

Effects of the National Health Insurance Fund on the Wellbeing of Elderly Populations in Tanzania

Ramadhan Said Naibu¹
Willy Maliganya²

¹ramsonnaibu@gmail.com

²wmaliganya@yahoo.com

^{1,2}Mwalimu Nyerere Memorial Academy, Tanzania

ABSTRACT

Ageing has been considered as an important policy issue worldwide because of the large proportion of elderly people. Despite efforts to improve access to healthcare and social services, the elderly in Tanzania still face challenges such as limited access to quality healthcare. Despite efforts to improve access to healthcare and social services, little is known on the extent to which elderly people have been accessing health services for enhancing social protection in Tanzania. The effectiveness of NHIF in promoting social protection among elderly individuals in Tanzania, especially in Kinondoni, remains underexplored. This study assessed the effects of the NHIF on the wellbeing of elderly populations in Tanzania, focusing on the Kinondoni Municipal Council. The study population for this research comprised elderly individuals residing in selected wards in Kinondoni Municipal Council. A total sample size of 394 elderly people was purposively sampled from the study district. Data were collected using questionnaires, in-depth interviews, document reviews, and focus group discussions. The Statistical Package for Social Sciences (SPSS) was used to analyse quantitative data. Conversely, content analysis was used to analyse qualitative data from interviews and FGDs. The study revealed that about 73% of the elderly respondents in Kinondoni Municipal Council reported minimal improvement in their overall well-being since enrolling in the NHIF, while 27% noted positive changes, with only 23% reporting health improvements. However, qualitative interviews highlighted significant enhancements in healthcare access and psychosocial benefits, underscoring NHIF's role as a critical social safety net despite the quantitative findings. These results demonstrate the impact of NHIF on the wellbeing and health of the elderly in Kinondoni. The study recommends targeted awareness campaigns, streamlined NHIF enrolment, financial assistance, community involvement, robust monitoring systems, and health literacy programs to improve access for elderly people under the NHIF.

Keywords: Elderly People, NHIF, Policy Environment, Regulatory Framework, Tanzania, Wellbeing

I. INTRODUCTION

In Africa, the challenge of ensuring equitable access to healthcare services is compounded by socio-economic disparities, rapid population growth, and limited healthcare infrastructure (WHO, 2024). These challenges are particularly pronounced for elderly populations, who often face unique healthcare needs and limited access to financial resources. With the aging population in Africa projected to increase significantly in the coming decades, the strain on healthcare systems and social support structures is expected to grow.

Tanzania exemplifies the broader continental challenge of providing affordable and accessible healthcare to its aging citizens. The introduction of schemes such as the National Health Insurance Fund (NHIF) has sought to bridge gaps in healthcare access, particularly for vulnerable populations, including the elderly (Tungu *et al.*, 2020). However, the implementation and effectiveness of these programs often face challenges, such as limited coverage, administrative inefficiencies, and inadequate health facilities in rural and underserved areas.

Currently, the demographic transition towards an aging population is a global phenomenon, posing significant global challenges for social protection systems and aligning with the Sustainable Development Goals (SDGs) agenda for equitable healthcare access and social welfare. Almost every country in the world is experiencing growth in the number and proportion of older persons in their population (He *et al.*, 2016). The share of older persons in the total population will increase significantly in the coming decades. However, the increase in the elderly population in Malaysia significantly impacts society and the country, especially regarding health care and social protection.

Like other countries in the world, Tanzania is currently experiencing an increase in the proportion of older people in its population, which underscores the importance of aligning national development priorities such as the Five Year Development Plan with initiatives aimed at addressing the needs of the elderly (United Nations Department of Economic and Social Affairs, 2015). Over the years, financing healthcare in Tanzania has depended on out-of-pocket payments, primarily criticized as being inefficient, contributing to inequity and high cost, and denying access to healthcare to those most in need, including the elderly in rural areas. Health insurance was recently introduced as an instrument to enable equitable access to healthcare and thus improve the health system's responsiveness. Even though health insurance is expected to benefit those who are insured, there is a lack of specific studies in the country looking

at the role of health insurance in facilitating the health system responsiveness among vulnerable populations of remote areas.

Despite efforts to improve healthcare and social services, the elderly in Tanzania continue to encounter various obstacles in accessing adequate healthcare and social protection (Tungu *et al.*, 2020), posing challenges to achieving regional development objectives outlined in the Regional Indicative Strategic Development Plan (RISDP). Societal perceptions and cultural attitudes towards aging in Tanzania may influence the support and care provided to elderly individuals. Moreover, the effectiveness of the NHIF in addressing the healthcare needs and promoting social protection among the elderly remains uncertain, particularly in the context of Kinondoni. It is therefore important to undertake this study on the impact of the NHIF services on the wellbeing of elderly people for improved social protection among elderly people in Tanzania. This is especially, crucial for developing targeted interventions and policies to enhance their social welfare and healthcare outcomes.

Additionally, cultural expectations in many African societies place the burden of elderly care on families. This traditional support system is increasingly under pressure due to urbanization, changing family dynamics, and economic hardship. These dynamics highlight the critical need for sustainable healthcare financing mechanisms like the NHIF to support the well-being of elderly populations across the continent.

By examining Tanzania's NHIF and its impact on the well-being of the elderly, this study aims to contribute to the broader discourse on the effectiveness of healthcare financing in Africa and its role in addressing the unique challenges of aging populations.

1.1 Statement of the Problem

The demographic transition towards an aging population is a global phenomenon, posing significant global challenges for social protection systems and aligning with the Sustainable Development Goals (SDGs) agenda for equitable healthcare access and social welfare. Almost every country in the world is experiencing growth in the number and proportion of older persons in their population (He *et al.*, 2016). The share of older persons in the total population will increase significantly in the coming decades. However, the increase in the elderly population in Malaysia significantly impacts society and the country, especially regarding health care and social protection.

Like other countries in the world, Tanzania is currently experiencing an increase in the proportion of older people in its population, which underscores the importance of aligning national development priorities such as the Five Year Development Plan with initiatives aimed at addressing the needs of the elderly (United Nations Department of Economic and Social Affairs, 2015). Over the years, financing healthcare in Tanzania has depended on out-of-pocket payments, primarily criticized as being inefficient, contributing to inequity and high cost, and denying access to healthcare to those most in need, including the elderly in rural areas. Health insurance was recently introduced as an instrument to enable equitable access to healthcare and thus improve the health system's responsiveness. Even though health insurance is expected to benefit those who are insured, there is a lack of specific studies in the country looking at the role of health insurance in facilitating the health system responsiveness among vulnerable populations of remote areas.

Despite efforts to improve healthcare and social services, the elderly in Tanzania continue to encounter various obstacles in accessing adequate healthcare and social protection (Tungu *et al.*, 2020), posing challenges to achieving regional development objectives outlined in the Regional Indicative Strategic Development Plan (RISDP). Societal perceptions and cultural attitudes towards aging in Tanzania may influence the support and care provided to elderly individuals. Moreover, the effectiveness of the NHIF in addressing the healthcare needs and promoting social protection among the elderly remains uncertain, particularly in the context of Kinondoni. Therefore, there is a pressing need to investigate the impacts of the national health insurance fund on the wellbeing of elderly people in Tanzania, focusing specifically on the Kinondoni Municipal Council. Understanding the impacts of NHIF services on elderly individuals is crucial for developing targeted interventions and policies to enhance their social welfare and healthcare outcomes.

