a viable option in increasing access to health care for rural households? Probe for:
- Equity in access
  - Financial efficiency
  - Sustainability
- 9) What overall recommendations would you make in relation to community health insurance and access to health care in Uganda?
- Policy recommendations
  - Adoption of the strategy
  - Strengthening of CHI/Scale up or scale down

*Interview Guide (II): District Directorate of Health Services, Rukungiri*

**Preliminary questions:**

- a) Ask for a catalogue of health service providers in the district i.e. a list or inventory of all health facilities in the district according to their level and ownership – government, non-governmental and other as well as location. I am particularly interested in Rubabo County.
- b) Any recent report that gives the health utilization status (figures) i.e. out-patient/in-patient attendance at both government and non-governmental health facilities.
- c) Available staffing levels at health facilities in the district.

**A Access to health care**

- 1) What are some of the outstanding achievements of the free health care strategy since its inception in 2001?
- 2) What are the major challenges faced in the provision of free health care of the strategy?
- 3) Government is in close partnership with the Private-Not-For-Profit sector. The sector still charges fees for its services. How does this relate with or affect government's strategy of making health care affordable for all, especially for households in the rural areas?
- 4) The Private-Not-For-Profit sector has been promoting community health insurance in some parts of the country. The Ministry of Health is also represented on the board of the Community based Health Financing Association and gives some financial support to the association.
  - a) What is the relationship between Community health insurance as a strategy, and government's official policy of free health care?
  - b) What is your perception of community health insurance as a strategy of improving access to health care for the rural households? Probe for:
    - Strengths
    - Weaknesses
    - Facilitating factors
    - Hindrances
    - Future Prospects

- 5) In addition to extending financial support, are there other ways in which government (Ministry of Health/ DDHS) assists/promotes community health insurance schemes? Probe:
- Government subsidies and grants
  - Technical support: Training, Personnel
  - Policy and legal framework
- 6) In the current proposed bill on national health insurance, community health insurance is listed as a component. Are there any specific strategies that government plans to adopt in order to promote CHI? Or is it being left to the PNFP sector?
- Currently not a priority?
  - Accommodated?
  - To be considered in future
- 7) What is the envisaged policy linkage between free health care and community health insurance? **Probe:**
- Is it necessary to adjust the free health care policy to cater a particular social economic class? If government officially promotes CHI alongside the proposed social health insurance, what would be the logic underlying the free health care policy?
- 8) In your view, would community health insurance be a viable option in increasing access to health care for rural households?
- 9) What over-all recommendations would you make in relation to community health insurance and access to health care in Uganda?
- Policy recommendations
  - Adoption
  - Strengthening of CHI/Scale up or scale down

### *Interview Guide (III): Promoting Institution (Microcare)*

#### **A. Access to health care**

- 1) What do you consider to be the strength and weaknesses of Uganda's current health policy? i.e.
  - Free health service provisioning
  - Financing mechanisms – tax funded, donor dependency, OOP
  - User fees in the private sector
- 2) To what extent would you consider the free health care policy relevant in its current form? i.e. universal access
- 3) What factors do you think are affecting access to free health care in the rural areas in Uganda?
- 4) Can you give a brief background of your health insurance activities in Uganda?
- 5) What lessons (both negative and positive) have you so far learnt with regard to promotion and/or adoption of community health insurance as a strategy in accessing health care in Uganda?

#### **B. Scheme Design**

- 6) By the nature of your organisation (private sector), you are profit oriented. You are involved in the promotion of community health insurance, which should be voluntary and not for profit, and it actually operates mainly in the PNFP sector. How do you ensure that there is no conflict between the community's objectives and your organisation's objective? Probe for:
  - The model of CHI adopted – relationship between the provider, the organisation and the community/household.
  - The objectives of the schemes established
  - The linkage between profit and maximum benefit to the community members.
- 7) What are the main sources of the scheme's funds?
- 8) To what extent is the scheme dependent on donor funding?
- 9) What is the schemes generated income: donor fund ratio?
- 10) Does the scheme have an annual budget?
- 11) What is the ceiling on bills for an individual beneficiary per year?
- 12) In what way do the community members participate in the decision making process in the scheme?
- 13) What scheme design features facilitate enrolment of community members into community health insurance?

