Factors Influencing the Choice of Health Care Financing by Informal Sector Employees

A Research Project Submitted in Partial Fulfilment of the Requirements for the Degree of Master of Business Administration in the School of Business, University of Nairobi.

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DECLARATION

I hereby declare that this project paper is my original work and has not been submitted to any other university for examination.

..... Date 22/11/2009

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This research project has been submitted for examination with my approval as University supervisor

Signature: .....Date: 22/11/2009

James Karanja

DEDICATION

To John, Rebecca, Bethwel and Janet. For always wishing me the best, and encouraging me endlessly.

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ABBREVIATIONS

AKI	Association of Kenya Insurers'
ALICO	American Life Insurance Company
CBHI	Community Based Health insurance
CBS	Central Bureau of Statistics
HMOs	Health Management Organizations
ILO	International Labour Organization
MoH	Ministry of Health
NGOs	Non Governmental Organizations
NHIF	National Hospital Insurance Fund
SPSS	Statistical Package for Social Scientists
US/USA	United States of America
WHA	World Health Assembly

ABSTRACT

While universal health coverage has been the goal of health care reformers, and governments for many years, the specifics of how to equitably finance healthcare for the people in the informal sector, who are the majority, are not well understood. Expanding access to health care for the informal sector and the poor is an important objective of the country. This paper contributes to analyzing and understanding the factors that influence the individual choice of health care financing method by informal sector employees in Nairobi's Gikomba area. By understanding these factors, it would be possible to design the best financing model that will serve the informal sector, without compromising on the quality of health care received.

It was found that demographic factors like age, education and income were the main factors that influenced the choice of health care financing. The correlations for income, education and age were positive and all statistically significant. Informal sector workers who were older, those who had secondary education and above and those with higher incomes had a higher likelihood of being insured. It was also found that the most critical barrier to health insurance enrolment was the lack of knowledge by informal sector workers about the options available and the procedures. Inability to pay is a critical factor for some, but people were, in principle, interested in health insurance, and thus willing to pay for it.

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CHAPTER ONE: INTRODUCTION

1.0 Background of the study

One of the biggest challenges to social health insurance in developing countries like Kenya is the integration of the expanding informal sector and inclusion of the poor. The importance of extending social protection in health to the whole population has gathered momentum internationally (ILO, 2001a, 2001b; Carrin and Preker, 2004; WHA, 2005; Gottret and Schieber, 2006). This is in order to reduce financial barriers to health care services for the needy and to avoid catastrophic health expenditures (Kawabata *et al.,* 2002).

The informal sector can be defined as economic units involved in production of goods and services in order to create jobs and incomes on a small scale, with a low level of organization and a weak division between work and capital. The informal sector is characterized by low and non-regular, non-taxed incomes, insecure employment and self-employment without social security (Mathauer et al 2007; Xaba et al., 2002). In addition, it is very heterogeneous because it includes low, medium and some better high income groups. People in the informal sector are the self employed who include vegetable vendors, hawkers, farmers, fishermen, pastoralists, semi- informal employees who are drivers and conductors of taxis, lorries, 'matatus', domestically employed employees (house helps and gardeners). Many people in this sector may not be organized in groups or associations based on their occupation, but gather in community-based organizations (women's groups, self-help groups, loan groups and religious associations) (Mathauer et al 2007).

Since independence in 1963, Kenya has continued to design and implement policies aimed at promoting access to modern healthcare in an attempt to attain its long-term objectives of health for all. Though the physical infrastructure for health in Kenya has expanded rapidly since independence, maintenance and upkeep of public sector health facilities has become an inseparable burden for the Ministry of Health recurrent budget (Kimalu, et al, 2004).

There are five ways of financing health care in Kenya. The first is by the government funding health care in Kenya via general taxation. The sick person will then receive free treatment or pay lower user fee. The second way of financing health care in Kenya is through Compulsory Social Health insurance. This is a government sponsored program funded via taxes where the benefits, eligibility requirements and other aspects of the program are defined by statute, and an explicit provision is made to account for the income and expenses (often through a trust fund). All formal employees are members to this insurance as in the case of National Hospital Insurance Fund.

The third method is through direct out-of-pocket payments or self-financing by citizens and households. Direct out of pockets payments is the most widely used financing method in Kenya. When an individual purchases prescription drugs over the counter or when one visits the hospital or clinic he or she pays the fees in cash. The fourth method of financing health care is through Private Health Insurance. This is a voluntary health insurance scheme that enables individuals to contribute premiums regularly in exchange of medical cover in case the contributor gets sick. The fifth way of financing health care is through Community-based

financing. The poor communities mobilize resources to secure financial protection against the cost of illness. This type of financing involves the communities in revenue collection, pooling, resource allocation, and service provision. It is non-profit oriented and targets people with unsteady income, mostly from the rural and urban poor. The arrangements in community-based financing schemes are diverse and differ from one community setting to the other.

There are many factors that influence the individual to choose a given type of health care financing model. Some of these factors include economic, social, health care packages or features, health care plan alternatives, spatial and environmental factors. These factors are the price, perceived value of health care, risk aversion, individuals' income, education and employment. Unemployment and income are also a key determinant on the decision of health care financing method. Demand for health insurance increases as personal income increases. Cost of premium determines whether the person purchase it or not (Cramer& Jensen, 2006; Monheit et al 2004).Medical knowledge and standards of care have allowed people to live healthier, longer, and more productive lives. It has been established that financing models are key determinants of dictating the quality and the amount of health care received by an individual. Effects of choice of health care financing increase (depleting assets and savings) or decrease financial burden of the populations and promote or depreciate health care status (Owino and Were, 1998).

Adequate health care financing correlates with high quality health care services provided to a person and this determines performance of health system. Kenya was in position 140 out of 191 countries. This composite measure of overall health system attainment is based on a country's goals relating to health, responsiveness, and fairness in financing. The measure varies widely across countries and is highly correlated with general levels of human development as captured in the human development index (*World Health Organization; World Health Report, 2004).*

1.2 Statement of the Problem

The Central Bureau of Statistics estimates that fifty-six per cent of the Kenyan population are poor, living on one dollar or less a day per capita (CBS, 2005). The national health accounts in 2002 reported that more than a third of the poor who were ill did not seek care, compared with only 15% of the rich. Fifty-two per cent of poor households cited financial difficulties as the principal reason for not accessing health care (MoH, 2005b). Furthermore, 7.7% of poor households were faced with catastrophic health expenditure, i.e. out-of-pocket payments exceeding 40% of disposable household income (Xu *et al.,* 2006). Expanding access to health care for the informal sector and the poor is therefore an important objective of the Kenyan health sector strategy (MoH, 2005b).

Household survey data show that the large majority of Kenyans (98% of the lowest, 96% of the 2nd and 95% of the 3rd quartile) have no health insurance, whereas 12% of the 4th and 25% of the highest quintile do have insurance (Xu *et al.,* 2006). Private health insurance

specifically is only accessible to the higher income segment (Vinard and Basaza, 2006). Community-based health insurance (CBHI) was introduced in Kenya in 1999, and has not yet fully developed. Data from the Kenya Community-Based Health Financing Association show that about 32 schemes have been set up so far with 170,000 beneficiaries covered.

Yet econometric studies do not state why people have joined an insurance scheme, and especially why people with lower incomes, have not joined. Research into people's preferences (Monheit and Primoff Vistness, 2004) emphasizes the need to look beyond demographic and income factors to understand people's reasoning and decision making. Accessing and utilizing quality health care is an objective for every person who desires to remain healthy and productive.

1.3 Research Questions

i. What are the key factors that influence the choice of health care financing by informal sector employees in Kenya?

ii. Is there willingness among informal sector workers to finance their healthcare through health insurance?

1.4 Objectives of the study

i. To identify key factors that influences the choice of health care financing by informal sector employees in Kenya.

ii. To investigate the extent of the willingness of informal sector workers towards financing their healthcare by taking up health insurance.

1.5 Importance of the study

Health care financing is one of the biggest challenges faced by every individual in the world. It is also the key determinant of the quality of health care that an individual receives. Different individuals or group of individuals have different ways of financing their health care needs. It is important to study the key determinants that influence individuals or group choice of health care financing. Through knowing these influences, it would be possible to design the best financing model that will serve the informal sector population, without compromising on the quality of health care received. The individuals would also get to know the best way of financing their health care without negatively affecting their economic and emotional status.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Promotion of the health status of all Kenyans is one of the most important objectives of the Government of Kenya. The government is therefore keen on making health services more effective, accessible and affordable. Health policy in this country therefore revolves around delivering basic quality health services, and how to finance and manage those services in a way that guarantees their availability, accessibility and affordability to those who need it the most.

The informal sector mostly consists of groups of people whose economic activities escape any socio-economic policy and regulation by the state. It has emerged in the urban and peri-urban centres as a result of the incapacity of the modern sector to absorb new entrants. The rationale of extending social security to the informal sector is informed by the benefits that an economy will derive from doing that. Extending cover to the informal sector helps an economy reduce poverty faster; it accelerates growth and promotes peace, stability and social cohesion. It is an indispensable part of the institutional tissue of an efficient market economy (Kayitare, 2009). Informal sector can be described as an enterprise employing less than 50 workers. This includes home-based business, self employed, street traders and vendors, artisans, motor mechanics, iron-smiths, others are electricians, carpenters, tailors, wood and soft stone carving.

The informal sector continues to create jobs, develop skills and linkages to formal sector, create demand, supply, savings and investment; facilitate indigenous entrepreneurship and commitment to earn a descent living. The other emerging informal sector is bicycle and motor cycle transport especially in urban areas. Informal sector is predominantly an urban area activity concentrated in Nairobi, Rift Valley, Central and Nyanza provinces in that order. Many people in this sector may not be organized in groups or associations based on their occupation, but gather in community-based organizations (women's groups, self-help groups, loan groups and religious associations) (Mathauer et al 2007).

Fifty-six per cent of the Kenyan population is poor by the World Bank definition, namely living on one dollar or less a day per capita (CBS, 2005). According to the national health accounts, more than a third of the poor who were ill did not seek care, compared with only 15% of the rich. Fifty-two per cent of poor households cited financial difficulties as the principal reason for not accessing health care (MOH, 2005).

2.2 Health Care Financing In Kenya

According to Obonyo et al (1997) the government finances 50 percent, private payments (insurance and out of pockets) finances 42 percent and donors, NGOs, missions and other institutions finance 6 percent of recurrent healthcare costs. However, preliminary information from Kenya's National Health Accounts shows that the financial contributions of households (out of pocket expenses) exceed those of the government. The weaknesses in

health care financing have greatly affected access by the poor to effective health interventions.

Health services and programmes in Kenya are financed from three main sources: the government through the Exchequer both, directly to the Ministry of Health and indirectly to other sectors with health-related functions (National Council for Population and Development, Ministry of Water Development, Ministry of Home Affairs, National Heritage, Culture and Social Services); donors who fund Ministry of Health programmes; the private sector and NGOs. The Ministry of Health has used several financing mechanisms to support the health sector, for example cost sharing, social insurance, taxation, harambee and direct community contributions. The Ministry of Public Health and Ministry of Medical Services are the main coordinators of provision of health services in Kenyans through network of dispensaries, health centres, church missions, industrial health units, district, provincial and national referral hospitals.