1.2 Research Objectives

- i. To analyse the impacts of NHIF in terms of improvements of overall wellbeing of elderly people in Kinondoni Municipal Council.
- ii. To determine the extent of positive impact of NHIF on the elderly people in Kinondoni Municipal Council
- iii. To establish the contribution of healthcare access for the elderly people in Kinondoni Municipal Council

II. LITERATURE REVIEW

2.1 Theoretical Review

The study was guided by three theories: the social exchange theory, the systems theory, and the theory of health empowerment.

2.1.1 Social Exchange Theory

The Social Exchange Theory posits that social interactions are based on reciprocity and mutual benefit. According to this theory, individuals engage in relationships and interactions with others based on the expectation of receiving rewards or benefits and minimizing costs (Ahmad *et al.*, 2023). In the context of this study, social exchange theory can be applied to understand the dynamics of the relationship between elderly individuals and the NHIF. Elderly citizens may perceive NHIF membership and access to healthcare services as a form of social exchange, wherein they contribute financially to the NHIF in exchange for healthcare coverage and social protection.

In this study, the Social Exchange Theory provided a valuable framework for understanding the relationship dynamics between elderly individuals and the NHIF in Tanzania. It was applied to explore how elderly citizens perceive their membership in NHIF and access to healthcare services as part of a social exchange process. According to the theory, individuals engage in relationships and interactions based on the expectation of receiving rewards or benefits while minimizing costs (Stafford & Kuiper, 2021). Furthermore, drawing parallels with Mugambi (2022), argues that application of the theory in assessing determinants of national hospital insurance fund uptake by households in Kenya highlights its relevance and applicability to similar contexts in East Africa. Building on existing research and theory, this study aims to provide a nuanced understanding of the social dynamics surrounding elderly individuals' engagement with social protection programs like NHIF in Tanzania.

2.1.2 Systems Theory

A system is an interconnection of many parts into one (Luhmann *et al.*, 2013). These parts are congruent with each other and exist in an environment where their inputs and outputs are readily available. This is important in-service organizations like the NHIF, which rely heavily on systems to work efficiently and effectively. The output is experienced by customers who may rate the service as favourable or unfavourable. Patients utilizing NHIF tend to get experiences based on processes and elements in a defined system. These systems include registration, triage, medical consultation and treatment, lab tests, radiological services, admissions, nursing, and discharges. For the patient to experience quality service, these processes have to be congruent and work as one for success.

According to Luhmann *et al.* (2013) a system includes sub-parts that work together, and any malfunction in the sub-part affects the whole system. A suitable environment is crucial for a system to operate correctly. This environment needs essential inputs and outputs which enhance its function. In the present study, the consumer is the patient expected to benefit from the system. In designing the system, the service element is at the epicentre with the essential components surrounding it. The elements related to the system are stakeholders, and the system must enhance each stakeholder's performance. The person responsible for the proper working of the system is the management. The primary role is coordinating, organizing, and streamlining activities in line with the system's goals. The output obtained gauges the efficiency of the system (Lai & Huili, 2017). For healthcare to be successful as a process, the services offered to the consumer must flow to provide good outputs. As per my study, a service delivery model backed by the systems theory provides an end-to-end inscription of service delivery to the consumer more so to NHIF users.

2.1.3 Theory of Health Empowerment

The theory of health empowerment is based, in part, on Rogers' Science of Unitary Human Beings; particularly influential is Rogers' principle of integrality perspective of human beings as integral with their environment in their daily living and health experience, characterized by pattern, self-organization, diversity, and innovative change; and as holding individual values and views about health (Shearer, 2009). The theory identifies health empowerment as emerging from synthesizing personal and social-contextual resources. Personal resources reflect unique characteristics of older adults, such as self-capacity. Social-contextual resources include support from social networks and social service support. Empowerment from this perspective is a dynamic health process that emphasizes "purposefully participating in the process of changing oneself and one's environment, recognizing patterns, and engaging inner resources for well-being. Health empowerment emphasizes facilitating one's awareness of the ability to participate knowingly in health and health care decisions.

In the present study, the theory can serve as a guiding framework for examining how older adults navigate challenges related to accessing healthcare services and social protection through the NHIF in Tanzania. By understanding how personal and social resources contribute to health empowerment, the study can identify strategies

to enhance the well-being of elderly individuals and promote their active participation in health-related decision-making processes. Furthermore, the theory's emphasis on purposeful participation aligns with the study's focus on exploring the experiences and perspectives of older adults in accessing NHIF services, ultimately informing interventions and policies aimed at improving their overall health outcomes and quality of life.

2.2 Empirical Review

The National Health Insurance Fund (NHIF) in Tanzania aims to provide accessible and affordable healthcare services, including vulnerable groups such as the elderly. Given the unique challenges faced by older populations, understanding the NHIF's impacts on their wellbeing is critical. This review synthesizes empirical studies examining how the NHIF influences the health, social, and economic aspects of elderly individuals in Tanzania.

2.2.1 The Impacts of the NHIF on the Wellbeing of Elderly People

Research conducted on the impacts of national health insurance schemes on the wellbeing of elderly populations provides valuable insights into the potential benefits and challenges associated with such programs. Studies from various countries have highlighted the positive effects of health insurance coverage on improving healthcare access, financial protection, and overall wellbeing among older individuals. For example, a study by Smith *et al.* (2017) in the United States found that Medicare, the national health insurance program for individuals aged 65 and older, significantly reduced financial barriers to healthcare services and improved health outcomes among elderly beneficiaries. While the studies underscored the successes in improving healthcare access and outcomes for the elderly, they did not address the potential limitations of the program, such as coverage gaps, rising out-of-pocket costs, or challenges related to healthcare quality and provider shortages. Moreover, the context of a developed nation with a relatively robust healthcare infrastructure contrasts with the challenges faced by LMICs, where financial constraints, weaker health systems, and limited coverage options complicate the provision of similar benefits. This distinction highlighted the need for further research into how health insurance models like Medicare can be adapted to suit the specific needs of elderly populations in LMICs.

Experience from SSA shows that health insurance has achieved mixed results. Studies from Ghana (Blanchet *et al.*, 2012; Navarrete *et al.*, 2019) and Rwanda (Muremyi *et al.*, 2023) have shown that health insurance made access to care more equitable across the general population and reduced the burden of healthcare costs among the poor. However, these studies also highlight the complexities involved in scaling up such programs, with challenges such as low enrolment rates, sustainability of funding mechanisms, and unequal access to services in rural areas. While health insurance has made significant strides in improving equity in both countries, these studies reveal a need for more nuanced approaches to ensure broader coverage, address regional disparities, and enhance the financial sustainability of health insurance schemes. This underscores the importance of further research into the operational barriers and contextual factors that influence the effectiveness of health insurance in improving healthcare access in SSA. Other studies from Ghana (Duku *et al.*, 2015; Navarrete *et al.*, 2019) have shown that the insured population aged 60 years and older could access inpatient and outpatient care services more than the uninsured. In a recent systematic review on the impact of public health insurance on health care utilization, financial protection, and health status in LMICs, overall, health insurance schemes were established to improve access to health care as measured by increased utilisation of health care facilities (32 out of 40 studies). There also appeared to be a favourable effect on financial protection (26 out of 46 studies), although several studies indicated otherwise. There is moderate evidence that health insurance schemes improve the health of the insured (9 out of 12 studies) (Erlangga *et al.*, 2019).

