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Unconditional Cash Transfers and Livelihoods of Orphans and Vulnerable Children in Samburu Central Sub-County, Kenya

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Abstract

Despite Kenya's implementation of the Cash Transfer for Orphans and Vulnerable Children program since 2004, orphans and vulnerable children in arid and semi-arid regions continue to face significant livelihood challenges, with only 38% of eligible households in Samburu Central Sub-County receiving transfers, and current monthly amounts covering only 44% of basic household needs. This disparity exposes an important knowledge gap: there is little empirical evidence on the individual effects of the specific dimensions of unconditional cash transfer programs, i.e. transfer amount, duration, targeting mechanisms, and programme accessibility, on household livelihood outcomes in this setting. The study examined the impact of the unconditional cash transfers on the livelihoods of orphaned and vulnerable children in Samburu Central Sub-County. The study was based on the Human Capital Theory, the Sustainable Livelihoods Framework and the Equity Theory. A non-experimental cross-sectional research design was adopted using secondary data from the Kenya National Bureau of Statistics Kenya Continuous Household Survey (2019-2024) and the Ministry of Labour and Social Protection's Cash Transfer Management Information System database (2019-2024) that contained 2,614 beneficiary households. The dependent variable was a composite Livelihood Index with dimensions related to food security, education and health. Data analysis was conducted with heteroskedasticity-robust regression with clustered standard errors that was supplemented with domain-specific models by regression and analysis of variance. The results of the study showed that KES 1,000 increase in annual transfers increased livelihood outcomes by 0.0061 units ($p < 0.05$), while a year of program participation increased outcomes by 0.0347 units. Community-based targeting was better than administrative targeting by 0.0356 units ($p=0.012$). Of all the unconditional cash transfer characteristics, program accessibility had the strongest effect ($b = 0.1923$, $p < 0.05$). However, only 32% of households had high accessibility levels. The model explained 43% variance in livelihood outcomes. The study concludes that larger amounts of transfers, continued enrolment, community-based targeting and increased accessibility are important determinants of livelihood improvement for the orphans and vulnerable children. Policy recommendations include a need to increase annual transfers to KES 48,000 with regional cost-of-living adjustments, an incentive to encourage long-term enrolment, a focus on targeting them to areas that need more attention, and expansion of payment infrastructure to reduce distance and disbursement delays.

Keywords: *Unconditional Cash Transfers, Orphans and Vulnerable Children, Livelihood Index, Social Protection, Samburu County, Kenya*

1.0 Background of the Study

Livelihoods are the capabilities, assets and activities needed for survival and in the case of orphans and vulnerable children (OVC), it is access to education, healthcare, nutrition and overall well-being (Quandt, 2018; Chebett, 2021). Unconditional cash transfers (UCTs) are regular payments provided to individuals or households with no conditions attached with the objective of reducing poverty and improving the welfare of the people (Pega et al., 2022). The effectiveness of such programmes in converting financial resources into long-term improvements in livelihoods has become a major issue in social protection literature, especially in the arid and semi-arid regions of sub-Saharan Africa; the regions where vulnerability is compounded by recurrent shocks and lack of infrastructure. From a global perspective, UCTs have proven to be more or less effective in different settings. Altindag and O'Connell (2023) showed that short-term UCTs had positive effects on basic needs fulfilment and school enrolment during transfer periods, but these effects were lost within six months of the end of the programme highlighting the importance of the transfer period. In Indonesia, Al Izzati, Suryadarma and Suryahadi (2023) found that short-term UCTs did a good job of mitigating economic shocks but did not alter the long-term behavioural patterns of beneficiaries. A meta-analysis of 305 treatment estimates in 43 countries by Leight et al. (2024) found that cash transfers raised household consumption and income by between one to two dollars per hundred dollars in cumulative transfers, with effects persisting for around three years (so the duration of such programmes appears to be of paramount importance in determining whether or not programme benefits materialise and last).

Within the African regional context, UCTs have positive, but uneven, results. In South Africa, Hajdu et al. (2020) found statistically significant relationship between Child Support Grant income and agricultural productivity and livelihood diversification over a 14-year period while Mncube (2022) found that there are significant relationships between access to transfers and food security outcomes in KwaZulu-Natal. In their critical review of sub-Saharan Africa, Salifu and Kufoalor (2024) reported that targeting mechanisms were a major determinant of programme effectiveness, and that poorly designed targeting processes negatively affected coverage, increased social tensions and diminished the legitimacy of the programmes among communities. In Kenya, Handa et al. (2015) found that the government's CT-OVC program improved food security, school enrolment and access to healthcare. However, Wanyama and McCord (2017) identified persistent problems such as delays in payments, inefficiencies in targeting and inadequate coverage. Rahama (2024) found that mechanisms of disbursement and delivery at the UCT had a significant impact on beneficiary livelihoods in Garissa county while Chebett (2021) found logistical challenges and biased targeting as constraints on program effectiveness in Turkana county. Kiburu, 2023 in Kajiado County and Ajele, Manini and Singoro, 2024 in Turkana Central Sub-County; and, the UCT design features including: transfer adequacy, programme governance was found to be important predictors of welfare outcome among vulnerable.

