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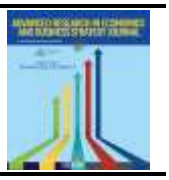

Unlocking Healthcare Access: The Impact of Cash Transfers on Household Service Utilization in Tanzania

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ABSTRACT

This study examines the influence of cash transfer programs on healthcare service utilization among households in Tanzania, with a focus on how cash transfers impact access to essential health services. Drawing on data from various households, the study explores the relationship between cash transfer amounts, disbursement mechanisms, waiting times, and healthcare access. Using Andersen's Healthcare Services Utilization Model as a theoretical framework, along with the Social Risk Management (SRM) Framework, the research highlights the role of financial support as an enabling factor in improving health outcomes. The study is a cross-sectional design and used an ordered Probit regression model to examine how Cash Transfers affect households' use of healthcare services. The findings reveal that timely and sufficient cash transfers significantly increase healthcare service utilization, particularly for maternal and child health services. Households receiving larger cash transfers and accessing funds through direct or mobile payments were more likely to seek medical care. However, delays in cash disbursement and high transaction costs hindered healthcare access for some households. The study concludes that effective cash transfer programs can be crucial in bridging healthcare gaps, especially in low-income and vulnerable populations. Policy recommendations include improving cash transfer delivery mechanisms and ensuring timely disbursement to enhance healthcare access in Tanzania.

Keywords: Cash transfers, Healthcare utilization, Households, Poverty

JEL codes: I31, O17

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1. INTRODUCTION

In most developing countries, cash transfer was identified as a major driving force toward poverty reduction, especially during the Sustainable Development Goals (SDG 1) implementation (Kitole & Sesabo, 2024). Through social protection mechanisms, cash transfers improve a household's well-being by ensuring human capital development (Brenyah & Domfe, 2019). However, in various countries such as South Africa, Zambia, Ghana, Mexico and Brazil, cash transfer was also identified as a tool for ensuring financial risk protection, access to quality essential healthcare services and access to safe, effective quality and affordable essential medicines and vaccines for all households on the way to implementation of SDG 3 (Kwasi & George, 2019).

Health services utilization is a challenging area where inadequate healthcare results in various negative consequences, including a higher infant mortality rate and various deaths associated with a higher level of stunting and malnutrition (Mboera et al., 2021). In addressing these challenges, the cash transfer Programme was introduced to supplement the provision of cash in areas prone to inadequate health services utilization. Since the health sector is one of the leading areas discussed in the world (United Nations), which introduced Sustainable Development Goals to reduce the problem associated with health outcomes of individuals and other areas, this was indicated in Sustainable Development Goal number 3, which aims to ensure all individuals have access to good health and well-being, followed by goal number 4, which aims to ensure access to education (UN, 2018). The use of a cash transfer is significant in developing countries in reducing the problems associated with health services utilization (Strader et al., 2020).

Global studies suggest that cash transfer programs can positively influence healthcare utilization. Research conducted in countries like Brazil, Mexico, and Kenya has shown that these programs increase the utilization of healthcare services among targeted populations (Cooper et al., 2020). They have been found to enhance access to preventive care, antenatal and postnatal care, immunizations, and treatment for various health conditions.

To increase healthcare services utilization across households in Tanzania, the government introduced several initiatives, including the cash transfer scheme, The Community Health Fund, also known as "Jamii Bora," was established to provide affordable and accessible healthcare services to low-income individuals and households. It aimed to improve health coverage by subsidizing healthcare costs and providing financial protection against catastrophic health expenses. However, cash transfer has proven to increase healthcare utilization, food security and education enrollment among households in Tanzania (WHO, 2019).

Currently, despite these initiatives made to improve access to health services and utilization in Tanzania, statistics indicated that over 40% of the households visit health facilities for their own diagnostic, and the most common type of health facility visited was a public dispensary, followed by 21% of households visiting a pharmacy for their treatment. It is also indicated that about 64% of households use out-of-pocket expenditure for health visits and health services, and most are financially constrained, making it difficult to access health services (Green, 2021; Dimoso & Andrew, 2021). However, statistics indicate that nine regions in Tanzania have a high level of chronic malnutrition that exceeds 40% (TDHS, 2015/2016), with Njombe being the leading region with a high prevalent stunting level among children aged

0 to 59 months which increased from 51.5% in 2016 to 53.6% in 2018 as compared to other regions in which stunting level is low (TNNS, 2018).

