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Original Research Article

Health insurance uptake among green grocers in Roysambu constituency Nairobi City County, Kenya

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ABSTRACT

Background: According to WHO, approximately 1.3 billion people globally lack access to essential health services and medication. Barriers such as long wait times, high out-of-pocket costs, inadequate facilities, and staff shortages worsen the situation. In Kenya, only about 20% of the population has health insurance, with other reports suggesting as low as 11%, leaving a majority uninsured. This highlights the urgent need for inclusive health policies, particularly for low-income groups like green grocers (Mama Mboga).
Methods: A descriptive cross-sectional study was conducted in Roysambu Constituency, Nairobi County, targeting 168 green grocers. Pretested questionnaires gathered quantitative and qualitative data. SPSS was used for descriptive statistics (percentages, frequencies, averages) and inferential statistics (regression, Pearson correlation). Content analysis offered additional insights into participants' responses. Multiple regression analysis identified factors influencing health insurance uptake.
Results: Among respondents, 55.35% had enrolled in health insurance, while 44.65% had not, indicating significant gaps in coverage. Additionally, 53.26% had experienced family hospital admissions, underscoring healthcare needs. Income levels varied: 43.45% earned over Ksh 20,000; 26.79% earned Ksh 11,000-20,000; 22.62% earned Ksh 6,000-10,000; and 7.14% earned below Ksh 5,000. These income disparities strongly relate to insurance decisions.
Conclusions: Economic factors, particularly income and premium affordability, play a critical role in health insurance uptake. Addressing these barriers is essential for promoting equitable healthcare access, especially among informal workers like green grocers.

Keywords: Green grocers, Health insurance, Uptake

INTRODUCTION

International development organizations, governments and communities face funding and provision of affordable, accessible, and quality healthcare as a pressing health policy issue. WHO, around 1.3 billion people worldwide have been estimated to have no limited exposure and effective medication.[1] Additional impediments to quality medical care access include lengthy wait periods, lack of treatment facilities, expensive out-of-pocket fees, and personnel shortage. The challenge is largely prevalent in developing countries, mostly due to constrained resources. Developing countries have also been recording steep population growth, and a significant proportion of the population has a high prevalence of HIV/AIDS, tuberculosis, and malaria, among other opportunistic infections that exacerbate the access and quality of healthcare problem. Further, this contributes to increased maternal and newborn deaths and an increase in non-communicable illnesses that impose additional burden on the healthcare system

According to WHO, developing countries (-henceforth LMICs) account for 93 percent of the world's disease burden while the amount of tax money that LMICs can

commit to financing the health sector is constrained by slow economic development, limited ability to collect taxes, and conflicting priorities.[2] As a result, many developing countries continue to bear the brunt of poor health. According to the World Bank this scenario persists due to inadequate healthcare financing, ineffective public health service management, and a shortage of general care services to fulfill the needs of a rising population.[3]

A contingent of measures including health financing schemes such as social health insurance has been devised by governments across the world to ensure their population have access to quality basic healthcare at affordable rates.[4] Some well-off countries like Australia, Canada, Japan, and Germany have met health demands from the populations via mix of public and commercial insurance health. To the contrary, socioeconomic constraints continue to restrict the availability of health insurance in emerging nations.[5] A dire need for interventions to guarantee that people in Sub-Saharan Africa, where fewer than 30% of the population lives, have access to high-quality, reasonably priced health care as reported by Evans and Etienne and the National Health Insurance Authority.[6] Moreover, less than 10 percent of programs have gained coverage. Notably, these problems are common across the African continent, a region with a predisposition for risk transmission across people and time.[7] To combat this situation, numerous African countries, including Ghana, Kenya, Nigeria, and Tanzania, are actively developing a range of public health insurance options for the general public.

