Assessing factors influencing the uptake of the health insurance subsidy program: a case of Turkana Central Sub-County in Kenya

Nelson Lodiita Lolos
Strathmore Business School (SBS)
Strathmore University

Follow this and additional works at https://su-plus.strathmore.edu/handle/11071/6179

Recommended Citation


Retrieved from http://su-plus.strathmore.edu/handle/11071/6179

This Thesis - Open Access is brought to you for free and open access by DSpace @Strathmore University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DSpace @Strathmore University. For more information, please contact librarian@strathmore.edu
Assessing Factors Influencing the Uptake of the Health Insurance Subsidy Program: A Case of Turkana Central Sub-county in Kenya

NELSON LODIITA LOLOS
MBA HCM-93610/16

Submitted for partial fulfilment of the requirement for the award of degree of Master’s in Business administration – Healthcare Management

Strathmore Business School
MAY 2018

This dissertation is available for Library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.
DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the thesis itself.

© No part of this thesis may be reproduced without the permission of the author and Strathmore University

Nelson Lolos

May 2016

Approval

The dissertation of Nelson Lolos was reviewed and approved by:

Dr. Mary Amuyunzu-Nyamongo (Supervisor)

Strathmore Business School

Dr. George Njenga

Dean, Strathmore Business School

Prof. Ruth Kiraka

Dean, School of Graduate Studies

Strathmore University
ABSTRACT

The attainment of universal health coverage is a top global priority as advanced by WHO and member countries, including Kenya. Social health insurance schemes, like the Health Insurance Subsidy for the Poor serve as one of the means to achieve the UHC challenges of access to care, equity and affordability of services.

The purpose of this study was to assess effectiveness of such SHI programmes in improving satisfaction, access and utilization of healthcare among the beneficiaries in Turkana central sub-County. The target respondents were beneficiaries of this programme (household heads), managers of implementing programme (NHIF, County health department, social services and children’s departments).

This was a descriptive, cross-sectional case study that used mixed (both qualitative and quantitative) methodology for data collection. The sample size was 140 respondents randomly selected from the sampling frame while the key informants were purposively selected. Semi-structured questionnaire, focus group discussion (FGD) and in-depth interview (IDI) guides were used to collect data. STATA (version 15) statistical software was used to analyse the quantitative data. Qualitative data from IDIs and FGDs were coded and categorized into profiles, themes, topics or incidents as appropriate. Content analysis was done using conceptual approaches including grounded theory approach and framework approach.

The findings indicate that the utilization rate of health facilities was at 0.3 visits per capita per year. Only about 18% of household members reported illness in the preceding 4 weeks, and of those, 83% sought care from health facilities. The most accessed service was outpatient. About 54% of members of households reported being sick in the preceding 4 weeks but did not seek care. Reasons given for not seeking care included OOP hidden costs, self-medication, long distances to providers, etc. Majority of respondents rated the HISP as good (3.4 points out of 5) but had concerns about quality of care, availability of services and health workers’ attitudes.

This study recommends continuous awareness creation, advocacy, communication and social mobilization of beneficiaries. It further recommends that health providers improve quality and availability of services. The study also recommends policy shift on health financing, increase in allocation of resources to health financing and social protection programmes as well as better coordination.
# Table of Contents

**Declaration**.................................................................................. ii

**Abstract**....................................................................................... iii

**List of Figures**............................................................................... vi

**List of Tables**................................................................................ vii

**Definition of Key Concepts**.............................................................. viii

**Abbreviations**................................................................................ x

**Acknowledgements**....................................................................... xi

**Dedication**...................................................................................... xii

## Chapter 1: Introduction

1.1 Background to the study............................................................... 1

1.2 Problem statement....................................................................... 4

1.3 Research objectives..................................................................... 4

1.4 Research questions...................................................................... 5

1.5 Scope of the study....................................................................... 5

1.6 Significance of the study.............................................................. 5

## Chapter 2: Literature Review

2.3 Empirical literature review............................................................ 7

2.4 Research gaps............................................................................. 8

2.5 Conceptual framework................................................................. 9

## Chapter 3: Research Methodology

3.1 Introduction................................................................................. 11

3.2 Research design.......................................................................... 11

3.3 Population and sampling............................................................. 11

3.4 Data collection methods............................................................. 14

3.5 Research instruments................................................................. 14

3.6 Research assistants.................................................................... 15

3.7 Data analysis and presentation..................................................... 15

3.8 Validity, reliability and objectivity.............................................. 15

3.9 Ethical issues in research............................................................ 16

## Chapter 4: Results

4.1 Introduction................................................................................. 17

4.2 Access and utilization of health care by beneficiaries of HISP..... 17

4.3 Customer satisfaction and experience....................................... 23
4.4 Program design, characteristics and effectiveness.................................25

CHAPTER 5: DISCUSSION.................................................................................29
CHAPTER 6: CONCLUSION AND RECOMMENDATIONS.................................33
Limitations of the study..................................................................................34

APPENDICES - DATA COLLECTION TOOLS
Appendix A: Consent form...............................................................................35
Appendix B: Questionnaire...............................................................................37
Appendix C: FGD Guide..................................................................................40
Appendix D: IDI Guide....................................................................................43
Appendix E: Letter of introduction....................................................................46
Appendix F: IRB Letter of approval.................................................................47

REFERENCES.................................................................................................48
LIST OF FIGURES
Figure 2.1 conceptual framework................................................................. 9
Table 4.1 Gender distribution of respondents............................................. 18
Figure 4.2 Age distribution of respondents............................................... 18
Figure 4.3 Hospital visits.............................................................................. 19
Figure 4.4 Utilization per type of service...................................................... 19
LIST OF TABLES
Table 3.1 proportional allocation of samples..............................................12
Table 4.1 Reasons for not seeking help....................................................20
Table 4.2 Bivariate analysis for hospital visits...........................................22
Table 4.3 Customer satisfactions...............................................................24
Table 4.4 Role of stakeholders in implementation of HISP........................25
DEFINITION OF KEY CONCEPTS AND TERMS

**Universal health coverage** (UHC): The World Health Organization (WHO) defines universal health coverage (UHC) as the need for all people or communities to use promotive, preventive, curative and palliative health services, of sufficient quality to be effective, while ensuring the use of these services does not expose the user to financial hardships.

**Access** is opportunity and ability of people to obtain the health services they need. It has three dimensions, namely: physical accessibility; financial affordability; and acceptability. Philips and Morrison’s model of access to healthcare comprises environment (healthcare system), population characteristics and health behaviour (Philips, 1998). Population characteristics mainly comprise of enabling and predisposing factors while health behaviour comprise the use of services (utilization) and personal choices.

**Social health insurance** (SHI) is a measure put in place by the government to improve access by eliminating the barrier of financial affordability among those who are otherwise unable to pay for healthcare costs. It does not necessarily address the issues of accessibility and acceptability. This also puts into light the role of social determinants of health as far as access to health are concerned, such as education, culture, economic stability, community and social context, health care systems and neighbourhood and physical environment.

**Effective coverage** is an all-encompassing metric for measuring and monitoring UHC. It assesses both individual characteristics and intervention characteristics (need, use, quality). Tanahashi model for evaluating health service coverage also has effective coverage as one of its key parameters; others being contact coverage, accessibility, availability, acceptability and contact coverage against target population (Tanahashi, 1978). Effective coverage is a powerful metric for understanding health gains delivered by interventions at different levels from individual benefits to national impacts (Marie, 2014).

**Utilization** of health services is defined in terms of quantity of health services and procedures used. Studies on service utilization frequently extend beyond measuring quantity of health services used, and focus on the determinants of utilization. Several frameworks for utilization exist; they identify important variations in individual,
community and health system factors. Similar models focus on demand functions of healthcare using variables such as price of care, travel time and opportunity costs linked to it, patient's income, perceived quality of care, provider behaviour, etc. Such models give useful information about elasticity of demand of different types of health services. They help predict the response of consumer health seeking behaviour to changes in key demand factors that result from various policy actions.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FGDs</td>
<td>Focus group discussions</td>
</tr>
<tr>
<td>HISP</td>
<td>Health Insurance Subsidy Programme</td>
</tr>
<tr>
<td>IDI</td>
<td>In-depth interview</td>
</tr>
<tr>
<td>KDHS</td>
<td>Kenya Demographic and Health Survey</td>
</tr>
<tr>
<td>KHHEUS</td>
<td>Kenya Household Health Expenditure Utilization Survey</td>
</tr>
<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
</tr>
<tr>
<td>KQMH</td>
<td>Kenya quality model for health</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of education</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NHIF</td>
<td>National Health Insurance Fund</td>
</tr>
<tr>
<td>OOP</td>
<td>Out of pocket expenditure</td>
</tr>
<tr>
<td>PPPs</td>
<td>Public private partnerships</td>
</tr>
<tr>
<td>RA</td>
<td>Research assistant</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SHI</td>
<td>Social health insurance</td>
</tr>
<tr>
<td>UHC</td>
<td>Universal health coverage</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

I wish to extend my deepest appreciation to everyone who made this research possible and who helped turn my idea and objectives into reality.

