CONTRIBUTION OF COMMUNITY BASED HEALTH INSURANCE ON ACCESS TO HEALTHCARE: AFYA YETU SCHEME, CHEHE SUB-LOCATION, NYERI COUNTY, KENYA.

BY

WILSON WANG'OMBE WAHOME

A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI.

2015

DECLARATION

I hereby declare that this research project report is my original work and has not been presented in this University or any other institution of higher learning for examination.

Signature……Date……..

Wilson Wang'ombe Wahome

L50/60122/2013

This project report has been submitted with my approval as the University Supervisor

Signature…….…….Date…….

Dr. Lillian Otieno – Omutoko

Senior Lecturer

College of Education and External Studies

University of Nairobi

DEDICATION

To my wife Esther and our daughters Joy and Karen

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to the University of Nairobi and particulary the Nyeri Extra mural centre for according me a place to further my academic dream. Thank you Dr. Lillian Otieno, my supervisor and all the lecturers for their professional guidance throughout my coursework and in developing this project. Am humbled by the humility shown by all staff of the Nyeri centre, all colleagues and classmates and I wish them all success in their various endeavours not to forget Ann Wamaitha who helped me in data analysis.

I am short of words for my workmates who in many ways had to bear with my absence as I pursued my studies. I have utmost regards to my father and late mother who since my childhood instilled in me the desire to seek knowledge and reminding me of the value of working hard. I thank my siblings who have all through given me encouragement in their own small ways. To my wife and daughters: thank you for coping and giving me space to pursue my passion. All glory be to God

TABLE OF CONTENT

DECLARATION ii

DEDICATION iii

ACKNOWLEDGEMENT iv

LIST OF TABLES ix

LIST OF FIGURES x

ABBREVIATIONS AND ACRONYMS xi

ABSTRACT xii

CHAPTER ONE 1

INTRODUCTION 1

1.1 Back ground of the Study 1

1.2 Statement of the Problem 4

1.3 Purpose of the Study 5

1.4 Objectives of the Study 5

1.5 Research Questions 6

1.6 Significance of the Study 6

1.7 Assumptions of the Study 6

1.8 Limitations of the Study 7

1.9 Delimitation of the Study 7

1.10 Definition of Significant Terms 8

1.11 Organization of the Study 10

CHAPTER TWO 11

LITERATURE REVIEW 11

2.1 Introduction 11

2.1.1 Healthcare Financing from a Global Perspective 11
2.1.2 Healthcare Financing in Kenya 12
2.2 Risk Pooling in CBHIS Schemes 14
2.3 Sensitization of CBHI Scheme Members 17
2.3.1 Access to Information by Scheme Beneficiaries 19
2.3.2 Inclusion and Participation of Members in Scheme Processes 19
2.3.3 Accountability of Scheme Leaders to their Members 20
2.3.4 Local Organizational Capacity of Scheme Target Population 20
2.4 Scheme Partnerships with Healthcare Providers 22
2.5 Insurance Benefit Package Proposed by Scheme 25
2.6 Conceptual Framework 27
2.7 Explanation of Relationships of Variables in the Conceptual Framework 29
2.8 Gaps in Literature Reviewed 30
2.9 Summary of Literature Review 30
CHAPTER THREE 32
RESEARCH METHODOLOGY 32
3.1 Introduction 32
3.2 Research Design 32
3.3 Target Population 32
3.4 Sample Size and Sampling Procedures 33
3.4.1 Sample Size 33
3.4.2 Sampling Procedure 34
3.5 Data Collection Instrument 34
3.6 Pilot Testing of the Instruments 35

3.6.1 Validity of the Instrument 35
3.6.2 Reliability of the Instrument 35
3.7 Data Collection 36
3.8 Data Analysis 36
3.9 Ethical Considerations 37
3.9 Operational Definition of the Variables 38
CHAPTER FOUR 39
DATA ANALYSIS, PRESENTATIONS, AND INTERPRETATIONS 39
4.1 Introduction 39
4.2 Response Rate 39
4.3 Demographic Data of the Respondents 40
4.3.1 Demographic Data of the Leaders 40
4.3.1 Demographic Data of the Contributors 41
4.4 Sensitization of Members of CBHIS 43
4.4.1 Sensitization of Members of CBHIS According to the Leaders 43
4.4.2 Sensitization of Members of CBHIS According to the Contributors 46
4.5 Risk Pooling in CBHIS 48
4.5.1 Risk Pooling in CBHIS According to Leaders 48
4.5.2 Risk Pooling in CBHIS According to Contributors 51
4.6 Partnership with Health Care Providers 53
4.6.1 Partnership with Health Care Providers According to Leaders 53
4.6.2 Partnership with Health Care Providers According to Contributors 54
4.6.3 Access to Health Care 55
4.6.1 Access to Health Care According to Leaders 55

4.6.1 Access to Health Care According to Contributors 57

CHAPTER FIVE 60

SUMMARY OF THE FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS 60

5.1 Introduction 60

5.2 Summary of Findings 60

5.3 Discussions 63

5.4 Conclusions 65

5.5 Recommendations 65

5.6 Areas for Further Research 66

REFERENCES 67

APPENDICES 70

APPENDIX I: INFORMED CONSENT LETTER 70

APPENDIX II: QUESTIONNAIRE FOR LEADERS 71

APPENDIX III: QUESTIONNAIRE FOR CONTRIBUTORS 75

APPENDIX IV: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION 79

LIST OF TABLES

Table 3.1: Target Population..... 33

Table 3.2 Sample Size..... 34

Table 4.1: Response Rate..... 39

Table 4.2: Demographic Data of the Leaders (n=15) 40

Table 4.3: Demographic Data of the Contributors (n=120)..... 42

Table 4.4: Sensitization of Members of CBHIS According to the Leaders (n=15)..... 44

Table 4.5: Sensitization of Members of CBHIS According to the Contributors (n=120) 46

Table 4.6: Risk Pooling in CBHIS According to Leaders (n=15) 49

Table 4.7: Risk Pooling in CBHIS According to Leaders (n=120) 51

Table 4.8: Partnership with Health Care Providers According to Leaders (n=15) 53

Table 4.9: Partnership with Health Care Providers According to Contributors (n=120) 54

Table 4.10: Access to Health Care According to Leaders (n=15) 55

Table 4.11: Access to Health Care According to Contributors (n=120)..... 58

LIST OF FIGURES

Figure 1: Health Insurance Coverage in Kenya 14

Figure 2: Conceptual Framework 28

ABBREVIATIONS AND ACRONYMS

AYI	Afya Yetu Initiative
CIDR	Centre for International Development and Research
CBHI	Community Based Health Insurance
CBHF	Community Based Healthcare Financing
EC	Executive Committee
HMO	Health Management Organization
KCBHFA	Kenya Community Based Health Financing Association
MDGs	Millennium Development Goals
MILK	Micro Insurance Learning and Knowledge
NHIF	National Hospital Insurance Fund
PHR	Partners for Health Reform
SIC	Sensitization Information Communication
UNESCO	United Nations Education Social and Council
UK	United Kingdom
UNICEF	United Nations Children's Emergency Fund
UNDP	United Nations Development Programme
US	United States
USAID	United States Agency for International Development
USD	United States Dollar
WHO	World Health Organization

ABSTRACT

How to finance and provide health care for the more than 1.3 billion rural poor and informal sector workers in low- and middle-income countries is one of the greatest challenges facing the international development community. Community Based Healthcare Insurance schemes (CBHIS) like other solidarity based insurance initiatives have the goal of finding ways for communities to meet their health financing needs through pooled revenue collection and resource allocation decisions made by the community. They provide insurance services by allowing members to pay small premiums on a regular basis to offset the risk of needing to pay large healthcare fees upon falling sick. This study was set to establish the contribution of the CBHIS towards access to healthcare by the members of Afya Yetu scheme in Chehe sub-location, Mathira East Sub -County, Nyeri County. The objectives were to establish how sensitization of members influences access to healthcare; establish how risk pooling influences access to healthcare by members; assess how linkages with nearby healthcare providers contributes to access of healthcare and to establish how the choice of an insurance benefit package affects access to healthcare. This study uses a descriptive survey design chosen so as to enable the researcher to describe the state of affairs at the scheme. The unit of analysis consists of a sample of 120 subjects systematically sampled from a target population of 289. The data was collected using a questionnaire which had both open and close ended questions. A pilot study comprising of 10 respondents was conducted in an adjacent sub-location and the output was used to ensure completeness of data collection instrument. Questionnaires for the committee members were self administered while the others were researcher administered. Data collected was both qualitative and quantitative; qualitative data is analyzed using content analysis the quantitative data was coded and entered into statistical package for social sciences version 20 and analyzed using descriptive statistics. Findings of the study show that 66.7% of the leaders indicated that the awareness of members affects the way they seek healthcare while 82.5% of the contributors indicated that the knowledge gained by being in the scheme had changed the way they sought health care. The researcher concludes that access to health insurance can have a positive impact on their members' economic and social situation. To enlarge access to health care for the poor and the rural population, community-based health insurance schemes can be an important element and a first step. It allows some limited pooling of risks and thereby leads to an improvement in the health care system, where most people otherwise have to pay their health expenditure out of pocket. The research findings are of benefit to the organization implementing this programme and others doing the same in other areas as they can utilize the recommendations advanced by the study.

CHAPTER ONE

INTRODUCTION

1.1 Back ground of the Study

The need for healthcare has been cited globally under the millennium development goals (MDGs) and in specific country long term strategic plans like the Kenya's Vision 2030, Ghana's Vision 2020 and Vision 2020 for Rwanda, just but a few. Multiplicity of factors account for the cause-effect of healthcare related complications in human survival. There has been continued effort world over through research, funding and studies to manage health matters for the betterment of life. Need for community healthcare arises from social needs or problems, for instance (Byrd & Clayton, 2002) in a study conducted in United States US, found that life expectancy gap between white and black males increased in favour of whites from 6.4 years to 6.9 years between 1983 to1998. Subsequent studies identified some of the causes as racial differences, income disparities, education and opportunities for obtaining healthcare. Another study conducted in England among Diaspora found that black Caribbean people suffer more afflictions as opposed to the locals which had a bearing on the life expectancy.

An analysis of health policy in Africa show major imprints of colonial derivations. Colonial health services laid foundations for modern health and medical care in Africa (Mwabu, 2004). These medical services were inequitable and were supplied selectively with available resources targeting or favouring specific groups of people, such were expatriates, European settlers, military, and employees of large private industries. However, most African countries have from the 1960s been making efforts to extend health services to underserved population. Initially, the governments invested heavily in urban health systems but only ended up benefiting only a small portion of population. In 1978, a conference was held in Alama Ata under the aegis of World Health Organization WHO, urging all nation to adopt equity as a goal to public health; the declaration was health for all (WHO, 1978).Critical reviews on spending within social sector led to increased interest in the sector and by development agencies, thus the emergence of multiple initiatives aimed at remedying the situation.

In the context of inadequate public expenditure in the health sector, many countries have installed cost recovery systems, such as user fees, as a supplementary financing approach for healthcare services. This practice has raised concerns over equity and access to healthcare for the poor, and the search for complementary financing solutions continues. How to finance and provide healthcare for the more than 1.4 billion rural poor and informal sector workers in low and middle income countries is one of the greatest challenges facing the international development community. Although all countries have some form of public provision of health services, few Governments are able to provide a full range of services to meet all healthcare needs. Shrinking healthcare budgets, inefficient delivery systems, poor service quality, and the imposition of user fees make it difficult for them to meet the health care needs of the poor.

One interesting response has been a rapidly growing phenomenon in some developing countries is community-based health insurance (CBHI). While varying in detail from country to country and scheme to scheme, these insurance groups develop around geographical entities (villages, districts), trade or professional groupings, or healthcare facilities. They are typically designed by and for the people in the informal and rural sectors who are unable to get adequate health insurance. They are always not-for profit, voluntarily managed, either voluntary or automatic in membership and sometimes registered entities. CBHIS operate somewhat independent of government thus may be particularly appealing in contexts where government capacity is limited or if there is limited trust in government, they however should be regarded as a compliment to, not as a substitute to government involvement in healthcare financing and risk management related to the cost of illness. Such schemes have been around for a long time and in some cases have evolved out of traditional risk pooling mechanisms such as Tontine in West Africa.

According to Bennett (1998), a 1997 review identified 81 documented CBHI schemes from throughout the world, with the majority in sub-Saharan Africa. Today, they number in the hundreds, if not thousands. Recently there has been increased interest in CBHI; for example, the Commission on Macroeconomics and Health recommended that user payments increasingly be channeled through CBHI schemes.

In Ghana, the number of schemes grew from 4 to 159 in just over 2 years, and the national health financing policy in both Ghana and Tanzania is promoting a key role for CBHI. Other CBHI

schemes have grown from different rationales. Some may help protect members against the cost of user fees associated with care in the public sector as does the Community Health Fund scheme in Tanzania. Others primarily provide risk pooling for fees associated with the use of private sector providers as in the Self-Employed Women's Association in India or a combination of both like the CBHI programme promoted by Afya Yetu Initiative in Kenya.

The Afya Yetu CBHIS scheme is part of the CBHIS programme in Nyeri County and is supported by Afya Yetu Initiative (AYI) which is a local nongovernmental organization (NGO). The CBHI schemes have grown from two in 2002 to 68 schemes in 2013 with one stable network of over 10,000 households and close to 40,000 beneficiaries. Afya Yetu scheme was registered in the year 2003 as a self help group based in Chehe sub-location. The overall goal is to bridge the social health insurance gap experienced by the low income population in order that they have financial access to quality and equitable healthcare.

1.2 Statement of the Problem

Kenya is one of the many countries that subscribed to the 1978 World Health Organization (WHO) target of healthcare for all by the year 2000. This goal was not met. According to the Kenya National Health Accounts (2011), the poor who constitute 56% of the population are largely excluded from quality healthcare due to high user fees. Patients thus bear great financial responsibility when it comes to access health services as a sickness episode places them at risk of falling into a poverty trap, across the social strata.

In 2011 WHO reported that a hospitalization in Kenya costs an average of USD35 per day (excluding drugs and diagnostics), WHO, (2011) - over seven times the typical daily wage. These costs particularly when associated with a long-term hospitalization bring immense hardship and lasting financial struggle to patients and their families.

According to Bruno, (2009) CBHI schemes prevent impoverishment related to health care expenditures in the targeted communities. They reduce the occurrence of catastrophic health care expenditures and mitigate health care costs by allowing an early access to health services. They also create an enabling environment for better health seeking behaviour, by reducing the stress and the fear, that are proved to have negative effects on the recovery from adverse health events, but also on promptness of treatment.(Jutting, 2003).

As Fahdi (2011) noted, costs may prevent or deter people from seeking care when needed. The disparities in use of inpatient care in Kenya suggest that access is particularly limited for some. Wealthy Kenyans and residents of urban areas and those with membership to a form of insurance or another are far more likely to seek inpatient care than their poorer, rural counterparts or those without any form of insurance.

In a survey conducted in 2009, the Ministry of Health found out that 16% of Kenyans who fell ill within the precedent 4 weeks did not seek outpatient care, and of those who skipped care 38% cited lack of money as the reason. These hardships signal a clear gap in the ability of many Kenyans to cope with the financial costs of health, a gap where insurance has potential to play an important role.

A feasibility study carried out by the International Centre for Development and Research (CIDR) in Nyeri County in 1998, identified Chehe sub location as one area where the frequency of fundraisings and decapitation to fund healthcare expenditures was high. The area is a tea growing zone and very productive translating to good disposable incomes for the inhabitants. The solidarity levels are also high relative to other areas studied. However, despite the initiation of a CBHI scheme over a decade ago to mitigate the situation, enrolment rate into the scheme is still low at 20%.