In Kenya, where 60 to 80 percent of urban inhabitants work in microbusinesses, more than a third of cost of medication comprised of out-of-pocket expenses. This increases the likelihood that the patient or their households will not be able to replace their resources and, consequently, will fall farther into poverty. Due to out-of-pocket medical expenditures, 6-10 percent of households incur high medical bills that push families to extreme poverty.

Objectives of the study

General objective

Overarching study goal was to investigate determinants health insurance Uptake and their impact on the green grocers in Roysambu Constituency, Nairobi, Kenya.

Specific objectives

To identify factors that influence health insurance uptake among green grocers in Roysambu Constituency. To assess to what extent determinants established impact the uptake of health insurance among the green grocers in Roysambu Constituency. To generate evidence that can inform policy especially on insurance uptake in health among green grocer in Roysambu consistuency.

METHODS

The study adopted descriptive cross sectional research with qualitative and quantitative components aimed at collecting information on determinants of health insurance uptake and their impact on the green grocers in Roysambu Constituency, Nairobi, Kenya. The study used a mixed method where both qualitative and quantitative techniques was used to collect data on factors that influence health insurance uptake among green grocers in Roysambu Constituency, extent determinants established impact the uptake of health insurance among the green grocers in Roysambu Constituency and to generate evidence that can inform policy especially on insurance uptake in health among women in the informal sector. The study was carried out at in Roysambu among the green grocers. The study involved 168 green grocers. The study was carried out between 1st of February and 30 April 2024. Data was collected using questionnaires, which were assessed and then categorized before coding. Data was analyzed using version 20 of SPSS for statistical analysis. Analyzed data was presented as figures and tables in the results section. Pearson chi-square was used to test the significance level at a p value of ≤0.05, while odds ratios were used to test the strength association between variables.

RESULTS

A substantial proportion of respondents, accounting for 55.35%, have opted for uptake in a health insurance cover. However, it is noteworthy that a significant number, constituting 44.65%, have chosen not to enroll, highlighting a considerable segment of green grocers who remain without health insurance coverage. This observation underscores a diverse landscape of health insurance uptake within the green grocer community, indicating both participation and a notable portion still in need of coverage.

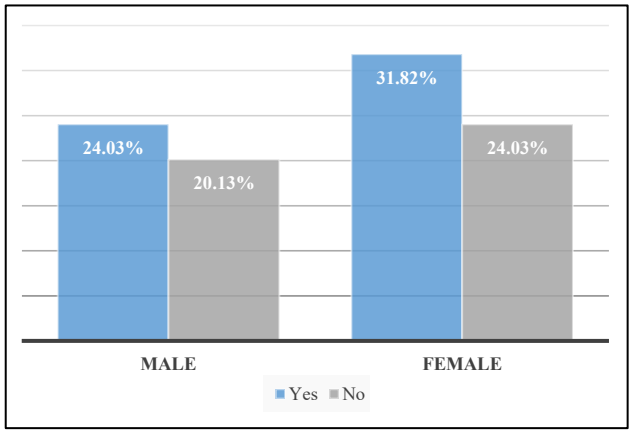

Figure 1: Gender analysis.

The findings also reveal that a significant majority, constituting 53.26%, acknowledged instances where family members were admitted to the hospital.

Conversely, a minority, represented by 46.84%, reported not experiencing any incidents of family members being admitted to the hospital during the specified timeframe. This insight provides valuable context for understanding the healthcare experiences and potential needs of the green grocer community in relation to hospital admissions within their families.

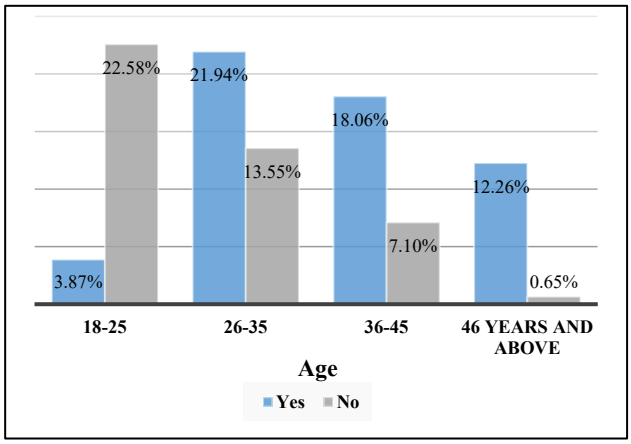

Figure 2: Age analysis.

