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FINANCIAL BENEFITS OF ENLISTING IN MUTUAL HEALTH SCHEMES AMONG LOW-INCOME HOUSEHOLDS IN KIRINYAGA COUNTY, KENYA

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Abstract

Purpose: Examining the financial benefits of enlisting in mutual health schemes among low-income households in Kirinyaga County

Material and methods: Descriptive cross-sectional study design was employed, where 315 participants were picked using multistage sampling techniques. Semi-structured questionnaire and in-depth interviews were the primary data collection methods, with both descriptive and inferential statistics being employed at the analytic stage.

Results: Results indicate that 59.3% of households utilising out-of-pocket benefited from membership to cushion their family from difficulties of accessing healthcare services. Other financial benefits include protection against the cost of illness, providing access to prioritised care, third-party influence for non-members to subscribe, and productive value such as accessing quality treatment, improving living standards, avoiding debts, and increasing their saving kitty. Enlisting to MHO also reduced gender-based, education-based, and cadre-based sociodemographic differentials.

Recommendations: While MHOs are critical in reducing household healthcare expense, improving financial accessibility, as well as redressing sociodemographic differentials during care-seeking events among low-income households, there is a need for preparing reports on beneficiaries to help the management understand social dynamics surrounding the operations of the schemes. There is also a need for investigating healthcare seeking behaviours of beneficiaries as some persons did not utilise mutual schemes. There is also need for further research to validate the contribution of mutual health schemes in other areas as well as assess strategies of increasing the access for all socioeconomic factions

Key Words: *Out-of-Pocket Payments, Mutual Health Organization, Catastrophic Health Expenditure*

INTRODUCTION

Background of the Study

One of the contemporary aspects in the healthcare sector is the dramatic rise in the cost of medical care, where the financial burden has been growing by 5.5-7% every year. According to the PricewaterhouseCoopers's Health Research Institute (2018) estimates, the medical costs have soared by 6%, and the coming years will see medical costs rise at a slightly faster rate (PwC, 2018). The trend explains why the issue is a high-politics policy subject in many countries, as evidenced by heightened efforts to review the operation of consumer-driven models. For instance, many governments around the world are embracing out-of-pocket (OPPs) plans to reduce overuse and misuse as well as lower public spending.

While the overwhelming burden of medical cost justifies the need for co-payment models, direct levy on the consumer is a Faustian bargain with as many benefits as shortcomings. For instance, user charges are a way of covering budgetary deficits as well as mobilising resources for infrastructural development. Nevertheless, stemming the cost through OPP expenses can expose users to catastrophic implications such as impoverishment, unaffordability of services, as well as deepen disparities (Bevan, Helderman, & Wilsford, 2010). Despite the knowledge that levies have negative consequences, the Kenyan health financing landscape is dominated by OPPs. Only 20% of citizens have access to some form of medical coverage. Over 35 million Kenyans continue to rely on OPPs, a source that has not only constricted access and affordability to care but also driving families to poverty (Chuma & Okungu, 2011).

While OPP expenses have increased the rich-poor divide, households with insurance covers also face a risk of incurring significant medical care expenses when a family member falls ill, considering the costs can be more than the resources available. The cost issue is thus a peril to the living standards of all families and social cadres. With the majority of households feeling the heat of uncertainties and dangers associated with the catastrophic OPPs, many societies are exploring self-initiated coping arrangements to ensure individuals are not denied access to service, owing to inability to pay. The zeal is also spurred by a desire to offset socioeconomic threats such as losing assets, incurring debts, as well as disruptions in life. In Kirinyaga County, low-income segments have turned to mutual health schemes, a credit facility that primarily involves the pooling of resources with the aim of increasing financial access and offsetting difficulties in seeking prioritised care. Casual observations also reveal a growing popularity of the schemes in Kirinyaga County, a trend that justifies the primacy of exploring the relevance of the schemes in household service utilisation and socioeconomic benefits among low-income earners.