I am indebted to my academic supervisor, Dr Mary Amuyunzu-Nyamongo, for supporting my passion from the beginning and for working out all the behind the scenes details.
DEDICATION
This thesis is dedicated to my family. Special dedication to my dad, the late Lolos Lochiata and my mother Akitela Lokoel.
CHAPTER ONE: INTRODUCTION

1.1 Background

The World Health Organization (WHO) defines universal health coverage (UHC) as the need for all people or communities to use promotive, preventive, curative and palliative health services, of sufficient quality to be effective, while ensuring the use of these services does not expose the user to financial hardships. This puts emphasis on access and utilization of quality services based on need and not on the ability to pay for services. Services must be physically accessible, financially affordable and acceptable to patients if UHC is to be attained (Evans, 2013).

Health insurance coverage in Kenya is very low. In 2013, less than one in every five Kenyans (17.1%) had some form of insurance coverage. It is even lower among the rural areas and among the illiterate, those in informal sector and more so among the poor and the vulnerable. Most of the households pay for healthcare through out of pocket (OOP), and the rest through National Health Insurance Fund (NHIF) and private insurance (KHHEUS, 2013). Affordability is a major challenge to accessing health services especially among the poor. For example, in utilization of inpatient services, the insured had a higher utilization rate (76 admissions per 1,000 populations) compared with the uninsured (30 admissions per 1,000 populations) (KNBS, 2013).

The bill of rights under the Constitution of Kenya (2010) guarantees all Kenyans the right to social, economic and cultural rights and binds the state to provide social security or protection to those unable to support themselves and their dependents. This intent was first expressed through sessional paper 10 of 1965 on African Socialism and Development. Kenya National Social Protection Policy (2012) makes provision for social assistance, social pension and social health insurance (SHI) as interventions towards the vulnerable.

The overall goal of the National Social Protection Policy (2012) is to ensure all Kenyans live in dignity and exploit their capabilities to further their own social and economic development. The key policy objectives of social protection are designed to attain the above goal and include: protecting individuals and households from catastrophic expenditures and further impoverisation, strengthening their ability to transition from social assistance to self reliance, promoting investment in human capital and assets by the poor to ensure resilience and promoting synergies and
integration among the social protection providers, as well stakeholder cooperation. The implementation of the policy is guided by principles of leadership and integrity, good governance, evidence-based programming, equity and social justice, gender mainstreaming, common standards, public participation, adequacy, affordability and sustainability. The Kenya Vision 2030 also recognizes and puts emphasis on social protection as a powerful tool for improving quality of life for all Kenyans.

According to economics healthcare is a good/service and has a market, with market competitive forces of demand and supply playing a role (Stiglitz J, 1989). However, the assumption is always that, all the consumers have the capacity to pay but this is not the case because need may not match demand for services due to ability to pay, hence an imperfect market scenario is always common. This begets inequity in the utilization of health services based on ability to pay. Governments are therefore expected to intervene in such imperfect or failed markets to restore equity through social protection programmes, among other interventions.

About half (46.6%) of people live below poverty line in Kenya (KNBS, 2010). According to Kenya household expenditure and utilization survey 2013 (KHHEUS, 2013), over half (58.7%) of the targeted population was in some form of employment (formal and informal sectors), and 5% was seeking employment. The remaining was distributed as follows: homemakers (11%); students (19.6%); and others (5.2%). In addition, a quarter of total spending on healthcare comes from OOP payments. Data from national health accounts show that one-third (33.3%) of the poor who were ill did not seek health care compared to only 15% of the rich (MOH, 2014). These population characteristics influence the consumption and expenditure on health.

In 2013, less than one in every five Kenyans (17.1%) had some form of health insurance coverage (KHHEUS, 2013), which implies out of the 44 million, as many as 35 million Kenyans were excluded from quality health care coverage. The NHIF covered majority (88.4%) of those insured while private sector covered the rest (9.4%), community based and other forms of insurance covered 1.3% and 1%, respectively. According to the Economic Survey of 2016, NHIF membership was 5.3 million (11.9% of Kenyan population) and formal sector membership contributed to 61.1% membership. The informal sector membership grew rapidly by 32.1% compared to 9.1% growth in the formal sector.
Health insurance has been associated with wealth status as well as geographical location (KHHEUS, 2013). The population in the richest wealth quintiles reported higher coverage (41.5%) compared to those of poorest quintiles (2.9%). Coverage was highest in Kiambu (34%), Nyeri (32.9%), Nairobi (31.9%) and lowest in Kwale (4.6%), Turkana (3%) and Marsabit (1.8%). These findings clearly raise concerns about equity and financial accessibility of healthcare among the majority population in Kenya.

The population of households reporting catastrophic spending on health stood at 6.2% in 2013 (KNBS, 2013). This shows an increase from a previous household expenditure survey (KNBS, 2003), which put proportion of households facing catastrophic expenditure at 4%. Kenyan households continue to be pushed into poverty through health-related expenses.

The government normally steps in to provide financial protection for the poor through SHI schemes, social assistance and social protection programmes. The role of private sector partners, especially donors, is increasing in providing social protection to the poor and vulnerable through the social health schemes. This is usually through public-private-partnerships (PPPs) with governments. An example of such a partnership is the Health Insurance Subsidy programme (HISP), which is a flagship programme under Kenya Vision 2030, financed by the World Bank and implemented by the NHIF. Under this programme, the National Government seeks to provide universal quality healthcare that is affordable, accessible and sustainable through effective and efficient utilization of resources to the vulnerable (defined as the poor, disabled, orphaned and elderly) segments of the population. According to a report on status of vision 2030 flagship projects (NHIF, 2016) it is reported that 181,968 households have been covered by HISP up to date, in all the 47 counties of Kenya. The pilot phase commenced on September 01, 2014 to 2016 and covered 21,530 households. In Turkana County, the pilot phase targeted 527 households and up to date 3400 out of the targeted 3500 households have been covered. This includes the 185 HHs covered by HISP in Turkana central sub county. Turkana central sub county, which is where the study was undertaken, has a population of 176,680 and 35,336 HHs (KNBS, 2017).

It is generally expected that once the issue of affordability of healthcare is sorted out, e.g. through social health insurance, OOP expenditure is reduced, access and utilization of health services is maximized and health outcomes tremendously
improve. However, government inadequacies in the implementation of such programmes as well as other beneficiary-related factors might affect access and utilization of these affordable health services. These factors would lead to unmet policy objectives and eventually undesired health outcomes. Therefore, research needs to be done to establish the factors that may affect utilization of health services especially among those in such social protection programmes or schemes. The evidence generated is important for policy makers to ensure effective implementation of such programmes or schemes in an effort to achieve the project goals including the sustainable development goals.

1.2 Problem Statement

It is expected that SHI will make health services affordable to the poor and vulnerable, hence resulting to increased utilization and satisfaction by the consumers of the services. However, failures in health delivery system, programme design or individual attitude, knowledge, beliefs or health seeking behaviour can affect utilization of health services as well as satisfaction with the services offered.

If utilization of services remains low, the policy objective of achieving equity of access for those most in need of health services will not be achieved. Consequently, this may jeopardize achievement of UHC. If not addressed, this may undermine achievement of the Sustainable Development Goals (SDGs), the Kenya National Social Protection Policy goals and objectives and Kenya Vision 2030 milestones.

1.3 Research Objectives

The general objective
To assess the effectiveness of HISP to improve satisfaction, access and utilization of health services in Turkana central sub-County, Kenya.

Specific objectives
1. To document factors affecting access to health services by beneficiaries of health insurance subsidy for the poor in Turkana Central.
2. To establish customer satisfaction levels among beneficiaries of the HISP scheme
3. To assess the effectiveness of SHI programme design and characteristics in improving utilization of health services and consumer satisfaction.
4. To make recommendations to inform policy decision-making.
1.4 Research Questions
The research questions are:
1. What are the factors affecting access to health services by beneficiaries of health insurance subsidy programme in Turkana County?
2. What are the utilization rates of services by beneficiaries of health insurance subsidy programme in Turkana County?
3. What are the satisfaction levels of the beneficiaries of health insurance subsidy programme?
4. What should be done to ensure the successful implementation of the health insurance subsidy programme?

1.5 Scope of the Study
The study was undertaken in one sub-county (Turkana central) of Turkana County, Kenya. It was undertaken among the enrolled households as well as interviewing of managers of the institutions that provide health services and manage the HIS Programme. It targeted heads of sampled households, selected groups of beneficiaries for group discussions, and managers in the children department, social services, county health department and NHIF county office.

The study addresses one of the objectives of SHI and social protection, that is, promotion of access and utilization of health services among the poor. It interrogates factors affecting access and utilization of health services; mainly individual and population socio-economic demographics, health system factors, programme design and implementation as well as resultant utilization levels and customer satisfaction. However, the study did not address the issues of health outcomes or OOP among the households, since these have been covered through other studies including the Kenya Demographic and Health Survey (KDHS, 2014).

