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Factors influencing membership uptake of National Hospital Insurance Fund among the poor: a pastoralist' perspective

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Factors influencing membership uptake of National Hospital Insurance Fund among the poor: a pastoralist' perspective

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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 dissertation itself.

John Saitoti Kipaseyia
May, 2016

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DEDICATION

This thesis is dedicated to:

Ann Lurie my sponsor, for giving me the chance to pursue my full measure of academic potential, I'm forever grateful.

AND

To the most beautiful people in my life; my lovely wife Nailepu, my beautiful daughters, Soipan and Naishorua.

ACKNOWLEGMENT

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

I am indebted to my academic supervisor, Dr Robert Karanja for supporting my passion from the beginning and for working out all the behind-the scenes details.

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OPERATIONAL DEFINITIONS OF TERMS

The informal sector This consist of units engaged in the production of goods and services which typically operate at a low level of organization, with little or no division between labour and capital as factors of production and on a small scale with non-existence contractual or labour relations.

Informal employment: This employment relationship is, in law or practice, not subject to labour legislation, income taxation, social protection or entitlement to certain employment benefits.

A pastoralist: is a person who herds livestock and moves with animals from one place to another with the aim to utilize the greener pasture.

NHIF: This is the primary provider of health insurance in Kenya with a mandate to enable all Kenyans to access quality and affordable health services.

Uptake: The number of people who use a service or accept an intervention that is offered where in this study is the NHIF scheme.

ABSTRACT

It's important to address disparities in access to health insurance among marginalized groups in order to accelerate the achievement of Sustainable Development Goals (SDGs) post-2015 and also to identify interventions that will mitigate this situation. The purpose of the study was to establish determinants of uptake of National Hospital Insurance Fund scheme by an informal pastoralist's community in Kenya, which will be of significance to the government of Kenya in formulating and implementing health insurance policy as it gears towards universal health coverage. The target population was the informal sector participants at Olkeri Group Ranch, Kajiado West Constituency in Kajiado County. Descriptive study design was adopted while simple random sampling method was applied to select a representative sample of 246 households in the study population. The data collection tools were questionnaires with both closed and open ended questions which were reviewed, cleaned and coded to minimize errors and enable easy entry and analysis. Statistical Package for Social Sciences (SPSS) version 20 was used to organize the data and carry out statistical analysis. In the findings only 2.3% of respondents were enrolled in NHIF scheme. This study recommends decision makers modify NHIF policies in terms of reviewing payments of health insurance premiums to ensure those who are still excluded due to lack of cash to pay are brought on board by paying premium in kind using their biological assets. The scheme should also tailor its marketing strategies to cater for those with less or no education by conducting information, education and communication campaigns to promote awareness and knowledge of health insurance.

CHAPTER 1: INTRODUCTION

1.1: Importance of health insurance

Social health protection systems are mechanisms that countries use to address the challenges related to providing access to healthcare services to citizens, especially the poorest segment of the population (Abebe, 2013). Yet many poor households in developing countries lack access to mechanisms for pooling risks and suffer health-related poverty in the wake of adverse health shocks (Kusi et al., 2015). In the absence of insurance, a high fraction of medical expenses are borne by households in the form of out-of-pocket payments, and financial constraints are significant barriers to access to healthcare in many low-income countries (Kimani et al., 2012)

The World Health Organization (WHO) views medical fees as a significant obstacle to health care coverage and utilization, and has stated that the only way to reduce reliance on direct payments is for governments to encourage social protection using risk-pooling prepayment approach (Carrin et al., 2010). With social protection schemes such as Social Health Insurance (SHI), people can access health services based on the need and not ability to pay. SHI schemes are also emerging as a global solution for breaking the cycle of poverty and vulnerability to ill health (WHO, 2010).

Therefore, extending access to health care to all segments of the population, including the poor is an important objective of the Kenyan government's national health sector strategic plan and national development agenda as outlined in the Kenya Vision 2030 policy framework (MOH, 2009). Health insurance therefore, protects individuals incurring high costs at time of illness, thereby promoting access to health care, particularly in settings where the government subsidizes premiums for the poor population. Consequently, health insurance is potentially being viewed as a mechanism for overcoming existing health inequities.

1.2: Health Insurance in Kenya

Health insurance in Kenya can be accessed through three health scheme programmes: public health insurance, private insurance firms and to some extent community –based health insurance (CBHI) organizations. Due to cost considerations, private health insurance is predominantly accessible to the middle and higher income groups (Kimani et al., 2014). Community-based health insurance is relatively new in Kenya having been established in 1999, and, as a result, it has limited coverage. According to the Kenya Community- Based Health Financing Association (KCBHFA), currently, there are 38 CBHF schemes, with 100,510 principal members who contribute for a total of 470,550 insured beneficiaries. This is a paltry 1.2% of total Kenyan population (Muiya, 2013).

Kenya has one social health insurance scheme, the National Health Insurance Fund (NHIF); a non-for-profit institution created by an Act of Parliament in 1966 as a department in the Ministry of Health. At inception, NHIF was intended to provide accessible health insurance for salaried public and private sector employees earning a monthly salary of Kshs 1,000 and more (Ministry of Health [MoH], 2014, MoH 2009). Since its inception, however, the NHIF has undergone several changes over the years to include more benefits, target informal sector households, and to introduce outpatient care. In 1998, relevant laws were repealed and replaced by the NHIF Act No. 9 of 199.This led to the transformation of the Fund into an autonomous State Corporation managed by a Board of Management (Natinal Hospital Insurance Fund [NHIF], 2012).

Affiliation to NHIF is according to households and the insurance unit comprises the whole family and dependent relatives. The number of spouses is limited to one, but there is no limit on the number of children and other dependents. It is only the breadwinner who contributes to the scheme. In families where two (or more) members are working and earning own salaries, they all have to pay contributions to NHIF. Entitlement to health care services includes all dependent household members. Children under 18 automatically benefit from NHIF through their parents' affiliation. Children over 18 years must proof their economic dependency through schooling or university certificates.

1.2.1. Uptake of Membership with NHIF

The NHIF is the most widely available voluntary social health insurance in the country, with more than 1200 accredited hospitals across the country, including government, faith-based and private health providers (NHIF, 2012). Nationally, in 2015, NHIF covers approximately 19% of the population translating to 5.2 million principal members, with a majority (about 74%) residing in urban areas.

The recently conducted 2013 Kenya Household Health Expenditure and Utilization Survey (KHHEUS) find health insurance to be associated with wealth status. The population in the richest wealth quantile reported higher coverage (41.5%) compared to those in the poorest quantile (2.9%). Similarly, the same survey reported wide variation in coverage with highest coverage being in Kiambu (34.0%), Nyeri (32.9%), Nairobi (31.9%) and Kericho (31.5%), but was lowest among counties with predominantly pastoral communities e.g. Samburu (6.7%), Turkana (3.0%), and Marsabit (1.8%). The same reported low service utilization particularly among the uninsured. For outpatient services, both insured and uninsured persons reported almost the same number of per capita visits (3.2 and 3.0 visits respectively). However, for inpatient services, the insured had a higher utilization rate (75 admissions per 1,000 population) compared with the uninsured (30 admissions per 1,000 population) demonstrating that in some instances insurance enhances access to healthcare(MoH, 2014)

1.2.2. NHIF Membership by the Informal Sector

In Kenya, the informal sector constitutes 11 million workers of which NHIF covers 6% with health insurance. The rest of the workers have no form of health insurance. According to the Insurance Regulatory Authority (IRA) 2012 report, a major challenge has been integration of the expanding informal sector and inclusion of the poor. The extent of coverage of the informal sector is hindered by low and irregular income, insecure employment, adverse selection as membership is voluntary and the traditional insurance products which are inaccessible by the workers. In addition, health insurance is

mostly restricted to urban sites, where the private formal sector is concentrated, thus not improving geographical access.

