



Impact Evaluation of the Zanzibar Universal Pension Scheme



HelpAge International is a global network of organisations promoting the right of all older people to lead dignified, healthy and secure lives.

Impact Evaluation of the Zanzibar Universal Pension Scheme

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Impact Evaluation of the Zanzibar Universal Pension Scheme

Ministry of Labour, Empowerment, Social
Welfare, Youth, Women, Elders and Children

In collaboration with the Economic and
Social Research Foundation (ESRF) and
HelpAge International

Preface

The Revolutionary Government of Zanzibar strives to build a prosperous and peaceful society that ensures sustainable development, wellbeing and gender equality for everyone. To achieve this, the Government has put in place strategies and plans to meet the needs, and realize the rights, of each and everyone in society. It is our commitment to do our utmost to reduce poverty, vulnerability and violence, increase access to essential services, foster social integration, and promote equal rights and opportunity for all Zanzibaris.

The Zanzibar Universal Pension Scheme (ZUPS) is a key contribution to the realization of these commitments. The Scheme provides a basic social pension of 20,000 Tanzanian Shilling (US\$ 8.7) a month to all Zanzibari residents aged 70 years and above. At the beginning of 2019, the ZUPS reached close to 30,000 older people.

Being fully implemented and funded by the Revolutionary Government of Zanzibar, the ZUPS is one of its kind in East Africa. The Revolutionary Government of Zanzibar is proud to be a leader in guaranteeing the rights of older people, and the ZUPS is a cornerstone of our commitment to realizing older people's right to income security and live lives of dignity and wellbeing.

Ensuring that all our older people can live such lives of dignity and wellbeing is a societal task that requires commitment not just from the Government but from all parts of society, including community groups, non-governmental organizations and development partners. I am therefore delighted that this important evaluation of the ZUPS was realized through a close partnership between the Government, researchers, community leaders, older people's associations and non-governmental organizations. Together we will be able to bring about huge changes that promote the welfare and development everyone, including older people.

I am excited to read that this rigorous qualitative and quantitative evaluation of the ZUPS confirms that the ZUPS is a well-implemented and effective mechanism to meaningfully improve the lives of older people and their households. Indeed, this evaluation shows that the ZUPS makes positive contributions to important aspects of the lives of older people; from improving older people's material wellbeing, to increasing food security and dietary diversity, and enhancing recipients' psychosocial wellbeing.

It is my expectation that the results of this research will increase our appreciation of social protection, and in particular universal social pensions, an important investment in the lives of older people, our communities and sustainable development in general. I sincerely hope that this evaluation will stimulate productive discussions on how society can support older people to live secure, healthy and fulfilled lives, while also enhancing our appreciation of older people's contributions to society.

The development of this research involved many people and institutions. Therefore, I would like to express my sincere gratitude to those involved and participated in the realisation of this research.

In particular, I would like to thank Helpage International for its ongoing technical and financial support that significantly contributed development of this important research. The Ministry would further acknowledge the Economic and Social Research Foundation (ESRF) and Mr Salum Rashid Mohamed for their excellent work in conducting the evaluation.

We are further grateful for all contributions of the management team in the Ministry of Labour, Empowerment, Elders, Women and Children, especially the Director of Elders and Social Welfare, Bi Wahida Maabad Mohamed and the Director of Planning, Research and Policy, Bi Mhaza Gharib Juma for their guidance and assistance on enabling this important evaluation to be conducted. Thanks also go to the team of experts from the Department of Elders and Social Welfare that supported the survey underpinning the evaluation. Finally, I would like to express our sincere gratitude to the Second Vice President's Office and the Office of the Chief Government Statistician for their assistance and guidance in conducting the study.



Hon. Maudline Cyrus Castico

*Minister of Labour, Empowerment,
Elders, Women and Children*

Zanzibar

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This report was written by Dr Flavia Galvani and Florian Juergens of HelpAge International.

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Contents

Preface.....	4
Acknowledgements.....	6
Executive summary.....	11
1. Introduction.....	13
2. Background.....	13
3. Impact evaluation.....	14
3.1. Conceptual framework.....	14
3.2. Research questions.....	16
4. Methodology.....	18
4.1. Quantitative component.....	18
4.1.2. Estimation methodology.....	20
4.1.3. Limitations.....	20
4.2. Qualitative component.....	20
5. Description of the sample.....	22
5.1. Quantitative sample.....	22
6. Results: Impacts of the ZUPS on recipients and their households.....	24
5.2. Qualitative sample.....	24
6.1. Impacts on individual and household material wellbeing.....	24
6.1.2. Impacts on individual cash income sources.....	27
6.1.3. Impact on older people's engagement in economic activities.....	28
6.1.4. Impacts on cash and in-kind support received from families.....	29
6.2. Impacts on household material wellbeing.....	33
6.2.1. Impacts on household expenditure.....	33
6.2.2. Impacts on household education expenditure.....	35
6.2.3. Impacts on household savings and debt.....	37
6.2.4. Perception of household income adequacy.....	39
6.3. Impacts on food security.....	40
6.3.1. Impacts on food expenditure.....	40
6.3.2. Impacts on households having three meals a day.....	41
6.3.3. Impacts on running out of food.....	42
6.3.4. Impacts on sourcing food from markets.....	43
6.3.5. Impacts on worrying about not having enough food.....	44

6.4. Impacts on health.....	46
6.4.1. Impacts on individual health expenditure	46
6.4.2. Impacts on household health expenditure	47
6.4.3. Impacts on health-care seeking behaviour	47
6.5. Impacts on recipients' wellbeing and empowerment	48
6.5.1. Participation in household decision-making	49
6.5.2. Subjective wellbeing	49
7.1. The implementation of the ZUPS.....	53
7. Impressions on the implementation of the ZUPS and community awareness of the social pension.....	53
6.2. Awareness and understanding of the ZUPS by older non-recipients.....	56
8. Conclusions	57
References	61

List of Tables

Table 1. Research questions.....	16
Table 2. Survey locations and sample size	19
Table 3. Study locations.....	21
Table 4. Number and type of qualitative research instrument per Shehia.....	21
Table 5. Prevalence of disability in study sample	23
Table 6. Prevalence by type of functional limitation, full sample.....	23
Table 7. Self-reported mean monthly individual cash and in-kind income	25
Table 8. Sharp RD estimates on the impact of ZUPS on self-reported individual monthly cash and in-kind income.....	26
Table 9. Main source of cash income by treatment group (first answer).....	27
Table 10. Sharp RD estimates on the impact of ZUPS on engagement in economic activities.....	28
Table 11. Sharp RD estimates on the impact of ZUPS on cash and in-kind support received from families.....	29
Table 12. Per capita household expenditure	34
Table 13. Sharp RD estimates on the impact of ZUPS on per capita household expenditure.....	34
Table 14. Sharp RD estimates on the impact of ZUPS on household spending on education.....	35
Table 15. Sharp RD estimates on the impact of ZUPS on the likelihood of households having any savings.....	37

Table 16. Sharp RD estimates on the impact of ZUPS on household debts	38
Table 17. Sharp RD estimates on the impact of ZUPS on perception of income adequacy.....	39
Table 18. Sharp RD estimates on the impact of ZUPS on household per capita food expenditure	40
Table 19. Sharp RD estimates on the impact of ZUPS on households having three meals a day	42
Table 27. Sharp RD estimates on the impact of ZUPS households running out of food due to a lack of resources	42
Table 21. Sharp RD estimates on the impact of ZUPS household sourcing some of their food from markets (rather than own production or donations)	43
Table 22. Sharp RD estimates on the impact of ZUPS on individuals or household members worrying about not having enough food to eat because of a lack of resources.....	44
Table 23. Sharp RD estimates on the impact of ZUPS on individual health expenditure.....	46
Table 31. Sharp RD estimates on the impact of ZUPS on household per capita health expenditure	47
Table 25. Participation in household decision-making.....	49
Table 26. Positive indicators of subjective wellbeing	49
Table 27. Negative indicators of subjective wellbeing.....	50
Table 28. Recipients' experience of registering for the ZUPS, by sex	53
Table 29. Collection of payments, by sex	54
Table 31. Recipients' expenditure to get to pay-points and back, by sex.....	55
Table 32. Recipients' preferred payment methods, by sex.....	55
Table 33. Non-recipients' awareness of the ZUPS, by sex.....	56
Table 34. Non-recipients' source of information on the ZUPS, by sex.....	56
Table 35. Non-recipients' knowledge of ZUPS eligibility criteria, by sex.....	57
Table 36. Summary of ZUPS impacts	58

Table of Figures

Figure 1. Social pension transfers as percentage of GDP per capita in African countries.....	14
Figure 2. Impact of old age pensions on recipients and their households	14
Figure 3. Survey sample by sex.....	22
Figure 4. Survey sample by age.....	22

Figure 5. Sharp RD estimates on the impact of ZUPS on self-reported individual monthly cash and in-kind income.....	26
Figure 6. Main sources of cash income ZUPS recipients, by sex	28
Figure 7. Sharp RD estimates on the impact of ZUPS on engagement in economic activities.....	29
Figure 8. Sharp RD estimates on the impact of ZUPS on cash and in-kind support received from families.....	30
Figure 9. Distribution of per capita household expenditure, by sex of recipients.....	34
Figure 10. Sharp RD estimates on the impact of ZUPS on per capita household expenditure.....	35
Figure 11. Sharp RD estimates on the impact of ZUPS on household spending on education	36
Figure 12. Sharp RD estimates on the impact of ZUPS on household savings.....	38
Figure 13. Sharp RD estimates on the impact of ZUPS on household debts.....	39
Figure 14. Sharp RD estimates on the impact of ZUPS on perception of income adequacy.....	39
Figure 15. Sharp RD estimates on the impact of ZUPS on household per capita food expenditure	41
Figure 16. Sharp RD estimates on the impact of ZUPS on households having three meals a day.....	42
Figure 17. Sharp RD estimates on the impact of ZUPS households running out of food due to a lack of resources.....	43
Figure 18. Sharp RD estimates on the impact of ZUPS household mainly sourcing their food from markets.....	44
Figure 19. Sharp RD estimates on the impact of ZUPS on individuals or household members worrying about not having enough food to eat because of a lack of resources	45
Figure 20. Sharp RD estimates on the impact of ZUPS on individual health expenditure.....	46
Figure 21. Sharp RD estimates on the impact of ZUPS on household per capita health expenditure	47

Executive summary

This report outlines the results from the impact evaluation of the Zanzibar Universal Pension Scheme (ZUPS).

