

FACTORS AFFECTING UPTAKE OF NATIONAL HOSPITAL INSURANCE FUND AMONG INFORMAL SECTOR WORKERS

A CASE OF NYATIKE SUB-COUNTY, KENYA

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Abstract

The country to achieve its millennium development goals, it has to devise appropriate mechanism that can ensure that her people are healthy enough to steer their own economic development. Due to the rampant poverty level in Kenya, schemes like NHIF are the only hope for the less fortunate populace within the country if they were to get high quality, affordable and accessible health care services in order to remain relevant in the social and economic activities. Basically this study sought to establish factors affecting uptake of national hospital insurance fund among informal sector workers in Nyatike Sub- County.. There is need to sensitize workers in the informal sector on the benefits of being a member with hospital insurance fund. There is need to ensure NHIF offices are easily accessible by opening of more regional offices within the county, there is need to review the current terms of registration in order to eliminate some of the unnecessary requirements which makes that processes lengthy and tedious, the government through the ministry of labor should liaise with trade unions to make sure that all policies governing employment of casual workers are followed by all employers.

Keywords: Accessibility, Awareness, Terms of employment, Registration process, Informal sector uptake

INTRODUCTION

Globally there is growing international consensus on the importance of extending social protection in health to the whole population (Carrin and Preker, 2004; WHA, 2005) in order to reduce financial barriers to health care services for the needy and to avoid catastrophic health expenditures (Kawabata et al., 2002). The option of social health insurance as a financing mechanism generating additional resources in typically chronically underfinanced health systems is receiving increasing attention (Carrin and James, 2004), for the informal sector too (WHO, 2006). However, one of the major challenges to social health insurance in developing countries is integration of the expanding informal sector and inclusion of the poor. Various low-income countries (Ghana, Kenya, Kyrgyz Republic, the Philippines, Tanzania and Viet Nam) and mid-income countries (South Korea, Mexico), which have introduced or are in the process of expanding social health insurance, are being faced with this, (Carrin and James, 2004).

Promotion of demand and acceptability starts from a sound understanding of factors affecting registration among informal sector workers and the poor. However, the literature addressing demand-side factors of health insurance in low-income countries are limited (Xu et al., 2006). Yet econometric studies do not state why people have joined an insurance scheme, and especially why people with lower incomes, in whom we are particularly interested, have not joined. Research into people's preferences (Monheit and Vistness, 2004) emphasizes the need to look beyond demographic and income factors to understand people's reasoning and decision making. Other studies have tried to assess willingness and ability to pay for health insurance (Osei-Akoto, 2003; Dror, 2006).

Regionally the informal sector is characterized by low and non-regular, non-taxed incomes, insecure employment and self-employment without social security (Canagarajah and Setharaman, 2001). It is difficult to assess the income of informal sector workers, on the basis of which social security contributions can be deducted. Hence policymakers wishing to introduce or upscale a national social health insurance for the informal sector and to include the poor are faced with a number of questions regarding insurance scheme design with respect to enrolment, revenue collection, risk pooling and purchasing of health services. Another critical task is promoting demand for and acceptability of social health insurance among informal sector workers during the introduction and scaling-up phase.

Health insurances are now beginning to be popular among countries in Sub-Saharan Africa and their contribution to improving health outcomes is increasingly attracting attention from governments and donors and Ghana's case is a shining example. Tabor (2005) maintains that 'NHIF provide one reliable way by which poor communities manage health risks in combination with publicly financed health care services (Tabor, 2005).

Recognition of NHIF as a mechanism for improving financial access to health care and for extending social protection to underserved population is gradually receiving political will and support and Ghana happens to be one of the countries to join the wagon having come out with its own unique health insurance strategy (Government of Ghana, 2004). Households purchase insurance, as a market product, based on the market forces of demand and supply. Often, household's insurance decisions are informed by factors such as income level, premium rate, and information available about the insurance, level of household members' involvement in health decisions, benefits to get and household needs, constituting demand side. On the other hand, these household decisions are again based on the way the insurer and service provider package the insurance as regards premium rate, public education, and trust that households have in them.

From the Kenyan perspective fifty-six per cent of the Kenyan population are 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, 2005a). 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, 2005). Household survey data show that the large majority of Kenyans (98% of the lowest, 96% of the 2nd and 95% of the 3rd quintile) 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) is not yet far developed in Kenya. Since its introduction in 1999, about 32 schemes has been set up so far with about 170 000 beneficiaries covered, as data from the Kenya Community-Based Health Financing Association of 2012 show. Under the current law of the 1998 NHIF Act, NHIF membership is mandatory for all civil servants and formal sector employees. The formal sector comprises those employers registered with the registrar of companies.