A number of studies show that households in the informal rural sector rely on traditional coping responses such as selling assets and informal borrowing to deal with adverse consequences of ill-health (Kimani, Ettarh, Warren, & Bellows, 2014; Macha, Kuwawenaruwa, Makawia, Mtei, & Borghi, 2014). This could be true for the pastoralist community in Olkeri Group Ranch. Thus, SHI becomes a viable strategy to overcome this problem. However, developing effective approaches to Universal Health Coverage for the poor and the informal sector through SHI is still a challenge, particularly in low and middle income countries (Carrin, Mathauer, Xu, & Evans, 2010; World Health Organization, 2010). To tackle these challenges, the government of Kenya needs a clear understanding of factors that determine demand for health insurance among different population groups. Protecting populations with widely accessible NHIF coverage provides an opportunity to plan for ill health by organizing regular payments, making health expenses predictable and affordable. Maximizing enrollment in the NHIF scheme has ripple effects of reducing out-of-pocket expenditure and increase access to legitimate healthcare, thereby helping to improve people's health and wellbeing (Muiya, 2013; Mulupi, Kirigia, & Chuma, 2013).

Previous studies on uptake of health insurance in the NHIF scheme reported that married persons, persons with higher income and persons with higher education were more likely to own health insurance (Mukhwana, Ngaira, & Mutai, 2015). People in the informal sector, unlike the very poor, have some income, although low and irregular, and can therefore, make contributions to benefit from the NHIF scheme. Given that illness and injuries are often unpredictable, people in the informal sector are usually ill prepared to meet the costs associated with health care. A report by the Kenya Household Health Expenditure and Utilization Survey -KHHEUS 2013/2014 National Hospital Insurance Fund (2012) and Ministry of Health (2014) indicated that due to lack of health insurance cover, many people suffer, and are forced either to sell assets to access health services, or forego critical health care or worse still, end up dying from treatable illnesses and injuries. This is dire vulnerability that propels the poverty sequel, increases risks of

mortality for both children and adults, and impairs productivity of able populations. This study sought to look at the cause of low enrolment and participation in the NHIF scheme by the informal sector populations in Olkeri Group Ranch, Kajiado County.

1.3. Statement of the Problem

The informal sector, and particularly in developing countries is characterized by low and non-regular, non-taxed incomes, insecure employment and self-employment without social security (Mukhwana, 2015). It is therefore, difficult to assess the income of this group, on the basis which social security contributions can be deducted (Kimani et al., 2014).

As the Kenyan government makes inroads to accelerate achievement of universal health coverage, the informal sector workers must be considered since most are not covered by health insurance programs (Muiya, 2013). Pastoralists communities' face unique set of challenges to enroll and to remain enroll with the NHIF which was originally designed for more stable, sedentary populations in urban settings. Grazing areas can be far from towns where monthly premium are paid, and frequent movements makes it difficult for households to remain enrolled. Therefore, understanding this unique population needs with regards to how they can be enrolled with NHIF is of paramount importance and particularly if the Kenyan government is to reduce health inequalities and provide access to those excluded from health care by financial reasons.

The objective of this study is to assess the factors associated with participating in the National Hospital Insurance Fund among residents of Olkeri Group Ranch. In addition, this study seeks to determine the proportion of people without health insurance coverage. The findings from this study will provide important evidence to transform NHIF to grant all population groups, including the poor, access to quality and affordable health care services.

1.3.1. Overall Objective

The purpose of the study was to assess determinants of uptake of National Hospital Insurance Fund scheme by a pastoralist community in Kenya.

1.3.2. Specific Objective

i. Estimate the health insurance coverage of a representative sample in Olkeri group ranch
ii. To establish how accessibility influences uptake of NHIF among residents of Olkeri Group Ranch
iii. Assess whether awareness of NHIF benefits affects uptake of the scheme among residents of Olkeri Group Ranch
iv. To assess the influence of gender perspective in decision making at the household level on uptake of NHIF.

1.4: Research Questions

i. What is the coverage of health insurance for a representative sample of the poor in Olkeri group ranch?
ii. To what extent does accessibility (knowledge of NHIF enrollment office) to NHIF outlets affects the uptake of the scheme within the target population?
iii. How does awareness of NHIF benefits affect its uptake within the target population?
iv. What individual, family and social factors are associated with uptake of NHIF?

1.5. Significance of Study

The findings of the study have both theoretical and practical implications for the future of the informal sector in Kenya. Theoretically, the study is expected to contribute to advancement of knowledge about the informal sector to the government of Kenya as it is in the process of implementing a universal social health insurance scheme (Carrin et al., 2010)

Practically the findings will lead to better understanding of factors associated with participation in the current National Hospital Insurance Fund (NHIF), particularly among

the pastoralist community who are found in the informal sector and will also determine the proportion of individuals without access to health insurance among this demographic group and lead to the development of specific intervention mechanisms including project and programme design that will enable them to fully participate in the scheme.

1.6: Scope of the Study

The aim of the study is to assess factors affecting the uptake of NHIF scheme and focused on those operating in the informal sector of a pastoralist's community in Olkeri Group Ranch, Kajiado County, Kenya.

CHAPTER 2: LITERATURE REVIEW

2.1: Health Insurance in Kenya

In Kenya, more than four out of ten (46.6%) of individuals live below the poverty line (KNBS & ICF Macro, 2010). Data from the national health accounts show that more than a third of the poor who were ill did not seek care compared to only 15% of the rich(MoH, 2014). Additionally, according to 2013/14 national health accounts, 36% of the funds to the health sector came from households and out of these, out-of-pocket expenditure accounted for more than 29% (MOH, 2010). When households' direct out-of-pocket health expenditures exceed the households ability to pay based on a standard threshold (for example, health spending accounts for 40% or more of total non-food household spending), this is referred to as catastrophic health expenditure which can result to household impoverishment through sale of assets and diversion of their merger income into health care services (Vellakkal, 2013).

While 17 per cent of Kenyans reported having some form of insurance in the KHHEUS (2013), coverage in the lowest wealth quintile was only three per cent. The Fin Access survey 2013 found that only 29 per cent of urban and 11 per cent of rural adults had any kind of insurance, with health cover from the National Hospital Insurance Fund (NHIF) being the most prevalent (Ministry of Health [MoH], 2014).These findings raise concern about equity and financial accessibility to health care by a majority of people in Kenya, particularly the poor who are highly vulnerable to economic shocks that result from catastrophic out-of-pocket health expenditure. Existing studies show that the poor are more likely to get sick, less likely to use preventive and curative healthcare, and consequently, have higher mortality rates. According to these studies, one of the factors responsible for these challenges is high out-of-pocket payments for health care

2.2: Empirical Literature Review

2.1.1: Barriers to Social Health Insurance Enrolment and Retention

A significant body of literature has identified arrange of barriers and determinants known to influence decisions to enroll with social health insurance schemes. According to Ahuja and Jutting (2008), participation can actually be boosted through the manipulation of institutional rigidities such as credit constraints. To them appropriate public interventions are necessary to generate demand for insurance. They saw easing credit as a way out, and their study emphasized the importance of the poor having appropriate saving and borrowing instruments. These sentiments may be closely related to those raised by (Sparrow, Suryadi, & Widyanti, 2010). Their study focused on the Indonesian case in which the introduction of subsidies was an important step towards meeting Indonesia's ambition for universal health insurance. Public health insurance was seen to improve access to health care through increasing utilization of outpatient health care among the poor (Durairaj, D'Almeida, & Kirigia, 2010; Jutting (2003)

Other scholars have attributed the uptake of health insurance to the consumer's risk assessment. For instance Giesbert (2010) conducted a study that sought to estimate the cross sectional determinants of households' decisions to take up a micro life insurance. He used survey data, and evidence from the study suggested an outstanding role of trust and social networks for the probability of purchasing a micro life insurance. He attributed this to the strongly negative association of the idiosyncratic risk assessment within the household, with the uptake of micro life insurance and underlined that households view the micro insurance policy itself as a risky option. In this respect the major determinants of participation in health insurance would be the prospect variability of risk and initial wealth.

According to Jutting (2003), household income, religion, village characteristics and ethnicity exerted the strongest influence on the probability of participation in community based health insurance schemes in rural Senegal. He noted that whilst the schemes reached the poor in general, the poorest of the poor within the villages found participation

financially difficult. He again noted the persistence of social exclusion due to religion or ethnic groups.

