

Exploring the Effects of Out-of-Pocket Payments on Healthcare Utilization in Rural and Urban Tanzania: A Gender Perspective

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Abstract

Out-of-Pocket Payments (OPPs) have serious consequences for access to and utilization of health care and are particularly devastating for the poor. Although women constitute the majority of the poor in Tanzania and globally, the implications of user fees for access to health care from a gender perspective have received little attention. This study aimed to fill this gap by using a combination of quantitative and qualitative analyzes to investigate the gendered impact of OOPs on health care utilization in Kondoa District in both rural and urban areas. 206 households were interviewed and six single-sex focus groups were held. The study found that female-headed households (FHH) had higher cost burdens from seeking care and untreated morbidity than male-headed households (MHHs). Direct payment was the main means of payment for health care for both households. Households in both rural and urban areas bear catastrophic burdens on health expenditure as it constitutes more than 10% of household income. Borrowing money was the main strategy applicable significantly in both rural and urban areas to cover health expenses. Out-of-pocket health expenditure had a significant relationship with untreated morbidity, medical visits, and coverage of treatment costs. There was also a significant inclusion of all household members, male and female, regarding health care decisions in all parameters assessed. It is therefore recommended to consider the introduction of affordable public health insurance schemes to ensure health insurance coverage for all individuals in both rural and urban areas. The vulnerability of women is also of particular concern and efforts to improve their access to health care should be encouraged. Health policies should also consider rural dwellers as a vulnerable group seeking affordable health services. On the other hand, the quality of public health expenditure must be improved by strengthening budget execution performance and better monitoring of public expenditure.

Keywords

Out-of-Pocket, Health Expenditure, Healthcare Access and Utilization, Rural and Urban, Tanzania

1. Introduction

With its growing ageing population, Tanzania still lags behind in universal health care coverage, which is strongly perpetuated by the low proportion of Tanzanians who have health insurance (Kitole et al., 2023). Tanzania's health budget accounts for 7 per cent of the national budget and 1.8 per cent of the gross domestic product (GDP) (UNICEF, 2020) while international health targets suggest that total health expenditure should be 15 per cent of total government expenditure as defined by the Abuja Declaration.

The Tanzanian health system is a fee-for-service system but relies heavily on national government funding to assist in the form of cost-sharing schemes such as partial payment for the elderly, children under 5 years, pregnant patients and patients with chronic diseases such as tuberculosis, leprosy and HIV/AIDS (Boex et al., 2015; Gulamhussein et al., 2023). Despite government assistance, most people still pay some amount for health care, except for those with health insurance. There are various forms of prepaid public insurance coverage: The National Health Insurance Fund (NHIF) which covers 6.6% of the Tanzanian population and is compulsory for all those in the public sector. The Community Health Fund (CHF), a public social insurance fund, covers 7.3% of Tanzanians and targets those on low incomes and working in the informal sector. The other prepayment schemes cover less than 1% of the population (USAID, 2015; Lee et al., 2018). Thus, less than 20% of the population is covered by insurance, meaning that more than 80% of Tanzanian citizens pay direct payment at the point of health care use.

Affordability and accessibility determine health service utilization in many Low and Middle-income Countries (LMICs) (Brinda et al., 2014; Leive & Xu, 2015). The use of essential health services is reported to be avoided by poor people with the increasing demand for OOP health expenditures (Albanesa et al., 2017). High OOP health expenditures seriously impact vulnerable people who subsequently experience debt, income loss and catastrophic health expenditures (Whitehead et al., 2016). Health expenditures are catastrophic when they exceed 40% of a household's adequate income remaining after subsistence needs, as tend to affect access to and use of health care, especially for vulnerable groups and people living in hard-to-reach areas (Xu et al., 2003).

Universal health care is now a global goal that countries seek to achieve. This means that all people can utilize the health care services they need irrespective of their place of residence, socio-economic status, education level, ethnicity, race, caste, gender and age without financial hardships. Achieving universal health coverage needs a strong and efficient healthcare delivery system which is af-

fordable and accessible to all with an adequate number of skilled, trained and well-motivated human resources. With universal health coverage, affordability will no longer determine who can utilize health coverage and who cannot (Sahu, 2014). Towards achieving Universal Health Care, a good primary healthcare system is singled out as an entry point into the healthcare system by the majority (WHO, 2019). In Tanzania, many health policies have established a clear objective of attaining primary healthcare for all (UNICEF, 2020). Various reforms have also been made by the government such as the Health Care Reform of 1994 which focused on improving access, quality and efficiency in health delivery in Tanzania, especially after the Structural Adjustment Programs of 1993. However, the reality is that significant sections of the population incur large out-of-pocket (OOP) expenditures for health services due to limited public funding, high cost of hospitalization, cost of drugs, lack of insurance, and dominance of private health service providers. Various studies have pointed out that formal and informal fees are among the major barriers to accessing health services for maternal health in Tanzania. A reduction in out-of-pocket spending is therefore essential to move towards universal coverage and financial protection, and thus to facilitate the achievement of the Sustainable Development Goals.

Out-of-pocket financing for healthcare is common among many households in developing countries, including Tanzania (Manzi et al., 2014). Out-of-pocket health expenditures influence health services and inequality in many low and middle-income countries (Brinda et al., 2014). A key message of the World Health Report 2020 (WHO, 2020) is that millions of people cannot use health services because they have to pay for them when they receive them. Many who do use services suffer financial hardship or are even impoverished because they have to pay (Asante et al., 2020). Out-of-pocket payments severely affect healthcare access and utilization and are especially catastrophic for the poor (WHO, 2016). Considering that women represent 70 percent of the world's poor the influence of gender on access in the context of out-of-pocket payments is important (UNIFEM, 2018). Different research has shown important differentials in financial access between men and women as it is believed that women incur more out-of-pocket expenditure than men, and paying for health care and other reproductive health services places a high financial burden on women (Peters et al., 2008). Out-of-pocket expenditure may prevent more women than men from utilizing essential health services.

In the health sector, gender is an important variable because it affects men's and women's access to healthcare, healthcare-seeking behaviour, health status and the way health policies and programs are designed and implemented (Morgan et al., 2018). Women users have different biological-based health needs, particularly regarding reproductive and maternal health and because their access to health services is affected by gender inequalities. In this, gender also intersects with other inequalities and disadvantages in healthcare such as those deriving from age, class, religion and ethnicity (Van Wijk et al., 1996). Because women's access to and utilization of health services are influenced by cultural and ideo-

logical factors, gender-sensitive healthcare should take into account the socially constructed and culturally underpinned differences between men and women (Masanyiwa et al., 2013). However, most studies in Tanzania have paid less attention to the issue of affordability in the context of OOP payment among male-and female-headed households. Previous research has shown an equity analysis of Tanzania's household costs of accessing and utilizing maternal and child healthcare services (Furuta & Salway, 2006). Considering that women lag in education and employment in Tanzania and knowing the impact of lack of education on employment opportunities and to a great extent income generation, the importance of a gendered analysis of OOP payment and affordability becomes necessary. Thus, this study was seeking to investigate and address this gap through a combination of quantitative and qualitative analysis on the effect of OOPs on healthcare access and usability in male-and female-headed households.

