WILLINGNESS TO PAY FOR UNIVERSAL HEALTH INSURANCE AND ASSOCIATED FACTORS AMONG HOUSEHOLDS IN MKURANGA DISTRICT, TANZANIA

Flora Johnbosco Mshanga , BScECO

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By

Flora Johnbosco Mshanga

A Dissertation Submitted in Partial Fulfilment of the Requirements for the Master of Public Health of Muhimbili University of Health and Allied Sciences

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CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance a dissertation entitled "***Willingness to Pay For Universal Health Insurance And Associated Factors Among Households In Mkuranga District***", in partial fulfilment of the requirement for the Masters of Public Health of Muhimbili University of Health and Allied Sciences.

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Prof. Phare Mujinja, B, A (Hons) CIH, MPH, M.A (Econ) *Dr.sc.Hum*

(Supervisor)

_____

Date

_____

Mr. Pankras Luoga

(Co-supervisor)

_____

Date

DECLARATION AND COPYRIGHT

I, **Flora J. Mshanga** declare that this dissertation is my own original work and that it has not been presented and it will not be presented to any other University for the similar or any other degree award.

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This dissertation is as it is today because of other persons who diligently availed data and spared their precious time to discuss issues with me, their understanding and for their prompt action on my efforts. To them I give lot of thanks.

DEDICATION

I humbly dedicate this dissertation to my lovely husband Eng. John Emmanuel Nangawe and my beautiful daughter Larisa J. Nangawe thank you for your love, patience, unwavering support and encouragement your belief in me has been my greatest motivation.

Also, to my late father Johnbosco A. Mshanga and to my lovely mother Flavia Z. Mshanga who was there listening, praying and providing support during the whole process of preparing this dissertation as she never got tired even when I had worries and complains she was always there to listen and encourage.

ABSTRACT

Background: A better acquaintance and understanding of the community willingness to pay (WTP) for universal health insurance is highly effective way to address catastrophic payment when accessing and utilizing healthcare services from formal healthcare providers in the country.

Objectives: To assess willingness to pay for universal health insurance and its associated factors among households in Mkuranga district.

Methodology: Cross-sectional analytical design was employed to elicit the maximum WTP for universal health insurance among 406 head of households in Mkuranga districts. The data collection techniques included structured interview form with open and closed questions and Take -it- or -leave- it with follow-up technique. Analytical data analysis was used to analyse the data.

Results: Out of 406 surveyed households only 16% reported to have any health insurance, however majority (79%) of heads of households were willing to pay for UHI. The mean annual premium WTP for universal health insurance was also higher among male headed household 180,443 TZS as compared to women 142,019 TZS. Logistic regression shows that with marital status, education level, income, age, and having chronic illness is positively associated willingness to pay while having a negative association not employed.

Conclusion: The results suggested that majority of the heads of households were willing to pay for UHI. Moreover, despite of high demonstration in willingness to pay for health insurance less than half of the participants are able to pay the proposed premium rate. Therefore, it is very important to study WTP of the community before establishing new schemes.

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LIST OF ABBREVIATIONS

CBHI	Community Based Health Insurance
CI	Confidence interval
CVM	Contingent Valuation Method
LGAs	Local Government Authorities
MUHAS	Muhimbili University of Health and Allied Sciences
NHIF	National Health Insurance Fund
NHIS	National Health Insurance Scheme
NSSF	National Social Security Fund
PHI	Private Health Insurance
PLS-SEM	Partial least squares structural equation modelling
SPSS	Statistical Package for the Social Sciences
TIOLI	Take-it-or-Leave-It
TZS	Tanzania Shillings
UHC	Universal Health Coverage
WTP	Willingness to Pay

DEFINITION OF KEY TERMS

Health Insurance: This is a mechanism of paying for all or partial of the healthcare expenses when accessing and utilizing healthcare services [1, 2]. Health insurance intends to protect citizens against healthcare costs [3]. In this study, health insurance is defined as insurance services that cover the cost of an individual's or household's healthcare expenses when accessing and utilizing healthcare services.

Voting: This is accepting or refusing an offer. Questions asked in this method require Yes or No responses. It is a take it or leave it method [2].

Universal Health Coverage: This infers that all people have access to the healthcare services they need (preventive, promotive, curative, rehabilitative and palliative), when and where they need them, without financial hardship [4]. In this study, same definition of Universal Health Coverage will be adopted as documented by previous studies Verrecchia et al., 2019 [4].

Risk Perception: Risk perception refers to people's thoughts, opinions, judgments, and beliefs about risk, as well as the broader societal and cultural values and outlook they have about hazards. Perception is a major factor in risk communication [5].

Willingness to Pay (WTP): WTP is the maximum amount that a client is keen to pay for a product or service. The WTP method assumes that individuals' partialities can be categorised by a swap between income and a specific health status, that is, people make adjustments between the consumption of commodities and aspects that progress their health or save their breathes [6].

CHAPTER ONE

1.0 INTRODUCTION AND BACKGRAOUND

1.1 Introduction

Low-income and lower-middle income countries (LLMICs) have made commitments to make progress towards universal health coverage (UHC) [7]. Countries have implemented an array of health insurance schemes consisting of both mandatory and voluntary schemes [8, 9]. In countries social health insurance targets civil servants, and formally employed workers. In order to reach households in the informal sector, countries introduced voluntary schemes such as community-based health insurance (CBHI) or mutual health insurance schemes [7, 8]. Health insurance in developing nations is heavily promoted as a means of increasing health-care consumption and protecting citizens from catastrophic expenditure due to out-of-pocket (OOP) expenses [10]. There have been global, regional and national level commitments to attain universal healthcare coverage [11]. However, it is argued by Gutiérrez, et al that, in practice, effective access to health care and population outcomes are heavily influenced by economic and social circumstances [12].

In Tanzania, a number of health insurance schemes have been established including National Health Insurance Fund (NHIF) in Tanzania, Private Health Insurance (PHI), and Community Based Health Insurance (CBHI) to indorse inclusive access to health services. The NHIF is based on individuals' mandatory enrolment for employed and individual from informal sector able to pay the premium. The PHI and CBHI are voluntary schemes and based on personal assessment and ability to pay the scheme premium [13]. Insurance schemes initiatives have replaced the previous user fee when accessing healthcare. User fee had resulted in low utilization of care for marginalized citizens, and impacted the wellbeing of the community [14].

Tanzania has established insurance schemes to improve service provision to the citizens. The NHIF was initiated in 1999 by the Legislative Act, CAP. 395 and in 2001 whereas monthly contribution is 6 percent of individual salaries shared as 3 percent

employee and another 3 percent the employers [15, 16]. In 2001, Community Health Fund (CHF) was initiated by Legislative Act, Cap. 409 for informal sector overseen at the Local Government Authorities (LGAs) level [17]. The Community Health Fund (CHF) had a dual role "purchaser and provider" this setup design has faced some challenges such as of poor management of funds, persistent shortage of services and unreliable membership data. CHF members access services from dispensary level up to district hospital within the Council. As such, unsatisfactory performance of the CHF in most of the councils continue to discourage people to enrol with CHFs subsequently sharply dropout rate of members each year. Therefore the improved Community Health fund (iCHF) scheme was introduced in 2016 which intended to address both a sombre health financing gap by targeting the informal and rural population and a shoddy service while upholding the government's obligation to fairness of access [18]. Therefore, it was intended to progress the eminence and affordability of healthcare services through sustainable financial instruments along with improving the organisation of services by empowering peoples in verdict making on stuffs distressing their health.

Consequently, universal health coverage (UHC) is a healthcare system that ensures all individuals and communities receive the health services they need without suffering financial hardship. The key components of UHC are Access to essential health service, financial protection, quality of care, Equity and sustainability. Moreover, UHC is recognized as a fundamental goal by the World Health Organization (WHO) and is integral to achieving broader health and development goals, including the Sustainable Development Goals (SDGs). The UHC has received massive acknowledgement as a promising entry point. A considerable amount of literature has been published on UHC. Studies on UHC often report the benefits, strategies and interventions as well as policy recommendations for implementation at global, regional, and local levels to ensure its success [19]. For instance, the benefits of UHC has been highlighted as including to guarantee that citizens can access quality health services, to protection all citizens from

community health jeopardies, and to protect all people from destitution due to disease, whether from out-of-pocket expenditures for healthcare or forfeiture of proceeds when a household fellow falls sick [20]. Efficiently and equitably collection of financial resources is among the principles of UHC, then pooling and provision or purchase effective health services, while reducing the risk and burden to pay for health services by each sick person as the obligation shared by all. This ensures that every individual has access to medical care regardless of financial difficulties. Knowing the general public knowledge, attitude and practices towards existing health insurance arrangements are imperative to ensure more people are covered with health insurance, the Parliament of the United Republic of Tanzania enacted the Universal Health Insurance Bill in November 2023.

1.2 Statement of the Problem

The government has made efforts towards UHC but less than 20 percent of citizens have any form of health insurance. NHIF covers only 8 percent of the population out of 57,637,628 citizens [21] while 5.4 percent by CHF, 0.3 percent by SHIB (NSSF) and 1 percent by private insurance firms [22]. Thus, 85.3 percent of citizens have no health insurance. As a result of low coverage most people continue to make out-of-pocket (OOP) payments to access healthcare services, leading to catastrophic health expenditure, reducing the utilization of healthcare services, and increasing the burden of diseases. Failure to address this issue may worsen health inequalities, as households without insurance may forgo necessary medical care, thereby exacerbating the disease burden and health disparities. To ensure more people are covered with health insurance, the Parliament of the United Republic of Tanzania enacted the Universal Health Insurance Bill in November 2023, a pivotal piece of legislation aimed at ensuring widespread access to healthcare services for citizens through a comprehensive health insurance system.

Few studies on willingness to pay for voluntary health insurance have been conducted in Tanzania [23]. Authors found that only 30 percent of uninsured rural households

were willing to pay more than TZS 5,000 premium level, their average amount was TZS 10,741, while in urban areas one percent of households were willing to pay more than TZS 5,000. Furthermore, in 2019 a study was conducted to explore willingness to pay (WTP) for health insurance benefits and associated factors among Commercial Motorcycle riders in Dar es Salaam [24]. Authors found that out of 423, 95.7 percent were willing to pay for health insurance themselves and 78 percent were willing to pay for themselves and their dependents with the mean TZS 62,500.

There is limited evidence on household WTP for universal health insurance to inform the implementation of the bill which was passed by the parliament. Therefore, this study aimed to assess willingness to pay specifically on the proposed universal health insurance as a means of cushioning for escaping catastrophic expenditure in case of any illness. Without addressing low WTP, the universal health insurance scheme may fail to provide adequate coverage, undermining the goal of universal health coverage and placing increased strain on the public healthcare system. This study has aimed to assess the willingness to pay for a universal health insurance scheme and its associated factors among households in Mkuranga District.