Sikhosana (2005) tends to allude to government policy as a key determinant of health insurance participation. He notes that in 2001, Mozambique, Zambia, Tanzania, South Africa and Zimbabwe had developed proposals to introduce compulsory health insurance schemes. Thus where participation is a matter of policy, then it is normal that the level of participation is higher compared to situations in which there is no compulsory government policy regarding health insurance schemes. Sikosana (2005) again discusses the implications of the existence of publicly provided health services on health insurance especially where they are provided for free at the point of delivery. In such cases willingness to pay for health insurance is likely to be compromised, and so participation in health insurance is expected to be low.

Other studies explored premium charged as a barrier to enrolment or retention in health insurance schemes (Abebe, 2013; Odeyemi & Nixon, 2013; Mathaeur, Schmidt, & Wenyaa, 2008). For instance, in a review of the impact of mutual health organizations in West Africa, Jehu-Appiah, et al. (2011) report that premium payments can be unaffordable to many household even when small and can therefore be a major barrier to enrolment. Findings from another study in Burkina Faso suggested that the low demand for community-based insurance may be due to institutional rigidities rather than poverty per se (De Allegri, Sanon, & Sauerborn, 2006).

Empirical studies in Kenya show that households in the informal rural sector rely on traditional coping responses such as selling of assets and informal borrowings to deal with adverse consequences of ill-health (Muiya, 2013; Mulupi, Kirigia, & Chuma, 2013). A related NHIF uptake study reported that married persons, persons with higher income and persons with higher education were more likely to own health insurance (Chuma & Maina, 2012; Kimani, et al., 2012). Given that illness and injuries are often unpredictable, people in the informal sector are usually ill prepared to meet costs associated with healthcare. A report by Kenya Household Health Expenditure and

Utilization Survey (KHHEUS) indicated that due to lack of health insurance cover, many people suffer, and are forced either to sell assets to access health services, or forego critical health care or worse still, end up dying from treatable illness and injuries. This vicious cycle propels poor households to destitution and thereby increases the risks of mortality for both children and adults, and impairs productivity of able population (MoH, 2007; MoH, 2014).

According to Jehu-Appiah *et al.,* (2012) it's important for policy makers to recognize household perceptions related to providers, schemes and community attributes as they act as enablers or barriers in their decisions to voluntarily enroll and remain enrolled in an insurance scheme (Jehu-Appiah, et al, 2011) . A study in Ghana by Arhinful (2003) on National Hospital Insurance Fund showed that both the insured and uninsured populations held positive perceptions on the benefits of the scheme which included economic, psychological and social benefit of insurance. But Jehu-Appiah (2012) indicated that those who are uninsured and were previously insured were less positive on the schemes benefits and concluded that this may be associated with their decision not to enroll and renew membership and recommended further qualitative research to explain the phenomena.

2.4: Research Gap

There is a lot of literature on Community Health Insurance and Private insurance around the world in comparison to Social Health Insurance which many countries especially in the developing world are in the process of implementing. Universal coverage involves among other things ensuring that health care benefits are distributed on the basis of need for care and not on ability to pay. However, the current NHIF coverage for the informal sector accounts for approximately 5%. The objective of universal coverage for this target population seems unlikely to be achieved. No studies have assessed the health insurance coverage and factors influencing membership among the pastoralist Maasai community. Understanding the extent to which health care benefits are distributed on the basis of need for care is thus an important policy question, which health systems should aim to address

2:5: Conceptual Framework

The conceptual framework in this study contributed in identifying the different variables being assessed, their relationship and how they are linked to the research question and problem statement.

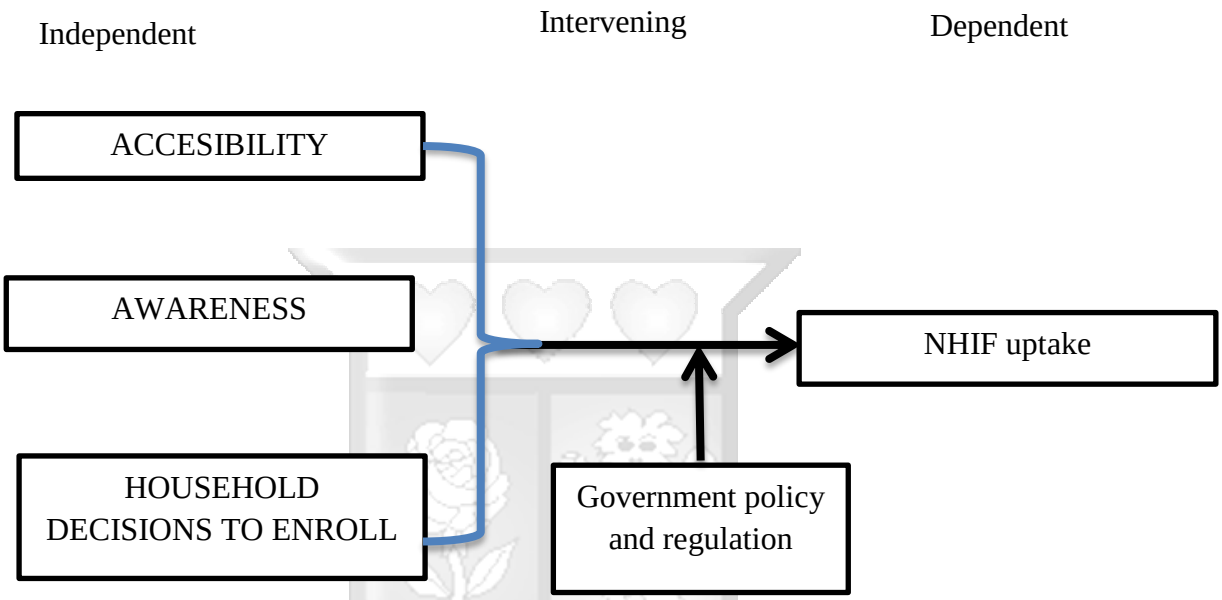


Figure 2.1: Conceptual framework

Figure 2.1 illustrates factors that influence the uptake of NHIF among the informal sector and which may act as enhancers or barriers. These factors include household decisions to enroll, awareness and knowledge on the existence and importance of health insurance, access to paying points for the service and how one perceives their own risk in relation to the perceived benefits of the insurance products.

The first column shows some of the determinants of uptake of NHIF which in relation to the factors in the second column which include government legislature and policies in view of economic, political, demographic and socio-cultural conditions, influence the uptake and utilization of NHIF scheme leading to favorable outcome to those in the informal sector in terms of improved health status, increase in labor productivity and reduced out of pocket expenditure.

CHAPTER 3: RESEARCH METHODOLOGY

3.1: Introduction

This section considered various techniques and methods that were used in collecting and analyzing data. The chapter provides the research design that was employed, the target population, sampling and sampling design that was to be done. It also provides the techniques that were to be used to collect data, the instruments as well as the data analysis design.

3.2: Study Design

The core of this study is a cross-sectional survey of pastoralist households in Olkeri group ranch to assess the factors summarized in Figure 3.1. The sampling design, questionnaire design and other methods for each objective are described below.

3.2.1. Data Collection Method

Health insurance coverage was estimated based on the list of insured and uninsured household using Olkeri group ranch register. Data on health insurance involvement were collected from interviews using a simple random sample of the population in the study site in order to identify the coverage rate. The interviews ascertained information on the type and extent of insurance, socio-demographic data about the respondent and the household and individual understanding of health insurance and its perceived benefits and costs.