1.3 Purpose of the Study

The aim of the study was to investigate the contribution of Community based health insurance towards enabling enrolled members of the Afya Yetu scheme in Chehe sub-location, Mathira East Sub-county in Nyeri County to access healthcare.

1.4 Objectives of the Study

The study aimed at achieving the following objectives;

i. To assess how sensitization influences access to healthcare by members of the Afya Yetu CBHI scheme;
ii. To establish how risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme;
iii. To assess if partnerships with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme;
iv. To establish how the insurance benefit package chosen by a member influences access to healthcare

1.5 Research Questions

The study was guided by the following research questions;

i. How does member sensitization influence access to healthcare in Afya Yetu CBHI scheme?
ii. How does risk pooling influence access to healthcare by members of Afya Yetu CBHI scheme?
iii. How do partnerships between Afya Yetu scheme and healthcare providers contribute to access to healthcare?
iv. How do the existing insurance benefit packages chosen by contributors influence access to healthcare?

1.6 Significance of the Study

This study sought to determine if community initiatives are a way to improve access to healthcare. The findings of this study provide policy makers and development partners with knowledge on the contribution of CBHI to access of healthcare in a context where most of the health financing arrangements has failed to be inclusive. The National Hospital Insurance Fund (NHIF) may use the findings in this study to seek ways of utilizing community initiatives and structures in increasing the outreach of their coverage.

The management of AYI who are implementing the programme may use the findings of this study as they seek to measure the impact of the programme, lobby for support from different stakeholders and also strategize for the future expansion.

1.7 Assumptions of the Study

The researcher had assumed that all respondents would be available and willing to participate in the study; also that they would give accurate and explicit information to enable drawing of valid conclusions. It was also assumed that the officials of the scheme would disclose all information required for this study and that the levels of awareness are almost similar. That the required information would be available in time and form anticipated for analysis using the proposed

methods. That geo-political environment would remain constant during the time of research as has been during the time of project development.

1.8 Limitations of the Study

The constraints the researcher faced were that the data collection period coincided with the onset of the long rains and most respondents being farmers may not be readily available. Equally travelling to and from one village during the rainy season was challenging where roads are impassable. The planned budget was thus surpassed due to repeat visits and many respondents were too inquisitive thus taking a lot of time and the researcher and his assistant being a full time employee had to adjust heavily to finish in time.

1.9 Delimitation of the Study

The study was restricted to Chehe Sub-location; Mathira East Sub County where the Afya Yetu scheme, draws its membership from. The area is situated to the north of Nyeri County and borders The Mt. Kenya forest. It has eight villages and 100% of the inhabitants are small scale farmers with tea being the major income earner.

1.10 Definition of Significant Terms

Beneficiaries: All those individual contributors and their declared dependants who are eligible for access the services provided by a scheme

Community Based Health Insurance: A non-profit type of health insurance for the informal sector, formed on the basis of an ethic of mutual aid and the collective pooling of health risks, in which members generally participate in the management of the scheme.

Co-payment: The part of a hospital bill that an insured person pays from his pocket at the time of seeking healthcare.

Cost sharing: any of several mechanisms whereby costs are shared by more than one payer, such as users, employers, government, and insurer. Sometimes the term is used specifically to refer to mechanisms whereby users of government services share costs with government.

Micro-insurance: Voluntary and contributory schemes for the community handling small-scale cash flows to address community risks.

Mutual health organizations: Term used within the West Africa region to describe CBHI schemes.

Out-of-pocket spending: Fee paid by the user of health services directly to the provider at the time of service delivery and borne directly by the patient. Fees include cost sharing (and user fees) and informal payments to health care providers.

Prepayment: Payment made in advance that guarantees eligibility to receive a service when needed, at reduced or zero additional cost, also refers to prepayment for an individual or household without risk pooling between households.

Contribution: Amount of money paid to an insurer on a regular basis in return for health care coverage for a specified period of time.

Reinsurance: Whereby the first (or direct) insurer contracts a second insurer to share in the risks that the direct insurer has assumed on behalf of its members or beneficiaries. It is generally accepted as sound practice to reinsure a scheme against sudden catastrophic or extraordinary liabilities that the scheme may be unable to meet.

Risk pooling: The formation of a group so that individual risks can be shared among many people. Each actor facing possible large losses (such as health expenditures) contributes a small premium payment to a common pool, to be used to compensate whichever of them actually suffers the loss.

Scheme: Community based insurance self-help groups

User fees: Out-of-pocket payment made at the time of using health care services.

1.11 Organization of the Study

The first chapter of this study is the introduction part. A background of the study is given including a global perspective to the problem and a profile of the CBHI programme in Nyeri County. Immediately after, the problem is described in detail. The chapter continuous by stating the purpose of the study as well as enumerating the objectives and research questions to guide the study. Following is a statement of the significance of the study the limitations and delimitation. Finally there is included a section on the assumptions of the researcher in the study and definitions of significant terms used in the study.

Chapter two entails detailed literature review on thematic areas and in line with the four objectives of the study. After is the conceptual framework on which the study is founded and an explanation of the relationships between the variables. Finally, the researcher proceeds to describe the identified gaps to be filled by this study as well as a summary of the literature reviewed.

Chapter three is about the research methodology employed in the study. It begins with a statement of the research design adopted by the researcher, the target population and then the sample size and sampling procedures. There are sections describing the data collection instrument to be used in the study, how the researcher intends to test the instrument, how validity and reliability are going to be ensured in the study, the procedures to be used in data collection and how the data collected is going to be analyzed. Finally the researcher describes how ethical issues are going to be considered to ensure the research is within acceptable norms and standards.

Chapter four contains the data analysis, presentation and interpretation. The chapter is a report of the main results obtained from analysis of the data, interpretation and presentation in form of tables, percentages and brief explanations.

Chapter five presents a summary of findings, discussions, conclusions and recommendations based on the stipulated objectives in answering research questions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter contains reviewed literature related to Community Based Health Care insurance and its effect on access to healthcare at global national and local levels. Also contains historical development of CBHI and conceptual frameworks.

2.1.1 Healthcare Financing from a Global Perspective

Historically, healthcare systems for most African countries have attributes of the western colonial systems that supported class systems just as were class societies like in Britain which were exacerbated by policy of divide and rule: however as (Mwabu et al., 2004) put it, they laid the foundation for the modern systems of healthcare. In Tanzania in the 70s and 80s, healthcare systems were in crises due to declining budgetary allocations against rising demands; there were shortage of drugs and equipments. The country's ministry of health had to seek alternative sources of funds and interventions in health related infrastructure and improved health outposts were built by use of the community labor, NGOs and Churches. In 1993, the church owned 40% of health facilities and 72% of health facilities could be accessed by at a five kilometre reach for by all villages. There were improved local government revenues, donor funds that the government did not generally support due to foreseen unsustainability. User charges were instituted through reduction in subsidies, insurances like national healthcare insurance scheme. The government employed decentralization policy which was a shift from central government economy to free market economy. There were civil service reforms, financial sector reform, and parastatal reforms.

In Uganda, frequency of instability emanating from coup de tats escalated in 1970s and 80s, in an effort to cope with high costs of financing, the government provided other income sources to supplement revenue from government taxation. User charges and cost sharing schemes were started. Problems escalated in personnel, drugs, and medical supplies; in and outpatient visits fell considerably. Urban employees had access to free services at public facilities and covered by

healthcare financing schemes sponsored by employees but the informal sector workers and rural communities had to bear the hardships and relied on traditional healers and on self medication forcing the government to increase funding, improve efficiency of services, encouraged patients to contribute towards their care; it encouraged and regulated development of pre-paid care plans increased the role of NGOs, and private sector service provision. One major innovation towards healthcare was private healthcare financing (PHCF), which supported employees through healthcare financing, including insurance, in-house clinics, contract arrangements in both private and public hospitals, cash benefits and allowances as well as reimbursement of medical bills paid. Private sector facilities increased, (Mwabu, 2004)

In Nigeria, healthcare problems were no different from other African countries, however the audit facilities in the sector were horrendous, and no institution could provide proper accounts that could provide policy direction in the country especially because administration was through federal systems. Research shows that government started National Health Accounts NHAN (Mwabu et al., 2004). The purpose was to identify all goods and services relating to healthcare and determine the amount in monetary value used to purchase those goods and services. The format of expenditure was health services and supplies, personal healthcare, public health activity, administration, investment, plant and equipment, human capital education knowledge and research. The government intervened by setting up research facilities in healthcare, education encouraged insurance schemes with improvement in quality of services.

2.1.2 Healthcare Financing in Kenya

Reforms in healthcare financing in Kenya started in 1980s and 90s with the government raising the cost of medical treatment in public hospitals and health centers for both inpatient and outpatient The consequences were a decline in Medicare use especially by the poor; the government responded by poor policy to exempt the poor from pay but failed because it was not possible to define clearly who the true poor were, (Mwabu and Wang'ombe, 1998).

The Kenyan healthcare system is based on a cost-sharing scheme between the government and patients, with donors making up a significant portion of the gap. Households contribute between

29% and 50% of aggregate health expenditures (out of pocket), the government covers between 30% and 39%, and donors fund the remaining expenses, Wamai, (2009).

For outpatient care, the tendency to skip care due to cost may be even more pronounced. Kenya Ministry of Health (2009) found that 16% of surveyed Kenyans who fell ill within the past 4 weeks did not see outpatient care, and of those who skipped care 38% cited lack of money as the reason. These hardships signal a clear gap in the ability of many Kenyans to cope with the financial costs of health, a gap where insurance has potential to play an important role. Any attempt to remedy this dire situation like community initiatives therefore should be encouraged.

Despite the potential value of health insurance, coverage remains very low. Only 10% of Kenyans have health insurance, and this figure is even lower for women, low-income and rural populations (Luoma et al., 2010).

The vast majority of the target population for micro insurance is not covered by either public or private insurance, though it is difficult to find another country in the world, aside from India, with as much health micro insurance activity as Kenya; 46 insurers compete in saturated upscale markets where there is little prospect for growth, with 15 insurance companies writing health insurance. In this context it is easy to see why insurers would take interest in health insurance and particularly health insurance for the less well off, who represent a large untapped market. However, despite more than a decade of significant efforts from insurers, few poor Kenyans are enrolled in private health micro insurance. Insurers struggle to break even in this space, and little is known about the value these products have to the few clients who are covered.

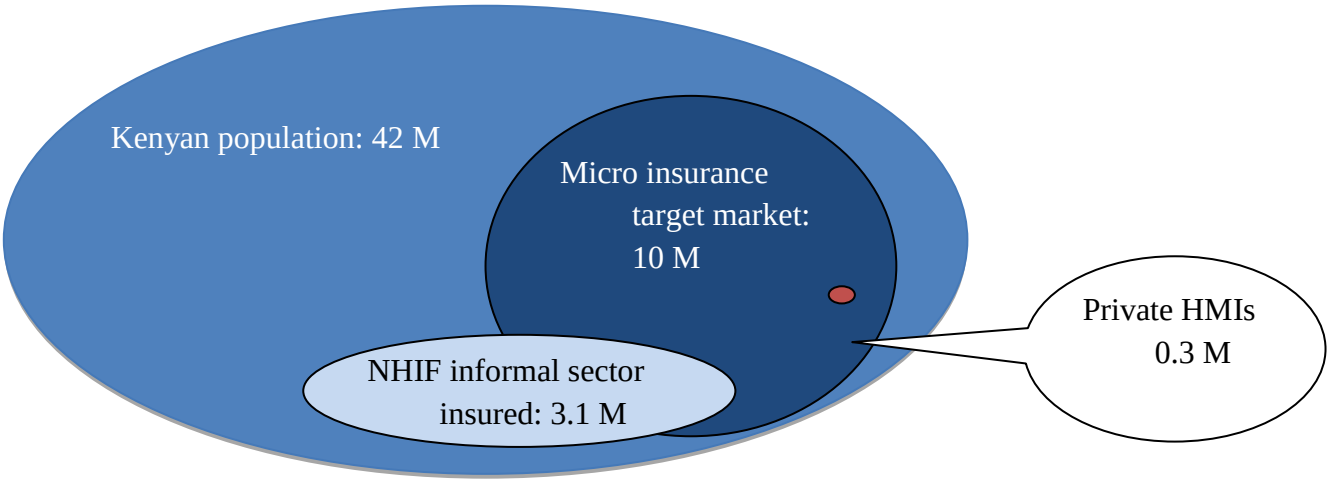

Figure 1: Health Insurance Coverage in Kenya *Source: (AYI report, 2014)*

The public National Hospital Insurance Fund (NHIF) represents 88% of the existing health insurance coverage in the country. Employers are mandated to provide NHIF coverage to their employees (deducting the premium from their salaries); informal workers may purchase coverage for themselves for an annual premium of USD22, but coverage rates are quite low (Luoma, 2010; Wamai, 2009). Though any Kenyan may opt-in to NHIF insurance, the scheme still fails to reach over 90% of the population.

According to the Kenya Insurance Regulatory Authority (IRA), it is estimated that by 2014 about 300,000 Kenyans are covered under approximately 125,000 private health microinsurance policies, representing less than 1% of the Kenyan population of about 42 million (2010) in which more than 50% live in poverty (Financial Sector Deepening project).Of the Kenya's total population of 42million people, CBHIS have as an objective to increase this number.

2.2 Risk Pooling in CBHIS Schemes

Risk pooling is the health system function whereby collected health revenues are transferred to purchasing organizations. Pooling ensures that the risk related to financing health interventions is borne by all members of the pool. Its main purpose is to share the financial risk associated with health interventions for which the need is uncertain. Risk pooling allows large groups of households to share the losses resulting from the occurrence of a risky event. Thus, when

households suffer a loss, such as hospitalization of primary income earner, insurance allows them to receive compensation than they could have provided on their own. Persons affected by a negative event benefit from the contributions of the many others that are not affected. Insurance reduces the vulnerability as households replace the uncertain prospect of large losses with the certainty of making small, regular payments. (Bennet, 2004)

According to Jutting (2009), poorer groups having to pay even low-level fees when seeking care can create a barrier to health care. CBHI schemes can reduce such financial barriers. Usually fees paid by members when seeking care are reduced to zero or an affordable co-payment. Instead people pay small amounts on a regular and predictable schedule. By removing the financial barriers at the time of need, people are more likely to seek health care services. The way in which premiums are paid to schemes can be adjusted to reflect local conditions. For example, some CBHI schemes collect on an annual basis, when potential members have some cash available: For many near-subsistence farmers, cash is on hand only at harvest time. Being able to pay at that time enables these farmers to join CBHI schemes.

When there is no risk pooling, individuals are responsible for meeting their own health care costs as they arise. In its purest form, this entails patients' meeting user charges as they are incurred, with no subsidy of prices for poorer people and denial of treatment when the patient lacks the financial means to pay.

Where CBHI's have been successfully introduced, they have reduced the amount that poor people pay in out-of-pocket payments when they seek care and they have contributed to more frequent utilization of health services. There is ample evidence that prepayment and risk sharing through community involvement in health care financing—no matter how small—increases access by poor populations to basic health services and protects them to a limited extent against the impoverishing effects of illness. Members of CBHIs are less likely to need to borrow of sell assets to cover health costs. They are also less vulnerable to social pressure to contribute to health financing requirements of others (Preker, 2004).