A cost sharing programme was mooted in the 1984/88 Development plan and its implementation started in December 1989 through a cabinet paper. The main objective of the policy was to encourage increased cost recovery from users of public health and to generate additional revenue. The rationale was to charge those who are most able to pay and channel the subsidies to those least able to pay (Owino *et al,* 1997b). Increasing poverty levels and concerns on quality and access necessitated a change of policy by the government in 2004 from cost sharing to the 10/20 policy where individuals were required to pay kshs. 20 and 10 in health centres and dispensaries respectively.

The user fees introduced as a result of the cost-sharing programme led to a financial burden to the poor and other vulnerable groups, restricting their access to health care services due to their inability to pay. Therefore, on equity grounds, waivers and exemptions were introduced to cushion the poor and other vulnerable groups against adverse effects of the user fees. Besides granting of waivers to the poor and provision of exemptions by the Government, are considered to be part of crucial components in poverty reduction strategies (Owino and Were, 1998).

The National Hospital Insurance fund is also another avenue for financing health care in Kenya. The NHIF was established by an Act of parliament in 1966 as a department of the Ministry of Health, which oversaw its operations, but responsible to the government Treasury for fiscal matters. The original Act of Parliament that set up this Fund in 1966 has over the years been reviewed to accommodate the changing healthcare needs of the Kenyan population, employment and restructuring in the health sector. The NHIF draws its membership from people employed in the formal sector and from the informal sector or self employed individuals. According to Section 22 of the NHIF Act, benefits are defined as reimbursements to accredited hospitals of expenses incurred by the contributors or their declared dependants. The act also provides for both in-patient and out- patient medical cover. Benefits daily rebates have risen gradually over the years from Kshs 75 to the current level maximum of Kshs 2,400 per hospitalized day.

According to Kimalu (2002), the prospect of generating more resources through the NHIF is limited and uncertain due to weak administrative system, poor investment portfolio and low claims settlement. There is a need for an immediate review of NHIF's financial and administrative structure in order to meet the challenge of providing social health insurance for all Kenyans. In 2004/2005, Government attempted to redress the shortcomings in the financing of healthcare in the country through the enactment of the National Social Insurance Act and proposed repealing of the National Hospital Insurance Fund Act (1998). However, the proposal generated tremendous negative reaction from many interest groups. This led to shelving of the proposed Act and a return to the status quo.

Kimani *et al* (2004), contends that a health insurance fund is social (that is, it includes all members of society) when it subsidizes the poor, elderly and sick, as well as when it promotes equity and access to everyone at no profit. The core values in social health insurance embody a concern for the plight of the poor. In social insurance financing, health services are paid for through contributions to a health fund. The benefits for one individual are not usually directly related to the contributions he has made but rather they aim to redistribute income between different income groups.

Kimalu makes a comparison with the US where insurance cover is largely a private affair but social security Funds such as Medicare and Medicaid provide coverage for so called bad risk groups – old age and disability pensioners and the poor. In the US, those who are not covered by private insurance or who do not qualify for either Medicare or Medicaid remains

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without coverage. As of 1994, more than 43 million people or 16% of the population had no health insurance. In Germany, on the other hand, the health services are funded through compulsory contributions (normally referred to as sickness funds). Employers and employees make contributions to the health fund and are represented on the boards of the funds. Kimalu's conclusion on user fees (which are the payments made by the patient out of his pocket) is that they have been found to reduce use of healthcare in countries like Ghana and Zaire. The most appropriate way would be to channel the out of pocket expenses by the household into a prepaid Fund.

Private health insurance also plays a critical role in the country's health financing system. Self employed people may opt to take these private insurance instead of NHIF. Health insurance is considered private when the third party (insurer) is a profit organisation (Republic of Kenya, 2003a). In private insurance, people pay premiums related to the expected cost of providing services to them. Wang'ombe *et al* (1994) identify two categories of private health insurance in Kenya: direct private health insurance and, employment-based insurance. Direct private health insurance is very expensive and only the middle and high-income groups afford it (Nderitu, 2002). In the employment-based plans, the employer provides care directly through employer-owned on site health facility, or through employer contracts with health facilities or healthcare organisations. These are both voluntary health schemes and are not legislated by the government.

According to Techlink International Report (1999), few firms provide healthcare insurance in the strict sense of insurance in private healthcare insurance in Kenya. The general insurance firms offering healthcare insurance as one of their portfolio of products include American Life Insurance Company (ALICO), Apollo Insurance, GMD Kenya, Kenya Alliance Insurance Company Ltd, and UAP Provincial Insurance. Other firms run medical schemes and they are in two categories: the first category provides healthcare through own clinics and hospitals (these include AAR Health Services, Avenue Healthcare Ltd, Comprehensive Medical Services, Health Plan Services), while the other category provides healthcare through third party facilities (examples are Bupa International, Health Management Services and Health First International). These medical schemes are also known as Health Management Organisations (HMOs).

The Association of Kenya Insurers (AKI) Annual report 2006, points out that in Kenya, there are currently 13 local underwriters in the Private sector health insurance market. Of these the top 3 underwriters (Jubilee, APA, CFC life) command 66% of the market share.

In the year 2006, the Association of Kenya Insurers (AKI) wrote Kshs 3.6 Billion premiums from a membership base of over 300,000 insured persons. In terms of claims analysis, the benefit payout ratio ranges between 51% and 94% during the same period, the market claims ratio was 81%, underwriting loss Kshs 144 Million due to operating expenses of 19% of Gross Written Premiums or 24% of Net Earned Premiums

2.3 Factors influencing choice of Health Care Financing

The factors that influence a person's choice of financing healthcare include the price, perceived value of health care, risk aversion, individuals' income, education and employment. Unemployment has been cited as the biggest factor that influences the type of healthcare financing decisions. Income also plays a big determinant on the decision of health care financing method. Demand for health insurance increases has as personal income increases. Cost of premium determines whether the person purchase it or not (Cramer& Jensen, 2006; Monheit et al 2004).

The people in the informal sector usually have various factors that influence their decision on the choice of financing their own health care. The key determinants that have been identified as influencing people in the informal sector have been reflected as economic factors, availability of health care alternatives, customer-oriented design features, social factors, environmental factors and behavioural factors.

2.4 The Economic Factors

The economic factors include income, occupation and employment. Income is the amount of money a person receives as a reward for rendering services or goods. Income in turn influences individual purchasing power (Scotton 1969; Cameron, Trivedi et. al. 1988; Savage and Wright 1999). The people with higher income are likely to purchase health insurance as compared to those with lower income because they have higher disposable income and are able to pay for insurance premiums regularly (Xu et al., 2006; Dror, 2006). Those with lower

income are more likely to pay out of their pockets because they will pay for health care services only when they are sick. Lack of money is indeed a major reason why many do not join health insurance. Due to less income, low-income households are reluctant to join insurance schemes because they do not readily like the idea of 'paying' for services they might not use (Brown and Churchill, 2000).

Occupation refers to the work a person does in order to earn income. White collar jobs and being in gainful employment are key economic determinants that influence the choice of financing health care because they reflect higher income. People with white collar jobs are likely to purchase health insurance as compared to those in blue collar jobs (Jutting, 2004; Savage and Wright 1999). In low-income countries, many people resort to out-of-pocket payment due to various factors Poor households do not have steady sources of income to enable them to contribute insurance premiums. This is especially true for households in the rural areas and those employed in the informal sector. One of the key developmental aspects of financing health care systems is to get the money from various sources (Ching and Mcquire, 1997).

Knowledge and experience of full medical costs influences health care financing choice by an individual. If a person knows how and when health care costs become high, he or she is able compare various financing options. Incase a person is able to predict higher medical costs in future he or she may consider taking health insurance or enter into community based scheme but if he predicts lower costs, he may opt for direct out of pocket payments.

Thus future expectations on treatment expenditure are critical for health insurance purchase decision (Mtei, & Jo-Ann Mulligan, J., 2007; Osei-Akoto, 2003; Kronick and Gilmer 1999).

2.5 Availability of Health Care Alternative Factors

Individuals are less likely to purchase health insurance if charity and government safety nets programs are in place. Most individuals in the informal sector consider themselves as being in the lower end of income distribution. Thus they prefer riding free or pay less because their medical costs are complimented by charity contributions or government safety nets (Nyman, J. 2003).The government initiative to offer free primary health care has influenced most informal employees to pay for the health care services through direct out of pocket. Government services are becoming more effective and received at lower low user fees. Low rates give very little incentives to contribute to the schemes. But if the individual perceives poor health care services in the government facilities (poor staff attitudes, long waiting lists, less drugs and inadequate service provision) there are more likely to purchase insurance if they have more income. In Tanzania, introduction of NHIF took out public servants who were potential members (Mtei, & Jo-Ann Mulligan, J., 2007).

The availability and effectiveness of protection through alternative risk management institutions that cater for meeting people's health care needs and costs would decrease demand for health insurance and community based health care (Waelkens et al. (2005). Actual perceived quality for health care services funded by the government and other

agencies also played a major role in deciding the way to finance once health care. In wealthier countries, factors such as long waiting, uncertainty of receiving publicly financed health care and increase health care services played a key role in influencing the type of financing by the individual (Jutting, J 2005; Goodman et al 2004). The patients may prefer private to public health care, regardless of their income, due to a lack of confidence in public health services and a belief that private health care has better quality, lack of trust in government provided health care. Scarcities of public health care services make most patients prefer private health care (Vildirim et al, 2006).

2.6 Customer-Oriented Design Features as a Factor

Insurance scheme design features, particularly the benefit package, payment modes and the enrolment basis (as an individual or family), influence people's decisions. For the Kenyan case, our hypothesis is that for many informal sector workers the relatively high amount of upfront payment and (previously) inflexible collection schedules constitute barriers to joining the NHIF (Carrin, 2003; Schneider, 2004). These studies suggest that customer satisfaction and attitudes are important factors affecting health care financing decision. In a study of the life insurance market, Durvasula, Lysonski et. al. (2004) found that customer satisfaction was positively associated with customer's repurchase decisions In the field of health insurance, this satisfaction may come from the experience and services provided by insurer and also policyholder's interaction with provider of services may significantly influence his decision. Services offered such as recovery from sickness, a medical condition, or an accident.

The coefficient for the health status variable took a negative sign, implying that the demand for health insurance was likely to be low among individuals who were in excellent, very good or good health. In the current study, 58.3% of the respondents in the sub-sample with a health insurance policy assessed their health status as either fair or poor. Persons or individuals expecting to be sick or who knows that they are sick are more likely to finance their health care through insurance. In addition, Knowledge about health insurance came out also as significant important factor affecting the decision (Jutting, J 2005; Goodman et al 2004).