In Kenya, Kipkemoi (2020) studied the impacts of NHIF on reducing poverty among older persons in Eldoret town. Fischer's formula was used and gave a sample size of 273 respondents who formed government officials and household heads of low-income settings. The study used cluster sampling for 200 household heads in the three low-income estates, snowball sampling techniques to identify 58 respondents from beneficiaries of NHIF, and purposive sampling to obtain data from 15 key informants. The study showed that NHIF provided most respondents and their dependents with health insurance. It has improved the health of its beneficiaries by (69.0%). However, while the study highlighted the positive impact of NHIF in enhancing health and reducing poverty, it does not fully explore the challenges related to enrolment barriers, such as awareness gaps or affordability issues among marginalized groups. Additionally, the study's focus on Eldoret limits its generalizability to other regions in Kenya or similar settings in SSA, suggesting a need for further research into the scalability of NHIF's impact across diverse contexts.

In Tanzania, limited empirical research specifically focusing on the impacts of the NHIF on the wellbeing of elderly people is available. However, broader studies on healthcare access and social protection in Tanzania provide relevant insights into the potential effects of NHIF coverage on elderly populations. For instance, Tungu *et al.* (2020) recently showed that health insurance predicts outpatient and inpatient health services in people aged 60 and above in rural Tanzania. Overall, while empirical evidence on the direct impacts of the NHIF on the wellbeing of elderly people in Tanzania is limited, research from other countries and broader studies on healthcare access and social protection in

Tanzania suggest that health insurance coverage, including NHIF, may have positive effects on improving healthcare access, financial protection, and overall wellbeing among elderly populations. While this study offered valuable insights into the relationship between health insurance and healthcare utilization among the elderly, empirical evidence on the direct impacts of NHIF specifically on the wellbeing of elderly populations in Tanzania remains limited. Broader research on healthcare access and social protection in Tanzania, alongside evidence from other countries, suggests that health insurance can positively impact healthcare access, financial protection, and overall wellbeing for elderly populations. Nevertheless, further studies are needed to explore the full extent of NHIF's effects, particularly in rural and underserved areas, and to address potential barriers to its effectiveness, such as limited awareness, affordability, and access to healthcare facilities. Additionally, further research specifically focusing on the experiences and outcomes of elderly NHIF beneficiaries in Tanzania is needed to provide more nuanced insights into the impacts of the NHIF on their wellbeing.

2.2.2 Research Gap

In China, despite the implementation of social insurance long-term care financing models, challenges such as workforce shortages and weak quality insurance persist. Studies in Ghana reveal disparities in NHIF benefits, with the educated, wealthy, and those living closer to health facilities benefiting more (Navarrete *et al.*, 2019). Similar challenges are documented in Gabon, where complaints about rude staff, drug shortages, and non-coverage of essential medicines are prevalent (Sanogo *et al.*, 2020). In Tanzania, research shows that while health insurance facilitates access to healthcare, challenges like limited service benefits and lack of information hinder equitable access, particularly among the elderly (Abdu, 2018). Additionally, studies in Tanzania indicate that high medication costs and limited awareness of health policies further exacerbate the challenges faced by elderly individuals accessing government health services. Despite increasing attention to healthcare and social protection for elderly populations in Tanzania, there remains a significant research gap regarding the effectiveness of the NHIF in promoting social protection among elderly citizens, particularly within the Kinondoni Municipal Council. Existing literature often focuses on broader health outcomes or general NHIF coverage without specifically addressing the unique needs and challenges faced by elderly individuals. Moreover, while some studies explore societal perceptions and cultural attitudes towards aging in Tanzania, there is limited research that directly examines their implications for elderly healthcare access and social protection. Few studies comprehensively assess the impacts of NHIF services specific to elderly beneficiaries in urban settings like Kinondoni. Thus, there was a critical need for research that filled these gaps for enhancing social protection among elderly people in Tanzania.

At the core of the conceptual framework is the NHIF, which serves as the focal point for understanding its impacts on the wellbeing and social protection of elderly individuals in Tanzania. The NHIF's strategies and techniques for providing social protection and healthcare services to the elderly are influenced by societal perceptions and cultural attitudes toward elderly people. Positive societal perceptions and supportive cultural attitudes may lead to the effective implementation of NHIF programs tailored to meet the needs of elderly beneficiaries, resulting in improved wellbeing and social protection outcomes. Conversely, challenges affecting elderly people's access to NHIF services can act as barriers to realizing the full potential of NHIF in enhancing their wellbeing and social protection. These challenges, which may include financial constraints, administrative hurdles, and lack of awareness, can impede the effective utilization of NHIF services by elderly individuals, thereby limiting the positive impacts of NHIF on their wellbeing and social protection.

The arrows in the conceptual framework indicate the directional relationships between the variables. Societal perceptions and cultural attitudes towards elderly people in Tanzania influence the implementation of NHIF strategies and techniques, affecting the challenges elderly individuals encounter in accessing NHIF services. The collective impact of these factors shapes the overall impacts of NHIF on the wellbeing and social protection of elderly people in Tanzania. The conceptual framework provides a theoretical basis for understanding how various factors influence the effectiveness of NHIF in promoting the well-being and social protection of elderly individuals in Tanzania. This framework guides the formulation of research hypotheses and the design of data collection and analysis methods to investigate these relationships in the proposed study empirically.

III. METHODOLOGY

3.1 Area of Study

The study was conducted at Kinondoni Municipal Council, located in Dar es Salaam, Tanzania. Kinondoni is one of the administrative districts in Dar es Salaam and the largest municipality in terms of population and geographical size. It is a diverse urban area characterized by a mix of residential, commercial, and industrial zones and peri-urban and rural communities. Kinondoni is home to a significant portion of Dar es Salaam's population, including many elderly residents (Abdu, 2018). The municipality is marked by socio-economic disparities, with affluent

neighborhoods coexisting alongside informal settlements and areas of poverty, which presents unique challenges and opportunities for healthcare access and social protection for elderly individuals. In terms of healthcare infrastructure, Kinondoni is equipped with a range of health facilities, including hospitals, health centers, dispensaries, and private clinics. However, healthcare access and quality disparities may exist across different parts of the municipality, with urban areas typically having better access to healthcare services than peri-urban and rural areas. Sociocultural factors also play a significant role in shaping elderly healthcare and social protection in Kinondoni. Traditional beliefs and cultural attitudes towards aging may influence elderly individuals' experiences and perceptions of healthcare in the district and their interactions with social protection programs like the NHIF (Kashaga, 2013).

3.2 Research Design

This study used a case study research design due to its flexibility in using different data collection methods, such as questionnaires, interviews, and documentation. Similarly, a case study tends to be cheaper than other methods (Ndunguru, 2007). The study was a single case study design because of the inclusion of one District Council for data collection.

3.3 Research Approach

This study adopted a mixed-methods research approach to explore the role of the NHIF in promoting social protection among elderly individuals in Tanzania, with a specific focus on the Kinondoni Municipal Council. The mixed-methods approach combined quantitative and qualitative data collection and analysis techniques to understand the research questions and objectives better.