3.2.2: Sampling

The intended sampling size for this study was 246 households who could have potentially used health services in the past 6 months. The sample size was based on a combination of an estimation of the power of the study to detect important differences and the practical limitations of time and of the cost of recruitment

Power Estimates

Prior research indicates that one of the most important factors in decisions about health insurance is knowledge of health insurance and its benefits. For the purposes of estimating sample size this study assumed that those with knowledge of health insurance were at least 2 times as likely to be involved in a health insurance program as those without knowledge of health insurance. This assumption was based on a study that found that the rate of the people with knowledge of health insurance but without insurance card was 30%

The sample size required to detect a statistically significant (95% level) was estimated using the following formula;

$$n = \frac{z^2 \times p(1-p)}{d^2}$$

Where:

z = z value (e.g. 1.96 for 95% confidence interval)

p= population proportion, assumed to be 0.5

d =confidence level(margin of error

for this study:

$$n=\frac{1.96^2 * 0.5(1-0.15)}{0.05^2}$$

=384

Correction for finite population

New sample size $=\frac{n}{1+\frac{n-1}{N}}$

Where: n=sample size

N=Total population.

$$n = \frac{384}{1+\frac{384-1}{685}}$$

n =246

Therefore a good sample is of size 246

Proportional allocation of sample size

The proportional household allocation per village as shown in Table 1 below was calculated with the formula below;

$n_i = \frac{N_i}{N} \cdot n$

Where N=Total population i.e. N=$N_{1+}N_2$+…

N_i=The total population in the i^{th} stratum.

n_i=the sample size in the i^{th} stratum (in each village)

n=sample size

Table 3.1: Distribution of Sample Size

Village	**Total number of HH**	**Sampled size**
Karaanja	81	29
Ololepo	64	23
Ilparakuo	107	38
Oyarata	71	26
Murantawua	137	49
Naikishomi	47	17
Olashaiki	59	21
Luanat	89	32
Naipeya	30	11
TOTALS	685	246

Source (survey data, 2016)

3.2.3. Study Site

The study was conducted in Olkeri Group Ranch, Kajiado West constituency within Kajiado County. Olkeri Group Ranch covers an area of 39,000 hectares with a population of approximately 3000 inhabitants with 685 households. The ranch is predominantly inhabited by the Maasai whose source of livelihood is purely livestock keeping with illiteracy rate of 60%. In addition, it has serious pockets of absolute poverty in which about 45% of the population live below poverty line.

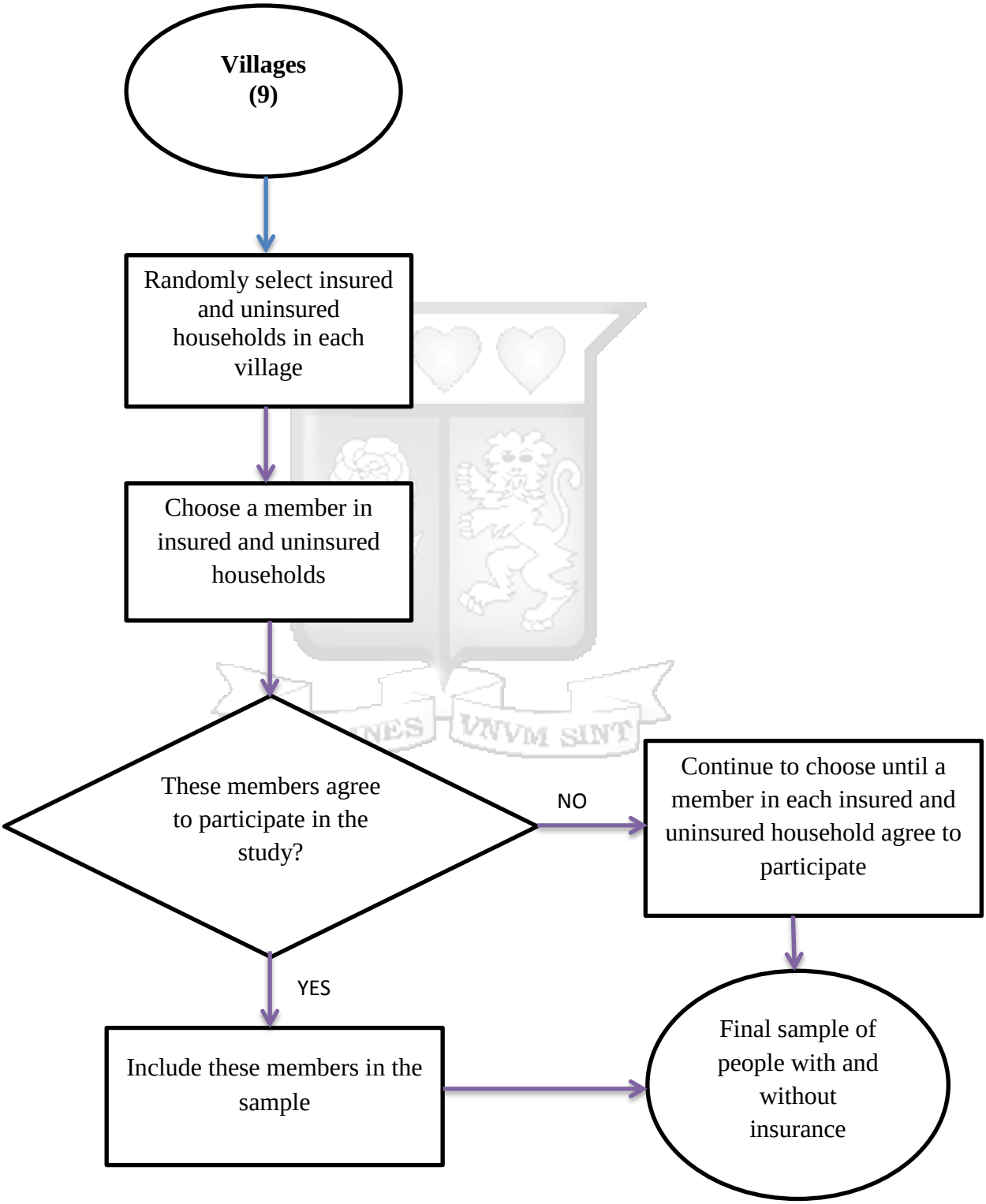
The top nine causes of poor health in Magadi area, according to incidence per 100 persons for year 2009-2010, are , malaria 14/100, diseases of the respiratory tract 13/100, skin diseases 4/100, diarrhea 3/100, eye infection, urinary tract infection and intestinal worms 2/100 persons. Children under five years of age and pregnant mothers are particularly at high risk from malaria, which accounts for 30% and 39% of all out-patient visits respectively (Kenya National Bureau of Statistics, 2010)

3.2.4: Participants Selection

To select participants, multi-level sampling approach was applied:

- Level 1- Villages: A list of 9 villages with 685 households was provided by Olkeri Group Ranch officials. All the 9 villages participated in the research
- Level 2- Households: This study could not have been conducted in all the 685 households due to limited resources and time. However, a representative sample 246 households was selected using simple random sampling as shown in Table 1 below.
- Level 3- in each sampled household, the head of the household was approached to participate. This member would be chosen if he/she agreed to participate in the survey. If he/she did not agree to participate in the survey, the selection of another member would be carried out until a member agreed to survey participation.

Figure 3.1: Flow Chart of Sampling Approach



3.2.5: Research Instruments

A standardized questionnaire was developed to collect data about health insurance coverage, access to NHIF outlets and decision to enroll at household level. The interviews were conducted in the respondents' household by trained interviewers and took about 45 minutes. Interviews were conducted with household heads or a representative such as a spouse. Using this procedure, 152 females and 78 males were interviewed.

3.2.6: Study Interviewers

In this study, the selected interviewers were those who had been working as community health workers within the ranch. These interviewers were skillful, as they had been employed to collect data in several previous studies conducted within Magadi ward. After being employed in this study, they were trained to understand the study objectives and how to ask each survey question. The training involved reading the questionnaire to gain understanding of it and role-playing. After the training, the interviewers also practiced at the study sites to improve their data collection skills. The households where the interviewers practiced were not in the sample. This would help to minimize community sensitization of the study being implemented in the sampled households.

3.2.7: Data Management and Analysis

Primary data was obtained from the head of households using questionnaires. The questionnaires were suitable for this study since it solicited for similar information from the respondents. The researcher distributed and picked the questionnaires after ten days given the nature of the work place. Out of the 246 distributed questionnaires, 230 were successfully returned. This was enough to make appropriate conclusions for the study since it had a return rate of 93% which is more than the recommended percentage (65%)

Secondary data was obtained from libraries, internet, journals, organizational reports, session papers and grey information

3.2.7.1: Data Validity and Reliability

A pilot study was carried out to pretest the research instrument. The questionnaires were pretested with two households from each village. Content validity was used in the study since the questionnaire had contents on demographic characteristics of participants in the pastoralist community, enrollment into NHIF scheme, awareness of benefits of NHIF scheme and access to NHIF outlets. Since all indicators pertaining to this content were challenging to elicit, sampling validity was done. The indicators were sampled and put in the content being tested in the instrument for content validity. The questionnaire was given to two colleagues to assess the concept being measured and to determine whether the set of items accurately represented the concept under study. The responses to the questions were analyzed to find out if the instrument was testing what it intended to test and adjustments carried out accordingly.

