

## **EFFECT OF THE NATIONAL CASH TRANSFER PROGRAMME FOR OLDER PERSONS ON ACCESS TO BASIC LIVELIHOODS: A COMPARATIVE ANALYSIS OF BENEFICIARIES AND NON-BENEFICIARIES IN SIAYA COUNTY, KENYA**

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### **ABSTRACT**

Cash transfer to poor and vulnerable members of society is an important aspect of social protection that is increasingly gaining recognition in developing countries as a vital tool for combating poverty, hunger and disease. In Kenya, the cash transfer programme for older persons was initiated in 2006, and has since been rolled out to cover the entire country. This study aimed at determining variations in access to basic livelihoods between programme beneficiaries and non-beneficiaries. The static group comparison design was adopted to guide the research process, and primary data were sourced in mid-2016 from 177 participants, including 88 beneficiaries and 89 non-beneficiaries. Analysis techniques included one-way analysis of variance, cross-tabulations with chi square tests and binary logistic regression. The results show that programme beneficiaries had about 4.5 times the odds of accessing at least three meals in a day as their non-beneficiary counterparts (CI = 2.741-7.476,  $\rho$ -value = 0.000); beneficiaries were about 3.9 times as likely to score an average dietary diversity (4.0), as non-beneficiaries (CI = 2.160-7.084,  $\rho$ -value = 0.000); beneficiaries also had about 3.3 times the odds of establishing an income-generating activity to improve their income as non-beneficiaries (CI = 1.942-5.641,  $\rho$ -value = 0.000). The results suggest that the programme's effect was statistically significant for all the five indicators covered by the study. Thus, programme beneficiaries were significantly better-off in accessing basic livelihoods than their non-beneficiary counterparts. However, the programme's benefit remains seasonal and volatile for most beneficiaries. Strengthening the programme should involve shifting beneficiaries' focus from direct consumption to investment in productive ventures in order to improve and sustain their income, as well as make the programme more effective in resource-poor countries.

**Keywords:** Cash transfer, basic livelihoods, access, older persons, beneficiaries, non-beneficiaries.

### **INTRODUCTION**

Cash transfer is a genre of social protection programmes that targets poor and vulnerable groups in society. It involves making regular non-contributory payments to poor and vulnerable individuals or households, with the aim of enhancing access to basic livelihoods, strengthening capacities to cope with economic hazards and reducing poverty (Ngelu, 2017; World Bank, 2013; Onyango-Ouma & Samuels, 2012). Extreme poverty remains a key challenge to more than 800 million global citizens, who live on less than US\$ 1.25 a day; and about two-thirds of them reside in the Sub-Sahara Africa (SSA) and South East Asia (United Nations, 2015a; World Bank, 2013). In Kenya, about 47% of the national population, estimated at 40 million people, lives on less than US\$1.25 a day. The incidence of poverty is

relatively higher in-groups such as orphaned and vulnerable children, persons living with disability, as well as older persons, than among other citizens (Ngelu, 2017; Kisurulia, Katiambo & Tanui, 2015; World Bank, 2013).

Cash transfer initiatives that target such groupware increasingly gaining recognition in developing countries as effective tools for combating poverty, hunger and disease; thus, contributing to the realisation of Sustainable Development Goals (SDGs) 1, 2 and 3 (Partnership for African Social and Governance Research [PASGR], 2017; United Nations, 2015a; Heinrich, 2007). The need for cash transfer programmes has been precipitated by recurrent episodes of various global crises over the past two decades, including financial, fuel, climate and food crises, as well as the heavy burden of HIV and AIDS. A remarkable outcome of such crises has been an increasing proportion of vulnerable citizens that continues to sink below the poverty line (PASGR, 2017; Kisurulia *et al.*, 2015; National Gender Equality Commission [NGEC], 2014).

By cushioning vulnerable groups against adverse effects of the global socio-economic crises, cash transfer programmes enable such groups to access basic livelihoods; thereby, enjoy their rights as provided for by Articles 22 and 25 of the Universal Declaration of Human Rights (United Nations, 2015b). In Kenya, Article 43 of the Constitution is explicit on the rights of every person to access basic livelihoods, including health, housing, sanitation, food, clean and safe water, as well as education, among others. More specifically, Section 3 of the same Article obligates the state to provide appropriate social protection to vulnerable persons who may not be able to access such basic livelihoods due to poverty. In relation to older members of society, Article 57 obligates the state and families to provide reasonable care and assistance (Government of Kenya [GoK], 2010). In this regard, the State has responded to Articles 43 and 57 by formulating the National Social Protection Policy in 2011 and enacting the Social Assistance Act in 2013 to facilitate implementation of the cash transfer programme for older persons, which was initiated in 2006 in three of the then administrative districts, namely, Nyando, Busia and Thika on a pilot basis, with a budget of KES 4 million and a per capita stipend of KES 1,065 (World Bank, 2013; NGEC, 2014). In the 2008/09 financial year, the per capita stipend was adjusted to KES 2,000, based on the findings of the Kenya Household Integrated Survey 2004/5, which estimated poverty lines at KES 1,562 and KES 2,913 for rural and urban populations, respectively. The stipend is paid every two months through designated payment service providers, including Equity Bank Kenya Limited and Postal Corporation of Kenya (NGEC, 2014; Kenya National Bureau of Statistics [KNBS], 2006).

In Kenya, an older person is one who has attained the age of 60 years and above. The 2009 census revealed that the country had about 1.9 million such people, and projections indicated that their population would reach 2.4 million by the year 2015. At the time of the study, the population of older persons in Siaya County was estimated at about 63,000 people (National Council for Population & Development [NCPD], 2016; KNBS, 2010). However, the cash transfer programme targets extremely poor older persons aged 65 years or older, receiving no pension (PASGR, 2017; NCPD, 2016; NGEC, 2014). The programme's design recognises that persons entering old age when poor are likely to remain so due to shortage of productive opportunities for them (World Bank, 2013). Since its inception, the cash transfer programme for older persons has grown in terms of budgetary allocation and the number of beneficiaries. Available data show that in the 2013/14 financial year, the programme's budget was KES 3.2 billion, up from the KES 4 million at inception in the 2006/07 financial year; and it was serving about 200,000 households across the country (PASGR, 2017; NGEC, 2014).