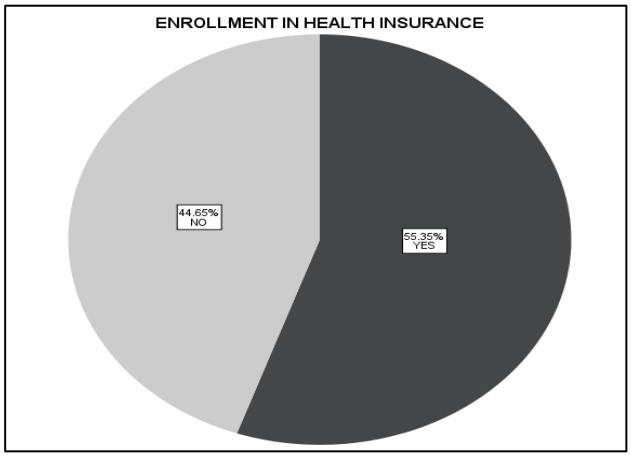

Figure 3: Analysis of uptake of health insurance among green grocers.

The predominant mode of payment, chosen by a majority of 50.39% of respondents, is through the National Hospital Insurance Fund (NHIF). Another 7.09% of respondents reported using other types of health insurance for payment. Notably, individuals without NHIF coverage resort to alternative methods such as family savings (17.32%) and participation in Harambee (13.39%) to facilitate hospital payments. Additionally, a smaller percentage of respondents' resort to unconventional means, including selling family assets like land and cars (4.72%) or borrowing from friends and family (7.09%) to meet medical expenses. These findings highlight the diverse financial strategies employed by green grocers when faced with hospitalization, emphasizing the need for comprehensive and flexible healthcare financing options within this community.

Substantial portion of green grocers, accounting for 43.45%, reported a high income exceeding Ksh 20,000. Despite this, a notable segment, represented by 7.14%, indicated a low income below Ksh 5000. The remaining respondents reported incomes within different brackets, with 26.79% earning between Ksh 11000 to Ksh 20000, and 22.62% falling within the income range of Ksh 6000 to Ksh 10000. These findings highlight the diverse income levels among the green grocer respondents, providing a nuanced understanding of their financial capacities in relation to health insurance uptake.

There was a strong consensus among respondents regarding extent of effect on number of employed household members on uptake of health insurance, reflected a mean of 1.50 and a standard deviation of 0.904. Similarly, the statement affirming that the cost of healthcare influences health insurance uptake garnered agreement, with a mean of 1.56 and a standard deviation of 0.870. The data further indicates that a significant majority, with a mean of 1.67, acknowledged the influence of monthly premium amounts on health insurance uptake.

However, despite a considerable number of respondents expressing the ability to afford health insurance premiums from their monthly income (mean of 2.68), a substantial proportion still faces challenges in meeting these costs. This suggests a nuanced landscape where financial constraints persist, impacting the overall affordability and uptake of health insurance schemes among the surveyed respondents.

It was evident that there was a trend where higher levels of education was inclined to uptake in health insurance schemes compared to their illiterate counterparts, as indicated by a mean of 1.59 and a standard deviation of 1.101. The data also underscores the impact of age on health insurance uptake, with a majority agreeing (mean of 1.66) that age plays a role in this decision-making process. Furthermore, marital status emerged as a notable factor influencing the uptake of health insurance, with a mean of 1.73. Gender, as reflected by a mean of 1.94, was identified as another influential factor, indicating that there was a perceived gender-based effect on the decision to enroll in health insurance schemes. These findings emphasize the complex interplay of demographic factors in shaping individuals' attitudes and behaviors towards health insurance participation.