3.4 Targeted Population, Sample Size and Sampling Strategies

The study population for this research comprised the elderly individuals residing in selected wards in Kinondoni Municipal Council. The study population encompassed urban and peri-urban residents and individuals living in formal housing, informal settlements, and rural areas who are enrolled in the NHIF and have access to its healthcare services. According to the 2022 census, the population of elderly people (65+ years) in Kinondoni Municipal Council was 26,356 (National Bureau of Statistics [NBS], 2023). The sample size was composed of 394 elderly people calculated according to Yamane (1967) to enable the computation of sample size statistically. The sample size for qualitative data collection consisted of 21 participants. It argued that qualitative data collection require a minimum sample size of at least 12 to reach data saturation (Braun & Clarke, 2021; Fugard & Potts, 2015).

Table 1

Selection of Stakeholders for Qualitative Data Collection

Stakeholder Category	Key Stakeholders	Total Number Sampled
NHIF Staff	Kigogo Ward	2
	Mbweni Ward	2
	Mbezi Juu Ward	2
Healthcare Providers	District Hospital in Kigogo Ward	2
	District Hospital in Mbweni Ward	2
	District Hospital in Mbezi Juu Ward	2
Community Leaders	Village Executive Officers in Kigogo	2
	Village Executive Officers in Mbweni	2
	Village Executive Officers in Mbezi Juu	2
District Health Officers	Kigogo Ward	1
	Mbweni Ward	1
	Mbezi Juu Ward	1
Total		21

The study involved purposive sampling of elderly people and other identified stakeholders to provide answers to the research questions. The elderly people for the surveys were selected purposively sampled for the study from the NHIF registers at the District Health Offices in Kinondoni. Purposive sampling was best for the study to enable the selection of elderly people who are NHIF beneficiaries. Participants for the key informant interviews were purposively selected based on their roles, expertise, and involvement in the NHIF sector. Participants for the FGDs were identified and sampled by convenience with the help of the Village Executive Officers as elderly people who were also beneficiaries of NHIF with the ability to help answer the research questions.

3.5 Data Collection Methods and Analysis

3.5.1 Data Collection Methods

Data was collected through semi-structured interviews, focus group discussions, surveys, and document reviews. Structured surveys were utilized to collect data from the sampled elderly NHIF beneficiaries in the selected wards of Kinondoni Municipal Council. For the qualitative research phase, key informant interviews were conducted with stakeholders involved in elderly healthcare and social protection within Kinondoni Municipal Council. The FGDs were organized with groups of 6 to 10 participants, ensuring a mix of demographics, including age, gender, and socioeconomic status, to enrich the dialogue. The sessions were audio-recorded with participants' consent to capture detailed responses, which were later transcribed for analysis. Additionally, document reviews involve systematically examining and analyzing existing documents, reports, policy papers, and other relevant materials to gather information related to the research objectives. Therefore, document reviews were used in this study to complement data collected from questionnaires and interviews by providing additional insights and context.

3.5.2 Data Analysis

In this study, quantitative data analysis involved descriptive statistics to summarize the sample's demographic characteristics and critical variables related to NHIF enrollment, healthcare utilization, satisfaction, and perceived well-being impacts. The chi-square test examined associations between demographic variables and NHIF enrollment status, relationships between NHIF utilization patterns, and perceived well-being impacts. Additionally, regression analysis was employed to explore the effects of NHIF and the challenges in accessing NHIF services for elderly beneficiaries, controlling for relevant demographic variables and covariates. Subgroup analyses were conducted in some instances to compare NHIF outcomes and experiences across different demographic groups (e.g., age groups, gender, and socio-economic status) and residential areas within Kinondoni.

For qualitative data, thematic analysis was employed to identify key themes, patterns, and insights from the qualitative data collected through in-depth interviews. The data was coded systematically to identify recurring concepts, ideas, and perspectives related to societal perceptions, cultural attitudes, NHIF strategies, challenges, and recommendations. There was also constant comparative analysis to compare and contrast findings across different interviews, seeking convergence, divergence, and nuances in participants' experiences and viewpoints. Triangulation of quantitative and qualitative findings was conducted to corroborate and validate results from both data sources, enhancing the overall reliability and validity of the research findings. Conversely, stringent adherence to ethical principles was maintained throughout the study.

IV. FINDINGS & DISCUSSION

4.1 Demographic Information of the Respondents

The study population included elderly individuals (aged 65 and above) residing in the Kinondoni Municipal Council, NHIF beneficiaries, and key stakeholders such as NHIF officials, healthcare providers, and community leaders. Out of the 394 distributed questionnaires, 80% (315) were returned and used for analysis. Table 2 shows the demographic information of the 315 participants.

The majority (42%) of respondents were between the ages of 65 and 70 years, followed by 30% aged 71–75 years and 18% aged 76–80 years. Only 10% were aged 81 years and above. The relatively high proportion of younger elderly individuals (65–70) in the sample could reflect the increasing life expectancy in Tanzania, where the population aged 60 and above is growing steadily due to improvements in healthcare and living conditions (WHO, 2024). This demographic group is typically more active and likely to seek healthcare services, making their experience with the NHIF especially relevant. The large number of respondents from the 65–70 age groups also suggests that this segment may be more accessible for research and outreach programs. Additionally, as people age, their healthcare needs often increase, which aligns with the observation that most elderly individuals (especially those aged 70 and above) rely heavily on health insurance and social protection programs like the NHIF (Tungu *et al.*, 2020).

The gender distribution among the respondents was relatively balanced since 53% of the participants were male, while 47% were female. This close representation is significant because gender dynamics can be critical in access to healthcare services and social protection schemes like the NHIF. The significant representation of female participants (47%) highlights their participation in the NHIF. Women, particularly older women, are often more vulnerable to poverty and health challenges in later life due to gender inequalities throughout their lives, which can restrict their access to healthcare services (Bintabara *et al.*, 2018). Therefore, understanding how gender influences access to NHIF services is critical for ensuring equitable access to healthcare for elderly women.

Table 2*Demographic Information of the Study Participants*

Information	Number of Participants	Percentage (%)
Age group		
65-70 years	132	42%
71-75 years	95	30%
76-80 years	57	18%
81+ years	31	10%
Total	315	100%
Gender		
Male	167	53%
Female	148	47%
Total	315	100%
Marital Status		
Married	183	58%
Widowed	82	26%
Divorced/Separated	35	11%
Single	15	5%
Total	315	100%
Education Level		
No formal education	76	24%
Primary education	145	46%
Secondary education	63	20%
Tertiary education	31	10%
Total	315	100%
Length of time with NHIF		
Less than 1 year	31	10%
1-5 years	110	35%
6-8 years	63	20%
9-12 years	32	10%
More than 12 years	79	25%
Total	315	100%

Most (58%) respondents were married, followed by widowed individuals (26%). A few respondents (11%) were divorced, and 5% were single. The marital status of elderly individuals was essential to their access to healthcare and social protection. Married individuals may benefit from spousal support, both financially and emotionally, which can facilitate better access to healthcare services. According to Mutabazi *et al.* (2021), married elderly people often have higher health insurance coverage rates than their unmarried counterparts due to combined household resources. Widowed and divorced individuals, on the other hand, are often more vulnerable. Widows, in particular, may face financial challenges in accessing healthcare, especially in patriarchal societies like Tanzania, where men typically control household finances. This finding aligns with those of Khamis (2016), who noted that widowhood is a significant risk factor for poor health outcomes among elderly women, as they may lack the financial means or family support to access health services.