Academic studies conducted in various countries have documented positive and negative effects of cash transfer programmes on the ability of older persons to access basic livelihoods (Sakunphanit & Suwanrada, 2011; Department for International Development [DFID], 2011; Nepal Central Bureau of Statistics [NCBS], 2011; Hilou & Soares, 2008; Michael & Samson, 2009; Kumar & Anand, 2006; among others). In Kenya, extant literature reveals the dearth of academic information regarding the programme's effect on beneficiaries' access to basic livelihoods in various parts of the country (Ngelu, 2017; NGEC, 2014). This study was motivated by the need to fill this information gap. Unlike most of its predecessors, the study adopted the static comparison group design, which enabled the investigator to examine variations in access to such basic livelihoods, between beneficiaries and non-beneficiaries residing in the same community, with same background attributes. Its purpose was to generate information that would inform programme strengthening decisions in resource-poor countries, provide citable facts to support policy engagements as well as spur further academic investigations, not only in Kenya but also in other developing countries in Africa and beyond.

## LITERATURE REVIEW

Cash transfer programmes are relatively newer in developing countries than they are in industrialised nations, where they have contributed to poverty reduction for at least five decades (Bryant, 2010; Alkire & Suman, 2008). Based on this premise, Bryant (2010) reported that owing to the success of such programmes in Western Europe and North America, replicas were increasingly mushrooming in developing countries to synergise poverty reduction efforts; while Alkire and Suman (2008) noted that for a long time cash transfer programmes were thought to be unaffordable in resource-poor countries until early 1990s when frontrunners were initiated in countries such as Mexico, India and South Africa, among others. Studies conducted in various countries have documented positive and negative effects of cash transfer programmes on the ability of older persons to access basic livelihoods (Sakunphanit & Suwanrada, 2011; DFID, 2011; NCBS, 2011; Hilou & Soares, 2008; Michael & Samson, 2009; Kumar & Anand, 2006; among others). Moreover, De Janvry, Sadoulet and Vakis (2008) splits the positive effects of cash transfer programmes for older persons into short- and long-term benefits. Whereas short-term benefits include improved access to immediate basic consumption needs, long-term benefits include increased access to and participation in productive economic activities, which enable beneficiaries to sustain their income (De Janvry *et al.*, 2008).

Short-term benefits of cash transfer programmes for older persons have been cited in a number of studies. In this regard, the study commissioned by DFID (2011) in the SSA associated cash transfer programmes for older persons with improvement in food security and nutritional outcomes for beneficiaries; while Sakunphanit and Suwanrada (2011) indicated that cash transfer programmes enabled older persons to access emergency care from health facilities for themselves, as well as for their dependants. A study conducted by Nepal Central Bureau of Statistics (NCBS) indicated that the national cash transfer programme enabled older persons to meet the costs of travelling, accessing treatment and purchasing medical supplies, not provided by public health facilities (NCBS, 2011). Another evaluative study commissioned by Bangladesh Rural Advancement Committee [BRAC] linked its cash transfer programme for older persons with improved access to food and healthcare services, resulting to a significant increase in body weight among beneficiaries (BRAC, 2008).

In India, up to 96% of the programme beneficiaries involved in the study hinted at improved access to food, water and sanitation, housing as well as medical care (Kumar & Anand, 2006); while in Nicaragua, Maluccio and Flores (2005) examined cash transfer programmes initiated to support poor households that were affected by the coffee crisis of 1999 to 2001. Among other findings, the study reported that cash transfer beneficiaries were twice as likely to access basic livelihoods as poor households that did not benefit from the programme. In Kenya, studies conducted by Ngelu (2017) as well as Kisurulia, Katiambo & Tanui (2015) also associated the national cash transfer programme for older persons with improved access to food, nutrition, healthcare, clothing, housing and education for young dependants. Notably though, the programme's effect significantly varied with several proximate parameters, including beneficiaries' gender, age, marital status, number of dependants, as well as duration of accessing stipend (Ngelu, 2017; DFID, 2011; NCBS, 2011; Dlamini, 2007).

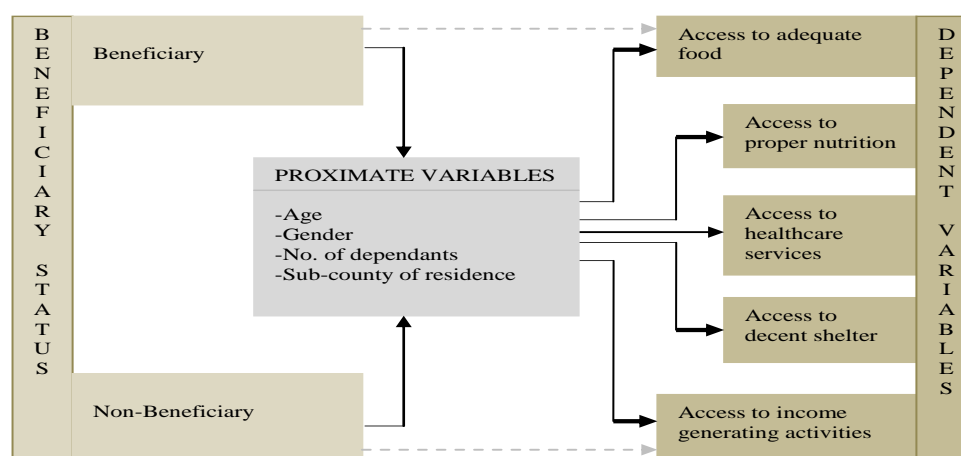
As regards long-term benefits, DFID (2011) reveals that in some contexts, programme beneficiaries mobilised their stipend and established micro-credit facilities, from where members obtained cheap credit to invest in business ventures to improve and sustain their income. In this regard, the programmes provided a reasonable degree of financial independence, which enabled beneficiaries to contribute to household expenditure. Among female beneficiaries, such contributions were particularly important for enhancing economic independence, self-esteem and assertiveness in household decision-making. Notably though, micro-financing initiatives were only established in contexts where beneficiaries were mobilised, sensitised and trained on how to venture into activities that would sustain the benefits of cash transfer programmes. This brings to the fore the important role of non-governmental development agencies in sustaining the benefits of cash transfer programmes for older persons. Improvement in beneficiaries' self-esteem and participation in development activities in their communities was also cited by Kisurulia *et al.* (2015), as one of the long-term benefits caused by Kenya's cash transfer programme for older persons.