In this case, the stunting level is associated with several factors, including inadequate dietary intake and diseases, household food security, inadequate care and feeding practices, an unhealthy household environment, and inadequate health service utilization. In the Njombe district, statistics indicate that healthcare utilization services are about 81% involving the availability of health facilities and expertise. But the attendance of households to access and utilize health services is about 44% (DHIS, 2021). This is associated with a number of constraints among households, such as perception of healthcare services utilization and other socio-economic factors (Holtemeyer & Kosec, 2019).

Limited research has been conducted globally to examine the relationship between cash transfer programs and healthcare utilization. In Tanzania specifically, there have been a few studies on this topic (Evans et al., 2014; Evans, Holtemeyer & Kosec, 2016; McCoy et al., 2017; Evans, Holtemeyer & Kosec, 2019). These studies primarily focused on the coverage of healthcare services and the enrollment in health insurance programs, but they did not explore in depth how cash transfers impact the utilization of healthcare services. It is worth noting that approximately one-third of Tanzania's population faces challenges accessing healthcare due to the high costs involved. Therefore, this study seeks to answer the central research question of the study:

RQ_1: What is the effect of cash transfers on the utilization of health services in Tanzania?
The study adds to the literature and contributes to the continuing debate regarding cash transfer and the effect of cash transfer on healthcare services utilization. The findings of this study will also help the government and development practitioners design appropriate interventions to assist household heads in Accessing healthcare services across Tanzania using cash transfers.

2. LITERATURE REVIEW

The relationship between cash transfers and healthcare utilization has been explored in a wide range of studies, many of which draw upon foundational theories such as Andersen and Newman's Healthcare Services Utilization Model and the Social Risk Management (SRM) Framework. Andersen and Newman's model posits that healthcare utilization is influenced by three main factors: predisposing factors, need, and enabling factors. However, this model does not account for external financial assistance, such as cash transfers, as a determinant of healthcare access. To address this gap, this study adapts components of Andersen's model, particularly focusing on cash transfers as enabling factors, to examine how they influence healthcare utilization among recipients of social protection programs like Tanzania's TASAF initiative.

The Social Risk Management Framework, as outlined by Devereux et al. (2004), highlights the role of social transfers in enabling households to manage risks and enhance their economic well-being. Cash transfers, according to this framework, allow households to invest in productive activities and mitigate unforeseen risks, including healthcare shocks. Several studies have supported the argument that cash transfers enable households to improve healthcare access by reducing financial barriers. For instance, Ezenwaka et al. (2021) found that conditional cash transfers in Nigeria significantly increased attendance at maternal and child health services, removing financial barriers for pregnant women. Similarly, Shei et al.

(2016) demonstrated that conditional cash transfers in Brazil increased the likelihood of children accessing preventive health services. These studies affirm that cash transfers directly enhance healthcare access, particularly among vulnerable groups.

Empirical research has also demonstrated that the cost of accessing cash can significantly affect healthcare utilization. Prasad and Santhanam (2020) identified a negative relationship between the cost of accessing cash transfers and healthcare utilization, indicating that higher transaction costs reduce the likelihood of households seeking medical care. Rasella et al. (2021) also found that low cash access costs and sustained coverage of conditional cash transfers contributed to reducing maternal mortality and health inequities in Brazil. These findings align with Van Daleen et al. (2022), who conducted a study in Kenya and revealed that the costs associated with accessing cash transfers directly influence healthcare utilization rates. When access costs are minimized, households are more likely to use the funds for healthcare services.

The waiting time for cash disbursement is another critical factor influencing healthcare utilization. Tong et al. (2018), in their study on China's rural healthcare system, revealed that longer waiting times for cash disbursement were associated with a lower likelihood of individuals seeking medical care. In contrast, Jambhekar et al. (2016) showed that reducing waiting times for cash disbursement led to increased patient satisfaction and higher healthcare utilization in India. These findings underscore the importance of timely disbursement in cash transfer programs, particularly in the context of healthcare. Bastagli et al. (2019) further revealed that an adequate timeline for cash transfers improved healthcare access by minimizing delays in visits, while Sub et al. (2021) confirmed that the timeliness of mobile-based cash transfers significantly influenced healthcare utilization in Kenya.