3.2.7.2: Data Analysis and Presentation

Once the questionnaires were collected, they were cross checked by the principle investigator for completeness, accuracy and consistency. Statistical Package for Social Sciences (SPSS) version 20 was used to organize the data and carry out statistical analysis. The data were summarized in the form of tables showing descriptive statistics for each variable. Chi-square test and logistic regression analysis was used to assess for statistically significant associations.

3.3: Ethical Considerations

The research followed all the protocols of research which included; authority to collect data from Strathmore University Research and Ethics Department. Permission was also sought from the Olkeri Group Ranch elected officials. During field work, ethical considerations were taken into account. The respondents were assured that the information they provided would be kept confidential. The field visits were adjusted to synchronize with the activities of the participants so that data collection does not interfere

with their household chores. Due respect was paid to community values, attitudes and beliefs during data collection.

CHAPTER FOUR: KEY BARRIERS IN THE UPTAKE OF NHIF MEMBERSHIP AMONG PASTROLIST

4.1. Introduction

The purpose of the study was to find out the determinants of NHIF scheme uptake by the people of Olkeri Group Ranch, Kenya. In order to achieve the goal of the study, the Chapter is organized under variables based on the objectives of the study. The variables include: Uptake of NHIF scheme, households decisions to enroll, awareness of benefits of NHIF scheme and access to NHIF outlets. The study intended to collect information from 246 respondents. However, only 230 respondents participated in the study.

4.2. Demographic Characteristics of Study Sample

In Olkeri Group Ranch, the NHIF coverage is low at 2.17%.The sampled households showed that the uninsured accounted for approximately twice that of the insured. The household characteristics showed that females accounted for slightly more than males (66.09% and 33.91% respectively). Almost all the households had a low education level (81.66%). Most households were individuals in productive ages and were married as shown in table 4.1.

Table 4.1: **Socio-demographic characteristics statistics of the population**

Variable	Category	Frequency	% enrolled in the NHIF scheme	χ^2	p-Value
Gender	Males	78	46.20%	32.087	0.000
	females	152	12.50%		
age(in years)	46+	41	36.60%	8.616	0.005
	36-45	60	23.30%		
	26-35	81	25.90%		
	18-25	48	10.40%		
marital status	divorced	1	0.00%	0.371	0.000
	separated	14	21.40%		
	married	215	24.20%		
level of education	university	0	0.00%		
	college	5	60.00%	7.102	0.066
	secondary	11	45.50%		
	primary	26	23.10%		
	No schooling	187	21.40%		

4.3. NHIF Coverage and Participation

Among the objective of this study was to stablish determinants for participation in the National Hospital Insurance Fund among residents of Olkeri group ranch. In addition, the study aimed at assessing the proportion of people without health insurance coverage. The findings show that a high proportion (97.83%) have no access to any form of health insurance. Only 2.17% of the population was enrolled with NHIF as shown in Figure 3 below. Respondents who were not enrolled in the NHIF scheme were asked to give reasons for non-participation and gave the reasons as presented in figure 4 below. The main reason for non-participation in the NHIF scheme was given as lack of awareness (66.32%), the other reasons given for non-participation were poverty, high premiums and spouse refusal.

Figure 4.1: NHIF Coverage

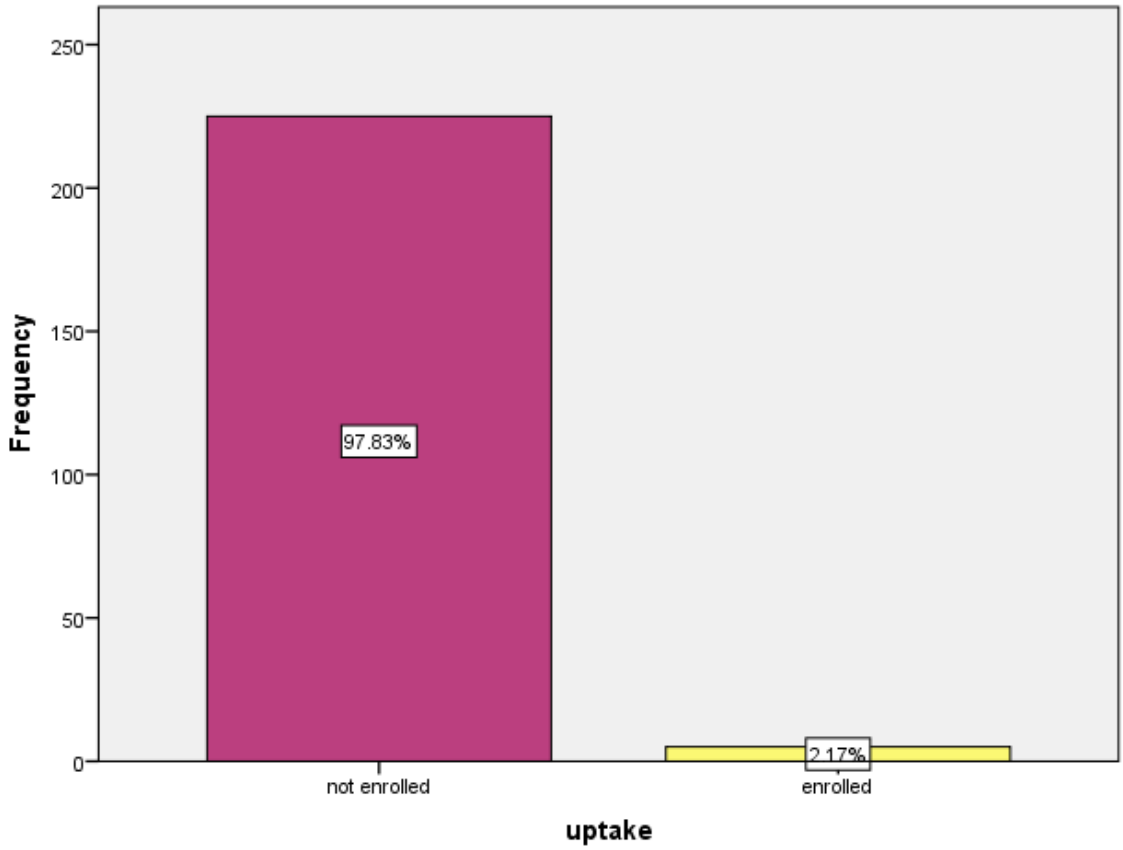
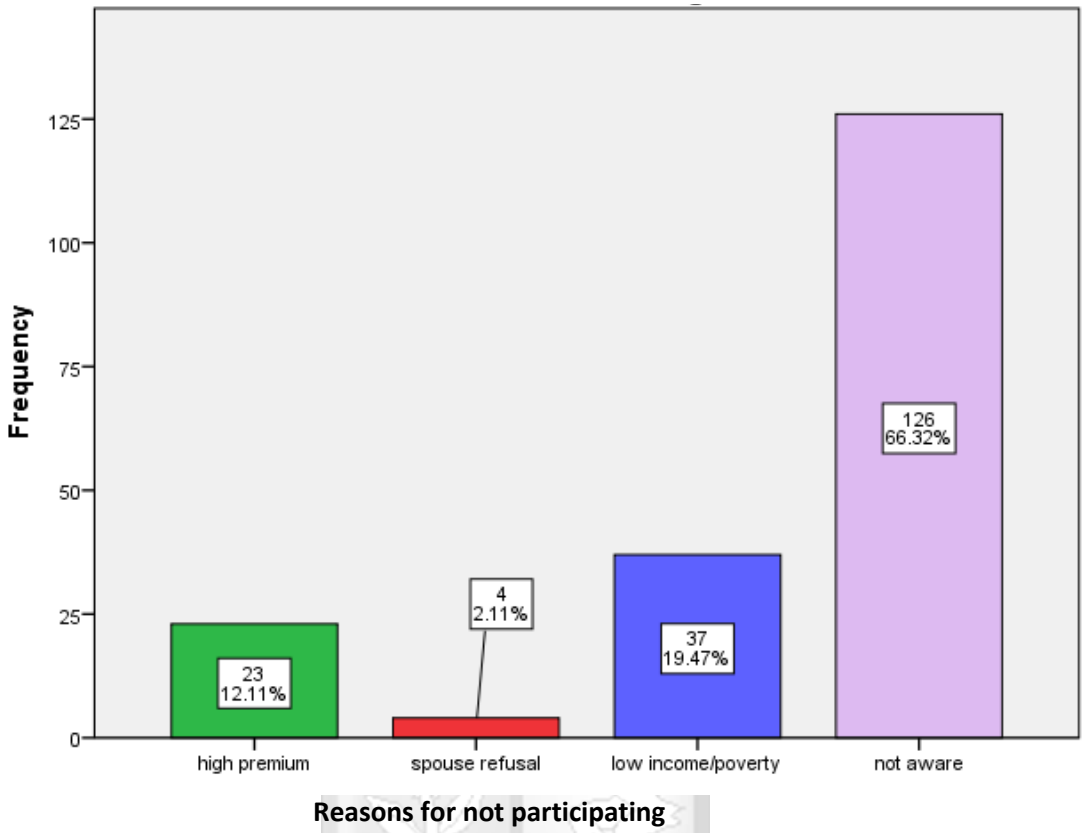