1.3 The Conceptual Framework

The Figure1 below illustrates the conceptual framework of the study. In principle, health insurance protects individual household towards catastrophic healthcare expenditure. Individual or household WTP for health insurance is inclined by numeral factors including Socio- economic-demographic factors, preferred premium, as well as risk factors.

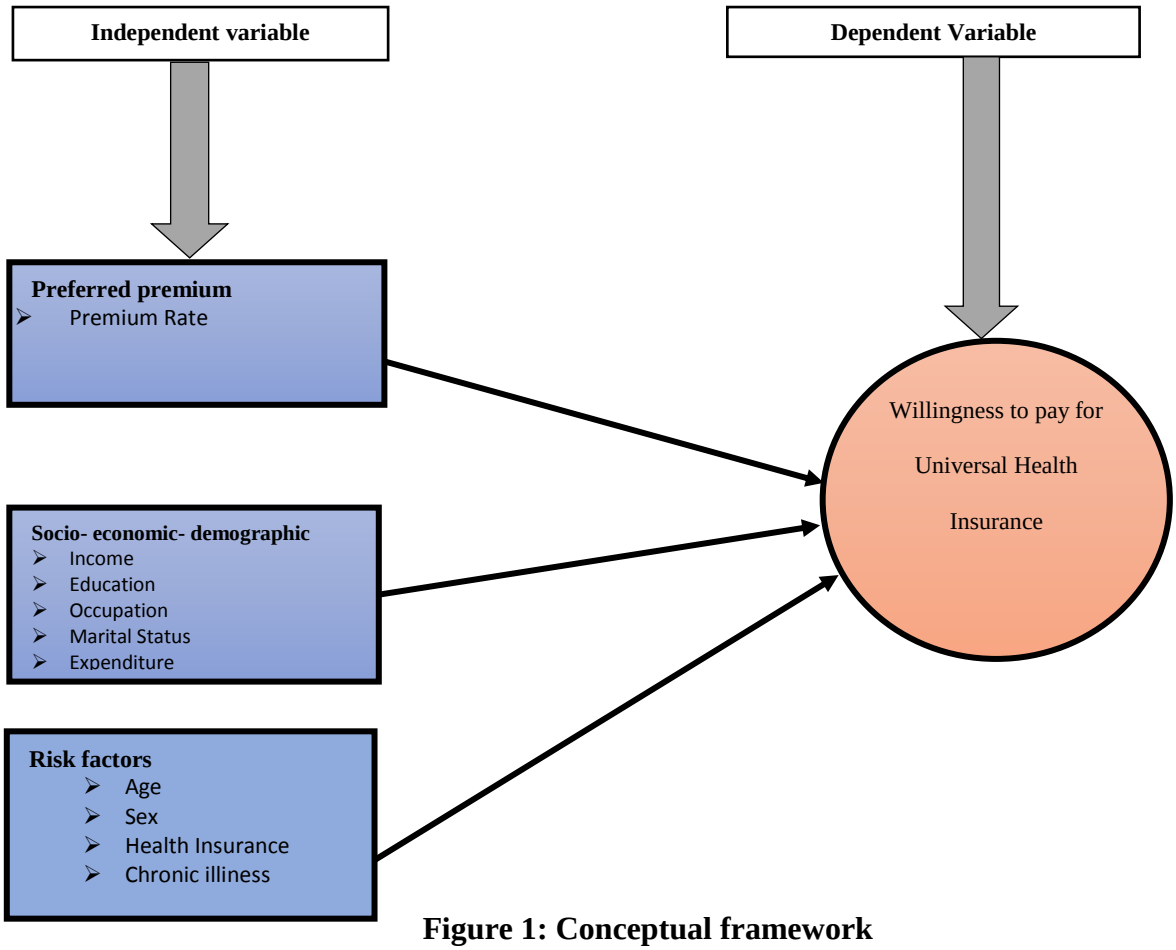


Figure 1: Conceptual framework

1.4 Significance of the Study

The study assessed households WTP for universal health insurance in enhancing access and service delivery in Tanzania. Furthermore, a better understanding of the effects of benefit design and risk factors on the willingness to pay helps to anticipate challenges and set out some actions to mitigate low household enrolment into the schemes as well as determining the sustainability of the schemes, while providing lessons for other organisations planning to support the enrolment into the schemes. Moreover, conclusions from this study will support health care directors and other shareholders in understanding relationship between household ability and WTP for universal health insurance. This research study is useful in informing policy makers on the contribution of social health insurance in the country's health financing pool. As more citizens get insured and access healthcare services, the providers get reimbursed for service provision. In turn the providers use the revenue generated to advance quality of services through acquisition of healthcare merchandises and other facility needs. This research study creates more awareness of the different factors behind the readiness of community members to pay for communal health insurance. However, there remains a gap in understanding the specific barriers to enrollment and the nuanced perceptions of insurance benefits among various demographic groups. Further research is needed to explore these aspects to enhance the effectiveness of health insurance policies and programs in Tanzania.

1.5 Research Questions

What is the willingness of Mkuranga district households to pay for universal health insurance and the factors that influence it?

1.5.1 Specific questions

1. What is the voting WTP for universal health insurance among households in Mkuranga district?
2. What are the socio- economic-demographic factors associated with willingness to pay for universal health insurance among households in Mkuranga district?
3. What is the preferred premium rate that households in Mkuranga district are WTP for universal health insurance?
4. What are the relationship between risk factors and WTP for universal health insurance among households in Mkuranga district?

1.6 Objective of the Study

To assess the WTP for universal health insurance and associated factors among households in Mkuranga district.

1.6.1 Specific Objectives

1. To assess the voting WTP for universal health insurance among households in Mkuranga district.
2. To assess socio-economic- demographic factors associated with willingness to pay for universal health insurance among households in Mkuranga district.
3. To determine the preferred premium rate that households in Mkuranga district are WTP for universal health insurance.
4. To examine the relationship between risk factors and WTP for universal health insurance among households in Mkuranga districts towards

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Empirical Review

2.1.1 Socio-economic factors linked with WTP for health insurance.

Across countries the extent to which households are WTP for universal health insurance can be influenced by several factors including specific commodities included/excluded defined health insurance benefit package; co-payment arrangements; or specific services covered. WTP for health insurance is related to social and economic reasons [25]. The study was conducted in Nigeria to investigate geographic differences and economic status of respondents WTP health insurance using a bidding game format [25]. The findings revealed that economic status and place of residence has an association with people's WTP. Furthermore, a study conducted in Saud Arabia to investigate the WTP for contributory health insurance found out that socioeconomic factors appeared to be substantial determinants on WTP [26]. Al-Hanawi et al used a double-bounded dichotomous choice together with extra questions were asked to citizens to state their WTP for an imaginary contributory countrywide insurance scheme [26]. Tobit regression analysis to inspect the factors associated with WTP showed that satisfaction with the quality of care, household size, views on financing healthcare, income and education were the foremost determining factors of WTP.

A cross-sectional study design deploying CVM was used to measure the worth of National Health Insurance based on a person's WTP in Saudi Arabia. It was found that majority were WTP for national health insurance [27]. Household likelihood of paying for national health insurance was associated with type of usual healthcare provider visited, use of public health facilities was more likely to pay for NHI. Similarly, gratification with healthcare services, as persons who were very pleased with the healthcare services, younger population, those from the central region and citizens with

master's degree, and were WTP more amount of money for national health insurance [27].

Available evidence in Tanzania signposts that economic factors are among the features causative to the unsatisfactory enrolment of individuals into insurance scheme [28]. Mwinuka & Chacha, used a descriptive cross-sectional study to examine factors associated with community health fund (CHF) enrolment in Mkuranga district and found that lack of insurance awareness, demographic factors, disappointment to understand the CHF benefits and poor turnout to CHF sensitization consultations were the factors linked with low CHF enrolment [28]. Whereas socio-economic factors exhibited strong connotation with CHF enrolment. Absence of healthcare commodities, and lack of training were the most important challenges confronted by health workers. In this regard, researchers have raised up concerns over people's capability and WTP for the health insurance packages, price, information and quality [29]. The studies conducted on CBHI for example, have mixed of findings. For instance, some indicate that socio-economic position is associated with WTP whereas wealthy people were more WTP for CBHI than the poor [30]. On other hand, it has been signposted that rich people in rural areas were less likely to pay for CBHI [31].

Oriakhi & Onemolease, used a random sample of 360 families in Nigeria and analysis was done using a logistic regression [31]. Authors found that majority were WTP for insurance and those not WTP gave some reasons including lack of trust on insurance scheme management and unstable and unsustainable government interventional programmes. Demographic factors (size of family, income, membership in association) were highlighted to explain the households' willingness to take part in insurance schemes [31]. Nonetheless, some scholars indicate that there is no evidence of association between affluence and joining insurance program but signals out other things such as education, whereas more educated were less willing to join insurance [32]. Eckhardt *et al*., used a cross-sectional survey of 829 families, 210 were arbitrarily selected by two-stage group sampling [32]. Willingness to join insurance scheme was

negatively related with education while income showed no substantial association with joining insurance scheme.

The government of Gambia ratified 'The National Health Insurance Bill, 2021'. A multistage sampling with no replacement and CVM to assess household WTP for national insurance. Furthermore, Lopez-Feldman's improved ordered probit model together with linear regression to evaluation respondents' WTP. It was evidenced that 94 percent were willing to enrol and pay premium whereas half of study participants (58.8%) decided to pay the initial offer of US$ 20.78. The typical WTP was US$23.27, although the maximum amount was US$26.01 [33]. Furthermore, education, gender, and income were significant in influencing WTP.

Macha et al., analysis have concluded that the three income quintiles in the informal sector were likely to enrol in insurance scheme as compared with the richest quintile [34]. The deprived rather than the underprivileged were likely to join insurance scheme while those at risk of illness and large families were less likely to show interest with the scheme. It was exposed that families with ageing or children under-five were likewise more likely to register. Furthermore, underprivileged understanding of risk amalgamating downcast people from showing interest with the insurance scheme or renewing membership; low enrolment was linked to poor quality of care and inadequate benefit package and a lack of portability.

Social capital has been found to play a greater role in persuading community WTP for social health insurance. For example, in Tanzania, a study was undertaken to examine the effect of social capital on WTP for community-based insurance schemes [35]. A probit regression study was used to model the connection between the prognosticators and our outcome variable. It was found that with the exclusion of belief, social capital parameters had a positive and momentous effect on the WTP for insurance scheme. Affiliation in social groups and networks, faith among public members on scheme administration are definitely and meaningfully linked to WTP. Individual characteristic levels such as education, age, family size and children were not predictors of WTP [35].