2.7 Social Factors

The demographic factors include age and household size. According to economic theory predicts that individual who are advanced in age tend to increase investment in health. Increase in household size reduces that likely hood of purchasing health care insurance because increased household size reduces the per capita income (Mtei, & Jo-Ann Mulligan, J., 2007).The social factors include education and marital status. Individuals with high educational levels are two times more likely to purchase health insurance than those with lower educational level. They suggest that a better educated person is likely to be better informed about both the health services available in the system. This is because an educated person has positive relationship with earning and education and knowledge about making small insurance payments to avoid the risk of catastrophic medical expenditures.

Married people are more likely to have insurance cover than those who are single, separated or divorced. Married people tend to have high demand for insurance due to the need to protect their children, combined higher income, being averse to the risk of higher health expenditures as compared to those who are single, separated or divorced. This association has been based on the premise that families, which have higher hospitalization risk, will have higher probability of purchasing health insurance. Age has also been found having positive and significant impact on the probability of having health insurance cover in many studies (Savage and Wright 1999).

2.8 Spatial and Environmental Factors

Spatial and environmental factors include area of residence and environmental rating. Those living in formal settlement or rural white-owned farms are seven times more likely to purchase health insurance than those living in informal urban or rural settlements. This could be partly due to the reflection of their economic status. Those who felt that their environment was good was or excellent were twenty seven times likely to purchase health insurance than those who lived in fair or poor environments. This may have been due to the reflection that those living in affluent, formal had better economic status than those in informal settlements where they lacked some basic social amenities. (Kirigia, J. et al 2005)

2.9 Behavioural Factors

Behavioural factors include factors such as those who use contraceptive, use alcohol, and smoking. Those who use contraceptive were less likely to purchase health insurance than

those who do not us them. This suggests that contraceptives are not necessarily linked with individual's attitudes towards risk. Those who consumed alcohol were less likely to purchase health insurance than those who did not (Kirigia, J. et al 2005). Risk preference affects the choice of financing individuals' health care. Most individuals in the informal sector are not risk averse. Due to unemployment, informal sector individuals would rather forego health insurance and risked getting without access to medical care but save some cash from not paying the insurance premiums to buy basic commodities like food, pay rent and purchase cloths. Some believe that they are indigent and opt to remain uninsured (Nyman, J. 2003).

Community based financing health care scheme in Kenya is yet to be developed. There are about 32 schemes in Kenya with about 170,000 beneficiaries since its inception in 1999. Key factors that determine use of community based healthcare financing include individual willingness to join and contribute to the scheme (Xu et al., 2006; Dror, 2006). If people perceive that the organization is being managed transparently they are likely to join community based. The spirit of solidarity in Kenya is strong as indicated by the word 'harambee' which means 'let's pull together'. Through 'harambee' people share and support each other within their community. This spirit is conducive for community based health care financing (Brown and Churchill, 2000). Lack of credibility and trust in fund managers may negatively affect demand for health insurance and community based schemes (Schneider, 2004).

In Kenya, where corruption in public services and parastatals has been a huge problem, they have been often faced with negative attitudes. Parastatals such as NHIF may be having low rate of contributors because it could be suffering from negative public perceptions. The study carried out on beliefs and attitudes of Albanians towards informal payments revealed that consequences, social and control beliefs influenced the decisions of Albanians to make informal payments for their health care. The study further revealed that Albanians who had positive attitudes were likely to make informal payments as compared with those with negative attitudes (Vian, T & Burak, J. L 2006). Furthermore, the theory of planned behavior asserts that individual attitudes and beliefs about something play a major role in influencing behavior and intentions of persons to act (Ajzen, I. 2002b).

2.10 Factors Affecting Purchase of Health Insurance

The studies focusing on examining the factors affecting health insurance purchase decision have found that income is an important factor (Scotton 1969; Cameron, Trivedi et. al. 1988; Savage and Wright 1999). Healthcare expenditure is another important variable which affects health insurance purchase decision (Kronick and Gilmer 1999). This association has been based on the premise that families, which have higher hospitalization risk, will have higher probability of purchasing health insurance. Other factors such as age, education, gender etc. have also been found to be important factors affecting health insurance purchase decision.

The role of education in health decision-making has been well documented by Grossman (1972) and Muurinen (1982). They suggest that a better educated person is likely to be better informed about both the health services available in the system and the benefits of joining a private health insurance fund and at the same time he/she also likely to be healthier which would lower the probability of health risk. Age has also been found having positive and significant impact on the probability of having health insurance cover in many studies (Cameron, Trivedi et. al. 1988; Ngui, Burrows et. al. 1989; Savage and Wright 1999). Another important factor found is gender which also plays an important role in the insurance decision through its effect on expected medical consumption (Sindelar 1982).

Bhat and Jain (2006) analyses the factors that affect health insurance purchase decision in a micro health insurance setting. The study was based on a household survey in the Anand District of Gujarat in India. The research focused on analyzing two separate but inter-related decisions. The first decision that the household takes is whether to buy health insurance policy and if the decision to purchase is positive, the next decision that follows is the extent (total coverage) of purchase. The study used Heckman two-stage method to analyse both these decisions by taking care of sample selection problem.

The study finds that income is an important factor. Another factor that came as significant was the health expenditure of the family. The study also used perception variables related to coverage of illnesses and health expenditure and these were found significant in insurance purchase decision. Knowledge about health insurance came out also as significant

important factor affecting the decision. In the case of extent of purchase decision, the study finds that up to a certain level of income households do not allocate resources to insurance and therefore purchase less health insurance. After a certain level of income, increase in income will result in purchase of health insurance as people now can afford to buy health insurance and it will save them from potential risk. At higher levels of income household purchase of insurance decreases as households are willing to retain the risk.

The number of children in the household was also found as an important factor affecting the extent of health insurance purchase decision. Age also came as an important variable in deciding the extent of insurance and people in higher age groups relatively spend more on insurance. Two other variables, coverage of illnesses and health/illness expenditure are also significant. These two variables show that illnesses coverage perception and future expectation about the healthcare expenditure are important for the health insurance purchase decision and for the extent of health insurance purchase decision.

Other than the studies related to health insurance, the literature from marketing field on reasons for taking up health insurance provides some insights into this area. These studies have been done with different products providing evidence on reasons for intention of repeat purchase (Hocutt 1998; Storbacka et. al. 1994; Zahorik and Rust 1992). These studies suggest that customer satisfaction and attitudes are important factors affecting the decision. In the field of health insurance, this satisfaction may come from the experience

and services provided by insurer and also the policyholder's interaction with provider of services may significantly influence his decision.

The literature addressing demand-side factors of health insurance in low-income countries is limited. Econometric studies look at socio-demographic and socio-economic household and individual determinants such as age, sex, income, education and their correlation with health insurance ownership. It is found that persons with higher income and higher education are more likely to have health insurance (Xu et al., 2006). Persons with at least a secondary level of education are also two times more likely to be in possession of a health insurance policy than those with a lower level of education. This could be attributed to a positive relationship between a person's educational level and propensity to acquire skills, stock of knowledge and his/her market and non-market productivity and earnings, and education and knowledge about the advantage of making regular small insurance payments to avoid the risk of catastrophic medical expenditures (Kirigia et al., 2005).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the procedures and methods that was used to select, study, collect, analyze and present the opinions, thoughts and feelings of informal sector operators on health care financing. This study is descriptive in nature and relied on primary data collected using a questionnaire. The research design applicable for this study is the survey which was carried out in Gikomba. In addition, because the total population and the sampling frame of the informal sector in Gikomba are not known with certainty, snow balling sampling method was found to be the most appropriate. The operators in the informal sector were clustered into their natural groupings depending on the nature of work they do. The study made use of multi sampling techniques with a view to obtain representative data.

3.2 Research Design and Sampling

This research was carried out by use of experiments, surveys, observational studies, documentary and participatory research. Survey is a research design used for obtaining description of a particular group of people (Forzano, 2008). The study surveyed 380 informal sector employees and owners of business enterprises (operators). Cluster sampling is a process of dividing a population into batches. The sampling frame is not fully known. The sample was selected using both snow balling sampling method and at random.

To select the sample, the informal sector operators were divided into 14 natural occurring clusters. This is because it is important to get a representative sample that would reflect accurate results of population of informal sector on key factors that influence their health care financing decisions. Once the clustering was completed a sample of 380 informal sector operators were chosen. One person was identified from each cluster sample. The identified person was asked to fill in the questionnaire in the survey and upon completion, was requested to refer the researcher to other people in that group. If no reference was obtained, another person would be identified from the cluster to fill the questionnaire. This would be repeated until such a time when the total responses had been collected.

Table 1.0

Clusters	Total number to be selected
Cloth traders	28
shoe traders	28
Drivers	28
Motor mechanics	28
Iron-smiths	28
Electricians	28
Carpenters	28
Tailors	28
Soft stone carving	28
Owners of eating joints	28
Grocery shop owners	28
Motor cyclist	28
Vegetable vendors	28
Property owners	16
Total	380

The above figure shows the cluster units and the number of informal sector operators that were chosen from each cluster, making up the 380 informal workers required for the sample size.

3.3 Research Instrument (Questionnaire).

The questionnaire was developed to obtain information regarding health care financing by the informal sector. The key factors that guided the development of this questionnaire include demographic factors, economic factors, social factors, service packages, available alternative and services. To measure the responses of the informal sector operators on the key factors that determine the choice of their health care financing, the respondents were asked about their agreement on all the statements made on the questionnaire. Responses were assessed by a Likert scale type and through simple Yes or No answers, expressing agreement or disagreement on the statements made on the questionnaire.

3.4 Data Collection Methodology

The study used primary data collection method via a questionnaire to collect data on factors influencing health care financing decisions by the informal sector operators. The researcher approached the respondents and requested them to participate in the survey. In addition, purpose of the study was explained to the participants who were assured of confidentiality. The questions were close ended but a space was provided at the end of the questions to allow the respondents to give other information they deemed relevant for the study. Space provided below the questions allowed the respondents to answer in their own words and reveal more about their feelings and opinions towards their choice of health care financing.

3.5 Data Processing & Analysis

The data collected was recorded in tables to analyze the data; average scores for the responses per item were calculated with 5 strongly agree and 1 strongly disagree, and the yes or no answers also tabulated. The data was then tabulated on frequency tables and analyzed using SPSS to compute averages, percentages and frequency tables. Content analysis was also used in analyzing qualitative information from responses that had been submitted by respondents.