Figure 4.2: Reasons for not enrolling



4.4. Awareness of NHIF Benefits

Respondents were asked if they had ever heard of the NHIF scheme. Almost all (92.6%) the respondents had never heard of the NHIF scheme (Figure 5); however, when the same respondents were asked if they were aware they could participate in the scheme, nearly all (98%) of the respondents thought the scheme was meant for people in permanent employment only.

Even though 10% (10) reported that NHIF covered the contributor and the family members, the rest of the respondents 90% (90) were not aware that the children and spouse can also benefit from the NHIF scheme. Although minority(5% (5) reported that NHIF covered all disease conditions, majority 95% (95) did not know what conditions the NHIF scheme covered, while 4% (4) stated correctly how much the monthly

premiums to NHIF were, 90% (90) didn't know how much were the contributions while 6% (6) quoted the wrong premium

Figure 4.3: Level of awareness

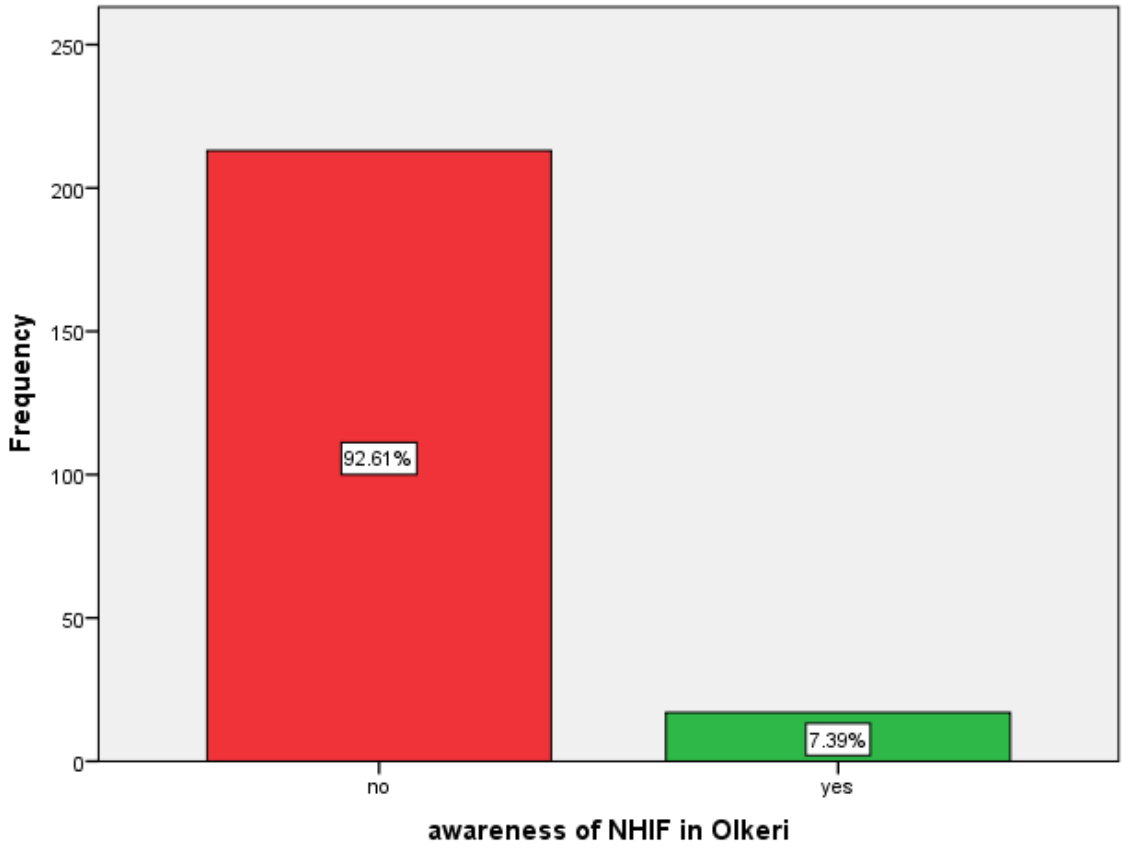
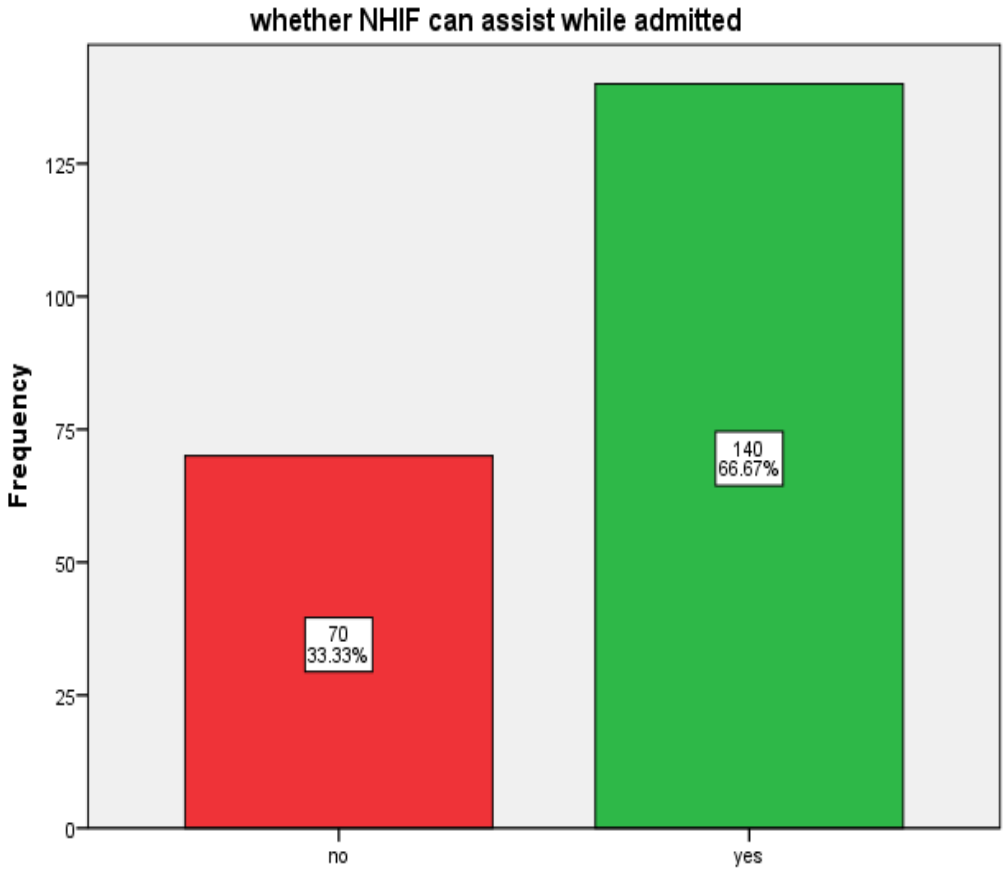