- 14) What scheme design features hinder enrolment in community health insurance schemes?

**C Performance of CHI**

- 15) From your experience in health insurance, what would you consider as key considerations in assessing the viability of community health insurance schemes? Probe for:
- What indicates that CHI is a successful means of accessing health care?
  - What factors/or conditions influence this viability?
  - In your view, are these conditions present in Uganda's rural communities?
- 16) What achievements have you realized since inception of CHI as one of your projects? Probe for Benefits at various levels:
- Individual,
  - Households,
  - Community,
  - Organisational and
  - Sector (health sector) levels.
- 17) What major challenges have you encountered in the promotion of CHI as a strategy for accessing/financing health care at household and community level?
- 18) What specific arrangements have you made to ensure that CHI is inclusive of the most vulnerable groups in the community? Probe for:
- Whom the organisation considers most vulnerable
  - Arrangements made to avoid excluding them from CHI
  - If no arrangements, the justification (could it be on the assumption that they will get care from the government health care system)?

**D Conclusions/Recommendations**

- 19) Would community health insurance be a viable option in increasing access to health care for rural households?
- 20) What overall recommendations/suggestions do you propose for improving the rural population's access to health care in Uganda? Consider
- Different strategies being adopted
  - Over all health policy
  - Role of communities, households and individuals
  - Role of government
  - Other stakeholders.

*Interview Guide (IV): CHI Administrators, Kisiizi Health Insurance Scheme*

**A Access to Health Care**

- 1) What is the level of access to free government health care in this community?
- 2) What are the factors that affect access to free health care in this community?
- 3) What is the predominant source of health care for households in this community?
- 4) What other health care is being sought by the population in this community (probe for traditional healers, herbalists, self medication)?
- 5) Please provide a brief background of Kisiizi health insurance scheme (Note: *Ask for project background documents*). Probe for:
  - Context and motivation for setting up the association
  - Mission and original objectives (probe on equity of access vs. financial efficiency as objectives)
  - Growth since inception, current membership (ask for membership records)
- 6) What is the socio-economic/health profile of households that enrol/do not enrol in community health insurance schemes?

**B. Scheme Design**

- 7) Can you describe the management/administrative structure of the scheme? (Detailed description of the model adopted or applied; justification for the design and management structure)

*Please describe the procedure for:*

- Determining the benefits package (ask for a copy of the benefits package and exclusions). What criteria are used to include or exclude an item from the benefits package? (Probe for: community health priorities, cost of the service, service availability, emergency vis-à-vis planned conditions such as pregnancy ...)
  - Recruitment of members (Groups, households, individuals? What is the justification for the adopted procedure?)
  - Premium setting and mode of payment
  - Claim of benefits
  - Accessing health care services
- 8) What scheme design features facilitate enrolment of community members into community health insurance?
  - 9) What scheme design features hinder enrolment in community health insurance schemes?

### **C Performance**

- 10) What other factors are influencing the effective adoption of community health insurance in this area?
- 11) How do you assess the relevance of community health insurance as a strategy in increasing access to health care in Uganda given the following?
  - the socio-economic situation in the country (for example, high poverty levels, illiteracy, low savings culture)
  - Free health care strategy in government health facilities.
- 12) What would you consider as key considerations in assessing the viability of community health insurance schemes? Probe for:
  - What indicates that CHI is an effective means of accessing health care?
  - What factors/or conditions influence this viability?
- 13) In your view, are these conditions present in Uganda's rural communities?
- 14) What achievements have you realized since inception of CHI as one of your projects? Probe for benefits at Individual, households, community, organisational and sectoral (health sector) levels.
- 15) What major challenges have you encountered in the promotion of CHI as a strategy for accessing/financing health care at household and community level?

### **D Conclusion/Recommendations**

- 16) What overall recommendations/suggestions do you propose for improving the rural population's access to health care in Uganda?