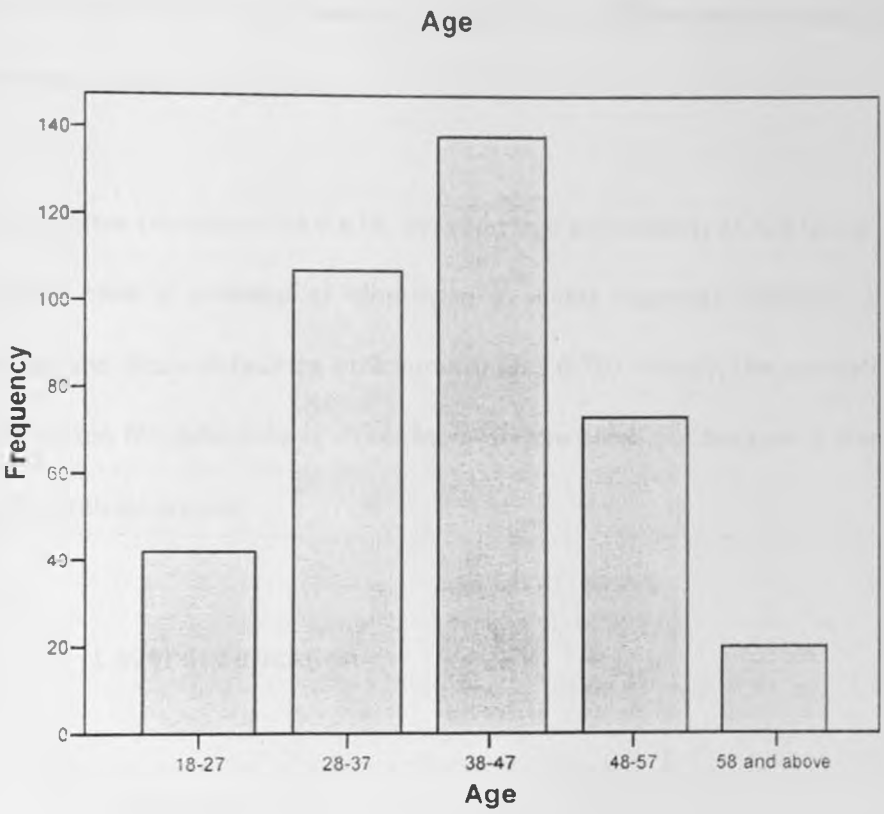
3.6 Limitations of the Study

Just like other studies, this study had limitations as well. The study was exclusively limited to determining the factors influencing the choice of healthcare financing by informal sector employees. Yet a lot of formally employed workers do not have any other cover except the mandatory cover by the NHIF, which is many times insufficient to cover their health demands, especially for outpatient care. The study therefore omitted a large number of respondents who would have given better insight into the factors influencing choice of healthcare financing. The study also limited itself to a small region in Nairobi, leaving out other regions in the city as well as the whole country. The study was also limited in that it did not aim at evaluating the efficiency of the various financing systems that are important for deciding how health care resources will be allocated.

Table 1.3 Descriptive Statistics

	Mean	Std. Deviation	Analysis N
What is your age	1.43	.535	7
What is your highest level of education	1.71	.488	7
what is your marital status	1.71	.488	7
what is your current household income level	2.57	1.134	7
How many dependants do you have	2.29	.756	7
Where do you live	2.14	.900	7
how frequently do you and your family suffer from minor ailments	3.29	.756	7
How do you handle health care financing in case of such minor ailments	2.71	1.254	7
How do you pay for the cost of getting the treatment	2.57	.535	7
what is the average cost of getting treatment	2.00	.816	7
How frequently do you or your family members suffer from serious ailments that require hospitalization?	4.00	.816	7
How do you handle healthcare financing in case of such serious ailments	3.14	1.464	7

How do you pay for the cost of treating such ailments	2.43	.787	7
What was the average cost of getting the treatment	3.29	1.113	7
I choose to finance my health care as shown above because	1.14	.378	7
I always look for information that keep me informed about health care costs	3.29	1.254	7
Do you have medical insurance	1.00	.000	7
If No, Why haven't you taken up medical insurance	4.43	.787	7
If Yes, what kind of insurance do you have	1.29	.756	7
How do you find the cost of the insurance that you have	2.00	.577	7
Have you ever defaulted or opted out of medical insurance after the end of the period covered	2.14	1.069	7
why did you default or opt out	2.43	1.618	7



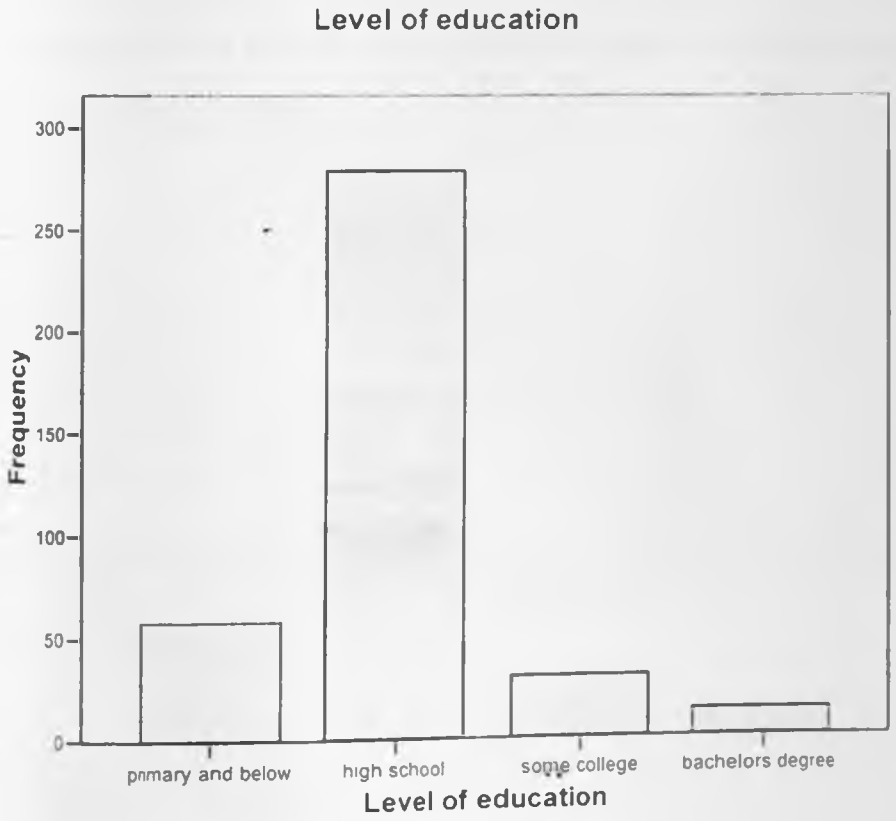
Correlation Matrix

Of the 380 people who were surveyed, 11.1% (42) fall between the age of 18 and 27 years. Respondents between the age of 28 and 37 comprised 28.8% (107), between 38 and 47 were 36.3% (138), those between 48 and 57 were 19.2% (73) and finally those who were 58 and above were 5.3% (20).

Age is an important factor considered in determining the choice of health care financing model. The results achieved show that age has a strong positive correlation with income and financing serious ailments of 0.625 and 0.548 respectively. The frequency and cost of treating minor

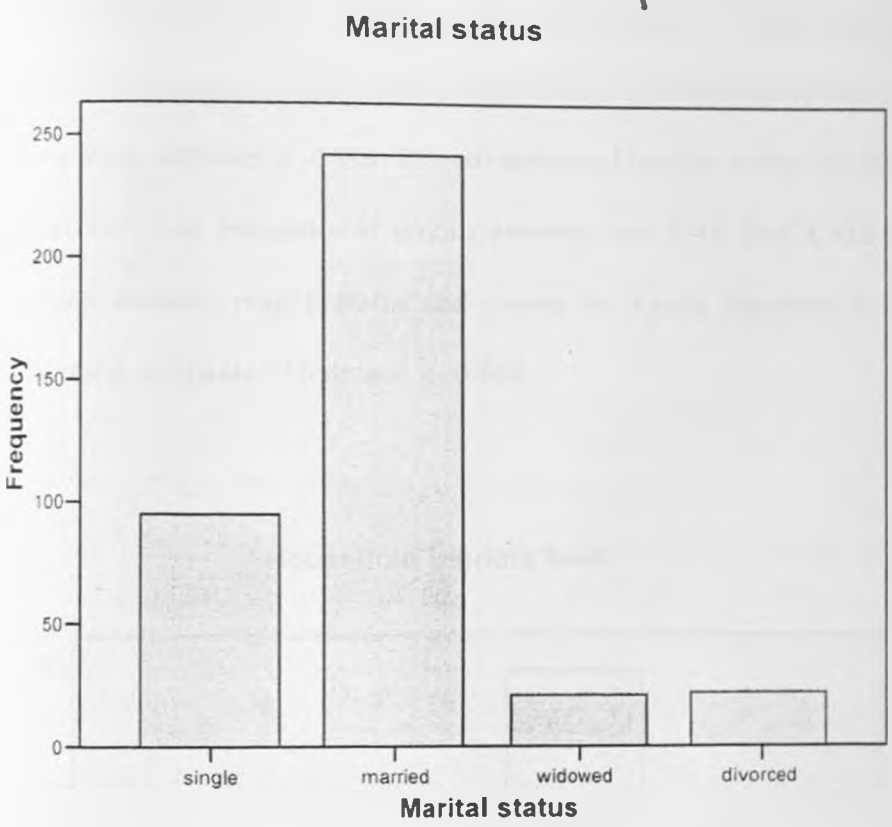
illness are negatively correlated with -0.354 and -0.764 respectively. Almost all the people at all levels preferred out of pocket payments. There is a negative correlation between age and health care cost information seeking of -0.213.

There is also a strong positive correlation of 0.679, between age and reasons of not taking up insurance. Older people have a problem of identifying available insurance options The correlation between age and those defaulting on insurance was 0.750. Finally, the correlation between age and the reason for defaulting is -0.44. Most people opted out because it is very expensive to maintain health insurance.



Of all the informal sector respondents, those with primary school and below level of education were 15% (58) while respondents with high or secondary school level of education were 73.4% (279). Respondents with college level of education were 7.9% (30) and those with a bachelor's degree level of education were 3.4% (13).

There is a positive correlation between levels of education and handling serious ailments at 0.372, the correlation between level of education and frequency of minor ailments is 0 258 and the correlation between level of education and reasons for having insurance is 0.258. However, there are negative correlations. The correlation between level of education and the model of financing minor ailments and frequency of serious ailments are -0.701 and -0.418 respectively. Finally, the correlation between the level of education and health care cost information seeking is -0.389 while that of level of education and reasons for defaulting or opting out of the insurance scheme is -0.548.



Of all the informal sector respondents, the single were 25% (95) while respondents who were married were 63.7% (242). Respondents who were widowed were 5.5% (21) and those who were divorced were 5.8% (22).