In 2005, an estimated 1.5 million primary contributors were enrolled in this population group, thus accounting with their dependents for an estimated total of about 5 million Kenyans (NHIF, 2005). Monthly contribution rates through payroll deductions range from 120 Kenyan Shillings (KES) (USD 1.60) for a monthly income of KES 5000–5999 (USD 66.67–80.00) to KES 320 (USD 4.27) for an income above KES 15 000 (USD 200.00) (as of 2006). The self-employed and informal sector workers, i.e. all persons who are not formal sector employees, can join the

scheme on a voluntary basis. They pay a flat-rate contribution of KES 160 (USD 2.13) per month for their entire nuclear family. This contribution rate corresponds to an income range of KES 7000–8000 (USD 93.33–106.67) for formal sector workers. The informal sector is very heterogeneous, including some better-off income groups with a much higher income than those formal sector employees with the corresponding contribution rate of KES 160, but also many poor people with an income far below KES 7000 (Kimani et al., 2004).

Previously, the contribution covered primarily the costs of bed occupancy ('bed costs') for inpatient care, whereas the remaining costs had to be borne directly by the patient. Since 2004, extension of the benefit package has been underway to cover up to 100% of inpatient care, depending on the hospital's services and the negotiated daily rebate. Co-payment rates thus vary across hospitals, which send their claims to the NHIF to be reimbursed retrospectively.

Statement of the problem

The NHIF's current strategy aims at increasing registration of the informal sector considerably (NHIF, 2012). The current package therefore of 160 KSH per family per month would seem likely to attract more workers. However, only 10885 have been registered in Migori County out of 26784 targeted beginning 30th June 2011 to 31st July 2014 where by Nyatike subcounty is contributing the least numbers of about 978. This translates to only 0.3% NHIF registration rate among the informal sector. Despite being tipped as the cheapest scheme that could salvage the citizens against the ever exorbitant medical expenses, the scheme has hitherto registered few members and is perceived by many as a scheme for the employed. This has forced a high number of citizens to suffer solely with the burden of footing these high medical bills, making them even more vulnerable and despondent given the high level poverty that has continued to bedevil this County. Settling of hospital bills indeed has become a problem for some patients who don't have an insurance cover. This calls for family members to organize for fundraising or sell home property to clear the hospital bill. For those who may be unfortunate enough they overstay in the hospital to wait for hospital waiver system to waive them thus the need to establish factors affecting uptake of national hospital insurance fund among informal sector workers in Nyatike Sub-County in Migori county and the country as a whole.

Objectives of the study

- i. To establish how accessibility influences uptake of national hospital insurance fund among informal sector workers in Nyatike Sub- County.

- ii. To establish how awareness influence uptake of national hospital insurance fund among informal sector workers in Nyatike Sub- County.
- iii. To examine how registration process affects the uptake of national hospital insurance fund among informal sector workers in Nyatike Sub- County.
- iv. To establish the relationship between terms of employment and uptake of national hospital insurance fund among informal sector workers in Nyatike Sub- County.

THEORETICAL FRAMEWORK

There are several theories that explain why people opt to take any insurance cover. A few are explained below.

Consumer theory

This theory assumes that consumers who are perfectly informed maximize their utility as a function of consuming various goods, given relative prices, their income and preferences. According to Begg et al. (2000), 'changes in prices and income influence how much of different goods rational consumers will buy'. They argue that 'health insurance is expected to be a normal good with a positive income elasticity of demand, implying that the people are less likely to insure, given a lower price'. They further maintain that 'a price increase of a substitute for insurance such as user fees is expected to raise the insurance demand, as is a decrease in insurance premium'. In the researcher's view, consumers' reaction to the price changes depends upon their socioeconomic status since the rich, in particular, are likely to be insensitive to price changes, provided they are still getting quality of health care they expect at that exorbitant price. Cameron et al. (1988) also criticized the theory by arguing that 'since there are uncertainties about health insurance, choice is not made based on utility alone but on consumers' expectation about factors such as their health status. Thus, theories on decision-making under uncertainty better describe insurance registration.

Expected Utility (EU) Theory

Manning and Marquis (1996) stated that, 'under expected utility theory, insurance demand is a choice between an uncertain loss that occurs with a probability when uninsured and a certain loss like paying a premium'. The theory assumes that people are risk averse and make choices between taking a risk that has different implications on wealth. At the time of insurance choice, households are uncertain whether they will be ill or not, and of the related financial consequences. Insurance reduces this uncertainty. Explaining this further, Hsiao et al. (2006) argue that 'the choice of rural residents to join or not join a CBHI is a discrete decision process

consistent with qualitative choice model' and that the farmers' choice of joining a community-based health insurance scheme in rural China was grounded in the comparison of the expected utility of having health insurance versus having none.' Despite these criticisms, expected utility is most commonly used in models of decision making under risk, (Marquis and Holmer, 1996).