Samburu Central Sub-County is in the north of Kenya and has a land area of about 2,093 square kilometres characterised by a semi-arid climate and predominately pastoralist livelihoods (Lengoiboni, van der Molen & Bregt, 2010; Lesorogol, 2008). The sub-county has one of the highest poverty rates in Kenya (71.9 percent), as well as recurrent droughts, resource conflicts, and poor access to social services (Opiyo et al., 2015). By 2022, HIV /AIDS had left about 3 200 children orphaned (Samburu County Integrated Development Plan, 2023). However, orphanhood in the region is not solely attributed to HIV/AIDS, with other factors contributing to it being high maternal mortality rates, intercommunal conflicts and recurrent droughts which increases the vulnerability of households and disruption of family structures (Mwenzwa, 2023;

Njoki & Wairimu, 2023). These multiple drivers of vulnerability make the situation of orphans and vulnerable children (OVC) even more difficult. Despite these conditions, only 1,824 out of 4,800 of eligible OVC households (38%) received the UCTs and the current monthly transfer of KES 2,000 only met 44 percent of estimated basic household needs (County Government of Samburu, 2023). These conditions indicate a large implementation gap, which provides motivation for empirical investigation of the effects of UCT characteristics on livelihood outcomes in this context.

1.2 Statement of the Problem

The poor implementation of unconditional cash transfers has been found to be a major hindrance to improved OVC livelihoods in Samburu Central Sub-County. Three key problems limit effectiveness; insufficient amounts are transferred, programmes are short-lived and targeting mechanisms are ineffective. While previous studies such as Asfaw et al. (2012) and Ayuku et al. (2014) examined food security and educational outcomes of cash transfers in Kenya, none specifically examined the combined effects of UCT amount, duration, targeting mechanisms and programme accessibility on OVC livelihoods in Samburu Central Sub-County. This study overcame this empirical and contextual deficit by building a multidimensional Livelihood Index and estimating its determinants using a comprehensive secondary data set for 2,614 beneficiary households from 2019 to 2024.

1.3 Study Objectives

The general objective was to examine the impact of unconditional cash transfers on the livelihoods of orphans and vulnerable children in Samburu Central Sub-County.

The specific objectives were:

i. To examine the impact of unconditional cash transfer amount on the livelihoods of orphans and vulnerable children in Samburu Central Sub-County.
ii. To assess the impact of unconditional cash transfer duration and targeting mechanisms on the livelihoods of orphans and vulnerable children in Samburu Central Sub-County.
iii. To evaluate the accessibility of unconditional cash transfer programs among orphans and vulnerable children households in Samburu Central Sub-County.

2.0 Literature Review

The section presents the theoretical framework and empirical review.

2.1 Theoretical Framework

The three underlying theoretical frameworks of this study were complementary. Becker (1964) developed the Human Capital Theory which explains how financial constraint relief enables households to make the best investments in children's education, health and skill development. This theory gives the economic justification to study the impact of UCT characteristics on OVC livelihoods. While duration - to sustain multi-year investment, particularly in education - and effective targeting to ensure resources are transferred to households with the ability to convert transfers into human capital gains, the amount of transfers determines the level of constraint relief (Schultz, 1961; Mincer, 1974). Using the formula $L = f(H, S, N, P, F)$ to depict livelihoods as a function of human, social, natural, physical and financial capital the Sustainable Livelihoods Framework (Scoones, 1998; Chambers & Conway, 1992) is a comprehensive perspective. In this context, UCTs are a form of financial capital and their effectiveness is dependent on the structural context in which households' function as well as interactions between transfers and other forms of capital. This study's composite Livelihood Index that

measures food security, education and health at the same time is justified by the multi-capital lens.

Understanding targeting mechanisms requires an understanding of the social dynamics of resource distribution, which is provided by equity theory (Adams, 1963), which is expressed as E = (O/I)p / (O/I)r. Social tensions and reduced legitimacy of programs can undermine the effectiveness of a program when beneficiaries feel that their inputs, as determined by need and vulnerability, are not proportionately represented in program outcomes (Greenberg, 1990; Leventhal, 1980). This framework was used to examine the relationship between targeting mechanisms and livelihood outcomes and community acceptance of UCT programs.