There is a positive correlation between marital status and the number of dependants of 0.710. The correlation between marital status and health care cost information seeking is 0.973 while that of marital status and cost of financing insurance is 0.592. There is a negative correlation

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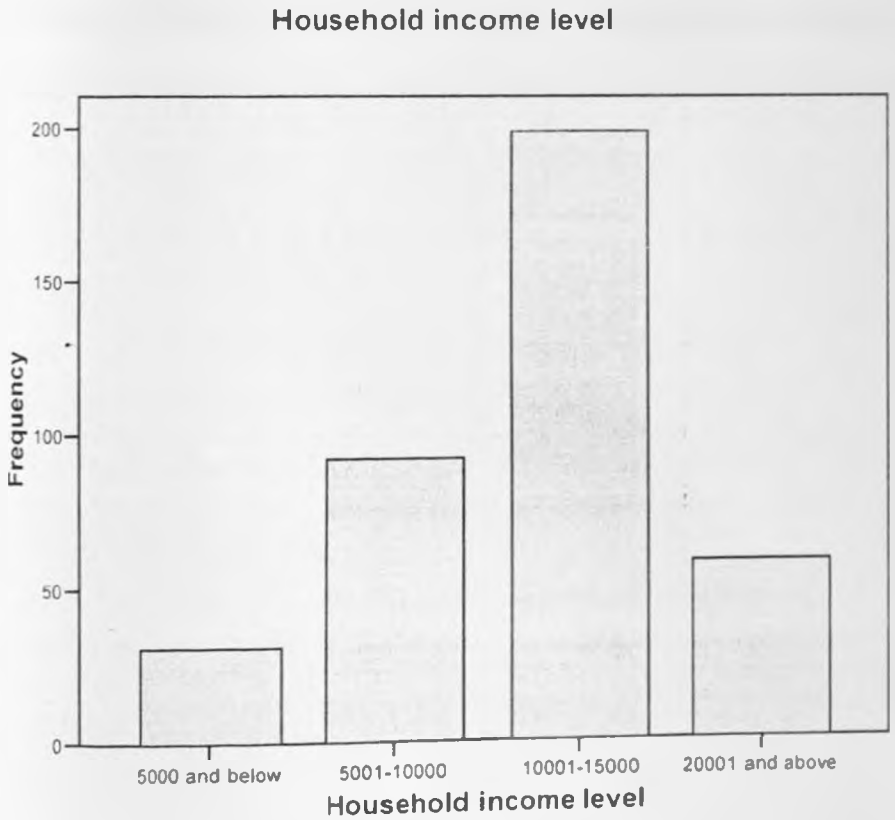
between marital status and household income of 0.559 while that of marital status and frequency of minor illness is -0.645. Furthermore that of marital status and frequency of treating minor ailments is -0.418. Other negative correlation includes that of marital status and handling minor ailments is -0.548. The correlation of marital status and the mode of financing minor ailments and frequency of serious ailments are -0.701 and -0 418 respectively Finally, correlation between marital status and reason for having insurance is -0.645, and that of marital status and reason for default is -0.663.



Of all the informal sector respondents, those who earned income of Kshs 5000 and below were 8.2 (32) while respondents who earned between Kshs 5001-10000 were 24.2% (92). Respondents who earned income between Kshs 10001-15000 were 52.4% (199) and those who earned income above Kshs 20001 were 15.3% (58).

There is a positive correlation between level of income and serious ailments of 0.445. The correlation between level of income and handling serious ailments is 0.24. There is a negative correlation between level of income and frequency of ailments of - 0.222. Furthermore, the correlation between level of income and choice of mode of financing is -0.222. Other negative correlation includes that of level of income and information seeking with a value of -0.72. Finally, the correlation between level of income and reason for not having insurance is -0.222.

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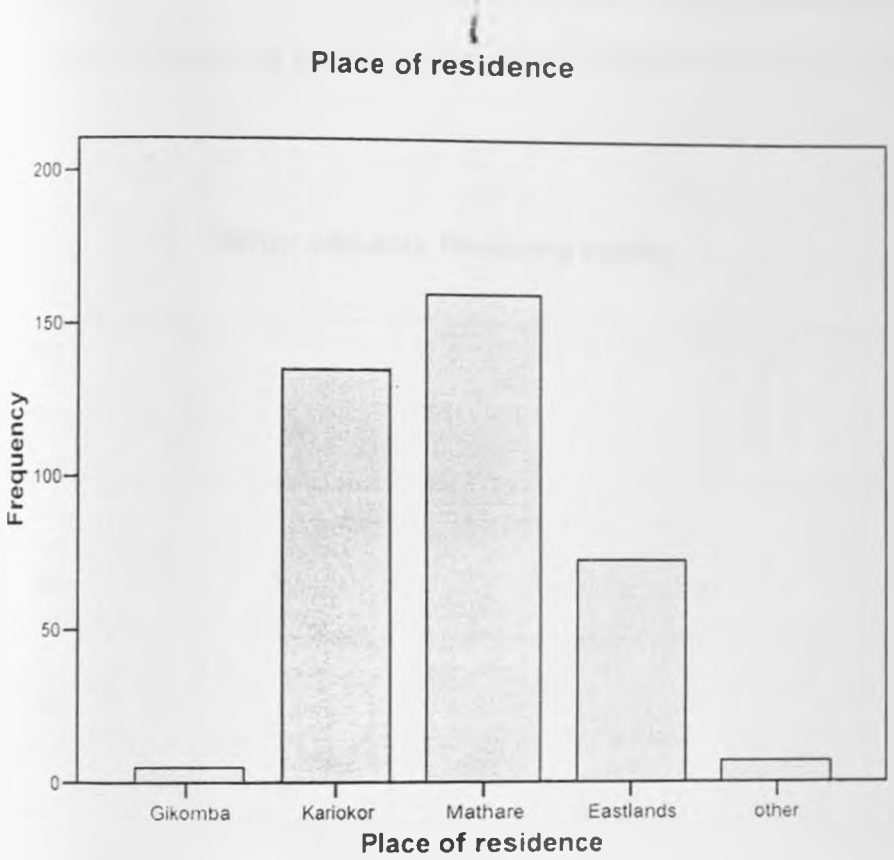
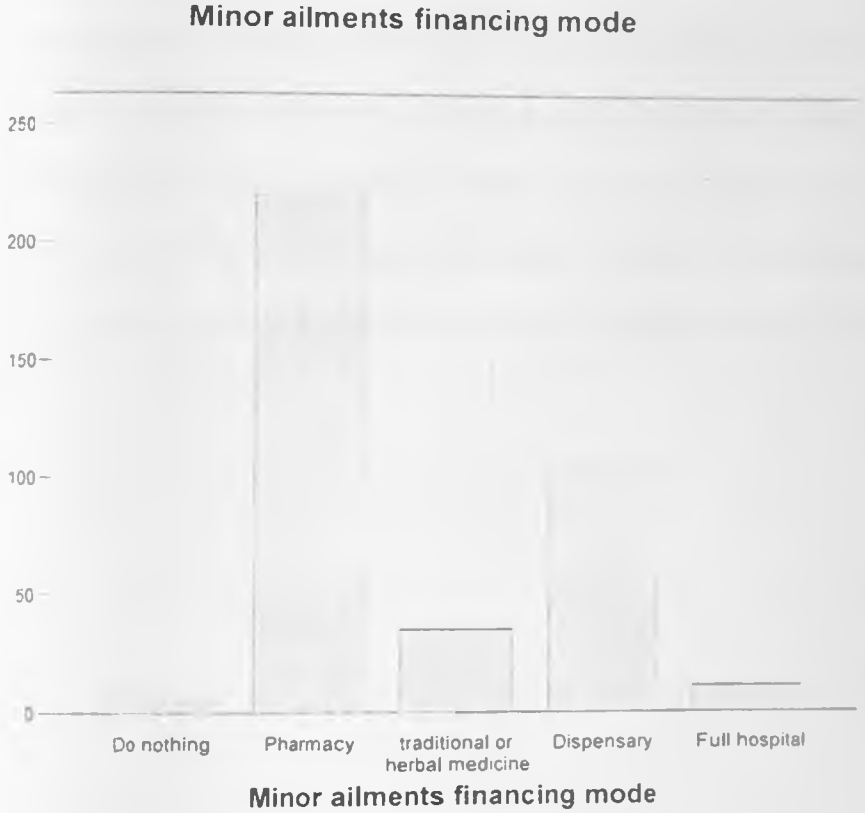


Of all the informal sector respondents, those who reside in Gikomba were 1.3% (5) and those residing in Kariokor were 35.5% (135). Respondents who resided in Eastlands were 42.1% (160) and those who reside in other places were 1.8% (7).

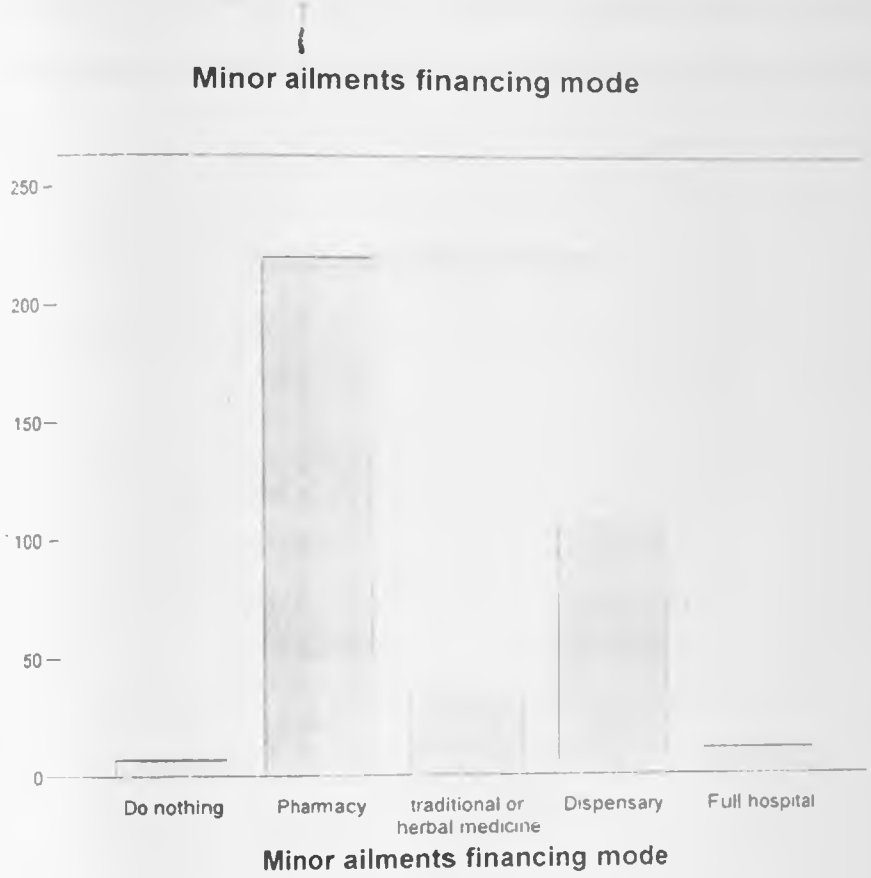
There is a positive correlation between place of residence and information seeking on cost of health care of 0.401 and between place of residence and reason for not having insurance of 0.370. There is a negative correlation between place of residence and frequency of minor illness of the value of -0.560. The correlation between place of residence and treating minor

ailments is -0.545. That of place of residence and minor ailments financing is 0.697 while place of residence and handling and financing serious ailments are-0.572 and -0.560 respectively.