1.6 Significance of the Study
The problem of equity and access to healthcare is important especially as regards UHC; hence this is one of the global priorities advanced by the WHO. Many developing countries, including Kenya, have made commitments towards achieving UHC. Governments have implemented the SHI programmes directly or through public-private partnerships (PPPs) to address the issues of equity and access to healthcare by the vulnerable poor populations. However, such programmes have been marred by implementation challenges, which have constrained the achievement of the policy objectives. This study sought to document these
challenges and make recommendations that would lead to successful implementation of such programmes in the devolved governance system in Kenya.

This study focused on beneficiaries of HISP, their service utilization rates, factors that affect their access and utilization of services and satisfaction with quality and quantity of services offered in health facilities.

This study has both theoretical and practical implications on the future of UHC in Kenya. Theoretically, the findings will add to the existing pool of knowledge on the subject of access to health services. Practically, information about the challenges facing HISP would inform the implementation of SHI programmes and advance the best practices.
CHAPTER TWO: LITERATURE REVIEW

2.1 EMPIRICAL LITERATURE REVIEW

Studies on access compared with those on utilization focus more on health systems characteristics (supply factors) rather than on patient’s health seeking behaviour (demand factors). Health system characteristics comprise of resources, structure, institutions, procedures and regulations through which health services are delivered. (Shengelia, 2010). In essence universal health coverage is not possible without universal access of health care.

There is enough literature that has been done on the relationship between access to health services and health insurance. Most of the studies agree that increasing insurance coverage was accompanied by increased use of health services (utilization). A cross-sectional study of trends of access and financial protection in China by Meng et al (2012) agrees on this notion but further argues that the increased utilization has not been equally accompanied by reduction in catastrophic health expenses (Meng, 2012). The conclusion and recommendation from this study was that mitigation of future challenges would include stronger risk protection and greater efficiency of SHI schemes as well as improvement of quality of care.

A study conducted in Indonesia (Sparrow, 2012) to evaluate the impact of a subsidized SHI programme targeting the poor and those vulnerable to catastrophic OOP expenses found that SHI improves access to healthcare through increase in outpatient utilization among the poor, while OOP spending seemed to increase for the poor insured in urban areas.

Despite SHI increasing access to healthcare, customer satisfaction and awareness is low. A study done in Ghana provides the key reasons for dissatisfaction as ranging from long waiting times, uncleanliness of facilities, unavailability of human resources for health and unavailability of drugs. Others quoted cultural aspects of polygamy and multiple children, usually more than those allowed for enrolment in the scheme, as a barrier to access to services (Ibiwoye, 2007)

Pradhan et al. (2007) argue that social protection health programmes, in addition to improving access to healthcare by the poor health cardholders, also had an externality effect on access by the non-poor and thus affected and had effect on
capacity of health facilities to offer the desired care (Pradhan, 2007). They noted that
during the social safety net intervention in Indonesia during the economic crisis, there
was improvement in investment in health facilities and subsequently improvement in
quality of services targeting the subsidized health cardholders. However, this led to
switching and over consumption of the service by the unintended non-poor resulting
to crowding, congestion and ultimately straining the capacity of these healthcare
facilities to serve the poor as targeted by the health subsidy programme.

Some studies have been done on underutilization of social health programmes. In a
study conducted in China (Liu, 2013) underutilization seen in surplus in pooled funds
due to decreased claims was related to poor administration. This was due to
inefficiency, misuse and corruption in stewardship of SHI fund. Another study in
Philippines (Quimbo, 2008) concluded that underutilization of SHI was negatively
related to mother’s level of education, length of hospital stay and site of care (level of
facility).

Systematic reviews on impact of different types of SHI schemes in lower and middle
income countries in Africa and East Asia, showed strong evidence of SHI on financial
protection of its beneficiaries and improvement of utilization of healthcare (Spaan,
2012). However, there was very weak evidence on impacts of SHI on quality of
services, social inclusion and community empowerment. Findings from east Africa
suggested some positive impact in quality of care as evidenced by improved service
quality, increased drug availability and shortened waiting times. This was attributed
to increase in utilization of care and subsequently improvement in income generation
from the SHI schemes’ payments to facilities.

2.2 Research Gaps
There is abundance of literature on access, universal coverage, utilization of health
service and SHI programmes from all corners of the world. However, there is a
dearth of evidence on the impact of health insurance subsidy programme in Kenya
since it was rolled in 2014 and more so no comparative studies among different
population dynamics in Kenya. Understanding the intervention’s impacts on access
and utilization of healthcare by looking at demand factors (individual, community and
population characteristics) and supply factors (healthcare delivery system
characteristics) is important for policy and health systems strengthening.
### 2.3 Conceptual Framework

The conceptual framework for this study is illustrated in Figure 1. The figure shows factors that influence utilization of services and satisfaction within a subsidized SHI programme for the poor.

**Figure 2.1 Conceptual frameworks**

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population characteristics</strong></td>
<td>Utilization</td>
</tr>
<tr>
<td>Health delivery system characteristics</td>
<td>Customer satisfaction</td>
</tr>
<tr>
<td>Program design/Characteristics</td>
<td>Government policies and regulations</td>
</tr>
</tbody>
</table>

The first column shows *process indicators of access* to healthcare namely population and health delivery system characteristics. Population characteristics can be broken down into predisposing factors (age, sex, religion, values concerning health and illness), enabling factors (insurance coverage, income, character, urban vs. rural residence) and need (illness level, need for care). Characteristics of healthcare delivery system are further grouped into resources (human resources for health, infrastructure, equipment, medical technologies) and organization (entry and structure).

The second column contains *government policies and regulations* that influence equitable access to healthcare, health financing, social protection as well specific implementation of the health subsidy scheme and its inter-sectorial coordination. The
third column shows the *outcome indicators of access* of health care namely utilization and consumer satisfaction.
CHAPTER THREE: METHODOLOGY

3.1 Introduction
This chapter discusses the study design, sampling technique employed as well as instruments used to collect data. It further highlights data analysis design as well as measures put to ensure data reliability and validity and finally ethical considerations.

3.2 Research design
This was a cross-sectional, descriptive in the form of a case study that will use both quantitative and qualitative data collection tools as described further below.

3.3 Population and sampling
Sample size
The intended sample size for this study was 127 households, a representative sample of the population with subsidized social health insurance, who may or may not have accessed health services in the past 4 weeks. The sample size was based on Yamane’s (1967) formula, using a 95% confidence interval; with 0.05 level of significance. The true population under investigation was the 185 households in Turkana central sub-County enrolled under the HISP.

Yamane’s formula
\[
n = \frac{N}{1+N(e^2)}
\]
\[
= \frac{185}{1+185(0.05^2)}
\]
\[
= 127
\]
{NB: 20 additional samples (questionnaires) were added to take care of rejections.}

Where
n= sample size
N= Population size
E= level of precision sampling error
**Proportional allocation of samples.**

The proportional household allocation per geographical area (location, sub location, village) was calculated using the formula below:

\[ \frac{N}{N_1} = \frac{n_1}{n} \]

Where:

- \( N \) = total population
- \( N_1 \) = the total population in the 1th stratum
- \( n_1 \) = sample size in the 1th stratum (in each village)

The allocation of samples (HHs) per village is tabulated in table 3.1 below.

**Table 3.1 proportional allocations of samples per village**
Participant selection
To select participants, multi-level sampling approach was used. The sample units are categorized below.

Level 1: Household heads
Stratified sampling was used to identify the villages to choose households from. Once this step was done, random sampling was use to select households to be interviewed. Below is a summary of the sampling process.

Sampling process:

i. List of beneficiaries for Turkana central sub county was obtained from NHIF Lodwar branch; this list became the sampling frame. This list had 165 HHs.

ii. The list was further stratified according to locations, sub location and villages based on proportion to size;

iii. The specific households to be chosen per village for interviews were identified through random sampling. From each selected household, head of
the household was interviewed. If they objected, the household was skipped and a replacement was selected from the additional households reserved, for such cases.

Twenty (20) households were added to increase the number of households selected to cover for refusals and absentees.

**Level 2: focus group discussions (FGDs):** 2 FGDs of between 8-12 members were conducted. The participants were selected using snowballing sampling method. The groups were homogenous and constituted as follows:

I. Women (between 18 years and 70 years)
II. Men (between 18 years and 70 years)

**Level 3: In-depth interviews (IDIs) for health managers and programme administrators** in NHIF, health services, social services and children’s departments: purposive sampling was used to select the key managers and programme administrators to participate in the in-depth interviews. In total the study involved 4 IDIs.

**3.4 Data collection methods**
Utilization rates were estimated based on the weighted number of visits in the past 4 weeks from beneficiary interviews using a random sample of enrolled population. Data on customer satisfaction and factors influencing access to health care was collected from the HHs interviews, FGDs and IDIs. Data on socio-demographic (population characteristics) was collected from observations and interviews from randomly selected population among those enrolled in the HISP. Finally, data on health system characteristics and programme design was obtained from analysis of system organogram and building blocks (WHO health system MODEL on building blocks), IDIs of health managers and HISP administrators, who were all be purposively selected.