State-Dependent Theory

The state-dependent theory suggests that consumers' utility level and taste are guided by their health or socio-economic status. As such differences in degree of risk aversion influences insurance decision and magnitude of what they expect as insurance pay-offs. Most people insure when they are healthy and this shows how central socio-economic status is in insurance decisions as in consumer theory. Where a healthy person optimistically expects to remain healthy in the future insurance coverage may be below full loss coverage, if the anticipated insurance pay-off is below the real loss in case of illness. Hence, the anticipated need for medical care, given the current state, and the magnitude of the related insurance pay-off in case of sickness, will affect household demand (Schneider 2004). The state-dependent theory posits that the insurance decision of a household is influenced by both demand and supply factors as income level and supply and insurance pay-offs.

Similar view is shared by the prospect theory posits that households are risk-preferring and that their decisions to register based on the prospect of gaining when sick. It identifies supply factors such as premium and benefits as issues to inform households' insurance decisions.

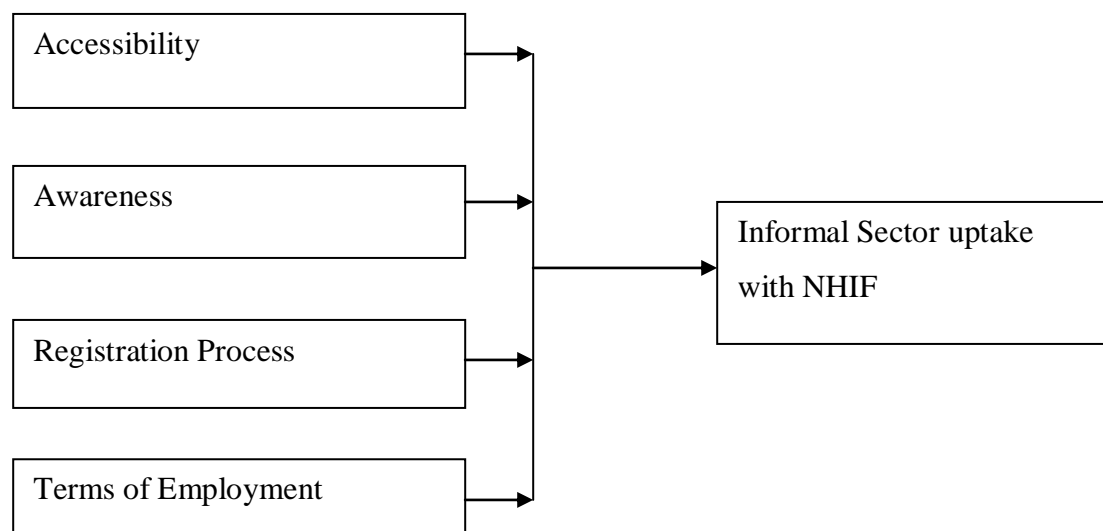
Endowment Effect Theory

The endowment effect theory assumes that decision-making is affected by households' risk aversion about something new. People perceive greater costs in giving something up than benefit in acquiring something new. According to Schneider (2004) 'households would rather stay with the old if they do not know whether the benefits of an unknown alternative exceed the cost of giving up something well known'. Households will insure if they are of the perception that benefits of insurance are higher than the cost related to giving up being uninsured and vice versa. In brief, the endowment theory is of the assumption that to replace an old thing with a new depends on how promising the new one is compared to the old one. In this vein, opting for insurance depends upon the extent to which it gives a better alternative to out-of-pocket payment.

Conceptual Framework

Conceptual framework is a scheme of concept (variables) which the researcher operationalizes in order to achieve the set objectives, Mugenda & Mugenda (2003). A variable is a measure characteristic that assumes different values among subject, Mugenda & Mugenda, (2003). Independent variables are variables that a researcher manipulates in order to determine its effect of influence on another variable, while the dependent variable attempts to indicate the total influence arising from the influence of the independent variable, Mugenda & Mugenda, (2003).

Figure 1: Conceptual Framework



Research Gaps

A review of the literature indicates that many studies have examined the determinants of demand for health insurance with most of them focusing on the socio-economic determinants (Propper, 2000; Liu & Chen 2009). In an attempt to identify the determinants of enrolment in the NHIS in Ghana, recent research identified income, age, marital status, employment status, self-rated health status and the perceived quality of health care services to positively influence the demand for the NHIS (Nketiah-Amponsah, 2009). The literature is also emphatic that people living in rural areas are most likely to lack access to quality health care services as compared to those living in urban areas (Lu et al, 2010).

This study sought to establish the effects of accessibility, awareness, registration process and terms of employment on uptake of national hospital insurance fund by informal sector workers in Nyatike Sub- County.