The type of cash transfer mechanism also plays a crucial role in determining healthcare utilization. Several studies have shown that different disbursement mechanisms affect how households utilize healthcare services. Aker et al. (2016) conducted a study on the impact of various cash transfer delivery mechanisms in Niger and revealed that households receiving cash via mobile money were more likely to access healthcare than those receiving cash through other means. In Togo, Tossou (2021) found that the use of mobile money services for cash transfers significantly increased healthcare utilization among recipient households. However, the use of mobile transfer mechanisms is not without challenges. Van Daleen et al. (2022) and Aker et al. (2016) both highlight that the efficiency of mobile transfers in facilitating healthcare access is influenced by factors such as network coverage and digital literacy. Despite these challenges, mobile-based cash transfers remain a viable and impactful method of improving healthcare utilization, particularly in rural and underserved areas.

The amount of cash transferred is another key determinant of healthcare utilization. Studies show that the larger the amount of cash transferred, the more likely households are to invest in healthcare services. For instance, Haushofer and Shapiro (2016) found that higher cash transfer amounts significantly increased healthcare spending in Kenya, particularly among low-income households. Similarly, Angeles et al. (2019) demonstrated that larger cash transfers in Zambia's Child Grant Program were associated with increased healthcare visits for children, particularly for preventive health services. These findings are echoed by Barham and Maluccio (2009), who observed that larger cash transfers in Nicaragua's social protection programs were directly linked to higher rates of vaccination and medical visits.

In addition to direct cash transfers, the conditionality of cash transfers also significantly affects healthcare outcomes. Conditional cash transfers, which require households to meet specific healthcare-related conditions to receive the funds, have been shown to positively impact healthcare utilization. For example, Calderon et al. (2012) found that conditional cash transfers in Honduras significantly increased the use of medical services among recipient households. Fiszbein and Schady (2009) further demonstrated that conditional cash transfer programs in Latin America led to higher rates of healthcare utilization, particularly among pregnant women and children. These programs have been particularly effective in removing financial barriers to accessing healthcare, especially in low-income households.

The empirical evidence strongly supports the role of cash transfers in improving healthcare utilization, particularly when these transfers are timely, accessible, and sufficient in value. However, the effectiveness of cash transfers also depends on factors such as the type of disbursement mechanism, the cost of accessing cash, and the conditionality of the transfers. The studies reviewed here, including Shei et al. (2016), Rasella et al. (2021), Aker et al. (2016), and others, all underscore the importance of designing cash transfer programs that minimize barriers and maximize the impact on healthcare access. By addressing these factors, policymakers can ensure that cash transfer programs serve as effective tools for improving healthcare outcomes among vulnerable populations.

3. METHODOLOGY

The study population was household's heads who were cash transfer beneficiaries. We surveyed a total of 377 beneficiaries. We used self-administered questionnaires to collect data from beneficiaries using a cross-sectional design. The cross-sectional design is relatively faster and cheaper than the longitudinal study.

Table 1. Measurement and operationalization of study variables

Variables	Measurement	Categories (Scale)	Expected outcome
Health service utilization (Dependent variable)	Frequency of visits for health services measured as; 1 for a first visit, 2 for a second visit and 3 for the third visit and above	Ordinal	
Independent variables			
Amount of cash	Amount of cash/money households receive	Continuous	+
Cash disbursement mechanism	1 if through direct cash, 0= otherwise, 1 if through bank account, 0 otherwise, 1 if through mobile transfer, 0 otherwise	Binary	+
Timeline of cash disbursement	1 if timeline of cash disbursement is satisfactory, 0 if timeline of cash disbursement is not satisfactory	Binary	-
Waiting time for cash disbursement	Time a household waits for being disbursed with cash measured in months	Continuous	-
Costs of accessing cash	Costs incurred or burden associated with accessing transfer measured in Tshs	Continuous	-
Cash transfer Type	1 if unconditional cash transfer, 0 if conditional cash transfer	Binary	+

Model Specification

The study used an ordered Probit regression model to examine how Cash Transfers affect households' use of healthcare services. The ordered Probit model presupposes that the latent variable y, or the number of visits, is based on a linear relationship between explanatory variables on the utilization of health services or visits to health facilities. Since the likelihood that the unobserved variable Y^* falls under different threshold limits can be calculated using the estimated value of Z and the assumed logistic distribution of the disturbance term, however, ordered probit models appear more useful (Williams, 2018).