Problem Statement

Expectations of the mutual health organisation (MHOs) remain high in many countries, where anecdotal evidence suggests that the schemes have the potential to increase utilisation of services and reduce catastrophic financial outcomes during episodes of care seeking. The supposition has triggered an explosion of schemes in recent years, where they are playing an important role in seeking preventive, primary, and curative services (Haddad et al., 2012; Chankova, Sulzbach & Diop, 2008). Policymakers are viewing them as promising alternatives to formal insurance, a postulation that was reinforced in 2010 when the WHO

noted that the community-based health financing approach would be critical in realising the universal coverage aspirations.

In Kirinyaga County, mutual health schemes have emerged as a popular socioeconomic response to threats of catastrophic medical expenditure. The motive of the community healthcare strategy is ensuring patients are not denied access to prioritised services because of unaffordability. Despite the growing adoration, the relevance of mutual schemes remains controversial. For instance, critics note that the existing observational studies lack internal validity, thus cannot be utilised in calling for MHOs espousal. While mutual health schemes have the potential to break the poverty-ill health nexus in Kirinyaga County, the current stock of literature on the impacts on service utilisation remain inconclusive, as the findings of existing empirical studies are conflicting. While some research work points out that MHOs increase service utilisation among the poorest quintiles, some explorations dispute the significance. The contribution of the credit facility in redressing socioeconomic differentials such as education, gender, and differences in income is also a subject of extensive commentary as the current body of literature uphold diverging views. The inconsistencies informed the centrality of the study, where the focus was on investigating the financial benefits of enlisting in MHOs among low-income earners in Kirinyaga County.

Research Objectives

To examine the financial benefits of enlisting in mutual health schemes among low-income households in Kirinyaga County

LITERATURE REVIEW

The out-of-pocket Payments in Kenya's Healthcare System

The Kenyan health care is predominantly funded through OPPs, with a 2010 national survey revealing that the source accounts for 37% of the healthcare resources. When they were first introduced, user charges intended to improve the efficiency of the system by abating demand, mobilising more funds, and containing cost. However, the source of health finance has reinforced not only the vicious cycle of poverty but also decreased utilisation of the services (Chuma & Maina, 2012). The two aspects have had an enormous toll on livelihoods and health, an issue that has been aggravated by low penetration of medical coverage. Johnston (2009) provides one of the clearest arguments why OPPs are associated with poverty. He notes that user charges are a welfare concept that rides on the market-based dynamics.

While it is associated with deepening inequity, OPPs are only catastrophic when they are priced higher than private sectors and do not lead to sustained improvement in the quality of care. Onwujekwe et al. (2010) highlight the positive aspect of cost-sharing in his suggestion that user charges are a critical cost recovery approach that does not only lead to higher quality but also improves efficiency considerably. Mushi (2009) echoes the claim, pointing out that levies do not pose any significant barrier in attaining the universal coverage. The views arise from a long-standing concept, where pricing is linked with quality. Free services are associated with reduced quality, an attitudinal issue that reduces utilisation of services in public facilities because of the perceived value of care. The view is deeply ingrained among Kenyan communities, a trend that perhaps informs why the government has retained out-of-pocket payments for years despite its catastrophic effects.

Out-of-pocket payments will thus remain a part of the Kenyan health system, as it is a popular way of mobilising resources. Whitehead, Dahlgren & Evans (2001) support the view by noting that user charges can be used to solve the health needs of the poor if levied on a group that can pay. They indicate that health facilities should retain a portion of the revenue for administrative purposes, maintenance, and repair, as well as infrastructural improvements. The goal is evidence in some countries such as Honduras, where 67% of OPP is used administrative activities (Fiedler & Suazo, 2002). However, the contribution was only 5% of net government spending on health, an aspect that should perhaps inform policy changes even in Kenya.

Implications of Out-of-Pocket Payments

Protecting families from the devastating effects of medical costs have remained a desirable aim of all healthcare systems. The focus emanates from the WHO's 2005 resolution for the universal health care, where the agency proposed a model that provides essential services while at the same time cushioning individuals against financial risks that can arise when seeking care (WHO, 2005). The proposition also aimed at ensuring that cost was not a barrier to accessing prioritised care, an issue that was also echoed in the *Bamako Initiative* and the *Alma Ata Declaration*.