Consider:

- Different strategies being adopted
- Over all health policy
- Role of communities, households and individuals
- Role of government
- Other stakeholders.

**Thanks for your cooperation.**

*Interview Guide (V): PNEP (Uganda Community-based Health Financing Association)*

- 1) Background of the Uganda Community Based Health Financing Association
  - Context and motivation for setting up the association
  - Mission and original objectives (probe on Equity of access vs. financial efficiency as objectives)
  - Growth since inception, current membership (ask to get catalogue of members of the association)
- 2) To what extent have the objectives of the association been achieved so far? Any measurable indicators of achievement?
- 3) UCBHFA has existed in the context of government's free health care policy. The strategy promotes user fees. How would you describe the relationship between the two strategies? Has there been any conflicts arising out of this context?
- 4) How has government free health care affected the growth of community health insurance in Uganda? Would you say that free health services in government hospitals significantly affect CHI? Why or why not (in case of a less significant influence)
- 5) What other factors apart from free government services affect the growth and expansion of CHI in Uganda?
- 6) In what other way is government health policy affecting the schemes' viability?
  - Policy framework
  - Health financing strategy (free health care, proposed Social health insurance scheme)
  - Public-private partnership
- 7) The Ministry of health is proposing the introduction of a NHIS with social health insurance as the primary strategy. CHI is also accommodated in the bill. How do you think this will affect the growth, relevance and generally the viability of community health insurance as a strategy for health care access?
- 8) What is CHI's target population? What specific arrangements are in place to include the poor and the most vulnerable given the fact that the schemes are voluntary?
- 9) Some CHI schemes such as Kisiizi health insurance scheme are linked to micro finance institutions. How does this linkage facilitate/impede their viability in increasing access to health care particularly in rural settings in Uganda?

- Equity
  - Sustainability
  - Efficiency
- 10) What is CHI's contribution to health care access in Uganda?
- Equity
  - Finances
  - Quality of care
- 11) Can you describe the predominant design of the schemes? How is the design determined? I.e. What factors are considered in the design of the schemes?
- 12) How do the following design features affect scheme viability?
- Provider based schemes
  - Insurer based schemes
  - Linked model (intermediary organisation)
- 13) What have been the major constraints in the promotion of CHI in Uganda?
- 14) What measures has your association taken to address the above challenges?
- 15) In what ways is government facilitating the growth of community health financing schemes?
- Financial assistance (total funds received, what do you consider to be the rationale for giving these funds when government promotes free health care strategy?)
  - Government subsidies to the schemes
  - Technical support - training, supervision)
- 16) Given Uganda's context (rural poverty, government policy) do you think community health insurance is the best strategy/option for increasing access to health care in Uganda? On what factors/country specific evidence do you base your view?
- 17) What overall recommendations/suggestions do you propose for improving the rural population's access to health care in Uganda?
- Consider:
- Different strategies being adopted
  - Over all health policy
  - Role of communities, households and individuals
  - Role of government
  - Other stakeholders

## *Interview guide (VI): Private-For-Profit provider*

### **A Access to health care**

- 1) What do you consider to be the strengths and weaknesses of Uganda's current health policy? i.e.
  - Free health service provisioning
  - Financing mechanisms – tax funded, donor dependency, OOP
  - User fees in the private sector
- 2) To what extent would you consider the free health care policy relevant in its current form? i.e. universal access
- 3) What are the factors that affect access to formal health care in the rural areas in Uganda?
- 4) What factors do you think are affecting access to free health care in the rural areas in Uganda?
- 5) What is the most common source of health care for the majority of households in this community?
- 6) What other healthcare is being sought by community members than formal health care? In this community, what determines the type of healthcare sought?
- 7) Do you have any arrangements (such as prepayment, resource pooling, and insurance) to ease financial access to health care by community members?