The ZUPS was established in April 2016 and entitles all Zanzibari residents aged 70 years and above to a monthly non-contributory social pension of TSh20,000 (US\$ 8.70). The Scheme is managed by the Ministry of Empowerment, Social Welfare, Youth, Women and Children, and as at January 2019 benefited 27,758 people (16,117 women and 11,641 men).

This mixed-methods evaluation has sought to assess the impact of the ZUPS on older people and their households in four outcome areas: **material wellbeing, food security, health, and wellbeing and empowerment.**

The evaluation suggests that the ZUPS has a positive impact on individual material wellbeing. The ZUPS was the main source of cash income for 70 per cent of recipients and was found to have a large, positive and statistically significant impact on recipients' mean monthly individual income in average, good and bad months. Indeed, older people who participated in discussion groups in both Pemba and Unguja highlighted that the ZUPS was a critical source of income for them because of its reliability and the fact that it is paid in cash.

There are also encouraging signs that positive effects of the pension extend to older people's households as well. The analysis found a large, positive and statistically significant impact of the pension on overall expenditure of beneficiaries' households, as well as on household spending on food and education. Households with a pension-recipient were also found to be slightly more likely to have savings than households in the control group. This is corroborated by qualitative evidence that suggests that the guaranteed income provided by the pension has increased recipients' creditworthiness, and that ZUPS recipients are now able to borrow to cover part of their monthly expenses and use the pension to pay back their loans.

Evidence from this evaluation also suggests that the ZUPS has a large positive impact on the food security and food diversity enjoyed by recipients' households. Large, positive and statistically significant impacts of the ZUPS are found across all food security and diversity indicators. The qualitative evidence supports these findings, confirming that the ZUPS not only improved the availability of food, but also contributed to increased food diversity.

The pension has also led to a statistically significant increase in individual and household-level per capita health expenditure. While health expenditure was found to increase at both individual and household-levels as a result of the pension, it was not possible to estimate the impact of the ZUPS on health-care seeking behaviour due to the small number of survey respondents who were ill in the month prior to the survey. It is worth noting that respondents from both treatment and control groups already show near-universal propensity to seek treatment when ill (over 90 per cent).

The evidence on the impact of the ZUPS on subjective wellbeing and empowerment is inconclusive. The quantitative analysis suggests that the ZUPS has had a small, positive and statistically significant impact on older people's participation in household decision-making, but the pension's effect appears negative when decisions concern financial issues. The evidence on subjective wellbeing is also mixed: the data suggests that the ZUPS had a positive impact in reducing negative feelings such as sadness, but a negative impact on positive feelings such as happiness. While the quantitative evidence seems inconclusive, the qualitative evidence suggests

a positive impact of the ZUPS on beneficiaries' wellbeing. During the discussions, pension recipients spoke about how the pension had given them a sense of dignity and independence. Shehas and health workers also noticed improvements in older people's wellbeing since the introduction of the ZUPS.

Recipients were largely very satisfied with the implementation of the ZUPS, finding the registration and payment processes to be generally simple, accessible and efficiently implemented.

1. Introduction

This report outlines the results from the impact evaluation of the Zanzibar Universal Pension Scheme (ZUPS). The evaluation follows a mixed-methods design, with a quantitative component consisting of survey conducted in July 2018, complemented by qualitative research carried out in March 2019.

While the positive impacts of social cash transfers on numerous economic and human development outcomes are well documented*, the evidence base on the impacts of social pensions is still limited. A thorough evaluation of the ZUPS, east Africa's first universal social pension, is thus an important step towards building this evidence base to support social protection policy making in Zanzibar and beyond.

This report starts with an overview of the Zanzibar Universal Pension Scheme (ZUPS) followed by a presentation of the evaluation objectives and its conceptual framework in Section 3, the study's methodology in Section 4, and an overview of the study's sample in Section 5. Section 6 presents the impacts of the pension on recipients and their households, and Section 7 presents recipients' views on the implementation of the ZUPS. Finally, Section 8 provides some overall conclusions on the impacts of the ZUPS.

2. Background

2.1. The Zanzibar Universal Pension Scheme (ZUPS)

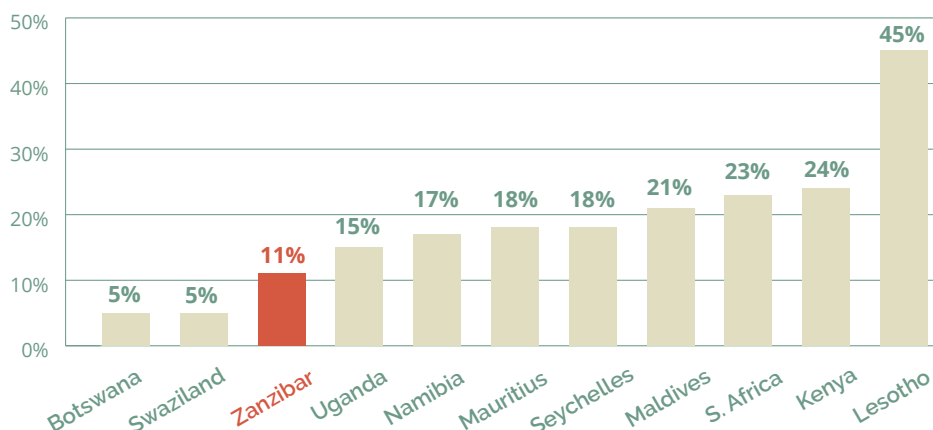
The Zanzibar Universal Pension Scheme (ZUPS) established in April 2016 entitles all Zanzibari residents¹ aged 70 years and above to a monthly non-contributory pension of TSh 20,000 (US\$ 8.70), which is about half of the food poverty line (TSh 38,070 or US\$ 17) or 37 per cent of the basic-needs poverty line (TSh 53,377, US\$ 23) as defined by the 2014/15 Household Budget Survey. The transfer is equivalent to 11.5 per cent of GDP per capita, which is relatively low compared to other social pensions in low- and middle-income countries, as illustrated in figure 1.

The Scheme is managed by the Ministry of Empowerment, Social Welfare, Youth, Women and Children and operationalized at the local level through Shehias (local administrative structures). The government allocated TSh 6.5 billion (US\$ 2.909 million) for the Scheme in 2017/2018, which is approximately 0.24 per cent of the country's GDP. Payment is disbursed through direct cash payments from pay points.

As at January 2019, 27,758 people (16,117 female and 11,641 male) were receiving the ZUPS.

* Resident of Zanzibar for over 10 years continuously after the age of 18

Figure 1. Social pension transfers as percentage of GDP per capita in African countries



3. Impact evaluation

This section describes the overall design for the impact evaluation.

The overarching research question to be answered by the impact evaluation is how does the ZUPS impact the wellbeing of older people and their households in four outcome areas: material wellbeing, food security, health, and wellbeing and empowerment.

3.1. Conceptual framework

This impact evaluation is based on a theory of change that describes potential positive impacts that may result from receipt of a social pension on individuals and their households. The theory of change draws in the wider literature on impacts of pensions and cash transfers, as well as broader studies exploring the wellbeing of older people.

Figure 2. Impact of old age pensions on recipients and their households



Impacts on pension recipients

The primary objective of pensions is **to improve the economic status and wellbeing of older people at an individual level**. Indeed, social pensions differ from many other cash transfers in low- and middle-income countries in that they target individuals, in this case older people, rather than households.

It is expected that receipt of a pension will result in a direct effect on the **level of income** of pension recipients, leading to changes in recipients' patterns of **expenditure**. This in turn may result in intermediary outcomes such as improvements in **health seeking behaviour** – pensions can be particularly important in helping older people meet **health expenses**, given the high levels of ill health and disability experienced by older people, and considering the high levels of out-of-pocket health expenditures in Tanzania.²

Receipt of a pension may also result in changes in the level and composition of other sources of income at an individual level, such as income from **economic activities** or **transfers from family members**.

Pension receipt may impact an older person's engagement in economic activities, although existing literature shows a mixed picture. Pension income may allow older people to reduce levels of work, particularly physically intensive and undignified work; but may also provide greater livelihood opportunities, with increased investment and productivity of work undertaken.

The ability of a pension recipient to cover an individual's basic needs may reduce the amount of material support provided to them by family members, although other factors may result in increased levels of financial support. Pension income may also allow older people to provide greater material and financial support to others, both within their households and beyond.

The above changes – having some income of their own; greater ability to meet their own basic needs; reduced need to undertake undignified work or beg for financial support; the ability to contribute to family and community life – are likely to lead to positive impacts on **wellbeing and empowerment** of older people. For instance, studies in China, Mexico and Peru have found impacts of social pensions on reducing depressive symptoms.^{3 4 5}

Impacts on pension recipients' households

The vast majority of older people in Zanzibar live with or in close proximity to, their families and are often part of rich networks of transfers to and from family members (particularly children and grandchildren). While recognising that these kinship networks transcend the boundaries of the household, this research assumes that these impacts are likely to be greatest at the household level, and this will be the focus of analysis of family-level impacts. There are two primary mechanisms by which pensions can impact the households of pension recipients:

1. Older people may share part of their pension. This may be through contributing to consumption pooled at a household or family level (e.g. making food purchases) or gifts to family members (e.g. purchasing school uniforms for grandchildren).
2. Resources previously used to provide financial and material support to older people can be used for other purposes. This dynamic is often described as "crowding out" of transfers to older people but is rarely assessed in terms of how it may result in positive impacts for family members who can reallocate resources.

These dynamics may result in direct impact on **household income and expenditure**, and intermediary impacts on areas including **savings and debt**, **food security**, and **healthcare access**. Household level impacts may be influenced by household composition* and the associated income-earning capacity of other household members.