Despite the promising proposals, Wagstaff (2008) notes that over 150 million people are victims of catastrophic health expenditure, with a third of the number being pushed to extreme poverty every year. OPPs remain the primary factor, where health systems in both developed and developing nations have been criticised for their failures to increase access to services and inadequacy in protecting citizens. While the challenge is a global concern, Xu et al. (2003) indicate that developing countries are the most affected, as 90% of incidences of catastrophic health expenditure are in low-income countries. Xu et al. (2007) expound on the observation, noting that only 0.6% of devastating effects are felt by high-income nations, 1.8% by middle-income countries, and 3% in low-income economies. While Xu et al. (2003) clarify that all cadres are affected. Chuma, Gilson & Molyneux (2007) contend that low-income families experience severe impacts, even under low medical care spending rates.

While the constraint of user charges is a well-explored concept, policy formulation and adoption have been distracted by the lack of a precise definition of catastrophic spending. For instance, while Russell (2004); Wagstaff and Doorslaer (2003); and Pradhan and Prescott (2002) note that health payments should be expressed based on budgetary share, the view is challenged by Xu et al. (2003) and Xu et al. (2007). The two studies put forward a model of evaluating catastrophic health expenditure based on capacity to pay, which is commonly evaluated against the net spending on food. The disparate views were however harmonised by O'Donnell, (2008). He notes that of significance is assessing whether allocating a significant portion of the family budget to medical cost results in trade-offs, which forces the household to forgo essential goods and services or change the lifestyle.

Despite Africa having been categorised as a high-risk region because of weak purchasing power, the continent is faced with a limited stock of knowledge. Onoka et al. (2011) suggest that the concern of catastrophic medical spending is exacerbated by the fact that the few numbers of studies do not even assess the impacts of costs on poverty. The knowledge gap is however resolved by scientific inquiries conducted in Asia and Latin America, where scholars have established a positive relationship between medical expenditure and

impoverishment. In their investigation of medical expenses in 11 Asian countries, van Doorslaer et al. (2006) indicated that OPPs had pushed 78 million individuals into poverty.

The trend is replicated in the majority of African countries, where the few numbers of studies confirm the adverse implications. For instance, Su (2004) report that 15% of families seeking treatment in Burkina Faso experience budgetary upsets. A national survey in 2003 revealed that 2.9% of households in Uganda experienced medication-related catastrophic expenditures (Xu et al. 2007). In Nigeria, families recorded a 10% decrease in spending on consumables following episodes of medical care (Onoka et al., 2011).

While levied fees are critical in addressing the social perception facing free services, a growing body of evidence suggest that OPP reduces service utilisation (Mushi, 2009). Anecdotal evidence also indicates that cost-related inaccessibility could be contributing to the increasing burden of antibiotic resistance in Kenya. However, of concern to this study is the role of OPP is impoverishing families. The disastrous impacts of the OPPs are highlighted by lived experiences of participants in Voices of the Poor survey. The World Bank study presents a case of a 26-year-old Vietnamese man, who as a result of the massive health care costs needed by his daughter's severe illness, moved from the wealthiest man in the locality to the poorest (Narayan, 2011).

Another harmful impact of OPPs is evident in the case of a 30-year-old Indian mother of four was forced to sell the family's home and land, and had to transport wood for 10 kilometres on a daily basis to raise the money for treating her diabetic husband (Narayan, 2011). The incidences are not unique to the two families as many households are spending a significant proportion of their income on medical bills. The health payments exceed some threshold measures such as household income, resulting in catastrophic spending, which ultimately impoverishes individuals. The cases are also typical in Kenya as revealed by a recent documentary on a leading national television, where kidney failure consumed all resources of a wealthy businessperson until he was pushed into poverty (Citizen TV, 2016).

Mutual Schemes as a Coping Strategies Against the Out-of-Pocket Payments

The determination to address negative implications of OPPs has informed studies that have generated a stock of knowledge to guide adoption of several preventive models such as pooling strategy and prepaid funds. The sharing arrangements entail social organisation that brings people together to pool risks in the case of insurance schemes. However, the approach has been critiqued for its role in increasing inequality and disparities in health care (Kotsila, 2014). It only covers individuals who have the ability and willingness to pay premiums. The mode is also characterised by an inherent weakness of adverse selection, where it increases the cost of healthcare services.