### **B Viability of CHI**

- 8) Some health service providers have established community health insurance schemes as a means of easing household's access to health care. What is your perception of this arrangement?
  - Its potential strengths and weaknesses
  - Practicability in a rural context
  - Effectiveness in improving access to health care
  - Who do you think gains most from the scheme-the provider, the household, the community, or the intermediary organisation
- 9) What factors do you think would affect its successful adoption in Uganda?
- 10) Would you support full scale adoption of community health insurance as a major strategy in improving access to health care for the rural households? Why or why not?
- 11) What overall recommendations/suggestions do you propose for improving the rural population's access to health care in Uganda?
  - Different strategies being adopted
  - Over all health policy
  - Role of communities, households and individuals
  - Role of government
  - Other stakeholders.

*Interview Guide (VII).Traditional and complementary medicine (coordinator)*

1. What do you consider to be the strength and weaknesses of Uganda's current health policy, with particular reference to universal access to basic health care
  - Free health service provisioning
  - Financing mechanisms – tax funded, donor dependency, OOP
  - User fees in the private sector
  - Paying wings (voluntary in some government hospitals)
2. To what extent would you consider the free health care policy relevant in its current form? i.e. universal access
3. What factors do you think are affecting access to free health care in the rural areas in Uganda?
4. What range of services do you offer?
5. What is the level of utilization of the services offered?
6. What is the mode of payment for the services?
7. What do you do if the patient cannot afford to pay for the service OOP?
8. Do you have any arrangements in place to ease access to the services you offer (financial, geographical, social)
9. In your view what is the most common source of health care for households in this community? What factors facilitate this access and utilization?
10. Some health service providers especially in the Private-Not-For-Profit (PNFP) sector have established community health insurance schemes as a means of easing household's access to health care. What is your perception of this arrangement?
  - Its potential strengths and weaknesses
  - Practicability in a rural context
  - Effectiveness in improving access to health care
11. Who do you think gains most from the scheme-the provider, the household, the community, or the intermediary organisation?
12. What factors do you think would affect its successful adoption in Uganda?
13. Would you support full scale adoption of community health insurance as a major strategy in improving access to health care for the rural households? Why or why not?
13. What overall recommendations/suggestions do you propose for improving the rural population's access to health care in Uganda?

Consider;

- Different strategies being adopted
- Over all health policy
- Role of communities, households and individuals
- Role of government
- Other stakeholders.

**Thanks for your cooperation.**

University of Cape Town

### *Interview Guide (VIII): Public health care providers*

1. What do you consider to be the strengths and weaknesses of Uganda's current health policy? i.e.
  - Free health service provisioning
  - Financing mechanisms – tax funded, donor dependency, OOP
  - User fees in the private sector
2. To what extent would you consider the free health care policy relevant in its current form? i.e. universal access
3. What are the factors that affect access to formal health care in the rural areas in Uganda?
4. What factors do you think are affecting access to free health care in the rural areas in Uganda?
5. Some health service providers have established community health insurance schemes as a means of easing household's access to health care. What is your perception of this arrangement?
  - Its potential strengths and weaknesses
  - Practicability in a rural context
  - Effectiveness in improving access to health care
  - Who do you think gains most from the scheme-the provider, the household, the community, or the intermediary organisation
6. What factors do you think would affect its successful adoption in Uganda?
7. Would you support full-scale adoption of community health insurance as a major strategy in improving access to health care for the rural households? Why or why not?
8. What overall recommendations/suggestions do you propose for improving the rural population's access to health care in Uganda?
  - Different strategies being adopted
  - Over all health policy
  - Role of communities, households and individuals
  - Role of government
  - Other stakeholders

## *Interview Guide (IX): CHI Service Provider (Hospital Administration)*

### **A. Access to health care**

1. What is the estimated population served by this hospital ( area within the catchment area)
  - How many patients does the hospital handle per month: outpatient, in patient, referral
  - What percentage belongs to community health insurance
2. Please give an objective assessment of the challenges met by households in accessing health care in the district (Rukungiri) - could be at household, community, health service providers, or policy level.