3.2. Research questions

Table 1. Research questions

Impact Areas	Indicators
Material wellbeing	
Mean individual income	Mean individual income on an average month (TSh), estimated (self-declared)
Seasonality of individual income	Mean individual income on a good month (TSh), estimated (self-declared) Mean individual income on a poor month (TSh), estimated (self-declared)
Income sources	% of respondents engaged in engagement in economic activities in the previous month % of respondents receiving material support (cash or in-kind) from family members in the previous year
Household per capita expenditure, savings & debt	
Expenditure	<ul style="list-style-type: none"> Household per capita expenditure (TSh), estimated (self-declared) Household expenditure on education (TSh), estimated (self-declared)
Savings	% of households with savings
Debt	% of households with debts
Perception of household income adequacy	% of respondents who think their household income is adequate
Food security	
Food expenditure	Household per capita food expenditure (TSh), estimated (self-declared)
Worry	% of respondents who worry about not having enough food to eat
Running out of food	% of households running out of food due to lack of resources

* For example, whether an older person is living alone, as part of a couple, in a "skipped generation" household (only older people and children), or as part of a multi-generational household.

Food from Markets	% of households sourcing food from markets
3 meals	% of households eating 3 meals a day

Health

Individual health expenditure	Older person individual health expenditure (TSh), estimated (self-declared)
Household health expenditure	Household per capita health expenditure (TSh), estimated (self-declared)
Seek treatment	% cases where healthcare was sought

Wellbeing and empowerment

Decision-making	<ul style="list-style-type: none"> • % of respondents who participate in household decision making • % of respondents who participate in household decision making regarding financial issues
Subjective welfare	<ul style="list-style-type: none"> • % of respondents who often feel happy • % of respondents who often enjoy life • % of respondents who are often hopeful about the future • % of respondents who feel satisfied with life* • % of respondents who rarely or never have poor appetites • % of respondents who rarely or never feel depressed • % of respondents who rarely or never feel that everything is an effort • % of respondents who rarely or never have restless sleep • % of respondents who rarely or never feel lonely • % of respondents who rarely or never think people are unfriendly • % of respondents who rarely or never feel sad • % of respondents who rarely or never feel disliked • % of respondents who rarely or never feel lethargic

* Response options in this case were: Yes, very satisfied; Yes, somewhat satisfied; No, not satisfied; No answer

4. Methodology

The evaluation follows a sequential mixed-methods design, which consists of first collecting and analysing quantitative data and then collecting qualitative data to help explain or elaborate on the quantitative results. The use of quantitative and qualitative methods in complementary ways provides a richer pool of data and greater analytical power than that gained through either method alone and has long been established theoretically and empirically.

The quantitative component was designed to capture potential changes in wellbeing at individual and household levels, and to collect impressions on programme implementation; qualitative data assisted in interpreting and explaining the quantitative results and establishing the underlying processes and pathways which lead to change. The combination of these two levels of analysis offers a more comprehensive understanding of programme's impacts.

4.1. Quantitative component

Given the universal nature of the ZUPS and the fact that it is implemented simultaneously across the country, it was not feasible to use randomized selection methods to evaluate the programme's impact. Hence, the evaluation followed a Regression Discontinuity Design (RDD) approach, which is a widely used method for evaluating programmes when randomization is not possible and has been used in the evaluation of pensions in Peru, Bolivia and Vietnam.

RDD is a quasi-experimental impact evaluation method that can be used for programmes that have a continuous assignment variable (running variable) with a clearly defined cut-off point to determine eligibility. Regression discontinuity design estimates local average impacts around the eligibility cut-off, on the assumption that eligible individuals with scores just above the cut-off are likely to be very similar to ineligible households with scores just below the cut-off. In the absence of the intervention, one would expect the relationship between the running variable and outcome variables to be continuous; thus, any break or jump observed precisely at the cut-off point after the intervention can be attributed to the programme itself. In order to apply a regression discontinuity design, two main conditions are needed:⁶

1. A continuous eligibility index with a clearly defined cut off point, that is, a point on the index above or below which the population is classified as eligible for the programme.
2. No discontinuity in potential outcomes in the cut-off

The ZUPS fulfils the first condition as eligibility for the Scheme is determined by age (running variable) – individuals aged 70 and above are eligible to receive the pension. It is also critical for the RDD that there is no manipulation of the assignment variable. In the case of the ZUPS, we consider the potential for individuals to have an influence on the assignment variable to be low, given the clear eligibility criteria and requirement of ID card as proof of age. This assumption was also tested by analyzing the density of the normalised assignment variable. The second condition, that there are no pre-existing discontinuities across the eligibility threshold, was also tested with satisfactory results.

4.1.1. Sampling

The survey was conducted in two randomly selected regions of Pemba and two regions of Unguja. In each region, two districts were randomly selected for data collection. Individuals were then randomly selected for interviews according to the following criteria:*

- **Treatment group:** individuals residing in the selected districts who were aged between 70 and 72 at the time of the survey and enrolled in the ZUPS.
- **Control group:** individuals residing in the selected districts who were aged between 68 and 69 at the time of the survey (immediately below the age of eligibility for the ZUPS) and not related to anyone benefiting from ZUPS.

A total of 954 individuals from 40 Shehias (13 in Unguja and 27 in Pemba) in 7 districts were surveyed. Thirty-three observations were dropped during data cleaning, resulting in a final sample of 921 individuals; 442 ZUPS beneficiaries (treatment group) and 479 non-beneficiaries (control group). There were 438 male respondents (47.5%) and 483 female respondents (52.5%). The groups have been tested for discontinuity of covariates (graphical and regression analyses) and there is no evidence of pre-existing discontinuities.

Table 2. Survey locations and sample size

Region and Districts	Treatment	Control
North Region		
North A	73	93
West	21	39
Wete	62	51
Mkoani	29	61
South Pemba		
Chakechake	65	95
North Pemba		
Micheweni	15	0
Mjini	186	149
Total	442	479

* A list with names and age of residents was provided by the Shehias; individuals were grouped into the two age categories and then randomly selected to take part in the evaluation.

4.1.2. Estimation methodology

Regression Discontinuity Design (RDD) estimations were carried out using the *rdrobust* package for Stata. The *rdrobust* implements data-driven statistical inference and graphical procedures for local polynomial regression discontinuity estimation with robust bias-corrected confidence intervals, as proposed by Calonico, Cattaneo, and Titiunik (2014).⁷ We applied the Sharp RD design, which assumes perfect treatment compliance, with a linear specification.

The results table follow the same layout throughout the report: the first row displays the local average treatment effect (LATE) represented by the coefficients of the sharp RD analysis; the third row presents results with sex and location (district) controls included in the analysis; rows two and four present results when clustered standard errors are applied. We also present graphical representations of the RD analysis using *rdplot* for each outcome variable, both with and without controls. The plots show the regression lines for control (left) and treatment units (right), as well as binned sample means of the outcome.

4.1.3. Limitations

Potential spillover effects: As treatment and control groups have been sampled from the same geographical areas, respondents in the control group are more likely to be within the social network of a recipient of the ZUPS and may indirectly benefit from the Scheme. These spillover effects could lead to the underestimation of programme impacts. One step taken to mitigate this issue was to ensure that respondents from the different groups were not members of the same family.

Local Average Treatment Effect (LATE): The fact that the RDD methodology estimates programme impacts around the cut-off point (that is for individuals aged 70 – 72 years old) has two important implications:

- 1. Length of treatment:** the local average treatment effect captures the impact of the programme on individuals who have been receiving the pension for relatively short periods of time (those aged 70 would have just started receiving the pension). This is likely to lead to an underestimation of programme impacts, particularly on intermediate outcomes.
- 2. External validity:** the RDD estimates cannot necessarily be generalized to individuals further away from the cut-off point without assumptions that justify the generalization of estimates to other sub-populations (for instance, older old people).

4.2. Qualitative component

The qualitative component consisted of a series of interviews and group discussions carried out in March 2019 to explore older people's views and experiences regarding the design and implementation of the ZUPS, and the impact of the social pension on themselves and their households.

The research was conducted in two Shehias in Pemba and two in Unguja which have been purposively selected to include representation of both urban and rural settings, as well as a combination of wealthier and poorer areas. Table 3 provides a short description of the selected shehias in Unguja and Pemba.

Table 3. Study locations

Area and Shehia	Description
Unguja	
Shaurimoyo	<ul style="list-style-type: none"> Urban area with good living standards and good healthcare facilities 191 ZUPS beneficiaries (79 men and 96 women).
Matemwe Kusini	<ul style="list-style-type: none"> Area with high levels of poverty and no healthcare facility (healthcare facility is in the neighbouring shehia). 180 ZUPS beneficiaries (84 men and 96 women).
Pemba	
Madungu	<ul style="list-style-type: none"> Urban area with good living standards and services including a health centre 92 ZUPS beneficiaries
Wingwi Mtemani	<ul style="list-style-type: none"> Rural area characterised by high poverty rate (highest in Zanzibar). 128 ZUPS beneficiaries.

A total of 146 people (86 women and 60 men) from 4 shehias participated in Focus Group Discussions (FGDs). About two-thirds of participants were ZUPS recipients.

A further 8 ZUPS recipients have been interviewed individually. Additionally, in each Shehia, the Sheha and a healthcare professional have also been interviewed for this study.

Focus group discussion and interview guides have been elaborated to reflect the outcome areas of interest namely material wellbeing, food security, health, and wellbeing and empowerment.

All focus group discussions and interviews have been recorded, transcribed and translated from Kiswahili to English by the research team. The analysis was based on the English version of the transcripts and consisted of categorising the data according to outcome areas, location, and demographic characteristics of participants; summarising the main themes; and interpreting the data by comparing participants' experiences, triangulating information across different instruments and sources, including quantitative data.