2.1.2 Insurance benefit perceptions and its effects on the willingness to pay

Low involvement and retention into the arrangements is related to its voluntariness, poverty and benefit package of the community health insurance schemes [36]. Failure to enrol is attributed by the low-income, many families do not have the resources to pay insurance premium, and secondly, the governments repeatedly lack satisfactory local budget to guarantee universal access to a basic package of health services for the underprivileged.

Insufficient benefit entitlement have been stated to be amongst the motives for low enrolment or membership dropout [37]. Citizens decision jo enrol into the insurance scheme is predisposed by household demographic and social-economic factors, insurance knowledge and its benefit entitlement, individual WTP premium amounts set by insurer [34]. In unlike situations, insurance design and accountability issues, premium collection settings, and entitlements affect household WTP [38].

In Pakistan a descriptive cross-sectional study was undertaken to provide indication for designing a practicable insurance scheme targeted at urban deprived, by discovering predilections for an insurance benefits entitlement and co-payments in low resource citizens of Karachi region [39]. It was found that out of the planned health insurance entitlements, a majority of the study contributors opted for the all-inclusive benefits entitlement that provided treatment for hospitalization, emergency care, diagnostic tests, outpatient consultation and transportation, is the most preferred among low-income beneficiaries.

In Afghanistan they used a double-bounded dichotomous choice CVM was used to prompt the maximum amount citizens would be WTP for insurance benefit entitlements. Whereas a Logistic and linear regressions were used to study factors affecting intension to join and WTP [40]. Majority had never heard of insurance but intended to join and pay for one of the 4 benefit entitlements ranging from 71 percent for a drug only package that comprised of vital medicines [40]. Main determinants of

WTP and join health insurance, included the shires where participants were residing, income, expenditures and some demographic features.

The earlier study by Msuya *et al*., conducted in Igunga district in the Tanzania indicates that income (measured by log of overall consumption spending) was solitary of the utmost imperative determining factor of whether a family joined the CHF scheme [18]. Most of the followers of the insurance schemes were non-poor families and hence leaving the majority poor. It was also found that an increase of income of households by 1percent was probable to rise the likelihood of joining the scheme by about 12.5 percent [18]. In addition, families with immense associates were more probable to join the scheme than minor family size families.

In Uganda, community preference for certain benefit package was found to induce WTP for insurance. For example, households in the non-slum communal had a high favourite for health insurance plans that had a reasonable service benefits entitlement (long-lasting illnesses and major surgeries) as equated to plans that had either a modest service benefits entitlement (primary care, inconsequential surgeries, reproductive care, etc) or; a all-inclusive benefits entitlement (cancers, kidney issues, heart operations, neurosurgeries, special care etc) [41]. Ideally, the preference for the health insurance benefits entitlements hinge on the families' insights about the charges and the momentousness of the health situations covered by a given insurance [42].

2.1.3 Risk perceptions that's affects the willingness to pay

Various research has shown the association between menace perception of the consumer and WTP for commodities. A study conducted in Tokyo Japan with the aim of addressing the literature gap by presenting risk awareness as one of the socio psychological features explaining WTP for elite policy guided by attitudinal framework [43]. The statistical investigation of WTP determining reason revealed that the value of an elite sport policy is not only vested on the perceived positive features of the consequence, but also on the undesirable facets linked with elite sport progress (risk awareness).

The connection between risk aversion and enrolment status is equally important in health insurance market. A recent study in Tanzania examined the role of risk penchants on enrolment status (currently covered, previously covered, and never protected) into a Tanzanian voluntary insurance scheme besieged at the informal sector deploying hypothetical lottery game, multinomial and simple logistic regression [44]. It was observed that on average, the participants have a high notch of risk repugnance, and the covered are more risk averse than the uninsured (formerly insured and ever insured). There is a scrawny tendency for the well-off, measured by household revenue or total household spending, to be slightly more risk antagonistic than the less rich. Logistic and multinomial regressions showed that risk loathing was strongly connected with enrolment status. A higher degree of risk repugnance increases the likelihood of being protected, relative to being beforehand covered, and comparative to being never insured.

In China a study was conducted to assess rural households' readiness to purchase mountains' hazard insurance using the survey data together with partial least squares structural equation modelling (PLS-SEM) revelated that anxiety aspect (fear or anxiety of grief tragedy) does not affect WTP. It was evident that individuals have incomplete capabilities to development information and help comprehend better the effect of risk insight on the protection purchasing verdict.

Few studies have assessed community WTP for insurance using household surveys [45]. The novelists used a cross-sectional study of 2008 and instituted that few families were WTP higher premium even with the extended benefits entitlement for the former insurance scheme in Tanzania. More than ten years have elapsed from the assessment of WTP was done, hence the need to re-do a community-based survey.

2.2 Theoretical Review

The theories that are going to be used is the convention demand theory. The conventional and demand theory has been used to explore the factors that affect the household members' WT for the National Universal health insurance.

2.2.1 Conventional Theory

This holds that citizens buying insurance because they compare the small premium paid against paying a large medical bill. Most insurance companies operate under cross subsidization, as they transfer insurance premiums from healthy individuals to those in need of care. Conventional theory holds that citizens demand health insurance at any further payment in purchasing healthcare services which is not worth the charge of producing it [46]. It establishes a foundation for assessing why households would opt to pay for universal health insurance. This theory provides insights into individuals' decision-making processes, which directly aligns with the study's focus on willingness to pay (WTP) for insurance. Authors further argue that the extra income generates opportunities for additional purchase of quality care, allowing sick individuals to obtain life-saving healthcare that citizens might have difficult in affording.

The theory relies on existing empirical evidence that citizens desire the risk of a huge loss to suffering a smaller loss with foregone conclusion. Health insurance demand is valuable to the citizens; however, citizens purchase insurance not because they desire to evade risk but they pay premium when healthy in exchange for entitlement on extra income if they become ill [46]. The theory has some limitations because it ignores the really, including difference that exists between needs and wants. Its conclusions are limited by the unequal distribution of power, resources and information, contrary to its assumption, to equally benefit the transacting parties. Despite it limitations, it helps to understand some of the important questions linked to this study; why should individual purchase health insurance? And do they have the ability to pay for the premium. Empirical evidence suggests that intension to join health insurance scheme is not only affected by the amount of premium but also other factors such as access to care when

using the insurance card, quality of service provision and other demographic characteristics [47]. Therefore, the theory can be employed to unpack a broad range of aspects affecting the community members to join the health insurance arrangement.

2.2.2 Contingent Valuation Method

The most common stated preference approach is contingent valuation (CV) [48]. CV involves directly eliciting people's WTP for a good or service as well as inclination to accept to give up for a good or service through asking them whether they would pay a set amount of money for a non-market good or service. It allows the study to quantify individuals' preferences for health insurance by eliciting the maximum amount they are willing to pay. Contingent valuation is useful for public goods where there is no obvious method to determine societal (common/shared) preferences therefore the simplest method is to ask. In health economics, CVM is used to elicit the individual monetary valuation of health programs, which is crucial for understanding how theoretical frameworks apply in real-world scenarios.

Studies had used different methods in measuring WTP. The study conducted in Malaysia aimed at obtaining information on WTP for health insurance among adult in Sarawak [49]. The CMV with the dichotomous bidding practice was used for this study. First, the participants were informed on the current state of health delivery and funding in Malaysia. The theoretical condition was then clarified to the participants, and they were asked to choose the amount of money they would give if they were in the situation. After explaining the situation and payment procedures, the first question was whether they agreed to pay. If they agree, the bidding method will begin. The responses were limited to four possibilities ('yes, maybe yes, maybe no, and no). If the participant replied no or maybe no, they were questioned to clarify why, and the interview ended there. The findings reveal that perceived practicality, insurance knowledge, subjective standard, attitude toward health insurance, and perceived behavioral control affected the commitment to buying health insurance, illustrating how the theoretical framework informs the interpretation of these factors [50].

Another cross-sectional study to explore rural household's WTP for insurance scheme using CVM was conducted in Ethiopia [51, 52]. Interval regression model were applied to approximation the mean WTP and predictor variables. The finding showed 79 percent of countryside families are WTP for the arrangement. The average WTP was 211 ETB (Ethiopian Birr) ($10.5) per individual family per annum [52]. It is greater than 144 ETB, identified as twelve-monthly premium value calculated for trial policy, for which up to five household members ought to pay, underscoring the relevance of applying theoretical insights to understand economic behaviors in health insurance contexts.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Design

This was a cross-sectional analytical study which used quantitative approach. Cross-sectional design was used because it allows for data collection from a large pool of subjects and compare differences between groups. The study used Contingent Valuation technique to elicit WTP by means of Take-it-or-Leave-It (TIOLI) with follow up questions [53]. The Contingent valuation method involves directly eliciting people's willingness to pay for a good or service through asking the respondents whether they would pay a set amount of money for a non-market good or service. Take it or leave was used in data collection which consist of closed ended questions on certain prices for universal health insurance premiums.

3.2 The Study Area

The study was done in 3 wards of Mkuranga District in Pwani Region. The population of Mkuranga District was 533,033 with 142,725 households according to 2022 population and housing census [54]. The Pwani region was selected because low enrolment in health insurance also because the universal health insurance has not been introduced so this adheres the principle of willingness to pay studies and Mkuranga district was randomly selected.

3.3 Study Population

This survey consisted of heads of households. The respondents were sampled from the wards in Mkuranga district.

3.4 Sample Size Determination

The sample size was calculated using quantitative formula.

$$n = \frac{Z^2 P (100 - P)}{e^2}$$

$$n = \frac{1.96^2 \, 40 \, (100\text{-}40)}{5^2}$$

$$n = \frac{1.96^2 \, 40 \, (100\text{-}40)}{5^2}$$

$$n = 369$$

Adding 10% of non-response rate (0.1 × 369) + 369 = 406, Therefore the minimum sample size was 406 participants.

Whereby

n = Estimated sample size

Z= Standard normal deviation, typically set at 1.96 which link to 95% confidence interval.

P = expected percentage of individuals who are WTP for health insurance (P = 40%) [55].

e = The margin of blunder taken to be 5%

3.5 Sampling Techniques for Quantitative Data

Three wards were randomly selected out of 25 wards in Mkuranga district. The process involved writing the names of all 25 wards on a paper, folded and putting them into a container then strongly shaking the container, one piece of paper was selected with replacement until three wards were selected. The second stage was the selection of villages from the 3 selected words, 2 villages from each ward were selected. Thereafter households were selected from the selected villages using probability proportional sampling.

3.6 Inclusion and Exclusion criteria:

3.6.1 Inclusion criteria:

- All heads of households/ head of household representative.

3.6.2 Exclusion criteria:

- Those who were sick and not able to respond to the interview.