Prepaid financial protections such as social insurance schemes and tax funding have been adopted in most economies. However, the rates of enlisting in such market-driven models have remained poor in rural Kenya, with many perceiving them as exotic. Many people are resulting in community-based health financing strategies as well as self-initiated approaches. Kirinyaga County offers the chance to evaluate the net effects of the self-initiated health financing organisations, as mutual health schemes is a widely accepted coping approach.

Voluntary pooling approaches are a new approach that has arisen from the threat of the 21st health financing challenges. There is minimal understanding of their contribution to health. However, studies conducted in other African countries such as Benin, Burkina Faso, Uganda,

Zambia, and Rwanda note that MHOs play a critical role in sharing the burden of ill health. In the Rwanda context, the WHO notes that *mutuelles* have been a great success in improving affordability for 85% of the population. The massive subscription has been influenced by a government's directives requiring all citizens to have a form of health financing. Twahirwa (2008) points out that mutualisation has contributed to a significant reduction in medical costs, an aspect that has improved the utilisation of healthcare services. However, the social inclusion of the organisations has been challenged, necessitating the need for more research.

Summary of Literature review isolating the gaps to be addressed

Out-of-pocket payments will remain a part of the Kenyan health system, as it is a popular way of mobilising resources among the government and users. However, the perenniality will expose households to catastrophic impacts, thus the need for exploring alternative financing models such as mutual schemes. While the current body of knowledge suggests that the approach can protect families, promote utilisation of services, and address the sociodemographic differentials, the evidence exhibits inconsistencies and inconclusiveness. Despite the shortfall, the contribution of the credit facility is an inspiration to many societies, thus the focus of investigating its significance in reducing household spending and promoting service utilisation.

MATERIALS AND METHODS

The study utilised a descriptive cross-sectional study design. The cross-sectional approach allowed collection of specific data at a point in time, thus convenient in collecting the vast amount of data from all 315 households that had enlisted in mutual schemes. Multistage sampling was employed, where the survey used clustering, systematic, and random sampling techniques to recruit participants. The rationale entailed picking Kirinyaga East and Kirinyaga Central from the four sub-counties as clusters based on the high number of registered mutual schemes. Gatu, Kariru, Ngiriambu, Thimu, Karia, Kirunda, and Ngaru sub-locations were then selected from a pre-documented list where MHOs operate in a systematic approach. Thereafter, forty-five families were randomly picked from each of the seven sub-locations, with all 315 households taking part in the study.

The interviewer-administered semi-structured questionnaire was pretested in 10 households before the commencement of the study. Necessary changes were made, where the instrument was modified. The in-depth interview guide was the approach of choice in seeking expert inputs from key informants such as social workers and administrators.

The study promoted internal validity through ensuring randomness in selecting study participants as well as guaranteeing heterogeneity among respondents to assure representability. External validity was observed by seeking expert opinion from the supervisors. The reliability of the questionnaire was promoted by testing it with Cronbach's alpha, where the figure was 0.711. The coefficient alpha is within acceptable limit, considering Perrin (2014) notes that a figure equal to or greater than 0.9 is excellent, equal to or greater than 0.8 is good, equal to or greater than 0.7 is acceptable, equal to or greater than 0.6 is questionable, equal to or greater than 0.5 is poor, and less than 0.5 unacceptable.

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RESULTS

Sociodemographic Characteristics of the Study Participants

Table 4.1 shows sociodemographic characteristics of the participants.