Table 4. Number and type of qualitative research instrument per Shehia

No. and type of qualitative research instrument	No. of participants/respondents and selection criteria	Duration
2 FGD with women aged 70+ years	8 women aged 70+ years, who are (likely to be) recipients of the social pension	2 hours

2 FGD with men aged 70+ years	8 men aged 70+ years, who are (likely to be) recipients of the social pension	2 hours
1 FGD with women aged 65-69 years	8 women aged 65-69 years, who are not eligible for the social pension and not receiving any other pension	2 hours
1 FGD with men aged 65-69 years	8 men aged 65-69 years, who are not eligible for the social pension and not receiving any other pension	2 hours
2 in depth interviews	1 woman 70+ receiving the social pension 1 man 70+ receiving the social pension	1-1.5 hours
2-3 semi-structured interviews with local leadership and local health professionals	2-3 interviewees, depending on the characteristics of the selected area	45-60 minutes

5. Description of the sample

This section offers a snapshot of the socio-demographic characteristics of older people who took part in this study including marital status and living arrangements, disability status, and educational attainment.

5.1. Quantitative sample

A total of 954 individuals have been surveyed for this study. They aged between 68 and 72 years old, and 53 per cent of them were women and 47 per cent were men.

Figure 3. Survey sample by sex

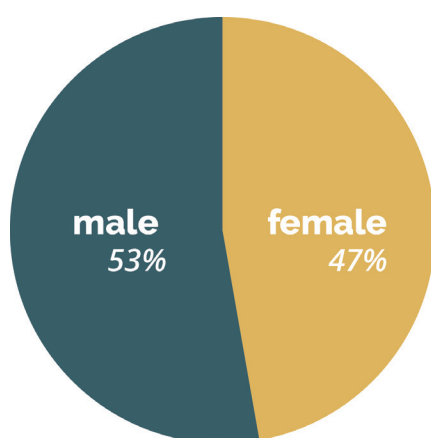
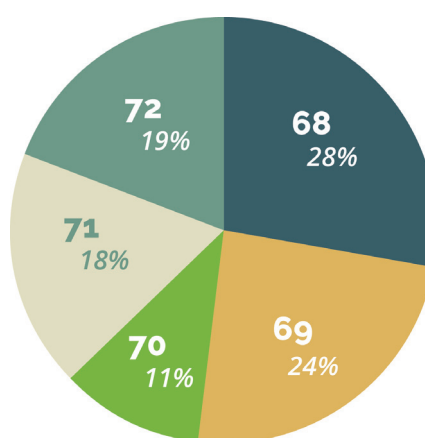


Figure 4. Survey sample by age



Marital status and household composition: The majority of the individuals surveyed lived in large multigenerational households. The median number of people who usually lived and ate their meals together in a household (including respondents) was five, with over 70 per cent of respondents living with their children and/or grandchildren; and

only 5.3 per cent living alone. Regarding marital status, two-thirds of respondents were married (monogamous and polygamous marriages), with men being twice as likely to be married than women. By contrast, women were 8 times more likely to be widowed than older men, with about half of women being widows.

Education: Respondents, particularly women, had low levels of formal education. Seventy-five per cent of women and 34 per cent of men had never attended school, while 20 per cent of women and 41 per cent of men had only completed primary education. Eighty-four per cent of women and 78 per cent of men who did not attend school do not know how to read, while 98 per cent of women and 83 per cent of men do not know how to write.

Disability status: The Washington Group Short Set questions were used to measure disability in the sample. This study used a cut-off for disability of experiencing at “a lot of difficulty” or “cannot do” in at least one of the six activities, in line with recommendations from the Washington Group for international comparisons.⁸ Additional thresholds were used to explore the prevalence of milder forms of disability (“moderate”, defined as experiencing at least “some difficulty” in one or more activities) and more severe forms of disability (“profound”, defined as reporting “cannot do” for at least one activity).

According to these definitions, prevalence of disability was 23.6 per cent among the study sample (Table 5). Prevalence of disability was slightly higher among women compared to men (24.4 per cent and 22.6 per cent respectively). Most of the study sample experienced at least moderate disability (77.5 per cent), while a small proportion (3.7 per cent) of the sample experienced profound disability.

By type of disability (Table 6), mobility limitations were most common (11.5 per cent), followed by difficulty in self-care (10.4 per cent) and seeing (12.7 per cent).

Table 5. Prevalence of disability in study sample

Prevalence of disability	Overall
Moderate (“some difficulty” or more)	77.52%
Disability (“a lot of difficulty” or more)	23.56%
Profound (“cannot do”)	3.69%

Table 6. Prevalence by type of functional limitation, full sample

Type of disability	Prevalence
Seeing	7.6%
Hearing	2.7%
Walking	11.5%
Remembering	3.8%
Self-care	10.4%
Communication	2.1%

5.2. Qualitative sample

A total of 158 people (90 women and 68 men), aged 62 to 97 years old, were interviewed for the qualitative component of this study and had a very similar profile to that of survey respondents.

Marital status and household composition: The majority of the individuals lived in large multigenerational households, with an average of five people living in the household, including 2.4 children on average. Men were much more likely to be married than women – just over 90 percent of men were married (25 per cent of them polygamously), compared to a quarter of women. The majority of women were widowed (62 per cent).

Education: Respondents, particularly women, had very little formal education, and levels of literacy were generally low.

Disability status: Only 6.85 per cent of focus group participants had a disability according to this study's definition ("a lot of difficult" in one domain). Reported disability levels were considerably lower among focus group participants compared to survey respondents. One possible explanation is that focus group discussion participants were asked the Washington group questions in a group setting (before the start of the discussions) and this approach might have led some participants to underreport their conditions. Also, it is possible that the location and set-up of the focus group discussions unintentionally excluded people with disabilities.

Pensions: Sixty-nine per cent of participants were ZUPS recipients, while 28 percent also received other pensions (civil service pension). It is interesting to note that male participants were nearly three times more to receive the civil service pension than female participants (30% compared to 11%).

6. Results: Impacts of the ZUPS on recipients and their households

This section reports the impact of the ZUPS on pension recipients and their households. It brings together evidence from the quantitative impact evaluation carried out by the Economic and Social Research Foundation (ESRF), and the qualitative research conducted in four Shehias. It presents the ZUPS' impacts on material wellbeing (income, expenditure, savings and debt), food security, health, as well as wellbeing and empowerment. This is followed by an analysis of recipients' and non-recipients' perceptions of the ZUPS' design and implementation.

6.1. Impacts on individual and household material wellbeing

This section presents the impacts of the ZUPS on older people and their households' material wellbeing, particularly their income, expenditure, savings and debt.

It is important to note that the income and expenditure analyses are based on self-reported estimated aggregated figures, and not on detailed inventories of household income and expenditure used in household budget surveys and should be interpreted accordingly. Although the results present clear and consistent trends, the magnitude

of the impacts on individual income and household expenditure should be interpreted with caution as respondents often find it difficult to estimate their income and expenditure precisely.

Also, it is worth noting that the impact estimations reflect the mean effect of the ZUPS across all income levels; it is likely that impacts on individuals and households on the lower wealth and income quintiles would be more pronounced, but given the limited sample size, it has not been possible to carry out further analysis on the impact of the ZUPS on this subgroup.

6.1.1 Impacts on individual cash and in-kind income

The theory of change of social pensions assumes that the receipt of pensions will directly raise individual income and help to reduce income volatility. But pensions' may also have an indirect impact on individual income, as the receipt of a pension may affect other income sources such as older people's engagement in economic activities and family support. This section describes the impacts of the ZUPS on individual income and on income sources.

In order to establish individual income levels, survey respondents were asked to estimate the value of their monthly income, cash and in-kind, from all sources in Tanzanian Shillings (TSh). Given that income is highly seasonal and unstable, respondents were asked to estimate their monthly income in average, poor and good months.

The estimated mean income in an average month was TSh 95,846 (USD 41.82) for the treatment group and TSh 82,730 (USD 36.10) for the control group. As shown in Table 7, there are large variations in mean income between poor and good months, with mean income in poor months less than half of the mean income in good months. ZUPS recipients had higher average incomes in both scenarios.

Table 7. Self-reported mean monthly individual cash and in-kind income

	Treatment		Control		All	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Good month	143,982	183,303	123,087	155,367	133,115	133,115
Average month	95,846	118,208	82,730	112,702	89,024	89,024
Poor month	69,619	93,552	57,662	89,270	63,400	63,400

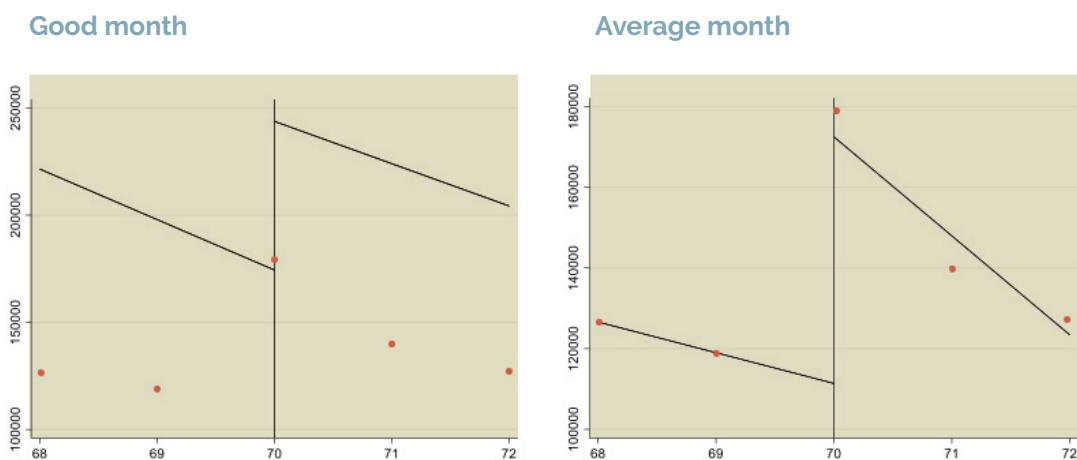
Table 8 presents the RDD estimates on individual income, which indicate that the ZUPS has had a positive and statistically significant impact on recipients' individual mean monthly income in average, good and bad months.