RESEARCH METHODOLOGY

This study adopted a descriptive research design since the study was intended to gather quantitative and qualitative data that sought to establish the factors affecting uptake of National Hospital Insurance Fund among informal sector workers in Nyatike Sub- County. There was no manipulation of data. According to Mugenda (2003) descriptive research design is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation.

The target population composed of 160 in the informal workers in Nyatike Sub- County. This included the transport industry, business industry and beauty and cosmetic giving a target population of 160 informal workers

Stratified random sampling was used to select respondent from various categories, the study selected 50% of the respondent from each strata which generated 80 respondents as the sample size of the study. The sampling technique employed was stratified random sampling. This is because the respondents were stratified into three categories namely: transport industry, business industry and beauty industry. Primary data was gathered using semi-structured questionnaires where the respondents were issued with the questionnaires. Questionnaires were preferred because according to Cox (2000), they are effective data collection instruments that allow respondents to give much of their opinions in regard to the research problem. According to Festing (2007) the information that was obtained from questionnaires was free from bias and researchers' influence and thus accurate and valid data was gathered. Secondary data was gathered from past published scholarly articles explaining theoretical and empirical information on diversity management issues. Descriptive statistics was used to summarize the data. This includes percentages and frequencies. Tables and other graphical presentations were appropriately used to present the data that was collected for ease of understanding and analysis. Inferential statistics through the use of Pearson correlation was carried out to establish the relationship between the research variables.

EMPIRICAL RESULTS AND DISCUSSION

Descriptive and inferential statistics have been used to discuss the findings of the study. The study targeted a sample size of 80 respondents from which 74 filled in and returned the questionnaires making a response rate of 92.5%. This response rate was satisfactory to make conclusions for the study as it acted as a representative. According to Mugenda and Mugenda (2009), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the assertion, the response rate was excellent.

Accessibility

Table 1: Statements relating to accessibility and its influence on NHIF uptake

Statement	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Mean	Std deviation
Earnings differentials between men and women are apparent across the various forms of informal work.	31	39	3	1	0	1.65	0.25
Women are disproportionately represented in lower paying forms of employment often with fewer social protections and less stable incomes.	28	40	2	2	2	1.78	0.24
Incomes of many men are spent outside their legitimate households on either purchasing drinks for friends or spending on their surrogate wives.	26	44	1	0	3	1.78	0.26
At times, it's erroneous to use the income of a wealthy member of the household as a proxy to determine the poverty level of that household.	29	41	1	2	1	1.72	0.26
NHIF offices are easily accessible from my place of work	0	0	4	31	39	4.47	0.25

On the extent to which respondents agree with the above statements relating to accessibility and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county, from the findings majority of the respondents agreed that; earnings differentials between men and women are apparent across the various forms of informal work as shown by a mean of 1.65, at times, it's erroneous to use the income of a wealthy member of the household as a proxy to determine the poverty level of that household as shown by a mean of 1.72, earnings differentials between men and women are apparent across the various forms of informal work as shown by a mean of 1.65, women are disproportionately represented in lower paying forms of employment often with fewer social protections and less stable incomes, incomes of many men are spent outside their legitimate households on either purchasing drinks for friends or spending on their surrogate wives as shown by a mean of 1.787 in each case, the study also established that NHIF offices are not easily accessible for most of the employees work place as shown by a mean of 4.47.

Awareness

Table 2: Statements relating influence of awareness on NHIF uptake

Statement	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Mean	Std deviation
Awareness is perhaps the basic component since it shapes future occupational opportunities and earning potential	30	36	4	2	2	1.78	0.23
awareness provides knowledge and life skills that allow better-educated persons to gain more ready access to information and resources to promote health	32	36	0	2	4	1.78	0.24
awareness is key to health inequality, policies encouraging more years of schooling and supporting early childhood education may have health benefits	27	42	4	1	0	1.72	0.25
collateral benefits such as decreasing health care costs, might emerge from increased investment awareness	33	36	3	2	0	1.65	0.24
NHIF employees rarely visits our places of work to enlighten us on the benefits of NHIF program	26	44	2	0	2	1.76	0.26
There is lack of advertisement from NHIF on print media and radios	29	42	1	1	1	1.69	0.26

The study sought to establish the extent to which respondents agreed with the above statements relating to the level of awareness and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county, from the research findings, majority of the respondents agreed that; collateral benefits such as decreasing health care costs, might emerge from increased investment awareness as shown by a mean a mean of 1.65, There is lack of advertisement from NHIF on print media and radios as shown by a mean a mean of 1.69, awareness is key to health inequality, policies encouraging more years of schooling and supporting early childhood education may have health benefits as shown by a mean a mean of 1.72, NHIF employees rarely visits our places of work to enlighten us on the benefits of NHIF program as shown by a mean a mean of 1.76, awareness is perhaps the basic component since it shapes future occupational opportunities and earning potential, awareness provides knowledge and life skills that allow better-educated persons to gain more ready access to information and resources to promote health as shown by a mean a mean of 1.78 in each

case. The above findings concur with (Pierre-Andre, & Salanie 2000).who asserts that; biasness in informal sector persons may be biased against in regard to insurance product like life insurance as compared to formal sector.