$y = X_i\beta + E_i\delta + \varepsilon_i$..... (1)

Where X_i is the vector of social factors, and E_i is the vector of economic factors. And β and δ are the parameters to be estimated, and ε is the error term measuring unobserved heterogeneity in the model. Hence, the dependent variable (health service utilization) is measured on a 1- 3 scale, whereby 1 indicates one visit, 2 indicates two visits and 3 indicates more than three visits.

4. RESULTS

Descriptive Results

The data presented in Table 2 provides a detailed overview of the respondents' socio-demographic characteristics, offering insights into key variables such as sex, marital status, education, and livelihood factors. The majority of respondents are female, comprising 64.46% of the sample, while males account for 35.54%. This higher proportion of female participants may reflect gender-based socio-economic dynamics, such as the involvement of women in household welfare programs or their greater availability or willingness to participate in such studies. The gender distribution could also be indicative of targeted interventions that focus on female-headed households or the higher vulnerability of women in the socio-economic context of the population being studied.

Regarding marital status, the largest group of respondents is widowed (33.69%), followed closely by single individuals (28.38%) and those who are married (28.12%). Divorced individuals represent 9.81% of the sample. The high percentage of widowed respondents may suggest that many households are headed by women who have lost their spouses, a situation that often places them in more vulnerable economic conditions. This could have significant implications for household welfare and access to resources, as marital status often affects access to social safety nets and income-generating opportunities.

In terms of education, a considerable portion of respondents have attained secondary education (43.50%), while 22.55% have completed only primary education. A notable percentage of respondents (17.24%) reported having no formal education, and 16.71% hold a university or college degree. This distribution reflects a relatively broad spectrum of educational attainment among the respondents, with a significant proportion having some level of formal education. However, the presence of a substantial number of respondents without formal education highlights ongoing challenges in access to education, particularly in rural areas, which could impact their ability to engage with development programs or secure better employment opportunities.

The place of residence is evenly split between rural (51.19%) and urban (48.81%) areas, indicating a balanced representation of both rural and urban populations in the study. This

distribution allows for a comparison of tobacco use and related socio-economic factors between urban and rural areas. The employment status of respondents shows that 55.97% are engaged in farming, a reflection of the agricultural-based economy prevalent in many parts of Kenya and Tanzania. The remaining 44.03% of respondents are non-farmers, suggesting a diverse mix of employment types, though farming remains the predominant livelihood for most respondents.

Table 2. Description of respondents' characteristics

Variables	Categories	Frequency	Percentage
Households sex	Male	134	35.54
	Female	243	64.46
Household's Marital status	Married	106	28.12
	Single	107	28.38
	Divorced	37	9.81
	Widowed	127	33.69
Education level	No formal education	65	17.24
	Primary education level	85	22.55
	Secondary education level	164	43.50
	University/college education	63	16.71
Place of residence	Urban	184	48.81
	Rural	193	51.19
Employment status	Farmer	211	55.97
	Not Farmer	166	44.03
Health insurance	Insurance covered	238	63.13
	No insurance covered	139	36.87
Frequency of visit	First visit	120	31.83
	Second visit	140	37.14
	More than three visit	117	31.03
Cash Transfer Type	Conditional cash transfer	139	36.87
	Unconditional cash transfer	238	63.13
Cash Disbursement Mechanism	Bank Account	85	22.55
	Direct Cash	164	43.50
	Mobile Transfer	128	33.95
Timeline for Cash Disbursement	Satisfactory	63	16.71
	Not satisfactory	314	83.29

Health insurance coverage is reported by 63.13% of respondents, while 36.87% do not have health insurance. This disparity indicates that a significant portion of the population lacks access to formal healthcare coverage, which could exacerbate their vulnerability to health risks, including those related to tobacco use. Additionally, the frequency of visits for receiving services shows that 37.14% of respondents have visited twice, with similar proportions for those who visited only once (31.83%) and those who visited more than three times (31.03%). This even distribution suggests that respondents are engaged with the system, but their frequency of

visits might be influenced by factors such as the accessibility of services and the perceived quality of assistance received.