2.2 Empirical Review

Research on OVC livelihood assessment has repeatedly shown the need for multidimensional measures of assessment. Bamgboye et al. (2020) in a cross-sectional survey on 1,300 OVC households in Nigeria, revealed that 84.6 percent of female-headed households were food insecure, thus underscoring the importance of food security as a livelihood indicator. Njoki and Wairimu (2023) using a cluster-randomised longitudinal trial in Kenya, found positive cash transfer impacts on dietary diversity while aggregate food consumption did not change, so this demonstrates the complexity of welfare measurement. Ochego (2021) in Eldoret, Kenya found insignificant effects of cash transfers on health and food security, and this points to the context-dependence of programme impacts. Mwenzwa (2023) showed the need for adaptation of the traditional frameworks of measurement of livelihoods to account for the dynamic vulnerabilities of nomadic and pastoralist OVC populations in Kenya. Hajdu et al. (2020) found productive long-term effects of sustained Child Support Grant income in South Africa, while Goma (2021) found limited long-term impact of social cash transfers in Zambia with only 11 percent of recipients reporting educational benefits, and show variation in impacts depending on programme design. Salti et al. (2022) showed using a regression discontinuity design in Lebanon that long-term cash assistance had significantly greater effects on household expenditure, food consumption, and child education enrolment than short-term assistance. Al Izzati et al. (2023) confirmed with using coarsened exact matching and difference in difference approach on 15.5 million households in Indonesia that short-term transfers helped offset economic shocks but not long-term preferences, favouring arguments for sustained enrolment.

Hossain et al. (2022) found in a cluster-randomised controlled trial in Bangladesh that UCTs combined with psychosocial support led to significant benefit on child neurodevelopment and highlight the importance of complementary interventions with cash transfers. Pega et al. (2022), in a systematic review of 34 studies with over 1.1 million participants in low- and middle-income countries, concluded that accessibility factors have a significant moderating effect on the effectiveness of UCTs, with accessible programmes having better health and welfare outcomes. Agwayo and Muthinja (2021) documented in Busia County that 66.7 percent of CT-OVC beneficiaries preferred card-based payment mechanisms while only 12.1 percent favoured the government's account-based system with key accessibility barriers including long distances to payment points, poor service delivery and disbursement delays. Kiburu and Oino (2021) established significant relationships between the levels of accessibility and programme effectiveness in Tharaka Nithi County, Kenya, where 62.3 percent of the participants accessed programmes through the meetings of chiefs. Agrawal et al. (2020) concluded from a systematic review that accessibility constraints disproportionately had an impact on the most vulnerable populations, thus grossly undermining programme effectiveness at the very point of the most need for the programmes.

3.0 Research Methodology

The study used a non-experimental cross-sectional research design with secondary data from two authoritative sources spanning 2019 to 2024. The Kenya National Bureau of Statistics Kenya Continuous Household Survey (KCHS) datasets contained household-level livelihood indicators such as food security, education enrolment, and healthcare access. The Cash Transfer Management Information System (CT-MIS) database of the Ministry of Labour and Social Protection contained UCT programme variables such as transfer amounts, duration, targeting mechanism classifications, and beneficiary demographics. These two datasets were linked using geographic identifiers and demographic matching variables to produce a comprehensive census of 2,614 beneficiary OVC households in Samburu Central Sub-County. The dependent variable was a composite Livelihood Index (LI) based on three domains: food security, education, and healthcare. Each domain included three indicators, standardised using min-max normalisation:

$$z\_ij = (x\_ij - min(x\_j)) / (max(x\_j) - min(x\_j)$$

Domain sub-indices were computed as unweighted averages of standardised indicators within each domain, and the overall LI was constructed as a weighted average with equal weights of one-third assigned to each domain, in accordance with UNDP (2020) composite index construction guidelines and the lack of theoretical grounds for prioritising one dimension over another. The overall index ranged from zero to one.

The regression model, based on Human Capital Theory and the Sustainable Livelihoods Framework, is as follows:

$$LI\_i = \beta_0 + \beta_1 UCTA\_i + \beta_2 UCTD\_i + \beta_3 UCTT\_i + \beta_4 UCTAC\_i + \beta_5 HS\_i + \Sigma\gamma\_jX\_ji + \varepsilon\_i$$

Where; LI_i is the Livelihood Index for household i, UCTA_i is the annual UCT amount in Kenya Shillings, and UCTD_i is the duration in years. X_ji control variables include gender, age, and education level of household head, as well as rural-urban location. Robust standard errors were clustered by location (48 clusters) to account for intra-cluster correlation caused by shared infrastructure and implementation conditions. Domain-specific models were estimated using the same specification with food security, health, and education sub-indices as the dependent variables.