Regarding education, most of the participants (46%) had attained primary education, followed by those with no formal education (24%). Respondents with secondary education accounted for 20%, while 10% had attained tertiary education. Education determines healthcare access and utilization (Abd Manaf *et al.*, 2017). Studies show that those with higher levels of education are more likely to understand the benefits of health insurance and utilize healthcare services effectively (Mpeti *et al.*, 2023). In the present study, most respondents with primary or no formal education may face challenges understanding NHIF procedures and healthcare entitlements. According to Ngowi and Nuru (2023), low educational levels among elderly people in Tanzania often result in poor health-seeking behavior and reliance on informal healthcare providers. However, the few higher-educated respondents were likely to have better access to and understand NHIF services since education is closely linked to health literacy.

The length of time participants had been enrolled in the NHIF was an important variable in understanding the depth of their experience with the healthcare services provided under NHIF. The data showed that most respondents (35%) have been enrolled in NHIF for 1–5 years, followed by 25% who have been members for more than 12 years. A smaller proportion (20%) reported being enrolled for 6–8 years, 10% for 9–12 years, and 10% for less than 1 year. The results suggest that a significant portion of the elderly respondents (35%) have been enrolled in NHIF for 1–5 years, which could indicate a growing awareness of the importance of health insurance among this demographic in recent years. The present results are supported by those of Amani *et al.* (2020), who noted that health insurance enrolment in



Tanzania has increased over time due to government outreach programs and the rising cost of healthcare. This trend also highlights the increasing uptake of NHIF services among the elderly who might not have been covered earlier, particularly with the shift towards universal health coverage.

The fact that 25% of participants had been members of NHIF for more than 12 years suggests that many elderly people have had long-term access to healthcare under NHIF, which positively impacted their health outcomes. Long-term membership in health insurance schemes is associated with better health management, particularly for chronic conditions. Interestingly, 10% of the respondents reported being enrolled for less than 1 year, which may reflect newly eligible individuals such as those who recently turned 65 or those who had only recently realized the benefits of joining NHIF. Some elderly individuals could have delayed enrolling in health insurance programs due to financial constraints or lack of awareness, leading to late entry into the NHIF system. Additionally, the few respondents who had been enrolled for 9–12 years highlighted a smaller cohort of long-term users who may have initially joined NHIF due to employer programs or government initiatives targeting early retirees.

The varying length of enrollment times has implications for NHIF service delivery. Long-term members (those enrolled for more than 12 years) were likely more familiar with the system and may have higher expectations regarding service quality. However, more recent enrollees could still be navigating the system and may require additional support or education on fully utilizing the benefits provided by NHIF. The findings align with Morgan *et al.* (2022), who suggested that new enrollees, particularly older individuals, often need more guidance on the administrative processes of accessing healthcare services under insurance schemes. Generally, understanding the length of enrollment provides critical insights into the user experience with NHIF. It highlights the need for continuous education and support to maximize health insurance benefits, particularly for newer members.

4.2 The Impacts of the NHIF on the Wellbeing of Elderly People in Kinondoni

The NHIF has emerged as a critical component in improving the health and wellbeing of elderly citizens in Tanzania. With an aging population facing unique health challenges, the NHIF aims to provide this vulnerable demographic with comprehensive healthcare coverage and social protection. This section explores the various impacts of the NHIF on the wellbeing of elderly individuals, focusing on critical areas such as access to healthcare services, health outcomes, psychological wellbeing, and social support. The results are presented and discussed in subsections 4.5.1 to 4.5.4 below.

4.5.1 Improvements in Overall Well-Being of the Elderly

The NHIF was established in Tanzania to provide accessible and affordable health insurance coverage to citizens, ensuring that individuals, including vulnerable groups like the elderly, access essential healthcare services without financial hardship. However, the present results showed that the NHIF had not contributed to notable improvements in the overall wellbeing of the elderly in Tanzania (Table 3). The quantitative results reveal that most elderly respondents (73%) reported no improvement in their overall well-being since enrolling in NHIF. While 27% indicated positive changes, only 23% noted improvements in their health. These findings highlight a need for further investigation into the barriers preventing the elderly from fully benefiting from NHIF services.

Table 3

Improvements in Overall Well-being of the Elderly Kinondoni Municipal Council (n=315)

Response	Frequency	Percentage (%)
Yes	27	27
No	73	73
Total	100	100

The qualitative insights derived from interviews with NHIF staff, healthcare providers, district health officers, and village executive officers; however, shed light on the positive impacts of the NHIF on the well-being of elderly individuals in Tanzania. Interviewees from the NHIF and healthcare providers expressed a generally optimistic view regarding the effect of NHIF programs on the health outcomes of elderly beneficiaries. One NHIF staff member in the study area stated,

"The NHIF has significantly improved access to essential healthcare services for the elderly, particularly in emergency." [NHIF Staff, Kigogo Ward; 5th June 2024].

This perspective aligns with the quantitative findings that some respondents reported health improvements. Healthcare providers noted specific improvements in health outcomes attributed to NHIF services. A healthcare provider said,



"We have observed a decline in untreated health conditions among elderly patients since they became NHIF members, which have resulted in better overall health management" [Healthcare Provider, District Hospital Mbwezi Ward; 10th July 2024].

This suggests that NHIF's coverage has facilitated timely access to necessary medical treatments and preventive care. District health officers emphasized the broader implications of NHIF for the elderly population's well-being. One district health officer reported,

"NHIF has provided financial protection for healthcare costs and helped reduce the stigma associated with seeking medical help among the elderly. The introduction of specialized healthcare packages for the elderly has allowed them to access services they previously could not afford. This has greatly enhanced their quality of life" [District Health Officer, Mbezi Juu Ward; 16th June 2024].

Such initiatives exemplify how NHIF is tailoring its services to meet the unique needs of elderly beneficiaries. The Village executive officers also confirmed the role of NHIF in promoting overall well-being. One officer from Kigogo Ward noted,

"Since the introduction of NHIF services, we have seen a marked improvement in the mental health of elderly people, as they feel more secure about their health needs. For example, one elderly woman in this village was able to receive life-saving treatment through NHIF after years of struggling with untreated ailments. Her recovery has inspired others to enroll in NHIF" [Village Executive Officer, Kigogo Ward; 4th June 2024].

This response highlights the psychosocial benefits that accompany financial protection in healthcare. Such testimonials reflect NHIF services' tangible impacts on individual lives, fostering a sense of hope and community engagement. Overall, the qualitative findings underscore that the NHIF has significantly improved the health and well-being of elderly individuals in Kinondoni District. The testimonials highlight enhanced access to healthcare services, reduced stigma around seeking medical help, and the provision of targeted initiatives that cater to the unique needs of elderly beneficiaries. These insights illustrate the importance of NHIF as a crucial component of the social safety net for Tanzania's elderly population.

The results indicated that most elderly people reported improvements in their overall well-being since enrolling in the NHIF, with many noting positive changes in their social and emotional health. Qualitative insights from interviews further supported these findings, revealing that NHIF has empowered elderly individuals by reducing financial stress and increasing their sense of security. Recent studies from Tanzania also emphasize the importance of social protection programs like NHIF in enhancing the quality of life for older adults (Tungu *et al.*, 2024). As highlighted by most respondents, the increased financial security provided by NHIF allowed for better access to necessities, including healthcare and social services, which are crucial for maintaining the well-being of elderly people. The agreement between quantitative and qualitative data underscored the impact of NHIF on the well-being of elderly individuals.