2. Data and Methods

2.1. Data

The study included qualitative and quantitative data. Both primary and secondary data sources were used. Due to the context of the study, this research used multiple data collection methods, including structured interviews, Focus Group Discussions (FGDs), and document reviews. A formal structured and semi-structured interview was conducted using the questionnaire administered to female and male-headed households in the study area. Instead, a checklist was used to guide information gathering from key informants and focus group discussion. Six single-sex FGDs (2 urban and 4 rural) were conducted in 3 communities (1 urban, 2 rural). Each FGD consisted of 8 to 11 participants. Single-sex interviews were considered appropriate given the focus of the research on gender, health care access, coping strategies and intra-household decision-making and sensitive issues which are likely to be spoken of more freely and without fear of reproach in a single-sex group. All participants were 18 years and older. The discussions were conducted in the village square and community centers. FGDs were audiotaped, transcribed and translated into English and the transcripts were thematically coded and analyzed.

The sampling frame for this study was households in the region, totaling 89,893 households according to the 2012 national census projections. The sampling unit was an individual household head. The key informants for this study were the community development officer and the ward executive officer. For this study, a simple random sampling technique was used to select household heads. To broadly capture the distribution of characteristics of urban and rural families, the study distributed the sample size across the region in a ratio of 50% to 50% for urban and rural settings, respectively. The urban context was covered in the wards found in Kondoa Township while the rural context was covered in the wards found in the Kondoa District Council. Non-probability purposive sampling was used to obtain information from key informants. Secondary data were

collected from the relevant office reports, different internet sources, journals, and organizations.

2.2. Methods

The study mainly employed quantitative techniques to analyze data whereby both descriptive and inferential analyses were used to capture the sensitivity of the study variables. Descriptive statistics were employed to gauge statistical measurement among variables. The monthly cost of health care was calculated by the summation of direct costs (i.e., registration/card fees, consultation fees, laboratory tests and drug costs) that a household incurred in the month previous to the interview. To estimate the proportion of households incurring potentially catastrophic burdens, each household's healthcare costs were divided by monthly household expenditure and reported as a percentage. The household total expenditure was derived by annualizing weekly expenditure on food and beverages and household monthly living expenditure on items such as rent, energy and clothing. The total annual expenditure was then divided by 12 to arrive at the household's monthly expenditure. Health care expenditures are deemed catastrophic if the expenditure is 10% or more of household income, whereby Catastrophic implies that such expenditure levels are likely to force households to cut their consumption of other minimum needs, trigger productive asset sales or high levels of debt and lead to impoverishment.

The inferential analysis was used to examine household income status and healthcare expenditure affordability. A multiple linear regression model was employed to measure the influence of effective access to and utilization of household healthcare services on the burden of OOP payments as a function of household healthcare options (see **Table 1**). The regression model below aided the analysis.

Table 1. Variable description and measurements.

Variable	Description	Unit of Measurement	Expected effect
Dependent variable			
OOP payments (Y)	The burden of OOP payments as a proportion of the total healthcare expenditures	Percentage (%)	+
Independent variables			
The burden of untreated morbidity (X_1)	Status of the presence of untreated morbidity in the household	Dummy: (1 if present; 0 if otherwise)	±
Medical check-ups limitations (X_2)	Affordability to meet medical check-ups charges	Dummy: (1 if affording; 0 if otherwise)	±
limitations to cover costs of treatments (X_3)	Affordability to meet costs of treatments	Dummy: (1 if affording; 0 if otherwise)	±

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad (1)$$

Whereby;

Y —Dependent variable (The burden of OOP payments).

X —Independent variables such as X_1 (the burden of untreated morbidity), X_2 (Medical check-ups limitations) and X_3 (limitations to cover costs of treatments).

α —Regression constant.

$\beta_1 \dots \beta_3$ —Regression coefficients.

The associations between qualitative variables were assessed using the Chi-Square test. A bivariate analysis was conducted and variables which were significant at a probability value (p-value) equal to or less than 0.05 were selected and included. The bivariate analysis was specified to examine the associations between the sex of the household head and other variables that are coping strategies taken at the household level in response to health care access and usability whereby some likely options are drawing on savings, borrowing money, being paid by the non-household member, being exempted from payment, payment is subsidized (insured) and contribution from group scheme. The bivariate analysis was also specified to examine the associations between the sex of the household head and other variables including utilization, decision-making relating to general and healthcare expenditure, insurance ownership, healthcare payment options, health status and reasons for not seeking. Options were subdivided into dichotomous responses of “0” for no and “1” for yes.

3. Results and Discussion

3.1. Respondents' Demographic and Socio-Economic Characteristics

Based on the information presented in **Table 2(a)** almost 36% and 64% of households in urban areas were FHHs and MHHs, respectively, while in the rural counterpart, about 39% and 61% of households were FHHs and MHHs, respectively. Likewise, household heads for FHHs in rural areas are likely to be less educated as compared to urban areas (12.6% equivalent to 65% of rural FHHs have attained primary education), while for urban areas, household heads in FHHs are more educated (9.2% and 4.85% equivalent to 51.3% and 27% of the total number of FHHs in urban area attained primary and secondary education, respectively). On the other hand, household heads in MHHs are likely to be more educated as compared to FHHs for both urban and rural areas though those in urban areas are more educated than that in rural areas (10.6% and 9.2% equivalent to 37% and 30.2% of total MHHs in urban and rural areas, respectively have attained secondary education). Household heads among FHHs in both urban and rural areas are likely to be widowed (9.7% and 9.71% equivalent to 54.1% and 50% of the total number of FHHs in urban and rural areas, respectively), while for MHHs majority are living with spouses (24.78% and 24.76% equivalent to 77.3% and 81% of total number of MHHs in urban and rural areas, respectively).

On the side of economic status results indicate that household heads among FHHs in urban areas are likely to engage more in petty trading (9.2% equivalent to 51.4 of the total number of FHHs in urban), while for rural area majority are subsistence farmers (15.5% equivalent to 80% of the total number of FHHs in the rural area). On the other side, household heads for MHHs in urban areas are likely to engage in self-employed activities (16.5% equivalent to 51.5% of the total number of urban MHHs) while for rural counterparts they are likely to be subsistence farmers (22.3% equivalent to 73% of the total number of MHHs in the rural area). On average about 82.5% of respondents in both areas seemed to

Table 2. (a). Respondents socio-economic characteristics; (b). respondents' socio-economic characteristics (mean).