Table 4.1 Sociodemographic characteristics of the respondents

			Frequency	Percentage
Gender of the respondent		Male	130	41.3%
		Female	185	58.7%
		Total	315	100.0%
Age of the respondents				
		20-29	64	20.3%
		30-39	66	21.0%
		40-49	50	15.9%
		50-59	69	21.9%
		<60	66	21.0%
		Total	315	100.0%
Number of People Living in the Household			Frequency	Percentage
		1	23	7.3%
		2	58	18.4%
		3	88	27.9%
		4	75	23.8%
		5	40	12.7%
		6	29	9.2%
		7	1	0.3%
		8	1	0.3%
		Total	315	100.0%
Attending formal schooling			Frequency	Percentage
	Valid	Yes	228	72.4%
		No	87	27.6%
		Total	315	100.0%
Occupation considered the important source of your income apart from farming			Frequency	Percentage
	Valid	Farming Only	143	45.4%
		Dependent	30	9.5%
		Employed	46	14.6%
		Self-Employment	96	30.5%
		Total	315	100.0%
Based on the family income, how do you categorize yourself			Frequency	Percentage
	Valid	Rich	169	53.7%
		Poor	146	46.3%
		Total	315	100.0%

Overall, the results of the study show that the majority of the participants were females (58.7%), with males representing only 41.3% of the respondents. Individuals aged 50-59 (21.9%) were the majority, followed by over-60s (21%), 30-39 years (21%), 20-29 years (20.3%), and the proportion of 40-49% (15.8%) was the least. The majority of households

had three members (27.9%, followed by 4 members (23.8%), 2 members (18.4%), 5 members (12.7%), 6 members (9.2%), 1 member 7.3%, with 7 and 8 members having the least proportion of 0.3%. Male heads of household were 38.4%, followed by spouses (28.6%), female heads of the household (24.4%), with representatives of the family being the least proportion (8.6%). The majority of the participants were the main income earners of the household (55.9%), with 46.1% indicating they were not main income earners. 72.4% attended formal schools, with 27.6% noting they did attend any school. Farming was the main source of income (45.4%), followed by self-employment (30.5%), employed (14.6%, with the dependent (9.5%) being the smallest segment. The overall results show that the majority of the participants considered their households rich (53.7%), with 46.3% indicating they were poor.

The financial benefits of enlisting in mutual health schemes among low-income households in Kirinyaga County

Coping with financial difficulties

One of the benefits of enlisting in MHO is coping with disruptive medical costs. The findings revealed that out-of-pocket payments remain the most utilized method of settling medical bills, with 62 % (166) of the person who sought medical care (268) during the most recent heath event relying on cash payments. 22.4% indicated they settled the bills through instalments, 10.4% in-kind, and 5.2% cash and carry but were reimbursed.

Table 4.2: View of payment method and coping

View on the payment method * Did the mutual health scheme help in coping Crosstabulation

			Did the mutual health scheme help in coping		
			Yes	No	Total
View on the payment method	Challenging	Count	114	49	163
		% of Total	42.5%	18.3%	60.8%
	Not challenging	Count	45	60	105
		% of Total	16.8%	22.4%	39.2%
Total		Count	159	109	268
		% of Total	59.3%	40.7%	100.0%

With OPP being a model associated with catastrophic implications, key informants indicated that the illiquid financial instrument was easily accessed by households during the time of health needs. According to the results, the majority of the participants (59.3%) who sought medical attention benefited from the credit facility to cope with the payments. It was also observed that the biggest proportion of the beneficiaries were households that noted the payment was challenging (42.5%). (See table 4.2)

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Productive value of MHOs

The mutual scheme had helped participants achieve productive and protective benefits. 27.3% of the respondents pointed out that the scheme made them feel secure, 21.9% improve their living standards, 29.84% avoid debts, and 20.95% save.

The MHOs also enjoyed good rating, where a response to questions based on Likert scale showed better approval rating. The results revealed that 31.4% noted that the scheme was very good in improving access to needed healthcare service among low-income earners, 36.5% good, 0.6% neutral, 22.2% bad, and 9.2% very bad. In relationship to the potential of MHO in improving the households' financial standing, 41% noted MHOs were very good, 38.4% good, 0.3% neutral, 14.9% bad, and 5.4% very bad. Pertaining to the potential of MHO in addressing sociodemographic differentials during care-seeking events, 36.5% of the respondents noted the scheme was very good, 38.1% good, 20.3% bad, and 5.1% very bad.

Improving access to healthcare services

According to insights provided by key informants, enlisting in mutual health schemes provided a motivational benefit in seeking prioritised care. 71.4% of the participants sought health care in conventional health facilities, with the majority (36.8%) attending public facilities and 34.6% visiting private centres.