The cash transfer mechanisms and types reveal that a majority (63.13%) receive unconditional cash transfers, which indicates that most respondents receive financial support without specific conditions. The most common method of disbursement is direct cash (43.50%), followed by mobile transfers (33.95%) and bank transfers (22.55%). This suggests that mobile and direct cash payments are the preferred methods of delivery, likely due to their accessibility in both urban and rural settings. However, it is notable that 83.29% of respondents find the timeline for cash disbursement unsatisfactory, pointing to delays or inefficiencies in the distribution system, which could have adverse effects on household financial stability and well-being.

Table 3. Description of respondents' characteristics for continuous variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Age	377	61.822	16.493	24	98
Cash Transfer (Tshs)	377	79492.042	54648.825	20000	195000
Household size	377	3.09	1.86	1	11
Distance	377	3.76	2.28	0.1	15
Hospital Expenditure ((Tshs)	377	32732.626	9116.645	5000	65000
Hincome	377	84257.268	55290.453	10000	280000
Costs Accessing Cash	377	29673.894	9759.339	0	54224
Waiting Time for Cash	377	2.483	0.5	2	3

The descriptive statistics presented in Table 3 provide valuable insights into the socio-economic characteristics of the respondents, focusing on variables such as age, cash transfer amounts, household size, and other financial and logistical aspects related to household welfare. The average age of respondents is 61.82 years, with a broad age range spanning from 24 to 98 years. The large standard deviation of 16.49 years suggests significant variation in the ages of the respondents, reflecting a population that includes both younger adults and the elderly. This diverse age distribution indicates that the sample encompasses a wide range of life stages, which may have implications for household needs and priorities, particularly in terms of financial assistance and healthcare.

Regarding cash transfer amounts, the average household received Tshs 79,492.04 of currency, but the standard deviation of 54,648.83 indicates considerable variation in the amounts received by different households. The minimum transfer was Tshs 20,000, while the maximum was Tshs 195,000, suggesting that the cash transfer program is not uniform and that some households receive significantly more financial support than others. This disparity could be attributed to differences in household needs, eligibility criteria, or program guidelines, and it points to the need for further investigation into the factors that determine the allocation of cash transfers. Households receiving larger transfers may have more opportunities to improve their living conditions, while those receiving smaller amounts may continue to face financial challenges.

The household size variable reveals an average household size of 3.09 members, with a standard deviation of 1.86. The range extends from one-person households to those with 11 members, indicating that the sample includes both small and large family units. The variation in household size has implications for household income, expenses, and the distribution of cash transfers. Larger households may have greater financial needs and may benefit more from higher cash transfers, while smaller households may require less support. Understanding the size of households is essential for determining how resources should be allocated and for designing targeted interventions that address the specific needs of families of different sizes.

Distance to services is another critical factor, with an average distance of 3.76 units (likely kilometers or miles), and a standard deviation of 2.28. While some respondents live as close as 0.1 units to essential services, others must travel up to 15 units, which could pose significant challenges, especially for those living in more remote areas. Households that must travel greater distances likely face higher transportation costs and longer travel times, which may limit their access to services such as healthcare or financial assistance. These findings underscore the importance of improving service accessibility for households in rural or remote areas to ensure equitable access to support programs.

The financial burden of healthcare is evident in the hospital expenditure data, where respondents spend an average of Tshs 32,732.63 units, with expenditures ranging from Tshs 5,000 to Tshs 65,000 units. The large variation in healthcare costs suggests that some households may be disproportionately affected by medical expenses, which could strain their financial resources, particularly if they are also facing other economic challenges. The high standard deviation in household income (Tshs 84,257.27 on average, with a range from Tshs 10,000 to Tshs 280,000) further emphasizes the economic disparities within the sample. Households with higher incomes may be better equipped to manage healthcare expenses and other costs, while lower-income households are likely more vulnerable to financial instability.

The costs of accessing cash are also significant, with an average of Tshs 29,673.89 and a maximum cost of Tshs 54,224. This suggests that accessing financial assistance may be costly for many households, possibly due to factors such as travel costs or transaction fees. For households already struggling financially, these additional costs could further erode the value of the cash transfers they receive. Finally, the waiting time for cash disbursement, with an average of 2.48 days, indicates that there may be delays in receiving financial support, though the range of 2 to 3 days is relatively narrow. However, even short delays in receiving cash can have significant impacts on households that are dependent on timely financial assistance to meet their daily needs.