Variable	(a)				Total (n = 206)
	Urban		Rural		
	MHHs (n = 66)	FHHs (n = 37)	MHHs (n = 63)	FHHs (n = 40)	
Education level					
None	3 (1.47)	4 (1.96)	13 (6.3)	4 (1.94)	24 (11.65)
Primary education	23 (11.17)	19 (9.22)	27 (13.11)	26 (12.6)	95 (46.12)
Secondary education	22 (10.68)	10 (4.85)	19 (9.2)	8 (3.88)	63 (30.58)
Post-secondary education	18 (8.74)	4 (1.94)	4 (1.94)	2 (0.97)	28 (13.6)
Marital status					
Never married	4 (1.94)	7 (3.4)	2 (0.97)	9 (4.37)	22 (10.68)
Divorced	5 (2.43)	10 (4.85)	3 (1.47)	11 (5.34)	29 (14.08)
Living with spouse	51 (24.76)	0 (0)	51 (24.76)	0 (0)	102 (49.5)
Widowed	6 (2.91)	20 (9.71)	7 (3.4)	20 (9.71)	53 (25.73)
Employment status					
Unemployed/pensioner	1 (0.49)	6 (2.91)	0 (0)	0 (0)	7 (3.4)
Petty trading/hawking	9 (4.37)	19 (9.2)	7 (3.4)	3 (1.47)	38 (18.45)
Formally employed	14 (6.8)	6 (2.91)	6 (2.91)	2 (0.97)	28 (13.6)
Self-employed (artisans)	34 (16.5)	4 (1.94)	4 (1.94)	3 (1.47)	45 (21.84)
Farmer (subsistence)	5 (2.43)	0 (0)	46 (22.3)	32 (15.5)	83 (40.29)
Trader	3 (1.47)	2 (0.97)	0 (0)	0 (0)	5 (2.45)
Land ownership					
Own	54 (26.2)	23 (11.17)	61 (29.6)	40 (19.4)	178 (86.41)
Not own	12 (5.83)	14 (6.8)	2 (0.97)	0 (0)	28 (13.6)
House ownership					
Own	52 (25.24)	21 (10.19)	62 (30.1)	35 (17)	170 (82.5)
Not own	14 (6.8)	16 (7.77)	1 (0.49)	5 (2.45)	36 (17.48)
Type of house					
Mud house	9 (4.37)	6 (2.91)	44 (21.36)	22 (10.68)	81 (39.3)
Brick house	43 (20.87)	15 (7.28)	19 (9.22)	13 (6.31)	90 (43.69)

Note: Figures in brackets are percentages (calculated out of 206 respondents), MHHs (Male Headed Households), FHHs (Female-Headed Households).

(b)

Variable	Urban		Rural	
	MHHs (n = 66)	FHHs (n = 37)	MHHs (n = 63)	FHHs (n = 40)
Average household size (Indv)	5	4	6	6
Average age of HH (Yrs)	47	55	49	56
Average distance to nearest health center (Km)	1.4	1.3	2.1	2.2
Number of household members along age groups				
0 - 17 yrs	159	84	207	129
18 - 59 yrs	184	62	125	88
60 - 69 yrs	15	4	14	8
70+	6	7	11	6

Note: MHHs (Male Headed Households), FHHs (Female-Headed Households), HI (Health Insurance).

own land with slight variation between FHHs and MHHs. About 82.5% of respondents in both areas houses. Households in rural areas seemed to have more ownership of houses as compared to the urban areas although most of the houses are not in good condition. FHHs are more likely to be located in the poorest quintile as the majority of those that own houses are of poor condition (mad houses). The plight of widows in the area has been previously highlighted by Swai et al. (2012), who argued widows have particularly low social and economic status.

The study further disclose that on average, the heads of households for FHHs in both rural and urban areas were older (55 years and 56 years, respectively,) compared to MHHs in both rural and urban (47 years and 49 years, respectively). Generally, urban households are deemed to have smaller household sizes as compared to rural households. FHHs in rural areas have larger household sizes than urban households (6 individuals and 4 individuals for rural and urban households, respectively), while for MHHs household size is smaller in urban area as compared to rural area (5 individuals and 6 individuals for urban and rural households, respectively) (Table 2(b)). Results further indicate that the structure of age groups along FHHs in both rural and urban areas behave in a prism structure whereby the majority fall under 17 years old. This indicates a large proportion of dependence as compared to MHHs in both areas where the majority are found between 18 - 59 years which is a working group.

3.2. Access to and Utilization of Health Care Services in the Area

Results from the study depict further in Table 3 information on access to health services and their distribution among FHHs and MHHs in rural and urban areas. On average about 95.1% of respondents in both areas reported the nearest health center to be government owned. This indicates that the government has tried to some extent to reach people with at least primary health care in their near areas. These results concur with Mpambije (2017) and Maluka (2017) who

Table 3. Household access to health services.

Variables	Urban		Rural		Total (n = 206)
	MHHs (n = 66)	FHHs (n = 37)	MHHs (n = 63)	FHHs (n = 40)	
Type of nearest health center					
Private owned	6 (2.9)	2 (0.97)	0 (0)	0 (0)	8 (3.9)
Government owned	60 (29.1)	35 (17)	63 (30.58)	40 (19.42)	196 (95.1)
Awareness about HI					
Aware	31 (15.04)	18 (8.74)	18 (8.74)	6 (2.9)	73 (35.4)
Not aware	35 (17.0)	19 (9.2)	45 (17.31)	34 (16.5)	133 (64.6)
Status of HI					
Insured	23 (11.17)	11 (5.34)	8 (3.88)	5 (2.43)	47 (22.82)
Not insured	43 (20.9)	26 (12.6)	55 (26.7)	35 (17)	159 (77.2)
Where household members get treatment normally					
Private hospital	6 (2.91)	2 (0.97)	0 (0)	0 (0)	8 (3.9)
Government hospital	60 (29.1)	35 (17)	63 (30.6)	40 (19.42)	198 (96.1)
Key reason for health service option					
Cost affordability	39 (18.93)	26 (12.6)	57 (27.67)	35 (17)	157 (76.2)
Distance covered	27 (13.1)	11 (5.34)	6 (2.9)	5 (2.43)	49 (23.8)

Note: Figures in brackets are percentages (calculated out of 206 respondents), MHHs (Male Headed Households), FHHs (Female-Headed Households), HI (Health Insurance).

also indicate that at the same time, it is suggested that an improvement in the public health care system in terms of quality of care and availability of care will encourage people from seeking care in the public sector and protect them from incurring higher costs and ineffective care in the private sector or failing to seek treatment altogether. Primary health centers need to be improved in terms of resources and quality of care in order to improve the public perception and be the first point of care. Physical access can be achieved through the building of primary health centers in areas that are presently underserved. Properly trained and government-paid community-based health workers may well also be used to increase access to quality health-care services. Unless this occurs, households will continue to seek care at private service facilities.

Results further indicate that about 96.1% of respondents in both areas they do use government-owned health facilities of different levels. There is no significant difference between rural and urban in terms of getting health services from government-owned health facilities. Results also depict that on average about 64.6% of respondents in both urban and rural are not aware of health insurance services. In rural areas, the level of awareness of health insurance is relatively very low as compared to urban counterparts. The study further indicates that of all respondents in both areas, 77.2% are not members of any health insurance service while the situation is more critical in rural areas than the urban counterpart. Al-

though overall health insurance coverage is low, FHHs reported even lower levels of insurance coverage than MHHs in rural area in particular. This indicates that rural areas are lagging behind in accessing information on health services. Also, results show that on average respondents in both areas have chosen government health services because of cost affordability. This indicates that state initiatives have reached some improvement in the provision of affordable services.