**3.5 Research instruments**
Interviewer-based questionnaires were used to collect quantitative data while FGDs and IDIs guides were used to generate qualitative data. All FGDs and IDIs were tape-recorded and transcribed.
3.6 Research Assistants (RAs)
Ten RAs were recruited from the respective villages to support the data collection process. The interviewers were skilful and familiar with the programme and geographical area. Before being deployed to collect data, they were trained to understand the study objectives and how to administer the questionnaires and the qualitative tools. The training also involved interpreting the questionnaire to vernacular. This exercise involved translation of key words into vernacular as well as simulation. The interviews were recorded and the principal investigator, before data analysis, did further translation. The interviewers did pilot-test the questionnaire in four selected households that were not be part of the study.

3.7 Data analysis and presentation
After collection of questionnaires, the principal investigator checked for completeness, accuracy and consistency of the completed data sheets. STATA statistical software version 15 was used to analyze the Quantitative data. Quantitative data was described using counts (percentages) for categorical data such as gender and means (standard deviations) for continuous variables such as Likert scale scores. Bivariate analysis was done to assess for any associations between those accessed hospital (had a visit) versus those who did not and the demographic variables. The bivariate tests were done using chi square tests for categorical data reporting p values. There was a statistically significant association if the p value was less then 0.05. Tables and pie or bar charts were used to display the results.

Qualitative data from IDIs and FGDs was coded and categorized into profiles, themes, topics or incidents. Content analysis was done and conceptual approaches such as grounded theory approach and framework approach. For data extracted from document review, content analysis was done systematically either qualitatively or quantitatively. Qualitative data has been presented using descriptive narrative.

3.8 Validity, reliability and objectivity
Pre-testing of the questionnaire was done in four households. Responses were analysed on the effectiveness of the questionnaire to address the study objectives as well as its framing and translation where necessary. Peer review by colleagues was done to assess if the variables/items being measured accurately relate to the concept under study.
Training of research assistants was done in order to remove bias and to collect accurate, high quality data. Minimum qualifications of the research assistants were form 4 secondary level, knowledge of the local topography and local language.

Documents research was restricted to official government statistics and programme documents and caution will be taken to check for authenticity, completeness and representativeness.

3.9 Ethical issues in research
Ethical approval for this study was sought from Strathmore ethics committee. Permissions were sought from and introduction letters distributed to relevant authorities both at county government and national government departments such as county health management, department of children’s affairs, NHIF management, social services department etc.

Informed written consent was sought from respondents and additionally they were assured that their personal data would be treated with privacy and confidentiality. They were informed that they could stop the interview at any time without any consequences on their person. Field data collection visits were adjusted and synchronized with respondents’ activities and time demands to ensure minimal interference with their daily chores. Due respect was be paid to community values, believes and attitudes.
CHAPTER FOUR: RESULTS

4.1 Introduction
The purpose of this study was to determine factors affecting access and utilization of healthcare and customer satisfaction among the beneficiaries of the subsidized health insurance for the poor in Turkana central sub-County. In order to achieve the goal of the study, this chapter is organized based on the variables and objectives, namely: demographic characteristics of study sample; access and utilization of healthcare; customer satisfaction; and effectiveness of the HISP to improve utilization.

The study intended to collect information from 127 respondents (beneficiaries of HISP), 4 focus group discussions and 4 in-depth interviews. However, 140 beneficiaries responded to the interviewer-based questionnaires. In addition, two FGDs were conducted: (i) a group of women beneficiaries above 18 years comprising of 12 members; and (ii) a group of male beneficiaries above 18 years comprising of 12 members. The members to these groups were selected through snowballing method. Four IDIs were conducted involving NHIF Lodwar branch manager, County Director of Health, County Social Development Officer and County Children’s Officer.

4.2 Access and utilization of healthcare by the beneficiaries of HISP

4.2.1 Population characteristics of the study sample
Almost all the survey respondents were female 131 (93.6%) as shown in figure 4.1 below. Majority, 83 (59.3%), were aged 46 years and above, as shown in figure 4.2 below. About half, 71 (50.7%) were married with a majority, 100 (71.9%), having no formal education. Most of the respondents, 109 (78.4%), had more than 5 people in their households, and at least a quarter of respondents, 34 (24.5%) had a child less than 5 years in their households. About two-thirds (66.9%) of the respondents did not have any persons who were severely disabled living in their household. Over half of the respondents, 75 (54%), had no older people over 60 years living in their households.
A majority of the respondents were either enrolled in the HISP for over 3 years (69.7%) or for two years (22.9%). Most of the respondents, 123 (89.1%), lived less than five kilometers away from the nearest health facility. The explanation given during FGDs and IDIs revealed that the distance could have been further reduced had some closer facilities been enrolled in NHIF panel. In the entire Turkana Central sub-County, one hospital, two health centres and 3 private clinics were enrolled in NHIF. The low enrolment of facilities to NHIF panel was related to poor quality of care, infrastructure and staff levels that did not meet the NHIF standards for facility enrolment.
4.2.2 utilization of health services

Majority of respondents or a member of their household 115 (82.7%), made at least one visit to the hospital in the 4 weeks preceding the survey, as shown in figure 4.3. The mean number of hospital visits made by the respondents was 3.3 (SD=1.8). According to FGDs and IDIs findings, essential services (curative, preventive and rehabilitative) were offered and available at the health facilities visited by beneficiaries.

**Figure 4.3 Hospital visits**

Most of the survey respondents (71.5%), mentioned outpatient services as a service benefit with only 2.2% citing surgical service benefits, as shown in Figure 4.4 below. However, drugs and non-pharmaceutical commodity stock-outs were frequent in the public health facilities, therefore, clients were forced to seek care elsewhere or purchase from private clinics, pharmacies and chemists.

**Figure 4.4 Utilization per type of service**
About half (44%) of members of households fell sick in the 4 weeks preceding the survey and sought care from a health facility. One or two household members mainly fell sick in past 4 weeks preceding the survey but did not seek healthcare, 23.1% and 19.4%, respectively. Slightly over half of those who did not seek care (56.3%), cited lack of money or hidden costs of care as the main reason for not seeking help. The reasons for not seeking care are summarized in Table 4.2.

**Table 4.1 Reasons for not seeking help**

<table>
<thead>
<tr>
<th>Reason for not seeking help</th>
<th>% of beneficiaries who did not seek help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Money/hidden costs of care (n=40)</td>
<td>56.3</td>
</tr>
<tr>
<td>Considered illness not serious (n=9)</td>
<td>12.7</td>
</tr>
<tr>
<td>Self-medication (n=8)</td>
<td>11.3</td>
</tr>
<tr>
<td>Long distance to providers (n=4)</td>
<td>5.6</td>
</tr>
<tr>
<td>Ignorance</td>
<td>2.8</td>
</tr>
<tr>
<td>Poor quality of services (n=1)</td>
<td>1.4</td>
</tr>
<tr>
<td>Religious or cultural reasons (n=1)</td>
<td>1.4</td>
</tr>
<tr>
<td>Fear of drugs (n=1)</td>
<td>1.4</td>
</tr>
<tr>
<td>In boarding school (n=1)</td>
<td>1.4</td>
</tr>
<tr>
<td>Lack of information on NHIF card (n=1)</td>
<td>1.4</td>
</tr>
<tr>
<td>NHIF not able to help (n=1)</td>
<td>1.4</td>
</tr>
<tr>
<td>No NHIF card (n=1)</td>
<td>1.4</td>
</tr>
</tbody>
</table>

The quantitative results corroborate the FGD and IDI findings that affordability of care and hidden costs affected access of healthcare by beneficiaries. The commonest cost cited was cost of buying drugs or non-pharmaceuticals due to stock-outs in public health facilities. Another hidden cost mentioned frequently by beneficiaries was transportation cost to the facility since some of the facilities were far away from the areas of residence. The categories most disadvantaged by long distances to facilities were reported to be the severely disabled and the older persons (over 60 years), who are key targets of this scheme.

Poor quality of services was linked to delays in accessing services, availability of staff at facilities, health workers’ attitudes and professionalism, and the variety of services offered as well as continuity of services. The subsidized SHI was widely accepted and preferred despite the fact that there was low awareness of the cover
benefits. There were also complaints about communication, public engagement and feedback from the purchaser - NHIF.