In Nepal, NCBS (2011) linked the national cash transfer programme for older persons with beneficiaries' increased participation in micro-business activities to improve their income; while in Bangladesh, beneficiaries became more active in their businesses and farms than they were before being enrolled in the programme (BRAC, 2008). Farming was also the main economic activity for programme beneficiaries in Swaziland, as reported by Dlamini (2007). In this regard, the beneficiaries invested their income in farmers' cooperative societies, which enabled them to access farm inputs for higher productivity and income. In South Africa, Samson, Lee, Ndlebe & MacQuene (2004) found that about 12% of older persons receiving stipend from the government's cash transfer programme was involved in ventures such as farming, poultry-keeping, processing and marketing farm produce, as well as micro-credit services, among others.

Despite the positive effects of cash transfer programmes, as mentioned in the foregoing paragraphs, extant literature also reveals negative effects that stakeholders associate with such programmes. For instance, Michael and Samson (2009) reveal that cash transfer programmes are often admonished for propagating dependency and inter-generational transmission of poverty, particularly because the cash obtained from the programmes only alleviate poverty in the short-run, but fail to provide an exit out of poverty. Besides, some policy shapers equate stipend provided by cash transfer programmes to handouts. To them, providing stipends to masses is likely to arrogate resources that would otherwise be invested in the social and productive sectors; thereby, making such programme unsustainable in resource-poor contexts (Hilou & Soares, 2008). Cash transfer programmes for older persons

have also been denounced for entrenching laxity among family members of beneficiaries, which in turn, reduce labour participation and economic productivity. In some families, the culture of dependency intensifies competition for the meagre resources provided to older persons to the extent of causing protracted feuds, with serious consequences on family cohesion (Kumar & Anand, 2006).

The reviewed literature suggest that cash transfer programmes have a significant influence on poverty reduction efforts by enabling beneficiaries to achieve both short-term and long-term benefits. Whereas short-term benefits include improved access to basic livelihoods, long-term benefits dwell move on the sustainability of income. The literature further reveals that the programmes' effect on access to basic livelihoods act through a set of beneficiaries' proximate attributes. In view of this, the conceptual framework presented in Figure 2 shows the hypothesised relationship between cash transfer programmes for older persons and access to basic livelihoods. Notably though, the study adopted an approach, which compared access to such livelihoods between programme beneficiaries and non-beneficiaries.



**Figure 1: Conceptual framework showing hypothesised linkage between key variables**

The conceptual framework shows the hypothesised relationship between beneficiary status (independent variable) and access to various elements of basic livelihoods (dependent variables), including food, nutrition, healthcare, decent housing and Income-Generating Activities (IGAs). The framework further shows that the relationship between the key variables was expected to vary with participants' proximate attributes such as gender, age, number of dependants, as well as sub-county of residence.

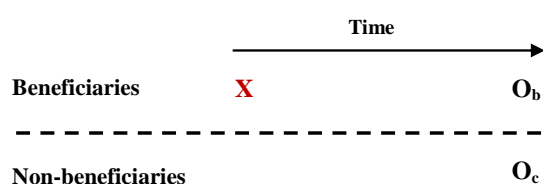
## METHODOLOGY

The study was founded on two philosophical schools of thought, namely, positivism and constructivism, with complementary ontological, epistemological and methodological orientations. Ontologically, positivist scholars believe that information sourced from observation of phenomena is an exclusive source of authoritative knowledge, provided that observed phenomena and the observer are independent, and that the observation process is objective. On their part, constructivist scholars believe that phenomena are socially constructed and are subjectively observed, which implies that a constructivist scholar becomes part of the phenomena subjected to observation (Wong, 2014; Ashley & Orenstein, 2005). Epistemologically, positivist scholars observe phenomena in terms of measurable variables, and examine statistical relationship between variables in order to deduce conclusions. Contrastingly, constructivist scholars delve into the meaning of phenomena



subjected to observation, in terms of behavioural patterns, underlying factors and implications of such dynamics, in order to induce conclusions. Methodologically, whereas positivist scholars apply quantitative survey methods to source information for descriptive and inferential purposes; constructivist scholars apply qualitative methods such as ethnographic observation, Focus Group Discussions (FGDs), and in-depth interviews to source complementary information (Wong, 2014; Ashley & Orenstein, 2005).

Based on the positivist and constructivist philosophies of research, the static group comparison design was applied to guide the research process, including data sourcing, processing, analysis and interpretation. The design necessitated the involvement of two groups, namely beneficiaries (treatment) and non-beneficiaries (control), but which were not randomly constituted. As illustrated the figure below, beneficiaries included older persons who had received monthly stipend from the cash transfer programme for older persons for at least 1 year (X), while non-beneficiaries included those who met minimum criteria for enrolment in the programme, but were not. After a period of at least 1 year (Time), the study measured effect of the programme's intervention X in terms of access to basic livelihoods among beneficiaries ( $O_b$ ). Similar measurement was conducted among the non-beneficiaries ( $O_c$ ), and the results compared to determine effect of the programme.



Where:  $O_b$  is the observation of access to basic livelihoods indicators among beneficiaries; X is the intervention (monthly stipend from the cash transfer programme for older persons);  $O_c$  is the observation of access to basic livelihoods indicators among non-beneficiaries; Time is the duration of exposure to the programme's stipend; while the broken line shows that beneficiary and non-beneficiary groups were not randomly constituted (Fisher & Foreit, 2002). The application of this design was based on the assumption that members of the beneficiary and non-beneficiary groups qualified to receive support from the Cash transfer programme for older persons, having met minimum criteria set by the programme's management. Based on the philosophical foundation of the study, both quantitative and qualitative methods were applied in data sourcing, processing, analysis and interpretation. Whereas quantitative methods elicited quantifiable and numerical data, qualitative methods captured in-depth information arising from views of programme beneficiaries, implementers and partners.