3.3. Household Payment Options for Health Care

The study went further to disclose household payment options for health care. Different payment options were examined which are OOP payment, Health insurance, Installments and payment-in-kind. OOP payment was a major source of funding health care expenditure for both MHHs and FHHs in both rural and urban areas (Table 4). FHHs in rural areas reported a relatively high percentage of OOPs as a payment option for health care expenses than FHHs in urban areas (19.42% equivalent to 100% of all respondents and 13.6% equivalent to 75.7% of all respondents from FHHs in rural and urban areas, respectively). In aggregates MHHs reported a relatively high percentage of OOPs as a payment option for health care than FHHs with the highest frequency in the rural area (29.6% equivalent to 96.8% of all respondents and 27.7% equivalent to 86.4% of all respondents from MHHs in rural and urban areas, respectively). Other payment options were reported as insignificantly applicable in both rural and urban areas. These statistics suggest that households are limited to important healthcare payment options like health insurance.

Also, findings from the FGDs show that payment options for households in rural and urban areas have been relying more on OOP:

“We usually pay from pocket whenever illness incidence occurs among any household members, we don't have any other options to use for health matters”—48 years old female (rural) (FHHs). This was also a general claim from female participants in the rural area including FHHs.

“My family is much depending on paying from pocket for health matters, we seldom use health insurance due to several shortcomings associated with it. Generally, insurance services are not well organized in our area; I meant to travel to headquarters at Dodoma City to seek further assistance”—61 years old female (urban) (FHHs). This was also a general claim from female participants in the urban area including FHHs.

“Our family is vulnerable indeed when it comes to paying for health care since we depend on payment from the pocket and eventually we find it as tough as illness events do not report prior occurrence. We heard very little of health insurance service option but we don't know even how it works”—51 years old male (urban) (MHHs). This was also a general claim from male participants in the urban area including MHHs.

“For us low-income families it is a real tedious issue when we face illness incidence since we have to pay from the pocket no otherwise”—59 years old male (rural) (MHHs). This claim was supported by other members of the FGD.

Table 4. Healthcare payment options.

Payment options	Urban		Rural		Total (n = 206)
	MHHs (n = 66)	FHHs (n = 37)	MHHs (n = 63)	FHHs (n = 40)	
OOP payment	57 (27.7)	28 (13.6)	61 (29.6)	40 (19.42)	186 (90.1)
Health insurance	23 (11.2)	11 (5.32)	8 (0.39)	5 (2.43)	47 (22.82)
Instalments	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
In-kind	0 (0)	4 (1.94)	1 (0.49)	0 (0)	5 (2.43)

Note: Figures in brackets are percentages (calculated out of 206 respondents), MHHs (Male Headed Households), FHHs (Female-Headed Households).

3.4. The Burden of Healthcare Expenditure

Results in **Table 5** indicate that FHHs in urban have relatively high average monthly health expenditures compared to rural areas (TZS 61136.2 and TZS 48550.0 for urban and rural areas, respectively). For MHHs, results indicate that urban area has relatively high average monthly expenditure on health than rural area (TZS 58709.7 and TZS 34603.2 for urban and rural areas, respectively).

On the other hand, to understand the cost burden of health care expenditure on households, monthly health care costs as a percentage of household monthly expenditure were examined across households and by the sex of the household head. Results in **Table 5** indicate that the urban area has a relatively higher proportion of average monthly expenditure to total expenditure than its rural counterpart (46.24% and 32.29% for MHHs and FHHs in the urban area, respectively, while for rural counterpart is 27.9% and 34.2% for MHHs and FHHs, respectively). When cost is viewed as a percentage of households' monthly expenditure results further indicate that generally households in both rural and urban areas experience catastrophic burden on health care expenditure since they are more than 10% of household income. Households in both areas use more than 10% of their average monthly income for health expenditures. On average, FHHs are deemed to be vulnerable and more catastrophic on health care burden than MHHs whereby FHHs in rural areas experience relatively highest portion of the catastrophic burden on health care expenditure as compared to any others (35.6% and 25% for FHHs in rural and urban areas, respectively, while on MHHs it is about 21.02% and 15.03% for rural and urban areas, respectively).

These findings imply that although MHHs incurred higher healthcare expenditures, FHHs experienced a higher health cost burden across both urban and rural communities. Based on the FGDs, women attributed ill health to their socioeconomic context. Gendered norms around masculinity were likely to have prevented men from speaking of their health whereas women spoke more freely of their illness experiences. While FHHs reported higher cost burdens than MHHs, both cost burdens were catastrophic according to [Bremam et al. \(2004\)](#) definition of catastrophic expenditure. In addition, FHHs reported higher levels of untreated morbidity than MHHs. This implies that those most vulnerable to catastrophic expenditure do not seek treatment for reasons of affordability.

3.5. Status of Affordability to Health Care Costs

The study went further on examining the status of affordability to costs of health care services along FHHs and MHHs in both rural and urban areas. Health care costs were viewed along with health care services offered which are registration fee, consultation fee, laboratory tests charges, cost of drugs and transport charges. Results in **Table 6** indicate that on average households in both rural and urban areas afford to meet the costs of health care services like registration fees and transport charges (66.5% and 97.1%, respectively). On the other hand, results indicate that households in both rural and urban insignificantly afford to meet the costs of health care services like consultation fees (38.3%), laboratory test charges (26.2%) and costs of drugs (25.2). A closer comparison between urban and rural counterparts along FHHs and MHHs, results indicate that FHHs are more vulnerable in affording costs of health care than MHHs, particularly in the rural area where affordability to health care costs is relatively low in all health care services.

Table 5. Household healthcare catastrophic burden (n = 206).

Variable	Urban		Rural	
	MHHs (n = 66)	FHHs (n = 37)	MHHs (n = 63)	FHHs (n = 40)
Average Monthly household income (TZS)	390606.1	245000.0	164619.1	136650.0
Average monthly household non-health expenditures (TZS)	208257.6	128225.0	89238.1	93550.0
Average monthly household expenditures on health (TZS)	58709.7	61136.2	34603.2	48550.0
Average monthly total expenditure (TZS)	126967.3	189361.2	123841.3	142100.0
Ratio of health expenditures to total expenditure (%)	46.24	32.29	27.9	34.2
Ratio of health expenditures to monthly income (%)	15.03	25.0	21.02	35.6

Note: Healthcare expenditures are deemed catastrophic if they are 10% or more of household income. MHHs (Male Headed Households), FHHs (Female-Headed Households).

Table 6. Affordability to costs of health care services.

Health care services	Urban		Rural		Total (n = 206)
	MHHs (n = 66)	FHHs (n = 37)	MHHs (n = 63)	FHHs (n = 40)	
Registration fee	49 (23.8)	25 (12.1)	45 (21.8)	18 (8.7)	137 (66.5)
Consultation fee	29 (14.1)	14 (6.8)	23 (11.2)	11 (5.3)	79 (38.3)
Laboratory tests charges	19 (9.2)	11 (5.4)	17 (8.3)	7 (3.4)	54 (26.2)
Costs of drugs	20 (9.7)	11 (5.3)	14 (6.8)	7 (3.4)	52 (25.2)
Transport charges	76 (36.9)	39 (18.9)	60 (29.1)	25 (12.1)	200 (97.1)

Note: Figures in brackets are percentages (calculated out of 206 respondents). MHHs (Male Headed Households), FHHs (Female-Headed Households).