4.0 Findings and Discussion

This section presents the empirical results of the three study objectives, examining how unconditional cash transfer amount, duration, targeting mechanisms, and programme accessibility influence livelihood outcomes among OVC households in Samburu Central Sub-County.

4.1 Effect of UCT Amount on Livelihoods

Transfer amount adequacy varied substantially across the beneficiary population, with systematic implications for livelihood outcomes as presented in Table 1.

Table 1: Adequacy Assessment of UCT Amount Categories

Annual UCT Amount	N	%	Mean LI	Std. Dev.	Coverage of Basic Needs (%)	Annual Gap (KES)
KES 24,000	1,167	44.65	0.487	0.173	44.4	30,000
KES 30,000	678	25.94	0.542	0.165	55.6	24,000
KES 36,000	512	19.59	0.601	0.158	66.7	18,000
KES 48,000	257	9.83	0.678	0.149	88.9	6,000
Total	2,614	100.00	0.548	0.167	59.7	21,752

Table 1 shows that there is a clear linear progression in livelihood outcomes within the categories of the transfer amount, with each KES 12,000 per year increase in amount of transfer being linked to an increase of approximately 0.095 units in the Livelihood Index. Households receiving KES 24,000 per annum had a mean Livelihood Index of only 0.487, which covered 44.4 percent of estimated basic needs, whereas those receiving KES 48,000 had a mean Livelihood Index of 0.678, which is close to adequacy at 88.9 percent coverage. One-way analysis of variance confirmed statistically significant differences across all categories of transfer amount ($F = 156.34$, $p < 0.05$), and post-hoc Tukey's HSD analyses confirmed that each of the categories differed significantly from all other categories (all pairwise comparisons $p < 0.05$), showing that increment increases in transfer amounts resulted in measurable and distinguishable improvements in beneficiary livelihoods.

Domain-specific analysis of variance (ANOVA) further confirmed that the amounts transferred significantly affected all three dimensions of livelihood as presented in Table 2.

Table 2: Domain-Specific Impact Analysis by Transfer Amount

Annual UCT Amount	Food Security Index	Health Index	Education Index
KES 24,000	0.445 (0.186)	0.478 (0.181)	0.538 (0.193)
KES 30,000	0.498 (0.179)	0.531 (0.174)	0.597 (0.187)
KES 36,000	0.567 (0.175)	0.589 (0.169)	0.647 (0.182)
KES 48,000	0.642 (0.168)	0.661 (0.163)	0.731 (0.175)
F-statistic	142.67***	128.89***	118.45***
p-value	0.000	0.000	0.000

Food security had the highest absolute responsiveness with KES 48,000 recipients having food security indices 0.197 units higher than KES 24,000 recipients ($p < 0.05$) indicating the direct contribution of extra cash resources in financing household food consumption. Education indices improved by 0.193 units ($p < 0.05$) and health indices by 0.183 units ($p < 0.05$) between the lowest and highest transfer categories suggesting larger transfers allowed for meaningful investments in education and health despite competing household demands. These findings are consistent with the proposition of Human Capital Theory that financial constraint relief allows for optimal investment in children's development (Becker, 1964; Schultz, 1961), as well as that of Hameed, Ali and Najam (2024) and Hajdu et al. (2020), who found transfer adequacy to be a material determinant of programme welfare impacts in Pakistan and South Africa respectively. The finding that 44.65 percent of beneficiary households are paid only the minimum KES 24,000 which covers less than half of basic needs, strengthens the evidence of structural under-resourcing of Kenya's CT-OVC programme by Wanyama and McCord (2017) and reinforces the case for periodic review of transfers with regional cost of living adjustments.

4.2 Effect of UCT Duration and Targeting Mechanisms on Livelihoods

The heteroskedasticity-robust regression model with clustered standard errors at the location level yields the results presented in Table 3.