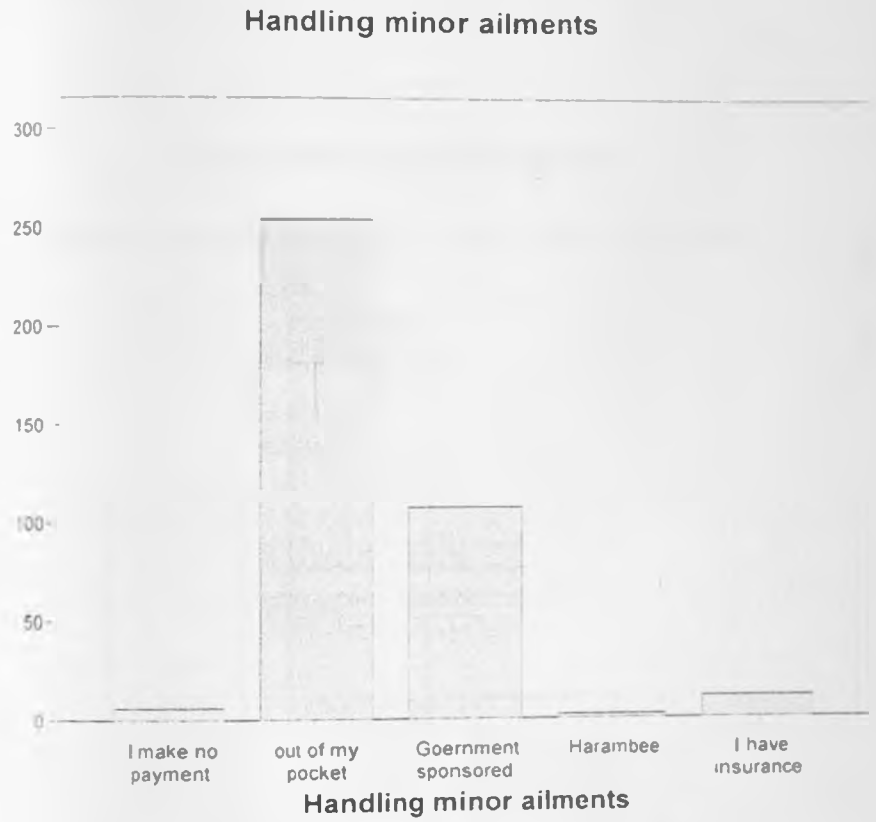
Of all the informal sector respondents, those who experiences minor ailments monthly were 1.1% (4) and those who experience minor ailments three times a year were 37.3% (143). Respondents who experienced minor ailments twice a year were 40.8% (155) and those who experienced once yearly were 18.7% (71). Finally, those who never experienced minor illness were 1.8% (7).

There is a positive correlation between minor ailments financing model and frequency of minor ailments of 0.452. That of handling minor ailments and minor ailments financing model is 0.354. The correlation between minor ailments financing model and frequency of serious ailments is 0.540. There is also a positive correlation between minor ailments financing model and reasons for defaulting of 0.70. Correlation between minor ailments financing model and cost of treating serious ailments and handling serious ailments are 0.679 and 0.881 respectively. The negative correlation between minor ailments financing model and serious ailments financing model -0.344 while that of cost of financing insurance is -0.764. The correlation between minor ailments financing model and seeking information of health care costs is -0.452.



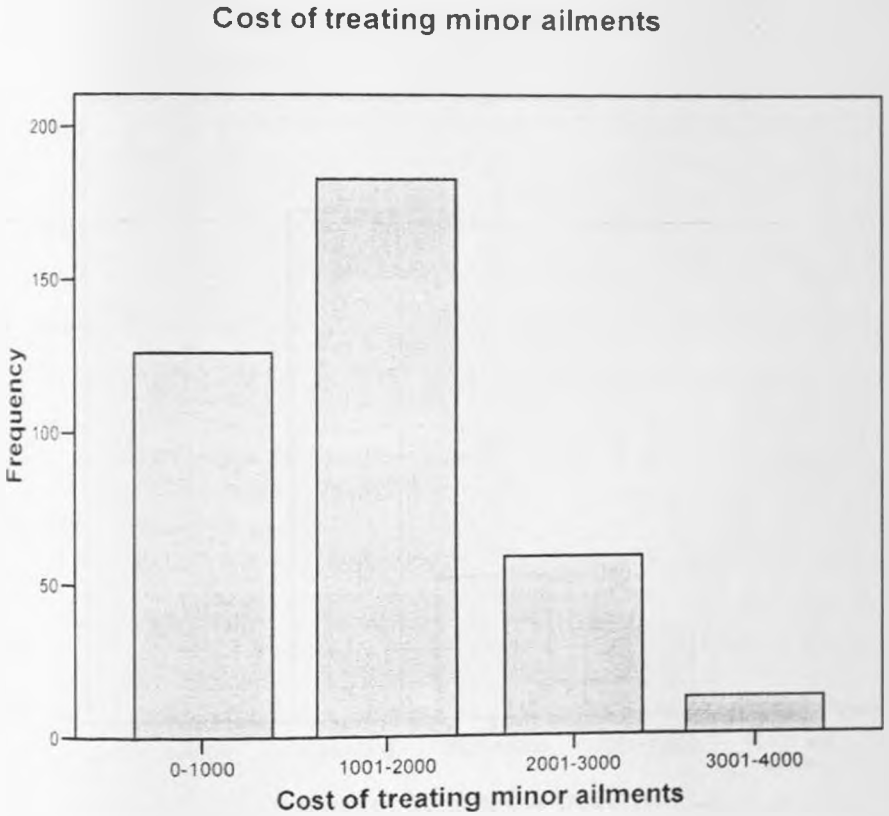
Of all the informal sector respondents, those who did not go to the hospital when suffering from minor ailments were 1.8% (7) while those who bought drugs from the pharmacy were 57.9% (220) Respondents who used traditional or herbs to treat their minor illness were 9.2% (35). 28.2 (107) went to the dispensary while 2.9% (11) visited a full hospital. There is a positive correlation between handling minor ailments and cost of treating minor ailments of 0.325. The correlation between handling minor ailments and cost of getting treatment was 0.427 while that of handling minor ailments and financing model was 0.452. The correlation between

handling minor ailments and cost of financing insurance premiums was -0.451. Finally, the correlation between handling minor ailments and reasons for default was 0.481.



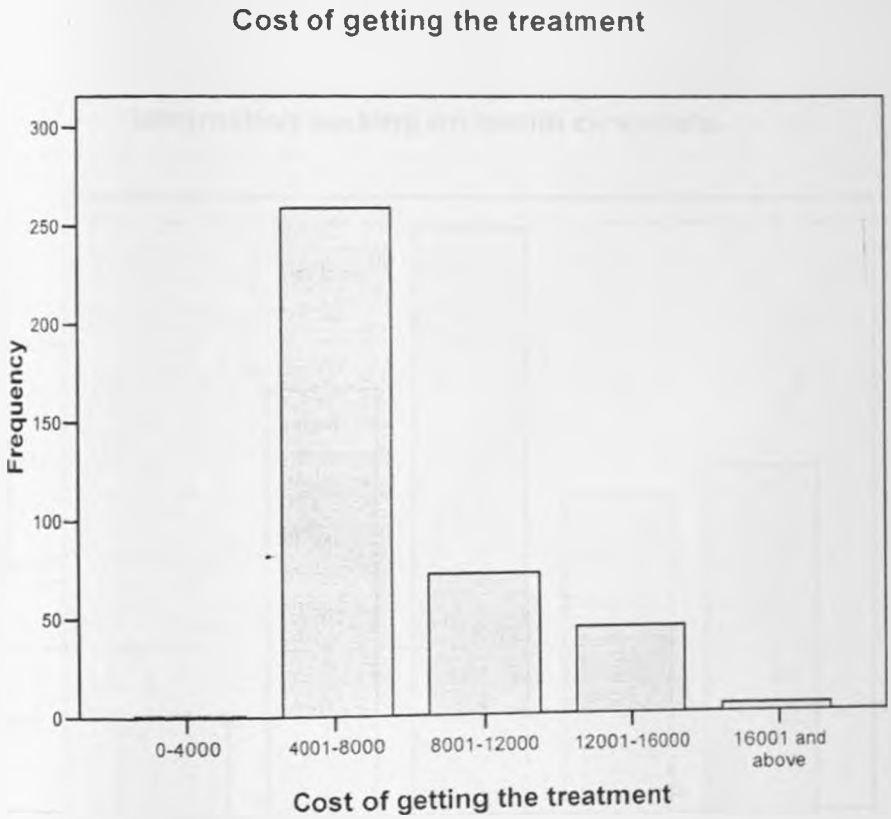
Of all the informal sector respondents, those who do not make any payment for the serious ailments were 3.2% (12) and those who paid from their pockets for serious ailments were 47.6% (181). Respondents who were paid for by government program were 36.6% (139) while those paid for by Harambee were 10.5% (40). Finally, those who were paid for by the insurance

were 2.1% (8). The correlation of handling major ailments and cost of treating serious ailments was 0.510 while that for handling major ailments and reasons for having insurance was 0.354 There was also a positive correlation between handling major ailments and choice of financing model of 0.354.



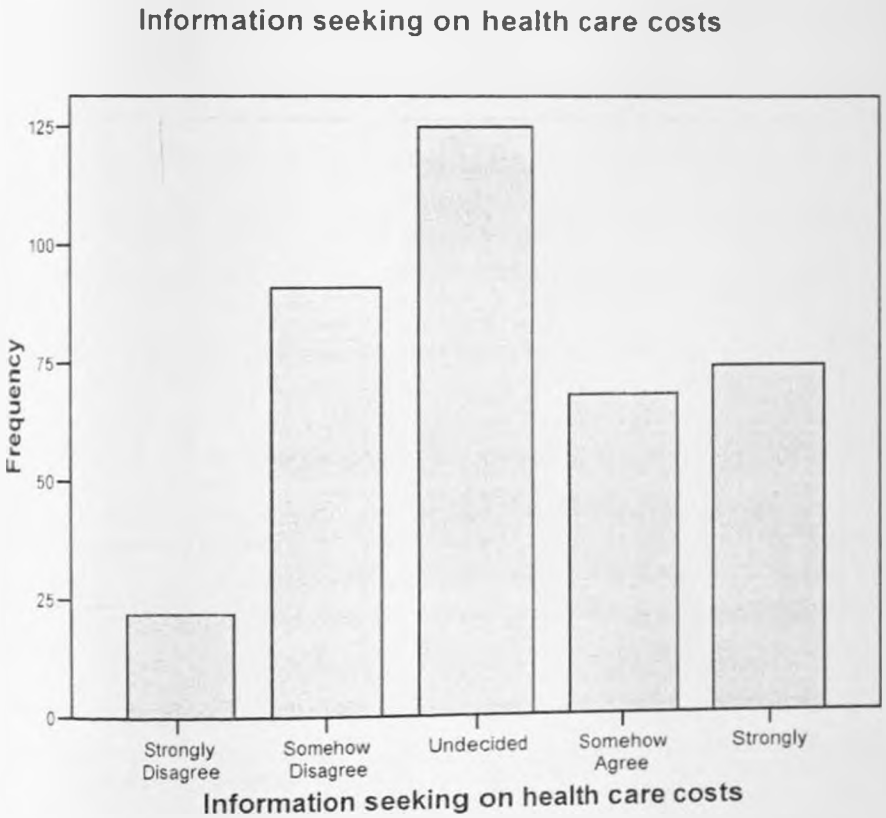
Of all the informal sector respondents, those who paid between Kshs 0-1000 for minor ailments were 33.2% (126) while those who paid Kshs 1001-2000 were 48.2% (183). Respondents who paid between Kshs 2001-3000 were 15.5% (59). Those who paid between Kshs 3001-4000 were 3.2% (12) while respondents who paid Kshs 16001 and over for treatment of ailments was 1.1%