The study targeted older persons aged 65 to 80 years, as well as programme and government officers, who were involved in the implementation of the cash transfer programme for older persons, through policy formulation, planning, funding, supervision, as well as monitoring and reporting. A review of County Government documents reveals that 736 older persons had been screened and listed in the register of potential beneficiaries. This was designated population from where a sample size was drawn. Based on this, the investigator applied Fisher's formula for determining samples from finite populations (Fink, 1995), which states that: -

$$n_0 = \frac{p(1-p)}{\left[\left(\frac{\alpha}{Z}\right)^2 + p(1-p)/N_0\right]} = \frac{0.5(1-0.5)}{\left[\left(\frac{0.05}{1.96}\right)^2 + 0.5(1-0.5)/736\right]} = 252 \quad (1)$$

Where:  $n_0$  = sample size,  $N_0$  = population,  $p$  = estimated population variance: 0.5,  $\alpha$  = desired precision: 0.05,  $Z$  = confidence level: 1.96 for 95% on the normal distribution curve. The formula obtained a sample size of 242 participants, which was corrected for design effects using the formula: -

$$n_i = \frac{n_0}{1 + (n_0/N_0)} = \frac{252}{1 + (252/736)} = 188 \quad (2)$$

Where  $n_i$  = corrected sample size,  $n_0$  = computed sample size: 252,  $N_0$  = population: 736. The correction process obtained a final sample size of 188 participants, which again, was divided equally between beneficiaries and non-beneficiaries, and proportionately across six sub-counties, using the formula stated below.

$$n_c = (n_i/N_0) * N_c \quad (3)$$

Where  $n_c$  = sample size for each sub-county;  $n_i$  = corrected sample size (188);  $N_c$  = population (736);  $n_i/N_0$  = the sampling fraction (0.255371); and  $N_c$  = population for each sub-county. The computations obtained the results indicated in Table 1. The last column of the Table shows the actualised sample sizes for each sub-county. Primary data were sourced in February 2017, using a standard survey questionnaire. Of the 188 participants that were targeted, 177 (94.2%) were successfully interviewed.

**Table 1: Sample size distribution**

Sub-county	Population (N)	Computed sample ( $n_0$ )	Corrected sample ( $n_1$ )	Actualised sample ( $n_2$ )	Response rate (%)
Alego-Usonga	132	45	34	31	92.1
Gem	134	46	34	33	96.4
Ugunja	114	39	29	27	92.7
Ugenya	121	41	31	30	97.1
Rarieda	117	40	30	29	97.1
Bondo	118	40	30	27	89.6
<b>Total</b>	<b>736</b>	<b>252</b>	<b>188</b>	<b>177</b>	<b>94.2</b>

Before data collection, the instrument was pretested on 40 participants, including 18 beneficiaries and 22 non-beneficiaries. This represents about 10.6% of the sample size, which according to Sheatsley (1983) is sufficient to reveal flaws in data collection instruments. The analysis obtained a Content Validity Index (CVI) of about 82% for the survey questionnaire, which according to Polit and Beck (2006), indicates that contents of the questionnaire were valid. The analysis also obtained a Spearman-Brown Prophecy Coefficient of 77%, which according to Garson (2009), suggests that information sourced by the questionnaire at pre-test and during data collection was consistent.

Based on the research philosophies underpinning the study, both quantitative and qualitative techniques were applied to process and analyse data. Quantitative analysis techniques included one-way analysis of variance, which determined the statistical significance of variation between beneficiaries and non-beneficiaries in terms of access to basic livelihoods, measured at interval scale; cross-tabulations with Chi square statistic ( $\chi^2$ ), which was used to

determine statistical association between participants' status and access to basic livelihoods, measured at nominal scale. In addition, binary logistic regression was applied to determine the odds of beneficiaries and non-beneficiaries accessing basic livelihoods during the preceding 1-year period. Binary logistic regression predicts the effect of an independent variable(s) on a dependent dichotomous variable (Wuensch, 2006). The predicted variable takes the value 1 with a probability of success  $\theta$ , or the value 0 with a probability of failure  $1-\theta$ . The model is expressed as: -

$$\text{Logit}[\theta(Y)] = \log \left[ \frac{\theta(Y)}{1-\theta(Y)} \right] = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \dots + \beta_i X_i + \varepsilon_i$$

(4)

Where  $Y$  = dependent variable (for instance, number of meals accessed the previous day, which was categorised as 'optimal' or 'sub-optimal');  $\theta(Y)$  = the probability of a participant accessing three or more meals over the reference period - optimal;  $1-\theta(Y)$  = the probability of a participant accessing less than three meals over the reference period - sub-optimal;  $\alpha$  = constant term of the equation;  $\beta_1, \beta_2 \dots \beta_i$  = partial regression coefficients associated with independent variables;  $X_1, X_2 \dots X_i$  = independent variables and  $\varepsilon$  = the error term. The logistic regression generated beta coefficients ( $\beta$ ), odds ratios [ $Exp(\beta)$ ], and Hosmer-Lemeshow test of goodness-of-fit and Nagelkerke's  $R^2$ . The Statistical Package for Social Sciences (SPSS) and Microsoft Excel facilitated the analysis of quantitative data. In addition, qualitative data were transcribed, exported to Nvivo 10 software package and analysed thematically to identify emerging themes, patterns and relationship between themes.

The study was guided by ethical principles, where potential participants were informed about the study and given opportunity to decide on whether to participate voluntarily or not; informed about their right to withdraw consent before or during data collection; and assured about confidentiality of the information sourced. In addition, the investigator obtained approval from the University of Nairobi and a research permit from the National Commission for Science, Technology, and Innovation.

## RESULTS

The analysis involved comparing beneficiaries of the cash transfer programme and non-beneficiaries, in terms of access to basic livelihoods, including food, nutritional diversity, healthcare, decent housing and income-generating activities. The study covered 177 older persons, of which 88 (49.7%) were beneficiaries and 89 (50.3%) were non-beneficiaries. Those included in the study as beneficiaries had received stipend from the cash transfer programme for older persons for periods ranging between 1 and 8 years (Mean = 2.6 years; Standard Deviation [SD] = 1.676; Standard Error [SE] = 0.122). The results have been organised under three sub-sections, including: bivariate analysis of participants' beneficiary status and proximate attributes; bivariate analysis of participants' beneficiary status and access to basic livelihoods; as well as multivariate analysis of participants' beneficiary status and access to basic livelihoods. Details are provided under the following sub-sections.