Registration process

Table 3: Statements relating to registration process

Statement	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Mean	Std deviation
Government regulation of registration conditions is also a domain fraught with political conflict	30	37	5	2	0	1.72	0.23
Among the employed, occupations differ in their prestige, qualifications, rewards, and job characteristics, and each of these indicators influence registration process	29	41	2	1	1	1.70	0.26
being unaware and the length of the registration process affect health insurance	33	38	1	2	0	1.62	0.26
some types of requirements for the registration process can buffer the registration process	34	36	2	2	0	1.62	0.25
Threat of unemployment and job insecurity can affect registration process as well	24	44	3	2	1	1.81	0.26

The study sought to establish the extent to which respondents agreed with the above statements relating to the influence of registration process on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county, from the research findings, majority of the respondents agreed that; being unaware and the length of the registration process affect health insurance, some types of requirements for the registration process can buffer the registration process as shown by a mean of 1.62 in each case, among the employed, occupations differ in their prestige, qualifications, rewards, and job characteristics, and each of these indicators influence registration process as shown by a mean 1.70, government regulation of registration conditions is also a domain fraught with political conflict as shown by a mean

1.72, threat of unemployment and job insecurity can affect registration process as well as shown by a mean 1.81. The above findings concur with Shaw (2002) that being unaware and the length of the registration process affect health insurance.

Terms of employment

Table 4: Statements relating to influence of terms of employment on NHIF uptake

Statement	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Mean	Std deviation
some of the reasons that contribute to women's lack of access to health include lack of proper health centers and personnel poverty, lack of government commitment and funding	21	48	2	2	1	1.84	0.28
Women, especially the poor die because of serious exclusion from health care due to barriers that are always difficult for them to overcome.'	24	44	4	0	2	1.81	0.26
health financing schemes do not necessarily bring positive outcomes, at times, excluded from the scheme due to high premium rate, power relations within the households, class structure, political and geographical reasons.	21	51	1	1	0	1.76	0.30
the processes of deprivation in the society also serve as a barrier to the accessibility of interventions like health insurance	25	46	2	1	0	1.72	0.27
within the class structure, health interventions often reach the rich rapidly than the poor'	24	46	2	1	1	1.77	0.27
employment inequalities in the society least prioritize the poor even within the society when it comes to health provision	26	46	0	1	1	1.72	0.28

On the respondents level of agreement with the following Statements relating to terms of employment and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county, majority of the respondents agreed that; the processes of deprivation in the society also serve as a barrier to the accessibility of interventions like health insurance, employment inequalities in the society least prioritize the poor even within the society when it comes to health provision as shown by a mean of 1.72 in each case, health financing schemes do not necessarily bring positive outcomes, at times, excluded from the scheme due to

high premium rate, power relations within the households, class structure, political and geographical reasons as shown by a mean of 1.76, within the class structure, health interventions often reach the rich rapidly than the poor' as shown by a mean of 1.77, women, especially the poor die because of serious exclusion from health care due to barriers that are always difficult for them to overcome.' shown by a mean of 1.81, some of the reasons that contribute to women's lack of access to health include lack of proper health centers and personnel poverty, lack of government commitment and funding as shown by a mean of 1.84. The above findings concur with Osei-Akoto, (2003). That threat of unemployment and job insecurity can affect health as well.

CONCLUSIONS

The study established that NHIF offices were not easily accessible from most of the employee's work place; therefore the study concludes that inaccessibility of NHIF offices had a negative influence on the uptake of national hospital insurance fund among informal sector workers in Nyatike sub-county.

The study established that awareness provides knowledge and life skills that allow better-educated persons to gain more ready access to information and resources to promote health thus the study concludes that awareness had a positive influence on the uptake of national hospital insurance fund among informal sector workers in Nyatike sub-county.

The study established that being unaware and the requirements of the registration process affect health insurance thus the study recommends that long tedious registration process had a negative effect on the uptake of national hospital insurance fund among informal sector workers in Nyatike sub-county.

RECOMMENDATIONS

In order to improve on the uptake of national hospital insurance fund among informal sector workers in Nyatike sub-county the study recommends that:

The county government of Migori with NHIF management should take initiatives of organizing programmes/campaigns to sensitize informal sector workers on the health benefits of being a member with NHIF. There is need to ensure accessibility of NHIF offices by opening of more regional offices within the county, this will help to ensure that employees in informal sector can have immediate access to NHIF services whenever they required.