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Table 3: Robust Regression Results for Livelihood Index

Variable	Coefficient	Robust Std. Error	t-statistic	p-value	95% Confidence Interval
UCT Amount (UCTA)	0.0000061***	0.0000016	3.81	0.000	[0.0000030, 0.0000092]
UCT Duration (UCTD)	0.0347***	0.0089	3.90	0.000	[0.0173, 0.0521]
Administrative Targeting	−0.0356**	0.0142	−2.51	0.012	[−0.0634, −0.0078]
Hybrid Targeting	0.0098	0.0178	0.55	0.582	[−0.0251, 0.0447]
Accessibility Index (UCTAC)	0.1923***	0.0247	7.78	0.000	[0.1439, 0.2407]
Household Size	−0.0102***	0.0023	−4.43	0.000	[−0.0147, −0.0057]
Gender (Male = 1)	0.0189*	0.0098	1.93	0.054	[−0.0003, 0.0381]
Age of HH Head	0.0006**	0.0003	2.00	0.046	[0.0000, 0.0012]
Education: Primary	0.0467***	0.0123	3.80	0.000	[0.0226, 0.0708]
Education: Secondary	0.0745***	0.0167	4.46	0.000	[0.0418, 0.1072]
Education: Tertiary	0.1012***	0.0256	3.95	0.000	[0.0510, 0.1514]
Urban Location	0.0367**	0.0156	2.35	0.019	[0.0061, 0.0673]
Constant	0.2834***	0.0512	5.54	0.000	[0.1830, 0.3838]
R-squared = 0.4267	Adj. R^2 = 0.4198	F = 187.45***	N = 2,614	Clusters = 48	

UCT duration shows a positive and significantly higher effect on livelihoods (b2 = 0.0347, p < 0.05) with every additional year of participating in the programme increasing the Livelihood Index by 0.0347 units. Over the maximum observed duration of five years, sustained enrolment leads to cumulative improvements of 0.174 units which is equivalent to about one standard deviation. This pattern of compounding benefits is consistent with Human Capital Theory's focus on long-term investment in the human capital to develop welfare (Mincer, 1974), and with the findings of Leight et al. (2024) and Salti et al. (2022), which have shown that longer programme exposure yields much stronger and longer-lasting welfare impacts than short-term assistance. Administrative targeting has a negative and statistically significant impact compared to community-based targeting (b3 = [?]0.0356, p = 0.012), that is, administratively selected households achieved livelihood indices 0.0356 units lower, which is about 21 percent of one standard deviation. Hybrid targeting was not found to be significantly different from community-based selection (b = 0.0098, p = 0.582), suggesting that a combination of approaches neutralises the disadvantages of administrative selection without producing additional gains.

Domain-specific regression shows in Table 4 these effects further disaggregation across food security, health and education sub-indices.

Table 4: Domain-Specific Impact of Duration and Targeting Mechanisms

Variable	Food Security Index	Health Index	Education Index
UCT Amount	0.0000057*** (0.0000017)	0.0000060*** (0.0000016)	0.0000067*** (0.0000017)
UCT Duration	0.0294** (0.0103)	0.0334*** (0.0095)	0.0401*** (0.0109)
Administrative Targeting	−0.0312** (0.0148)	−0.0367** (0.0139)	−0.0389** (0.0154)
Hybrid Targeting	0.0087 (0.0186)	0.0103 (0.0181)	0.0106 (0.0195)
Accessibility Index	0.1756*** (0.0267)	0.1834*** (0.0253)	0.2189*** (0.0279)
Household Size	−0.0108*** (0.0025)	−0.0095*** (0.0024)	−0.0104*** (0.0026)
R-squared	0.3989	0.3867	0.4156
F-statistic	156.34***	148.23***	172.89***
N	2,614	2,614	2,614

Education records the strongest duration effect (β = 0.0401, p < 0.05), compared to health (β = 0.0334) and food security (β = 0.0294), reflecting the multi-year financing commitments required for primary and secondary schooling cycles that cannot be met by short or intermittent programme participation. The negative effect of administrative targeting is consistent across all three domains, with education recording the largest decrement (β = −0.0389, p < 0.05), suggesting that administrative selection processes systematically fail to identify households most capable of converting transfers into child welfare improvements across multiple dimensions. These targeting findings are consistent with Equity Theory's emphasis on procedural justice in resource allocation (Adams, 1963) and with Salifu and Kufoalor (2024), who documented that participatory selection mechanisms generate stronger programme legitimacy and beneficiary engagement across sub-Saharan Africa. Among control variables, household size shows a consistent negative association across all models (β ranging from −0.0095 to −0.0108, all p < 0.05), reflecting per capita dilution of fixed transfers, while education level of household head shows progressively stronger positive effects from primary through tertiary levels, indicating that caregiver human capital significantly moderates the effectiveness of transfer utilisation.

4.3 Accessibility of UCT Programmes and Its Impact on Livelihoods

The distribution of households by accessibility level and associated structural barriers is presented in Table 5.