CBHIs have contributed to an improvement in health service delivery, by augmenting user fees and public sector resources, by improving member's access to private providers, and by

increasing and stabilizing the funding available for local stocks of medicines, supplies and health care personnel (Criel 1998, Dror and Jacquier 1999, Millinga 2002, Musau 1999).

They have also contributed to improvements in community health standards, and by so doing, CBHIs help to keep health risks from occurring. They do this primarily by promoting the use of preventative and primary health care services, especially when these are included in the benefits package. In Rwanda, for example, a household survey found that the use of preventative health care services was four times higher for CBHI members than for non-members (PHR 2004).

According to Rao (1999), community insurance schemes can significantly improve the management of risks related to health insurance if they pool the major risks that are unpredictable for individual MHOs, but that become predictable and easier to manage if they are pooled in a large population of MHOs.

Health insurance risk pools are large groups of individual entities (either individuals or employers) whose medical costs are combined in order to calculate premiums. The pooling of risk is fundamental to insurance. Large pools of similar risks exhibit stable and measurable characteristics that enable actuaries to estimate future costs with an acceptable degree of accuracy. This, in turn, enables actuaries to determine premium levels that will be stable over time, relative to overall trends. Pooling risks together allows the costs of those at higher risk of high medical costs to be subsidized by those at lower risk. Creating a large risk pool, however, does not necessarily translate into lower premiums. Just as a pool with more low-risk individuals can result in lower premiums, a large pool with a disproportionate share of high-risk individuals will have higher premiums. When healthier individuals perceive no economic benefit to purchasing coverage, the insurance pool becomes increasingly skewed to those with higher expected claims as explained by Magnoni, B (2012).

According to Dror (2011), the way in which premiums are paid to schemes can be adjusted to reflect local conditions. For example, some CBHI schemes collect on an annual basis, when potential members have some cash available: For many near-subsistence farmers, cash is on hand only at harvest time. Being able to pay at that time enables these farmers to join CBHI schemes. Studies have shown that for some, particularly poorer groups, having to pay even low-level fees

when seeking care can create a barrier to health care. CBHI schemes can reduce such financial barriers. Usually fees paid by members when seeking care are reduced to zero or an affordable co-payment. Instead people pay small amounts on a regular and predictable schedule. By removing the financial barriers at the time of need, people are more likely to seek health care services

Another way in which CBHI schemes improve financial access is their ability to negotiate lower rates for services from providers, thereby enabling members to get more for their money. When there is no risk pooling, individuals are responsible for meeting their own health care costs as they arise. In its purest form, this entails patients' meeting user charges as they are incurred, with no subsidy of prices for poorer people and denial of treatment when the patient lacks the financial means to pay. (Diop, 2000)

Dror et al. (2007) in a study on households' willingness to pay for insurance, in India, found out that household income and nominal willingness to pay are positively correlated, while household income and willingness to pay as a percentage of household income is negatively correlated. Further, their results suggest that household size is the most important determinant of willingness to pay levels. Willingness to pay could also be enhanced by simplifying premium collection methods and making premiums payable in higher frequencies could be helpful in promoting enrolment by low-income households (Chankova, 2008). Paying premiums should be in line with households' cash flows (Cohen and Sebstad, 2006).

Insurance schemes were started to promote equity in use, the sick to benefit from the insurance premiums of those who do not go sick, facilitate advance payment and to enable treatment irrespective of level of income.

2.3 Sensitization of CBHI Scheme Members

Social marketing is the strategy that can be used to address social issues, for example, health, safety and environment. It is a modified term of conventional product and service marketing and is a planned process of influencing change. It involves the analysis, planning, execution and evaluation of programmes designed to influence the voluntary behaviour of target audiences to improve their welfare and that of entire society.

Community based social marketing offers a particularly pragmatic approach that stresses the reduction of barriers to taking the desired actions, direct contact among community members, the use of proven tools of change and continuous programme improvement. Social marketing combines the best elements of the traditional approaches to social change in an integrated planning and action framework and utilizes advances in communication technology and marketing skills (WHO, 2001).

Sensitization is used to promote risk management strategies and trying to create an insurance conscious culture-regularly identified as a major obstacle to the expansion of micro-insurance. Sensitization campaigns on the characteristics and specific advantages of micro-insurance help communities participate in and set up schemes and describe the rights and obligations of members, as well as the costs of cover, which are often overestimated, and the costs of not having social insurance which are usually underestimated. Social marketing helps reduce misconceptions and unrealistic expectations, which can represent a major obstacle and lead to mutual lack of understanding (Huber et al., 2003)

A serious constraint to the uptake of insurance has to be trust. The contrast of micro insurance with microcredit helps to see the difference between these two micro insurance activities. In the latter, money is offered first, and then lenders have to find ways of ensuring that clients repay the loan – lenders have to find ways to ensure they can trust that repayment by clients will take place. In insurance, clients first part with their money, and then they have to trust the insurer that they will indeed get money (or a service, such as health care) when problems arise. Lenders have to trust borrowers; while insurers have to be trusted by clients. Underline the importance of trust along these two dimensions: first, that the insurer is willing to make payments to clients; and second, that the insurer is able to deliver the payments. Trust is also essential for customer retention. Trust of individuals and communities can be built by education, building on existing structures, or through careful marketing and sales strategies, Radermacher et al. (2006)

McCord (2008), underlines that a fine balance is required between acquisition of new technologies (which decrease costs by making the insurance product less labor intense) and human contact to educate policy holders and build trust. Despite its importance, there is little systematic knowledge about instruments and mechanisms to build trust. Sensitization refers

broadly to the expansion of freedom of choice and action to shape one's life. It implies control over resources and decisions for poor people that is often curtailed by their powerlessness in relation to a range of institutions, both formal and informal (Marayan, 2005)

Conceptually, sensitization is closely allied with citizen participation and shares with that literature the diversity of perspectives that range from normative and prescriptive to empirical, and from a focus on community empowerment as a process or an outcome. Empowerment through sensitization is more usefully viewed in instrumental terms, as contributing to achieving particular purposes. It is the feeling of confidence that you can be a cause of genuine change. In practice, it is a mixture of many ingredients like skills, optimism, leadership, belief and experience, (Craig and Mayo, 1995).

According to Fahdi (2011), sensitization and empowerment may be explained operationally in terms of four elements. Communities are empowered if they; have access to information; are included and participate in forums where issues are discussed and decisions are made; can hold decision-makers accountable for their choices and actions, and have the capacity and resources to organize to aggregate and express their interests and/or to take on roles as partners with public service delivery agencies.

2.3.1 Access to Information by Scheme Beneficiaries

Information is power. A two- way flow of information from members to leaders and from leaders to members is critical for responsible citizenship and responsive and accountable governance. Informed members are better equipped to take advantage of opportunities, access service, exercise their rights, negotiate effectively and hold state and non-state actor accountable. Information is essential to engaging communities in democratic governance and or service delivery; when citizens lack information about what institutions are doing they are powerless to move beyond being passive recipients of whatever is provide to them, (Carrin, 2004).

2.3.2 Inclusion and Participation of Members in Scheme Processes

An empowering approach to participation treats poor people as co producers with authority and control over decisions and resources developed to the lowest appropriate excluded groups in

priority setting and decision making is critical to ensure that use of limited public resources reflects local knowledge and priorities and to build commitment to change. Empowerment requires that communities are able to gain entry to the venues in which deliberation and decision-making take place, and that they have the capacity to participate effectively. For example, scheme meetings on CBHIS issues need to be scheduled at times that members are likely to be available with sufficient advance notice that they can plan to attend; plus presentation of the issues needs to be accessible to non-specialists or illiterate,(François,2001).

2.3.3 Accountability of Scheme Leaders to their Members

The group leaders including village representatives as well must be held to account making them answerable for their policies and actions that affect the well being of the community and group members. Empowered and sensitized communities can take steps to assure that public officials adhere to their promises and plans through the exercise of accountability mechanisms, (Schneider, 2005).

2.3.4 Local Organizational Capacity of Scheme Target Population

Refers to the ability of people to work together, organize themselves and mobilize resources to solve problems of common interest organized communities are more likely to have their voices heard and their demands met than communities will little organizations. Empowerment calls for sufficient organizational capacity of local groups to take on a variety of functions, depending upon particular situations. For example, communities engaged in service co-production need management capacity to plan, operate, and sustain service delivery in co-operation with public agencies. Local groups engaged in lobbying for their interests and pushing for reforms need organizational capacity to forge alliances with others, develop advocacy campaigns, address technical policy issues, and mobilize political clout, (Turner, 2003)

Generally the organizational structures and methods of governance of CBHI schemes encourage popular participation. In many schemes, members have a chance to participate in scheme management on a regular basis through annual general assemblies, group meetings, and the election of officials. In schemes with which PHRplus works in West Africa, scheme managers are encouraged to present financial and activity reports in a non-technical manner at general

assembly meetings. Control committees, made up of members, have auditing powers, and there is public discussion of benefits packages, dues, and financial management issues. (PHR, 2004)

This kind of popular participation in managerial functions and scheme governance enables CBHI schemes to reflect more accurately the wishes of their members. For example, member participation in schemes may lead to the evolution of benefits packages so that they better meet the needs of members. If there is true popular participation in schemes then the schemes may become a forum for communication between stakeholders in the health sector such as providers, government, and the community. In practice the degree to which CBHI schemes promote popular participation varies considerably, reflecting how and why the scheme was set up, and the existing degree of social solidarity and social capital in the community. Although it may take longer to develop a CBHI scheme hand-in-hand with the community, PHR plus experience suggests that this initial investment is central to the sustained success of the scheme.

Some proponents of CBHI schemes have viewed them not only as a mechanism to promote popular participation in the health sector but also as a means to encourage democratic development at the grassroots level. While there is no clear empirical evidence to demonstrate that this occurs, it would seem likely that the processes used to develop and operate CBHI schemes do enhance capacity at the community level to manage development initiatives and engage in political dialogue.

As part of the CBHI management structure CBHI schemes hold regular assemblies of scheme managers, community members, and health center staffs are held, contributing to the development of democratic decision-making processes in the health sector. CBHI schemes may have helped contribute to social solidarity by developing risk-pooling mechanisms across different population groups; this may be a critical contribution in post- conflict Rwanda from where this evidence was got.

As Uphoff (2005) notes, a core issue is the power dimension. From its original meaning of to invest with decision making power and authority, definitions of sensitization have expanded to include; having access to information and resources, having a range of choices beyond yes or no, exercise of ‘’voice’ and ‘’exit’’, feeling an individual or group sense of efficacy, and mobilizing

like-minded others for common goals. These latter elements reflect a perspective on empowerment that encompasses psychological capabilities, including belief in citizenship rights, and aspirations to a better future (Cornwall e t al., 2001).

Combining sensitization with empowerment emphasizes the essentiality of collective action to the concept. Community empowerment concerns how members of a group are able to act collectively in ways that enhance their influence on, or control over, decisions that affect their interests. Although a community is often defined generically as a group of people living in the same locality and under the same government, we employ a working definition that focuses on the collective action dimension: a community is a group that shares a sufficient commonality of interests such that its members are motivated to engage in collective action.

Further, this definition does not assume that all members of a community engage equally in collective action. Communities are made up of individuals, and in practice empowerment is most likely to emerge first among a small group of motivated community members, before expanding to a broader base of citizens through constituency building, education, and outreach. It is unrealistic to expect that large numbers of individuals will necessarily be interested ex ante in collective action. Rather, it is more reasonable to assume that small members of community reps will engage initially, acting on behalf of their communities. Empowered individuals can significantly advance a collective agenda, even in some cases spurring an emboldened minority to advocate on behalf of their community.

Sensitization is a pivot for a people-centred development process. It encourages better use of own resources, establishing own capacities and willingness to contribute: passive recipients become active partners in development. It is a process of empowering local communities and vulnerable groups and combining awareness creation, self organization and action (Bigdon, 2001).

2.4 Scheme Partnerships with Healthcare Providers

Partnerships between the scheme and providers are an important determinant of the performance of community based schemes. Schemes that have a durable partnership arrangement or contractual arrangement with providers are able to negotiate preferential rates for their members.

This in turn increases the attractiveness of the scheme to the population and contributes to sustainable membership levels. For example, the schemes in the Thiès region of Senegal negotiated preferential rates with the nearby private hospital of St. Jean de Dieu. The hospital is run by a religious organization that is driven by altruistic objectives and has been very supportive of the activities of the Mutual Health Organizations. The negotiated rates allow the schemes to offer considerable benefits with acceptable contribution rates. This makes the schemes very attractive to the population and explains the high penetration rate among the target group (Atim, 1998).

Jutting (2006), stresses the importance of the existence of a viable healthcare provider, to have sustainable insurance schemes in rural areas of developing countries.

Close ties with providers also allows the community to monitor provider behaviour and exert social pressure on providers. This can lead to efficiency gains allowing the schemes to use the resources for noticeable service improvement, which again increases the attractiveness of the schemes to the population and is the cornerstone of sustainability. Conversely, inefficiencies due to weak gate keeping for example may lead to moral hazard and wasted resources. In this case, membership may drop if there is no service and quality improvement and the costs of the membership are higher than the perceived value of the benefits. The Nkoranza health insurance Scheme in Ghana is an example of this (Atim and Sock, 2000).

Another way in which CBHI schemes improve financial access is their ability to negotiate lower rates for services from providers, thereby enabling members to get more for their money.

Another level of organizational linkages is the relationship of the scheme to other schemes, in particular to the national government health system and/or social security system. In the Health Card Scheme in Thailand, the beneficiaries were allowed to use the health provider units under the Ministry of Public Health via health center or community hospital and follow the referral line. Providers were compensated for the care they provided to health card holders on a per case basis. They were also reimbursed for the administrative expenses they incurred for being part of the health card program (Supakankunti, 1997).

In a study in Rwanda in 1999, Partners for Health Reform project found out that on utilization of health services CBHI members were up to four times more likely to enter the modern health system when sick than non-members. New case consultation rates for scheme members ranged from 1.2 to 1.6 consultations per annum per capita, compared to rates of 0.2 to 0.3 for non-members and the population in control districts.

On the cost of health care, the value of drugs consumed per consultation by CBHI members was, on average, lower than that for non-members. This most likely reflects the fact that members seek care earlier than non-members and thus require fewer drugs. On resource mobilization and cost recovery, on a per capita basis, members contributed twice what non-members do to primary health care centers, significantly boosting cost recovery and resource mobilization for centers with large membership pools according to Schneider et al. (2000).

A case study on the community-based health insurance schemes in Senegal showed that the formation of a health insurance scheme for households in rural areas is possible and can result in a better access to health care for otherwise excluded people. Especially in places where local institutions have already developed forms of mutual help, possibilities seem to exist for developing them into more formalized approaches. From the Senegalese case study, besides an existing local network, the existence of a viable health care provider is of tremendous importance. Without the financial support of the hospital as well as the well-perceived quality provided—the hospital is well known for its good quality in service provision— it is difficult to imagine that the mutual's would still exist. Hence, subsidies seem to be necessary if one wants to set up an insurance scheme for poor people.

From other studies, it is evident that CBHIs also contribute to improving the quality of health services. This is accomplished by striking agreements with health service providers to improve drug and medical supply availability; to improve cleanliness; to be more responsive to clients; to reduce waiting times; and to focus more attention on health education and client awareness. Thanks to collective bargaining power, CBHI monitoring and supervision of health providers also increases demand-side pressure for better management of health delivery services. By improving demand for health services, CBHIs also contributes to higher rates of health facility capacity utilization, and by augmenting funding, CBHIs improve the capacity of health facilities

to provide drugs, equipment and other essential health supplies. By helping to improve beneficiary education, they foster health awareness and stimulate demand for improvements in community health conditions and for primary health care.