3.7 Data Collection Tools

Interview with structured questions was deployed, the questionnaire was prepared with both closed and open-ended questions, it was developed in English and later translated in Kiswahili. The section 2 of the questionnaire was modified basing on the study rationale from the adopted questionnaire with a similar study done Asia [50] and**.** The questionnaire had sub-sections to capture demographic factors, socio-economic factors benefit perceptions and risk factors and WTP for universal health protection. In additional to that Take-It-Or-Leave-It with follow up questions was used to elicit WTP, three bids were used (170,000/=, 340,000/= and 680,000/=).

3.7.1 Pretesting of Data Collection Tools:

The instrument was pre-tested in Mkuranga ward to detect the content and construct validity and reliability. The pilot examines the logical flow of questions, and understandable to households in providing the required information. Validity is maintained by having competent research assistant who is well trained and understand the study rationale.

3.7.2 Data Collection Procedure

There after respondent was requested to consent for their participation in the study. Face-to-face interview was done using Swahili questionnaire with structured questions. A short scenario was narrated to the respondent to enable her/him to understand the situation and to be able to give correct answers. The scenario informed the respondents

on health insurance status, benefits of being insured, benefits package and its coverage, duration of benefit package and mode of payment.

There after demographic and socio-economic questions were asked then respondent was asked if she/ he was ready to pay for universal health insurance or not. The next set of interrogations were WTP questions to those respondents who were willing to pay. A take it or leave it (TIOLI) with follow-up questions was used to elicit WTP, only three bids were used (170,000, 340,000 and 680,000). The starting bid was alternate from one respondent to another therefore was 6 (3*2*1) different format which were used to avoid starting point bias. Furthermore, respondents were asked a maximum amount of money that they are WTP after TIOLI questions. The interviewer used approximately 30 minutes to interview one respondent.

3.8 Data Variable

Variables is a characteristic, change over time, might take different values [56]. Independent variable may use diverse values and may cause consistent changes for other parameters and outcome variable taking diverse values and in response to an exogeneous variable (Table 3.1).

3.8.1 Dependent Variable

Willingness to pay. WTP was considered to be binary, 1 if a household was willing to pay for universal health insurance after being described of the benefit package, otherwise 0 for those not willing to pay. Similarly, for each bid, being 170,000TZS, 340,000TZS and 680,000TZS, was coded as 1 if respondent was willing to pay and 0 for those not willing to pay.

3.8.2 Independent Variables

These included demographic characteristics, socio economic-demographic factors, preferred premium and risk factors (Table 3.1).

Table 3.1 Independent Variables

Variable	Description	Measurement	Hypothesized relationship with WTP
Age	Number of years since birth	A continuous quantitative measure	The older the people, the more the WTP
Sex	Biological difference	1 = male 0= female	Males will be more willing to pay than females
Marital Status	Marriage state	1 = married 0= not married	Married households will be more willing to pay than non-married
Household size	Number of people in a private household	A continuous quantitative measure	The higher the household size, the higher the WTP
Income	Amount earned	A continuous quantitative measure	The higher the income, the higher the WTP
Level of Education	Formal education one has attended	1= had formal education 0= had no formal education	People with formal education will be more willing to pay than others
Occupation	What a person does for a living	1= had formal employment 0= had no formal employment	People with formal employment will be more willing to pay than others
Premium preferred	Premium attached to the health insurance once enrolled	A continuous quantitative measure	The lower the premium rate, the higher the WTP

Risk factors	Whether a household member is affected by risk factor	1= risk factor 0= not risk	Risk factors can lead to higher willingness to pay
Ill health experience	Getting sick and need treatment	1= household member experienced illness 0= no illness	The higher the number of members of household experiencing illness the higher the WTP
Paid out of pocket when accessing care	When accessing care household incur costs associated with medication	1= paid OOP 0= did not pay	Payments OOP will lead to higher WTP

3.9 Data Management

Survey tool was used to capture data. The principal investigator scrutinised all the surveys to guarantee completeness and correctness of data collected. The survey questionnaires were programmed using the Microsoft Excel for data collection in the ODK collect android application. The ODK aggregate was used for data storage and data transfer to the server.

Data cleaning was done after completion of data collection whereby detection of coding error and outliers was done using bar graphs for quickly detection of errors. Thereafter removal of all respondents with missing information and incorrect values as well as filling the correct missing and incorrect data for the known values All data were stored on password protected computers. The electronic file was only accessible to principal investigator. The analysis of the data was done by the principal. The data has been used exclusively to fulfil the objectives of this study.

3.10 Measurement of Validity and Reliability

3.10.1 Reliability

In research, the term reliability means "repeatability" or "consistency". A measure is considered reliable if it would give us the same result over and over again. Reliability is the consistency of study results over time and the accurate representation the whole population in measuring what it intended to measure given the available information is referred to as reliability [57]. Cronbach's alpha (α) was used to measure internal consistency. The recommended threshold or cut-off is normally seen as ≥0.70. The reliability test was computed using the Stata package before data analysis. Reliability test showed the items had a Cronbach's Alpha of 0.8642.

3.10.2 Validity

Validity of the data determines whether the research truly measures what it was intended to measure in the study population. Validity is concerned with whether the findings are really about what they appear to be about [58]. In this study, prior to the pilot study, the questionnaire and interview guides were reviewed by knowledgeable person to ensure its content validity. Furthermore, a pilot study was carried in order to improve the content of the data collection tools.

3.11 Data Analysis

The analysis was done as per study questions/objectives, First, the survey results were analysed to find out the WTP values, the distribution of WTP bids, variables associated with WTP for health insurance benefit package influencing WPT and risk-taking behaviour associated with WTP. The analysis was done using STATA 15.

Frequency distribution: For all parameters, descriptive statistics were calculated including mean, median and the scattering (SD, range). Statistical correlation analyses were performed by the Spearman's rank test. In addition, a multiple logistic regression model was estimated to identify factors associated with WTP. WTP as dependant variable was first dichotomized by median cut and then a binary logistic regression was

performed. All statistical tests were tailed to 95% confidence interval (CI) and the alpha level set at 5 % ($p \leq 0.05$) and for high significance, at 0.1 % ($p \leq 0.001$).

Respondents with a positive and those who have a zero WTP were tabulated to isolate respondents who dislike and like health insurance. The mean, mode, median, range and maximum WTP from open ended questions of amounts that the community members are willing to pay for health insurance benefit were calculated and percentages of WTP among respondent were grouped and estimated. Multivariable regression analysis was conducted to determine the strength of association and direction of independent variables in predicting WTP for universal health insurance (Table 3.2).

Household Socio Economic Status

The survey tool capture household information on the amount of financial resources that they have been spending on healthcare services, food and non-food. During analysis the three expenditure items were aggregated together and used to predict 4 wealth quintiles. The first quintile - Q1 represents the most-poor households, Q2 (very poor), Q3 (poor) and the fourth quintile - Q4 represents the least poor households as classified by household expenditure.

Table 3.2 Study objectives and analysis technique

Research Objective	Data Analysis Technique
To assess the voting WTP for universal health insurance among households in Mkuranga district.	Descriptive statistic presented in tables with frequency and percentages were calculated
To assess the socio- economic-demographic factors associated with WTP for universal health insurance among households in Mkuranga district?	Descriptive statistic presented in tables with frequency, percentages, and Logistic regression with coefficients and p-value were presented
To determine the preferred premium rate on the amount that they are WTP for insurance among	Descriptive statistic presented in tables with frequency, percentages, and Logistic regression with

households in Mkuranga districts.	coefficients and p-value were presented
To examine the relationship between risk factors and WTP for universal health insurance among households in Mkuranga districts towards.	Descriptive statistic presented in tables with frequency and Logistic regression with coefficients and p-value were presented

3.12 Ethical Consideration

Ethical clearance was provided by Muhimbili University of Health and Allied Sciences (MUHAS) Institutional Review Board after the review and approval of proposal with a reference number DA.282/298/01.C/. It was submitted to district office to ask for permission to conduct the study. The informed accord was obtained from respondents before they take part in the study. Respondents were informed about the objective of the study, and they were allowed to decline of to pull out at any time in the continuance of the study deprived of any consequence. Anonymity and confidentiality were ensured by making the questionnaire and the rest of the tools anonymous towards the respondents. In summary, all ethical issues were considered while conducting the study.

CHAPTER FOUR

4.0 RESULTS

4.1 Chapter Overview

This chapter presents study findings, which are organized according to the study objectives. It is worth noting that the sample size of the study was 406 households. The chapter presents demographic information, WTP for health insurance, access to healthcare services and factors associated with the stated WTP.

4.2 Demographic Characteristics of the Study Population

Table 4.1 presents characteristics of the surveyed respondents. A total of 406 respondents were involved in this study. 202 (49.8%) were males headed households and 204 (50.2%) respondents were females headed households. About 148 (36.5%) were of age interval group 20-30 years. More than half of the respondent were 300 (73.9%) were married/cohabitation. Furthermore, 184 (45.3 %) completed primary education while only 29 (7.1%) reported to have diploma/university education. When asked to approximately how much household get from the business/ employment per month it was noted that on average households get 257,894TZS [SD 179,411] (Table 4.1).

Table 4.1 Demographic characteristics of the Study population

	Frequency (N= 406)	Percent
Sex		
Males	202	49.8
Females	204	50.2
Age of Respondents		
20 - 30 years	148	36.5
31 - 40 years	120	29.6
Above 40 years	138	34.0
Marital Status		
Not Married	80	19.7
Married / Cohabitation	300	73.9
Divorce/Separated/Widowed	26	6.4
Education Level		
No Never attended	75	18.5
Primary school education	184	45.3
Secondary school education	118	29.1
College-Diploma/Certificate At least university degree	29	7.1
Type of occupation		
Not employed	176	43.3
Employed	42	10.3
Self -Employed	188	46.3
Household with chronic illness	50	12.3
Household with any disability	32	7.8
Socio-economic status		
Q1 (most poor)	105	25.8
Q2 (very poor)	99	24.4

Q3 (poor)	103	25.4
Q4 (least poor)	99	24.4
	Mean [SD]	Min - Max
Household size	3.5[1.7]	
Number of dependents	2.4[1.7]	
Pay you per month, TZS	257,894[179,411]	2,000 - 800,000
Household Expenditure on		
Healthcare, TZS	18,254[19,071]	0 – 150,000
Food, TZS	163,177[87,805]	10,000 – 600,000
Non-food items, TZS	163,177 [87,806]	10,000 – 600,000

Note: SD standard deviation

Out of 406 surveyed households only 16% (69) reported to have health insurance, whereas 84% claimed to have no health insurance (Figure 2). Of those with health insurance 66% (45) had National Health Insurance Fund card, 4% (3) reported to have social health insurance benefit and 29% (20) reported to have improved community health fund card.