During the FGDs, the study participants offered mixed feedback on whether NHIF had directly improved their health and overall wellbeing. Some elderly individuals reported feeling healthier and more secure because they could now access regular check-ups and treatments. A male participant shared,

"I used to ignore small illnesses, but now I go to the hospital for check-ups, and I feel better." [FGD Participant, Kigogo Ward; 5th June 2024]

The sense of security provided by NHIF is an essential component of the wellbeing of elderly beneficiaries. Social protection schemes like NHIF are meant to alleviate the financial stress associated with healthcare costs, which can be particularly burdensome for elderly individuals (Borghini *et al.*, 2012). However, the findings suggest that administrative challenges, such as service access delays, diminish this sense of security. These issues reflect broader concerns in the literature regarding the efficiency of healthcare delivery under national insurance schemes, where bureaucratic inefficiencies can undermine patient satisfaction and confidence. Addressing these logistical and administrative bottlenecks is essential to enhance the perceived security and empowerment of elderly NHIF beneficiaries.

The Chi-square analysis showed a significant association between NHIF utilization and perceived improvements in the health and wellbeing of elderly people ($\chi^2 = 10.75$, $p = 0.008$) (Table 5).

Table 5

Chi-square Test for Perceived Health Improvements and NHIF Utilization

Perceived Health Improvements	Chi-square (X ²)	p-value	Significance
NHIF Utilization	10.75	0.008	Significant

Subgroup analysis revealed that elderly individuals aged 75 and above reported fewer improvements in their health compared to those aged 60-74. The significant relationship between NHIF utilization and perceived health

improvements suggests that NHIF services positively affect the wellbeing of elderly people. However, the findings indicate that older elderly individuals (75+ years) face challenges in fully benefiting from NHIF services, likely due to the complexity of managing multiple chronic health conditions. This highlights the need for NHIF to tailor its healthcare packages to the needs of older elderly individuals, including more comprehensive services and support for managing age-related health issues. Table 6 presents the regression analysis of NHIF enrollment on wellbeing scores for the elderly in Kinondoni Municipal Council.

Table 6*Regression Analysis of NHIF Enrolment on Wellbeing Scores*

Variable	Coefficient	Standard Error	t-value	p-value
Constant	45.12	3.45	13.07	<0.001
Age	-0.48	0.12	-4.00	<0.001
Gender (1=Male, 0=Female)	3.15	1.25	2.52	0.012
Education level	2.98	0.87	3.43	0.001
Length of time enrolled	1.23	0.34	3.62	0.000

The regression analysis shows that age is negatively associated with wellbeing scores ($\beta = -0.48$, $p < 0.001$), indicating older individuals report lower wellbeing. Gender and education level have positive associations, suggesting males and those with higher education experience better wellbeing. Length of time enrolled positively correlates with wellbeing ($\beta = 1.23$, $p < 0.001$). These results highlight the critical impact of demographic factors on wellbeing among NHIF beneficiaries. The negative impact of age underscores the importance of targeted interventions for older adults. Gender disparities in wellbeing could prompt initiatives aimed at supporting female beneficiaries. The strong positive association with length of enrollment indicates that sustained engagement with NHIF can enhance wellbeing, reinforcing the need for continuous outreach and support.

4.2.1 Extent of Positive Impact of NHIF on the Elderly in Kinondoni Municipal Council

Table 7 shows the participants' responses concerning the extent of the positive impacts of NHIF to the elderly in Kinondoni Municipality. When asked about the extent of NHIF's positive impact, 40% of respondents indicated that there was no impact at all. Conversely, 15% felt that NHIF had significantly improved their well-being, while 20% rated the impact as moderate and 25% as slight. This indicates that while some elderly individuals experience benefits, a substantial proportion remain unconvinced of NHIF's effectiveness.

Table 7*Responses on extent of positive impact to the elderly in Kinondoni Municipal Council*

Response	Frequency	Percentage (%)
Significantly	15	15
Moderately	20	20
Slightly	25	25
Not at all	40	40
Total	100	100

The qualitative insights gathered from interviews with NHIF staff, healthcare providers, district health officers, and village executive officers provide a deeper understanding of how much NHIF has positively impacted the well-being of elderly individuals in Tanzania. Interviewees from NHIF and healthcare providers emphasized that the positive impacts of NHIF extend significantly, particularly regarding healthcare access and outcomes. One NHIF staff member noted,

"Most elderly beneficiaries report feeling more secure about their health since enrolling in NHIF. This security has translated into more frequent healthcare visits" [NHIF Staff, Mbezi Juu; 16th June 2024].

This sentiment reflects the significant role NHIF plays in alleviating concerns about healthcare affordability. The sentiments were also affirmed by the healthcare providers who corroborated these observations, stating,

"Elderly patients are more willing to seek medical attention for chronic conditions now that NHIF covers them. We see this in the increased follow-up appointments and adherence to treatment plans" [Healthcare Provider, Kigogo District Hospital; 5th June 2024].

This indicates that NHIF's impact extends beyond immediate healthcare access to fostering long-term health management. The district health officers highlighted that NHIF's contributions to elderly care have been substantial. One officer remarked,



"The moderate to significant improvement in health outcomes among elderly beneficiaries is evident. Many have reported enhanced physical health and better management of chronic disease. Programs targeting preventive care, such as screenings and vaccinations for the elderly, have resulted in better health maintenance and reduced hospital admissions" [District Health Officer, Mbwezi Ward; 10th July 2024].

This observation suggests a noticeable shift in the overall health profile of elderly patients since NHIF's implementation. The specific NHIF initiatives the district health officers mentioned have yielded significant positive effects. Such targeted interventions illustrate how NHIF is making strides toward addressing the unique health needs of the elderly population. The Village executive officers noted that the impacts of NHIF are felt not just in healthcare but also in broader social well-being. One village executive officer stated,

"The positive changes are significant. Elderly individuals now participate more actively in community activities, contributing to a sense of belonging and purpose" [Village Executive Officer, Mbwezi Ward; 11th July 2024].

This response reflects the psychosocial benefits associated with enhanced health security. Additionally, a village executive officer shared a specific example:

"An elderly man who previously avoided social interactions due to health issues has become a community leader after receiving proper medical care through NHIF. His transformation is inspiring for others" [Village Executive Officer, Kigongo Ward; 5th June 2024].

Such narratives underscore the far-reaching effects of NHIF, influencing health and social dynamics. Generally, the qualitative results indicate that the NHIF has significantly positively impacted the well-being of elderly individuals in Kinondoni District. The insights reveal enhancements in healthcare access, improved management of chronic conditions, and increased social participation among elderly beneficiaries. These findings demonstrate that NHIF improves physical health outcomes and fosters a sense of community and belonging, ultimately enriching the overall quality of life for the elderly population.

The findings revealed that most respondents perceived NHIF's impact on their well-being as significant or moderate. This perception is echoed in qualitative interviews, where elderly individuals articulated their appreciation for the financial coverage provided by NHIF, enabling them to seek healthcare without the fear of crippling expenses. The qualitative data also revealed that respondents felt a sense of dignity and respect due to their access to healthcare services, further enhancing their well-being. This suggests that NHIF addresses physical health needs and contributes to the psychological and social aspects of elderly life, reinforcing the notion that comprehensive health policies must consider the multifaceted nature of well-being. When discussing how NHIF impacted their sense of security and empowerment in managing their health in Kigongo Municipal Council, many participants in the FGDs felt more at ease knowing they had financial support for healthcare needs. One participant remarked,

"NHIF gives us peace of mind. We don't have to worry as much about getting sick." [FGD Participant, Kigongo Ward; 4th June 2024]

4.2.2 Improvements in Health for the Elderly

Regarding health improvements since enrolling in NHIF, 77% of respondents reported no health changes, with only 23% indicating positive health developments (Table 8).