Bivariate analysis was done to assess associations between those who accessed a health facility (had a visit) versus those who did not against the demographic variables. The bivariate tests were done using chi-square tests for categorical data reporting p-values. There was a statistical significant association if the considered p-value was less then 0.05. Table 4.3 shows the results from this analysis.
Table 4.2 Comparison of those who visited hospital vs. those who didn’t using demographic variables

<table>
<thead>
<tr>
<th>Bivariate analysis</th>
<th>No visit to the hospital [n=24]</th>
<th>Visited Hospital [n=115]</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When was your household enrolled in HISP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 year ago (n=3)</td>
<td>0 (0)</td>
<td>3 (2.6)</td>
<td>0.041</td>
</tr>
<tr>
<td>One year ago (n=8)</td>
<td>3 (12.5)</td>
<td>5 (4.3)</td>
<td></td>
</tr>
<tr>
<td>Two years ago (n=32)</td>
<td>1 (4.2)</td>
<td>31 (27)</td>
<td></td>
</tr>
<tr>
<td>&gt;3 years ago (n=96)</td>
<td>20 (83.3)</td>
<td>76 (66.1)</td>
<td></td>
</tr>
<tr>
<td><strong>What is the approximate distance to the facility where care is sought by most of the household members</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5km (n=123)</td>
<td>21 (87.5)</td>
<td>102 (89.5)</td>
<td>0.86</td>
</tr>
<tr>
<td>6-10km (n=11)</td>
<td>2 (8.3)</td>
<td>9 (7.9)</td>
<td></td>
</tr>
<tr>
<td>11-15km (n=1)</td>
<td>0 (0)</td>
<td>1 (0.9)</td>
<td></td>
</tr>
<tr>
<td>&gt;15km (n=3)</td>
<td>1 (4.2)</td>
<td>2 (1.8)</td>
<td></td>
</tr>
<tr>
<td><strong>How many people in this household were sick in the past 4 weeks but did not seek</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None (n=59)</td>
<td>15 (65.2)</td>
<td>44 (39.6)</td>
<td>0.103</td>
</tr>
<tr>
<td>One (n=31)</td>
<td>3 (13)</td>
<td>28 (25.2)</td>
<td></td>
</tr>
<tr>
<td>Two (n=26)</td>
<td>1 (4.3)</td>
<td>25 (22.5)</td>
<td></td>
</tr>
<tr>
<td>Three (n=10)</td>
<td>2 (8.7)</td>
<td>8 (7.2)</td>
<td></td>
</tr>
<tr>
<td>More than three (n=8)</td>
<td>2 (8.7)</td>
<td>6 (5.4)</td>
<td></td>
</tr>
<tr>
<td><strong>If any, Reason for not seeking help</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Considered illness not serious (n=9)</td>
<td>1 (11.1)</td>
<td>8 (13.1)</td>
<td>0.357</td>
</tr>
<tr>
<td>Lack of Money/Hidden costs of care (n=40)</td>
<td>6 (66.7)</td>
<td>34 (55.7)</td>
<td></td>
</tr>
<tr>
<td>Long Distance to Providers (n=4)</td>
<td>0 (0)</td>
<td>4 (6.6)</td>
<td></td>
</tr>
<tr>
<td>Poor Quality of Services (n=1)</td>
<td>0 (0)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td>Religious or cultural reasons (n=1)</td>
<td>0 (0)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td>Self Medication (n=8)</td>
<td>0 (0)</td>
<td>8 (13.1)</td>
<td></td>
</tr>
<tr>
<td>all (n=1)</td>
<td>0 (0)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td>fear of drugs (n=1)</td>
<td>0 (0)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td>ignorance (n=2)</td>
<td>1 (11.1)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td>in boarding school (n=1)</td>
<td>0 (0)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td>lack of information on nhif card (n=1)</td>
<td>1 (11.1)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>nhif not able to help (n=1)</td>
<td>0 (0)</td>
<td>1 (1.6)</td>
<td></td>
</tr>
<tr>
<td><strong>Service Benefits</strong></td>
<td></td>
<td></td>
<td>0.815</td>
</tr>
<tr>
<td>OP service benefits (n=98)</td>
<td>14 (63.6)</td>
<td>84 (73.04)</td>
<td></td>
</tr>
<tr>
<td>IP service benefits (n=27)</td>
<td>4 (18.2)</td>
<td>23 (20)</td>
<td></td>
</tr>
<tr>
<td>Surgical service benefits (n=3)</td>
<td>0 (0)</td>
<td>3 (2.61)</td>
<td></td>
</tr>
<tr>
<td>Other service benefits (n=24)</td>
<td>6 (27.3)</td>
<td>18 (15.65)</td>
<td></td>
</tr>
<tr>
<td><strong>Sick in the past 4 weeks but did not seek healthcare</strong></td>
<td></td>
<td></td>
<td>0.025</td>
</tr>
<tr>
<td>None Sick in Household (n=59)</td>
<td>15 (65.2)</td>
<td>44 (39.6)</td>
<td></td>
</tr>
<tr>
<td>Sick person in Household but did not seek Healthcare (n=75)</td>
<td>8 (34.8)</td>
<td>67 (60.4)</td>
<td></td>
</tr>
</tbody>
</table>

There was no statistically significant difference in access by gender, p value = 0.613. Similarly, there was no significant difference in access by age group, marital status, highest level of education (all p values >0.05). A slightly higher proportion of respondents, with more than five people who live in the household, did not visit a health facility, 20 (83.3%) vs. 88 (77.2%), p-value 0.386.
There was no significant difference in hospital attendance by number of children under 5 years living in the household and persons severely disabled living in household, all p values > 0.05. Further, there was no statistically significant difference in the proportions of elderly people over 60 living in the households, p value = 0.159.

Significantly a higher proportion of respondents enrolled in HISP over 3 years ago did not visit a hospital - 20 (83.3%) vs. 76 (66.1%), p value =0.041. There was no statistically significant difference in the proportions of those who visited or did not visit hospital with regards to distance from the health facility where care is sought by most members of the household, p value = 0.86. Even though a majority of those who did not visit hospital cited lack of money or hidden costs of care as the reasons for not seeking help, (66.7%) vs. (55.7%), the difference was not statistically significant, p value = 0.357.

A higher proportion of those who visited hospital cited out-patient service as a benefit, 84 (73.04%) vs. 14 (63.6%), however there was no significant difference in the service benefits, p value = 0.815.

4.3 Customer satisfaction
During the FGDs the respondents discussed several expectations on the various services offered. These included:

- The health cover benefits to support all members of the household;
- Access to all variety of services e.g. dental, eye care, physiotherapy, etc.;
- Availability, reliability and continuity of services, particularly non-stock out of drugs in public facilities;
- Refunds or reimbursement for payments for unavailable services or hidden costs, e.g. transport;
- Provision of high quality services by qualified personnel;
- Special consideration for people with disability and the older persons in design and implementation of programs and delivery of services;
- Social protection programmes to be integrated and also offer variety of services such as payment of school fees for orphans and school going beneficiaries; and
- NHIF to enrol more facilities to give variety of options for beneficiaries to choose closest provider and avoid long distances to access care.
Respondents to the questionnaire rated various parameters based on their experience of care and quality of services. Majority of the respondents (41.5%, N=140) and 36.3% felt that health workers responsiveness was very good and good, respectively with a mean score of 3.4 (SD=0.9). With regard to knowledge and courtesy of health facility staff, most of the respondents, 46.3% and 36.6%, felt it was good or very good, respectively with a mean score of 3.4 (SD=0.8). Two-fifths, (40.3%), felt that physical infrastructure; cleanliness of the health facilities was good with a further 37.3% reporting that it was very good.

Similarly, 64 (47.1%) and 49 (36%) felt empathy (caring, individual attention) of health staff at the facility was good and very good respectively, with a mean of 3.3 (SD=0.7). A majority, 47 (35.3%) and 57 (42.9%), said that reliability and availability of health workers at the health facility was good and very good respectively, with a mean score of 3.7 (SD=0.8). When asked to rate the HISP in their community, majority felt it was very good 57 (42.9%) and a further 27 (20.1%) rated it as excellent, with a mean score of 3.5 (SD=1.1). These findings are summarized in table 4.3 below.

**Table 4.3 Customer satisfactions**

<table>
<thead>
<tr>
<th>Customer Experience and Satisfaction :</th>
<th>Poor n (%)</th>
<th>Fair n (%)</th>
<th>Good n (%)</th>
<th>Very good n (%)</th>
<th>Excellent n (%)</th>
<th>Mean score [SD]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers responsiveness</td>
<td>2 (1.5)</td>
<td>17 (12.6)</td>
<td>49 (36.3)</td>
<td>56 (41.5)</td>
<td>11 (8.1)</td>
<td>3.4 (0.9)</td>
</tr>
<tr>
<td>Knowledge and courtesy of health facility staff</td>
<td>0 (0)</td>
<td>14 (10.4)</td>
<td>62 (46.3)</td>
<td>49 (36.6)</td>
<td>9 (6.7)</td>
<td>3.4 (0.8)</td>
</tr>
<tr>
<td>Physical infrastructure, cleanliness of the health facilities</td>
<td>0 (0)</td>
<td>13 (9.7)</td>
<td>54 (40.3)</td>
<td>50 (37.3)</td>
<td>17 (12.7)</td>
<td>3.5 (0.8)</td>
</tr>
<tr>
<td>Empathy (caring, individual attention) of health staff at the facility</td>
<td>0 (0)</td>
<td>17 (12.5)</td>
<td>64 (47.1)</td>
<td>49 (36)</td>
<td>6 (4.4)</td>
<td>3.3 (0.7)</td>
</tr>
<tr>
<td>Reliability and availability of health workers at the health facility</td>
<td>0 (0)</td>
<td>6 (4.5)</td>
<td>47 (35.3)</td>
<td>57 (42.9)</td>
<td>23 (17.3)</td>
<td>3.7 (0.8)</td>
</tr>
<tr>
<td>How would you rate the HISP programme in this community</td>
<td>2 (1.5)</td>
<td>28 (20.9)</td>
<td>38 (28.4)</td>
<td>39 (29.1)</td>
<td>27 (20.1)</td>
<td>3.5 (1.1)</td>
</tr>
</tbody>
</table>
4.4 HISP design, characteristics and effectiveness

The stakeholders involved in the implementation of HISP were mapped and their responsibilities established, as shown in Table 4.5.