The coefficients represent about 40 per cent of the treatment group's mean individual income. As noted above, the income analyses rely on self-reported estimates, hence the magnitude of coefficients should be interpreted with caution as respondents noted the difficulties of estimating their monthly income precisely.

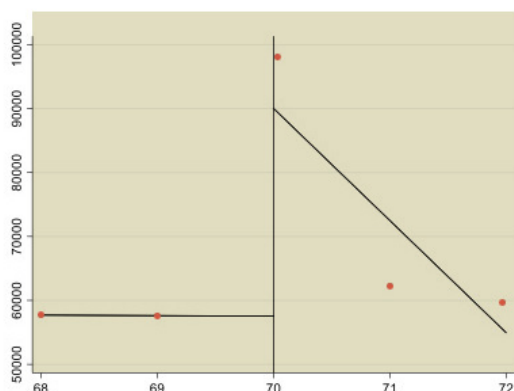
Table 8. Sharp RD estimates on the impact of ZUPS on self-reported individual monthly cash and in-kind income

Method	Coefficient	Standard error	P-value
Good month			
Robust	61,225	27,540	0.000
Robust with Clustered Standard Errors		40,123	0.000
Robust controlling for sex and district	69,331	26,521	0.000
Robust controlling for sex and district with Clustered Standard Errors		37,062	0.000
Average month			
Robust	41,423	19,605	0.000
Robust with Clustered Standard Errors		30,748	0.000
Robust controlling for sex and district	46,408	19,605	0.000
Robust controlling for sex and district with Clustered Standard Errors		28,495	0.000
Poor month			
Robust	32,578	16,474	0.000
Robust with Clustered Standard Errors		24,206	0.000
Robust controlling for sex and district	32,986	15,877	0.000
Robust controlling for sex and district with Clustered Standard Errors		22,139	0.000

Figure 5. Sharp RD estimates on the impact of ZUPS on self-reported individual monthly cash and in-kind income



Poor month



6.1.2. Impacts on individual cash income sources

In order to explore whether the ZUPS had an effect on individual's income sources, and their relative importance, survey respondents were asked to name their main source of cash income, provide information on their engagement in economic activities and the support they received from family members.

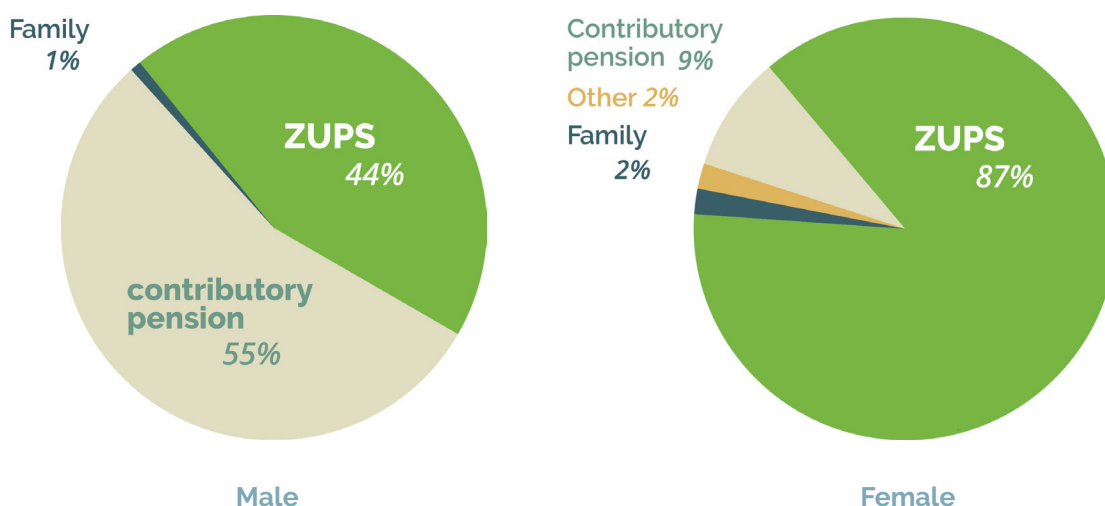
There were marked differences between ZUPS recipients and non-recipients in relation to their main sources of cash income. Seventy per cent of ZUPS recipients reported the ZUPS was their main source of cash income. By contrast, non-recipients relied mainly on economic activities such as farming, fishing, business and employment (45 per cent) and on their families (33 per cent) for their cash income.

Table 9. Main source of cash income by treatment group (first answer)

	Treatment	Control	All
ZUPS	70.8%	0.0%	34.5%
Contributory pensions	26.0%	19.0%	22.4%
Family	1.7%	33.1%	17.8%
Farming, fishing, livestock	0.4%	18.2%	9.5%
Own business	0.6%	14.3%	7.7%
Employment/day labour	0.2%	10.8%	5.7%
Other	0.2%	4.5%	2.4%

The analysis of income sources by respondents' sex highlights that the ZUPS is a particularly important source of cash income for older women, who are much less likely to have contributory pensions than men.

Figure 6. Main sources of cash income ZUPS recipients, by sex



6.1.3. Impact on older people's engagement in economic activities

Existing evidence on the impact of pensions on engagement in economic activities is mixed; some studies suggest that social pensions may lead to a reduction in economic activities by allowing recipients to reduce levels of work, particularly in places where work is largely physically intensive and precarious,^{9 10 11} while others suggest it may lead to an increase in economic activity by enabling investments in business and productive assets.^{12 13}

Data from this study shows that although the majority of older people are still economically active (60 per cent of survey respondents had engaged in economic activities in the previous month), ZUPS recipients were 11 percentage points less likely to engage in economic activities than non-recipients when controlling for sex and district. Without the controls, the result is not statistically significant.

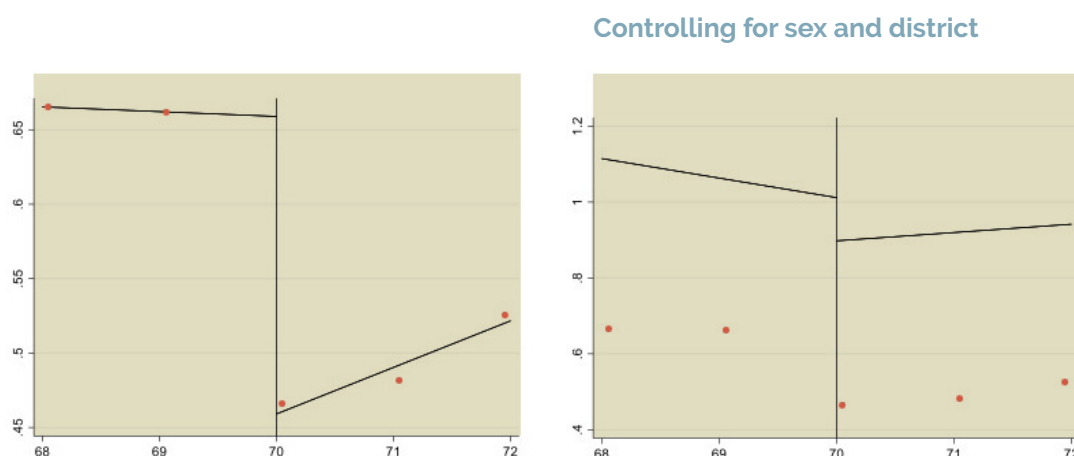
This suggests that the ZUPS may have enabled older people to reduce levels of work in line with the findings of other studies in developing countries. Indeed, older people in group discussions talked about how they find it increasingly difficult to engage in economic activities given the lack of suitable work opportunities and their declining strength to engage in physically demanding activities such as fishing and farming. They also spoke of limited opportunities to engage in business given lack of markets and capital to invest in business activities.

Table 10. Sharp RD estimates on the impact of ZUPS on engagement in economic activities

Method	Coefficient	Standard error	P-value
Robust	-0.19975	0.08224	0.408
Robust with Clustered Standard Errors		0.08578	0.504
Robust controlling for sex and district	-0.11377	0.08032	0.000

Robust controlling for sex and district with Clustered Standard Errors	0.08533	0.002
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Figure 7. Sharp RD estimates on the impact of ZUPS on engagement in economic activities



6.1.4. Impacts on cash and in-kind support received from families

There are sometimes concerns that pensions, and more generally social protection, could lead to a reduction in informal forms of support through families and communities, a process that is referred to as ‘crowding-out’. In the case of the ZUPS, this does not seem to happen.

Although less than 2 per cent of ZUPS recipients considered family support to be their main source of cash income, compared to a third of non-recipients (Table 9), the data analysis shows that ZUPS beneficiaries were more likely to have received support from family in the previous year (although the estimate is not statistically significant difference when controls are included). This suggests that family support remains a very important source of income and material support for pension beneficiaries.

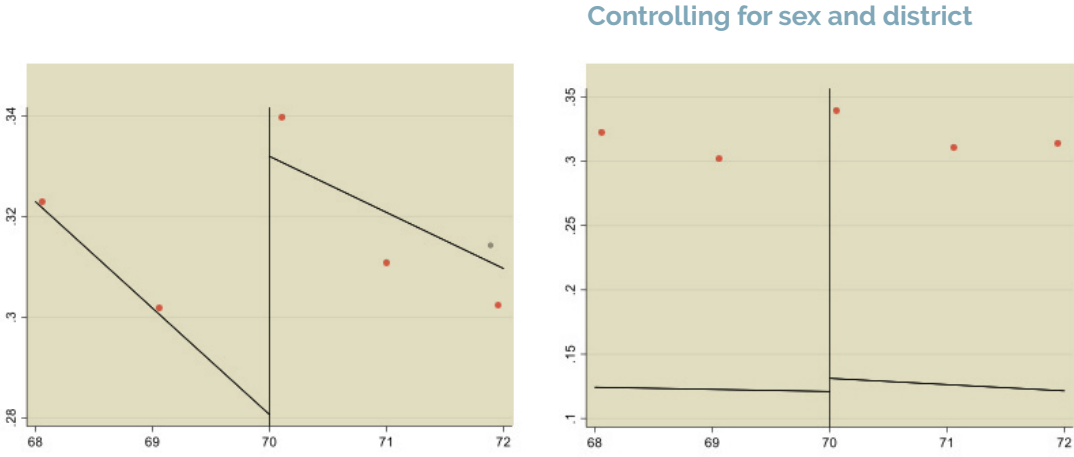
This is very much in line with the findings from the focus group discussions which highlighted the importance of family material support, mainly provided by children, to older people (see Box1).