### Bivariate Analysis of Participants' Beneficiary Status and their Proximate Attributes

The study covered a few aspects of participants' proximate attributes, including age, gender number of dependants and sub-county of residence. Results show that participants were aged between 66 and 75 years (Mean = 69.16 years; SD = 2.420; SE = 0.127). The reported ages



were clustered into three nominal-scaled categories, as '<70 years', '70-74 years' and '75 years+' in order to facilitate analysis. The results presented in Table 2 show that of the 177 participants, 107 (60.4%) were aged below 70 years, 66 (37.4%) were in the 70 to 74 years aged bracket, while 4 (2.2%) were aged 75 years or higher. In relation to participants' beneficiary status, the results show that among the beneficiaries (88), 52 (59.5%) stated ages below 70 years; while 34 (38.4%) were in the 70-74 years aged group. Among the non-beneficiaries (89), 55 (61.4%) were in the below 70 years' age bracket, while 32 (36.3%) indicated the 70 to 74 years' age group. Based on this, the analysis obtained a computed  $\chi^2$  value of 0.190, with 2 degrees of freedom and a  $p$ -value of 0.909, which is not significant; thus, suggesting lack of a significant association between participants' beneficiary status and their age.

**Table 2: Participants' beneficiary status and proximate attributes**

PROXIMATE ATTRIBUTES	PARTICIPANTS' BENEFICIARY STATUS						CHI SQUARE RESULTS		
	Beneficiary		Non-beneficiary		Total		$\chi^2$	df	$p$ -value
	Freq	%	Freq	%	Freq	%			
<i>Age</i>									
<70 years	52	59.5	55	61.4	107	60.4	0.190	2	0.909
70-74 years	34	38.4	32	36.3	66	37.4			
75 years+	2	2.1	2	2.3	4	2.2			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>Gender</i>									
Male	31	35.3	32	36.3	63	35.7	0.008	1	0.931
Female	57	64.7	57	63.7	114	64.3			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>No. of dependants</i>									
0	24	27.3	20	22.5	44	24.9	0.139	3	0.802
1- 2	37	42.0	35	39.3	72	40.6			
3- 4	18	20.5	22	24.7	40	22.6			
5+	9	10.2	12	13.5	21	11.9			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>Sub-County</i>									
Alego-Usonga	16	18.3	15	16.9	31	17.5	1.446	5	0.717
Gem	14	15.9	19	21.3	33	18.6			
Ugunja	15	17.0	12	13.5	27	15.3			
Ugenya	15	17.0	15	16.9	30	16.9			
Rarieda	15	17.0	14	15.7	29	16.4			
Bondo	13	14.8	14	15.7	27	15.3			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			

The participants included 63 (35.7%) men and 114 (64.3%) women. Results show that women were the majority among beneficiaries, 57 (64.7%) and among non-beneficiaries, 57 (63.7%). The analysis revealed lack of a significant association between participants' beneficiary status and their gender ( $\chi^2 = 0.008$ ,  $df = 1$  &  $p$ -value = 0.931). Regarding the

number of dependants, the results in Table 2 show that 72 (40.6%) participants had 1 to 2 dependants, 44 (24.9%) indicated no dependants, while 40 (22.6%) had 3 to 4 dependants. Among the beneficiaries (88), 37 (42.0%) participants indicated having 1 to 2 dependants, while 24 (27.3%) had none. Among the non-beneficiaries (89), 35 (39.3%) had 1 to 2 dependants, while 22 (24.7%) indicated 3 to 4 dependants. Based on this, the analysis obtained a computed  $\chi^2$  value of 0.139, with 3 degrees of freedom and a p-value of 0.802, which is not significant; thereby, suggesting lack of a significant association between participants' beneficiary status and the number of dependants. Lastly, Table 2 shows that participants were sampled from six sub-counties, with Gem providing the highest number at 33 (18.6%); while Bondo provided the least, 27 (15.3%). However, the analysis revealed no significant association between the beneficiary status and sub-county of residence ( $\chi^2 = 1.446$ ,  $df = 5$  &  $p\text{-value} = 0.717$ ). Overall, beneficiaries and non-beneficiaries seemed to be homogenous in terms of age, gender, number of dependants and sub-county of residence; thus, eliminating the influence of such proximate attributes on participants' access to basic livelihoods.

### **Bivariate Analysis of Participants' Beneficiary Status and Access to Basic Livelihoods**

The cash transfer programme for older persons was designed to reduce hunger among older persons; thus, contribute towards realisation of the second SDG, which focuses on ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture (United Nations, 2015a). By providing monthly stipend, the programme empowers beneficiaries and their families to access food; thereby, reduce the prevalence of hunger. In this study, access to food was measured by requesting participants to indicate the number of meals accessed the previous day. In this regard, a meal was defined as food cooked at home and shared by all family members at specific times of the day, including early morning (before 10 am), late morning (10 am-11 am), early afternoon (12 noon-2 pm), late afternoon (3pm-5pm), evening (after 5 pm). The results show that beneficiaries reported a mean of 2.16 meals during the reference period (SD = 0.873; SE = 0.063; 95% CI = 2.04-2.29); while non-beneficiaries indicated a mean of 1.83 meals (SD = 0.728; SE = 0.056; 95% CI = 1.72-1.94).

This study focused on determining if there was any significant association between participants' beneficiary status and the number of meals accessed the previous day. In this regard, the reported data was clustered into three categories, viz. 'one', 'two' and 'three+', to facilitate cross-tabulation analysis. The results presented in Table 3 show that of the 177 participants, about one-half, 91 (51.5%) accessed two meals the previous day, 50 (28.2%) accessed only a meal, while 36 (20.3%) accessed at least three meals. Among the beneficiaries (88), 27 (31.1%) accessed at least three meals over the reference period, while 21 (23.7%) accessed only one meal. Among the non-beneficiaries (89), more than one-third, 29 (32.7%), accessed one meal, while 8 (10.5%) indicated three or more meals. The analysis obtained a computed  $\chi^2$  value of 22.753, with 2 degrees of freedom and a p-value of 0.000, suggesting up to 99% chance that participants' beneficiary status significantly associated with the number of meals accessed the previous day.