Table 4.3: seeking medical attention and health event

Seeking medical attention because of the event * Most recent health event(s) in the family Crosstabulation

			Most recent health event(s) in the family			
			Communicable disease	Non-communicable disease	Others (Accident/Injury/Delivery)	Total
Seeking medical attention because of the event	Yes	Count	122_a	70_a	76_b	268
		% within Seeking medical attention because of the event	45.5%	26.1%	28.4%	100.0%
		% of Total	38.7%	22.2%	24.1%	85.1%
	No	Count	36_a	10_a	1_b	47
		% within Seeking medical attention because of the event	76.6%	21.3%	2.1%	100.0%
		% of Total	11.4%	3.2%	0.3%	14.9%
Total		Count	158	80	77	315
		% within Seeking medical attention because of the event	50.2%	25.4%	24.4%	100.0%
		% of Total	50.2%	25.4%	24.4%	100.0%

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While the cross tabulation in tables does not reveal any variation, chi-square discloses the distributional differences. Chi-square tests ($\chi^2 = 25.07$; df = 2; p = 0.000) confirms that access significantly varies based on the nature of the event. The ripple effect was evident in the high service utilisation rates in the most recent health event, where 268 participants (85.1%) noted they had sought medical attention, with only 47 (14.9%) indicating they did not seek care services (See Table 4.3).

Third-party influence for non-members to subscribe

The voluntary schemes provided third-party influence for non-members to subscribe. The revelation explains why the 49.5% of individuals who did benefit from the scheme in coping with the financial effects during the health event have remained loyal to the organisation. According to the results, 46.71% noted they remained loyal because of financial protection against the cost of illness in future, 32.89% to provide access for household members to prioritized care, and 20.39% to provide quality treatment even in the event of income loss due to ill health.

Resolving Socioeconomic differentials during care-seeking events

The prospects of dealing with the gender-based, education-based, and cadre-based differentials were also analysed by performing a binomial logistic regression. The table for the binomial logistic model is as shown in table 4.4. The logistic regression model was statistically significant ($\chi2$ (4) = 27.402, p < .0005). The model explained 86.0% (Nagelkerke R2) of the variance in benefiting and correctly classified 65.7 % of cases.

Table 4.4: Variables in the Equation (Logit Model)
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Gender	-.250	.238	1.109	1	.292	.778	.488	1.241
	School	.592	.275	4.621	1	.032	1.807	1.054	3.100
	Cadre	.755	.244	9.576	1	.002	2.128	1.319	3.432
	Constant	-1.481	.561	6.969	1	.008	.227		

a. Variable(s) entered on step 1: Gender, School, and Cadre.

The negative coefficient demonstrates that male members were likely to benefit from the mutual health schemes when compared to their female counterparts. However, the difference was not statistically significant. On schooling, the positive coefficient indicated that respondents who did not attend formal schools were 1.807 more likely to benefit from the credit facility to cope with the OPPs than their counterparts who attended school. The pattern was replicated in social standing, where persons who considered themselves poor were 2.128 more likely to benefit from mutual scheme membership.

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Discussion

While the study did not establish relative effects of mutual health schemes because of inexistence of surveys documenting healthcare spending patterns at the household level, one of the most notable aspects was the significance of the credit facilities in increasing

affordability of services. It has improved the financial accessibility of healthcare services, where it has given members purchasing power to seek medical attention. Chuma, Mulupi & McIntyre (2013) also note that mutual health schemes are changing the prospects of the poor by weakening the restrictive barrier of OPPs in sub-Saharan Africa.

MHOs are a revolutionary credit facility, where they are preventing low-income earners in Kirinyaga County from experiencing financial difficulties while paying for the health services they need. The notions were confirmed by the high number of respondents who indicated that they sought medical attention in the most recent medical event, despite the fact that paying for the services was challenging. The scenario confirms the criticality of the schemes in improving financial access to care among members. The findings are extensively supported by the current stock of knowledge, where the literature indicates that self-initiated community-based financing provides funds for technical assistance during healthcare seeking moments and improving socioeconomic conditions. Saksena, Antunes, Xu, Musango and Carrin (2010) indicate that mutual health insurance has played a significant role in not only funding health services benefits but also offsetting the financial risk associated with lower cadres in Rwanda. Just like the study, they indicate that the schemes have ensured a high degree of risk protection, a benefit that has improved access to health services when they are needed and reduced incidences of catastrophic health expenditure.