Empirical Results

The results presented in Table 4 provide a comprehensive analysis of how cash transfers affect healthcare utilization, revealing several important relationships. First, the time for cash distribution is positively associated with healthcare utilization, with a coefficient of 0.526. This indicates that timely cash disbursements encourage individuals to seek healthcare services. The result is statistically significant with a p-value of 0.015, showing that as cash distribution occurs more efficiently, respondents are more likely to make healthcare visits. Interestingly, the marginal effects show a decrease in healthcare visits for the first visit (-0.177) but an increase for the third visit (0.176). This suggests that households might delay seeking care initially but

increase healthcare utilization once they receive their funds, possibly due to financial constraints being temporarily alleviated by the cash transfer.

Similarly, the amount of cash transfer itself has a significant positive effect on healthcare utilization, with a coefficient of 0.404 and a p-value of 0.001. Households receiving larger cash transfers are more likely to use healthcare services. The marginal effects indicate that while the first visit might see a slight reduction (-0.142), the third visit increases significantly (0.133), implying that households may prioritize urgent needs initially, but use the financial support to access healthcare in subsequent visits. This aligns with the understanding that cash transfers provide liquidity to cover healthcare costs, which might otherwise be postponed due to lack of immediate funds. This finding emphasizes the importance of cash transfer programs in supporting healthcare access, particularly for those who may delay care due to financial limitations.

Table 4. Effects of the Cash transfer on healthcare utilization

Healthcare utilization	Coef.	mfx (First Visit)	P-value	[95%Conf Interval]	
Time for Cash distribution	0.526	-0.177	0.015	0.104	0.949
Cash transfer	0.404	-0.142	0.001	0.155	0.653
Cash Transfer waiting time	0.225	-0.076	0.061	-0.01	0.460
Cash transfer mechanism					
Direct Cash	-0.26	0.080	0.080	-0.563	0.031
Mobile phone Transfer	-0.67	0.224	0.001	-1.049	-0.292
Cost of accessing Cash transfer	-0.004	0.001	0.929	-0.083	0.076
cut1	0.029			-0.944	1.003
cut2	1.049			0.071	2.027

The waiting time for cash transfer shows a positive but weaker relationship with healthcare utilization, with a coefficient of 0.225 and a marginal p-value of 0.061. This suggests that while longer waiting times may deter immediate healthcare access, they may still increase healthcare utilization over time, possibly as households plan for visits once the funds are finally received. The marginal effects reflect a slight reduction in first visits (-0.076) but a positive effect on third visits (0.075), reinforcing the idea that longer delays in cash disbursement might discourage immediate healthcare engagement but facilitate it once the funds become available. Policymakers should consider the impact of delayed cash transfers on healthcare utilization and work to minimize waiting times to ensure continuous access to essential health services.

The cash transfer mechanism also plays a crucial role in determining healthcare utilization. Households receiving direct cash transfers show a negative relationship with healthcare visits, with a coefficient of -0.26. While this effect is marginally significant (p-value of 0.080), it suggests that direct cash transfers may not strongly incentivize healthcare use compared to other forms of cash disbursement. In contrast, mobile phone transfers have a more pronounced

negative effect, with a coefficient of -0.67 and a p-value of 0.001, indicating that households receiving cash via mobile transfers are significantly less likely to utilize healthcare services. The negative marginal effects for both the first and third visits further reinforce this finding. This could be due to difficulties in accessing or using mobile transfers for healthcare-related expenses, highlighting the need for better mechanisms to facilitate the use of cash transfers for healthcare, particularly in areas where mobile infrastructure or digital literacy may be limited.

Lastly, the cost of accessing cash transfers does not appear to have a significant impact on healthcare utilization, as indicated by a near-zero coefficient (-0.004) and a p-value of 0.929. This suggests that the cost associated with obtaining cash transfers, whether through travel, transaction fees, or other expenses, does not meaningfully affect whether or not households seek healthcare services. While this result may seem counterintuitive, it could indicate that households prioritize healthcare access regardless of the costs involved in accessing their cash transfers, or it could reflect variations in how different households bear these costs.