Table 3: Participants' beneficiary status and access to basic livelihoods

LIVELIHOOD ACCESS INDICATORS	PARTICIPANTS' BENEFICIARY STATUS						CHI SQUARE RESULTS		
	Beneficiary		Non-beneficiary		Total		Chi	df	p-value
	Freq	%	Freq	%	Freq	%			
<i>Access to food</i>									
One	21	23.7	29	32.7	50	28.2	22.753	2	0.000** *
Two	40	45.2	51	56.8	91	51.5			
Three+	27	31.1	9	10.5	36	20.3			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>Access to proper nutrition</i>									
<4	60	68.5	77	86.0	137	77.4	15.683	2	0.000** *
4.0 to 5.9	20	22.6	8	9.4	28	15.8			
6+	8	8.9	4	4.7	12	6.8			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>Access to healthcare</i>									
Able to meet all costs	51	58.4	36	40.4	87	49.2	11.044	1	0.011**
Unable to meet all costs	37	41.6	53	59.6	90	50.8			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>Access to decent housing</i>									
Roof leaking	19	21.6	32	36.3	51	28.8	8.803	1	0.019**
Roof intact	69	78.4	57	63.7	126	71.2			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			
<i>Access to income generating activities (IGAs)</i>									
Involved in IGAs	16	18.4	5	5.3	21	11.9	13.355	1	0.000** *
Not involved in IGAs	72	81.6	84	94.7	156	88.1			
<b>Total</b>	<b>88</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>			

\*, \*\*, \*\*\* show significance at  $p < 0.1$ ,  $p < 0.05$  and  $p < 0.01$  error margins, respectively

The cash transfer programme for older persons aims at improving not only access to food, but also access to vital macro-nutrients, in order to assuage the burden of nutrition-related ailments and dependency on productive family members. In this study, access to proper nutrition was measured in terms of Dietary Diversity Scores (DDS), based on the Food and Agriculture Organisation's (FAO) 24 hours' recall period (FAO, 2011). In this regard, a list of foodstuff was read out and participants requested to indicate the number of times they accessed such food types over the preceding period of 24 hours; and the results judged according to the DDS tercile, where diversity scores of <4 indicates low intake; 4.0-5.9 suggests a moderate intake, while 6+ indicates a high intake of the macro-nutrients (FAO, 2011; Wiseman, Arimond & Loechi, 2009). Descriptive results show that beneficiaries stated a mean DDS of 3.03 (SD = 1.368; SE = 0.099; 95% CI = 2.84-3.23), which suggests a low intake of the vital macro-nutrients. On their part, non-beneficiaries reported a mean DDS of 2.41 (SD = 1.379; SE = 0.105; 95% CI = 2.20-2.62), again showing a low intake of the macro-nutrients. The results suggest even though both groups indicated a low intake of the vital macro-nutrients, beneficiaries had a relatively better access to proper nutrition compared to their non-beneficiary counterparts.

The DDS data were grouped into three nominal-scaled categories of '<4', '4.0-5.9' and '6+' to facilitate cross-tabulation analysis. The results presented in Table 3 show that of the 177 participants, 137 (77.4%) indicated a DDS of less than 4, those in the 4.0 to 5.9 bracket were 28 (15.8%), while 12 (6.8%) indicated a DDS of 6 or higher. Among the beneficiaries (88), 60 (68.5%) were in the <4 category, while 8 (8.9%) were in the 6+ category. Among the non-beneficiaries (89), 77 (86.0%) indicated were in the <4 category, while those in the 6+ category were 4 (4.7%). Based on this, the analysis obtained a computed  $\chi^2$  value of 15.683, with 2 degrees of freedom and a p-value of 0.000, suggesting up to 99% chance that participants' beneficiary status significantly associated with the dietary diversity scores. This further means a significant association between participants' beneficiary status and access to proper nutrition.

Healthcare is an important aspect of livelihoods. In many developing countries, lack of financial resources is the primary factor preventing older persons from accessing diagnostic and curative services. This study examined the bivariate relationship between participants' beneficiary status and access to healthcare services, which was measured by asking participants to indicate their ability to meet costs related accessing care, including the costs of transport, diagnosis, treatment and drugs. Participants were requested to indicate whether they were able to afford such costs by themselves, the last time they sought healthcare services. The results in Table 3 show that of 177 participants, about one-half, 90 (50.8%), were unable to meet all the costs, while the other half, 87 (49.2%) were able to do so. Among the beneficiaries (88), 51 (58.4%) were able to meet all the costs of accessing healthcare services, while among the non-beneficiaries (89), less than one-half, 36 (40.4%) were able to do so. Based on this, the analysis revealed a significant association between participants' beneficiary status and access to healthcare services ( $\chi^2 = 11.044$ ,  $df = 1$  &  $p$ -value = 0.011). The results suggest that the ability to afford the cost of healthcare services was significantly different between the two groups.

The cash transfer programme for older persons is intended to reduce poverty in all its forms, including enabling older persons to access decent housing. In this study, access to decent housing was considered an important aspect of livelihoods and was measured in terms of the condition of roofs, where a leaky roof was considered a crucial indicator of a non-decent housing. The indicator was based on the assumption that beneficiaries could directly use a

portion of their stipend to repair leaky roofs or indirectly, invest stipend in IGAs to generate supplementary resources, which could then be used to improve the quality of housing. In view of this, the results presented in Table 3 show that of the 177 participants, 126 (71.2%) had non-leaky roofs, while about one-third, 51 (28.8%) dwelt under leaky roofs. Among the beneficiaries (88), 19 (21.6%) had leaky roofs, while among the non-beneficiaries (89), 32 (36.3%) reported dwelling in structures with leaky roofs. Based on this, the analysis obtained a computed  $\chi^2$  value of 8.803, with 1 degree of freedom and a  $p$ -value of 0.019; thus suggesting up to 95% chance that participants' beneficiary status significantly associated with access to decent housing. The results further suggest that the cash transfer programme may have improved the ability of older persons to access decent housing.