2.5 Insurance Benefit Package Proposed by Scheme

Cohen and Sebstad (2006) highlight the need to carefully study clients' insurance needs before introducing a new product, where market research can include studying (i) clients' needs, (ii) specific products, or (iii) the size of the potential market Analyzing demand studies from Uganda, Malawi, Philippines, Vietnam, Indonesia, Georgia, Ukraine and Bolivia they found that the most prevalent risks relate to health and loss of a wage earner. However, despite these patterns, households' priorities regarding demand for insuring certain risks are nevertheless context specific and solid research is essential before entering a market. There seems to be general agreement about the most important product attributes of micro insurance products from a client perspective: simple, affordable and valuable (Churchill, 2006; Leftley and Mapfumo, 2006; McCord, 2008). These factors are determinants of uptake and therefore determine the impact of micro insurance as well.

Successful micro insurance products need to give careful attention to clients' demand and satisfaction; often they appear to be more tailored to the providers' needs. This implies a movement away from products 'masked' as micro insurance products but often mainly benefiting MFIs, such as credit-life insurance, towards paying more attention to the insurance needs of the poor. To be able to develop in this direction, it is crucial to obtain a better understanding of why people do or do not take up insurance products when offered and what limits the usage of insurance. Increased demand through well-informed choices of individuals is a prerequisite for scaling up micro insurance products to reach large numbers of poor people. A considerable body of research has been making careful points on these issues, increasingly based on good evidence. The demand for health insurance is not solely a function of product attributes of the insurance, consumer education and appreciation of the insurance product, but also crucially depends on the quality of health care services offered.

An often identified constraint in selling insurance to poor households is a lack of understanding of insurance products (McCord, 2001a). More educated households have been found to be the ones who are more likely to take up insurance (Chankova et al., 2008; Gine et al., 2007b). Overcoming this constraint requires a dual effort to improve communication and financial education on risk pooling, insurance and rights of policy holders tailored to low-educated and illiterate individuals on the one hand, and simplify policies on the other hand .Clients' understanding of insurance products is key not only to take up of insurance, but also to use and appreciation of the policy as well as satisfaction with the insurance. The impact of micro insurance on the welfare of the poorest households strongly depends on whether households are aware of the benefits of the insurance, can therefore make full use of it, and continue to stay members of their insurance policy. However, keeping products affordable implies keeping costs low. Therefore, more research is needed on innovative, cost-effective ways and channels of communication and financial education tailored to cater to low-educated, illiterate people.

According to Partners for Health Reforms plus project (2003), Premiums and co-payments depend on the individual circumstances of the CBHF scheme and are set by the scheme members. While working with community members to help establish a CBHF scheme, local technical assistance staffs provide estimates for how much would have to be charged for different benefits packages in order to recover health service costs and administrative costs. The community then needs to discuss and decide which combination of premiums and benefits package is both affordable to community members and offers a sufficiently attractive benefits package. Schemes may or may not choose to incorporate co-payments into their design. Co-payments are usually included when there is a concern that the provision of insurance coverage might result in excessive, unnecessary use of health care services.

As premiums, co-payments, and benefits packages are all decided upon locally, there is considerable variation across schemes in how they are set. Most CBHIs use a simple premium structure, with different premiums for families of different sizes. Some of the larger and more mature CBHI's use sliding scales premiums and other pricing techniques to make coverage more affordable to low income households. Premiums are always set at a level that the community perceive they can afford, which in many low income countries, is often is in the range of $1-$12 per person per annum.

2.6 Conceptual Framework

The framework addresses four main independent variables that are important to this study, also incorporated are the moderating and intervening variables and that are analyzed in relation to how they contribute to access of healthcare by the beneficiaries of Afya Yetu CBHIS Scheme. The dependent variable on the right is treated using independent variables on the left, the government interventions are treated as the mediating variable while cultural factors and religious beliefs are the intervening variables.

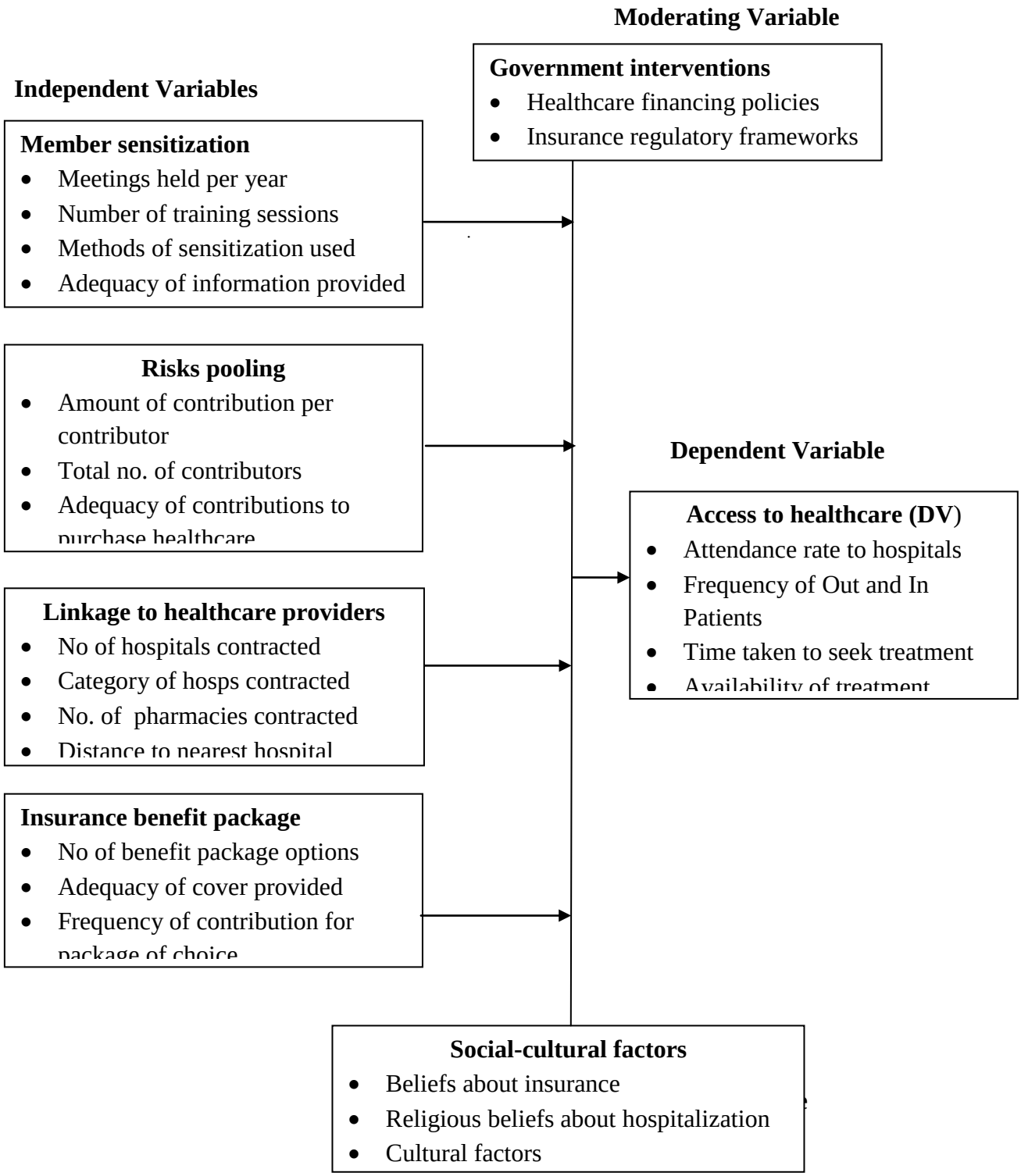

Figure2: Conceptual Framework

2.7 Explanation of Relationships of Variables in the Conceptual Framework

Sensitization of the community and members of an insurance scheme means that officials and programme staff use avenues available to pass messages and information that will enable individuals make an informed decision to join or not the scheme. After enrolling, continuous in formations flow is necessary to ensure the member is aware of the processes and procedures to follow should in order to benefit from the insurance.

After sensitization, contributions are transferred to healthcare purchasing organizations to form one pool. Pooling ensures that the risk related to financing health interventions is borne by all the members of the pool and not by each contributor individually. Its main purpose is to share the financial risk associated with health interventions for which there is uncertain need. In a scheme equity and efficiency are thus enhanced to each the funds so pooled are adequate to pay for services intended. By bringing different households together uncertainty associated with health care expenditure is spread amongst many. Most schemes do not discriminate and risk is pooled amongst the young and old, female and male, poor and rich as well as the health status and the sick.

Once a pool is established, scheme leaders engage nearby or accessible facilities to negotiate payment arrangements for their members. Most schemes opt for third party payments in which a member visits a contracted hospital and is treated without being asked for payments only authentication documents except co-payments where applicable. On discharge, the hospital invoices the scheme and upon which the scheme makes periodic payments from the pool to the facility. In the partnership, a facility is assured of constant flow of funds to boost its resource base while the scheme members enjoy enhanced quality of care.

An insurance benefit package comprises of the services (benefits) a fully paid up member and or their declared beneficiaries is entitled to. Such benefits vary from one insurer to the other and so does the premium asked. Members have the option of choosing and paying for certain services and not others depending on factors such as their capacity to pay, household size, preferred health care providers and others. The package chosen comes with commensurate entitlements and a corresponding premium.

2.8 Gaps in Literature Reviewed

Whereas these studies are important contributions to our knowledge about the strengths and weaknesses of the schemes in general, the context in which these schemes have been introduced, their impact on access to health care, labor productivity, and households' risk-management capacity have not been given enough attention. Further investigation should be devoted to the extent to which health insurance, or its lack, affects people's labor productivity and willingness to undertake risky, but potentially profitable investments.

Of keen interest is the persistent problem of social exclusion— that the community's poorest members have no opportunity to participate and not enough resources to pay the required premium. To overcome these limitations of community-based health insurance, broader risk pools are required. In particular, the role of external financial support such as government subsidies, donor funding, and reinsurance in encouraging social inclusion needs to be further explored. The main weaknesses of CBHIS are the low volume of revenues that can be mobilized from poor communities, the frequent exclusion of the poorest from participation in such schemes without some form of subsidy, the small size of the risk pool, the limited management capacity that exists in rural and low-income contexts, and their isolation from the more comprehensive benefits that are often available through more formal health financing mechanisms and provider networks.

Further research is needed on how these schemes can be scaled up, replicated, and linked to other social risk- management instruments like social funds. Furthermore, not enough information is available to show the extent to which community insurance schemes are self financing and their levels of sustainability.

The available studies have not captured findings specific to the contribution of Afya Yetu scheme to access of healthcare and that is why this study was conducted.

2.9 Summary of Literature Review

Health insurance schemes are an increasingly recognized factor as a tool to finance health care provision in low-income countries (WHO 2000). Given the high latent demand from people for

health care services of a good quality and the extreme underutilization of health services in several countries, it has been argued that social health insurance may improve access to acceptable quality health care. Whereas alternative forms of health care financing and cost-recovery strategies like user fees have been criticized by many authors (e.g., Gilson 1998), the option of insurance seems to be a promising alternative as it is a possibility to pool risks, thereby transferring, unforeseeable health care costs to fixed premiums (Griffin 1992). However, there is some evidence that neither purely statutory social health insurance nor commercial insurance schemes alone can significantly contribute to increase coverage rates and thereby broaden access to health care. Especially in rural and remote areas, unit transaction cost of contracts is too high, leading often to a state and market failure (Jutting 2000). Recently, mainly in Sub-Saharan Africa but also in a variety of other countries, nonprofit, mutual, community-based health insurance schemes have emerged. These schemes are characterized by an ethic of mutual aid, solidarity, and collective pooling of health risks (Atim 1998). In several countries, these schemes operate in conjunction with health care providers, mainly hospitals in the area.

Proponents argue that these schemes have the potential to increase access to health care (e.g., Dror and Jacquier 1999). The results of the few available studies so far, however, are less optimistic (e.g., Bennett et al. 1998, Criel 1998, and Atim 1998). It is argued that often the risk pool is too small, adverse selection problems arise, the schemes are heavily dependent on subsidies, financial and managerial difficulties arise, and overall sustainability does not seem to be ensured. Based on a survey of the literature, the main strengths of community financing schemes are the degree of outreach penetration achieved through community participation, their contribution to financial protection against illness, and increase in access to health care by low-income rural and informal sector workers.

To enlarge access to health care for the poor and the rural population, community-based health insurance schemes can be an important element and a first step. It allows some limited pooling of risks and thereby leads to an improvement in the health care system, where most people otherwise have to pay their health expenditure out of pocket.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section explains and discusses the research design adopted for the study, the target population, sample size and sampling procedure used, the data collection instruments used, the pilot testing of the instrument, their validity and reliability all the way to data collection techniques and finally the ethical considerations.

3.2 Research Design

The researcher opted for a descriptive survey design. This survey sought to collect original data to describe the way things are in the Afya Yetu Scheme including possible behavior, characteristics and attitudes any relations between the variables and report on the same as they exist. This design enabled the researcher to collect data to answer questions concerning the status and predicaments of the respondents who were too many to be directly observed. Descriptive survey also permitted the researcher to administer questionnaires with requisite assistance to the respondents to gather deeper information where needed.

3.3 Target Population

The population of interest to this study is the beneficiaries enrolled under the Afya Yetu CBHI scheme and eligible to benefit from the services provided. According to the 2015 Afya Yetu scheme records the Scheme has a total of 289 member contributors, covering 895 beneficiaries. These comprise of 5 executive committee members, 14 village representatives and 270 contributors and their dependents spread across 7 villages.

The table below shows the distribution of the target population.

Table 3.1: Target Population

Respondents	Number
Executive Committee members	5
Village representatives	14
Contributors	270
TOTAL	289

3.4 Sample Size and Sampling Procedures

Respondents in this study were the Afya Yetu scheme executive committee members, village representatives and contributors. An appropriate sample was sought to ensure adequate representation of the target population and reliability of findings by minimizing sampling errors. This section details t he sample size and how it was arrived at.

3.4.1 Sample Size

The sampled respondents are the unit of analysis. The sample was drawn from the three strata comprising of executive committee members, village representatives and contributors. The researcher involved 100% of both the executive committee and village representatives; these are the leaders of the scheme and are most relevant and had the required information on the scheme. A sample of 159 of contributors was interviewed specifically targeting household heads. The total sample size was 178 (Robert V, Krejcie) table for determining sample size.

Table 3.2 Sample Size

Respondents	Target Population	Sample Size
Executive Committee members	5	5
Village representatives	14	14
Contributors	270	159
TOTAL	289	178

3.4.2 Sampling Procedure

The researcher sought to administer questionnaires to 100% of the executive committee members and village representatives. These are well known persons within the sub location and were easily accessed. A coded list of all contributors and their dependants in the Afya Yetu scheme is maintained by these scheme leaders, it was used to generate objects who would participate in the study. Only household heads also referred as contributors participated in the study. This is because they are the ones who bear documents like membership cards, attend meetings and trainings and are thus privy to information and data required for this study. The total sample size required for this stratum was 159 out of 289. By dividing 289 by159, I get my nth number which is 2. The researcher picked every second household in the list to participate in the study.