(4) The correlation between cost of treating minor ailments and choice of mode of financing health care was 0.540 while that of cost of treating minor ailments and reasons for not having insurance was -0.519. Furthermore, the correlation between cost of treating minor ailments and cost of financing insurance was -0.70



Of all the informal sector respondents, those who paid between Kshs 0-4000 for minor ailments were 0.3% (1) while those who paid Kshs 4001-8000 were 68.2% (259). Respondents who paid between Kshs 8001-12000 were 18.9% (72). Those who paid between Kshs 12001-16000 were 11.6% (44) while respondents who paid Kshs 16001 and over for treatment of ailments was

1 1% (4). There was a positive correlation between cost of financing serious ailment and choice of model financing of 0.679. There was also a positive correlation between costs of financing serious ailment and reasons for not having insurance 0.679. But there is a negative correlation between cost of financing serious ailments and cost of financing insurance of -0.778.



Of all the informal sector respondents, those who strongly disagree were 5.8% (22) while those who somehow disagree were 23.9% (91). Respondents who were undecided were 32.9% (125). Those who somehow agree were 17.9% (68) and respondents who strongly agreed were 19.5% (74). There is a positive correlation between information seeking on health care costs and cost of financing insurance of 0.461. The correlation between information seeking on health care costs and choice of mode of financing health care was -0.452.

CHAPTER FIVE: CONCLUSION AND DISCUSSION

It was found that most people working in the informal sector are between the ages of 28 and 47 years that comprises 65.1%. The analysis of the results of the survey indicated that the older the person the higher the level of income earned. This means that older people may have enough money to spend as compared to the younger and very old population. The study also revealed that there is a positive correlation between age and where the treatment is sought. This means that older people prefer seeking treatment in dispensaries and full hospital than in other places such as pharmacies and traditional alternatives. Therefore, older people in the population are more likely to purchase health insurance because they have higher level of income. They also prefer seeking medication in the dispensary and fully fledged hospitals because they are more sensitive to their overall health as compared to the younger population who may believe that they are healthier. The negative results also indicated that most people in the population pay their medical expenses using out of pocket payments methods. There is also a strong positive correlation between age and reasons of not taking up insurance. This means that older people are likely to purchase health insurance as compared to the younger population. Most people opt out of insurance programs because it is very expensive to maintain health insurance.

The study also revealed that most people (73.4%) in the informal sector have high or secondary school level of education. From the results obtained in the survey, the higher the level of education, the higher chances of identifying and computing the health care costs meaning that

more learned people are better informed about health care costs as compared to the less learned population. As a result more learned population are less likely to purchase health insurance if they realize that their cost of insurance premiums are higher than if they pay out of their pockets as need (only when they become sick). The population believes that they become sick less often and as a result prefer out of pocket treatments that seem cheaper especially for minor illness.

63.7% of the respondents are married. Married people have higher number of dependants. This means that it is prohibitive to purchase health care insurance because married people would pay a lot of premiums for their dependants. The population found it very difficult to choose who to insure and who not to insure if when they have a lot of dependants. Most married people were found to be on the lookout for health care cost information. This is because they are seeking for better ways of reducing their health care costs.

52.4% of the respondents indicated that they earn between Kshs 10001-15000. Most respondents with higher income level exhibited out of pocket health care payment mode. In addition, the study identified most people with higher level of income as visiting the dispensary and fully fledged hospital. High income earners are less likely to get sick because they are able to afford basic necessities such as better food; clothing and better housing thus are not exposed to health hazards as compared to those in the lower ladder of income level. In addition, according to the results of the study, most income earners in the higher level of

income are less likely to seek information on the cost of health care. This is because they feel that they will be able to pay their medical expenses when they become sick.

The responses received also indicated that 77.6% informal sector employees reside in Kariokor and Eastlands area, while 37.3% of the respondents indicated that they become sick three times in a year, while 40.8% reported that they fall sick twice in the year. This shows that the 78.1% of the population do not fall sick regularly. Consequently, they feel that they are healthy and would prefer paying for medical expenses when they become sick. 78.1% of the population interviewed experienced minor ailments three times a year and twice a year. Majority of the population who experienced minor illness visited a dispensary or bought drugs from a chemist. Consequently, persons in the community find it easier to pay for treatment by themselves than by any other means. According to the population surveyed, it is evident that people without frequent minor ailments are likely to pay from their pockets.

47.6% of the people surveyed claimed that they paid their serious ailments costs while 36.6% were paid for by government programs. This means that 84.2% of the population surveyed pay themselves or utilize government health care programs to meet their health care needs. However most respondents indicated that they prefer making payments directly out of their pockets. They also cited that cost of health insurance is prohibitive to most of the respondents. 48.2% of the respondents paid between Kshs 1001-2000 to pay for treatment of minor ailments, while 33.2% paid between Kshs 0-1000 for minor ailments. This indicates that the cost of purchasing health care for minor ailments is minimal for 81.4% of the respondents and

considers direct out of pocket appropriate for them. In addition, people prefer out of pocket payments than payment of health care costs through insurance.

68.2% of the respondents paid between Kshs 4001-8000 to pay for treatment of major ailments. While 18.9% paid between Kshs 8001-12000 for major ailments. This indicates that the cost of purchasing health care for major ailments is quite high and out of pocket payment may not be appropriate for them. However, the same population prefers out of pocket payments.

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APPENDICES

APPENDIX I: QUESTIONNAIRE COVER LETTER

Dominic Kosgei,

P O Box 19951 00100

Nairobi,

Kenya

Dear Sir/ Madam,

My name is Dominic Kosgei and I am undertaking a Master of Business Administration degree Program at the University of Nairobi majoring in Finance. One of my academic outputs before graduation is a thesis and for this I have chosen the research topic "Factors influencing the choice of healthcare financing by informal sector employees"

The attached questionnaire will provide me with invaluable data for the thesis. I would be most grateful if you would complete it and submit to the researcher in a week's time
To enhance confidentiality, I will request you not to write down your name in this tool

Dominic Kosgei

MBA Student,

University of Nairobi

APPENDIX II: QUESTIONNAIRE

Section A: Demographic

1.0 What is your age?

- ☐ 18- 27
- ☐ 28-37
- ☐ 38-47
- ☐ 48-57
- ☐ 58 and above

2.0 What is your highest level of education?

- ☐ Primary school and below
- ☐ High school
- ☐ Some college
- ☐ Bachelor's degree
- ☐ Master and above

3.0 What is your marital status?

- ☐ Single
- ☐ Married
- ☐ Widowed
- ☐ Divorced
- ☐ Cohabiting

4.0 What is your current household income in Kenya shillings?

- ☐ Under 5,000
- ☐ 5001-10000
- ☐ 10001-15000
- ☐ 15001-20000
- ☐ 20001 and above

5.0 How many children under 18 years old live in your household?

- [ ] None
- [ ] 1-3
- [ ] 4-6
- [ ] 7-9
- [ ] 10 and above

6.0 Where do you live?

- [ ] Eastlands
- [ ] Kasarani and Environs
- [ ] Dagoretti and environs
- [ ] Westlands and environs
- [ ] Karen, Muthaiga, Runda and environs

Specify _____

Section B: Health Care Financing Models

1.0 How frequently do you or your family members suffer from minor ailments?

- [ ] Every month
- [ ] Three times a year
- [ ] Twice a year
- [ ] Once a year
- [ ] Never

2.0 How do you handle healthcare financing in case of such minor ailments?

- ☐ Do nothing
- ☐ Go to the pharmacy for a prescription
- ☐ Get traditional/herbal medication
- ☐ Go to a dispensary
- ☐ Go to a full hospital

3.0 How do you pay for the cost of treating the ailments?

- ☐ I make no payment
- ☐ Out of my pocket
- ☐ Government sponsored (free treatment)
- ☐ Call for a 'harambee'
- ☐ I have insurance

4.0 What was the average cost of getting the treatment?

☐	Kshs 0 – Kshs 4,000
☐	Kshs 4,001 – Kshs 8,000
☐	Kshs 8,001 – Kshs 12,000
☐	Kshs 12,001 – Kshs 16,000
☐	Above Kshs 16,000

5.0 How frequently do you or your family members suffer from serious ailments that require hospitalization?

- ☐ Every month
- ☐ Three times a year
- ☐ Twice a year
- ☐ Once a year
- ☐ Never

6.0 How do you handle healthcare financing in case of such serious ailments?

- ☐ Do nothing
- ☐ Go to the pharmacy for a prescription
- ☐ Get traditional/herbal medication
- ☐ Go to a dispensary
- ☐ Go to a full hospital

7.0 How do you pay for the cost of treating such ailments?

- ☐ I make no payment
- ☐ Out of my pocket
- ☐ Government sponsored (free treatment)
- ☐ Call for a 'harambee'
- ☐ I have insurance

8.0 What was the average cost of getting the treatment?

☐	Kshs 0 – Kshs 4,000
☐	Kshs 4,001 – Kshs 8,000
☐	Kshs 8,001 – Kshs 12,000
☐	Kshs 12,001 – Kshs 16,000
☐	Above Kshs 16,000

9.0 I choose to finance my health care as shown above because?

- ☐ Affordable cost
- ☐ My income allows
- ☐ Better quality services
- ☐ I do not know of other ways to pay for treatment
- ☐ I am not in formal employment

10.0 I always look for information that keep me informed about health care costs

- ☐ Strongly disagree
- ☐ Somehow disagree
- ☐ Undecided
- ☐ Somehow Agree
- ☐ Strongly agree

Section C: Factors influencing choice

11.0 Do you have medical insurance?

- ☐ Yes
- ☐ No

12.0 If No, why haven't you taken up medical insurance?

- ☐ Cost is too high
- ☐ I'm healthy, I don't need medical insurance
- ☐ I do not have a family
- ☐ I don't know the options available
- ☐ Other (Specify below)

_____

_____

If Yes, what kind of insurance do you have?