4.3 Willingness to pay for universal health insurance questions.

4.3.1 Willingness to Pay for Universal Health Insurance

Table 4.2 presents households' general willingness to pay for universal health insurance questions. Majority 79% of the households were willing to pay for universal health insurance. Furthermore, it was observed that 84.8% of male headed households were more willing to pay for health insurance as compared to female headed households (72.8%). The difference between male and female willingness to pay for universal health insurance was statistically significant ($p = 0.03$).

Table 4.2 Head of household Willingness to Pay for Universal Insurance

	Willingness to pay, N = 406			
Sex**	Yes	No	Total	p-value
	n(%)	n(%)	n(%)	
Male	173(84.8)	31(15.2)	204(100)	
Female	147(72.8)	55(27.2)	202(100)	0.003
Total	320 (78.8)	86 (21.2)	406	

Note: significant at 1% (***), 5% (**), 10% (*)

Maximum Willingness to Pay for Universal Health Insurance

The mean willingness to pay for universal health insurance was higher among male headed household 180,443 TZS as compared to women 142,019 TZS (Table 4.3). Household head aged 31 – 40 years of age stated higher 189,558 TZS compared to other age categories. Married households had higher WTP for universal health insurance, 178,239 TZS as compared to non-married household heads. Household head with college and above level of education had a higher WTP (355,517TZS) for universal health insurance as compared with the lower education level. The poor and the least poor stated higher WTP for universal health insurance 178,811 TZS and 295,000 TZS respectively.

Table 4.3 **Maximum Willingness to Pay for Universal Health Insurance**

Variables	**WTP**	
Sex	Mean	[SD]
Male	180,443	[148,071]
Female	142,019	[122,253]
Age of Respondents		
20 - 30 years	128,556	[121,310]
31 - 40 years	189,558	[156,748]
Above 40 years	167,382	[123,602]
Marital Status		
Not Married	112,476	[134,194]
Married	178,239	[134,018]
Education Level		
No Never attended	142,465	[117,068]
Primary school education	149,945	[118,531]
Secondary school education	143,000	[127,593]
College and above	355,517	[181,158]
Socio-economic status		
Q1 (most poor)	68,773	[74,289]
Q2 (very poor)	107,171	[98,242]
Q3 (poor)	178,811	[105,861]
Q4 (least poor)	295,000	[139,830]

4.4 Socio-economic-demographic factors associated with WTP.

Table 4.4 presents factors associated with WTP for universal health insurance. It was observed that marital status was positive and statistically significant associated with WPT (p=0.001). In addition, WTP was negatively and statistically related with households who never attended school (p=0.0001), while was positive and statistically

related to secondary education (p = 0.0325) and college and above (p=0.0509). WTP was negatively and statistically related to households who had not being employed (p = 0.0587). Lastly, WTP was positive and statistically related to the least poor households (p=0.0019).

Table 4.4 Socio-economic-demographic factors associated with WTP

Variables	WTP	Coefficient	Pr(|T| > |t|)
Marital Status			
Not Married	72(22.4)		
Married / Cohabitation**	249(77.6)	0.1551	0.0011
Education Level			
No Never attended***	47(14.6)	-0.1882	0.0001
Primary school education	146(45.5)	-0.0003	0.9952
Secondary school education**	101(31.5)	0.1061	0.0325
College and above	27(8.4)	0.097	0.0509
Occupation			
Not employed	131(40.8)	-0.0939	0.0587
Employed	35(10.9)	0.0337	0.4983
Self -Employed	155(48.3)	0.0729	0.1424
Socio-economic status			
Q1 (most poor)	81(25.2)	-0.038	0.4454
Q2 (very poor)	75(23.4)	-0.0425	0.3927
Q3 (poor)	77(23.9)	-0.0718	0.1487
Q4 (least poor) **	88(27.4)	0.154	0.0019

Note: significant at 1% (***), 5% (**)

4.5 Preferred WTP premium rate among household

Table 4.4 presents logistic regression results on the preferred WTP premium rates among households in Mkuranga District. Male headed household head were two times more likely willing to pay for universal health insurance than female headed household (p=0.002]. In addition, the logistic regression model showed that participants aged above 40 years were statistically significant willing to pay for universal health insurance than other age groups (p=0.002). Social economic status (poor and least poor) was statistically significant in influencing WTP (p=0.001).

Table 4.5 Preferred WTP premium rates among households

Variables	WTP	WTP 170,000TZS	WTP 340,000TZS	WTP 680,000TZS
	Crude-OR(p-value)	*Crude-OR(p-value)*	*Crude-OR(p-value)*	*Crude-OR(p-value)*
Sex				
Female	Reference	Reference	Reference	Reference
Male	2.291 (0.002) **	1.187(0.547)	1.209(0.348)	2.506(0.283)
Age of Respondents				
20 - 30 years	Reference	Reference	Reference	Reference
31 - 40 years	0.704(0.287)	0.602(0.161)	1.735(0.117)	1.457(0.679)
Above 40 years	0.369(0.002) **	0.827(0.578)	0.668(0.279)	0.274(0.313)
Socio-economic status				
Q1 (most poor)	Reference	Reference	Reference	Reference
Q2 (very poor)	1.135(0.712)	2.247(0.037) **	3.382(0.043) **	0.000(0.000) ***
Q3 (poor)	1.073(0.834)	5.212(0.000) ***	9.360(0.000) ***	1.211(0.895)
Q4 (least poor)	3.103(0.008) **	14.03(0.000) ***	51.00(0.000) ***	5..992(0.121)
Constant	3.176(0.000)	0.175(0.000)	0.032(0.00)	0.006(0.000)

4.6 The relationship between risk factors and WTP among household

Table 4.6 presents the relationship between WTP for universal health insurance and household risk factors. The risk factors were age, number of households, those having any other insurance and household's member with chronic illness. However, the logistic regression model showed that the variable age and household with a member with chronic illness were statistically significant in influencing WTP for universal health with the p-value of (p= 0.0446 and p =0.0032) correspondingly

Table 4.6: Relationship between risk factors and WTP for universal health insurance

Variables		WTP	Not WTP	Total	pvalue
Age categories					
	20 - 30 years	105	43	148	
	31 - 40 years	97	23	120	0.0446
	Above 40 years	113	25	138	
Number of households		315	91	406	0.9426
Having any health Insurance		55	11	66	0.2433
Household with chronic illness		39	12	51	0.0032

4.6.1 Number of dependants and willingness to pay for health insurance.

Table 4.7 presents households' willingness to pay for universal health insurance the based on the number of dependents in the households. Majority 78% of the households were willing to pay for universal health insurance. Furthermore, it was observed that 79% of households with dependants less or equal to 4 were more willing to pay for health insurance as compared to households with greater than 4 dependents (68%). The difference between households with less or equal to 4 and greater than 4 willingness to pay for universal health insurance was statistically significant (p = 0.038).

Table 4.7 Presents households' willingness to pay for universal health insurance the based on the number of dependents in the households.

	Number of Dependents, N= 406			
No of Dependant	Yes n (%)	No n (%)	Total n (%)	pvalue
Less or equal to 4	289(79)	79(21)	368(100)	
Greater than 4	26(68)	12(32)	38(100)	0.038
Total	315(78)	91(22)	406(100)	

4.7 Results summary

Health insurance coverage among the households during the survey date was low only 16% of the respondent. Majority 79% of the households were willing to pay for universal health insurance. However, the stated mean maximum WTP was half the proposed bid for the universal health insurance despite of majority being willing to pay for UHI. The mean maximum willingness to pay for universal health insurance was higher among male headed household 180,443 TZS as compared to women 142,019 TZS. Moreover, the logistic regression model showed that variable Sex, Marital status, Social economic status (expenditure) was statistically significant associated with WPT (p=0.002), (p=0.001) and (0.001) correspondingly. Also, the findings reveal that risk factors can also influence willingness to pay for health insurance. Participants aged above 40 years and households with a member with chronic diseases were statistically significant in influencing WTP for universal health with the p-value of (p= 0.0446 and p =0.0032) correspondingly Furthermore, the findings reveal that study participants with 4 or less than 4 dependents were more willing to pay for health insurance than those with a more than 4 dependents was statistically significant (p = 0.038).

CHAPTER FIVE

5.0 DISCUSSION AND LIMITATIONS OF THE STUDY

5.1 Discussion

The study aimed at assessing willingness to pay (WTP) for universal health insurance and related factors amongst households in Mkuranga District – Pwani Region, Tanzania. In the study area, it was observed that health insurance coverage among households was low. However, majority of the study participants were willing to pay for universal health insurance. The participants were willing to pay for lower premium rate compared to the proposed premium rate.

In addition, the study has some unique findings which differentiate it with other studies. This study observed that risk factors can also influence willingness to pay for health insurance. Participants aged above 40 years and households with a member with chronic diseases were more willing to pay for insurance because they are in the risk group and are more likely to seek for health care frequently. Furthermore, the study reveals that study participants with 4 or less than 4 dependents were more willing to pay for health insurance than those with a more than 4 dependents.

Willingness to pay for Universal health insurance.

In this study majority of the participant were willing to pay for universal health insurance, this finding is similar to study conducted in Saudi Arabia where they found out that majority (69.5%) were WTP for national health insurance [27]. The mean WTP was 50 Saudi Riyal (US$13.33) per household member per month. Tobit regression analysis showed that household size, satisfaction with the quality of public healthcare services, perceptions about financing healthcare, education and income were the main determinants of WTP [27]. In Nigeria (82%) of the participant were willing to pay for health insurance was also hight associated with benefit package; co-payment arrangements; specific services covered, social and economic reasons [25]. In Gambia more than 90% of the respondents 677 (94.4%) were willing to join and pay for the

scheme. The average WTP was estimated at US$23.27, whereas average maximum amount to pay was US$26.01. Results of the two models together showed that gender, level of education and household income were statistically significant, with the latter showing negative influence on WTP. [33].

The mean willingness to pay for universal health insurance was higher among male headed household. In addition, households with formal employment and least poor social economic status stated higher WTP. Among the factors affecting WTP included marital status, age and education.

Socio- economic factors and premium rate associated with willingness to pay.

The socio-economic factors have been shown to influence willingness to pay in this study were monthly expenditure, income, and education. This findings on social economic status are similarly to study done by Macha *et al*., where it was noted that the poorest were less likely to be WTP for universal health insurance as compared with the richest quintile [34]. It was exposed that households with ageing or many dependants were likewise more likely to be willing to join the scheme.

In Afghanistan they used a double-bounded dichotomous choice CVM was used to prompt the maximum amount citizens would be WTP for insurance benefit entitlements. Whereas a Logistic and linear regressions were used to study factors affecting intension to join and WTP [40]. Majority had never heard of insurance but intended to join and pay for one of the 4 benefit entitlements ranging from 71 percent for a drug only package that comprised of vital medicines [40]. Main determinants of WTP and join health insurance, included the shires where participants were residing, income, expenditures and some demographic features.