The key informants also revealed that the scheme is a way of pooling resources, an approach that has maximised the advantages of accessing prioritised care. The high utilization rates are because of the membership to the mutual health organisations, where the schemes have allowed households to seek prioritised healthcare services. According to key informants, MHOs have not only boosted the income of household income but also motivates them to seek medical care. The results indicated that the members of the micro-finance entities also reported few difficulties in accessing health services, a finding that was consistent with Wietler (2010) revelation that membership to mutual health schemes was an enabling factor in accessing services.

The findings have also been supported extensively by impact assessments of community-based insurance in other African countries, with Gnawali *et al*. (2009) and Chankova, Sulzbach, & Diop (2008) confirming the effectiveness of the schemes in increasing utilisation of the health services at the household level. Galárraga, Sosa-Rubí, Salinas-Rodríguez & Sesma-Vázquez (2010) and Lu, Liu, & Shen (2012) indicate that the rural-based schemes have also improved accessibility in Mexico and China respectively.

Besides impacting on utilisation trends, the results highlighted that MHOs have affected healthcare seeking behaviour, where members were more comfortable in revealing incidences of their most recent health event. This trend is against social medical knowledge, where the majority of people tend to hide their illnesses. However, the trend is explained by the doctrine of reasonable expectations, where insured groups reports elevated levels of expectations that leads to moral hazards and unnecessary visits to hospitals. According to Franco et al. (2008), enlisting in the mutual schemes underlies the increased use of the health system in Mali, as the small-scale voluntary micro-health insurance make services affordable to low-income groups and households. Franco et al. (2008) also reveal that MHO members are 1.7 times more likely to seek treatment in modern facilities, an aspect that was evident in the study where the majority of respondents indicated they seek attention from the public and private facilities. Despite Rwanda's *mutuelles* being designed to help improve the system, scholastic

works have revealed that the schemes have increased the probability of visiting professional health care provider by 6.6 times. In DRC, district-level community-based schemes increased the rate of utilising services by 1.5-2 times. The revelation is also consistent with studies conducted in advanced economies. In India, enrolment to the Self-Employed Women's Association increased the likelihood of members seeking care early enough, a move that avoided complications arising from untreated cases.

Grouping financial resources have also weakened notions of unaffordability by triggering motivational benefits among members. The mutual schemes also have a positive net in safeguarding living standards and household interest such as assets, savings, and consumption patterns. The revelation is in conformity with studies conducted in other countries, where MHOs have been providing financial protection to a significant proportion of the population against the downside of medical expenses. Habib, Perveen and Khuwaja (2016) describe the schemes as a form of micro-insurance, where low-income segments contribute premiums in exchange for cushiony against financial risk. Churchill and Matul (2012) also consider the MHOs as the most appropriate insurance for the poor because it offers protection against financial shocks to beneficiaries by lowering the out of pocket expenditure and total health expenditure. It resolves catastrophic implications that result in household borrowings and push households to poverty.

The study confirmed that the mutual health schemes have culminated in positive patterns in resolving disparities that touch on gender, level of education, and cadre. The revelation is consistent with the foundational goals, where the schemes were started in West Africa in 1990s with the aim of promoting equity and access for the poor (Atim, 1998). The piloting of Rural Cooperative Medical Scheme targeting the financial burden that prevented citizens from accessing prioritised case and drugs in China in 2003 saw increased use of both inpatient and outpatient services, and this confirms the finding of the study that MHOs are an equalization mechanism. According to Wagstaff et al., (2009), the Rural Mutual Health Care improved the health status of the elderly, including mobility and participating in activities of daily living.