3.5 Data Collection Instrument

The researcher used researcher self administered questionnaires to collect data from the executive committee members and village representatives who were supplied with questionnaires to fill in by themselves and later collected as they are literate and some in fulltime occupation such as teachers. Researcher administered questionnaires were used for the contributors. Questionnaires comprised both open ended and close-ended questions. Open ended questions permitted a greater depth of response and stimulated the respondents to give insight into their feelings about the scheme while close ended questions saved on the time taken by respondents to avoid tiring them. The first set of questions was general while the subsequent sections consisted

of questions based on the research objectives. The questionnaires enabled the respondents to remain anonymous and honest in their responses.

3.6 Pilot Testing of the Instruments

Prior to the study, a pilot test was carried out in the nearby Kairia sub-location that also has similar population characteristics and where a CBHIS scheme is also being implemented. Questionnaires were administered to a sample of 10 comprising of 2 executive committee members, 2 village representatives and 6 contributors. This helped identify deficiencies in the questionnaires, correction of vague questions and to test if the proposed methods of analysis are the appropriate. After pilot test all necessary amendments and corrections were made to ensure adequacy and completeness of the tool.

3.6.1 Validity of the Instrument

Internal validity was ensured by checking the questions and ascertaining that they provided the type of responses expected. The researcher sought the guidance of supervisor to approve the content of the instruments and ensure they were comprehensive and adequate for it to measure what it was intended to measure. External validity on the other hand was ensured by picking a representative sample, thus the findings of this study can be generalized to other situations and subjects beyond those that are studied. The population to which the study was based were the beneficiaries of community based healthcare insurance programme in Nyeri County.

3.6.2 Reliability of the Instrument

The researcher used the test-re-test method to determine the reliability of the instrument. The developed questionnaires were administered to 10 sample respondents in the pilot study twice at an interval of one week. The scores of each administration were recorded separately. Pearson's Product Moment Formula was used to calculate the correlation coefficient between the tests. A coefficient of 0.813 was attained that proved the instruments are reliable. According to Orodho (2005), a coefficient correlation (r) of about 0.75 and above should be considered high enough to judge an instrument as reliable, while a coefficient of 0.5 and below is considered not good to judge the instrument as reliable.

3.7 Data Collection

Primary data was collected with the help of a closed and open-ended structured questionnaire. There are two types of respondents in this survey: the executive committee and village representatives as one group of leaders for whom questionnaires were submitted to them and they were expected to fill in and the researcher would collect them after three days. This is because they are all literate and some in full time employment while others are away from the village for most of the daytime. The other group comprising of contributors were assisted by the researcher and the assistants who filled in data according to responses received. Before setting out to collect data, the researcher and a field assistant ensured all logistics were organized. The assistants were thoroughly trained to ensure they were on the same level with the researcher and the procedure.

3.8 Data Analysis

After data was collected, it was edited, coded, analyzed, presented and interpreted. Editing was done to detect errors and omissions, and correct them when possible, and certify that minimum data quality standards were met. This guaranteed data accuracy, consistency, uniformity, completeness and orderliness. Field editing was be done after completion of each interview and central editing which was thorough and was done together to check for errors not detected in the field. Coding was done and involved assigning numbers (numeric) or numbers with other symbols (alphanumeric) to answers so the responses could be grouped into limited number of classes or categories. Coding allowed for statistical analysis. Analysis involved reducing accumulated data to manageable size, developing summaries, looking for patterns, and applying statistical techniques. Analyses were done by use of Statistical Package for Social Sciences (SPSS) version 20.0 and excel software packages. To permit quantitative analysis data was converted to numerical codes representing measurements of variables. Open ended responses were extracted from questionnaire and assigned to categories represented by numbers which were entered into the computer. Quantitative analysis comprises descriptive statistics to describe distributions and give summaries. These will include measures of central tendency: mean, mode, median. Measures of dispersion that is the range and standard deviation as well as frequency distributions were also used. Qualitative data was analyzed by use of content analysis where the

semantic content and the aspects of a message were measured. Patterns of symbolic meaning within written text were sorted within overriding thematic issues. Representation is by means of, frequency distribution tables, and percentages.

3.9 Ethical Considerations

The researcher sought authority to collect data from University administration. The authority letter given was presented to study area government administration and to the scheme officials. During the study the language used was be formal or informal as need be but avoiding chauvinistic language. The researchers by and large reduced the distance with respondents to achieve requisite goals of the research. Voluntary and informed consent sought from the respondents. All respondents signed a consent letter detailing the purpose of the study, identification of the researcher, a guarantee of anonymity and confidentiality and an indication of the number of subjects involved and the potential benefits in the participation to the society and the researcher. The researchers read out the letter to respondents during administration of questionnaire and attached a copy to each self administered questionnaire. The participants were at liberty to remain anonymous while the results will be revealed or used for the necessary and the intended parties only to ensure confidentiality of information supplied.

3.9 Operational Definition of the Variables

Variables		Indicator	Measurement Scale	Tool of analysis	Level of analysis
Independent	Risk pooling	• Amount of contribution • Total no. of contributors • Adequacy of contributions	-Interval -Nominal -ordinal	-Frequency -Percentage	Descriptive
	Member sensitization	• No. of years in a scheme • Number of meetings held in a year • Mode of sensitization used • Adequacy of information given	-Nominal -Nominal -Ratio -interval	-Mean -Frequency -Percentage -	Descriptive
	Linkages with healthcare providers	• Number of hospitals contracted • Category of contracted hospitals • Distance to the nearest hospital	-Nominal -Ratio -interval	-Percentage -Mean -	Descriptive
	Insurance benefit package	• No. of benefit packages • Adequacy of cover in packages • Frequency of payments	-Nominal -interval -interval	- Frequency -Percentage -	Descriptive
Dependent	Access to healthcare	• Attendance rate to hospitals • Ease in getting treatment • Time taken to visit h.c provider • Cases of absconding from hospital • Frequency of admissions	-Ordinal -ordinal -ordinal	-Frequency percentages	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATIONS, AND INTERPRETATIONS

4.1 Introduction

This chapter focuses on data analysis, interpretation and presentation. The purpose of this study was to establish the contribution of Community based health insurance towards enabling enrolled members of the Afya Yetu scheme in Chehe sub-location, Mathira East Sub-county in Nyeri County to access healthcare. The objectives of the study were to assess how sensitization and risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme. The study also seeks to assess if partnerships with nearby healthcare providers and how insurance benefit package chosen by a member affects access to healthcare. Data generated from this research was both quantitative and qualitative. Quantitative data was presented in form of frequencies, means, modes and percentages. Presentation was done using tables, graph and pie charts for effective communication. Qualitative data was analyzed using content analysis.

4.2 Response Rate

The researcher sought to establish the number of respondents who actually participated in the study compared to the targeted number. The table below illustrates the response rate of the respondents who were sampled and interviewed in the study.

Table 4.1: Response Rate

Category	Sample Size	Response	Percentage
Executive committee members	5	5	100
Village representatives	14	10	71.4
Contributors	159	120	75.5

The study targeted 159 contributors, 14 village representative and 5 executive committee members. The response was 120 contributors, 10 village representatives and 5 executive

committee members making it a response rate of 75.5%, 71.4% and 100.0% respectively of the sample population who completely filled in and returned the questionnaire. This is attributed to the fact that the researcher employed 1 research assistants to personally administer the questionnaires and ensure they are filled in by the respondents.

4.3 Demographic Data of the Respondents

4.3.1 Demographic Data of the Leaders

In this section the researcher sought to establish the demographic data of the leaders and looked at their gender, age, education level, occupation and marital status. Their responses are highlighted in the table below.

Table 4.2: Demographic Data of the Leaders (n=15)

Category	Frequency	Percentage
Gender		
Male	10	66.7
Female	5	33.3
Age		
18 years to 30 years	2	13.3
31 years to 40 years	5	33.3
41 years to 50 years	5	33.3
Over 51 years	3	20.0
Education Level		
University	2	13.3
College	6	40.0
Secondary	4	26.7
Primary	3	20.0
Occupation		
Business person	4	26.7
Government employee	6	40.0
Organization employee	5	33.3

Marital status		
Married	7	46.7
Single	5	33.3
Separated	2	13.3
Divorced	1	6.7

The Table 4.2 illustrates the findings from the demographic data of the leaders. 66.7% of the leaders were males while 33.3% of the leaders were females.

66.6% of the leaders were aged between 31 to 50 years, 20.0% of the leaders were aged above 51 years and 13.3% of the leaders were aged 30 years and below.

13.3% of the leaders had university education, 40% of the leaders had college education, and 26.7% of the leaders had secondary education while 20% had primary education.

40.0% of the leaders were government employees, 33.3% of the leaders were organization employees and 26.7% of the leaders were business people.

46.7% of the leaders were married, 33.3% of the leaders were single and 20.0% of the leaders were either separated or divorced.

4.3.1 Demographic Data of the Contributors

In this section the researcher sought to establish the demographic data of the contributors and looked at their gender, age, education level, occupation and marital status. Their responses are highlighted in the table below.

Table 4.3: Demographic Data of the Contributors (n=120)

In this section the researcher sought to establish the demographic characteristics of the contributors. The table below illustrates the findings.

Category	Frequency	Percentage
Gender		
Male	66	55.0
Female	54	45.0
Age		
18 years to 30 years	19	15.8
31 years to 40 years	31	25.8
41 years to 50 years	43	35.8
Over 51 years	27	22.5
Education level		
University	6	5.0
College	31	25.8
Secondary	47	39.2
Primary	36	30.0
Occupation		
Farmers	59	49.2
Business person	29	24.1
Government employee	14	11.7
Organization employee	18	15.0
Marital status		
Married	101	84.1
Single	15	12.5
Separated	2	1.7
Divorced	2	1.7

From the findings, 55.0% of the contributors were males and 45.0% of the contributors were females.

64.6% of the contributors were aged between 31 to 50 years, 22.5% of the contributors were aged above 51 years and 15.8% of the contributors were aged 30 years and below.

39.2% of the contributors had secondary education, 25.8% of the contributors had college education, 30% of the contributors had primary education and 5% of the contributors had university education.

49.2% of the contributors were farmers, 24.1% were business people, 11.7% of the contributors were government employees and 15.0% of the contributors were organization employees.

84.1% of the contributors were married, 12.5% of the contributors were single and 3.4% of the contributors were either separated or divorced.

4.4 Sensitization of Members of CBHIS

In this section the researcher sought answers to address how to assess how sensitization influences access to healthcare by members of the Afya Yetu CBHI scheme.

4.4.1 Sensitization of Members of CBHIS According to the Leaders

In this section the leaders were asked to indicate how long they were officials of the scheme, communication mode used to sensitize members, the most effective sensitization mode, frequency of holding meetings, rate attendance of the meetings, if awareness affects the way they seek health care and there has been cases of members not benefiting from health care services. Their responses are highlighted and discussed below.

Table 4.4: Sensitization of Members of CBHIS According to the Leaders (n=15)

Category	Frequency	Percentage
Time spent as an official		
One year	5	33.3
Two years	3	20.0
Three years	3	20.0
Four years	2	13.3
More than 5 years	2	13.3
Communication method used to sensitize your members		
Letters	4	26.7
House to house visits	0	.0
Public announcements	11	73.3
Effective sensitization method		
Letters	0	.0
House to house visits	8	53.3
Public announcements	7	46.7
Frequency of holding general meetings		
Weekly	1	6.7
Monthly	6	40.0
Bi-annual	5	33.3
Annual	3	20.0
Rating of meeting attendance		
Poor	1	6.7
Good	2	13.3
Fair	10	66.7
Very good	2	13.3
Excellent	0	.0
Influence of member awareness while seeking health care		
Yes	10	66.7

No	4	33.3
Cases of members not benefiting from health care services		
Yes	8	53.3
No	7	46.7

Table 4.4 illustrates the responses of the leaders on how sensitization influences access to healthcare by members of the Afya Yetu CBHI scheme. 73.3% of the leaders had been officials of the scheme for three years or less while 26.6% of the leaders had been officials of the scheme for more than four years.

73.3% of the leaders indicated that the communication mode used to sensitize members was primarily through public announcements while 26.7% of the leaders indicated that the communication mode used to sensitize members was through letters.

53.3% of the leaders felt that the method of sensitization that would be most effective would be house to house visits while 46.7% of the leaders felt that the method of sensitization that would be most effective would be through public announcements.

40.0% of the leaders indicated that there were monthly general meetings held especially to address issues of the members and reconcile their accounts, 33.3% of the leaders indicated that there were bi-annual general meetings held, 20.0% of the leaders indicated that there were annual general meetings held and 6.7% of the leaders did attend weekly general meetings.

66.7% of the leaders rated the attendance to these meetings by members as fair, 13.3% of the leaders rated the attendance to these meetings by members as good and another group with a similar percentage rated the attendance as very good and lastly, 6.7% of the leaders rated the attendance to these meetings by members as poor.

66.7% of the leaders indicated that the awareness of members affect the way they seek healthcare while 33.3% of the leaders felt otherwise that awareness had no influence on the way members sought health care.

53.3% of the leaders were aware of cases where the members had not benefited from health care services for not following rules and procedures especially if the card was expired and through

fraudulent activities. 46.7% of the leaders were not were aware of cases where the members had not benefited from health care services for not following rules and procedures.

4.4.2 Sensitization of Members of CBHIS According to the Contributors

In this section the contributors were asked to indicate how long the contributors have been members, learn about CBHIS, attend general meetings, number of meetings attended, mode of communication, rating of information scheme given by the members, problems accessing health services and if knowledge gained has changed the way they seek health care. Their responses are highlighted and discussed below

Table 4.5: Sensitization of Members of CBHIS According to the Contributors (n=120)

Category	Frequency	Percentage
Duration as a member		
1 – 2 years	81	67.5
3 – 4 years	39	32.5
More than 5 years	0	.0
Learn about CBHIS*		
From a friend	45	27.3
Website/internet	0	.0
Public baraza	94	57.0
Newspaper	26	15.8
Frequency of holding general meetings		
Weekly	7	5.8
Monthly	20	16.7
Bi-annual	47	39.2
Annual	36	30.0
Never	10	8.3
Number of meetings attended		
None	11	9.2

One	69	57.5
Two	33	27.5
Three	17	14.2
More than thrice	0	.0
Communication method used to sensitize your members		
Letters	46	38.3
House to house visits	0	.0
Public announcements	74	61.7
Rating of level of information		
Poor	29	24.2
Good	16	13.3
Fair	57	47.5
Very good	18	15.0
Excellent	0	.0
Problems accessing health services		
Yes	81	37.5
No	39	32.5
Influence of knowledge gained on seeking health care		
Yes	99	82.5
No	21	17.5

Table 4.5 illustrates the responses of the contributors on how sensitization influences access to healthcare by members of the Afya Yetu CBHI scheme. 67.5% of the contributors were members Afya Yetu CBHI scheme for 2 years or less and 32.5% of the contributors were members for more than three years.

57.0% of the contributors learnt about CBHIS from public barazas, 27.3% of the contributors learnt about CBHIS from friends and 15.8% of the contributors learnt about CBHIS from newspapers.

39.2% of the contributors indicated that there were bi-annual general meetings, 30.0% of the contributors indicated that there were annual general meetings, 16.7% of the contributors

indicated that there were monthly general meetings, 8.3% of the contributors indicated that there were no general meetings held and 5.8% of the contributors indicated that there were weekly general meetings.

57.5% of the contributors had attended one meeting, 27.5% of the contributors had attended two meetings, 14.2% of the contributors had attended three meetings and 9.2% of the contributors had attended no meeting.

61.7% of the contributors indicated that the communication mode used to sensitize members was primarily through public announcements while 38.3% of the contributors indicated that the communication mode used to sensitize members was through letters.