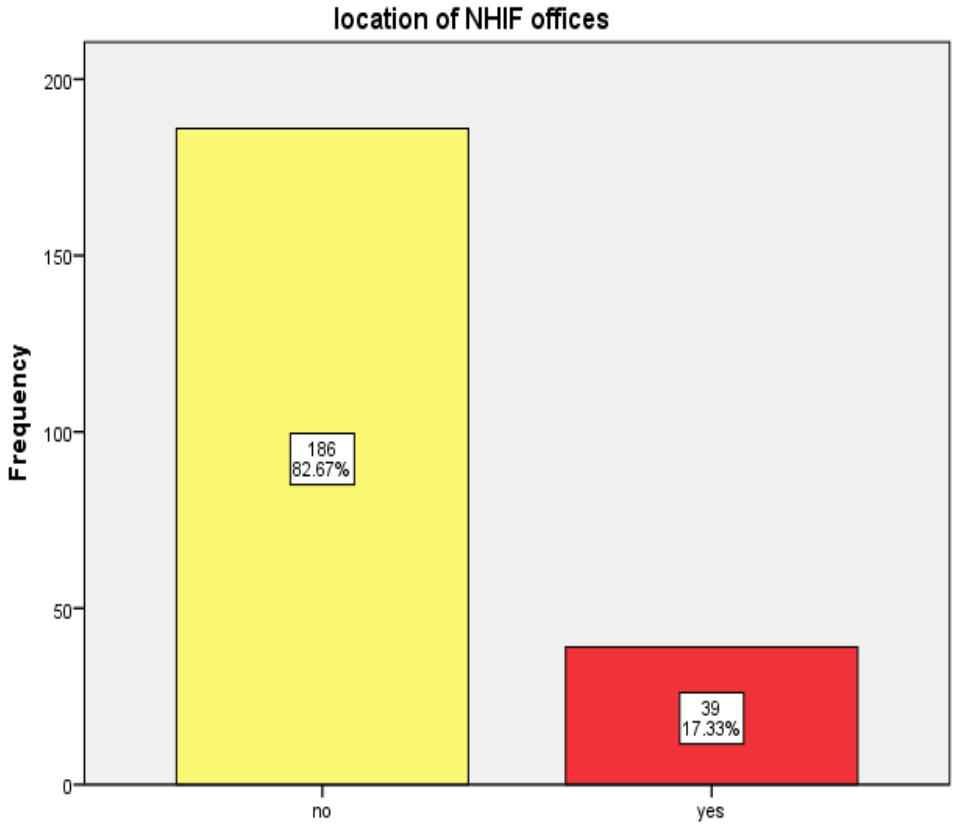
Figure 4.4: Awareness on scheme benefit during admission



4.5. Access to NHIF Outlets

The study sought to assess knowledge of respondents on existence of NHIF offices as this will influence accessibility to enrollment and paying premiums. As illustrated in Figure 7 below, majority (82.6%) of the respondents were not aware of existence of NHIF offices.

Figure 4.5: Knowledge of available NHIF enrolment office



4.3.3 Household Decisions to Enroll

The study sought to determine how decision making at the household level was a determinant of uptake of NHIF scheme.

The association between uptake and the decision maker in the family can be summarized as shown in Figure 8 below

Figure 4.6: Household decision making

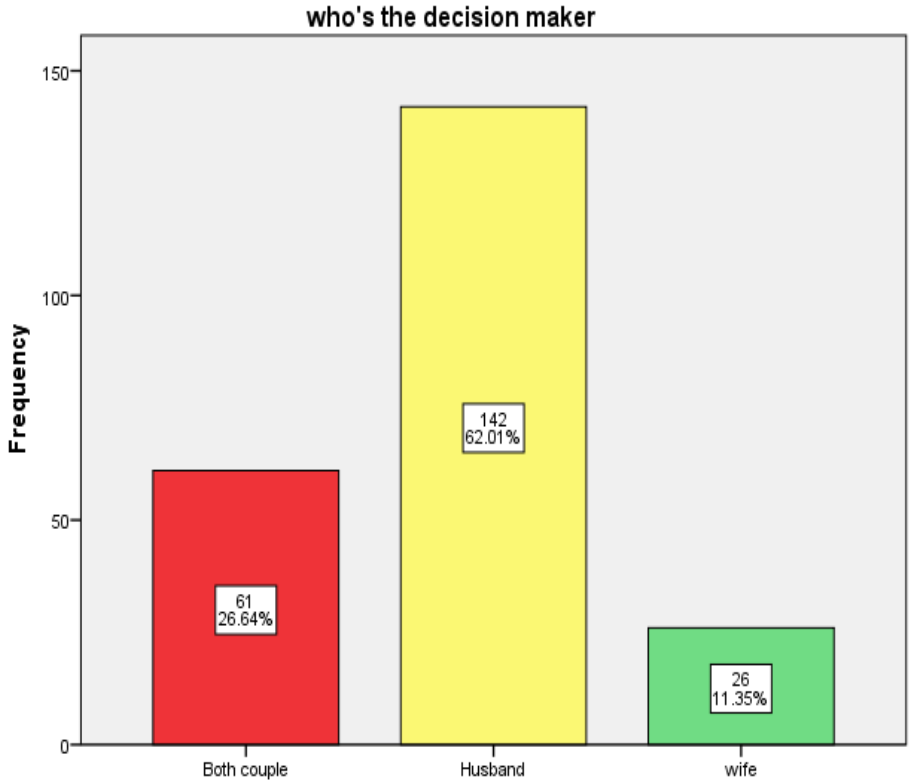


Table 4.2: Cross-Tabulation on Decision Maker in the Family

		who's the decision maker			Total
		Both couple	Husband	wife	
NHIF Uptake	not enrolled	45	105	24	174
	enrolled	16	37	2	55
Total		61	142	26	229

CHAPTER FIVE: DISCUSSION

The objective of this study was to establish factors influencing membership uptake for the National Hospital Insurance Fund among a pastoralist community. In addition, the study aimed at assessing the proportion of people without health coverage. The study established that there is low participation of people in Olkeri Group Ranch in the NHIF scheme with only 2.17% being insured. These impacts negatively on access to health care since majority of households have to rely on out of pocket payment for health services. This finding corroborate evidence from previous studies, which demonstrated that NHIF has not been effective in reaching out to the majority of Kenyans, especially the poor and those in the informal sector (Kimani et al, 2014; Muiya, 2013).

The low participation of the households was attributed to a number of factors, including inaccessibility of NHIF outlets, low literacy levels and lack of awareness about benefits of the scheme, that are not adaptable to people's needs and cultural preferences. These study findings are similar to findings by several other studies (Mukhwana et al., 2015; (Mulupi, et al., 2013) which reported marital status and level of education as major determinants of ownership of health insurance in different study populations.

In the study, gender was significantly associated with uptake of NHIF scheme, where females were significantly more likely not to enroll in NHIF scheme unlike male respondents. This is inconsistent with a study by Kimani *et al* (2012) where females were found to be more likely to participate in health insurance programs (Kimani, et al., 2014). Similarly, evidence from Sri Lanka as pointed out by Bendig & Thankom (2011) show that household's experience of family related shocks as well as level of education of the household head are strong determinants of health insurance participation.

Although Guy et al (2005) pointed out that knowledge alone does not secure enrolment Carrin, et al. (2005) this study suggests that knowledge remains essentially an empowering tool in maintaining high enrolment. For example, the study has pointed out the misunderstanding of the benefits of the NHIF: The few enrolled households complain that they have never benefitted from scheme because they have been well. In a related study on community health fund in Tanzania, the tacit findings were that overall

education and promotion was needed to increase understanding of the benefit of the health fund (Macha, Kuwawenaruwa, Makawia, Mtei, & Borghi, 2014). To increase coverage therefore, information on the scheme has to be disseminated in ways that reaches the less educated to ensure that they understand the benefits of participating in the NHIF scheme. Simple to use information on subscription to the NHIF in mediums such as vernacular radio announcements and tailored made Information Education and Communication (IEC) can be packaged to boost NHIF enrollment. With this hindsight, health policy decisions should therefore, focus on interventions directed at educating marginalized communities in the informal sector on the benefits of subscribing to NHIF scheme. Although NHIF scheme has recently adopted innovative approaches to reduce costs of travel remittance of monthly contributions such as *Mpesa* (Mobile money transfer system), dissemination of such initiatives within the ranch is minimal and needs to be enhanced as this will reduce transactional costs of accessing NHIF offices in Magadi or beyond.