There is need to review the current terms of registration this should be done with a view of eliminating some of the unnecessary requirements which makes that processes lengthy and tedious.

The government through the ministry of labor should liaise with trade unions to make sure that all policies governing employment of casual workers are followed; this will help to reinstall confidence and security among casual workers thus enabling them to take steps of enrolling with NHIF.

Limitation of the study & further studies

The current study was interested to the informal sector workers who are residents in Nyatike Sub county in Migori County for the last five years. The study assumed that the informal sector sampled provided an adequate and relevant data which was analyzed to generate reliable findings. However, these findings were not generalized to the whole country because NHIF registration is all over the country.

This study recommends that a further study should be done on the challenges facing NHIF enrolment by the informal sector.

REFERENCES

- Adili. (2003). Harambee: the spirit of giving or reaping? Issue 37 of June 2, 2003 (a news service from Transparency International-Kenya).
- Ahuja R, Jutting J. (2004). Are the poor too poor to demand health insurance? *J Microfinance* 5(1): 1–20.
- Ahuja R, Jutting J. (2003). Design of incentives in community-based health insurance schemes. Working paper No. 95, Indian Council for Research on International Economics Relations: New Delhi, February 2003.
- Akazili J, Anto F, Anyorigiya T, (2005). The Perception and Demand for Mutual Health Insurance in the Kassana-Nankana District of Northern Ghana. The Ghanaian-Dutch Collaboration for Health Research and Development: Accra.
- Arhin DC. (1997). Are people in Ghana willing to pay for health care? Paper presented at the fifteenth annual conference of the German Association of Tropical Paediatricians, Kiel, 23–25 January 1997.
- Arhin-Tenkorang D. (2001). Health Insurance for the Informal Sector in Africa. Design Features, Risk Protection, and Resource Mobilization. NHP Discussion Paper, World Bank: Washington.
- Asenso-Okyere WK, Osei-Akoto I, Anum A, Appiah EN. (1997). Willingness to pay for health insurance in a developing economy. A pilot study of the informal sector of Ghana using contingent valuation. *Health Policy* 42(3): 223–237.
- Asfaw A. (2002). Costs of Illness, Health Care Demand Behaviour, and Willingness to Pay for Potential Health Insurance Schemes: the Case of Rural Ethiopia. Working Paper, ZEF: Bonn.
- Begg D, S, Fischer, R, Dornbusch (2002) *Economics*. London: The McGraw-Hill Companies. Bennett, Sara and Gilson, Lucy (2001), *Health Financing: Designing and Implementing Pro-Poor Policies* (London: DFID Health Systems Resource Centre).
- Bhat R, Jain N. (2006). Factors Affecting the Demand for Health Insurance in a Micro Insurance Scheme. Working Paper No. 2006-07-02, Indian Institute of Management: Ahmedabad.
- Bitran R, Giedion U. (2003). Waivers and Exemptions for Health Services in Developing Countries. Social Protection Discussion Paper Series No. 0308, World Bank: Washington.
- Boquier P. (2005). Informal Sector versus Informal Contracts in Nairobi, Kenya. DIAL Working Paper, DIAL: Paris.