Table 5: Distribution of Households by Accessibility Level

Accessibility Level	N	%	Mean LI	Std. Dev.	Mean Distance to Payment Point (km)	Mean Payment Delays (Days)
High (Index ≥ 0.70)	845	32.33	0.673	0.143	4.23	2.1
Medium (0.50–0.69)	1,156	44.22	0.548	0.152	8.56	7.3
Low (Index < 0.50)	613	23.45	0.401	0.168	15.89	14.8
Total	2,614	100.00	0.548	0.167	8.94	7.8

Only 32.33 percent of beneficiary households achieved high accessibility levels, while 23.45 percent experienced low accessibility, with mean livelihood outcomes differing by 0.272 units (1.63 standard deviations) between these groups. High-accessibility households travelled average distances of 4.23 kilometres to payment points and experienced payment delays of only 2.1 days, while low-accessibility households faced distances of 15.89 kilometres and delays of 14.8 days, illustrating how geographic and administrative barriers translate directly into welfare disparities. From Table 3, the Accessibility Index demonstrates the strongest effect on livelihoods among all UCT characteristics examined (β_4 = 0.1923, p < 0.05), and a shift from low to high accessibility would yield a predicted livelihood improvement of 0.096 units, equivalent to 57 percent of one standard deviation.

The prevalence and impact of specific accessibility barriers are detailed in Table 6.

Table 6: Accessibility Barriers and Their Prevalence

Accessibility Barrier	N Affected	% Affected	Mean LI Impact	p-value
Distance > 10km to Payment Point	1,134	43.38	−0.089	0.000
Payment Delays > 7 Days	1,098	42.00	−0.067	0.000
Documentation Problems	915	35.00	−0.078	0.000
Long Waiting Times (> 2 hours)	867	33.16	−0.045	0.003
Poor Service Quality	734	28.08	−0.056	0.001
Language Barriers	523	20.00	−0.034	0.028

Distance exceeding 10 kilometres to payment points was the most prevalent barrier, affecting 43.38 percent of households and associated with a 0.089-unit reduction in livelihood outcomes, the largest single barrier impact recorded. Payment delays exceeding seven days affected 42 percent of beneficiaries (reduction of 0.067 units, $p < 0.001$), while documentation problems faced by 35 percent of households, particularly among illiterate caregivers and those lacking national identification, reduced outcomes by 0.078 units. These structural barriers confirm findings by Agwayo and Muthinja (2021) and Pega et al. (2022) that implementation obstacles prevent the most vulnerable households from fully realising available programme benefits.

Domain-specific accessibility effects are presented in Table 7.

Table 7: Impact of Accessibility on Domain-Specific Indices

Livelihood Domain	Accessibility Coefficient	Robust SE	t-statistic	p-value	R-squared
Food Security Index	0.1756***	0.0267	6.58	0.000	0.3989
Health Index	0.1834***	0.0253	7.25	0.000	0.3867
Education Index	0.2189***	0.0279	7.84	0.000	0.4156

Accessibility exerts its strongest domain-specific effect on education ($\beta = 0.2189$, $p < 0.05$), because school fee payment deadlines, uniform procurement, and term enrolment dates create time-sensitive financial requirements that payment delays and distant payment points directly disrupt. Health outcomes show a moderate accessibility effect ($\beta = 0.1834$, $p < 0.001$), while food security records the smallest but still significant coefficient ($\beta = 0.1756$, $p < 0.05$), reflecting the greater timing flexibility of routine food purchases relative to the rigid calendars of educational and healthcare expenditure. The overarching finding that accessibility surpasses both transfer amount and duration as the strongest predictor of livelihood outcomes resonates with the Sustainable Livelihoods Framework's distinction between capital availability and capital access (Chambers and Conway, 1992), underscoring that implementation quality is as decisive as programme generosity in determining welfare outcomes for OVC households.

5.0 Conclusion

This study concludes that unconditional cash transfers have significant influence on OVC livelihoods in Samburu Central Sub-County in four critical dimensions. Transfer amount is significant with the current norm of KES 24,000 per year only covering 44.4 percent of basic household needs and KES 48,000 approaching adequacy at 88.9 percent while every KES 1,000 increase in transfer amount results in a measurable 0.0061-unit improvement in livelihood. Programme duration creates compounding welfare gains of 0.0347 units for each extra year, with education having the highest responsiveness given its multi-year financing needs, difficult time-bound graduation strategies which cut off emerging benefits too soon. Community-based targeting is found to be superior to administrative selection by 0.0356 units of the Livelihood Index in all domains which confirms the hypothesis that participatory identification of vulnerable households results in both better targeting accuracy and greater programme legitimacy. Most critically, programme accessibility can be identified as the single most powerful determinant of livelihood outcomes ($b = 0.1923$) yet only 32.33 per cent of households are found to have high levels of access, with structural barriers such as distance, delays in payment and documentation requirements being found to be widespread, but to disproportionately constrain the most vulnerable households. Collectively, these findings show that maximising UCT effectiveness in arid and semi-arid contexts requires attention to the transfer of adequate effectiveness, programme continuity, targeting quality and accessible delivery infrastructure, all at the same time.