Qualitatively, results from FGDs for both FHHs and MHHs in both areas have also indicated that on average FHHs and MHHs in both rural and urban areas experience insignificant status in affordability to health care costs as shown here:

“I normally attend hospital without getting adequate medications because of costs being high in different aspects of health care services, most of the time when I am instructed to take a dose of tablets I normally take half of it as I don’t have enough to pay”—68 years old female (rural) (FHHs). This was also a general claim from female participants in the rural area including FHHs.

“Generally I can’t afford health care costs since most of the time we even postpone to go for deeper medical check-ups because everything is so expensive”—64 years old female (urban) (FHHs). This was also a general claim from female participants in the urban area including FHHs.

“Health care costs are a bit problem in my family as we find a difficult moment when any individual in the household falls sick since it becomes so tough to pay for several health care services, most of the time we even find ourselves being delayed to attend medication on time, eventually we usually fail to accomplish treatments requirements as instructed by health personnel because of costs”—49 years old male (rural) (MHHs). This claim was supported by other members of the FGD

“To me, health care expenses now days is a threat to my household. We are forced to skip to attend medication for some of the sickness incidences because of unaffordability to health care costs”—56 years old male (urban) (MHHs). This was also a general claim from male participants in the urban area including MHHs.

3.6. Influence of Practices on Access to and Utilization of Healthcare Services on OOP

The study envisaged a further analysis on gauging how practices on access to and utilization of healthcare services influence OOP healthcare expenditure among households in both urban and rural areas. Results from **Table 7** indicate that independent variables included in the model were good predictors of OOP healthcare expenditure among households in both rural and urban areas. About 71% of variations in OOP health care expenditure among households were due to variations in independent variables included in the model. Results further indicate that independent variables included in the model collectively had a significant influence on OOP healthcare expenditure among households ($F = 91.07$, $P < 0.001$). Results for the t-test indicate OOP health care expenditure among households had a significant relationship with untreated morbidity ($t = 4.63$, $P < 0.001$), medical check-ups ($t = 6.33$, $P < 0.001$) and covering costs of treatments ($t = 5.00$, $P < 0.001$).

Results in **Table 7** further indicate that holding all factors included in the model at constant the burden of OOP among households in both rural and urban areas

Table 7. Regression analysis for the relationship between OOP healthcare costs and practices on access to and utilization of healthcare services.

Independent variable	B	Standard error (SE)	t-value	Sig.
Constant	8.90	1.18	2.19	0.031
Untreated morbidity	0.079	8.34	4.63	0.000***
Medical check-ups	0.096	4.02	6.33	0.000***
Covering costs of treatments	0.087	7.23	5.00	0.003***

$R^2 = 0.71$; F-value = 91.07, $P < 0.001$, *Dependent variable: The burden of OOP.*

will on average stand at 8.9% which could be indicating a non-catastrophic burden. This concurs with the study done by Brinda et al. (2014) who also indicate that out-of-pocket expenditures influence inequality in health services access and utilization in many low and middle-income countries. Various antecedents such as social factors, poor health and economic factors are proposed to direct the choice of healthcare service use and incurring out-of-pocket payment.

A closer examination of the description of results on the regression coefficient of untreated morbidity in Table 7 indicates that holding other factors unchanged, a unit increase in untreated morbidity cases among households in both areas will increase the burden of OOP among households by 0.079 units. These results suggest that a rise in untreated morbidity cases among households is a true reflection of households being in encountering of OOP health care burden. These results coincide with Manzi et al. (2005) who found evidence that out-of-pocket payments were on average Tshs.110.1 when care was sought at government primary health care facilities running a cost-sharing scheme, about 15 times higher than in those not part of the scheme.

Also, from the description of the regression coefficient of affordability to medical check-ups, it has been depicted from the results that holding other factors unchanged, a unit increase in non-affordability cases to medical check-ups among households in both areas will cause an increase in the burden of OOP among households by 0.096 units. These results suggest that an increase in the proportion of failure of households in attending medical check-ups is an indication of the growing burden of OOP among households in both areas. These results concur with both Brinda et al. (2014) and Prinja et al. (2019) who reveal that out-of-pocket health expenditures leave households exposed to the risk of financial catastrophe and poverty, whenever they entail significant dissaving, borrowing or the sale of key household assets.

Moreover, results on the coefficient of ability to cover costs of treatments among households in Table 8 reveal that holding other factors unchanged, a unit increase in cases for unaffordability to cover costs of treatments among households will cause an increase in the burden of OOP among households by 0.087 units. These results suggest that an increase in vulnerabilities in meeting costs of treatments among households in both areas is an indication of experiencing increasing in the burden of OOP. These results comply with Sahu (2014)

who indicates that various antecedents such as social factors, poor health and economic factors are proposed to direct the choice of healthcare service use and incurring out-of-pocket payment.

Table 8. Household health care financing copying strategies.

Copying strategies	Urban (n = 103)	Rural (n = 103)	χ^2 - Value
Drawn on savings			
-MHHs (Adopted)	7 (6.80%)	9 (8.74%)	3.65 ^{NS}
(Not adopted)	59 (57.28%)	54 (52.43%)	
-FHHs (Adopted)	4 (3.88%)	6 (5.83%)	
(Not adopted)	33 (32.04%)	34 (33.01%)	
Borrowing money			
-MHHs (Adopted)	55 (53.40%)	46 (44.66%)	46.62 ^{***}
(Not adopted)	11 (10.68%)	17 (16.50%)	
-FHHs (Adopted)	28 (27.14%)	29 (28.16%)	
(Not adopted)	9 (8.74%)	11 (10.68%)	
Being paid by non-household members			
-MHHs (Adopted)	13 (12.62%)	14 (13.59%)	4.12 ^{NS}
(Not adopted)	53 (51.46%)	49 (47.57%)	
-FHHs (Adopted)	6 (5.83%)	13 (12.62%)	
(Not adopted)	31 (30.40%)	27 (26.21%)	
Being exempted from payments			
-MHHs (Adopted)	8 (7.77%)	11 (10.68%)	3.28 ^{NS}
(Not adopted)	58 (56.31%)	52 (50.49%)	
-FHHs (Adopted)	7 (6.80%)	9 (8.73%)	
(Not adopted)	30 (29.13%)	31 (30.10%)	
Payment is subsidized (Insured)			
-MHHs (Adopted)	23 (22.33%)	8 (7.77%)	1.047 ^{NS}
(Not adopted)	43 (41.75%)	55 (53.40%)	
-FHHs (Adopted)	11 (10.68%)	5 (4.85%)	
(Not adopted)	26 (25.24%)	35 (33.98%)	
Contribution from group scheme			
-MHHs (Adopted)	5 (4.85%)	8 (7.77%)	1.65 ^{NS}
(Not adopted)	61 (59.22%)	55 (53.40%)	
-FHHs (Adopted)	4 (3.88%)	7 (6.80%)	
(Not adopted)	33 (32.04%)	33 (32.04%)	

NS, **, *** = Non-significant, Significant at ($P < 0.01$) and Significant at ($P < 0.001$).
Note: Figures in brackets are percentages (calculated from the number of respondents in rural and urban). MHHs (Male Headed Households), FHHs (Female-Headed Households), HI (Health Insurance).