47.5% of the contributors rated the attendance to these meetings by members as fair, 24.2% of the contributors rated the attendance to these meetings by members as poor, 15.0% of the contributors rated the attendance to these meetings by members as very good and 13.3% of the contributors rated the attendance to these meetings by members as good.

67.5% of the contributors indicated they had problems accessing health services because of not following rules and procedures while 32.5% of the contributors had no problems accessing health services because of not following rules and procedures.

82.5% of the contributors indicated that the knowledge gained by being in the scheme had changed the way they sought health care while 17.5% of the contributors indicated that the knowledge gained by being in the scheme had not changed the way they sought health care.

4.5 Risk Pooling in CBHIS

In this section the researcher sought answers to address how to assess how risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme.

4.5.1 Risk Pooling in CBHIS According to Leaders

In this section the leaders were asked to indicate the amount of contribution paid by scheme members, total membership of CBHIS scheme, number of members needed to sustain the

scheme, if money collected is adequate o pay hospital bills for the members, benefits of being a member, mode of paying hospital bills and problems of paying hospital bills for members. Their responses are highlighted and discussed below.

Table 4.6: Risk Pooling in CBHIS According to Leaders (n=15)

Category	Frequency	Percentage
Amount contributed by scheme members		
500 and below	0	.0
500 to 1500	8	53.3
1501 to 2000	4	26.7
Above 2000	3	13.3
Total membership of CBHIS in the scheme		
Less than 100	0	.0
100 to 200	0	.0
201 to 300	0	.0
301 to 400	12	80.0
Above 400	3	20.0
Adequate number of members to sustain the scheme		
Less than 100	0	.0
100 to 200	0	.0
201 to 300	0	.0
301 to 400	0	.0
Above 400	15	100.0
Adequate money collected to pay hospital bills for members		
Adequate	1	6.7
Inadequate	12	80.0
Fairly adequate	2	13.3
Benefits of being in the scheme*		
Members are better treated in the hospital	0	.0

Scheme reduced health expenditure	14	48.3
I feel secured	15	51.7
If not in the scheme, how people pay for their hospital bills in case of hospitalization*		
Selling property	13	23.2
Taking a loan	14	25.0
From saving	14	25.0
Support from family and friends	15	26.8
Had problems while paying for members		
Yes	4	26.7
No	11	73.3

Table 4.6 illustrates the responses of the leaders on assess how risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme. 53.3% of the leaders indicated that the average amount paid by scheme members was between Kshs 500 to 1,500, 26.7% of the leaders indicated that the average amount paid by scheme members was between Kshs 1501to 2000 and 13.3% of the leaders indicated that the average amount paid by scheme members was above Kshs 2000

80.0% of the leaders indicated that the total membership of CBHIS in this scheme was 300 to 400 members while 20.0% of the leaders indicated there were over 400 members in the CBHIS scheme. All the leaders felt that the adequate number of members to sustain this scheme was 400 and above.

80.0% of the leaders indicated that the money collected to pay hospital bills for members was inadequate, 13.3% of the leaders indicated that the money collected to pay hospital bills for members was fairly adequate and 6.7% of the leaders indicated that the money collected to pay hospital bills for members was adequate.

51.7% of the leaders indicated that the main benefit of being a member in this scheme was that the scheme reduced health expenditures when one was admitted and 48.3% of the respondents indicated that they felt secure by being in a medical scheme.

26.8% of the leaders indicated that for those who were not in the scheme, they paid their hospital bills in case of hospitalization through support from family and friends, 25.0% of the leaders indicated that some people took loans, 25.0% of the leaders indicated that they used up their savings and 23.2% of the leaders indicated that others had to sell property to take care of the hospital bills.

73.3% of the leaders indicated that they did not have problems paying for hospital bills for their members while 26.7% of the leaders indicated that they did have problems paying for hospital bills for their members

4.5.2 Risk Pooling in CBHIS According to Contributors

In this section the leaders were asked to indicate the benefit package paid for, rating the cost of the package, amount contributed determines the quality of hospital one can attend, benefits of beings a member to the scheme and how they would pay for the hospital bill in case of hospitalization if they were not members. Their responses are highlighted and discussed below.

Table 4.7: Risk Pooling in CBHIS According to Leaders (n=120)

Category	Frequency	Percentage
Benefit package paid for this year		
Package 1	56	46.7
Package 2	44	36.7
Package 3	20	16.7
Rating of the cost of the package		
Cheap	17	14.2
Affordable	98	81.7
Unaffordable	5	4.2
The amount paid determines the quality of hospital one can attend		
True	107	89.2
False	13	10.8
Benefits of being in the scheme*		
Members are better treated in the hospital	23	12.2

Scheme reduced health expenditure	89	47.3
I feel secured	76	40.4
If not in the scheme, how people pay for their hospital bills in case of hospitalization*		
Selling property	64	19.5
Taking a loan	91	27.7
From saving	72	22.0
Support from family and friends	101	30.8

Table 4.7 illustrates the responses of the contributors on assess how risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme. 46.7% of the contributors had ascribed to package 1, 36.1% of the contributors were in package 2 and 16.7% of the contributors were in package 3.

81.7% of the contributors rated the cost of the package they paid for as affordable, 14.2% of the contributors rated the cost of the package they paid for as cheap and 4.2% of the contributors rated the cost of the package they paid for as unaffordable.

89.2% of the contributors indicated it was true that the amount one contributes determines the quality of hospital one can attend while 10.8% of the contributors indicated that indeed it was false that the amount one contributes determines the quality of hospital one can attend.

47.3% of the contributors indicated that the benefits of being in this scheme was that the scheme reduces health expenditures when one is admitted, 40.4% of the contributors indicated that they felt secure and 12.2% of the contributors that members were better treated in hospitals.

30.8% of the contributors indicated that if they were not in the scheme they would have paid their hospital bills in case of hospitalization through support from family and friends, 27.7% of the contributors would have paid the hospital bills by taking a loan, 22.0% of the contributors would have paid the hospital bills from their savings and 19.5% of the contributors would have paid the hospital bills by selling property

4.6 Partnership with Health Care Providers

In this section the researcher sought to assess if partnerships with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme. Their responses are discussed in the sub-sections below.

4.6.1 Partnership with Health Care Providers According to Leaders

In this section the researchers asked the leaders to indicate if partnership with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme using a likert scale of 1 to 5 where 1 implies strongly agree, 2 implies agree, 3 implies somehow agree, 4 implies do not agree and 5 implies strongly agree. Their responses are highlighted and discussed below.

Table 4.8: Partnership with Health Care Providers According to Leaders (n=15)

Category	5	4	3	2	1
The scheme members has partnership agreements with adequate number of healthcare providers	26.7%	33.3%	26.7%	6.7%	6.7%
Due to partnership agreements members attend hospitals more often	13.3%	13.3%	26.7%	33.3%	13.3%
It is easy to get treatment when one is a scheme member	6.7%	20.0%	40.0%	26.7%	6.7%
The partnerships with hospitals has enabled members visit hospitals they would not have otherwise visited	26.7%	40.0%	13.3%	20.0%	.0%
There have been complaints by members seeking treatment despite being CBHIS members	13.3%	46.7%	33.3%	6.7%	.0%

Table 4.8 illustrates the responses of the leaders on how partnerships with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme. 33.3% of the leaders agreed that the scheme members have partnership agreements with adequate number of healthcare providers, 33.3% of the leaders disagreed that due to partnership agreements members attend hospitals more often, 40.0% of the leaders somehow agreed that it is easy to get treatment when one is a scheme member, 40.0% of the leaders agreed that the partnerships with hospitals has enabled members visit hospitals they would not have otherwise visited and 46.7% of the leaders agreed that there had been complaints by members seeking treatment despite being CBHIS members.

4.6.2 Partnership with Health Care Providers According to Contributors

In this section the researchers asked the contributors to indicate if partnership with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme using a likert scale of 1 to 5 where 1 implies strongly agree, 2 implies agree, 3 implies somehow agree, 4 implies do not agree and 5 implies strongly agree. Their responses are highlighted and discussed below.

Table 4.9: Partnership with Health Care Providers According to Contributors (n=120)

Category	5	4	3	2	1
It is easy to get treatment through CBHIS	14.7%	41.7%	31.7%	6.7%	4.2%
Members are linked to all categories of hospitals well	5.0%	12.5%	43.3%	30.0%	9.2%
Distance to Members are linked to all categories of hospitals well the nearest hospital is a barrier to seeking care	22.5%	44.2%	25.8%	7.5%	.0%
Partnerships with hospitals have enabled me visit hospitals I would otherwise not have visited	21.7%	29.2%	31.7%	9.2%	9.2%

Table 4.9 illustrates the responses of the contributors on how partnerships with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme. 41.7% of the contributors agreed that it was easy to get treatment through CBHIS, 43.3% of the contributors somehow agreed that members are linked to all categories of hospitals well, 44.2% of the contributors agreed that distance to members are linked to all categories of hospitals well the nearest hospital is a barrier to seeking care and 31.7% of the contributors somehow agreed that partnerships with hospitals have enabled them visit hospitals they would otherwise not have visited

4.6.3 Access to Health Care

In this section the researcher sought answers to establish how the insurance benefit package chosen by a member affects access to healthcare. Their responses are discussed in the sub-sections below.

4.6.1 Access to Health Care According to Leaders

In this section the researcher asked the leaders to indicate if they had cases of members getting difficulties in getting medical treatment, mode of transport to health care provider, time taken to travel to health care provider, prescribed medicines that were unavailable, frequency and attendance rate of members to hospital, duration taken by members before they seek treatment when need arises and quality of treatment in the partner hospitals. Their responses are highlighted and discussed below.

Table 4.10: Access to Health Care According to Leaders (n=15)

Category	Frequency	Percentage
Cases of members getting difficulties in getting medical treatment		
Yes	8	53.3
No	7	46.7
Mode of transport to health care provider *		
Drive myself	5	16.7

Have a friend/family drive me	7	23.3
Take public transportation	12	40.0
Walk	6	20.0
Time taken to travel to health care provider		
1 to 2 hours	11	73.3
Over 2 hours	4	26.7
Prescribed medicines that were unavailable		
Yes	4	26.7
With some delays	8	53.3
No	3	20.0
Frequency and attendance rate of members to hospital		
Increased	1	6.7
Decreased	1	6.7
Remained the same	13	86.7
Duration taken by members before they seek treatment when need arises		
Immediate	5	33.3
Within a day	9	60.0
Two days	1	6.7
One week	0	.0
Quality of treatment in the partner hospitals		
Poor	1	6.7
Fair	8	53.3
Good	6	40.0
Very good	0	.0
Excellent	0	.0

Table 4.8 illustrates the responses of the leaders on how the insurance benefit package chosen by a member affects access to healthcare.53.3% of the leaders indicated that in the past year they had not heard cases of members getting difficulties in getting medical treatment while 46.7% of the leaders indicated that in the past year they had heard cases of members getting difficulties in getting medical treatment.

40.0% of the leaders indicated that they took public transport to their health care provider, 23.3% of the leaders had a friend/family drive them to the health care provider, 20.0% of the leaders walked to the health care provider and 16.7% of the leaders drove themselves to the health care provider.

73.3% of the leaders indicated they took an hour to two to get to the health care provider while 26.7% of the leaders took over two hours to get to the health care provider.

53.3% of the leaders indicated that in the past year they were able to get the prescribed medicines but mostly it was coupled with delays, 26.7% were always able to get prescribed medicines and 20.0% were not able to get prescribed medicines.

86.7% of the leaders indicated that the frequency and attendance rate to hospitals by members since the scheme started had remained the same, 6.7% of the leaders indicated that the frequency and attendance rate to hospitals by members since the scheme started had decreased and 6.7% of the leaders indicated that the frequency and attendance rate to hospitals by members since the scheme started had increased.

60.0% of the leaders indicated that they sought treatment within a day, 33.3% of the leaders indicated that they sought treatment immediately and 6.7% of the leaders indicated that they sought treatment within two day.

53.3% of the leaders indicated that the quality of treatment in the partner hospitals was fair, 40.0% of the leaders indicated that the quality of treatment in the partner hospitals was good and 6.7% of the leaders indicated that the quality of treatment in the partner hospitals was poor.

4.6.1 Access to Health Care According to Contributors

In this section the researcher asked the contributors to indicate if they had cases of outpatient consultation in a health facility for themselves or household member, if any member of the household had been admitted in hospital for the past one year, if any member of their households needed medical attention how long it would take them to seek care and if they had problems

getting hospital service during membership time. Their responses are highlighted and discussed below.

Table 4.10: Access to Health Care According to Contributors (n=120)

Category	Frequency	Percentage
Cases of outpatient consultation in a health facility		
Yes	85	70.8
No	35	29.2
Admission of any household member to a hospital		
Yes	67	55.8
No	53	44.2
Duration taken by members before they seek treatment when need arises		
Immediate	74	61.7
Within a day	44	36.7
Two days	2	1.7
One week	0	.0
Problems getting hospital service during membership time		
Yes	43	35.8
No	77	64.2

Table 4.8 illustrates the responses of the contributors on how the insurance benefit package chosen by a member affects access to healthcare. 70.8% of the contributors had cases of outpatient consultation in a health facility for their members or household within the last 12 months while 29.2% of the contributors did not have cases of outpatient consultation in a health facility.

55.8% of the contributors indicated that either they or their household had been admitted in hospital for the past one year while 44.2% of the contributors indicated that either they or their household had not been admitted in hospital for the past one year.

61.7% of the contributors indicated that they sought treatment immediately, 36.7% of the contributors indicated that they sought treatment within a day and 1.7% of the contributors indicated that they sought treatment within two days.

64.2% of the contributors indicated that did not have problems getting hospital services during their membership while 35.8% of the contributors indicated that did have problems getting hospital services during their membership.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the discussion of key data findings, conclusion drawn from the findings highlighted and recommendation made. The conclusions and recommendations drawn were focused on addressing the purpose of the study which was to establish the contribution of Community based health insurance towards enabling enrolled members of the Afya Yetu scheme in Chehe sub-location, Mathira East Sub-county in Nyeri County to access healthcare.

5.2 Summary of Findings

5.2.1 How sensitization influences access to healthcare by members of the Afya Yetu CBHI scheme

The study results showed that 73.3% of the leaders had been officials of the scheme for three years or less while 67.5% of the contributors were members Afya Yetu CBHI scheme for 2 years or less. 73.3% of the leaders indicated that the communication mode used to sensitize members was primarily through public announcements while 26.7% of the leaders indicated that the communication mode used to sensitize members was through letters. On the other hand 61.7% of the contributors indicated that the communication mode used to sensitize members was primarily through public announcements while 38.3% of the contributors indicated that the communication mode used to sensitize members was through letters. 53.3% of the leaders felt that the method of sensitization that would be most effective would be house to house visits while 46.7% of the leaders felt that the method of sensitization that would be most effective would be through public announcements. 57.0% of the contributors learnt about CBHIS from public barazas, 27.3% of the contributors learnt about CBHIS from friends and 15.8% of the contributors learnt about CBHIS from newspapers. 40.0% of the leaders indicated that there were monthly general meetings held especially to address issues of the members and reconcile their accounts while as 39.2% of the contributors indicated that there were bi-annual general meetings. 66.7% of the leaders rated the

attendance to these meetings by members as fair while as 47.5% of the contributors rated the attendance to these meetings by members as fair. 57.5% of the contributors had attended a least one meeting and 27.5% of the contributors had attended two meetings. 66.7% of the leaders indicated that the awareness of members affects the way they seek healthcare while 82.5% of the contributors indicated that the knowledge gained by being in the scheme had changed the way they sought health care. 53.3% of the leaders were aware of cases where the members had not benefited from health care services for not following rules and procedures especially if the card was expired and through fraudulent activities while 67.5% of the contributors indicated they had problems accessing health services because of not following rules and procedures.