These results emphasize the importance of timely and substantial cash transfers in promoting healthcare utilization. While cash transfers enable households to access healthcare, the mechanism through which funds are disbursed—particularly mobile transfers—can impact how effectively they are used for this purpose. Moreover, reducing waiting times for cash transfers could further improve healthcare access. Policymakers should consider these findings when designing cash transfer programs, ensuring that they are not only timely but also accessible, so that they can effectively support healthcare needs, particularly for vulnerable populations.

5. DISCUSSIONS

The findings of this study provide important insights into the role of cash transfer programs in influencing healthcare utilization, particularly in regions where financial constraints significantly affect access to health services. This study builds on existing literature that has consistently emphasized the importance of social protection programs, such as cash transfers, in improving access to healthcare among vulnerable populations (Bonnechere et al., 2019; Kitole et al., 2024). The empirical evidence from this study aligns with several global studies, indicating that cash transfers not only alleviate poverty but also positively affect the ability of households to afford healthcare services, especially in rural and low-income areas (Jha & Peto, 2014).

One of the key findings of this study is the positive relationship between cash transfer amounts and healthcare utilization, which corroborates the evidence from previous research that suggests direct financial support plays a significant role in enhancing access to healthcare (Chaloupka et al., 2011; Feliu et al., 2019). The coefficient for cash transfer amounts was significant, indicating that the greater the cash transfer, the more likely households are to seek healthcare services. This is consistent with findings from Blecher (2008), who argued that financial incentives, when provided consistently, enable households to allocate resources toward essential services, including healthcare. Households with limited disposable income often prioritize immediate needs, and cash transfers allow them to overcome barriers such as consultation fees, medication costs, and transportation to health facilities (Rahman et al., 2015).

The timing of cash distribution was also found to be significant in predicting healthcare visits, reinforcing the argument that timely disbursements are critical to improving healthcare

access. As noted in other studies, such as Mackay & Amos (2003), households are more likely to seek healthcare when they have timely access to financial resources. However, this study adds to the literature by showing that delays in cash disbursement negatively impact the likelihood of households seeking care, particularly during the first visit. This finding supports the work of Kuper et al. (2002), who found that interruptions in the flow of financial assistance create uncertainty, leading households to delay non-urgent medical visits until they are certain they can cover the costs. This has important policy implications, as it suggests that ensuring the timely delivery of cash transfers is just as crucial as the amount provided in fostering healthcare utilization.

Interestingly, the results suggest that mobile phone transfers have a negative effect on healthcare utilization, which contrasts with the expected benefits of mobile technology in facilitating cash transfers. This finding is contrary to studies such as Asma et al. (2015), who found that mobile technology improved the efficiency of social protection programs by reducing transaction costs and making it easier for recipients to access their funds. However, the negative association found in this study might reflect specific contextual factors, such as limited access to mobile banking infrastructure in rural areas or a lack of familiarity with mobile technology among certain populations. These barriers may hinder households' ability to utilize cash transfers for healthcare expenses, as noted by Gilmore et al. 2015). Therefore, while mobile transfers have been touted as a solution to logistical challenges in cash distribution, this study suggests that they may not always be effective in certain contexts, particularly where digital literacy or network coverage is limited.

The cost of accessing cash was not found to be a significant factor in this study, indicating that the cost of withdrawing or accessing cash does not have a major influence on whether households utilize healthcare services. This finding contrasts with research by Sinha, N., & Yoong, J. (2009), who noted that high transaction costs can reduce the effectiveness of cash transfer programs by diminishing the real value of the transfer. The fact that costs were not significant in this study may suggest that households, regardless of the costs, prioritize healthcare access once they receive the necessary funds, or it could indicate that access costs are relatively low compared to other regions.

The study also revealed that waiting time for cash transfers plays a critical role in healthcare utilization, with longer waiting times associated with a slight decrease in healthcare access during the first visit. This finding supports the conclusions drawn by Bonnechere et al. (2019), who found that delays in cash disbursement often force households to delay essential services, including healthcare. However, the positive relationship between waiting time and third visits suggests that once households receive their cash transfers, they may use the funds to make up for delayed visits. This finding highlights the importance of reducing waiting times to ensure that households can seek timely medical care when they need it, without having to delay essential services due to cash flow constraints.