A significant portion of the respondents concurred that within society, there exists a perception equating payment for insurance to squandering money, reflecting a prevailing sentiment. Conversely, there was substantial disagreement, with a mean of 3.64, regarding the notion that insurance cover is associated with witchcraft in certain cultures. Similarly, respondents expressed reservations about the belief that obtaining insurance is considered a bad omen in specific cultural contexts, indicated by a mean of 3.60. Interestingly, on the

statement suggesting that insurance uptake is deemed taboo in certain cultures, respondents demonstrated both agreement and disagreement, resulting in a neutral mean of 3.49. These findings shed light on the nuanced and diverse cultural perspectives held by the respondents regarding the perception of health insurance within their communities.

Table 1: Economic factors affecting uptake of health insurance.

Economic factors	N	Mean	SD	Variance
With my monthly income, I can manage paying for a health insurance scheme	167	2.68	1.694	2.869
The amount of premiums per month influences the uptake of health insurance scheme	166	1.67	0.980	0.960
The cost of healthcare influences the uptake of health insurance scheme	166	1.56	0.870	0.757
Number of household members employed influence the uptake of health insurance scheme	167	1.50	0.904	0.818
Valid N (listwise)	165			

Table 2: Correlation analysis.

Correlations						
		Uptake of health insurance covers	**Economic factor**	**Demographic factors**	**Cultural factors**	**Awareness**
Uptake of health insurance covers	Pearson correlation	1	0.047	0.190*	0.076	0.091
	Sig. (2-tailed)		0.547	0.014	0.325	0.237
	N	169	168	166	168	169
Economic factor	Pearson correlation	0.047	1	0.046	0.067	0.310**
	Sig. (2-tailed)	0.547		0.557	0.392	0.000
	N	168	168	165	167	168
Demographic factors	Pearson correlation	0.190*	0.046	1	0.092	0.185*
	Sig. (2-tailed)	0.014	0.557		0.240	0.017
	N	166	165	166	166	166
Cultural factors	Pearson correlation	0.076	0.067	0.092	1	0.009
	Sig. (2-tailed)	0.325	0.392	0.240		0.912
	N	168	167	166	168	168
Awareness	Pearson correlation	0.091	0.310**	0.185*	0.009	1
	Sig. (2-tailed)	0.237	0.000	0.017	0.912	
	N	169	168	166	168	169

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

A significant number of respondents, accounting for 94.64%, reported being knowledgeable about health insurance coverage. Conversely, a smaller proportion, representing 5.36%, indicated a lack of awareness regarding health insurance. These findings suggest a prevailing awareness on surveyed population about the existence and details of health insurance options.

Television emerged as the primary source of information on health insurance coverage for a significant portion of respondents, constituting 30.16%. Family and friends closely followed, representing 28.85% of the respondents who rely on their social networks for health insurance information. Radio was utilized by 23.93% as a source of information, while newspapers were accessed by 8.52%. The least representation in terms of information sources came from employers and other miscellaneous sources like social media, accounting for 8.20% and 0.33% respectively. These findings underscore the diverse channels through which individuals acquire knowledge about health insurance, with television and personal networks playing prominent roles in dissemination.

Correlation analysis

The analysis reveals a positive yet insignificant relationship among the variables. In Table 4, the highest correlation, represented by 0.19, indicates a modest positive relationship between demographic factors and the uptake of health insurance cover. Additionally, the relationships between the uptake of health insurance cover and economic factors, cultural factors, and awareness were 0.47, 0.076, and 0.091 respectively. These correlation coefficients suggest varying degrees of association, with the strongest correlation observed in the context of economic factors influencing health insurance uptake.