A study conducted in Nigeria reported a willingness to pay 1.68 US per month per person with rural- urban variations making an approximate amount of 45,000/= per person [59]. Stating WTP amounts should go hand in hand with the assessment of the households' ability to pay for the annual premium rates.

The findings in this study suggest that although the majority of participants demonstrate high willingness to pay, less than half are able to pay the proposed universal health. Similar to willingness to pay, economic hardship (low income) was the most important issue that drove the willingness to pay higher amounts as well as education. Some of these issues such as rural-urban variations, income and illiteracy are frequently cited as determinants of unwillingness to pay in previous studies [59, 60].

5.2 Limitations of the Study

This study has some limitations, household report might have some sort of social desirability bias. That is, the tendency of people to present themselves in a way that will be viewed favourably by others, often leading them to conform to social norms and expectations instead of choosing responses that are reflective of their true feelings [61]. The bias in responses due to this personality trait becomes a major issue when the scope of the study involves socially sensitive issues such as personal information. This was mitigated through indirect questioning allows participants to express attitudes without directly admitting them, reducing pressure to give socially acceptable responses. Another limitation was Recall issue Participants may not accurately remember their earnings or may report ranges instead of precise figures, leading to measurement errors Emphasize that responses will remain confidential to encourage honest reporting. The use of a well-trained interviewer or collection of data through methods that do not require presence involvement of an interviewer can help avoid this bias to some extent [61]. Research assistant received a 3-day training to ensure he was conversant with the data collection tools and was capacitated on framing the questions to ensure they capture required information.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The stated mean maximum WTP was half the proposed bid for the universal health insurance despite of majority being willing to pay for UHI. As a result of low enrolment most people continue to make out-of-pocket (OOP) payments to access healthcare services, leading to catastrophic health expenditure, reducing the utilization of healthcare services, and increasing the burden of diseases. Moreover, large number of dependents may discourage the willingness because one may not be able to pay for every individual. Also, when setting for premium rates as well as socio economic factors, and rural-urban variations. Therefore, based on the findings from this study it is very important to conduct more research studies and understand well its audience first before establishing this scheme this will smoothen it implementation.

6.2 Recommendations

1. The Local Government Authority should ensure education and awareness on health insurance is provided to the community.

2. The premium rate was found to be high therefor the Local Government Authority should work in collaboration with MOH to designing health insurance premium rates with consideration of the socio- economic factors. Because some might be willing to pay but the premium rate is too higher for them to afford.

3. Further studies on satisfaction on health care services provided while using health insurance cards are recommended.

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7.0 APPENDIXES

Appendix 1: Consents Form – English

MUHIMBILI UNIVERSITY COLLEGE OF HEALTH SCIENCES DIRECTORATE OF RESEARCH AND PUBLICATIONS

Introduction:

My name is ……. I am working on this research project to interviewing people here in Mkuranga District in order to assess willingness to pay for universal health insurance and associated factors among households in Mkuranga district.

Purpose of the study

This study has the purpose of collecting information on the ability and willingness to pay for universal health insurance and associated factors among households in Mkuranga district. The process of identifying participants for this study has been purely random.

What Participation Involves

If you agree to participate in this study the following will occur:

1. You will be interviewed with interviewer and answer questions about you will be asked and finally your comments on what should be done to improve the reproductive services to men. The interviewer will be recording your responses in the questionnaire.
2. No identifying information will be collected from you during this interview, except your age, level of education, marital status, religion and your current occupation.
3. You will be interviewed only once for approximately 30 minutes in a private setting.

Confidentiality and consent:

I am going to ask you some personal questions about this study. Your answers are completely confidential and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want

to answer, and you may end this interview at any time you want to. However, your honest answers to these questions will help us better understand what people think, say and do about certain kinds of behaviours.

Who to contact

If you have questions about this study, you should contact the study Coordinator or the Principal Investigator, Flora Mshanga, Muhimbili University of Health and Allied Sciences (MUHAS), P.O. Box 65001, Dar es Salaam (Tel. no. 0715491267). If you ever have questions about your rights as a participant, you may contact the chairman of the MUHAS Senate Research and Publication Committee (Tel. 21503026) and Prof Phares G. M Mujinja P.O. Box 65001 who is the supervisor of this study (Tel. +225-21503026).

Do you agree? YES / NO

If No, End the interview without writing anything more on this form.

I _____ have read/understood the contents in this form. My questions have been answered. I agree to participate in this study.

Signature of Participant

_____

Signature of research assistant

_____

Date of signed consent

_____

Appendix 11: Consents Form – English

MUHIMBILI UNIVERSITY COLLEGE OF HEALTH SCIENCES

DIRECTORATE OF RESEARCH AND PUBLICATIONS

Namba ya utambulisho ☐☐☐

Jina langu ni..... Mimi ni ninafanya kazi katika mradi huu wa utafiti, nipo hapa kwa ajili ya kuhoji watu hapa wilaya ya Mkuranga kuhusiana na uwezo pamoja na utayari wa wanakaya kulipia bima ya afya kwa wote.

Madhumuni ya utafiti

Utafiti huu una lengo la kukusanya taarifa juu ya kutaka kujua kitu kinachowazuia au kinachowasababishia wanakaya kuamua kulipia ama kutolipia bima ya afya kwa wote. Mchakato wa kubainisha washiriki kwa ajili ya utafiti huu umefanyika bila kuchagua watu (random).

Ushiriki una husisha nini.

1. Kama unatakubali kushiriki katika utafiti huu yafuatayo yatakuwepo1. Utahojiwa na mhojaji na utajibu maswali utakayoulizwa na hatimaye maoni yako juu ya nini kifanyike ili kuboresha huduma ya afya uzazi kwa wanaume. Mhojaji atakuwa anaandika majibu yako katika dodoso.
2. Hakuna taarifa zozote za utambulisho tutakazokusanya wakati wa usaili isipokua umri, kiwango cha elimu, hali yako ya ndoa, dini na kazi yako kwa sasa.
3. Utahojiwa mara moja tu kwa takribani dakika 30 katika mazingira ya usiri.

Usiri na ridhaa:

Mimi nitakuuliza baadhi ya maswali binafsi kuhusu utafiti huu. Majibu yako ni siri kabisa na kamwe yatatumika katika uhusiano na yoyote katika taarifa utakazo niambia.

Huna haja ya kujibu maswali yoyote ambayo hupendi kuyajibu, na unaweza kusitisha mahojiano haya wakati wowote unaotaka.

Nani kuwasiliana

Kama una maswali kuhusu utafiti huu, unapaswa kuwasiliana na utafiti Mratibu au Mpelelezi Mkuu ambaye ni Flora Mshanga Chuo Kikuu cha Afya na Tiba (MUHAS), a Box 65001, Dar- es -Salaam (Tel. no. 0715491267). Ikiwa una maswali kuhusu haki zako kama mshiriki, unaweza kumpigi Prof.Mainen Moshi (Tel. +225-21503026) na Phares Gm Mujinja ambaye ni msimamizi wa utafiti huu (Tel. +225- 21503026)

Je, unakubali? NDIO / HAPANA

Kama ni hapana, Mwisho mahojiano bila kuandika chochote zaidi katika fomu hii.

Mimi _____ kusoma / nimeelewa yaliyomo katika fomu hii. Maswali yangu wamejibu. Mimi kukubali kushiriki katika utafiti huu.

Sahihi ya Mshiriki _____

Sahihi ya mtafiti msaidizi _____

Tarehe ya kusainiwa fomu ya ridhaa _____

Appendix III: Data Collection tools

Questionnaire English Version

Title: WILLINGNESS TO PAY FOR UNIVERSAL HEALTH INSURANCE AMONG HOUSEHOLD IN MKURANGA DISTRICT.

For official use only

1. Questionnaire No ☐☐☐
2. Name of the interviewer ……
3. Name of the Ward/Street/Village …….
4. Date of interview…….

Section 1 Demographic and Socio- economic Characteristic

SN	QUESTION	RESPONSE	SKIP
1	Respondent Sex	1. Male 2. Female	
2	Age of Respondent in years	……. Years	
3	Marital status	1. Not Married 2. Married / Cohabitation 3. Divorce/Separated/Widowed	
4	Education level of respondent	1. Never attended school/no formal education 2. Primary school education 3. Secondary school education 4. College-Diploma/Certificate At least university degree	
5	Type of occupation	1. Not employed 2. Employed 3. Self -Employed 4. Others (specify)	
6	Approximately how much does your business/ employment pay you per month	Amount…….	
7	Approximately how much did you spend in healthcare, food, and non-food items in the previous month?	1. Expenditures healthcare---------- ------- TZS 2. Expenditures food---------- TZS 3. Expenditures on non-food items --------- TZS	

8	In a typical month, do you spend all of your earnings?	1. Yes 2. No	
9	How many people live in your household (including you)?	…… People	
10	Number of dependents lives in this household	……	
11	Do you have a health insurance?	1. Yes 2. No	If No skip to Section 2
12	Which types of health insurance are you covered with?	1. National Health Insurance Fund (NHIF) 2. Social Health Insurance-NSSF (SHI) 3. Improved Community Health Fund (i-CHF) 4. Other specify.	

Section 2: Willingness to pay for universal health insurance questions.

Market Scenario

Please allow me to explain to you about universal health insurance and ask some few questions.

Health insurance is the way to pool risk of a large group of individuals to minimize cost of health care to one person. Getting sick is unpredictable so people who are not ensured are in the risk of failing to access health services on time due to lack of money. Moreover, uninsured people may spend a lot of money for treatments leading to catastrophic expenditure. The outcome of limited access health services can be deaths, disabilities, chronicity of diseases, spread of disease and reduction in quality of life.

With universal health insurance it will enable people to access health services on time whenever they get sick without payment barriers as well as not losing a lot of money for treatment expenditures. This will improve the health status of the people save lives and increase the quality of life. Moreover, it will enable members to visit health facilities countrywide from dispensaries to referral hospital and access health care services. The covered members will be able to get health care services whenever they seek even if the cost for treatment has exceed the premium.

Health Insurance Benefit package

The insurance benefits package will cover different services depending with the selected package such as inpatient care (which includes room and board, surgical services, diagnostic test and medication), outpatient services (which includes doctor's visits, laboratory tests and prescription medications), maternity care(which includes antenatal care, delivery and postnatal care, emergency care(which includes ambulance transportation and emergency room), preventive services(which includes immunizations and screening), chronic disease management(which includes medication, regular check-ups and specialist consultations), dental and optical care.