### **B Performance of CHI**

3. What do you consider as the key contribution of community health insurance schemes in the area?
4. How has the scheme impacted on service delivery by the hospital, either negatively or positively?
  - Quality of care
  - Financial efficiency -percentage of total treatment cost from the scheme
  - Services offered
  - Staff morale
5. What challenges is the hospital facing as a result of working with the insurance scheme?

### **C. Scheme Design**

6. Kisiizi health insurance scheme changed management a few years ago from provider based to insurer based model. What were the principles/reasons for the change in the model? How has this influenced its growth or the lack of it?
7. Please comment on the appropriateness of the scheme design in terms of the following:
  - Benefits package/exclusions - Are the exclusions justifiable in your opinion?
  - Premium rates Vs cost of care and household incomes
  - Mode of Payment
  - Mode of enrolment
  - Service Provider options
  - Claim procedures
  - Any other component

## D Conclusions/Recommendations

8. Please comment on the viability (potential/usefulness, ability to bear fruit) of the community health insurance strategy in terms of the following:

- Access to health care – particularly in terms of equity (i.e. different socio-economic groups, gender, age). Is there evidence that the very poor have more access to health care as a result of the insurance scheme?
- Efficiency (value for money) i.e. benefits in relation to resources invested in the scheme. Are the resources spent justifiable? Is it possible to get similar benefits with fewer resources spent? (*This is an opinion question*)
- Sustainability: How sustainable is the strategy?

9. Would you advise government and other stakeholders in the health sector to scale up or promote community health insurance schemes in other rural parts of Uganda? Please provide a brief justification.

10. Please suggest recommendations for the successful adoption of community health insurance in Uganda.

11. What alternative do you suggest for improving access to quality health care for Uganda's rural households?

**APPENDIX E**  
**FINDINGS-ADDITIONAL TABLES**

**Table 25: Level of illness, health-seeking behaviour and common sources of health care**

	<b>CHI enrolment Status</b>					
	Scheme-Member		Non-scheme- member		Total	
	f	%	f	%	f	%
<b>Has any other member of your household fallen sick during the last six months?</b>						
Yes	97	74.6	102	78.5	199	76.5
No	33	25.4	28	21.5	61	23.5
Total	130	100.0	130	100.0	260	100.0
<b>What was the cause of illness?</b>						
Malaria	71	73.2	68	66.7	139	69.8
Respiratory Tract Infection	18	18.6	16	15.7	34	17.1
Diarrhoea	0	.0	5	4.9	5	2.5
Accident/Injury	3	3.1	9	8.8	12	6.0
Others	5	5.2	4	3.9	9	4.5
Total	97	100.0	102	100.0	199	100.0
<b>Did they seek health care?</b>						
Yes	96	99.0	100	98.0	196	98.5
NO	1	1.0	2	2.0	3	1.5
Total	97	100.0	102	100.0	199	100.0
<b>From where did they seek health care?</b>						
Government health centre	7	7.3	33	33.0	40	20.4
Government Hospital	2	2.1	4	4.0	6	3.1
PNFP health centre	8	8.3	9	9.0	17	8.7
PNFP Hospital	73	76.0	32	32.0	105	53.6
Private clinic	6	6.3	21	21.0	27	13.8
Other	0	.0	1	1.0	1	.5
Total	96	100.0	100	100.0	196	100.0
<b>How long does it usually take you to reach the health centre?</b>						
Less than 1 Hr	87	66.9	90	69.2	177	68.1
1 to 2 Hrs	37	28.5	34	26.2	71	27.3
2 to 3 Hrs	6	4.6	5	3.8	11	4.2
More than 3 hrs	0	.0	1	.8	1	.4
Total	130	100.0	130	100.0	260	100.0
<b>Do you think people in your community use traditional healers?</b>						
Yes	64	49.2	49	37.7	113	43.5
No	66	50.8	81	62.3	147	56.5
Total	130	100.0	130	100.0	260	100.0