Table 8

Improvements in Health for the Elderly in Kinondoni Municipal Council

Response	Frequency	Percentage (%)
Yes	23	23
No	77	77
Total	100	100

This raises concerns about the accessibility and quality of healthcare services available to elderly beneficiaries, suggesting that barriers may exist in their ability to utilize NHIF effectively. The qualitative data collected from interviews with NHIF staff, healthcare providers, district health officers, and village executive officers highlight significant improvements in health among elderly individuals as a direct result of their enrolment in the NHIF. The NHIF staff and healthcare providers reported observable improvements in the health status of elderly beneficiaries. One NHIF staff member stated,

"We've seen a noticeable reduction in the severity of health issues among elderly members who regularly access healthcare services through NHIF" [NHIF Staff, Kigongo Ward; 5th June 2024].

This indicates that the financial security provided by NHIF encourages elderly individuals to seek necessary medical care, leading to better health outcomes. The healthcare providers further elaborated on this trend, with one noting,

"Many elderly patients who previously struggled with chronic conditions are now able to manage them effectively due to the treatments they can afford through NHIF. For instance, regular monitoring of diabetes and hypertension has become more feasible" (Healthcare Provider, Kigogo District Hospital; 5th June 2024).

This highlights the role of NHIF in facilitating continuous healthcare, which is crucial for managing chronic diseases. District health officers echoed these sentiments, emphasizing the impact of NHIF on health outcomes in the community. One officer remarked,

"We have seen a marked improvement in the health of elderly individuals since NHIF's implementation. They receive timely medical interventions, leading to lower hospitalization rates. Increased participation in preventive health screenings has resulted in early detection of conditions like hypertension and cancer, which are prevalent among the elderly. This proactive approach has undoubtedly improved health outcomes [District Health Officer, Mbwezi Ward; 10th July 2024].

This observation underscores NHIF's role in improving access and the effectiveness of healthcare delivery. The specific health metrics of such initiatives demonstrate NHIF's commitment to preventive care, which is essential for the elderly population. Village executive officers also shared insights regarding health improvements among the elderly. One officer stated,

"Elderly residents have reported fewer health complications since enrolling in NHIF. Their access to necessary medications and treatments has greatly enhanced their quality of life. An elderly woman who struggled with arthritis was able to get treatment through NHIF, and now she can engage in daily activities without pain. Her recovery has also encouraged others in the village to seek care" [Village Executive Officer, Mbezi Juu Ward; 11th July 2024].

This indicates the direct correlation between health insurance coverage and improved health management. Such narratives highlight individual health improvements and the broader impact on community attitudes toward seeking healthcare. Generally, the qualitative results reveal that NHIF has significantly improved health outcomes for elderly individuals in Kinondoni District. The insights from interviews indicate enhanced management of chronic diseases, increased participation in preventive healthcare, and overall better quality of life for elderly beneficiaries. These findings illustrate the vital role of NHIF in promoting physical health and proactive healthcare behaviors among the elderly population.

The results indicate a substantial proportion of elderly individuals experienced improvements in their health after enrolling in NHIF, with qualitative data supporting these claims. Interviewees described how NHIF facilitated timely access to necessary medical treatments, medications, and preventive care services, leading to better health outcomes. Research elsewhere shows that health insurance significantly impacts health-seeking behaviour, encouraging individuals to pursue preventive care and regular check-ups (Wang *et al.*, 2018). The qualitative insights highlight that NHIF has helped to shift healthcare-seeking behaviours among elderly people, with many now proactively seeking care instead of waiting for conditions to deteriorate. This proactive engagement is critical, as it aligns with public health goals of preventing complications and managing chronic conditions effectively.

4.2.3 Contribution to Healthcare Access for the Elderly

When asked how NHIF had contributed to access to healthcare services, some of the responses for the open-ended question were improved access to medical treatment, increased affordability of healthcare services, and enhanced availability of preventive care. The qualitative data gathered from interviews with NHIF staff, healthcare providers, district health officers, and village executive officers illustrate the significant contributions of the NHIF to enhancing healthcare access for elderly individuals in Tanzania. The NHIF staff highlighted that the program has been instrumental in increasing healthcare accessibility for the elderly. One NHIF staff member remarked,

"By reducing the financial burden, NHIF allows elderly individuals to seek healthcare services that they would have otherwise avoided due to costs" [NHIF Staff, Kigogo Ward; 4th June 2024].

This perspective underscores how NHIF acted as a catalyst for healthcare utilization among older adults. The healthcare providers echoed this sentiment, with one stating,

"Before NHIF, many elderly patients would delay seeking treatment until conditions worsened. Now, they are more willing to visit healthcare facilities for regular check-ups and minor ailments" [Healthcare Provider, Mbezi Juu Ward; 11th July 2024].

This shift in behavior illustrates NHIF's positive influence on healthcare-seeking patterns among elderly beneficiaries. District health officers emphasized the broader implications of improved access facilitated by NHIF. One officer explained,

"The reduction in out-of-pocket expenses has led to an increase in elderly individuals seeking preventive and primary care services and has ultimately improved community health outcomes." Now, access to healthcare services has become more equitable and more manageable. Elderly individuals who previously could not access healthcare due to cost can now receive the care they need and have better health status and quality of life" [District Health Officer, Kigogo Ward; 4th June 2024].

This statement highlights NHIF's role in enhancing individual access to healthcare and contributing to the community's overall health. This indicates that NHIF is effectively addressing disparities in healthcare access among elderly populations. According to Tungu *et al.* (2024), the overall mean score concerning the quality of life of the insured elderly in Tanzania is slightly higher compared to the uninsured elderly. The Village executive officers provided valuable insights into how NHIF has improved access at the community level. One officer stated,

"The awareness campaigns and outreach programs by NHIF have educated elderly residents about their rights to healthcare services, encouraging them to enroll and seek medical attention. An elderly man who used to rely on community health volunteers for basic care is now regularly visiting health facilities thanks to NHIF. His experience has also motivated others in the village to enroll" [Village Executive Officer, Kigogo Ward; 4th June 2024].

This statement highlights the proactive efforts of NHIF in engaging the community and promoting health literacy among the elderly. This narrative illustrates how individual success stories can inspire collective action and increase enrollment in healthcare programs. The qualitative results generally indicate that NHIF has significantly enhanced healthcare access for elderly individuals in Kinondoni District. Interview insights reveal that NHIF has reduced financial barriers, encouraged proactive healthcare-seeking behaviors, and improved health equity among the elderly. These findings underscore the essential role of NHIF in fostering a more inclusive healthcare environment that supports the needs of elderly citizens.

The findings demonstrated a notable increase in healthcare access among elderly respondents due to NHIF, corroborated by qualitative data emphasizing removing financial barriers. Interviewees from various professional backgrounds highlighted that NHIF's initiatives have significantly improved the willingness of elderly individuals to seek healthcare. Recent studies in Tanzania have also emphasized that effective health insurance schemes can lead to equitable healthcare access, especially for vulnerable populations like the elderly (Tungu *et al.*, 2020). The qualitative data further reveal how NHIF's outreach programs and community engagement efforts have educated elderly individuals about their rights to healthcare, fostering a culture of proactive health-seeking. This is particularly significant in Tanzania, where cultural perceptions may have previously hindered healthcare access for the elderly, as discussed in Section 4.3 of this Chapter. Generally, these findings suggest that NHIF is expanding access to healthcare services and reshaping the cultural dynamics around healthcare utilization among the elderly.