5.2.2 How risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme

From the study findings results showed that 53.3% of the leaders indicated that the average amount paid by scheme members was between Kshs 500 to 1,500 and 46.7% of the contributors had ascribed to package 1. 81.7% of the contributors rated the cost of the package they paid for as affordable. 80.0% of the leaders indicated that the total membership of CBHIS in this scheme was 300 to 400 members while all the leaders felt that the adequate number of members to sustain this scheme was 400 and above. 80.0% of the leaders indicated that the money collected to pay hospital bills for members was inadequate. 51.7% of the leaders indicated that the main benefit of being a member in this scheme was that the scheme reduced health expenditures when one was admitted and 48.3% of the respondents indicated that they felt secure by being in a medical scheme. 47.3% of the contributors indicated that the benefits of being in this scheme was that the scheme reduces health expenditures when one is admitted, 40.4% of the contributors indicated that they felt secure and 12.2% of the contributors that members were better treated in hospitals. 26.8% of the leaders indicated that for those who were not in the scheme, they paid their hospital bills in case of hospitalization through support from family and friends, 25.0% of the leaders indicated that some people took loans, 25.0% of the leaders indicated that they used up their savings and 23.2% of the leaders indicated that others had to sell property to take care of the hospital bills. 30.8% of the contributors indicated that if they were not in the scheme they would have paid their hospital bills in case of hospitalization through support from family and friends, 27.7% of the contributors would have paid the hospital bills by taking a loan, 22.0% of

the contributors would have paid the hospital bills from their savings and 19.5% of the contributors would have paid the hospital bills by selling property. 73.3% of the leaders indicated that they did not have problems paying for hospital bills for their members while 26.7% of the leaders indicated that they did have problems paying for hospital bills for their members. 89.2% of the contributors indicated it was true that the amount one contributes determines the quality of hospital one can attend while 10.8% of the contributors indicated that indeed it was false that the amount one contributes determines the quality of hospital one can attend.

5.2.3 How partnerships with nearby healthcare providers contributes to access to healthcare by members of Afya Yetu CBHI scheme

The study results showed that 33.3% of the leaders agreed that the scheme members have partnership agreements with adequate number of healthcare providers, 33.3% of the leaders disagreed that due to partnership agreements members attend hospitals more often, 40.0% of the leaders somehow agreed that it is easy to get treatment when one is a scheme member, 40.0% of the leaders agreed that the partnerships with hospitals has enabled members visit hospitals they would not have otherwise visited and 46.7% of the leaders agreed that there had been complaints by members seeking treatment despite being CBHIS members. 41.7% of the contributors agreed that it was easy to get treatment through CBHIS, 43.3% of the contributors somehow agreed that members are linked to all categories of hospitals well, 44.2% of the contributors agreed that distance to members are linked to all categories of hospitals well the nearest hospital is a barrier to seeking care and 31.7% of the contributors somehow agreed that partnerships with hospitals have enabled them visit hospitals they would otherwise not have visited.

5.2.4 The last objective sought to establish how the insurance benefit package chosen by a member affects access to healthcare

It was clear from what the leaders said that in the past year there were no cases of members getting difficulties in getting medical treatment, 70.8% of the contributors had cases of outpatient consultation in a health facility for their members or household within the last 12 months and 55.8% of the contributors indicated that either them or their household had been admitted in

hospital for the past one year. 40.0% of the leaders indicated that they tool public transport to their health care provider, 23.3% of the leaders had a friend/family drive them to the health care provider, 20.0% of the leaders walked to the health care provider and 16.7% of the leaders drove themselves to the health care provider. 73.3% of the leaders indicated they took an hour to two to get to the health care provider. 60.0% of the leaders indicated that they sought treatment within a day while 61.7% of the contributors indicated that they sought treatment immediately. 53.3% of the leaders indicated that in the past year they were able to get the prescribed medicines but mostly it was coupled with delays, 86.7% of the leaders indicated that the frequency and attendance rate to hospitals by members since the scheme started had remained the same. 53.3% of the leaders indicated that the quality of treatment in the partner hospitals was fair and 64.2% of the contributors indicated that did not have problems getting hospital services during their membership.

5.3 Discussions

In this section the study sought to discuss the research findings based on the four research objectives and subjecting these findings to literature and further concluding on each of them

5.3.1 How sensitization influences the access of healthcare by members of the Afya Yetu CBHI scheme

The results showed that there were efforts done to sensitize the community on the benefits of joining the community based insurance schemes. The communication mode that was prominently used to sensitize the members was public announcements and letters. This was supported by the response from the contributors who felt that public barazas and friends were critical to information dissemination. However, it was felt that for sensitization to be effective, house-to house visits would play an important role coupled with public announcements via the various media and use of internet. At least bi-annual general meetings were held but members ought to be encouraged to attend more of the meeting because it was noted that the information disseminated affected the way people sought health care. The information gained by being in the scheme had changed the way people sought health care. Sensitization is key and it needs to be strengthened in terms of technical and material capacities by providing support in management and data processing tools, equipments, training modules and monitoring.

5.3.2 How risk pooling influences access to healthcare by members of the Afya Yetu CBHI scheme

It was noted the contributions done were fairly low and affordable to most of the community members. However, there was need to increase the scheme members to as to have a growth in the pool and sustain the scheme since as it currently was the money collected to pay hospital bills was inadequate. Nonetheless, the community members had benefit quite substantially from the being members of the scheme since the scheme reduced health expenditures when one was admitted and they felt secure by being in a medical scheme. Medical schemes were notably important because those who didn't have one they were forced to pay their hospital bills in case of hospitalization through support from family and friends, take loans, use up their savings and sell property to take care of the hospital bills. Having risk pools is important since they provide alternate mechanisms of community financing based on pre-payment and have proven to be strong options, reconciling an improvement in the financial accessibility to health care and the necessity to mobilize the internal resources necessary to ensure the financial viability of health services.

5.3.3 How partnerships with nearby healthcare providers contribute to access to healthcare by members of Afya Yetu CBHI scheme

Study results revealed that the scheme members have partnership agreements with adequate number of healthcare providers, it is also easy to get treatment when one is a scheme member, the partnerships with hospitals had enabled the scheme members visit hospitals they would not have otherwise visited. Development of a good partnership generates solidarity between CBHI and health facilities. CBHI and health facilities must be bound by a partnership contract in which each of the parties finds its advantage. A good partnership between a health facility and a CBHI contributes to the provision of quality services to members of the CBHI. To strengthen the partnership between CBHI organizations and health facilities, a model of understanding containing key elements on which there is a consensus was elaborated for CBHI. Mechanisms to monitor the partnership and the good applicability of this model of contract will be established.

5.3.4 How the insurance benefit package chosen by a member affects access to healthcare

It was evident that members could benefit more if they chose a package that took care of both the inpatient and outpatient services for themselves and their households. Health insurance schemes by their very nature are supposed to reduce unforeseeable or unaffordable health care costs through calculable and regularly paid premiums. CBHI through their insurance benefit packages should in particular allow the most vulnerable and poorest segments of the population to be fully integrated into the health insurance system, thus guaranteeing participation of the whole community and avoiding any stigmatization.

5.4 Conclusions

Formal health insurance schemes cover only a marginal proportion of the population in low-income countries. Due to economic constraints, lack of good governance and institutional weaknesses, formal social protection for the vulnerable segments of the population is widely absent. This study has analyzed the contribution of community based health insurance on access to healthcare. It was shown that in an area where most people are deprived of access to health care of good quality, the introduction of CBHI schemes can make a substantial difference. The objectives of the development policy of CBHI are clearly defined and well shared. They strongly reflect the ambition towards promoting the accessibility of quality health care to all particularly the most destitute. The researcher concludes that access to health insurance can have a positive impact on their members' economic and social situation. To enlarge access to health care for the poor and the rural population, community-based health insurance schemes can be an important element and a first step. It allows some limited pooling of risks and thereby leads to an improvement in the health care system, where most people otherwise have to pay their health expenditure out of pocket.

5.5 Recommendations

i. Participation in insurance schemes and local organizations is not cost-free and requires a minimum of income which the most disadvantaged often do not have at their disposal. Therefore, donors and policy makers should be aware that it may be very difficult, even impossible, to reach the poorest part of the population when promoting participation in

local institutions. In order to reach the poorest members of the community, the cost of participation would have to be reduced by the institutions themselves or the public sector would have to subsidize their premiums. This could be achieved by linking community-financing schemes to social funds, for instance.

ii. The researcher recommends that as much as there might be public financial support for such community based insurance schemes, they should be considered if the schemes fulfill certain conditions, such as assuring broad-scale access, transparent operational and financial accountability and management experience.

iii. If pre-payment and risk-sharing can be encouraged, they are likely to have an immediate impact on the community preventing impoverishment due to catastrophic health expenditures and by ensuring access to health and thereby improving health, thus allowing the individual to take advantage of economic and social opportunities.

iv. The researcher recommends that there is need to conduct aggressive marketing and training of the community based insurance schemes so as to attract more members by offering lucrative premiums that will encourage the members to participate. The schemes should conduct training, meetings, seminars and conferences regularly where they invite the leaders to speak to the community on the needs and benefits of joining such community based insurance schemes.

v. To enlarge poor and rural population access to health care, community-based health insurance schemes can be an important element. The researcher proposes that this can be done by having broader risk pools, getting external financial support such as government subsidies, donor funding, and reinsurance in so as to encourage social inclusion.

5.6 Areas for Further Research

i. Further research is needed on how these schemes can be scaled up, replicated, and linked to other social risk management instruments like social funds.

ii. Further investigation should be devoted to the extent to which health insurance, or its lack, affects people's labor productivity and willingness to undertake risky, but potentially profitable investments.

iii. Further research should be done to give policy makers a clearer idea on the social costs and benefits of introducing health insurance for the poor.

REFERENCES

Atim, C (2000). *Training of Trainers Manual for Mutual Health Organizations in Ghana.* Bethesda, MD: Partnerships for Health Reform, Abt Associates Inc.

Atim, C. (1998).The Contribution of Mutual Health Organizations to Financing, Delivery and Access to Health Care: Synthesis of Research in Nine West and Central African Countries. Technical Report No. 18. Bethesda, MD: Partnerships for Health Reform Project, Abt Associates Inc.

Bennett S. (2004). "The Role of CBHI within the Broader Health Financing System: A Framework for Analysis." Health Policy and Planning.

Bennett, S, Creese, A and Monasch, R (1998). "*Health Insurance Schemes for People outside Formal Sector Employment.*" Division of Analysis, Research and Assessment of the World Health Organization, ARA Paper No. 16.

Bennet, A.E.and Ritchie (1975). *Questionnaires in Medicine. A guide to their Design and use*. Oxford University Press. London.

Bigdon, c and Savayoganathan c, (2001): Coaching the community mobilization unit of the integrated food security programme. Working paper 34.

Bruno G, (2006), Management of a micro health insurance product by an MHO, John Hopkins University press.

Carrin G., Waelkens M.-P., Criel B., Community-based Health Insurance in developing countries: a study of its contribution to the performance of health financing systems, Tropical Medicine and International Health, Volume 10 No 8, pp. 799-811, 2005

Cripps, G, Janet E, Richard K, Musau, S. Priya S, and Madjiguene S. (2000*). Guide to Designing and Managing Community-based Health Financing Schemes in East and Southern Africa.* Bethesda, MD: Partnerships for Health Reform, Abt Associates Inc.

De Allegri M. et al., Community Health Insurance in sub-Saharan Africa: what operational difficulties hamper its successful development, Tropical Medicine and International Health, Volume 14 No 5, pp. 586-596, 2009

Dror D, (2001). Health insurance and reinsurance at community level: A new approach to sustaining community health financing. Geneva: ILO office

Drummond, AER. (1990). Symposium on Methodology. Surveys, Clinical Rehabilitation, 4, 255-9

Ekman B., Community-based health insurance in low-income countries: a systematic review of evidence, Health Policy and Planning, 19(5): 249-270, 2004

Fahdi, D (2011), Self-Managed Health Prepayment Schemes – Perceptions of change Uganda, Kenya and Tanzania. Institute for Tropical Medicine, Antwerp, Belgium

Fairbank A, (2003.) Sources of Financial Instability of Community-based Health Insurance Plans: How Could Social Reinsurance. Bethesda, MD: Partners for Health Reform plus, Abt Associates Inc.

Gamble Kelley, Allison, Edward Kelley, and Caroline Quijada. "*Quality Care for Communities: A Manual for Managers of Mutual Health Organizations.*" Bethesda, MD: Partners for Health Reform plus, Abt Associates Inc.

Gamble Kelley, Allison, Edward Kelley, Cheick Simpara, Ousmane Sidibé, and Marty Makinen. February 2001. Equity Initiative in Mali (IPE): *Reducing Barriers to the Use of Basic Health Services: Findings on Demand, Supply, and Quality of Care in Sikasso and Bla*. Bethesda, MD: Partnerships for Health Reform, Abt Associates Inc.

Harris, R.Tobias, m., Jeffrey, M., Wald grave, K., Kalsen, S. and Nazroo (2006b). Maori Health and inequalities in New Zealand: Impact of Racism and Deprivation The Lancet, 367, 2005-09

International Labour Organization. (1999). Health Micro-Insurance: The Abidjan Platform – Strategies to support mutual health organizations in Africa. Geneva, International Labour Office, Strategies and Tools against social Exclusion and Poverty Programme (STEP) Social Security Department.

Jutting J., Do community-based Health Insurance schemes improve poor people's access to health Care? Evidence from Rural Senegal, World development, Vol.32, No 2, pp.273-288, 2003

Kombo D.K and Tromp L.A (2006), *Proposal and Thesis writing, an introduction*, Nairobi: Don Bosco Printing press

Kothari C.R (2003), *Research methodology: Methods and Techniques*. Wishwa Prakshan, New Delhi.

Mason, l., Horne, S. and Irvine, J.O. (2004). *Health and Social Care*. Heinemann. England.

McCord, Michael 2001. Health Care Micro-insurance—case studies from Uganda, Tanzania, India and Cambodia, Small Enterprise Development, Vol. 12, No. 1

McDonnell, O., Lohan, M., Hyde, A., Porter, S. (2009). Social Theory Health and Healthcare. Pelgrave. Macmillan. United Kingdom.

Musau, Stephen N. August 1999. "Community- Based Health Insurance: Experiences and Lessons Learned from East and Southern Africa." Technical Report No. 34. Bethesda, MD: Partnerships for Health Reform Project, Abt Associates Inc.

Mwabu, G., Wang'ombe, J., Okello, D. and Munishi, G. (2004). *Improving Health Policy in Africa.* University of Nairobi Press. Nairobi. Kenya

Mwabu, G. and Wangombe, J. (1998). "Financing Rural Services in Kenya". Population Research and Policy Review 17 (1) 55-70

Olive M.Mugenda, Abel G.Mugenda,(2003). *Research Methods Qualitative and Quantitative approaches.* , Acts press, Nairobi. Kenya

Oso, W. Y. and Onen, D. (2009). Writing Research Proposal and Report. A handbook for beginning researchers. Jomo Kenyatta Foundation; Nairobi.

Partridge C. and Barnitt R.(1986). Research Guidelines for therapists. Heinemann London.