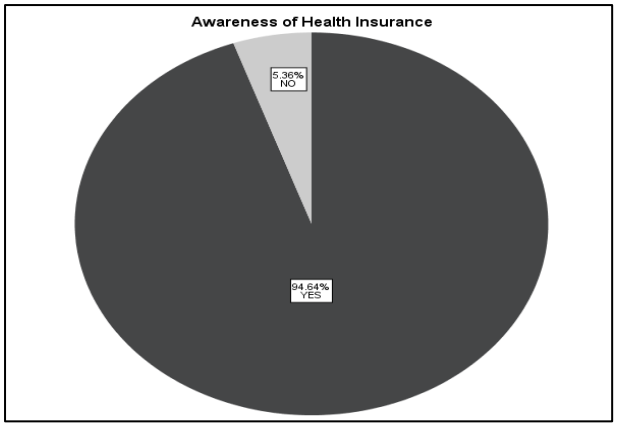

Figure 4: Health insurance awareness.

DISCUSSION

Economic factor on uptake of health insurance cover

Uptake of health cover is significantly influenced by economic factors, which play a pivotal role in decisions regarding insurance uptake. Economic considerations, such as income levels and financial stability, can either facilitate or impede the ability of individuals, including green grocers, to afford and prioritize health insurance. According to this study with their monthly income, the limited ability to pay meet health insurance scheme. In support to this research studies, conducted, have consistently shown that individuals with lower income levels are more likely to face financial constraints, making the cost of health insurance premiums a substantial burden.[8] The analysis indicates that the amount of premiums per month influences the uptake of health insurance scheme. In relation to this, high premiums, co-payments, and deductible often deter economically vulnerable populations from enrolling in health insurance programs.[9] Moreover, individuals facing economic challenges may perceive health insurance as an additional financial strain, especially when grappling with immediate basic needs like food and shelter. To address this issue, targeted interventions and policy measures are essential to make health insurance more affordable and accessible, as highlighted in studies.[10] These interventions may include subsidies, income-based premium adjustments, and employer-sponsored schemes tailored to the economic realities of groups like green grocers, ultimately fostering a more inclusive health insurance landscape.

Demographic factors on uptake of health insurance cover

Uptake of health insurance cover is intricately linked to demographic factors, reflecting the diverse characteristics and needs of individuals within specific populations. Research studies, such as those conducted, underscore the role of demographic factors such as age, gender, and marital status in shaping insurance uptake patterns.[11] The analysis indicates that age of a person has affect uptake in health cover since majority of the participant who have enrolled in a health insurance cover were older compared to the young. In relation to this, younger individuals, often grappling with a sense of invincibility and lower perceived health risks, may be less inclined to prioritize health insurance.[11] In contrast, older age groups may exhibit a greater awareness of healthcare needs and a higher likelihood of enrolling in insurance programs. Most of the insurance takers were female thus gender of a person effects on the uptake of health insurance. Gender differences also play a role, with studies indicating variations in insurance coverage patterns between males and females.[12] Moreover, the marital status of individuals can significantly influence the decision to enroll in health insurance, as family responsibilities and shared healthcare considerations often become paramount for married individuals.[13] This is in support to the findings majority that had enrolled in health insurance cover were married whereas those who were single had not enrolled to a health cover. These demographic nuances highlight the need for targeted interventions and tailored communication strategies. Addressing the specific concerns and motivations associated with different demographic groups is essential for fostering a more inclusive and comprehensive approach to health insurance uptake.

Cultural factors on uptake of health insurance cover

Cultural factors exert a profound influence on the uptake of health cover, reflecting the diverse beliefs, values, and norms within communities. Research studies, including those have demonstrated the significant impact of cultural considerations on insurance uptake patterns.[14] Cultural perceptions of health and illness, trust in healthcare systems, and attitudes towards financial planning and risk mitigation all shape individuals' decisions regarding health insurance.[15] For example, in cultures where traditional healing practices are prevalent, there may be skepticism towards western medicine and insurance coverage, leading to lower uptake among certain segments of the population.[16] Additionally, cultural taboos or stigmas associated with discussing health matters or financial affairs may deter individuals from seeking insurance coverage.