Furthermore, the cash transfer programme for older persons gives beneficiaries the opportunity to mobilise resources for investing in IGAs, in order to sustainably generate supplementary income. In this study, access to IGAs was considered an important indicator of livelihoods, and was measured by requesting participants to indicate if they were involved in IGAs or not. The results presented in Table 3 show that of the 177 participants, the majority, 156 (88.1%), were not involved in IGAs, only 21 (11.9%) were. Among the beneficiaries (88), those who were involved in IGAs were 16 (18.4%), while among the non-beneficiaries (89), 5 (5.3%) participants reported involvement in IGAs. Based on this, the analysis obtained a computed  $\chi^2$  value of 13.355, with 1 degree of freedom and a  $p$ -value of 0.000, which suggests up to 99% chance that participants' beneficiary status significantly associated with access to IGAs.

### **Effect of the Cash Transfer Programme on Access to Basic Livelihoods**

Bivariate results presented in the foregoing sub-section indicate that participants' beneficiary status significantly associated with access to food, proper nutrition, healthcare, decent housing and IGAs. To determine whether the cash transfer programme caused a significant effect on access to the basic livelihoods among beneficiaries or not, the independent variable (participants' beneficiary status) was regressed against each of the dependent variables (aspects of basic livelihood). The process generated six regression models, one for each aspect of livelihood, as presented in Table 4. Model 1 shows that beneficiaries of the cash transfer programme had 4.5 times the odds of accessing adequate food by taking at least three meals in a day, as their non-beneficiary counterparts ( $\beta = 1.510$ ,  $SE = 0.256$ ,  $CI = 2.741-7.476$ ). Model 2 shows that beneficiaries were about 3.9 times as likely to access proper nutrition by scoring an average DDS of 4.0, as non-beneficiaries ( $\beta = 1.364$ ,  $SE = 0.303$ ,  $p$ -value = 0.000,  $CI = 2.160-7.084$ ). The third model shows that beneficiaries had about 1.7 times the odds of accessing healthcare services by being able to meet all the costs of obtaining such services, as non-beneficiaries ( $\beta = 0.544$ ,  $SE = 0.210$ ,  $p$ -value = 0.013,  $CI = 1.142-2.600$ ). Model 4 shows that beneficiaries were about 1.5 times as likely to access decent housing by having non-leaky roofs, as their non-beneficiary counterparts ( $\beta = 0.427$ ,  $SE = 0.115$ ,  $p$ -value = 0.051,  $CI = 1.223-1.920$ ). The fifth model shows that beneficiaries had about 3.3 times the odds of establishing IGAs to improve their income, as non-beneficiaries ( $\beta = 1.197$ ,  $SE = 0.272$ ,  $p$ -value = 0.000,  $CI = 1.942-5.641$ )



Table 4: Summary results of binary logistic regression models

Model	Livelihood access indicator	Beneficiary status	$\beta$	SE	Wald	$\rho$ -value	Exp( $\beta$ )	95% CI	
								Lower	Upper
1	Food	Beneficiaries	1.510	0.256	34.792	0.000**	4.527	2.741	7.476
		Non-beneficiaries (rc)	1.000	1.000	1.000	1.000	1.000	1.000	1.000
		Constant	0.566	0.210	7.264	0.034**	1.761	1.167	2.658
2	Proper nutritional	Beneficiaries	1.364	0.303	20.264	0.000**	3.912	2.160	7.084
		Non-beneficiaries (rc)	1.000	1.000	1.000	1.000	1.000	1.000	1.000
		Constant	0.927	0.289	10.289	0.021**	2.527	1.434	4.452
3	Healthcare services	Beneficiaries	0.544	0.210	16.771	0.013**	1.723	1.142	2.600
		Non-beneficiaries (rc)	1.000	1.000	1.000	1.000	1.000	1.000	1.000
		Constant	0.342	0.121	7.959	0.038**	1.411	1.111	1.785
4	Decent housing	Beneficiaries	0.427	0.115	13.787	0.019**	1.533	1.223	1.920
		Non-beneficiaries (rc)	1.000	1.000	1.000	1.000	1.000	1.000	1.000
		Constant	0.252	0.108	5.444	0.149	1.287	1.041	1.590
5	Income generating activities	Beneficiaries	1.197	0.272	19.366	0.001**	3.310	1.942	5.641
		Non-beneficiaries (rc)	1.000	1.000	1.000	1.000	1.000	1.000	1.000
		Constant	0.883	0.294	9.020	0.028**	2.418	1.359	4.303

\*, \*\*, \*\*\* show significance at  $\rho < 0.1$ ,  $\rho < 0.05$  and  $\rho < 0.01$  error margins, respectively; while rc is the reference category

The Wald statistic column in Table 4 shows that the cash transfer programme caused the greatest positive effect on access to food (Wald = 34.792;  $\rho$ -values = 0.000), followed by

access to proper nutrition (Wald = 20.264;  $p$ -values = 0.000), access to IGAs (Wald = 19.366;  $p$ -values = 0.001), access to healthcare services (Wald = 16.771;  $p$ -values = 0.013), as well as access to decent housing (Wald = 13.787;  $p$ -values = 0.019).

More still, FGD participants affirmed that beneficiaries of the cash transfer programme were better placed to access basic livelihoods than their non-beneficiary compatriots. However, access to such livelihoods was seasonal for most beneficiaries, meaning that their ability to access food, proper nutrition, healthcare services, decent housing and IGAs was relatively stronger during the first few days after receiving stipend, but reduced gradually as funds diminished. The seasonal access to basic livelihoods undermined the programme's effect as well as sustainability of its benefits; thus, suggesting that variation in access to basic livelihoods between beneficiaries and non-beneficiaries was more vivid within the first few days after receiving stipend. However, as stipend depleted, variation between the two groups smoothed to homogeneity. The FGD participants further observed that the programme's effect on beneficiaries' access to basic livelihoods was undermined by the inadequacy of stipend vis-à-vis the escalating cost of living. In this regard, the amount of stipend provided by the programme had stagnated for close to a decade despite the rising cost of living, which in turn, decimated the significance of variation in access to basic livelihoods by beneficiaries and non-beneficiaries.