**Table 26: Level and ownership of the nearest health facility**

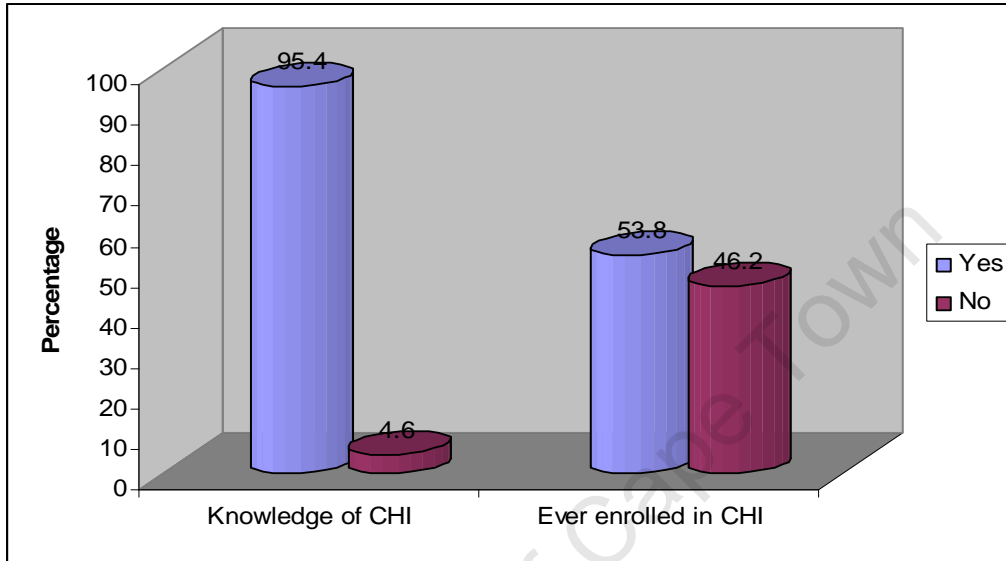
	<b>CHI enrolment Status</b>					
	Scheme member		Non-scheme-member		Total	
	f	%	f	%	f	%
<b>Level of nearest health facility</b>						
Health Centre I	4	3.1	3	2.3	7	2.7
Health Centre II	20	15.4	13	10.0	33	12.7
Health centre III	53	40.8	68	52.3	121	46.5
Health Centre IV	3	2.3	2	1.5	5	1.9
Clinic	27	20.8	22	16.9	49	18.8
Hospital	23	17.7	22	16.9	45	17.3
Total	130	100.0	130	100.0	260	100.0
<b>Ownership of the nearest health facility mentioned above</b>						
Government	62	47.7	78	60.0	140	53.8
PNFP	43	33.1	29	22.3	72	27.7
PFP	25	19.2	21	16.2	46	17.7
Don't know	0	.0	2	1.6	1	.8
Total	130	100.0	130	100.0	260	100.0

Source: Field data, September 2007

**APPENDIX F**  
**FINDINGS-ADDITIONAL FIGURES**

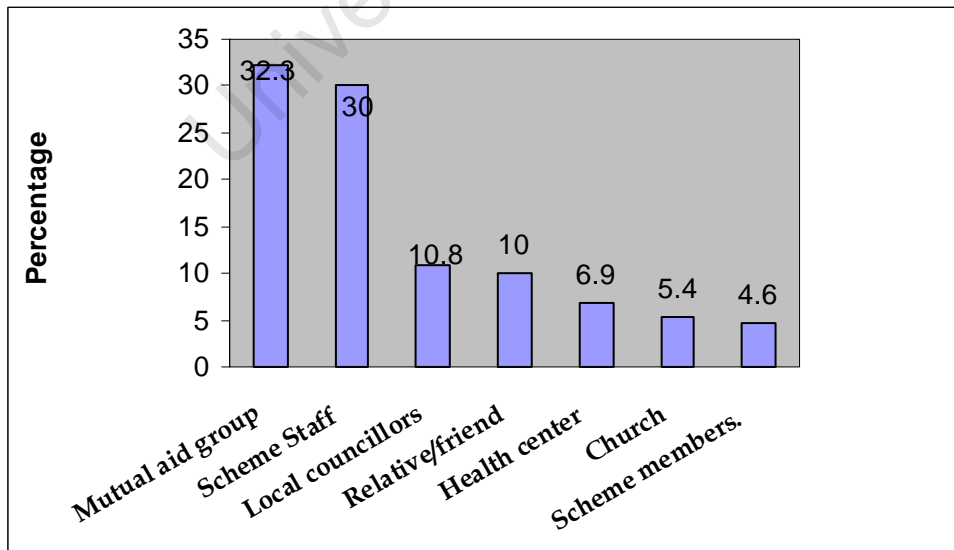
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**Figure 22: Level of awareness and enrolment in the CHI scheme**  
(N=260)