On gender, the study found that males had better chances of benefiting from mutual health schemes than female counterparts. Nevertheless, the difference was not significant. The trend confirms the supposition that the mutual help organizations are promoting horizontal and vertical equity. Jehu-Appiah et al. (2011) confirm the notions, indicating that the 2003 establishment of district-wide Mutual Health Organizations provided Ghana with an opportunity of dealing with quintile-based disparities that touch on socioeconomic aspects such as education, marital status, age, occupation, health beliefs, family size, and gender.

On the influence of education, the logistic regression model indicated that respondents who did not attend formal schools were 1.807 more likely to benefit from the credit facility to cope with the medical costs. The revelation confirms the criticality of the microinsurance as a social capital that enhances health among all groups. The postulation is confirmed by Yip et al. (2007), where a study conducted in rural China, where social support and organizational membership is linked with advanced well-being.

The result that the poor were 2.128 more likely to benefit from mutual scheme membership is also in tally with popular perceptions surrounding mutual schemes, where they are considered more pro-poor when compared to formal public health financing programs (Preker et al.,

2004). Mutual health schemes are also an equalization mechanism that helps in weakening disparities in capacity to finance health care services, and thus few inequalities between the rich and the poor (Carrin, Waelkens, & Criel, 2005). According to Polonsky et al. (2009), the community health insurance schemes have helped in increasing revenue, access and financial protection in low-income settings, and this explains why individuals who regarded themselves as poor had better prospects of benefiting in Kirinyaga. A 2004 study conducted in Senegal also confirmed that membership to *les mutuelles de sant* increased the probability of using hospitalization services and incurring less strain among the poor (Jütting, 2004).

Conclusion

MHOs have gradually been removing financial barriers to healthcare access. Enlisting in mutual health schemes has offered low-income households protective and productive benefits. The MHOs are cushioning individuals and families from catastrophic impacts of medical costs. The credit facilities are funded through paying small monthly premiums, which are affordable and easier to contribute when compared to medical expenses. The pooled resources have allowed members to cope with catastrophic OPPs, including offsetting financial risks touching on illness, complications, and demise. They have also cushioned living standards and assets of the family, as the mutual health scheme is a stand-by credit facility that can be accessed anytime.

The schemes have also improved access to formal health services, with the majority of members exhibiting the capacity to pay for services in all tiers of delivery points.

Another gain has been redressing the historical challenge of social exclusion, where females, the lowly educated, the poor enjoyed better prospects for financial accessibility and household spending.

Recommendations

The mutual health schemes have allowed individuals to access and pay for the healthcare services they desire. However, the biggest advantage has been cushioning family's assets and savings, a move that explains the notable prosperity in areas covered by the study. However, the study confirmed that some people could not access services and enjoy the financial benefits despite being members. Similarly, inclusiveness remains a major challenge.

While they do not have limits, they are faced with low rates of subscription and low internal management and technical standards. The shortfall explains the ineffectiveness of the schemes is covering expensive treatment, especially chronic diseases. The aspect was evident in the study, where the results show that the majority of people living with non-communicable diseases did not utilize the credit facility to cope with the challenges of settling medical bills. Similarly, non-communicable diseases represented a significant proportion of individuals who did not seek medical care following the most recent health incident. There is thus a need for preparing reports on beneficiaries, to help the management understand social dynamics surrounding the operations of the schemes.

While the analysis revealed that the schemes are attracting poor people, the concept of unstructured contribution remained a major shortcoming. The aspects were revealed by key informants, who noted that the operations of schemes are based on contributing when an event happens. The trend is unsustainable, considering the unavailability of some individuals as well as difficulties in making follow-ups. There is a need for establishing a predictable

structure of mobilising resources, such as making defined monthly contributions. The move would allow accountability, as well as attract more members, thus adequate pooled resource.

There is also a need for formalising effort of mutual health schemes, where the governments and other stakeholders in the health sector should help in developing coherent strategies to develop and sustain MHO through effective partnerships. The key focus of the collaborative engagements should be strengthening the organizations in their efforts to reach key target populations.

Further research is also needed to validate the contribution of mutual health schemes in other areas as well as assess strategies of increasing the access for all socioeconomic factions. In particular, further exploration would help to affirm results related to specific effects on service utilisation, financial access, as well as equity in accessing essential health services.

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