3.7. Household Coping Strategies for Health Care Financing

The study went further to examine some coping strategies adopted by households during the incidence of illness. Results in **Table 8** indicate that in the event of illness, borrowing money was the main strategy which was significantly applicable ($X^2 - 46.62, P < 0.001$) in both rural and urban areas among both FHHs and MHHs (27.14% and 28.16% equivalent to 72.7% and 75.5% of total number of FHHs in urban and rural areas, respectively, 53.4% and 44.66% equivalent to 83.3% and 73% of MHHs included in urban and rural areas, respectively). Other strategies tested like drawing on savings, being paid by non-household members, being exempted from payments, subsidized (insured) payments and contributions from group schemes were not significant ($P > 0.05$).

The important role of borrowing from informal or social network sources (friends, neighbours, relatives) as a coping strategy has been identified elsewhere by Albanesa et al. (2017) and this was mainly reported by both MHHs and FHHs in both rural and urban areas. Also, borrowing is viewed as much more readily available to households which have fairly well-off friends and who are less likely to hold up repayment (Eze et al., 2022; Özer, 2023). Although borrowing from informal structures is considered a low-risk tactic, borrowing from semi-formal structures like money lenders and associations is viewed as the most unfavourable source of funds and can have negative implications for a household's economic and social position due to the high-interest rates charged particularly if debts are not repaid on time (Rahman et al., 2022). This has important implications for treatment-seeking and affordability particularly for FHHs in this study due to their socioeconomic status.

Qualitatively, results from FGDs for both FHHs and MHHs in both areas have also indicated that households usually borrow money in the event of illness to cover healthcare costs. The money is borrowed from preferred friends and from money lenders.

“We get money from lenders at the instance of illness. Since the death of my husband, I find it difficult to cover health care costs. Contributions from children are always not enough, thus we have to borrow not otherwise”—69 years old female (urban) (FHHs). This was also a general claim from female participants in the urban area including FHHs.

“We usually borrow money to attend health care, there is no option especially when a serious illness incidence occurs among family members. We have to borrow from good friends or relatives and if they don't have there is no way out rather than facing lenders who usually demand collateral plus interest charges. We have to repay when we sell farm harvests or domestic animals”—59 years old female (rural) (FHHs). This was also a general claim from female participants in the rural area including FHHs.

“We normally borrow from near friends and other moments from “interest people” (money lenders) but it is the worst due to the possibility of losing your collateral and the high interest they charge”—36 years old male (ur-

ban) (MHHs). This was also a general claim from male participants in the urban area including MHHs.

“It has been so tough especially when serious illness incidence occurs. Last month we had to face Mr. Mkwasi who is lending at interest charges. We had no other to borrow or get alternative money for treatments. We had to repay for instalments and as I am speaking to the moment we hadn’t cleared yet”—59 years old male (rural) (MHHs). This claim was supported by other members of the FGD.

Coping strategies for re-paying health-related debts both men and women reported that in the event of debt arising from healthcare payments, several coping strategies are employed by households. Male and female participants in rural areas reported increasing farming activities to generate more revenue to pay back the loans:

“When my family fall under health-related debts we have to increase more farming for us to manage at least to pay back otherwise it is too hard to pay back based on our economic vulnerabilities”—54 years old male (rural) (MHHs).

“When we are under debt as a result of health care costs we have to sell some crops from the farm and if they are not adequate we have to work as labourers at the farm of the creditor”—56 years old female (rural) (FHHs).

“Sometimes we need to reduce meal ratio per day for instant eating twice a day for the sake of soliciting a balance for repaying back health cost debts”—62 years old female (urban) (FHHs). This was also a general claim from female participants in the urban area including FHHs.

An important finding relates to the strategies employed to pay back health-care-related debt. Although both MHHs and FHHs in urban and rural areas reported arduous strategies (e.g. household heads or children leaving home to work on the farms of the creditor), the desperation of women and particularly widows who reported working on construction sites to eke out a living in order to repay debt and also cutting back on consumption is concerning. This has dire consequences for their health status and in turn contributes to a high illness burden which will require care hence triggering the “medical poverty trap” as inferred by [Ebaidalla and Ali \(2019\)](#).

3.8. The Gendered Patterns of Household Decisions on Healthcare Expenditure

The study envisaged exploring gendered patterns of household decisions on health care expenditure. The intention was to examine whether there are inclusive household decisions among households when it comes to health care expenditure. Different parameters of health care expenditure were tested to see patterns of decision-making at the household level. These parameters were utilization, out-of-pocket expenditure, insurance ownership, health care payment options and seeking health care (waiting days). Results in [Table 9](#) indicate that

among households in both urban and rural areas, there is significant inclusion of all household members especially both male and female members when it comes to decisions on health care matters. Results indicate that all parameters of health care measured in both rural and urban households were significant in terms of inclusive decisions on health care matters. Inclusive decisions on health care matters among FHHs and MHHs in both rural and urban areas were significantly associated with utilization ($\chi^2 - 49.65, P < 0.001$), out-of-pocket expenditure ($\chi^2 - 36.62, P < 0.05$), insurance ownership ($\chi^2 - 28.28, P < 0.05$), health care payment options ($\chi^2 - 48.28, P < 0.001$) and seeking health care/waiting days ($\chi^2 - 35.62, P < 0.05$).

Table 9. The gendered patterns of household decisions on healthcare expenditure.

Variable	Urban (n = 103)	Rural (n = 103)	χ^2 - Value
Utilization			
-MHHs (Inclusive)	49 (47.57%)	41 (39.81%)	49.65***
(Exclusive)	17 (16.50%)	22 (21.36%)	
-FHHs (Applicable)	28 (27.18%)	36 (34.95%)	
(Exclusive)	9 (8.74%)	4 (3.88%)	
OOP expenditure			
-MHHs (Inclusive)	35 (33.98%)	38 (36.89%)	36.62**
(Exclusive)	31 (30.10%)	25 (24.27%)	
-FHHs (Inclusive)	29 (28.16%)	38 (36.89%)	
(Exclusive)	8 (7.77%)	2 (1.94%)	
Insurance ownership			
-MHHs (Inclusive)	19 (18.45%)	28 (27.18%)	28.28**
(Exclusive)	47 (45.63%)	35 (33.98%)	
-FHHs (Inclusive)	32 (31.07%)	27 (26.21%)	
(Exclusive)	5 (4.85%)	13 (12.62%)	
Health care payment options			
-MHHs (Inclusive)	45 (43.69%)	50 (48.54%)	48.28***
(Exclusive)	21 (20.39%)	16 (15.53%)	
-FHHs (Applicable)	33 (32.04%)	34 (33.01%)	
(Exclusive)	4 (3.88%)	3 (2.91%)	
Seeking health care (waiting days)			
-MHHs (Inclusive)	38 (36.89%)	31 (30.10%)	35.62**
(Exclusive)	28 (27.18%)	35 (33.98%)	
-FHHs (Inclusive)	31 (30.10%)	35 (33.98%)	
(Exclusive)	6 (5.83%)	5 (4.85%)	

NS, **, *** = Non-significant, Significant at ($P < 0.01$) and Significant at ($P < 0.001$).