As pointed out in the literature review, social structure has positioned one gender, especially women to be subservient to the other (Line, Sundby, & Chimango, 2006). Undoubtedly, this affects how they are seen as autonomous individuals or dependents of men. From the study, it's the man who wields power and controls not only decision but also resources in the household. Hence, any decision to enroll or not in health insurance must receive authorization from the man and this affects enrolment. The forgoing assertion is supported by a study by Buor (2004) in Ghana on women's access and utilization of health services. In this study, it was revealed that 'in typical rural areas, women were supposed to be subservient to men who dominate decision making'. Buor further argues that 'among some of those in which the agrarian occupation is predominant, the man takes custody of the income from the farm proceeds'. The study concluded that the ability of women to make health decisions and purchase health resources was dependent on the man (Buor & Bream, 2004). As evident in the study, there is need to educate women on the importance of enrolling in NHIF scheme and empower them, since they represent the more vulnerable in the society, where health utilization is concerned, they are the greatest users of health facilities and services, and also being care givers to their children and other members of the household

Community ‘health beliefs and attitudes’, values and knowledge that people have about health and risk sharing concepts of health insurance may influence household decisions and perceptions on need and participation in health insurance, and have been found in other literature to be significant determinant of uptake. Interventions should therefore be geared towards striving to meet people’s expectations of the benefits of NHIF in order to minimize dropouts and attract new members, recognizing that success, or failure in addressing perceptions will have cumulative effect (positive or negative) on enrolment

CHAPTER SIX: CONCLUSION AND RECOMMENDATION

One objective of comprehensive social health insurance is to ensure that all population groups irrespective of their socio-economic status have access to quality and affordable health care. This study has demonstrated that there was very low rate of health insurance coverage and limited understanding of health insurance in the community under study.

The low rate of health insurance coverage indicates there is need to review the current health insurance arrangement. . As the country continues to put mechanisms in place for UHC, it is important that communities are educated and engaged for them to fully understand the importance and how insurance work. At least three strategies need to be considered to increase enrollment in health insurance by the pastoralist communities. First, knowledge levels about health insurance are very low. Information and education campaigns should be developed and is communicated in forms that will be understood by people with low literacy. Second, the insurance premium needs to be reviewed as the study population perceived that the cost of premium was high due to their polygamous nature, a factor that does not feature in the current NHIF policy. For example, NHIF should explore developing two types of membership: individual and family. Family membership should cover all the family members and not restricting to one wife. This strategy will accommodate diverse cultures where polygamy is the norm rather than the exception. Third, implementing a mandatory enrollment may be important for expanding coverage for this group.

The findings from our study have two important policy implications. First, the large proportion of the rural poor without health insurance and the inadequate coverage of the poor by NHIF highlights the need by the government to hasten the move towards social health protection by implementing a mandatory National Social Health Insurance Fund to guarantee access to quality healthcare services for the poor and vulnerable segments of the population, as well as offering protection against financial shocks associated with

high medical costs. The lack of insurance coverage among the rural poor exposes them to heavy financial burden associated with catastrophic out-of-pocket expenditure.

To ensure that the vulnerable and poor have access to health care under the mandatory NHSIF, the government will need to institute targeted subsidies and exemptions aimed at increasing their enrolment.

Secondly, there is need to harness the potential of community-based saving schemes (e.g. Multi-purpose in Magadi) to address existing gaps in healthcare financing and accessibility. The government should strengthen the community-based savings mechanisms and utilize them as platforms for collecting contributions from the community. However, it's important to be cognizant of the fact that not all poor people belong to these community savings and, therefore, in such cases the government should make contributions on their behalf.

The findings of this study suggest the implications for further research, while a focus on those who are able to pay for health insurance is crucial as it demonstrates success and impact, it is equally important to target and support specifically poorer informal sector workers who may not be able to pay any NHIF contributions. The emphasis on a pro-poor approach caters to the mandate of a social health insurance and to the national policy of ensuring equitable access to health care. More research targeting subsidies to poor rural households who are unable to pay is needed to assess how this can be best achieved.

Study limitation

Our study had a number of limitations that needs to be highlighted. First, the data were from only one group ranch in Kajiado, and, therefore, the findings from our study are not generalizable to all group ranches in Kenya. Second, due to lack of data on quality of care from both private and government facilities, we were unable to assess the association between quality of care provided and having health insurance coverage. Previous studies have shown that quality of care at point of service is an important predicator of health

insurance coverage. Also, no data were collected on out-of-pocket payments and health care utilization; therefore it not possible to examine the effect of having health insurance on this two outcomes.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

Good morning/good afternoon. Thank you for taking the time to provide answers to this questionnaire. My name is JOHN SAITOTI a student at Strathmore University. I would like to ask you a few questions about National Hospital Insurance. This information will be used to develop research into relevant health insurance products to meet your needs. Your responses will be confidential and you will not be directly named. Please also remember that there is no right or wrong answers to these questions

SECTION A: BIODATA:

1. What is your gender?
   Male [ ] Female [ ]
2. What is your age?
   18-25 years[ ] 26-35 years[ ] 36-45years [ ] 46 years and above [ ]
3. What is your marital status?
   Married [ ] Separated [ ] Divorced [ ]
4. What is your highest level of education?
   No schooling [ ] Primary school [ ] Secondary school [ ]
   Tertiary college [ ] University [ ]

SECTION B: UPTAKE OF NHIF SCHEME:

1. Are you enrolled in the NHIF scheme?

   Yes [ ] No [ ]

   If no, are you or your spouse enrolled in any other type of health insurance

   Yes [ ] No [ ]

SECTION C: AWARENESS OF NHIF BENEFITS

1. Where do you seek treatment when admitted?

   Magadi Hospital [ ] Local Dispensary [ ]

   Private hospital in outside Magadi [ ]

2. Have you been admitted in hospital for the past 2 years?

   Yes [ ] No [ ]

   If yes, how many times? _____

3. Has any member of your family been admitted in hospital for the last 2 years?

   Yes [ ] No [ ]

4. How did you pay the hospital bill?

   Harambee from retatives [ ] Borrowed money to pay [ ]

   Sold property to pay [ ]

5. Do you think if one has NHIF scheme in this situation, it would have assisted?

   Yes [ ] No [ ]

   Explain your answer please_____

   _____

6. Most people do not know much about the scheme in Olkeri Group Ranch.

   Strongly agreed [ ] Agreed [ ] Strongly disagreed [ ] Disagreed [ ]

7. Who can enroll in NHIF scheme?

   Those that are in permanent employment [ ] Anybody who can contribute [ ]

8. Whom does NHIF cover?

   The contributor and family members [ ]

   Other relatives of the contributor who are not his children or spouse[ ]

9. When does NHIF scheme cover those who are enrolled?

   When you are admitted in hospital [ ]

When you are not admitted in hospital [ ]

10. How much are the contributions per month? _____
11. Have you participated in any of their public education programs?

    Yes [ ] No [ ]

SECTION D: ACCESSIBILITY TO NHIF

1. Do you know where the NHIF offices located?

   Yes [ ] No [ ]

   If yes where are NHIF offices located? _____
2. Are there other means of contributing to NHIF apart from going to their offices?

   Yes [ ] No [ ]

   If yes which ones? _____
3. What other challenges do you or your family experience if you want to enroll with NHIF? _____

   _____

SECTION E: HOUSEHOLD'S DECISION TO ENROL

1. Who makes the decision to enroll within your household?

   Both couple [ ] Husband [ ] Wife [ ]
2. Can you enroll with or without informing your spouse?

   Yes [ ] No [ ]
3. Does your spouse involve you in crucial decisions affecting the household?

   Yes [ ] No [ ]
4. Does the absence or presence of a spouse within your household affect your decision to enroll? Yes [ ] No [ ]

5. Did you face any difficulties when enrolling? Yes [ ] No [ ]

   What kinds of difficulties? (Mention) _____

6. Have you since renewed your membership? Yes [ ] No [ ]

   If No, What are some of the reasons for not enrolling? (Tick all that apply):

   a) High premium [ ]

   b) Because of my spouse's refusal [ ]

   c) Low income level/Poverty [ ]

   e) Not aware of the scheme [ ]