Table 11. Sharp RD estimates on the impact of ZUPS on cash and in-kind support received from families

Method	Coefficient	Standard error	P-value
Robust	0.0514	0.07945	0.007
Robust with Clustered Standard Errors		0.08126	0.005
Robust controlling for sex and district	0.0102	0.07867	0.335

Robust controlling for sex and district with Clustered Standard Errors	0.08238	0.358
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Figure 8. Sharp RD estimates on the impact of ZUPS on cash and in-kind support received from families



BOX 1: Family support

Older men and women, including those receiving the ZUPS, say they count on their families – primarily their children – for income and material support to meet their needs. The focus groups discussions offered an opportunity to understand in more detail the nature and dynamics of family support and how it has been affected by the ZUPS.

I am telling you if it is not for my child it becomes very difficult.
Female recipient, Matemwe

I don't have any source of income; I only depend on my children.
Female non-recipient, Mtemani

You wait until your child send you something.
Male non-recipient, Mtemwe

For the majority, support received from children,

although critical, is largely unreliable and inadequate. Support is often provided in kind (mainly food) or very small amounts of cash to cover specific needs such as healthcare, transport, or schooling of younger brothers and sisters.

My children give me food. They cook at their home and they give it to me. They are the ones who look after me.
Female non-recipient, Matemwe

It [support from children] happens to increase or decrease sometimes, because some days children do not have money. They tell me this month is bit tough.
Male recipient, Madungu

They [the children] do not give us money but they help. If they find coconut they bring it home, if they go fishing and got fish they bring it home.
Male recipient, Mtemani

Sometimes it has been three

months and they have not sent me anything.
Female non-recipient, Mtemani

The reality is that the majority of children in these areas do not have employment or reliable income themselves, and many are poor. Moreover, many have their own young families to support. Older people are aware of these difficulties faced by their children, and while they expect support, they often feel guilty and ashamed to have to ask for it – or “beg” for support as many have said – when it is not forthcoming.

I can say I have no support because none of my children have employment.
Male recipient, Madungu

I, my child, I do not have anything to say, it is as said by my fellows.

Qualitative evidence on the impact of the ZUPS on recipients' income is very much in line with the results of the quantitative analysis. Discussions highlighted that the ZUPS is an important source of income for recipients because of its reliability and the fact that it is paid in cash.

Older people said that although the value of the ZUPS represented in most cases a small proportion of their households' overall material needs, the ZUPS was generally their only source of guaranteed income and often the only source of cash. All their other sources of income and material support were highly unpredictable and often in-kind, mainly in the form of food. Indeed, for the vast majority of ZUPS recipients who participated in discussion groups in both Pemba and Unguja the ZUPS was their first ever guaranteed and reliable source of cash income. The notable exceptions were the few older people who had been civil servants or had had formal jobs and now receive contributory pensions.

ZUPS has brought positive impact in our lives. It has increased the amount of our income.

Female recipient, Shaurimoyo

Apart from 20,000 [from the ZUPS] I do not earn any other money, because it is not certain. My daughter does bring consumption items such as rice or maize flour, but not money.

Female recipient, Shaurimoyo

[Income from agriculture] is not permanent, the permanent one is the TSh20,000.

Female recipient, Mtemani

I only receive my pension [ZUPS], my wife as well. No other source, except sometimes I get some help from my son.

Male recipient, Matemwe

Now it is better because you have guarantee of receiving the money.

Female recipient, Mtemani

Before start receiving the pension, we used to be given by the neighbour alone. Neighbours help us a lot, but it was not easy because they also have families.

Male recipient, Shaurimoyo

A poor person does not have guaranteed income. Some days you need and call your child or friend to send you some money, but the money finishes the same moment. So, it is difficult to count it. It is only the pension.

Male recipient, Mtemani

20,000 is what I depend on. There is nothing except the pension.

Female recipient, Matemwe

My children do not have money to give me.

Female recipient, Matemwe

You know our children do not have reliable jobs or monthly salaries. They have to struggle to get something.

Female recipient, Matemwe

They [children] don't give me money, some days they bring fish, not money.

Male non-beneficiary Matemwe

Sometimes I need some money and without begging from my children I cannot find it.

Male beneficiary Matemwe

They [the children] can stay for two to three months but when it

reaches the fourth month they give me some money. They can give me about 30 [TSh30,000] but they don't give me the money frequently because they have their own children.

Female recipient, Mtemani

When children cannot support their parents because they are unemployed the situation becomes tougher. In my observation I found out that many people fail to provide assistance to their parents.

Sheha

Older people reported that the levels of support they receive from family members has been largely unaffected by the ZUPS given

that the value of the pension is not sufficient to cover all their needs. Many feel, however, that they are now able to help their family with cash if needed at least on payment day.

I spend half of it [the ZUPS] and the other half I give to my children and they get something.

Female recipient, Matemwe

When I receive it [the ZUPS] the children celebrate at home – they are sure that that day they will eat nice food, it becomes celebration day to them.

Male recipient, Mtemani

Many women who are widowed also talked about how the ZUPS has helped them to replace some of the income which they used get from their husbands.

Before the universal pension we were married, so our husbands took care of the household. The coming of ZUPS helped to fill in the gap our husbands left when they died. ZUPS gives us confidence at least to borrow and be sure of returning what we borrow.

Female recipient, Shaurimoyo

Before the pension I had husband to provide for me.

Female recipient, Shaurimoyo

The vast majority of FGD participants, both ZUPS recipient and non-recipients, considered their income to be inadequate to meet their individual and household needs; but the ZUPS seems to provide recipients with additional strategies to deal with their income gaps. A key difference between ZUPS recipients and non-recipients was the certainty of having at least some cash to be able to cover expenses that require payment in cash (such as buying salt, oil, soap, paying electricity bills) and the ability to use the pension as collateral for borrowing money or food.

In water and electricity, we had debts because we skipped payments. We used to play chess. Now you can pay every month.

Male recipient, Shaurimoyo

The biggest change that pension has brought to us is that it allows us to borrow food and other items and have guarantee of paying back. Therefore, when we go to borrow they give us because they know we will have the money to pay them back within a month.

Female recipient, Shaurimoyo

When you go to a shop you are trusted.

Male recipient, Mtemani

There is benefits, you can go to the shop and tell the shopkeeper to put for you 2 kg of corn flour and accept that and tells you should pay on your date. So, for me I'm very grateful.

Male recipient, Matemwe

Nowadays if you need something you know for 100% sure that you will get it when you have your own money, you borrow from a shop or someone else until you get money you pay back. When we had no pension, this couldn't happen.

Female recipient, Madungu

Non-recipients, on the other hand, largely relied on the generosity of family members or neighbours for their food and other basic needs. Agriculture and petty trading were also important, but engagement in these activities were highly contingent of health status.

I have no business – what will I do? So, I go begging here and there.

Female non-recipient, Shaurimoyo

I cannot earn my own income. I go to places, they cook, and I eat there, then I go back home to sleep.

Female non-recipient, Shaurimoyo

I depend on visitors who come to see me.

Female non-recipient, Mtemani

When I was physically fit, engaged myself in fishing and agricultural activities, such as seaweeds and cassava farming to help feed my family. But at the moment, it is the seventh month now I'm looking after my sick child, I don't go anywhere.

Female non-recipient, Mtemani

I get those things [soap, oil, other needs] from people. When I don't have it, I reduce food to buy soap.

Female non-recipient, Shaurimoyo

We have now become older, we only depend to be given, and what you are given is always insufficient. We cannot struggle on our own.

Female non-recipient, Mtemani

I don't have any source of income; I only depend on my children. Though, it sometimes takes even three months they have not sent me anything.

Female non-recipient, Mtemani

In the past, I used to sell seaweeds to get money. But I undergone a surgery then after that I was banned to carry out seaweed activities and lifting heavy items.

Female non-recipient, Mtemani

The way I get money is when harvesting my banana or when I sell my chickens. This is how I generate income.

Female non-recipient, Mtemani

Since in the morning until day break I am in search of money until I get it is that I have a small business, I sell sweet bread (Andazi), after I have sold I calculate the money.

Female non-recipient, Matemwe

Whatever granted by God. I may get 8,000 today, 10,000 tomorrow or nothing. I have no specific amount. [My income] is not reliable. In the past I used to go fishing in the ocean. I earned a lot. I had my strength, but now I lay down on the floor. My income has dropped significantly.

Male non-recipient, Matemwe

6.2. Impacts on household material wellbeing

Although the pension is an individual grant, it can have a direct positive impact on recipients' households' material wellbeing, as older people may use the pension to contribute to the household income pool. Indeed, it was clear from the qualitative evidence that virtually all resources earned by older people – be it from the ZUPS or other sources – were pooled and used at household level. Therefore, it makes sense to look at the ZUPS impacts on expenditure at household rather than individual level.

In order to assess the impact of the ZUPS on household material wellbeing, the study looked at total household per capita expenditure, household expenditure on education, as well as perception of household income adequacy.

6.2.1. Impacts on household expenditure

Levels of expenditure are a well-established indicator to evaluate impacts on wellbeing, recognizing the link between the ability to spend resources on areas that are considered important by individuals or households, such as food, health and education, and key domains of material and subjective wellbeing¹⁴. Since individuals or households can theoretically spend their income on a wide range of items, expenditure information can also yield valuable insights into respondents' priorities.

The survey asked households how much money they had spent during the last 30 days on the following items: 1) Food items, including beverages, condiments and cooking oils; 2) Rent, or maintenance and/or repairs for their house; 3) Water, electricity and other energy sources such as wood or paraffin; 4) Personal items such as soap, airtime for their phones or barbers; 5) Transport such cars, buses or boda-bodas; 6) Health and medical expenses; 7) Clothing and shoes; 8) Kitchen and household items such as pots, beddings or furniture; 9) Education expenses such school fees, books or uniforms (over the last school term); and 10) Any other major expenses.