Note: Figures in brackets are percentages (calculated from the number of respondents in rural and urban). MHHs (Male Headed Households), FHHs (Female-Headed Households), HI (Health Insurance).

Qualitatively, results from FGDs for both FHHs and MHHs in both areas have also indicated that households normally have inclusive decisions when it comes to matters patterning health care options.

“We conduct the household meeting when an illness incidence occurs among household members and it is from there all decisions patterning health issues are reached. When a serious illness occurs abruptly we have to coordinate immediately for relevant health care options”—63 years old male (urban) (MHHs). This was also a general claim from male participants in the urban area including MHHs.

“We discuss as a family matters patterning health care options. It happens rarely that a decision is reached by me as a household head, especially on some illness cases that happen abruptly, however, we later reconcile as a family”—46 years old male (rural) (MHHs). This was also a general claim from male participants in the rural area including MHHs.

“For us who are widowed, it is important that I as a household head coordinate consensus among family members for relevant health care options to take. Rarely do I decide on behalf of other household members depending on the context of health incidence”—67 years old female (urban) (FHHs). This was also a general claim from female participants in the urban area including FHHs.

“Health matters are so inclusive, not only at the household level but sometimes to neighbours and relatives especially for serious illness incidence. However, at the family we usually share in reaching decisions on health options”—54 years old female (rural) (FHHs). This was also a general claim from female participants in the rural area including FHHs.

4. Conclusion and Recommendations

This study examined the effects of out-of-pocket Health Expenditures (OOPHE) on household health access with a comparative analysis between male- and female-headed households of different income levels. The findings revealed that, OOP payment was a major source of funding health care expenditure for both MHHs and FHHs in both rural and urban areas. Of all respondents in both areas, 77.2% are not members of any health insurance service while the situation is more critical in rural areas than urban counterparts. FHHs in rural areas reported a relatively high percentage of OOPs as a payment option for health care expenses than FHHs in urban areas. FHHs in urban have relatively high average monthly health expenditures compared to rural areas. For MHHs results indicated that urban area has relatively high average monthly expenditure on health than rural area. The urban area has a relatively higher proportion of average monthly expenditure to total expenditure than their rural counterpart. Households in both rural and urban areas experience catastrophic burdens on health care expenditure since they are more than 10% of household income. FHHs are deemed to be vulnerable and more catastrophic on health care burden than

MHHs whereby FHHs in rural areas experience relatively highest portion of the catastrophic burden on health care expenditure. On average households in both rural and urban areas afford to meet the costs of health care services like registration fees and transport charges. Households in both rural and urban insignificantly afford to meet the costs of health care services like consultation fees, laboratory test charges and costs of drugs. FHHs are more vulnerable in affording costs of health care than MHHs, particularly in rural areas where affordability to health care costs is relatively low in all health care services.

With regard to the relationship between OOP healthcare costs and practices on access to and utilization of healthcare services, the finding indicated that all independent variables included in the model were good predictors of OOP healthcare expenditure among households in both rural and urban areas. Results for the t-test indicated OOP health care expenditure among households to have a significant positive relationship with untreated morbidity, medical check-ups and covering costs of treatments. Furthermore, the findings indicated that borrowing money was the main strategy which was significantly applicable in both rural and urban areas among both FHHs and MHHs. Strategies used to repay health-related debts in rural areas are increasing farming, selling crops and working as labourers to creditors farms, while on urban counterpart the strategy commonly used is reducing meal ratio and other daily expenditures. On the other hand, the results revealed that among households in both urban and rural areas, there is a significant inclusion of all household members, both male and female, when it comes to decisions on health care issues across all parameters assessed which were utilization, out-of-pocket expenses, insurance ownership, health care payment options, and health care seeking (waiting days).

Based on the findings, the study recommends that: first, health insurance should work closely with communities particularly women who are more vulnerable to health-related challenges as women seemed to experience more vulnerability to illness and a high rate of untreated morbidity. Second, the government should consider the rural poor as a vulnerable group through pro-poor policies, especially in health services provision. Towards the formulation of universal health insurance among all Tanzanians there must be a keen consideration of affordability to health care costs among people in rural areas especially for FHHs who are more at risk because of economic vulnerability. Third, this study provides evidence that efforts to protect the poor from the negative impact of PBOs and that positive measures to improve a household's socioeconomic status are needed, including activities that help households restore, improve and maintain income, and build savings and wealth. These efforts should abide by subsidizing health care costs, especially to FHHs whose members are experiencing a wider proportion of catastrophic burden on health care costs as a result of their economic vulnerability. Finally, the study suggests interventions such as support for microfinance programs that provide finance to small and medium enterprises and offer ways to encourage people to save weekly or monthly, which focus on FHH

and widows in particular, are key to ensuring access to health care and protection from catastrophic costs. Furthermore, the quality of government health spending should be improved by enhancing budget execution performance and better monitoring of public expenditure.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Albanesa, S. N., Ekirapa, E. K., Peterson, S., Okui, O., Rahman, M. H. et al. (2017). Access to and Utilisation of Health Services for the Poor in Uganda: A Systematic Review of Available Evidence. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 102, 1067-1074. <https://doi.org/10.1016/j.trstmh.2008.04.023>
- Asante, A., Wasike, W. S. K., & Ataguba, J. E. (2020) Health Financing in Sub-Saharan Africa: From Analytical Frameworks to Empirical Evaluation. *Applied Health Economics and Health Policy*, 18, 743-746. <https://doi.org/10.1007/s40258-020-00618-0>
- Boex, J., Fuller, L., & Malik, A. (2015). *Decentralized Local Health Services in Tanzania*. Urban Institute. <https://www.urban.org/sites/default/files/publication/51206/2000215-Decentralized-Local-Health-Services-in-Tanzania.pdf>
- Breman, J. G., Alilio, M. S., & Mills, A. (2004). Conquering the Intolerable Burden of Malaria: What's New, What's Needed: A Summary. *American Journal of Tropical Medicine and Hygiene*, 71, 1-15. https://doi.org/10.4269/ajtmh.2004.71.2_suppl.0700001
- Brinda, E. M., Andrés, R. A., & Enemark, U. (2014). Correlates of Out-of-Pocket and Catastrophic Health Expenditures in Tanzania: Results from a National Household Survey. *BMC International Health and Human Rights*, 14, Article No. 5. <https://doi.org/10.1186/1472-698X-14-5>
- Ebaidalla, E. M., & Ali, M. E. M. (2019). Determinants and Impact of Household's Out-of-Pocket Healthcare Expenditure in Sudan: Evidence from Urban and Rural Population. *Middle East Development Journal*, 11, 181-198. <https://doi.org/10.1080/17938120.2019.1668163>
- Eze, P., Lawani, L. O., Agu, U. J., Amara, L. O., Okorie, C. A., & Acharya, Y. (2022). Factors Associated with Catastrophic Health Expenditure in Sub-Saharan Africa: A Systematic Review. *PLOS ONE*, 17, e0276266. <https://doi.org/10.1371/journal.pone.0276266>
- Furuta, M., & Salway, S. (2006). Women's Position within the Household as a Determinant of Maternal Health Care Use in Nepal. *International Family Planning Perspectives*, 32, 17-27. <https://doi.org/10.1363/3201706>
- Gulamhussein, M. A., Sawe, H. R., Kilindimo, S. et al. (2023). Out-of-Pocket Cost for Medical Care of Injured Patients Presenting to Emergency Department of National Hospital in Tanzania: A Prospective Cohort Study. *BMJ Open*, 13, e063297. <https://doi.org/10.1136/bmjopen-2022-063297>
- Kitole, F. A., Lihawa, R. M., & Mkuna, E. (2023). Equity in the Public Social Healthcare Protection in Tanzania: Does It Matter on Household Healthcare Financing? *International Journal for Equity in Health*, 22, Article No. 50. <https://doi.org/10.1186/s12939-023-01855-0>
- Lee, B., Tarimo, K., & Dutta, A. (2018). *Tanzania's Improved Community Health Fund:*