6.0 Policy Recommendations

The Ministry of Labour and Social Protection should raise annual transfers of CT-OVCs towards KES 48,000 with regional cost of living adjustments and inflation indexation, and introduce education-specific and health-specific top-up payments in light of this strong domain-specific responsiveness as found. Graduation criteria should not be based on an arbitrary time but instead be based on measured achievement in livelihood, in order to capture the compounding effects of sustained enrolment, especially in the case of households with school-age OVC. Community-based targeting should be prioritised over administrative in terms of investment in capacity building of the community welfare committees and transparent verification processes that strengthen legitimacy of programmes. Payment infrastructure must be urgently expanded to shorten distances down to less than 10 kilometres for all beneficiaries, and this must be complemented by mobile payment solutions, automated scheduling of disbursement and simplified documentation procedures to lower the barriers experienced by more than 40 per cent of all current beneficiaries. The payment infrastructure recommendation should be updated to reflect Kenya's shift to mobile disbursements, with focus on the scarcity of mobile money withdrawal agents in remote pastoral areas. Gender responsive delivery strategies should consider the specific constraints of female-headed households who make up 62.25 percent of the beneficiaries and rural specific interventions should consider the geographical disparity documented in the distribution of urban and rural livelihood outcomes. Monitoring frameworks should cover multidimensional livelihood outcomes in the areas of food security, health, and education together with indicators on the delivery of payments, which facilitates adaptive programme management, responding systematically to beneficiary needs.

References

Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67(5), 422–436. https://doi.org/10.1037/h0040968

Agrawal, A., Kaur, N., Shakya, C., & Norton, A. (2020). Social assistance programs and climate resilience: reducing vulnerability through cash transfers. *Current Opinion in Environmental Sustainability*, 44, 113–123.

Agwayo, F. M., & Muthinja, M. M. (2021). Effect of payment mechanism on cash transfer for orphans and vulnerable children program in Kenya: A case study of Busia County. *Journal of International Business, Innovation and Strategic Management*, 5(3), 160–180.

Ajele, N., Manini, M. M., & Singoro, B. W. (2024). Effect of core design features of the unconditional cash transfer program on poverty reduction among households in Turkana Central Sub-County, Kenya. *African Development Review*.

Al Izzati, R., Suryadarma, D., & Suryahadi, A. (2023). Do short-term unconditional cash transfers change behaviour and preferences? Evidence from Indonesia. *Oxford Development Studies*, 51(3), 291–306.

Altındağ, O., & O'Connell, S. D. (2023). The short-lived effects of unconditional cash transfers to refugees. *Journal of Development Economics*, 160, 102942.

Asfaw, S., Davis, B., Dewbre, J., Handa, S., & Winters, P. (2012). Cash transfer programmes, productive activities and labor supply: Evidence from a randomized experiment in Kenya. *Journal of Development Studies*, 48(2), 296–313.

Ayuku, D., Embleton, L., Koech, J., Atwoli, L., & Vreeman, R. (2014). The psychosocial and health needs of orphans and vulnerable children living in selected children's homes in Uasin Gishu County, Kenya. *International Journal of Public Health*, 59(6), 989–997.

Bamgboye, E., Odusote, T., Olusanmi, I., Akinyemi, J., Bidemi, Y., Adebowale, A., & Ladipo, O. (2020). Socio-economic status and hunger among orphans and vulnerable children households in Lagos State, Nigeria. *African Health Sciences*, 20(2), 923–931.

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis*. University of Chicago Press.

Chambers, R., & Conway, G. (1992). *Sustainable rural livelihoods: Practical concepts for the 21st century*. Institute of Development Studies.

Chebett, N. (2021). *The socio-economic impact of cash transfer programme on livelihood of Kenyans: Case study of beneficiaries in Kainuk, Turkana County* (Doctoral dissertation, University of Nairobi).

County Government of Samburu. (2023). *Samburu County Social Protection Report*. Samburu County Government.

Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, 16(2), 399–432.

Hajdu, F., Granlund, S., Neves, D., Hochfeld, T., Amuakwa-Mensah, F., & Sandström, E. (2020). Cash transfers for sustainable rural livelihoods? Examining the long-term productive effects of the Child Support Grant in South Africa. *World Development Perspectives*, 19, 100227.