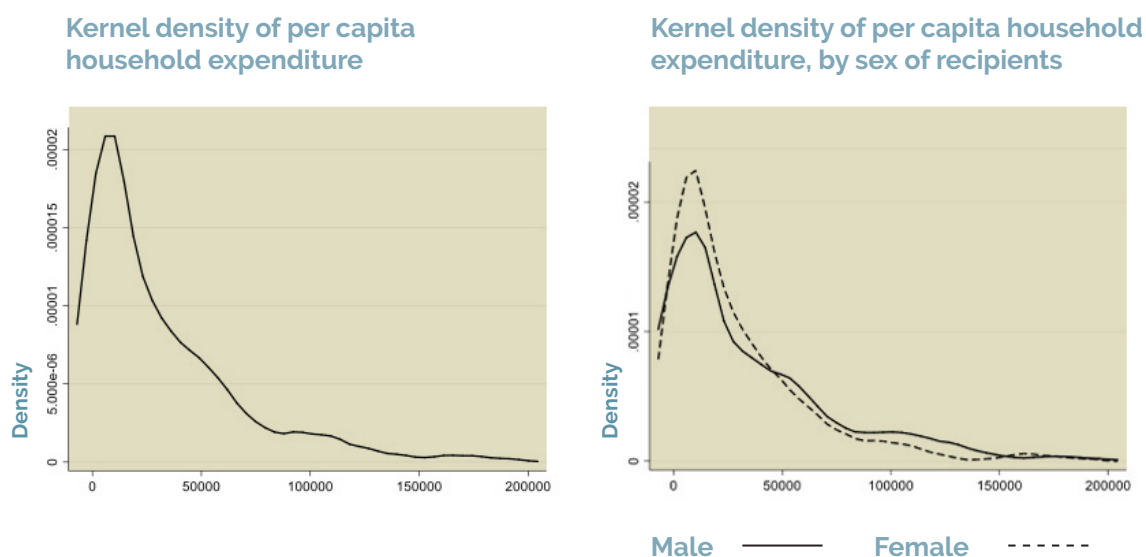
Mean household per capita expenditure* was TSh 33,854 (USD 14.73) in the total sample. Households in the control group spent on average less (TSh 29,589, USD 12.87) than those in the treatment group (TSh 38,518, USD 16.76). In all cases, standard deviations are high, indicating significant variation within the expenditure data and therefore inequalities between households. Figure 11.a highlights that most households spent less than TSh 50,000 (USD 21.74) per capita in the last month before the survey. Figure 11.b further shows that households of female recipients have lower levels of per capital expenditure as compared to the households of male recipients.

* Per capita expenditure was calculated by dividing total household expenditure in the 30 days before the survey by the number of household members. Note that no weighting or equivalence scales have been used.

Table 12. Per capita household expenditure

	All		Treatment		Control	
Household	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
	33,854	42,495	38,518	45,350	29,589	39,271

Figure 9. Distribution of per capita household expenditure, by sex of recipients

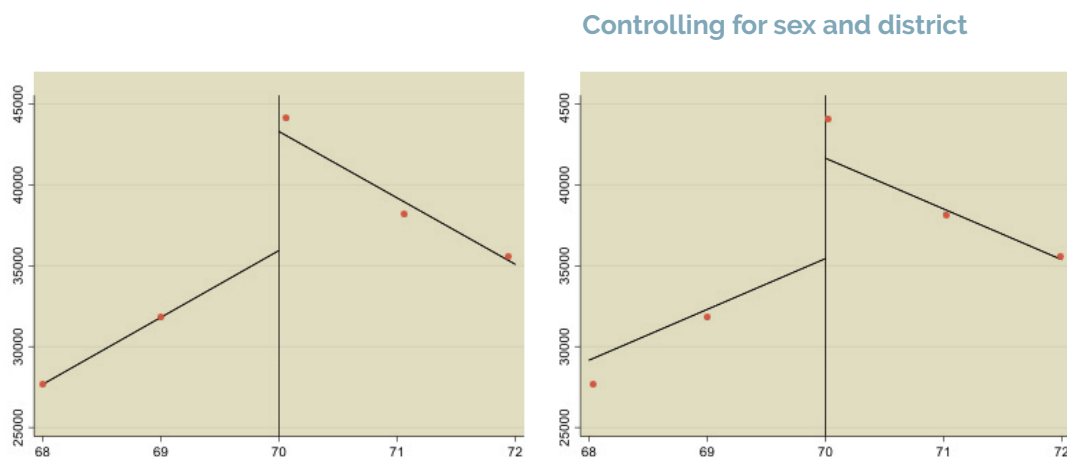


The pension is estimated to result in a TSh 7,362 (USD 3.20) increase in household per capita expenditure. When controlling for sex and district, the pension’s impact on reported household per capita expenditure reduces to TSh 6,211 (USD 2.70) but remains statistically significant.

Table 13. Sharp RD estimates on the impact of ZUPS on per capita household expenditure

Method	Coefficient	Standard error	P-value
Robust	7,362	7,459	0.000
Robust with Clustered Standard Errors		8,903	0.002
Robust controlling for sex and district	6,211	7,430	0.001
Robust controlling for sex and district with Clustered Standard Errors		8,541	0.003

Figure 10. Sharp RD estimates on the impact of ZUPS on per capita household expenditure



6.2.2. Impacts on household education expenditure

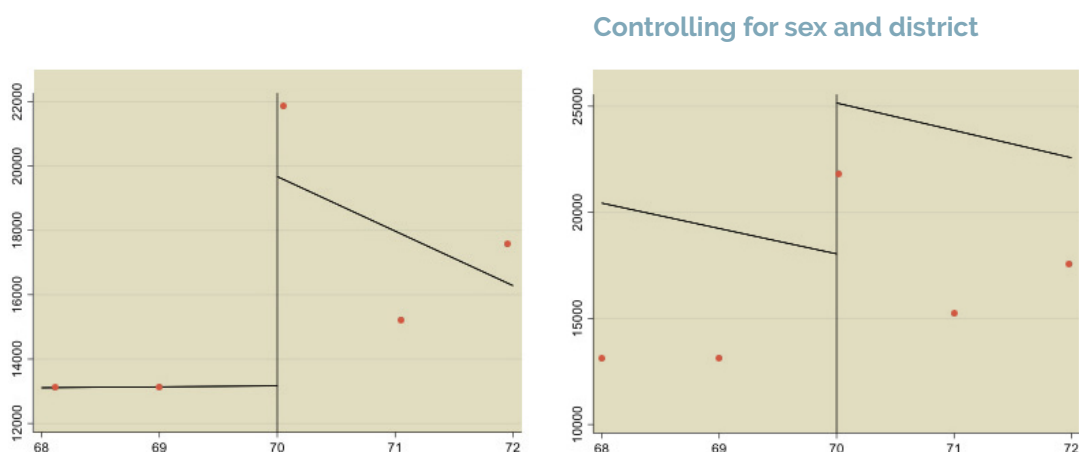
Evaluations of pensions and cash transfers frequently find positive impacts on education spending directed towards children living in the care of an older person. Increased investment in the education of children is often considered to be crucial for human and economic development and represents an important effect of cash transfers.¹⁵

The data analysis suggests a positive effect of the ZUPS on household-level expenditure on education. ZUPS is estimated to increase education spending by TSh 6,532 (USD 2.84) or TSh 7,129 (USD 3.11) when controls are included.

Table 14. Sharp RD estimates on the impact of ZUPS on household spending on education

Method	Coefficient	Standard error	P-value
Robust	6,532.4	7,674.8	0.070
Robust with Clustered Standard Errors		8,480.5	0.112
Robust controlling for sex and district	7,129.2	7,629.7	0.038
Robust controlling for sex and district with Clustered Standard Errors		8,185.4	0.064

Figure 11. Sharp RD estimates on the impact of ZUPS on household spending on education



This increase in household expenditure is very much in line with the qualitative evidence that shows that the social pension is largely spent on household consumption and that recipients leverage on the ZUPS to borrow money to finance additional consumption.

Other insights provided by the qualitative evidence on the impact of the ZUPS on household expenditure include:

- **The pension is normally spent straight away**, that is, older men and women tend to spend the TSh20,000 on the day they receive it or in the next few days;
- **The pension is largely spent on food for the household**, particularly on rice, oil, salt, sugar, fish, and other household items such as soap and kerosene; older people estimated that between 80 – 100% of the money is spent on food;

Other common uses of the pension include:

- **Paying for water and electricity bills**

After receiving the 20,000 I take 8,000 to pay water bills, because I had unpaid bill; so now I pay 8,000 to reduce the debt.

Male recipient, Madungu

I pay electricity and water bills.

Male recipient, Shaurimoyo

I pay water bills and with the rest I buy medicine.

Male recipient, Shaurimoyo

- **Supporting children’s education: paying school fees and materials, providing pocket money for children**

I invest my pension income in my grandchild's education. I pay 10,000 for the school and spend the other half on other purposes.

Female recipient, Shaurimoyo

If a grandchild does not have uniform, then you buy it instead of food. Because it is being said education is free, but in reality, it is not.

Female recipient, Matemwe

Mainly for my grandchild to go to school, to pay for madrassa.

Female recipient, Madungu

- **Making contributions towards social and religious ceremonies such as funerals, weddings, Ramadhan.**

I use it for everything; if there is a grandchild's wedding, I give them money.

Female recipient, **Shaurimoyo**

If there is a wedding, then I give it as contribution.

Female recipient, **Shaurimoyo**

- **Covering health related costs: medication, transport to hospital**

If you get sick, you can go to the hospital and buy medicine.

Female recipient, **Matemwe**

I spend my pension money on my mother's medical expenses.

Female recipient, **Shaurimoyo**

- **Paying back loans**

We borrow until we get money we pay back. We know on the 17th we get money.