- ☐ NHIF
- ☐ Private Insurance (Specify) _____
- ☐ Community Based Organization (Specify)_____
- ☐ Other (Specify) _____

How do you find the cost of the insurance that you have?

- ☐ Too Cheap
- ☐ Affordable
- ☐ Expensive
- ☐ Very Expensive

Have you ever defaulted or opted out of medical insurance after the end of the period covered?

- ☐ Yes
- ☐ No

Why did you default or opt out?

- ☐ Too costly
- ☐ I did not need the cover
- ☐ I wanted another method (Indicate below)
- ☐ I wasn't aware you need to renew
- ☐ Other (Indicate below)

_____

_____

13.0 If Yes, what kind of insurance do you have?

- ☐ NHIF
- ☐ Private Insurance (Specify) _____
- ☐ Community Based Organization (Specify)_____
- ☐ Other (Specify) _____

14.0 How do you find the cost of the insurance that you have?

- ☐ Too Cheap
- ☐ Affordable
- ☐ Expensive
- ☐ Very Expensive

15.0 Have you ever defaulted or opted out of medical insurance after the end of the period covered?

- ☐ Yes
- ☐ No

16.0 Why did you default or opt out?

- ☐ Too costly
- ☐ I did not need the cover
- ☐ I wanted another method (Indicate below)
- ☐ I wasn't aware you need to renew
- ☐ Other (Indicate below)

_____

_____

APPENDIX III: QUESTIONNAIRE RESPONSES RECEIVED

	1	2	3	4	5
Section A: Demographic					
What is your age?	42	103	137	68	30
What is your highest level of education?	57	281	30	12	0
What is your marital status?	99	236	21	24	0
What is your current household income in Kenya shillings?	30	91	156	46	57
How many children under 18 years old live in your household?	10	217	138	15	0
Where do you live?	163	69	57	91	0
Section B: Health Care Financing Models					
How frequently do you or your family members suffer from minor ailments?	4	141	156	72	7
How do you handle healthcare financing in case of such minor ailments?	7	222	34	106	11
How do you pay for the cost of treating the ailments?	6	255	106	2	11
What was the average cost of getting the treatment?	125	186	57	12	0
How frequently do you or your family members suffer from serious ailments that require hospitalization?	0	31	34	186	129
How do you handle healthcare financing in case of such serious ailments?	0	57	4	175	144
How do you pay for the cost of treating such	15	198	118	41	8

ailments?					
What was the average cost of getting the treatment?	87	171	72	45	5
I choose to finance my health care as shown above because?	327	45	8	0	0
I always look for information that keep me informed about health care costs	27	91	122	68	72
Section C: Factors influencing choice					
Do you have medical insurance?	369	11	0	0	0
If No, why haven't you taken up medical insurance?	155	59	22	48	85
If Yes, what kind of insurance do you have?	9	0	3	0	0
How do you find the cost of the insurance that you have?	1	8	2	0	0
Have you ever defaulted or opted out of medical insurance after the end of the period covered?	2	9	0	0	0
Why did you default or opt out?	3	1	2	2	1

APPENDIX III: CORRELATION MATRICES

Table 1.4: The Correlation Matrix I

Correlation	Reason for having	Cost of financing insurance	defaulting or opted out of medical insurance	Reason for default or opt out
Age	-.354	.540	.750	-.440
Level of education	.258	.000	-.548	-.030
Marital status	-.645	.592	.091	-.663
Household income level	-.222	.000	.471	.026
Number of dependants	-.750	.382	.354	-.525
Place of residence	-.560	.321	-.198	-.392
Frequency of minor ailments	1.000	-.764	-.471	.701
Minor ailments financing model	.452	-.461	.284	.481
Handling minor ailments	.354	.000	.417	.633
Cost of treating minor ailments	.540	-.707	-.382	.883
Frequency of serious	.540	-.707	.000	.505
Serious ailments financing model	-.344	.592	.730	.040
Handling serious ailments	.881	-.734	-.283	.748
Cost of getting the treatment	.679	-.778	-.320	.569
Choice of mode of financing	1.000	-.764	-.471	.701
Information seeking on health care costs	-.452	.461	-.036	-.563
Medical insurance				
Reason for not having	-.240	.367	.510	-.168
Reason for having	1.000	-.764	-.471	.701

Cost of financing insurance	-.764	1.000	.540	-.714
defaulting or opted out of medical insurance	-.471	.540	1.000	-.138
Reason for default or opt out	.701	-.714	-.138	1.000

Table 1.5: **The Correlation Matrix II**

Correlation	Serious ailments financing model	Handling serious ailments	Cost of getting the treatment	Choice of mode of financing	Information seeking on health care costs	Reason for not having
Age	.548	-.113	-.240	-.354	-.213	.679
Level of education	.067	.372	-.132	.258	-.389	-.062
Marital status	-.167	-.930	-.439	-.645	.973	-.062
Household income level	.445	.240	-.019	-.222	-.720	.427
Number of dependants	-.043	-.801	-.510	-.750	.603	-.240
Place of residence	-.145	-.572	-.048	-.560	.401	.370
Frequency of minor ailments	-.344	.881	.679	1.000	-.452	-.240
Minor ailments financing model	-.156	.314	.427	.452	-.045	-.193
Handling minor ailments	.730	.510	-.040	.354	-.533	.113

Cost of treating minor ailments	-.139	.519	.367	.540	-.326	-.519
Frequency of serious	-.418	.519	.917	.540	-.326	.259
Serious ailments financing model	1.000	-.062	-.541	-.344	-.298	.372
Handling serious ailments	-.062	1.000	.598	.881	-.821	.077
Cost of getting the treatment	-.541	.598	1.000	.679	-.307	.218
Choice of mode of financing	-.344	.881	.679	1.000	-.452	-.240
Information seeking on health care costs	-.298	-.821	-.307	-.452	1.000	-.145
Medical insurance						
Reason for not having	-.372	-.077	.218	-.240	-.145	1.000
Reason for having	-.344	.881	.679	1.000	-.452	-.240
Cost of financing insurance	.592	-.734	-.778	-.764	.461	.367
defaulting or opted out of medical insurance	.730	-.283	-.320	-.471	-.036	.510
Reason for default or opt out	.040	.748	.569	.701	-.563	-.168

Table 1.6: The Correlation Matrix III

Correlation	Reason for having	Cost of financing insurance	defaulting or opted out of medical insurance	Reason for default or opt out
Age	-.354	.540	.750	-.440
Level of education	.258	.000	-.548	-.030
Marital status	-.645	.592	.091	-.663
Household income level	-.222	.000	.471	.026
Number of dependants	-.750	.382	.354	-.525
Place of residence	-.560	.321	-.198	-.392
Frequency of minor ailments	1.000	-.764	-.471	.701
Minor ailments financing model	.452	-.461	.284	.481
Handling minor ailments	.354	.000	.417	.633
Cost of treating minor ailments	.540	-.707	-.382	.883
Frequency of serious	540	-.707	.000	.505
Serious ailments financing model	-.344	.592	.730	.040
Handling serious ailments	.881	-.734	-.283	.748
Cost of getting the treatment	.679	-.778	-.320	.569
Choice of mode of financing	1.000	-.764	-.471	.701
Information seeking on health care costs	.452	.461	-.036	-.563
Medical insurance	.	.	.	.
Reason for not having	-.240	.367	.510	-.168
Reason for having	1.000	-.764	-.471	.701
Cost of financing insurance	-.764	1.000	.540	-.714

defaulting or opted out of medical insurance	-.471	.540	1 000	-.138
Reason for default or opt out	.701	-.714	-.138	1.000

Table 1.7: The Correlation Matrix IV

Correlation	Frequency of minor ailments	Minor ailments financing model	Handling minor ailments	Cost of treating minor ailments	Frequency of serious	Serious ailments financing model
Age	-.354	-.036	.167	-.764	.000	.548
Level of education	.258	-.701	.091	.000	-.418	.067
Marital status	-.645	-.156	-.548	.418	.418	-.167
Household income level	-.222	-.101	.196	-.180	.180	.445
Number of dependants	-.750	.101	-.471	-.270	-.270	.043
Place of residence	-.560	-.697	-.545	-.227	-.227	-.145
Frequency of minor ailments	1.000	.452	.354	.540	.540	-.344
Minor ailments financing model	.452	1.000	.284	.326	.651	-.156
Handling minor ailments	.354	.284	1.000	.382	.000	.730
Cost of treating minor ailments	.540	.326	.382	1.000	.250	-.139
Frequency of serious	.540	.651	.000	.250	1.000	-.418
Serious ailments financing model	-.344	-.156	.730	-.139	-.418	1.000

Handling serious ailments	.881	.314	.510	519	.519	-.062
Cost of getting the treatment	.679	.427	-.040	.367	.917	-.541
Choice of mode of financing	1.000	.452	.354	.540	.540	-.344
Information seeking on health care costs	-.452	-.045	-.533	-.326	-.326	-.298
Medical insurance	.	.	.	.	.	.
Reason for not having	-.240	-.193	.113	-.519	.259	.372
Reason for having	1.000	.452	.354	.540	.540	-.344
Cost of financing insurance	-.764	-.461	.000	-.707	-.707	.592
defaulting or opted out of medical insurance	-.471	.284	.417	-.382	.000	.730
Reason for default or opt out	.701	.481	.633	.883	.505	.040

Table 1.8: The Correlation Matrix V

Correlation	Frequency of minor ailments	Minor ailments financing model	Handling minor ailments	Cost of treating minor ailments	Frequency of serious	Serious ailments financing model
Age	-.354	-.036	.167	-.764	.000	.548
Level of education	.258	-.701	.091	.000	-.418	.067
Marital status	-.645	-.156	-.548	-.418	-.418	-.167
Household income level	-.222	-.101	.196	.180	.180	.445
Number of dependants	-.750	.101	-.471	-.270	-.270	-.043
Place of residence	-.560	-.697	-.545	-.227	-.227	-.145

Frequency of minor ailments	1.000	.452	.354	540	.540	-.344
Minor ailments financing model	.452	1.000	.284	.326	.651	-.156
Handling minor ailments	.354	.284	1.000	.382	.000	.730
Cost of treating minor ailments	.540	.326	.382	1.000	.250	-.139
Frequency of serious	.540	.651	.000	.250	1.000	-.418
Serious ailments financing model	-.344	-.156	.730	-.139	-.418	1.000
Handling serious ailments	.881	.314	.510	.519	.519	-.062
Cost of getting the treatment	.679	.427	-.040	.367	.917	-.541
Choice of mode of financing	1.000	.452	.354	.540	.540	-.344
Information seeking on health care costs	.452	.045	-.533	.326	-.326	-.298
Medical insurance	.	.	.	.	.	.
Reason for not having	.240	.193	.113	.519	.259	.372
Reason for having	1.000	.452	.354	.540	.540	-.344
Cost of financing insurance	-.764	-.461	.000	-.707	-.707	.592
defaulting or opted out of medical insurance	-.471	.284	.417	-.382	.000	.730
Reason for default or opt out	.701	.481	.633	.883	.505	.040