Payment and enrolment of the insurance

The applicant will need to fill a form and attach ID (National ID/ Number of ID, Voters ID or driving license). Payment will be done at once and the beneficiary will be legible to access the benefit package for the whole year starting from the date which payment was done. Payment can be done through mobile money or bank through generated control number. This insurance will be having different packages individual package (a package for one person) and group package (a package for 1 partner and 4 dependents). There will be no any refund for beneficiary if the members doesn't get sick and use the package for that period of one year. The membership will end if the principal member dies or stop to make payment of the selected benefit package.

AR: To ask if the respondent has questions.

SN	QUESTION	RESPONSE	SKIP
13	Considering the information that I have explained; will you be willing to pay for health insurance?	1. Yes 2. No 3. I don't know	If No skip to QN. 15
14	What will be the source of income to finance it?	1. Self 2. Spouse 3. Relative/ family 4. Other…….	

15	Suppose the price of health insurance is 680,000 Tsh per year will you be willing to pay?	1. Yes 2. No	If Yes Skip to Qn 18
16	Suppose the price of health insurance is 340,000 Tsh per year will you be willing to pay?	1. Yes 2 No	If Yes skip to Qn18
17	Suppose the price of health insurance is 170,000 Tsh per year will you be willing to pay?	1. Yes 2. No	
18	What is the maximum amount you would be willing to pay for such a scheme per year in Tsh?	Amount……	

Section 3: Preferred benefit package and Risk perception

SN	QUESTION	RESPONSE	SKIP
19	With the amount that you are willing to pay for health insurance what is the preferred benefit package?		
20	Is there a member in your household with chronic illness? (E.g. hypertension, diabetes etc)	1. Yes 2. No How many…….	
21	Is there member in your household with any disability? (Eg, blindness, deafness, lame)	1. Yes 2. No How many …….	
22	Is there any member in your household encountered any illness during the past 6 months? (including yourself)	1. Yes 2. No How many times ……	If No skip to QN 28
23	Who was that person(s)	1. Myself 2. Spouse	

		3. Children 4. Relatives	
24	Did you seek for healthcare?	1. Yes 2. No	If No go to Qn 27
25	In total how much did you pay for medical treatment	…….	
26	Who paid for medical expenses	1. Self/ family 2. Relatives/ friends/ community 3. Government 4. Others (specify)	
27	Why did you not seek for health care?	1. I had no money. 2. I did not have time. 3. No nearby facility 4. I used traditional treatment. 1. Others specify……	
28	Is there any member in your household who died due to lack of access to healthcare?	2. Yes 3. No	
29	Is the benefits received from health insurance is higher than the premium paid?	1. Yes 2. No 3. I don't know	

Section 4: Risk perceptions on WTP for health insurance among households in Mkuranga districts.

Now I would like to ask you how strongly you think these have contributed to you being willing to pay for health insurance. Please respond the following statements on five points of Likert's scale ranging from Strongly agree to strongly disagree.

30	Co-payments when accessing care using health insurance.	1. Strongly agree. 2. Agree 3. Uncertain 4. Disagree 5. Strongly disagree.	
31	Shortage of medical supplies and drugs when using Health Insurance.	1. Strongly agree. 2. Agree 3. Uncertain 4. Disagree 5. Strongly disagree.	
32	Delays on receiving the health care service in facilities.	1. Strongly agree. 2. Agree 3. Uncertain 4. Disagree 5. Strongly disagree.	
33	Poor quality of health care associated with the use of Health Insurance.	1. Strongly agree. 2. Agree 3. Uncertain 4. Disagree 5. Strongly disagree.	

Kielelezo namba IV: Dodoso

Title: Utayari wa kulipia bima ya afya kwa wote kwa kaya – Halmashauri ya Mkuranga

Kwa matumizi maalumu

1. Namba ya dodoso ☐ ☐ ☐
2. Jina la mhojaji ……
3. Jina la mtaa/kijiji …….
4. Tarehe ya mahojiano…….

Sehemu 1: Taarifa za binafsi, kijamii na kiuchumi

#	**Swali**	**Jibu**	**Ruka**
1	Jinsia ya mhojiwa	1. Mwanaume 2. Mwanmke	
2	Umri wa mhojiwa	……. Miaka	
3	Hali ya ndoa	1. Hajaoa /olewa 2. Ameolewa/Ameoa 3. Wameachana /Amefiwa	
4	Ngazi ya elimu ya mhojiwa	1. Hajasoma kabisa 2. Elimu ya msingi 3. Elimu ya sekondari 4. Elimu ya chuo	
5	Aina ya kazi	1. Hajaajiriwa 2. Ameajiriwa 3. Amejiajiri mwenyewe 4. Nyingine (elezea)_____	
6	Kadiria wastani wa kipato cha kazi/biashara yako kwa mwezi	Kiasi…….	
7	Kadiria kwa wastani , ni kiasi gani ulitumia kwa matumizi ya Afya, chakula na bidhaa	1. Matumizi kwenye Afya……..TZS 2. Matumizi kwenye	

	nyinginezo kwa mwezi uliopita?	chakula……..TZS 3. Matumizi kwenye bidhaa nyingine……..TZS	
8	Je kwa mwezi huwa unatumia hela zako zote	1. Ndio 2. Hapana	
9	Wanakaya wangapi wanishi katika kaya yako (pamoja na wewe)	…… watu	
10	Wategemezi wangapi wanaishi kwenye kaya	……..	
11	Je una bima ya afya?	1. Ndio 2. Hapana	Kama Hapana ruka kwa sehemu ya 2
12	Ni bima ipi ya afya uliyonayo?	1. Bima ya afya ya taifa (NHIF) 2. Bima ya NSSF (SHIB) 3. Bima ya afya ya jamii (i-CHF) 4. Nyinginezo (taja)……..	

Sehemu 2: Utayari wa kulipia bima ya afya kwa wote

Tafadhali Naomba kukuelezea kuhusu bima ya Afya kwa wote na kukuuliza maswali machache.Bima ya afya ni njia ya kuleta kwa pamoja kundi kubwa la watu wenye hali tofauti ili kupunguza gharama za huduma za afya kwa mtu mmoja. Magonjwa hayatabiriki, Kwa wale ambao hawako ndani ya mpango wa huduma ya bima ya afya wanakuwa katika hatari ya kukosa huduma ya afya ndani ya muda kutokana na ukosefu wa fedha. Zaidi ya hapo, watu walio nje ya mpango wa huduma ya bima ya afya wanatumia fedha nyingi kwa matibabu na kusababisha matumizi yanayozidi kipato. Matokeo ya ukosefu wa huduma za afya kwa wakati inaweza kusababisha vifo, ulemavu, magonjwa kuwa sugu na maambukizi ya magonjwa na pia kusababisha kupungua kwa ubora wa Maisha.

Huduma ya bima ya afya kwa wote inasaidia watu kupata huduma za afya kwa wakati pindi wanapopatikana/ wanapokumbwa na magonjwa bila ya kupata vizingiti vya kifedha na pia bila ya kutumia kiasi kingi cha pesa kupata huduma stahiki. Hii itasaidia kuimarisha hali ya afya kwa watu na kuokoa Maisha ya watu na pia kuongeza ubora wa Maisha kwa jamii. Zaidi, Itasaidia wafaidika na mpango wa huduma ya bima ya afya kuweza kupata huduma za afya kutoka ngazi za chini hadi ngazi za juu za mfumo wa huduma za afya nchini. Na wafaidika wa mpango wa huduma ya bima ya afya wanaoata nafasi ya kupata huduma hii popote na kwa muda wowote hata kama gharama zitazidi uwezo wa bima husika.

Mafao ya vifurushi vya bima ya afya

Mpango wa kifurushi cha huduma ya bima ya afya unajumuisha huduma tofauti tofauti kulingana na aina ya kifurushi, mfano huduma za kulazwa (hii inajumuisha chumba cha malazi, upasuaji, vipimo na matibabu), huduma za wagonjwa wa clinic za nje (hii hujumuisha ushauri wa daktari, vipimo vya maabara na dawa), huduma za uzazi kabla na baada na wakati wa kujifungua, huduma za dharura (hujumuisha gari la wagonjwa wa dharura pamoja na huduma za dharura), huduma za kujikinga na maambukizi (hujumuisha chanjo na uchunguzi wa awali), matibabu ya magonjwa sugu (ikijumuisha matibabu, uchunguzi wa afya wa mara kwa mara na ushauri wa kitabibu), Na pia huduma za kitabibu zihusianazo na macho pamoja na meno.

Malipo na usajili wa Bima ya Afya.

Muombaji atahitajika kujaza fomu iliyoambatanishwa na (nakala ya Kitambulisho cha utaifa/ Namba ya kitambulisho cha taifa au nakala ya kitambulisho cha kupigia kura au leseni ya udereva), Malipo yanafanyika kwa mara moja na mfaidika ataweza kupata huduma kwa mwaka mzima kuanzia siku na tarehe malipo yalipofanyika. Malipo yanaweza fanyika kupitia miamala ya mitandao ya simu, au benki kupitia namba za malipo. Huduma hii ya bima ya afya ina vifurushi vya aina tofauti zikiwemo kifurushi cha mtu mmoja au kifurushi cha kikundi (kifushi chenye mfaidika mmoja Pamoja na wategemezi wake). Huduma ya bima ya afya haihusishi kurudishiwa fedha kwa

mfaidika endapo hatapata changamoto yoyote ya ugonjwa katika kipindi chote cha mkataba wa malipo ya huduma ya afya kwa muda husika. Ukomo wa Uanachama utatokana na mfaidika kufariki au kusitisha kufanya malipo katika huduma husika.

Mtafiti msaidizi: Uliza kama mhojiwa ana maswali.