Table 4.4 Role of stakeholders in implementation of HISP.

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>ROLE IN HISP IMPLEMENTATION</th>
<th>TITLE OF OFFICER INTERVIEWED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHIF</td>
<td>Registration of beneficiaries</td>
<td>BRANCH MANAGER, TURKANA COUNTY</td>
</tr>
<tr>
<td></td>
<td>Purchaser of healthcare from providers(facilities)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enrol facilities to NHIF panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monitor quality of care offered by providers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facilitate allocation of health facilities to beneficiaries.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provider of healthcare(drugs, infrastructure, equipments, staffing)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>,service delivery</td>
<td></td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>Monitor quality of care offered.</td>
<td>COUNTY DIRECTOR OF HEALTH</td>
</tr>
<tr>
<td>CHILDREN’S DEPARTMENT</td>
<td>Recruitment of beneficiaries (orphaned and vulnerable children)</td>
<td>SUB COUNTY CHILDREN’S OFFICER</td>
</tr>
<tr>
<td></td>
<td>Monitor quality of care offered by providers</td>
<td></td>
</tr>
<tr>
<td>SOCIAL SERVICES</td>
<td>Recruitment of beneficiaries (elderly, vulnerable poor)</td>
<td>SUB COUNTY SOCIAL SERVICES OFFICER</td>
</tr>
<tr>
<td></td>
<td>Monitor quality of care offered by providers</td>
<td></td>
</tr>
</tbody>
</table>

During IDIs, the respondents expressed their perceptions on beneficiaries' needs and expectations in terms of variety and quality of services. Majority mentioned the need for beneficiaries to access quality healthcare, without segregation based on gender, age, social or economic status. However, most expected the design of health facilities to take into consideration the special needs of the severely disabled and older persons, such as, the provision of wheelchairs, and putting up sloppy ramps instead of steps in all buildings. In addition, all concurred that they expected availability of staff at all times. They also expected the health workers to be professional, courteous, and sensitive to the status of the beneficiaries, as well as be responsive and prompt in availing care. The above management expectations are very similar to the beneficiaries expectations (earlier discussed in 4.4) hence the management teams seem to know what their clients want and are thus expected to design and implement effective programmes that deliver such a value proposition.

Further, the IDIs revealed that only 11 facilities were initially enrolled into the NHIF panel to provide services to the targeted 3400 households in Turkana County. In Turkana Central sub-County, where the study was conducted, only 6 facilities were enrolled (1 county hospital, 2 health centres and 3 private clinics). However, at the
time of the study more facilities in the County (115) had been enrolled and NHIF was in the process of updating the list of beneficiaries’ facilities of choice.

The process for recruitment into the social protection programmes required mandatory documents such as national identity card, birth certificate and/or death certificate. Primary beneficiary had to be first recruited into one of the social protection programmes (orphans and vulnerable children, older persons, vulnerable poor or severely disabled) before they were registered for NHIF. The number of targeted households per village or location was statistically calculated using population projections and limited by available resources (funds).

During the FGDs, it was reported that it was common to find beneficiaries who had been enrolled in the other social protection programme(s) but did not have NHIF card or not enrolled. Some of the reasons cited included lack of a nearby-enrolled facility, lack of awareness of the beneficiary, errors in capturing key beneficiary data, etc. Some beneficiaries complained during FGDs that the strict requirements for mandatory identification documents locked out some deserving beneficiaries from recruitment into the programmes. Examples of such groups were teenage-headed households, and orphans who could not access death certificates of parents who were long dead.

The FGD participants observed that some local cultural practices were not factored or considered during registration of households. Traditionally, grandmothers took into foster care some of their grandchildren. However, the qualitative study results show that many older persons who had foster children had not been recruited as beneficiaries because technically these were not their children. Another practice was polygamy; some beneficiaries reported that only one household was recognized and recruited leaving the other household unregistered. Yet, the household not recruited could not access care and sometimes this led to family feuds.

The awareness among the respondents during FGDs about the scheme was good. However, public relations, communication and engagement were ranked as unsatisfactory. Some elements of engagement were visible; mainly via notices, welfare committees, SMS platforms and service charters. High illiteracy levels among the beneficiaries were cited as a barrier to accessing some of those platforms or communication channels. The respondents expected regular community dialogue days (barazas), clear channels for feedback and complaints, accessible NHIF service
desk or offices to handle complaints and outreach services by NHIF to register beneficiaries.

There was no harmonized key performance indicator among the four implementers/stakeholders. The commonest indicator quoted by the managers interviewed was health insurance coverage and service utilization rate. The implementers had their own different information management systems for reporting and monitoring performance. The systems were not integrated and status reports and/or utilization were not freely shared among the stakeholders unless on request. Cases of beneficiaries’ names missing on one information management system and being found on another system were commonly cited. From FGDs some respondents quoted cases of beneficiaries of social assistance in one of the programmes missing an NHIF card or not being enrolled to NHIF.

No minutes, reports or evidence of joint planning, supervision and coordination were shared among the various actors. Collaboration was evident at initiation stages of the programme, i.e. during recruitment and registration of members. Thereafter the level of cooperation diminished or was non-existent among the stakeholders. The county director of medical services described the relationship between NHIF and County MOH as merely transactional between provider and purchaser. Multiple coordination organs existed and none was fully inclusive of all key stakeholders. Turkana county gender and child protection networks comprised of representation from MOE, law enforcement authorities, children’s department, social services, birth and registration department and youth and gender departments. Constituency social assistance committees comprised of representation from social services, children’s department and N.G.O advocacy partners (such as UNICEF). Both the sub-county children’s officer and the social development officer narrated and corroborated this information.

Managers of respective social protection programmes interviewed through the IDIs highlighted some of the challenges experienced during implementation of the HISP:

- Geographical challenges - vast area, sparsely populated and long distances between facilities, poor access roads;
- Poor infrastructure and low network connectivity;
- Low enrolment of health facilities by NHIF;
- Poor coordination of stakeholders during implementation;

27
• Limited engagement, communication with beneficiaries especially feedback and management of complaints; and
• Nomadic lifestyle of majority of the beneficiaries, which makes it difficult to access and engage with beneficiaries on utilization of services from designated facilities.
CHAPTER FIVE: DISCUSSION

The objective of this study was to determine factors that affect access and utilization of services by the beneficiaries of the SHI scheme for the poor. In addition, this study aimed at assessing the effectiveness of SHI programme and health systems in improving utilization of healthcare by the targeted groups - vulnerable poor, older persons aged over 60 years, severely disabled and OVC.

It is evident from this study that demographic characteristics (demand and enabling factors), health system (supply factors) and programme design (government policy, regulation and coordination) affect the utilization of healthcare as well as satisfaction by the beneficiaries of SHI schemes. Demand factors include proportion of households registered, size of household, burden of illness and status of enrolment in the scheme. Supply factors include availability and continuity of services, quality of services and distance from facility of obtaining care.

Population characteristics
The common demographic characteristic of a beneficiary of this scheme was female (93%) aged over 46 years, with no formal education, married with one or two children in a household with more than five people; and living within 5 kilometres from an NHIF enrolled health facility. Most of the households involved in the study did not have a person who was severely disabled (66.9%) or older people over 60 years (54%).

The high dominance of the female gender of correspondents may pose a bias in response due to lack of heterogeneity. The high illiteracy levels are likely to affect health-seeking behaviour as pointed out by a study done in Indonesia (Quimbo, 2008) that noted correlation between a mother’s level of education and utilization of services, mainly maternal and child health services. Distance to health facilities is an important factor of accessibility of healthcare especially to the vulnerable targeted groups such as older people, severely disabled and children.

Deliberate efforts and targeting needs to be done in order to improve the proportion of disabled beneficiaries enrolled in the HISP scheme in order to achieve aspirations of the Kenya social protection policy and national values of inclusion and equity.
Access and utilization of services
Overall, at least one-fifth (18.7%) of the respondents reported that a household
member had been ill during the 4 weeks preceding the survey; of these 82.7%
reported having visited a health facility and consulted a healthcare provider. This
compares favourably with findings of Kenya Household Health Expenditure and
Utilization Survey (KHHEUS, 2013) that put the incidence of illness and hospital
visits at 19% and 87.3%, respectively. The average number of visits to a health
provider (utilization rate) per capita, per year was 0.3. This is too low compared to
national average utilization rate of 3.1 visits per capita per year (KHHEUS, 2013).
This could be a reflection of health system characteristics in Turkana County more
generally, such as low enrolment of health facilities, perceived poor quality of
services, poor health seeking behaviour or low proportion of the total population with
some form of insurance coverage, 3% (KHHEUS, 2013). It is notable that the HISP
covers 165 (0.46%) out of the 35,336 HHs in Turkana Central sub-County.