Source: Field data, September, 2007

**Figure 23: Sources of information about the CHI scheme**  
(N=360)



Source: Field data, September, 2007

## APPENDIX G

### KISIIZI HEALTH INSURANCE BENEFITS PACKAGE

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#### **Covered services:**

- Casualty and outpatient services;
- In-patient services;
- Referral for consultation with consultants recognized by registered hospital and medication prescribed by the consultant provided that it appears on the Microcare drug list;
- Surgery;
- Special investigations including x-ray, ultrasound, electrocardiogram and laboratory facilities available within hospital;
- Pharmacy: drugs prescribed by the Hospital medical practitioner within the agreed treatment protocols of the specific scheme;
- Maternity cover including delivery (normal or by c-section), provided the woman attends a minimum of 3 antenatal check-ups;
- Dental care including cavity filling, tooth extraction and general consultation;
- Optical consultation;

#### **Exclusions and Limitations:**

The Microcare Health Plan will not cover:

- Dental surgery other than as a result of severe accidental injury;
- Optical appliances, sight correction other than general optical consultation;
- Routine medical check-ups (students, army, employer etc.);
- Circumcision for religious reasons (or other reasons than medical);
- Hearing-aids;
- Cosmetic surgery;
- Intentional self-injury or illness; illness or injury arising out of involvement in riot, civil commotion, affray, political or illegal act by a member (including imprisonment or detention by any authority);
- Psycho-neurosis, nervous or mental disorder;
- Treatment not scientifically recognized and their consequences;
- The investigation and treatment of infertility;
- Alcoholism or drug addiction, or the costs incurred by accident, injury or illness resulting from such addiction;
- Private room charges and any other private charges for drugs or surgeon etc.
- Chronic medication and routine testing (e.g. for chronic diseases) is not covered for outpatients. Chronic diseases include diabetes, hypertension, asthma, epilepsy, ulcers, sickle cell etc.
- Anti retroviral drugs and anti fungal drugs.

*Source: Microcare scheme policy (Kisiizi) (no date) (Accessed September 2007)*

## APPENDIX H

### KEY COMPONENTS OF THE UGANDA NATIONAL MINIMUM HEALTH CARE PACKAGE (UNMHCP)

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1. **Cluster 1: Health promotion, disease prevention and community health initiatives**
  - Health promotion and education
  - Environmental health
  - Control of diarrhoeal diseases
  - School health
  - Epidemic disaster prevention, preparedness and response
  - Occupational health
  
2. **Cluster 2: Maternal and child health**
  - Sexual reproductive health and rights
  - Health and survival of newborns
  - Management of common childhood illness
  - Expanded programme on immunisation
  - Nutrition
  
3. **Cluster 3: Prevention and control of communicable diseases**
  - STI/HIV/AIDS
  - Tuberculosis
  - Malaria
  - Diseases targeted for eradication and/or elimination (leprosy, guinea worm, sleeping sickness, onchocerciasis, schistosomiasis, trachoma, lymphatic Filariasis)
  
4. **Cluster 4: Prevention and control of non-communicable diseases**
  - Non-communicable diseases
  - Injuries, disabilities and rehabilitative health
  - Gender based violence
  - Mental health and control of substance abuse
  - Integrated essential clinical care
  - Oral health
  - Palliative care

*Source: Uganda (1999, 2005b)*