Preker, A, Guy C,. Dror D, Melitta J, William H and Dyna A. (2001). Role of Communities in Resource Mobilization and Risk Sharing A Synthesis Report. Prepared for the Commission on Macroeconomics and Health, World Bank Health, Nutrition and Population Discussion Paper. Washington D.C.

Preker, Alexander and Guy Carrin (eds). 2004. Health Financing for Poor People. World Bank, WHO and ILO, Published by World Bank, Washington DC.

PHR (Partners for Health Reform), 2004, 21 Questions on CBHF (Community Based Health Financing), Funded by USAID and implemented by Abt Associates, drafted by Sara Bennett, Allison Kelley, Brant Silbers, Raj Gadhia, and Salamata Ly, Bethesda, Maryland.

Puttnam R.(2000).Bowling Alone. The collapse and revival of American Commuty. Simon and Silver. Newyork.

Rao, H and Singh J.V, 1999: *Types of variations in organizational populations.* London Sage publications.

Schneider, P and Francois D. October (2001). *Impact of Prepayment Pilot on Health Care Utilization and Financing in Rwanda: Findings from Final Household Survey*. Bethesda, MD: Partner for Health Reform plus Project, Abt Associates Inc.

Schneider, P, François D, and Charlotte, L. March (2001). *Pilot Testing Prepayment for Health Services in Rwanda: Results and Recommendations for Policy Directions and Implementation*. Technical Report No. 66. Bethesda, MD: Partnerships for Health Reform Project, Abt Associates Inc.

Schneider, Pia, Francois Diop, and Sosthene Bucyana. (March 2000). Development and Implementation of Prepayment Schemes in Rwanda. Technical Report No. 45. Bethesda, MD: Partnerships for Health Reform Project, Abt Associates Inc.

Small-Sample Techniques. *The NEA Research Bulletin*, Vol. 38 (December, 1960), p. 99.

Turner, B.(2003).Social Capital Inequality and Health: Social Theory and Health. 1(1) 4-22

Supakankunti S. 1998. *Comparative Analysis of Various Community Cost Sharing Implemented in Myanmar*. Paper presented to the Workshop of Community Cost Sharing in Myanmar, Nov 26-28.

World Health Organization. (2001). Macroeconomics and Health: Investing in Health for Economic Development. Report of the Commission on Macroeconomics and Health. Geneva

Waqar, I.U. A. and Brandy H. (2008). Ethnicity Health and Healthcare: Understand Diversity Tackling Disadvantage. 29 Blackwell Publishing. Oxford. United Kindom.

WHO (World Health Organization). (1978). Declaration of Alama Ata. Report of International Conference on primary Health care. September 6-12. Alama Ata, USSR, Geneva, Switzerland.

APPENDICES

APPENDIX I: INFORMED CONSENT LETTER

Hello, my name is WILSON WANG'OMBE WAHOME and I am a Masters Student at the University of Nairobi. I am presently carrying out a household survey on the contribution of Community based health insurance to access of healthcare in Afya Yetu Scheme Chehe Sub-location. The information collected from this household survey will be for academic purpose but may help policymakers, CBHIS program managers and healthcare providers better understand the role of CBH schemes, how to scale up the programme and to improve implementation in more efficient ways . I wish to gather information from you about your household and scheme use of health care services and insurance products. The information collected will be strictly confidential. You do not need to disclose your name if you don't wish to.

Risks and Benefits: There are no known risks involved in this study. The only cost to you will be the time required to answer my questions. This research will help to understand the concerns of scheme members in accessing healthcare and how it can be improved.

Confidentiality: Any information derived from your participation in the study will be kept confidential by the researchers, and we request that the participants do the same. There will be no identifying information given during the study. Results will be presented in aggregate or in general in my reports.

Voluntary Participation: "I understand that my involvement in this study is completely voluntary and that I can decline participation or withdraw at any time."

Consent Statement: Having read the above, I agree to participate in this study and consent to the above. Moreover, I agree not to disclose any information that could be linked to any specific individual. I will also not disclose any identifying information about other members of the group. Finally, I acknowledge that I have received a copy of this form.

_____

(Signature of Participant) (Signature of researcher) (Date)

Your participation in this study is greatly appreciated.

APPENDIX II: QUESTIONNAIRE FOR LEADERS

Instructions to respondent

Answer by putting a tick in the appropriate box or filling in the space provided.

Interviewer's name…… …Questionnaire no. ☐

Interview date……... Day of the week…….

Groups name…… Sub location……

This questionnaire is designed for carrying out a household survey on the contribution of Community based health insurance to access of healthcare in Afya Yetu, Nyeri County. The information collected from this household survey is for academic purposes only but may help policymakers, CBHIS program managers and healthcare providers better understand the role of CBHI schemes, how to scale up the programme and to implement in more efficient ways. For this purpose I wish to gather information from you about your household and scheme use of health care services. The information collected will be strictly confidential. You do not need to disclose your name if you don't wish to. I would now like to ask you a series of questions that will take approximately 30 minutes.

SECTION A: DEMOGRAPHIC INFORMATION

1) Gender a) Male ☐ b) Female ☐
2) What is your age bracket?18-24yrs ☐ 25-30yrs ☐ 31-34yrs ☐ 35-40yrs ☐ 41-44yrs ☐ 45-50yrs ☐ Over 51 yrs ☐
3) What is the highest level of education you have attained?

   University ☐ College Diploma ☐ College Certificate ☐ Secondary ☐ Primary school. ☐
4) What is your occupation?

   Farmer ☐ Business person ☐ Government employee ☐ Organization employee ☐ other (specify). ……
5) What is your marital status?

   Married ☐ single ☐ Separated ☐ Divorced ☐

SECTION B: SENSITIZATION OF MEMBERS OF CBHIS

6) For how long have you been an official of this scheme?

One yr ☐ Two yrs ☐ Three yrs ☐ Four yrs ☐ More than 5 yrs ☐

7) What modes of communication does the scheme use to sensitize your members?

Letters ☐ House to house visits ☐ Public announcements ☐

Other (specify)……..

8) Which of the methods of sensitization would you say is most effective?

Letters ☐ House to house visits ☐ Public announcements ☐

Other (specify)……..

9) How often are general meetings held in a year?

Weekly ☐ monthly ☐ bi-annually ☐ annually ☐

10) How would you rate attendance to these meetings by members?

Poor ☐ Good ☐ Fair ☐ Very good ☐ Excellent ☐

11) In your view does awareness of members affect the way they seek healthcare? ☐

Yes ☐ No ☐ if yes in what ways…….

12) Have you had cases of members not benefitting from healthcare services for not following rules and procedures? Yes ☐ No ☐ If yes, how many in the past year…….

SECTION C: RISK POOLING IN CBHIS

13) On average, what is the amount of contribution paid by scheme members?

500 and below ☐ 500-1500 ☐ 1501-2000 ☐ above 2000 ☐

14) What is the total membership of CBHIS in this scheme? Less than 100 ☐ 00-200 ☐

200-300 ☐ 300-400 ☐

15) What would you consider as the adequate number of members to sustain this scheme?

100 ☐ 100-200 ☐ 200-300 ☐ 300-400 ☐ 400 -500 ☐ 500 and above ☐

16) How adequate is the money you collect to pay for hospital bills of your members?

Adequate ☐ Inadequate ☐ Fairly adequate ☐

17) What is the main benefit of being a member in this scheme?

Members are better treated in hospitals ☐ Scheme reduces health expenditures when one is admitted ☐ I feel secured ☐ other reason…….

18) If you were not in this scheme how would pay for your hospital bills in case of hospitalization?

Selling property ☐ taking a loan ☐ from my savings ☐ Getting support from friends and family ☐

19) Have you had problems paying for hospital bills of your members? YES ☐ NO ☐

If YES what was the reason? ……

SECTION D: PARTNERSHIPS WITH HEALTHCARE PROVIDERS

20) Please select your answer from choices below for questions that follow where 1 means; strongly agree 2 means, agree 3, somehow agree 4, do not agree and 5, strongly disagree Please tick only once for every question

A	The scheme members has partnership agreements with adequate number of healthcare providers	1	2	3	4	5
B	Due to partnership agreements members attend hospitals more often	1	2	3	4	5
C	It is easy to get treatment when one is a scheme member	1	2	3	4	5
E	The partnerships with hospitals has enabled members visit hospitals they would not have otherwise visited	1	2	3	4	5
F	There have been complaints by members seeking treatment despite being CBHIS members	1	2	3	4	5

SECTION E: INSURANCE BENEFIT PACKAGE PROPOSED TO MEMBERS

21) The amount one contributes determines the hospital one can attend (tick your answer in the boxes below).

Strongly agree ☐ agrees ☐ Somehow agree ☐ Do not agree ☐ strongly disagree ☐

22) The scheme gives its members enough options to choose from in terms of frequency of payment of premiums. True ☐ False ☐

SECTION F: ACCESS TO HEALTHCARE

23) During the past year, have you had cases of members getting difficulties in getting medical treatment? Yes ☐ No ☐ if yes explain……

24) How do you normally travel to see your healthcare provider? Drive myself ☐ Have a friend/ family member drive me ☐ Take public transportation ☐ Walk ☐

25) How long does it take you to travel to your healthcare provider? Under one hour ☐ 1 – 2 hours ☐ over two hours ☐

26) During the past year, did you have a prescribed medicine but were unable to get it? Yes ☐ With some delay ☐ No ☐

27) From your records, what would you say about the frequency and attendance rate to hospitals of the members since the scheme started?

Increased ☐ Decreased ☐ remained the same ☐

28) How long do your members take to seek treatment when need arises?

Immediate ☐ within a day ☐ two days ☐ one week ☐

29) From your experiences with hospitals and members, what would you say about quality of treatment in the partner hospitals?

Poor ☐ fair ☐ good ☐ very good ☐ excellent ☐

30) What challenges do you face as a scheme official? …….....

b) What are your suggested solutions?……

THE END.

THANK YOU VERY MUCH FOR YOUR TIME.

APPENDIX III: QUESTIONNAIRE FOR CONTRIBUTORS

Instructions

Answer by putting a tick in the appropriate box or filling in the space provided.

Interviewer's name…… …Questionnaire no. ☐

Interview date……. Day of the week…….

Groups name…… Sub location……

This questionnaire is designed for carrying out a household survey on the contribution of Community based health insurance to access of healthcare in Afya Yetu Scheme, Nyeri County. The information collected from this household survey is for academic purposes only but may will help policymakers, CBHIS program managers and healthcare providers better understand the role of CBH schemes, how to scale up the programme and to implement in more efficient ways. For this purpose I wish to gather information from you about your household and scheme use of health care services and insurance products. The information collected will be strictly confidential. You do not need to disclose your name if you don't wish to.

I would now like to ask you a series of questions that will take approximately 30 minutes.

SECTION A: DEMOGRAPHIC INFORMATION

1) Gender a) Male ☐ b) Female ☐

2) What is your age bracket? 18-24years ☐ 25-30yrs ☐ 31-34yrs ☐ 35-40yrs ☐ 41-44yrs ☐ 45-50yrs ☐ Over 51 years ☐

3) What is the highest level of education you have attained?

University ☐ College Diploma ☐ College Certificate ☐

Secondary school ☐ Primary school. ☐ Other (specify)……..

4) What is your occupation?

Farmer ☐ Business person ☐ Government employee ☐ Organization employee ☐ Other please specify. ……

5) What is your marital status

Married ☐ single ☐ Separated ☐ Divorced ☐

SECTION B: SENSITIZATION OF MEMBERS SCHEMES

6) For how long have you been a member? 1 -2 years ☐ 3-4 years ☐ 5years and above ☐

7) How did you first learn about CBHIS?

☐ From a friend ☐ web site / internet ☐ Public Baraza

☐ News paper ☐ other, specify----------

8) How often are you called for general meetings in a year?

Weekly ☐ monthly ☐ bi-annually ☐ annually ☐ Never ☐

9) How many of the meetings have you attended?

None ☐ One ☐ Two ☐ Three ☐ More than thrice ☐

10) What mode of communication does the scheme use to communicate to members?

Letters ☐ House to house visits ☐ Public announcements ☐

Other (specify)……..

11) How would you rate the level of information given to scheme members by the leaders?

Poor ☐ Good ☐ Fair ☐ Very good ☐ Excellent ☐

12) Have you had a problem accessing health services because of not following rules and procedures? Yes ☐ No ☐

13) Has the knowledge you have gained by being in the scheme changed the way you seek healthcare? Yes ☐ No ☐ if Yes in which way?.....

SECTION C: RISK POOLING IN CBHI SCHEMES

14) Which benefit package have you paid for this year?

Package 1 ☐ Package 2 ☐ Package 3 ☐

15) How would you rate the cost that you pay for your package?

Cheap ☐ affordable ☐ unaffordable ☐

16) The amount one contributes determines the quality of hospital one can attend

True ☐ False ☐

b) If the answer is true explain…….

17) What is the main benefit of being a member in this scheme?

Members are better treated in hospitals ☐ Scheme reduces health expenditures when one is admitted ☐ I feel secured ☐ other reason…….

18) If you were not in this scheme how would pay for your hospital bills in case of hospitalization?

Selling property ☐ taking a loan ☐ from my savings ☐ Getting support from friends and family ☐

SECTION D: PARTNERSHIPS WITH HOSPITALS

19) Please select your answer from choices below for questions that follow where 1 means; strongly agree 2 means, agree 3, somehow agree 4, do not agree and 5, strongly disagree

It is easy to get treatment through CBHIS	1	2	3	4	5
Members are linked to all categories of hospitals well	1	2	3	4	5
Distance to the nearest hospital is a barrier to seeking care	1	2	3	4	5
Partnerships with hospitals have enabled me visit hospitals I would otherwise not have visited	1	2	3	4	5

SECTION E. ACCESS TO INPATIENT HEALTHCARE

20). Have you had a case of Outpatient consultation in a health facility for you or a member of your household within the last 12 months .YES ☐ NO ☐

If yes how many times?.....

21) Have you or any member of your household been admitted to a hospital in the last one year? YES ☐ NO ☐ If yes, how many times?.....

22) If you or a member of your household needed medical attention how long would it take the seek care?

Immediate ☐ within one day ☐ two days ☐ one week ☐

23) Have you had problem getting hospital service during the time of your membership?

Yes ☐ No ☐

b) If yes, what kind of a problem……

c) What would be your suggested solution to the problem (s)……

END

THANK YOU FOR YOUR TIME

APPENDIX IV: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	130	97	380	191	1500	306	20000	377
15	14	140	103	400	196	1600	310	30000	379
20	19	150	108	420	201	1700	313	40000	380
25	24	160	113	440	205	1800	317	50000	381
30	28	170	118	460	210	1900	320	75000	382
35	32	180	123	480	214	2000	322	1000000	384
40	36	190	127	500	217	2200	327		
45	40	200	132	550	226	2400	331		
50	44	210	136	600	234	2600	335		
55	48	220	140	650	242	2800	338		
60	52	230	144	700	248	3000	341		
65	56	240	148	750	254	3500	346		
70	59	250	152	800	260	4000	351		
75	63	260	155	850	265	4500	354		
80	66	270	159	900	269	5000	357		
85	70	280	162	950	274	6000	361		
90	73	290	165	1000	278	7000	364		
95	76	300	169	1100	285	8000	367		
100	80	320	175	1200	291	9000	368		
110	86	340	181	1300	297	10000	370		
120	92	360	186	1400	302	15000	375		

Note.—N is population size.
S is sample size.

ROBERT V. KREJCIE, DARYLE W. MORGAN: DETERMINING SAMPLE SIZE