The bivariate analysis done to assess any association between those accessing
hospital (had a visit) versus those who did not visit the hospital, across different
demographic variables revealed mixed results. There was no significant difference in
access by gender, age, level of education and marriage status. This could be further
be undermined by bias due to homogeneity of respondents (female gender). It also
contradicts a previous survey (KHHEUS, 2013) that noted positive correlation
between utilization of outpatient services with age (children under 5 years and elderly
over 65 years) and female gender. The findings showed significant difference in
access (health facility visit versus not visiting health facility) between those reporting
incidence of illness and year of enrolment into programme and size of household.
This is particularly important in the context of registering all household members into
the social health insurance scheme, including those in polygamous families, foster
care, etc. According to the management of NHIF interviewed, polygamous families
were treated as separate if the primary beneficiary was male head of household.

Generally, the elimination of direct costs through subsidization by HISP has the
potential to improve utilization of health services as evidenced by high rates of
hospital visits (82%). However, health delivery factors such as stock out of drugs,
distances to health facilities and availability of human resources need to be
addressed in line with provision of a subsidized SHI.
Customer satisfaction
Most households rated their experience as good (3.4) although they expressed concerns over courtesy and empathy of the staff as well as quality of services at the health facilities. This corroborates findings from a study done on customer satisfaction of beneficiaries of SHI schemes in developing countries (Ibiwoye, 2007). However, high levels of illiteracy among respondents, cultural beliefs and practices may affect respondents’ perceptions about quality of services offered.

Programme design, characteristics and effectiveness
Deliberate programme targeting of beneficiaries, public participation and relations as well as inter-sectoral coordination are important in how effectively and efficiently the SHI schemes are able to address the challenges of access and utilization. Primary health care pillars of infrastructure, human resource and health products (commodities) need to be in place so that health financing, in this case SHI, can accelerate gains in access and utilization of services. Stock out of drugs, unavailability of certain essential services, poor infrastructure and shortage of human resources undermine access to health care.

Enrolment into the scheme is cumbersome and excludes some populations, most probably unintentionally. The mandatory requirements for some documents may be necessary but has the effect of excluding some marginalized population where obtaining such documents is complex. This includes pastoralist communities, cross-border populations, orphaned children as a result of violent conflicts such as cattle rustling, etc.

Design of SHI needs to consider local cultural contexts of the beneficiaries for it to be acceptable. Cultural practices like polygamy, extended family or foster care are common in some communities in Kenya. Decisions on beneficiaries’ inclusion or exclusion criteria should therefore take into consideration these factors otherwise it may disenfranchise some family units. It would in some cases compromise the issue of acceptability and hence uptake of such programs.

Currently, HISP is covering a small percentage of the total population in Turkana Central sub-County (0.46%). Effective coverage is required for any meaningful impact in terms of access or utilization of services.
Coordination of all sectors involved in the implementation of HISP is irregular and scanty at county level. Information management systems need to be integrated. Stakeholder planning needs to be joint or synchronize to ensure synergy in delivery of results and also to avoid errors associated with duplication and lack of coordination.
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

The ultimate goal of UHC is to ensure everyone, regardless of socio-economic status, can access quality and affordable comprehensive healthcare - curative, preventive and rehabilitative. The problems of access and equity have been major challenges in the quest towards attainment of UHC. The main objective of SHI is to ensure all population groups irrespective of socio-economic status access to quality and affordable comprehensive care.

The overall low rate of utilization of healthcare in the study area can be attributed to demand and supply factors that affect access as well as system inefficiencies. These include size of household, low awareness, burden of illness, poor health seeking behaviour, low quality of care, availability and continuity of service. Government policies, such as regulation and setting standards for enrolment of facilities may affect access to health services as it puts weight on quality of services over availability and access to care. Inter-sectoral cooperation and stakeholder involvement are also key in ensuring better utilization of healthcare by the beneficiaries.

Continuous advocacy, communication and social mobilization of beneficiaries are required to create awareness and demand for services. This should be accompanied by deliberate targeting of specific population groups in line with the communities’ lifestyle and cultural practices.

Health providers need to ensure availability of quality services as envisaged in Kenya quality model for health. The perennial problem of shortage of commodities such as drugs should be addressed through resource allocation, better panning and efficient supply chain in counties. This will require sufficient financing of primary health care in Kenya. The Priority of all these interventions should be to strengthen health systems and promote primary health care.

For UHC to be a success, a crucial pool of the population has to be covered for any meaningful impact to be realized. In the same regard, large proportion of facilities should be enrolled to NHIF panel to facilitate better access by beneficiaries by reducing distances travelled. Access should be prioritized over quality of services and meeting standards of regulatory or implementing institutions such as NHIF. Thereafter and in phases quality of services can be focussed on and improved. This
could be limited by availability of resources.

The local content or ways of life of beneficiaries need to be considered during design of SHI schemes. Cultural practices and beliefs affect perception and acceptability of SHI schemes. This will sort out the issue of exclusion of marginalized groups or some members of society in total disregard of their cultural practices such as polygamy, extended families etc.

Coordination of government entities involved in delivery of the subsidized social health insurance needs to be enhanced to create synergy and leverage on resources at the county level. Joint meetings, joint supervision and sharing of information needs to be regularized. Stakeholder meetings also need to scheduled consistently to address any emerging issues as well as to provide feedback.

These findings have policy implications as regards future design and implementation of SHI schemes. It has been recognized that a major challenge in the design of health insurance arrangements in developing countries is how to ensure that the poor or indigents are included in these financing arrangements, that they are afforded the same benefits from health insurance coverage as the non-poor, and can access health care when they need it. A better health-financing model needs to be employed to ensure inclusivity and equity in access to healthcare and at the same time distributing fairly the financial burden involved. It is widely accepted that prepayment healthcare financing arrangements provide greater financial protection, promote equity and efficiency in the health systems and are preferable to out-of-pocket health care financing (WHO, 2000). Perhaps this would be the ideal time to introduce amendments to NHIF act to widen health insurance coverage, and also ensure a comprehensive health financing policy is in place.

**Study limitations**

This study did not assess health outcomes and/or direct out-of-pocket payments. In addition, it did not compare utilization of healthcare between those insured and those without insurance cover. The study was also conducted in one sub-County therefore the results cannot be generalized for the whole country.
APPENDIX A: CONSENT FORM

STRATHMORE UNIVERSITY
CONSENT FORM
Researcher: Dr NELSON LOLOS

PROPOSAL TITLE: ASSESSING FACTORS INFLUENCING THE UPTAKE OF
THE HEALTH INSURANCE SUBSIDY PROGRAM: A CASE OF TURKANA
CENTRAL SUB-COUNTY IN KENYA

Dear study participant

My name is……………………………………… I would like to request you to
participate in a research study on “assessing factors influencing the uptake of the
health insurance subsidy for the poor: a case of Turkana central sub-county in
Kenya”
This study is necessary because it will inform policy on better future implementation
of social health insurance schemes in Kenya.

Risks and Benefits
There is no risk involved in this study this is because you will only be asked to
answer some questions from a questionnaire. The benefit of this study is that the
results will facilitate the development of strategies on ways of effectively
implementing the program in Turkana County.

Time involvement
The questionnaire has about 16 questions and it will take about 20 minutes of your
time may be needed.

Participant’s rights
Participation of this study is voluntary and whatever will be discussed shall remain
confidential

Indicate yes or no. I give consent to participate in this study.

Yes…………No…………………
APPENDIX B: QUESTIONNAIRE

(To be administered to a household representative member aged 18 years and above)

A: BIODATA

1) Gender of the respondent?

Male [   ] Female [   ]

2) What is your age?

18-25 years [   ] 26-35 years [   ] 36-45 years [   ] 46 years and above [   ]

3) What is your marital status

Married [   ] Separated [   ] Divorced [   ] Single [   ]

4) What is your highest level of education?

Primary school [   ] Secondary school [   ] Tertiary college [   ]
University [   ] None [   ]

5) How many people live in this household?

One [   ] Two [   ] Three [   ] Four [   ] Five [   ]
More than Five [   ]

6) How many children under 5 years live in this household?

None [   ] One [   ] Two [   ] Three [   ] More than three [   ]

7) How many persons live in this household who are severely disabled? (that is those who need to be cared for)
None [ ] One [ ] Two [ ] Three [ ] More than three [ ]

8) How many elderly people live here? (60 years +, which is the target of social protection)

None [ ] One [ ] Two [ ] Three [ ] More than three [ ]

B: UTILIZATION OF HEALTH CARE

9) When was your household enrolled in HISP?

Less than one year ago [ ] One year ago [ ] Two years ago [ ] More than three years ago [ ]

10) What is the approximate distance to the facility where care is sought by most of the household members?

0-5km [ ] 6-10km [ ] 11-15km [ ] more than 15km [ ]

11) How many hospital visits were made by you or any member of this household (who is enrolled to the HISP) in the past 4 weeks?

None [ ] One [ ] Two [ ] Three [ ] Four [ ] Five [ ]
More than Five [ ]

12) How many people in the household were sick in the past 4 weeks but did not seek healthcare?

None [ ] One [ ] Two [ ] Three [ ] More than three [ ]

If any, what was the reason for not seeking help?