- Brown W, Churchill CF. (2000). Insurance Provision in Low-income Communities. Part II: Initial Lessons from Micro-insurance Experiments for the Poor. Micro-enterprise best practices, Development Alternatives Inc.: Bethesda.
- Cameron, AC, P, Trivedi, F Milne,J, Piggott. (1988) A Microeconomic Model of the Demand for Health Care and Health Insurance in Australia. *Review of Economic Studies* LV.
- Canagarajah S, Setharaman S. (2001). Social Protection and the Informal Sector in Developing Countries: Challenges and Opportunities. World Bank Series, World Bank: Washington.
- Carrin G, James C. (2004). Key performance indicators for the implementation of social health insurance. *Appl Health Econ Health Pol* 4(1): 15–22.
- Carrin G, Preker S (eds). (2004). Health Financing for Poor People. Resource Mobilization and Risk Sharing. World Bank: Washington.
- Carrin G, Waelkens MP, Criel B. (2005). Community-based health insurance in developing countries: A study of its contribution to the performance of health financing systems. *Trop Med Int Health* 10: 799–811.
- Carrin G. (2003). Community-based Health Insurance Schemes in Developing Countries: Facts, Problems and Perspectives. Department of Health Financing and Stewardship. WHO/EIP: Geneva.
- CBS. (2000). Second Report on Poverty in Kenya. CBS (Central Bureau of Statistics): Nairobi. CBS. (2005). Poverty Map of Kenya. CBS: Nairobi.
- Chronic poverty and development policy”, IDPM, University of Manchester: Manchester, 7–9 April, 2003.
- Cohen M, Sebstad J, McCord M. (2003). Reducing Vulnerability: Demand for and Supply of Micro-Insurance in East Africa. A Synthesis Report. MicroSave-Africa: Nairobi.
- Dongh H, Kouyate B, Cairns J, Mugisha F, Sauerborn R. (2003). Willingness-to-pay for community-based insurance in Burkina Faso. *Health Econ* 12(10): 849–862.
- Dror DM. (2006). Health insurance for the poor: myths and realities. *Econ Pol Weekly* 41(43– 44): 4541–4543.
- Gottret P, Schieber G . (2006). Health Financing Revisited. A practitioner’s Guidebook. World Bank: Washington.
- GTZ, ILO, WHO. (2006a). Berlin recommendations for action, from International Conference on Social Health Insurance in Developing Countries, Berlin 5–7 December, 2005. <http://www.socialhealthprotection.org/>.
- Hsiao, W. C., H, Wang, L Zhang,, W,Yip,. (2006) Adverse Selection in a Voluntary Rural Mutual Health Care Health Insurance Scheme in China. Yale University School of Medicine New Haven, CT06520, USA.www.elsevier.com/locate/socscimed, accessed, 22/01/2014.
- Jutting J. (2001). Health insurance for the rural poor? Community financing scheme in Senegal to protect against illness. *D & C–Development and Cooperation* 6: 4–5.
- Jutting J. (2004). Do community-based health insurance schemes improve poor people’s access to health care? Evidence from rural Senegal. *World Dev* 32(2): 273–288.
- Kawabeta K, Xu K, Carrin G. (2002). Preventing impoverishment through protection against catastrophic health expenditure. *Bull World Health Organ* 80: 8.
- Kimani DN, Muthaka DI, Manda DK. (2004). Healthcare financing through health insurance in Kenya: The shift to a National Social Health Insurance Fund. KIPPRA Discussion Paper No. 42, Kenya Institute for Public Policy Research and Analysis: Nairobi, September 2004.
- Kirigia JM, Sambo LG, Nganda B, Mwabu GM, Chatora R, Mwase T. (2005). Determinants of health insurance ownership among South African women. *BMC Health Service*.
- Mathauer I, Schmidt JO. (2006). Informal sector workers’ perceptions on health insurance and NHIF, Study report, GTZ and NHIF: Nairobi.

- Mathiyazhagan K. (2008). Willingness to pay for rural health insurance through community participation in India. *Int J Health Plann Mgmt* 13(1): 47–67.
- Ministry of Health. (2004). Sessional Paper on National Social Health Insurance in Kenya. MoH: Nairobi.
- Ministry of Health. (2012b). National Health Sector Strategic Plan 2005–2015. MoH: Nairobi.
- Monheit AC, Primoff Vistness J. (2004). Health Insurance Enrolment Decision: Understanding the role of Preferences for Coverage. ERIU Working Paper No. 31, University of Michigan: Michigan.
- NHIF. (2005). National Hospital Insurance Fund Strategic Plan 2006–2011. NHIF: Nairobi.
- Osei-Akoto I. (2003). Demand for voluntary health insurance by the poor in developing countries: evidence from rural Ghana, Paper presented at the conference on “Staying poor:
- Oxaal, Zoe and Baden, Sally. (2006), ‘Challenges to women’” reproductive health: Maternal mortality’, (Brighton, UK: BRIDGE (development-gender), IDS, and University of Sussex.
- Platteau PP. (1997). Mutual insurance as an elusive concept in traditional rural communities. *J Dev Stud* 33(6): 764–796.
- Preker AS, Carrin G, Dror D, Jakab M, Hsiao W, Arhin-Tenkorang D. (2002). Effectiveness of community health financing in meeting the cost of illness. *Bull World Health Organ* 80: 143–150.
- Schneider P. (2004). Why should the poor insure? Theories of decision-making in the context of health insurance. *Health Pol Plan* 19(6): 349–355.
- Schneider P. (2005) Trust in micro-health insurance: an explanatory study in Rwanda. *Social Science and Medicine* 61:1430-8.
- Schneider, Pia and Dmytraczenko, Tania. (2003), Improving Access to Maternal Health Care through Insurance’, *Partners for Health Reform plus Insights for Implementers* 16.
- Soonman K. (2005). Segmenting the informal sector with a view to adjusting premiums based on ability-to-pay in the Philippines. *PhilHealth and GTZ: Manila*, September 2005.
- Van der Hoeven, R.(2008) Income Inequality Revisited: Can one bring sense back into economic policy? Inaugural Address, ISS Public Lecture Series 2008, No.2 The Hague, The Netherlands.
- Waelkens MP, SoorsW, Criel B. (2005). The role of social health protection in reducing poverty: the case of Africa. *ESS Paper No. 22*, ILO: Geneva.
- WHA. (2005). Sustainable Health Financing, Universal Coverage and Social Health Insurance. C 58th World Health Assembly Resolution (W HA58. 33). WHA: Geneva
- Wiesmann D, Jutting J. (2001). Determinants of viable health insurance schemes in rural Sub-Saharan Africa. *Quart J Int Agric* 50(4): 361–378.
- World Health Organisation, Western Pacific Region. (2006), *Health Financing: A Basic Guide* (Geneva, Switzerland: WHO).WHO (2008) www.int/whosis/whostat Accessed 5th January, 2014.
- Wuyts, M. (2004), “Sorting Out” Conceptions of Poverty’, *Module 1 Conceptualising Poverty, Tanzania Diploma in Poverty Analysis*, 1-26.
- Xaba J, Horn P, Motala S. (2002). *The Informal Sector in Sub-Saharan Africa*. ILO: Geneva.
- Xu K, James C, Carrin G, Muchiri S. (2006). An empirical model of access to health care, health care expenditure and impoverishment in Kenya: Learning from past reforms and lessons for the future. Discussion paper No. 3-2006. HSF/WHO: Geneva.