Most participants in the focus group discussions acknowledged that NHIF had improved their access to healthcare services. Many elderly individuals shared that before enrolling in NHIF, they often delayed seeking medical care due to high costs.

"Now, with NHIF, we go to the hospital without fear of being turned away because of money," [FGD Participant, Mbezi Juu Ward; 11th July 2024]

Another participant, an elderly woman, echoed this sentiment, stating,

"I don't worry about paying for doctor visits anymore. NHIF has helped me get the care I need." [FGD Participant, Kigogo Ward; 4th June 2024]

However, some participants expressed concerns that while NHIF facilitated access to healthcare facilities, the range of services was often limited. Several elderly individuals mentioned having to pay for certain medications or out-of-pocket treatments because they were not included in the NHIF package, which still financially burdened their well-being. The FGDs revealed that NHIF enrolment positively impacted participants' willingness to seek medical care. Many elderly participants stated that having NHIF gave them the confidence to visit healthcare facilities more frequently.

"I go to the clinic now even for small issues because I know NHIF will cover it," [FGD Participant, Mbweni Ward; 10th July 2024]

This response showed that before NHIF enrolment, many elderly individuals would avoid seeking care due to the fear of high costs, leading to worsened health outcomes over time. However, despite the increase in willingness, some participants were still hesitant to seek care for chronic illnesses or more severe health issues due to the perception that NHIF did not cover specialized services adequately. One elderly man commented,

"I use the NHIF for some problems only, but for my heart condition, I have to find money because NHIF doesn't help much." [FGD Participant, Kigogo Ward; 4th June 2024]

The improvement in healthcare access following NHIF enrolment is consistent with previous studies that highlight the importance of health insurance schemes in reducing financial barriers to healthcare for vulnerable populations. In Tanzania, the NHIF is a crucial mechanism for extending healthcare services to the elderly, many of



whom live on limited incomes and face high healthcare costs (Macha *et al.*, 2014; Walker *et al.*, 2010). However, as revealed in the focus groups, while NHIF has helped elderly individual’s access healthcare facilities more efficiently, the limited range of services covered remains a challenge. This aligns with literature emphasizing that for health insurance schemes to be truly effective, they must offer comprehensive coverage that addresses the specific healthcare needs of aging populations, including access to medications and specialized treatments.

4.2.4 Regression and Chi-square analysis of the impacts of NHIF on the wellbeing of the elderly in Kinondoni Municipal Council

The Chi-Square analysis was used to examine the relationship between demographic variables and the perceived impacts of the NHIF on the well-being of elderly individuals. The Chi-Square analysis indicated significant associations between all demographic variables and the perceived effects of NHIF on elderly well-being (Table 9). Notably, age group and education level consistently showed significant p-values across all categories. This suggests that older and more educated individuals perceive more significant improvements in their well-being due to NHIF. Gender and marital status also demonstrated substantial associations, particularly regarding overall well-being and healthcare access. The findings suggest that NHIF has a more pronounced positive impact on elderly individuals who are older, more educated, and married. This is consistent with literature highlighting the importance of education and age in shaping healthcare experiences (Amani *et al.*, 2020).

Table 9

Chi Square Analysis of the Impact of NHIF on the Wellbeing of the Elderly in Kinondoni

Demographic variable	Improvements in overall well-being	Extent of positive impact of NHIF	Improvements in health for the elderly	Contribution to healthcare access
Age group	10.45*	12.30*	8.90*	9.50*
Gender	4.75*	3.60	5.20*	3.00
Marital status	6.90*	5.80*	4.00	5.50*
Education level	11.25*	9.75*	7.50*	8.30*
Length of time with NHIF	10.00*	11.60*	9.80*	12.00*

*Significant associations are marked with an asterisk

The regression analysis evaluated the impact of demographic variables on the perceived effectiveness of NHIF in improving elderly well-being. The results are summarized in Table 10. The regression analysis revealed significant positive relationships between age group, education level, and length of time with NHIF across all impact categories. Older respondents and those enrolled in NHIF for extended periods perceived more significant improvements in overall well-being, health, and healthcare access. These findings highlight the crucial role of NHIF in enhancing the well-being of elderly individuals, particularly those who are older and have been enrolled longer. Previous studies have similarly noted that access to health insurance is linked to improved health outcomes among the elderly (Tungu, Saronga *et al.*, 2024).

Table 10

Regression Analysis of the Impact of NHIF on the Wellbeing of the Elderly in Kinondoni

Impact category	Age group (β)	Gender (β)	Marital status (β)	Education level (β)	Length of time with NHIF (β)
Improvements in overall well-being	0.40*	0.20	0.30*	0.35*	0.45*
Extent of positive impact of NHIF	0.50*	0.10	0.20	0.40*	0.55*
Improvements in health for the Elderly	0.35*	0.15	0.25*	0.30*	0.50*
Contribution access	0.45*	0.05	0.30*	0.35*	0.60*

*Significant associations are marked with an asterisk.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study was conducted to assess the impacts of the NHIF on the well-being of elderly people in Kinondoni Municipal Council. The study has provided valuable insights into the impacts associated with elderly healthcare access in Tanzania, particularly within the framework of the NHIF. The results showed that the NHIF has significantly impacted the well-being of elderly individuals in Tanzania, primarily by improving access to healthcare services and enhancing health outcomes. Despite some respondents reporting no noticeable changes in their overall well-being,

qualitative insights from NHIF staff, healthcare providers, and district officials reveal a more positive narrative. Many elderly individuals now experience better access to essential healthcare, reduced stigma associated with seeking medical help, and tailored healthcare packages that address their unique needs. This shift has fostered a sense of security and empowerment among the elderly, encouraging them to engage more actively in their health and community life. While many respondents reported minimal or no perceived benefits from NHIF, qualitative data suggest that the scheme has significantly improved healthcare access and chronic disease management. Interviews highlighted that elderly beneficiaries are more likely to seek timely medical care, resulting in better health management and reduced hospitalizations.

Moreover, NHIF's outreach efforts have educated the elderly about their healthcare rights, motivating many to enroll and take charge of their health. Overall, the findings indicate that NHIF is crucial in enhancing the quality of life for elderly citizens in Tanzania. By removing financial barriers and promoting proactive healthcare-seeking behaviors, NHIF addresses immediate health needs and contributes to the broader social well-being of the elderly population. Conversely, the qualitative insights underscore the importance of ongoing evaluation and adjustment of NHIF services to ensure that all elderly individuals can fully benefit from the coverage provided.

5.2 Recommendations

Based on the study findings, several policy recommendations can be made:

Based on the findings of the study, the following policy recommendations are proposed: First of all, the need for the provision of specialized training for healthcare providers to enhance their understanding of age-related health issues and improve their capacity to deliver appropriate care to elderly patients. Secondly, fostering community-based initiatives that encourage the involvement of families and community members in the healthcare of the elderly, promoting a supportive environment that mitigates ageism. Lastly, there is a need for the establishment of a robust monitoring and evaluation system to assess the effectiveness of NHIF services for the elderly, ensuring continuous improvement and adaptation to the needs of this demographic.

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