	Swali	**Jibu**	**Ruka**
13	Kwa kuzingatia maelezo niliyokuelezea, je utakuwa tayari kulipia bima ya afya?	1. Ndio 2. Hapana	Kama Hapana nenda swali 15
14	Je, Ni nn chanzo cha pato kwa ajili ya kulipia huduma ya bima ya afya?	1. mwenyewe 2. Mwenza 3. Ndugu/ Familia 4. Mengineyo…	
15	Tuseme bei ya bima ya afya ni Tsh 680,000 kwa mwaka utakuwa tayari kulipa?	1. Ndio 2. Hapana	Kama ndio nenda swali 18
16	Tuseme bei ya bima ya afya ni 340,000 Tsh kwa mwaka utakuwa tayari kulipa?	1. Ndio 2. Hapana	Kama ndio nenda swali 18
17	Tuseme bei ya bima ya afya ni 170,000 Tsh kwa mwaka utakuwa tayari kulipa?	1. Ndio 2. Hapana	
18	Je, ni kiasi gani cha juu ambacho ungependa kulipa kwa mpango kama huo kwa mwaka kwa Tsh?	kiasi……	

Sehemu ya 3: Kifurushi cha manufaa kinachopendekezwa na mtazamo wa Hatari

	Swali	**Jibu**	**Ruka**
19	Kwa kiasi amacho upo tayari kulipia bima ya afya, ni mafao gani unapendekeza/ unapendelea kupata?	…….	
20	Je, kwenye kaya yako kuna yeyote mwenye magonjwa sugu? (kwa mfano, shinikizo la damu, kisukari, nk)	1. Ndio 2. Hapana Wangapi……	
21	Je, kwenye kaya yako kuna yeyote mwenye ulemavu? (kwa mfano, matatizo ya kuona, au kusikia, kiwete)	1. Ndio 2. Hapana Wangapi……	
22	Je, kwenye kaya yako kuna yeyote alipata ugonjwa wowote katika kipindi cha miezi sita(6) iliyopita?	1. Ndio 2. Hapana Wangapi……..	Kama Hapana nenda swali 28
23	Kama ndio, Ni nani ?	1. Mwenyewe 2. Mwenza 3. Mtoto 4. Ndugu	
24	Je, ulitafuta matibabu?	1. Ndio 2. Hapana	Kama hapana nenda swali 27
25	Kwa ujumla, Ni kiasi gani ulitumia kwa malipo ya matibabu husika?	……..	
26	Nani alilipia gharama za matibabu?	1. Binafsi/familia	

		2. Jamaa/marafiki/jamii 3. Serikali 4. Nyingine (taja)	
27	Kwa nini hukutafuta matibabu	1. Sikuwa na pesa. 2. Sikuwa na wakati. 3. Hakuna kituo kilicho karibu 4. Nilitumia matibabu ya jadi. Nyingine zinabainisha……	
28	Je kwenye kaya yako kuna yeyote ambae alishafariki kwa kukosa huduma za afya?	1. Ndiyo 2. Hapana	
29	Je,faida zinazopokelewa kutoka kwa bima ya afya ni kubwa kuliko malipo yanayolipwa?	1. Ndiyo 2. Hapana 3. Sijui	

Sehemu ya 4: Athari za mitazamo kwenye utayari wa kulipia bima ya afya kwa wote miongoni mwa kaya katika wilaya za Mkuranga.

Ningependa kuuliza mtazamo wako kwa mambo yafuatayo yamechangia kwa kiasi gani wewe kuwa tayari kulipa bima ya afya. Tafadhali jibu taarifa zifuatazo kwa kutumia skeli ya yenye alama tano, kutoka 'Kukubaliana sana' hadi 'Kutokukubaliana sana'."

30	Kuwa na malipo ya ziada wakati wa matibabu kwa watumiaji wa bima ya afya.	1. Nakubali sana. 2. Nakubali 3. Sina uhakika 4. Sikubali 5. Sikubali kabisa	
31	Upungufu wa dawa na vifaa tiba kwa	1. Nakubali sana.	

	watumiaji wa bima ya afya	2. Nakubali 3. Sina uhakika 4. Sikubali 5. Sikubali kabisa	
32	Ucheleweshaji wa kupata matibabu kwa watumiaji wa bima ya afya	1. Nakubali sana. 2. Nakubali 3. Sina uhakika 4. Sikubali 5. Sikubali kabisa	
33	Ubora duni wa huduma za afya kwa watumiaji wa bima ya afya.	1. Nakubali sana. 2. Nakubali 3. Sina uhakika 4. Sikubali 5. Sikubali kabisa	

Appendix V: Ethical clearance from MUHAS

UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR – RESEARCH, PUBLICATIONS AND INNOVATION

Ref. No.DA.282/298/01.C/1888 Date: 31/08/2023

MUHAS-REC-08-2023-1888
FLORA JOHNBOSCO MSHANGA
SHOOL OF PUBLIC HEALTH AND SOCIAL SCIENCES
MUHAS

RE: APPROVAL FOR ETHICAL CLEARANCE FOR A STUDY TITLED "WILLINGNESS TO PAY (WTP) FOR UNIVERSAL HEALTH INSURANCE AND ASSOCIATED FACTORS AMONG HOUSEHOLDS IN MKURANGA DISTRICT"

Reference is made to the above heading,
I am pleased to inform you that the Chairman has on behalf of the University Senate, approved ethical clearance of the above-mentioned study, on recommendations of the Senate Research and Publications Committee meeting accordance with MUHAS research policy and Tanzania regulations governing human and animal subjects research.

APPROVAL DATE: 31/08/2023
EXPIRATION DATE OF APPROVAL: 31/08/2024

STUDY DESCRIPTION:
Purpose:
The aim of this analytical cross sectional study is to assess the WTP and associated factors on universal health insurance among households in Mkuranga district.

The approved protocol and procedures for this study is attached and stamped with this letter, and can be found in the link provided:
https://irb.muhas.ac.tz/storage/Certificates/Certificate%20-%2014844.pdf and in the MUHAS archives.

The PI is required to:

1. Submit bi-annual progress reports and final report upon completion of the study.
2. Report to the IRB any unanticipated problem involving risks to subjects or others including adverse events where applicable.
3. Apply for renewal of approval of ethical clearance one (1) month prior its expiration if the study is not completed at the end of this ethical approval. You may not continue with any research activity beyond the expiration date without the approval of the IRB. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.
4. Obtain IRB amendment (s) approval for any changes to any aspect of this study before they can be implemented.
5. Data security is ultimately the responsibility of the investigator.
6. Apply for and obtain data transfer agreement (DTA) from NIMR if data will be transferred to a foreign country.
7. Apply for and obtain material transfer agreement (MTA) from NIMR, if research materials (samples) will be shipped to a foreign country,
8. Any researcher, who contravenes or fail to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III section 10 (2)
9. The PI is required to ensure that the findings of the study are disseminated to relevant stake holders.
10. PI is required to be versed with necessary laws and regulatory policies that govern research in Tanzania. Some guidance is available on our website https://drp.muhas.ac.tz/.

Muhimbili University of Health and Allied Sciences
DIRECTOR
Research, Publications & Innovations
Box 65001

Dr. Nahya Salim Masoud,
Chairperson, MUHAS Research and Ethics Committee

UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES
OFFICE OF THE DIRECTOR – POSTGRADUATE STUDIES

In reply quote;
Ref. No. HD/MUH/T.536/2021

07th September, 2023

The Regional Medical Officer,
P.O. Box 30080,
KIBAHA-PWANI

Re: INTRODUCTION LETTER

We would like to inform you that the bearer of this letter is **Flora Johnbosco Mshanga** with Reg. No. **HD/MUH/T.536/2021** is a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing **MPH-Distance Learning.**

As part of her studies, she will be doing an elective research titled: **"Willingness to Pay (WTP) for Universal Health Insurance and Associated Factors Among Households in Mkuranga District."** The research has been approved by the Chairman of University Senate.

Kindly provide her the necessary assistance to facilitate the conduct of her research.

We thank you for your cooperation.

Ms. Victoria Mwanilwa
For: DIRECTOR, POSTGRADUATE STUDIES

c.c Flora Johnbosco Mshanga

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam: Tel. G/Line: +255-22-2150302/6; Ext. 1015; Direct Line:+255-22-2151378;Telefax:+255-22-2150465;E-mail:dpgs@muhas.ac.tz;Web:https://www.muhas.ac.tz

Appendix VI: Permission letter from Mkuranga administrative authority

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JAMHURI YA MUUNGANO WA TANZANIA
OFISI YA RAIS
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

wani ya simu: "REGCOM COAST"
nu Na: 023-2402287/2402066
kushi Na: 023-2402358/2402151
rua pepe: ras@pwani.go.tz
barua@pwani.go.tz

Ofisi ya Mkuu wa Mkoa wa Pwani,
2 Mtaa wa Ishengoma,
S. L. P 30080,
61180 KIBAHA PWANI.

ajibu tafadhali taja:

mb. Na. HA. 270/325/02/78

25 Septemba, 2023.

urugenzi Mtendaji,
Imashauri ya Mkuranga

h : **KUMTAMBULISHA FLORA JOHNBOSCO MSHANGA KUFANYA UTAFITI HALMASHAURI YA MKURANGA**

Tafadhali rejea somo tajwa hapo juu.

Mkoa umepokea barua kutoka Chuo Kikuu cha Afya na Sayansi Shirikishi himbili (MUHAS) ya tarehe 07 Septemba, 2023 inayomuombea ruhusa Mtafiti **Flora hnbosco Mshanga** kufanya utafiti (***"Willingness to Pay for Universal Health iuarance and Associated Factors among Households"***) katika Halmashauri ya uranga.

Kibali cha Utafiti huo kimetolewa na MUHAS chenye Kumb. Na. ..282/298/01.C/1688 kinachoanza 31/08/2023 hadi 31/08/2024

Kwa barua hii, napenda kukutaarifu juu ya utafiti huu kwa ajili ya kutoa ushirikiano hiki na kutoa taarifa kwa Mganga Mkuu wa Halmashauri aliye chini ya Mamlaka yako.

Ninakushukuru kwa Ushirikiano wako.

Dkt. Benedicto Ngaiza,
Kny: **KATIBU TAWALA MKOA**

kala: Katibu Tawala Mkoa

Katibu Tawala Wilaya
Mkuranga

Mganga Mkuu,
Halmashauri ya Mkuranga.

MUUNGANO WA TANZANIA

OFISI YA RAIS,
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

HALMASHAURI YA WILAYA MKURANGA

Unapojibu tafadhali taja:

Kumb.Na.MDC/D.30/28/VOL V/136 08/11/2023

Watendaji wa Kata
Vikindu, Vianzi na Tambani,
MKURANGA.

YAH: KUMTAMBULISHA BI FLORA JOHNBOSCO KUFANYA UTAFITI KATIKA HALMASHAURI YA WILAYA YA MKURANGA

Husika na somo hapo juu.

2. Ofisi ya Mganga Mkuu Idara ya Afya inaomba kumtambulisha katika ofisi yako Mtafiti Bi Flora J. Mshanga kutoka Chuo cha Muhimbili kuja kufanya utafiti wa utayari wa kulipa Bima ya Afya.

3. Utafiti huu unatarajia kufanyika katika kata za Vikindu, Vianzi, na Tambani.

4. Hivyo kwa barua hii naomba mumpatie ushirikiano wa kutosha katika kufanikisha utafiti huo kwa manufaa ya Taifa.

Natanguliza shukrani.

Dr. Flora J. Kessy
Kny Mkurugenzi Mtendaji (W)
MKURANGA

HALMASHAURI YA WILAYA
K.n.y: MKURUGENZI MTENDAJI (W)
MKURANGA

Nakala: Mkurugenzi Mtendaji (W)
MKURANGA - Kwa taarifa

Ofisi ya Mkurugenzi, Halmashauri ya Wilaya Mkuranga, S.L.P 10, Mkuranga, Simu: 023-2110038, Nukushi: 023-2110038, Barupepe: ded@mkurangadc.go.tz, Tovuti: www.mkurangadc.go.tz