APPENDIX: Questionnaire**Accessibility**

Using a scale of 1-5, please indicate your agreement/ disagreement levels with the following statements relating to accessibility and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county? The rating scale indicates agreement levels as follows: 1- Strongly Agree, 2 – Agree, 3- Neither Agree nor Disagree, 4 – Disagree, 5 – Strongly Disagree.

Statement	1	2	3	4	5
earnings differentials between men and women are apparent across the various forms of informal work					
women are disproportionately represented in lower paying forms of employment often with fewer social protections and less stable incomes					
incomes of many men are spent outside their legitimate households on either purchasing drinks for friends or spending on their surrogate wives					
at times, its erroneous to use the income of a wealthy member of the household as a proxy to determine the poverty level of that household					
NHIF offices are easily accessible from my place of work					

Awareness

Using a scale of 1-5, please indicate your agreement/ disagreement levels with the following statements relating to the level of awareness and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county. The rating scale indicates agreement levels as follows: 1- Strongly Agree, 2 – Agree, 3- Neither Agree nor Disagree, 4 – Disagree, 5 – Strongly Disagree.

Statement	1	2	3	4	5
Awareness is perhaps the basic component since it shapes future occupational opportunities and earning potential					
awareness provides knowledge and life skills that allow better-educated persons to gain more ready access to information and resources to promote health					
awareness is key to health inequality, policies encouraging more years of schooling and supporting early childhood education may have health benefits					
collateral benefits such as decreasing health care costs, might emerge from increased investment awareness					
NHIF employees rarely visits our places of work to enlighten us on the benefits of NHIF program					
There is lack of advertisement from NHIF on print media and radios					

Registration Process

Using a scale of 1-5, please indicate your agreement/ disagreement levels with the following statements relating to registration process and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county. The rating scale indicates agreement levels as follows: 1- Strongly Agree, 2 – Agree, 3- Neither Agree nor Disagree, 4 – Disagree, 5 – Strongly Disagree.

Statement	1	2	3	4	5
Government regulation of registration conditions is also a domain fraught with political conflict					

Among the employed, occupations differ in their prestige, qualifications, rewards, and job characteristics, and each of these indicators influence registration process					
being unaware and the length of the registration process affect health insurance					
some types of requirements for the registration process can buffer the adverse effects on health					
Threat of unemployment and job insecurity can affect registration process as well					

Terms of Employment

Using a scale of 1-5, please indicate your agreement/ disagreement levels with the following statements relating to terms of employment and its influence on National Hospital Insurance Fund uptake by informal sector workers in Nyatike sub-county? The rating scale indicates agreement levels as follows: 1- Strongly Agree, 2 – Agree, 3- Neither Agree nor Disagree, 4 – Disagree, 5 – Strongly Disagree.

Statement	1	2	3	4	5
some of the reasons that contribute to women's lack of access to health include lack of proper health centers and personnel poverty, lack of government commitment and funding					
Women, especially the poor die because of serious exclusion from health care due to barriers that are always difficult for them to overcome.'					
health financing schemes do not necessarily bring positive outcomes, at times, excluded from the scheme due to high premium rate, power relations within the households, class structure, political and geographical reasons.					
the processes of deprivation in the society also serve as a barrier to the accessibility of interventions like health insurance					
within the class structure, health interventions often reach the rich rapidly than the poor'					
employment inequalities in the society least prioritize the poor even within the society when it comes to health provision					