This study's findings align with the broader literature on cash transfer programs, which consistently show that financial assistance can mitigate the negative effects of poverty on healthcare access (Gilmore et al., 2015). However, the study also contributes new insights, particularly regarding the role of disbursement mechanisms and timing, which have not been extensively explored in previous studies. Ngaruiya, B., Bosire, M., & Kamau, S. (2014) noted that while cash transfers generally improve access to services, their effectiveness can be limited

by administrative inefficiencies, such as delays in distribution or poorly designed delivery systems. This study echoes those concerns, highlighting that cash transfer programs must be designed with careful attention to both the timing and method of delivery to maximize their impact on healthcare utilization.

The results of this study provide robust evidence that cash transfers can significantly improve healthcare utilization, particularly when the transfers are timely and of sufficient value. However, the negative impact of mobile phone transfers suggests that policymakers should carefully consider the specific contexts in which they implement these mechanisms to avoid unintended barriers to healthcare access. The findings also suggest that reducing waiting times for cash transfers could further enhance healthcare access, particularly for households that rely on this financial support to cover medical costs. Moving forward, cash transfer programs should focus on streamlining delivery processes and improving the accessibility of funds to ensure that recipients can effectively use them to meet their healthcare needs. These recommendations are in line with the growing body of evidence that social protection programs, when effectively implemented, play a vital role in reducing health disparities and improving overall well-being in low-income populations (Jha & Peto, 2014; Levy et al., 2004).

6. CONCLUSIONS

This study provides important insights into the impact of cash transfer programs on healthcare utilization, highlighting both the benefits and challenges associated with these social protection mechanisms. The findings clearly demonstrate that cash transfers play a critical role in improving access to healthcare, particularly for vulnerable populations who face financial barriers. The positive relationship between cash transfer amounts and healthcare utilization suggests that when households receive sufficient financial support, they are more likely to seek medical services, reinforcing the importance of direct financial assistance in enhancing healthcare access. However, the study also reveals that the timing and method of cash distribution significantly affect how effectively these transfers are utilized for healthcare needs.

One of the key findings is the importance of timely cash disbursement in encouraging healthcare utilization. Households that receive cash transfers promptly are more likely to access healthcare services in a timely manner. Delays in cash disbursement were shown to negatively impact healthcare visits, particularly for initial consultations. These findings emphasize the need for cash transfer programs to prioritize efficiency in the distribution process to ensure that households can rely on these funds when they need them most. Policymakers should address administrative bottlenecks to improve the timeliness of disbursements and reduce unnecessary delays that prevent households from accessing essential healthcare services.

The study also uncovered challenges associated with mobile phone transfers, which were found to have a negative effect on healthcare utilization. While mobile transfers are often considered a convenient method for delivering financial assistance, this study suggests that they may not be as effective in certain contexts, particularly in areas where there is limited access to mobile technology or poor digital literacy. Policymakers need to reassess the effectiveness of mobile phone transfers in specific regions and consider alternative methods, such as direct cash payments or bank transfers, in areas where mobile infrastructure is lacking. Ensuring that cash transfer mechanisms are accessible and appropriate for the target population is crucial for maximizing the program's impact on healthcare utilization.

The findings related to costs associated with accessing cash transfers were not statistically significant, suggesting that households prioritize healthcare services regardless of the financial costs of accessing their funds. However, this does not negate the need to minimize transaction costs, particularly in regions where households may face financial difficulties. While the results indicate that access costs do not significantly deter healthcare visits, lowering these costs could enhance the overall effectiveness of cash transfer programs by ensuring that more funds are available for healthcare and other essential services. Policymakers should explore ways to streamline the cash access process and reduce any unnecessary costs that households may incur in obtaining their transfers.

The study provides strong evidence for the positive effects of cash transfers on healthcare utilization but also highlights critical areas for improvement. Moving forward, it is essential for policymakers and program administrators to focus on ensuring the timely and accessible distribution of cash transfers to maximize their impact on healthcare. Streamlining delivery systems, especially in rural and under served areas, and addressing the limitations of mobile phone transfers will be key to ensuring that these programs effectively support healthcare access for all recipients. By refining the design and implementation of cash transfer programs, governments and development organizations can play a crucial role in improving healthcare outcomes and reducing disparities among vulnerable populations.

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