Moreover, language barriers, lack of culturally appropriate information, and limited access to culturally sensitive healthcare services can further exacerbate disparities in insurance uptake among culturally diverse populations.[17] Collaborating with community leaders, religious organizations, and cultural influencers can help build trust and credibility, facilitating more effective dissemination of health insurance information within culturally diverse communities.[18] Addressing cultural sensitivities and ensuring linguistic diversity in outreach efforts are critical steps towards fostering greater inclusivity and equity in health insurance coverage.

Awareness on the uptake of health insurance cover

Awareness plays a pivotal role in the uptake of health insurance cover, significantly influencing individuals' understanding, attitudes, and behaviors towards insurance Uptake. Research studies, including those consistently demonstrate the positive correlation between awareness levels and insurance uptake.[18] Higher levels of awareness are associated with greater knowledge about the benefits of health insurance, including financial protection against unexpected medical expenses, access to quality healthcare services, and improved health outcomes.[19] Conversely, low awareness levels may lead to misconceptions, misinformation, and reluctance to enroll in insurance programs. Effective communication strategies and targeted awareness campaigns are essential for disseminating accurate information and fostering informed decision-making regarding health insurance. These campaigns should utilize diverse communication channels, including mass media, community events, and digital platforms, to reach a wide audience.

Moreover, culturally tailored approaches are crucial for addressing the specific needs and preferences of diverse populations, ensuring that information resonates with different cultural backgrounds and languages.[20] Furthermore, collaboration with healthcare professionals and community organizations can enhance awareness efforts by providing trusted sources of information and facilitating direct engagement with individuals seeking healthcare services.[21] Continuous monitoring and evaluation of awareness campaigns are essential to assess their effectiveness and identify areas for improvement.[22] By implementing comprehensive awareness strategies, stakeholders can empower individuals to make informed decisions about health insurance uptake, ultimately contributing to broader coverage and improved healthcare access.

Uptake of health insurance policy

Uptake of health cover among green grocers is influenced by a multitude of factors, including economic, demographic, cultural, and awareness-related considerations. Economic factors play a significant role in individuals' ability to afford and prioritize health insurance. Research highlights how lower income levels often act as barriers to insurance uptake, with high premiums and out-of-pocket costs posing challenges for economically vulnerable populations.[23] Additionally, demographic factors can shape insurance uptake patterns emphasize the influence of these demographic variables on individuals' attitudes and behaviors towards health insurance, with older individuals and married couples exhibiting higher rates of uptake.[24]

Cultural factors, including beliefs, values, and traditions, also impact insurance uptake, as demonstrated by research conducted.[25] Cultural perceptions of health and illness, as well as trust in healthcare systems, can affect individuals' decisions regarding insurance coverage. Furthermore, awareness levels about the benefits and importance of health insurance play a crucial role in shaping uptake rates. Effective communication strategies and targeted awareness campaigns, as evidenced by studies like those, are essential for disseminating accurate information and fostering informed decision-making among green grocers.[26] By understanding and addressing these multifaceted factors, stakeholders can develop tailored interventions and strategies to enhance the Uptake of health insurance cover among green grocers, ultimately improving access to essential healthcare services.

CONCLUSION

This study advances understanding in the field by highlighting how economic, demographic, cultural, and awareness-related factors collectively influence the Uptake of health insurance cover among green grocers. It demonstrates that income levels, life stage, cultural beliefs, and awareness significantly shape individuals' decisions regarding health insurance enrolment. The research underscores the necessity of a multi-dimensional approach integrating economic support measures, culturally sensitive outreach, and targeted awareness campaigns to effectively address disparities in insurance uptake. By synthesizing these insights, the study provides a holistic framework that can inform the development of inclusive and equitable health insurance strategies, contributing to broader healthcare access and improved health outcomes in underserved populations.

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