- An Analysis of Scale-up Plans and Design*. Health Policy Plus.
http://www.healthpolicyplus.com/ns/pubs/10259-10469_TanzaniaiCHFSscaleUpbrief.pdf
- Leive, A., & Xu, K. (2015). Coping with Out-of-Pocket Health Payments: Empirical Evidence from 15 African Countries. *Bulletin of the World Health Organization*, 86, 849-856.
<https://doi.org/10.2471/BLT.07.049403>
- Maluka, S. (2017). *Primary Healthcare Systems (PRIMASYS) Comprehensive Case Study from United Republic of Tanzania*. World Health Organization.
<http://apps.who.int/bookorders>
- Manzi, F., Schellenberg, J. A., Adam, T. et al. (2005). Out-of-Pocket Payments for under Five Health Care in Rural Southern Tanzania. *Health Policy and Planning*, 20, i85-i93.
<https://doi.org/10.1093/heapol/czi059>
- Manzi, Y., Selvaraj, S., & Subramanian, S. V. (2014). Health Care and Equity in India. *The Lancet*, 377, 505-515. [https://doi.org/10.1016/S0140-6736\(10\)61894-6](https://doi.org/10.1016/S0140-6736(10)61894-6)
- Masanyiwa, Z. S, Niehof, A., & Termeer, C. J. A. M (2013). A Gendered Users' Perspective on Decentralized Primary Health Services in Rural Tanzania. *The International Journal of Health Planning and Management*, 30, 285-306.
<https://doi.org/10.1002/hpm.2235>
- Morgan, R., Ayiasi, R. M., Barman, D. et al. (2018). Gendered Health Systems: Evidence from Low- and Middle-Income Countries. *Health Research Policy and Systems*, 16, Article No. 58. <https://doi.org/10.1186/s12961-018-0338-5>
- Mpambije, C. J. (2017). Decentralisation of Health Systems and the Fate of Community Health Fund in Tanzania: Critical Review of High and Low Performing Districts. *Science Journal of Public Health*, 5, 136-144. <https://doi.org/10.11648/j.sjph>
- Özer, M. (2023). Socioeconomic Determinants of Out-of-Pocket Health Care Expenditures in Turkey. *Fiscaoeconomia*, 7, 1196-1211.
<https://doi.org/10.25295/fsecon.1239845>
- Peters, D. H., Garg, A., Bloom, G., Walker, D. G., Brieger, W. R., & Rahman, M. H. (2008). Poverty and Access to Health Care in Developing Countries. *Annals of the New York Academy of Sciences*, 1136, 161-171. <https://doi.org/10.1196/annals.1425.011>
- Prinja, S., Jagnoor, J., Sharma, D. et al. (2019). Out-of-Pocket Expenditure and Catastrophic Health Expenditure for Hospitalization due to Injuries in Public Sector Hospitals in North India. *PLOS ONE*, 14, e0224721.
<https://doi.org/10.1371/journal.pone.0224721>
- Rahman, T., Gasbarro, D., & Alam, K. (2022). Financial Risk Protection from Out-of-Pocket Health Spending in Low- and Middle-Income Countries: A Scoping Review of the Literature. *Health Research Policy and Systems*, 20, Article No. 1.
<https://doi.org/10.1186/s12961-022-00886-3>
- Sahu, K. S. (2014). *Out of Pocket Health Expenditure in Maternal and Neonatal Health and Coping Strategy in Urban Slum of Bhubanesura, Odisha*. MSc. Thesis, Achutha Menon Centre for Health Science Studies.
- Swai, O. W., Mbwambo, J. S., & Magayane, F. T. (2013). Gender and Perception on Climate Change in Bahi and Kondoa Districts, Dodoma Region, Tanzania. *Journal of African Studies and Development*, 4, 218-231. <https://doi.org/10.5539/jsd.v5n12p65>
- UNICEF (2020). *Health Budget Brief 2020, Tanzania Mainland*. UNICEF.
<https://www.unicef.org/esa/media/8416/file/UNICEF-Tanzania-Mainland-2020-Health-Budget-Brief.pdf>
- UNIFEM (2018). *Women, Poverty and Economics. UN Women and Gender Issues*. UNICEF.

- USAID (2015). *Prospects for Sustainable Health Financing in Tanzania: Baseline Report*. https://www.healthpolicyproject.com/pubs/788_ProspectforSustainableHealthFinanciFINAL.pdf
- Van Wijk, C. M. T. G., van Vliet, K. P., & Kolk, A. M. (1996). Gender Perspectives and Quality of Care: Towards Appropriate and Adequate Health Care for Women. *Social Science and Medicine*, 43, 707-720. [https://doi.org/10.1016/0277-9536\(96\)00115-3](https://doi.org/10.1016/0277-9536(96)00115-3)
- Whitehead, M., Dahlgren, G., & Evans, T. (2016). Equity and Health Sector Reforms: Can Low-Income Countries Escape the Medical Poverty Trap? *The Lancet*, 358, 833-836. [https://doi.org/10.1016/S0140-6736\(01\)05975-X](https://doi.org/10.1016/S0140-6736(01)05975-X)
- WHO (2016). *Women's Health: A Strategy for the African Region*. World Health Organization.
- WHO (2019). *Out-of-Pocket Payments, User Fees and Catastrophic Expenditure*. http://www.who.int/health_financing/topics/financial-protection/out-of-pocket-payments/en/
- WHO (2020). World Health Statistics 2020: Monitoring Health for the SDGs, Sustainable Development Goals. World Health Organization. <https://apps.who.int/iris/handle/10665/332070>
- Xu, K., Evans, D. B., Kawabata, K., Zeramdini, R., Klavus, J., & Murray, C. J. (2003). Household Catastrophic Health Expenditure: A Multicountry Analysis. *Lancet*, 362, 111-117. [https://doi.org/10.1016/S0140-6736\(03\)13861-5](https://doi.org/10.1016/S0140-6736(03)13861-5)