Hameed, A., Ali, T. M., & Najam, M. O. (2024). The impact of unconditional cash transfers on enhancing household wellbeing in Pakistan: Evidence from a quasi-experimental design. *Humanities and Social Sciences Communications*, 11(1), 1–12.

Handa, S., Halpern, C. T., Pettifor, A., & Thirumurthy, H. (2015). The government of Kenya's cash transfer program reduces the risk of sexual debut among young people age 15–25. *PLoS ONE*, 9(1), e85473.

Hossain, S. J., Roy, B. R., Sujon, H. M., Tran, T., Fisher, J., Tofail, F., & Hamadani, J. D. (2022). Effects of integrated psychosocial stimulation and unconditional cash transfer on children's development in rural Bangladesh. *Social Science & Medicine*, 293, 114657.

Kiburu, M. K. (2023). *Implications of unconditional cash transfer on the economic welfare of the elderly persons in Kajiado, Kenya* (Doctoral dissertation, Kisii University).

Kiburu, M. K., & Oino, P. (2021). Hindrances to unconditional cash transfer accessibility among elderly persons in Tharaka Nithi County, Kenya. *African Journal of Social Work*, 11(2), 45–58.

Leight, J., Hirvonen, K., & Zafar, S. (2024). *The effectiveness of cash and cash plus interventions on livelihoods outcomes*. Global Poverty and Inequality Research Unit.

Lengoiboni, M., van der Molen, P., & Bregt, A. K. (2010). Pastoralists' spatial knowledge in relation to land administration: Case study from Kenya. *Journal of Arid Environments*, 74(8), 857–861.

Lesorogol, C. K. (2008). *Contesting the commons: Privatizing pastoral lands in Kenya*. University of Michigan Press.

Leventhal, G. S. (1980). What should be done with equity theory? In K. Gergen, M. Greenberg, & R. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 27–55). Plenum Press.

Mincer, J. (1974). *Schooling, experience, and earnings*. National Bureau of Economic Research.

Mncube, N. L. (2022). *Investigating the contribution of social cash transfers to the food security situation of agricultural-based rural households of Nhlazuka, Richmond Municipality, South Africa* (Doctoral dissertation).

Mwenzwa, E. M. (2023). Nomadic children in Kenya: Examining the place of social work in the conflict-livelihood-vulnerability interface. *Zango: Zambian Journal of Contemporary Issues*, 37(2), 52–66.

Njoki, S., & Wairimu, M. (2023). Impact of cash transfers on household food security: Evidence from families with orphans and vulnerable children in Kenya. *Journal of African Development*, 24(2), 200–227.

Ochego, S. O. (2021). Effect of cash transfer programme on health needs of vulnerable children and orphans in Langas, Eldoret, Kenya. *Scholar Journal of Arts, Humanities and Social Sciences*, 9, 375–383.

Opiyo, F. E., Wasonga, O. V., Nyangito, M. M., Schilling, J., & Munang, R. (2015). Drought adaptation and coping strategies among the Turkana pastoralists of northern Kenya. *International Journal of Disaster Risk Science*, 6(3), 295–309.

Pega, F., Pabayo, R., Benny, C., Lee, E. Y., Lhachimi, S. K., & Liu, S. Y. (2022). Unconditional cash transfers for reducing poverty and vulnerabilities: Effect on use of health services and health outcomes in low- and middle-income countries. *Cochrane Database of Systematic Reviews*, (3).

Quandt, A. (2018). Measuring livelihood resilience: The household livelihood resilience approach. *World Development*, 107, 253–263.

Rahama, D. (2024). *Effect of unconditional cash transfer programmes on livelihoods of beneficiaries in Garissa County, Kenya* (Doctoral dissertation, KCA University).

Salifu, A., & Kufoalor, K. M. (2024). Are cash transfer programmes effective at targeting people experiencing poverty in Sub-Saharan Africa? *SN Business & Economics*, 4(2), 24.

Salti, N., Chaaban, J., Moussa, W., Irani, A., Al Mokdad, R., Jamaluddine, Z., & Ghattas, H. (2022). The impact of cash transfers on Syrian refugees in Lebanon: Evidence from a multidimensional regression discontinuity design. *Journal of Development Economics*, 155, 102803.

Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1–17.

Scoones, I. (1998). *Sustainable rural livelihoods: A framework for analysis*. IDS Working Paper 72. Institute of Development Studies.

Wanyama, F., & McCord, A. (2017). The politics of the Kenya Hunger Safety Net Programme. *Development Policy Review*, 35(2), 182–202.