Self medication [ ]
Long distance to providers [ ]
Poor quality of services [ ]
Religious or cultural reasons [ ]
Considered illness not serious [ ]
Fear of discovering serious illness [ ]
Lack of money/Hidden costs of care [ ]
Other reasons, specify ________________________________

13) What benefits have you enjoyed from the HISP programme?

Out patient services [ ] in-patient services [ ] surgical services [ ]
Others [ ]

C: CUSTOMER EXPERIENCE AND SATISFACTION

14) What is your expectation in terms of variety of services to be offered at the health facilities?

15) In a scale of 1-5, How satisfied are you with the following;

Where;
Excellent [5]
Very good [4]
Good [3]
Fair [2]
Poor [1]

a) Health workers responsiveness [ ]
b) Knowledge and courtesy of health facility staff [ ]
c) Physical infrastructure, cleanliness of the health facilities [ ]
d) Empathy (caring, individual attention) of health staff at the facility [ ]
e) Reliability and availability of health workers at the health facility [ ]

16) How would you rate the HISP programme in this community?

a) Excellent [5]
b) Very good [4]
c) Good [3]
d) Fair [2]
e) Poor [1]
APPENDIX C: FOCUS GROUP DISCUSSION GUIDE

BENEFICIARIES OF HISP

Introduction
Hello. My name is _______________. I am a Master’s (MBA Healthcare management) student at Strathmore University. I am here to conduct a research study to “assessing factors influencing the uptake of the health insurance subsidy Program: a case of Turkana central sub-county in Kenya”.

We think the best way to study this is to talk beneficiaries of the program. You were selected for this discussion because your views are important.

Your participation in this discussion is voluntary. So let me tell you a little about the research study so you can make a decision whether to participate. If you choose not to take part, this will not affect you in any way. [Go to Oral Consent Script].

This discussion will last for about 60 – 90 minutes. Your views are important. So I kindly ask you to share your honest views.

Do you have any questions or thoughts before we start? (If any comments/questions, please address them before you start the discussion).

Icebreaker
Ask about the weather, the area in general or a topical issue at the time of the discussion.

Issues

1) Experience with HISP
Since your household’s enrolment in the project, can you please share with me your views about the programme? Probe on:

- Timely delivery of cards
- Access to information about the programme
- The facilitation to access care
2) **Availability and continuity of services:** What are the factors affecting availability and continuity of health services? Probe on:
   - Essential services (curative, preventive, rehabilitative)
   - Essential medicines stock outs
   - Staff availability at the health facility

3) **Accessibility of health services:** What are the factors affecting accessibility of services? Probe on:
   - Distances to nearest facility
   - Operating hours (opening and closing times) of health facilities
   - Waiting times
   - Delays? Processes? Procedures
   - Health seeking behaviours
   - Economic: non service costs
   - Number of household members enrolled to the programme

4) **Acceptability of health services:** What are the factors affecting acceptability of services? Probe on:
   - Cultural believes and practices
   - Knowledge, attitudes

5) **Client experience and satisfaction:** What are the beneficiaries’ expectations as regarding:
   - Benefits package (comprehensiveness of services in line with KEPH norms)
   - Quality of care
   - Continuity and reliability of services: staff availability
   - Tangibles: physical facilities, equipment, cleanliness
   - Courtesy/empathy of employees
   - Responsiveness and promptness of services

6) **Public participation, Complaints and communications:** what are the mechanisms in place for complaints, feedback and external communication with program implementers (NHIF, Social services, MOH, children department, internal security department)? Probe on:
   - Awareness about the programme
• Complaints and feedback channels
• Involvement: public engagement

7) **Suggested solutions:** What can you suggest as ways of improving access to health services as far as HISP is concerned?

We have come to the end of our discussion, what other views do you have that would inform the success of HISP program?

THANK THE PARTICIPANTS
APPENDIX D: IN-DEPTH INTERVIEW GUIDE

HISP MANAGERS (NHIF, HEALTH, SOCIAL SERVICES, INTERNAL SECURITY AND CHILDREN'S DEPARTMENTS)

Introduction
Hello. My name is _______________. I am a Master's (MBA Healthcare management) student at Strathmore University. I am here to conduct a research study to “assessing factors influencing the uptake of the health insurance subsidy for the poor: a case of Turkana central sub-county in Kenya”. We think the best way to study this is to talk with managers who are involved in implementation of this program. You were selected for this discussion because your views are important.

Your participation in this discussion is voluntary. So let me tell you a little about the research study so you can make a decision whether to participate. If you choose not to take part, this will not affect you in any way. [Go to Oral Consent Script].

This discussion will last for about 60 – 90 minutes. Your views are important. So I kindly ask you to share your honest views.

Do you have any questions or thoughts before we start?
(If any comments/questions, please address them before you start the discussion).

Icebreaker
Ask about the weather, the area in general or a topical issue at the time of the discussion.

Issues

8) Role in implementation of program: What is your role in implementation of HISP? Probe on:
   • Department and its mandate
   • Title
   • Level of involvement
• Role and responsibilities
• Duration in the position

9) **Management’s perception of beneficiary expectation**: What is your view on the of beneficiary’s needs and expectations with regards to the HISP? Probe on:
   • Benefits package (comprehensiveness of services in line with KEPH norms)
   • Quality of care
   • Continuity and reliability of services: staff availability
   • Tangibles: physical facilities, equipment, cleanliness
   • Courtesy/empathy of employees
   • Responsiveness and promptness of services

10) **Access to health services by beneficiaries of the programme**. Probe on:
   • Number of County health facilities under NHIF panel
   • Process for recruitment into the programme? Documents required
   • Number of beneficiaries per household
   • Complementary social protection programmes existing

11) **Programme monitoring and evaluation**: How do you monitor and evaluate the implementation of the HISP program? Probe on:
   • Key performance indicators
   • Health information system? Health facility reports? Any other reporting system
   • Reports: utilization reports, status reports, supervisory reports
   • Program County M&E framework
   • Any challenges faced so far

12) **Programme coordination**: To what extent are you involved in program intersectorial coordination and stakeholders’ management (MOH, NHIF, children’s department, social Services, internal security department)? Probe on:
   • Coordination meetings
   • Joint supervision
   • Joint planning
   • Collaboration in implementation
13) **Beneficiary feedback and communication strategy**: How do you conduct external communication with the beneficiaries? *Probe on each of following:*
   - Complaints management structures: Feedback from beneficiaries
   - Dissemination of information/communication to beneficiaries

14) **The key challenges in implementation of the HISP program**: What do you consider the main challenges so far, in implementation of this programme?

15) **Suggested solutions**: What can you suggest as ways of improving implementation of the HISP program?

   We have come to the end of our discussion, what other views do you have that would inform beneficiaries’ access to health services as pertains this program?

**THANK THE PARTICIPANTS**
APPENDIX E: INTRODUCTION LETTER

Strathmore Business School

Monday, 19 March 2018

To whom it may Concern.

Dear Sir/Madam

RE: INTRODUCTION – DR. NELSON LOLOS

This is to Introduce Dr. Nelson Lolos, admission number MBA HCM/093610/2016 who is an MBA HCM student at Strathmore Business School. As part of our SBS MBA HCM Master’s Program, Dr. Lolos is expected to do applied research and to undertake a project. This is in partial fulfilment of the requirements of the Master of Business Administration. He would like to request for appropriate data from your organization to help him finalize his research.

Dr. Lolos is undertaking a research project on “Factors Affecting Access and Utilization of Healthcare by the Poor in Subsidized Health Insurance Schemes: A Case of Turkana County in Kenya.” The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MBA seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct usefulness to industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest, if not of practical value to your organization.

We very much appreciate your support and we shall be willing to provide any further information if required.

Yours sincerely,

[Signature]

Prof. Gilbert Kokwaro
Director, Institute of Healthcare Management and Academic Director, MBA in Healthcare Management
APPENDIX F: IRB LETTER OF APPROVAL

9th February 2018
Dr Nelson Lodita Lolos
P.O Box 493-30500
Lodwar
Kenya.

Email: lolos.nel@gmail.com

Dear Dr Lolos,

REF Student ID: MBA HCM-93610/18; Protocol ID: SU-IRB 0153/18
Factors Affecting Access and Utilization of Healthcare by the Poor in Subsidized Health Insurance Schemes: A Case of Turkana County in Kenya

We acknowledge receipt of your application documents to the Strathmore University Institutional Ethics Review Committee (SU-IERC) which includes:

1. Study Proposal dated December 2017
2. Participant Information and Consent form dated 24th January 2018
3. Data Collection Tools: Questionnaire Focused group discussion guide and in-depth interview guide dated December 2017
4. CV

The committee has reviewed your application, and your study “Factors Affecting Access and Utilization of Healthcare by the Poor in Subsidized Health Insurance Schemes: A Case of Turkana County in Kenya” has been granted approval.

This approval is valid for one year beginning 9th February 2018 until 8th February 2019.

In case the study extends beyond one year, you are required to seek an extension of the Ethics approval prior to its expiry. You are required to submit any proposed changes to this proposal to SU-IERC for review and approval prior to implementation of any change.

SU-IERC should be notified when your study is complete.

Thank you

Sincerely,

[Signature]
Amina Salim
Regulatory Affairs Fellow
REFERENCES