Variation in access to basic livelihoods by beneficiaries and non-beneficiaries was further weakened by the unpredictable payment of stipend, which constrained beneficiaries' ability to plan their expenditure and optimise the use of available resources. As a result, some beneficiaries incurred unnecessary travel costs visiting payment centres repeatedly to check on the availability of payment. Repeated visits were particularly necessitated by the fear of missing out stipend as the window period for such payments was restricted. In this regard, funds not claimed within the designated payment period were taken back to the Treasury. Unpredictable payment of stipend also reduced the programme's effect by forcing beneficiaries to accumulate debt during prolonged delays. Even though the stipends were payable after every two months, participants cited delays of up to five months, during which some beneficiaries lost their lives because they could not access food and health services. Participants further linked unpredictable payment of stipend with express consumption, with little or no consideration for saving and investing in productive ventures for sustainability. Notably though, some beneficiaries had formed IGA groups, which were registered as community self-help groups, and through which they mobilised resources from members' stipend, and in a few cases, from external sources. Such resources were used to finance various IGAs such as table banking, tree nursery, horticulture, as well as poultry, fish, dairy goat and bee farming, among others. For those who had invested in IGAs, each disbursement improved their financial stability towards sustainable access to basic livelihoods.

## DISCUSSION AND CONCLUSIONS

The study examined variation in access to basic livelihoods between the programme's beneficiaries and non-beneficiaries in Siaya County. The aim was to determine whether or not the national cash transfer programme caused a significant effect on the ability of beneficiaries to access basic livelihoods, including food, proper nutrition, healthcare services, decent housing and IGAs, as compared to non-beneficiaries. Its outcome was expected to inform management decisions intended to sustain positive effects caused by cash transfer programmes for older persons, support pertinent policy discourses and motivate future

academic investigations on the subject, not only in Kenya but also in other developing countries.

This study found that the programme's beneficiaries had better odds of accessing basic livelihoods than their non-beneficiary counterparts. However, variation in access to basic livelihoods between the two groups remains seasonal and volatile for most beneficiaries, particularly due to inadequacy of stipend, in relation to the rising cost of living; unpredictable payment of stipend, as well as lack of appropriate measures for sustaining the programme's positive effects.

The overarching purpose of cash transfer programmes for older persons is to reduce poverty among vulnerable older members of society. This can only be achieved if the amount of stipend provided by such programmes measure-up to the cost of living; implying that as the cost of living goes up, so should be the amount of stipend paid to beneficiaries. However, in a resource-poor country such as Kenya, such financial dynamism is constrained by perennial national budget deficits as well as competing development priorities. Just recently, the Government introduced an 8% value added tax on all petroleum products in Kenya, which is expected to cause an increase in the cost of electricity and transport, with far-reaching implications on the cost of living. Notably though the amount of stipend paid to older persons is expected to remain the same as was set about 8 years ago. Under such circumstances, it would be naïve for one to expect the programme to cause significant and lasting positive changes in the lives of beneficiaries. The prolonged stagnation of stipend suggests that the programme's effect has been dwindling over the years; which in turn, reduces it to a mere public relations initiative with no capacity to reduce poverty among older members of society.

Going forward, it would be unrealistic to hope that the amount of stipend will improve in the short term, because cash transfer programmes are not directly targeted by the current national development priorities, which include ensuring food security, affordable housing, manufacturing and affordable healthcare. However, it would be important for the programme's management and beneficiaries to optimise the use of available resources by enhancing efficiency. This may be achieved through cost-effective communication channels through which beneficiaries and/or their families can be informed about payment dates so that they visit their payment centres at the right time. This is likely to save beneficiaries from incurring unnecessary travel costs when they visit payment centres repeatedly to check on the status of payments. Establishing a cost-effective alerting system such as bulk SMS services, would also save beneficiaries from missing out on their stipend due to lateness, as well as enable them plan and budget their expenditure. Efficiency may also be improved by diversifying payment methods to include mobile money transfer; thereby, enable beneficiaries to cut on transport costs.

Unpredictable payment of stipends also undermines variation in access to basic livelihoods between programme beneficiaries and non-beneficiaries. More specifically, the unpredictable payment of stipend makes it difficult for beneficiaries to plan their expenditure, optimise the use of available resources and save for investments. It also pushes some beneficiaries to accumulate debt, which render the stipend not useful when it eventually come; while some beneficiaries lose their lives during prolonged delays with no food and healthcare. Going forward, it may be fallacious to hope that the payment pattern will stabilise in the short term, particularly due to budgetary constraints and parallel development priorities. This implies that unpredictable payment of stipend remains inevitable because of the afore-stated reasons;

thereby, implicitly amplifying the need for beneficiaries to diversify income sources and cushion themselves against the suffering brought by unpredictable payment of stipend.

Even though the programme's purpose is to reduce poverty among older members of society, it lacks clear measures for sustaining its benefits. As a result, most beneficiaries focus more on consumption rather than mobilisation resources and investment in IGAs in order to improve and sustain incomes, as well as sustain access to basic livelihoods. In a world where resources are constantly dwindling, cash transfer programmes that lack appropriate strategies for sustainability are at risk of fizzling away as funding priorities keep changing both within government and development assistance circles. Cash transfer programmes for older persons need to have clear strategies for enabling beneficiaries to diversify and stabilise income sources in order to sustainably access basic livelihoods. Going forward, it will be crucial for programme's management, in collaboration with development agencies to initiate a paradigm shift from subsistence to investment in productive IGAs. It's worth noting that even though the programme is entirely funded by the public, it's not immune against sudden budgetary shocks.

Appropriate measures for sustainability should include mobilising beneficiaries and training them on how to pool resources, identify viable business ventures and invest their resources in order to generate supplementary income. This is likely to guarantee sustainable access to the basic livelihoods, with significant and lasting changes in the lives of beneficiaries. Integrating the IGA component in the programme will also be crucial for cushioning dependants from income shocks in the event of a beneficiary's demise; thereby ensure that benefits transcend beyond the targeted generation. Experience from various countries such as Mexico, as well as among a few parts of Siaya County shows that preparing beneficiaries with skills on how to invest the stipend is likely to make a big difference in terms on access to basic livelihoods. Integrating the IGA component should also enable the programme's management to define an exit plan for beneficiaries who have achieved financial stability in order to create opportunity for more deserving cases to be enrolled in the programme; thereby, increase coverage.

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