Male recipient, **Shaurimoyo**

6.2.3. Impacts on household savings and debt

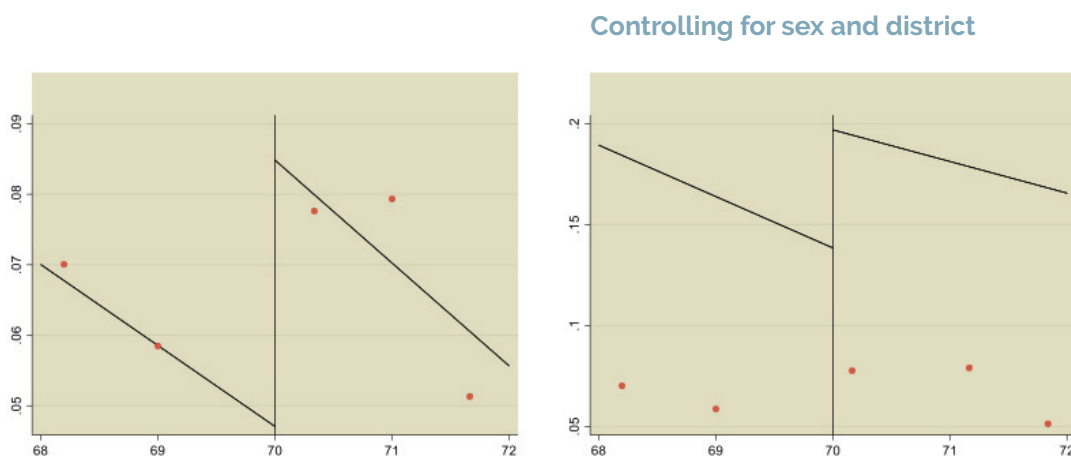
While most evaluations of cash transfers find increases in savings, the impact on recipient's debt varies, as recipients can leverage on their reliable stream of income and increased credit-worthiness to borrow more or use the cash transfer to pay off existing debts.¹⁶

Only 6.6 per cent of households in the sample reported having any savings. Households with male ZUPS recipients were around twice as likely to have savings as compared to those of female recipients. Receiving the ZUPS seems to increase the likelihood of having savings slightly, but the results are only statistically significant when controlling for sex and district of recipients.

Table 15. Sharp RD estimates on the impact of ZUPS on the likelihood of households having any savings

Method	Coefficient	Standard error	P-value
Robust	0.03768	0.04216	0.154
Robust with Clustered Standard Errors		0.44	0.168
Robust controlling for sex and district	0.05846	0.04195	0.002
Robust controlling for sex and district with Clustered Standard Errors		0.4408	0.004

Figure 12. Sharp RD estimates on the impact of ZUPS on household savings



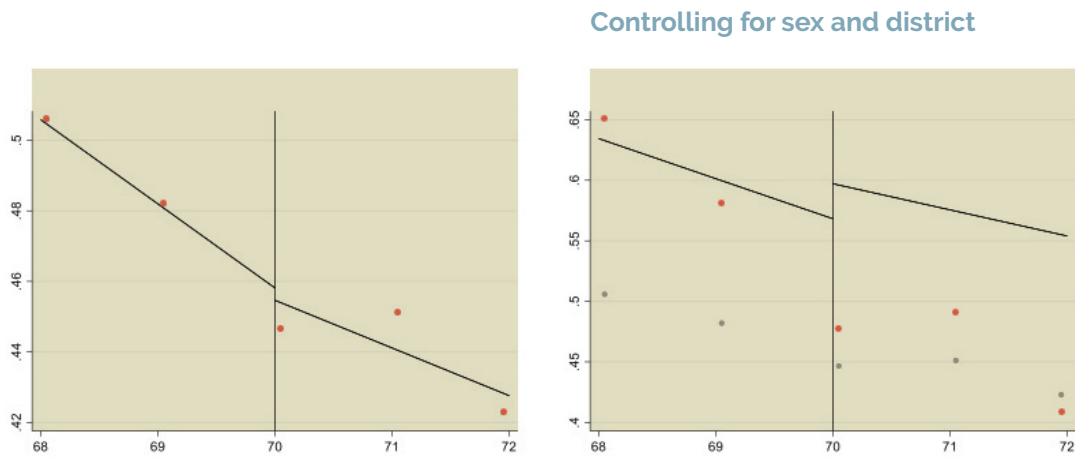
Just under half (46.8 per cent) of households had debts. Households of male and female recipients were equally likely to have debt. ZUPS recipients' households were slightly less likely to have debts, as compared to households in the treatment group. However, when controlling for sex and district of recipients, the pensions slightly increased the likelihood of households having debts. Both results are statistically significant.

As discussed previously, the qualitative evidence strongly suggests that ZUPS has improved recipients' creditworthiness and that recipients often resort to borrowing to cover part of their expenses. Being seen by community members as reliable borrowers and therefore able to access small loans was reported by older people to be a major benefit of gaining a guaranteed pension income.

Table 16. Sharp RD estimates on the impact of ZUPS on household debts

Method	Coefficient	Standard error	P-value
Robust	-0.00359	0.08559	0.014
Robust with Clustered Standard Errors		0.11115	0.092
Robust controlling for sex and district	0.02894	0.08551	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.10953	0.017

Figure 13. Sharp RD estimates on the impact of ZUPS on household debts



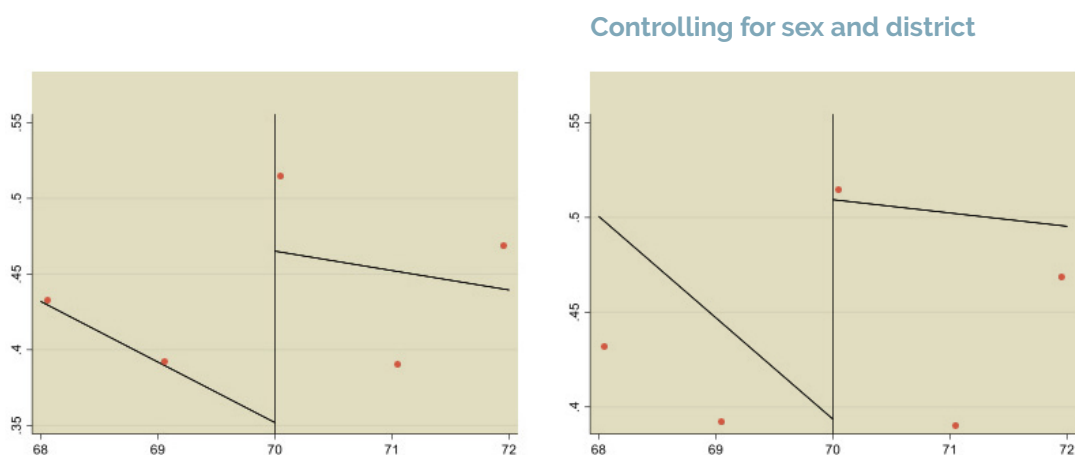
6.2.4. Perception of household income adequacy

Results of the RDD analyses suggest a positive effect of the pension on recipients' perception of household income adequacy. ZUPS recipients were 11 percentage points more likely to think their household income is adequate compare to non-recipients. The impact remains statistically significant when controlling for sex and district of respondents.

Table 17. Sharp RD estimates on the impact of ZUPS on perception of income adequacy

Method	Coefficient	Standard error	P-value
Robust	0.11391	0.08429	0.000
Robust with Clustered Standard Errors		0.09905	0.000
Robust controlling for sex and district	0.11631	0.08419	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.10089	0.000

Figure 14. Sharp RD estimates on the impact of ZUPS on perception of income adequacy



BOX 2. Adequacy of the ZUPS

The value of the ZUPS is TSh 20,000 (US\$ 8.70) per month, which is equivalent to 11.5 per cent of GDP per capita.

Although two-thirds of recipients surveyed agreed (58.7 per cent) or strongly agreed (7.4 per cent) that the ZUPS has improved their economic and overall wellbeing, the qualitative evidence suggests that the majority of older people feel that the level of the benefit is largely inadequate. The overall feeling from recipients was that income

from ZUPS certainly helped, but it was not enough to cover their basic needs – in fact, a word often used by beneficiaries in focus groups to describe the impact of the ZUPS on their material wellbeing was “a bit”.

[My situation] has improved a bit because of I can now be sure that on that day I will receive certain amount of money; that's an improvement.

Male recipient, Shaurimoyo

It brought a bit of easiness.

Male recipient, Mtemani

20,000 is not enough but you can help a bit with some expenses.

Female recipient, Mtemani

The majority of older people live in large multigenerational households. The median number of people who usually lived and ate their meals together in a household (including respondents) was five, with over 70 per cent of respondents living with their children and/or grandchildren; and only 5.3 per cent living alone.

6.3. Impacts on food security

This section presents the impacts of the ZUPS on household food security. A series of indicators have been used to capture different dimensions of household food security including availability (food expenditure, number of meals a day, running out of food), diversity (ability of households to buy food from the market), and consumption behaviour (concerns about having enough food).

6.3.1. Impacts on food expenditure

The data analyses indicate that the ZUPS has had a positive and statistically significant impact on per capita household food expenditure, increasing expenditure by between TSh 3,293 (USD 1.43) and TSh 2,615 (USD 1.13) when controlling for sex and district of recipients. Indeed, it was clear from focus group discussions that the bulk of the pension is spent on purchasing food for the household.

Table 18. Sharp RD estimates on the impact of ZUPS on household per capita food expenditure

Method	Coefficient	Standard error	P-value
Robust	3,293	3,735	0.001
Robust with Clustered Standard Errors		4,501	0.005
Robust controlling for sex and district	2,615	3,744	0.008
Robust controlling for sex and district with Clustered Standard Errors		4,492	0.014

Recipients therefore tend to assess the adequacy of their income in relation to household's rather than individual needs and consumption.

However, the social pension is an individual grant aimed at providing a guaranteed minimum income floor to older people, and although evidence from this evaluation shows that it can have a positive impact on household's material wellbeing, it is unrealistic to expect that the social

pension alone should be sufficient to ensure adequate income security for entire households.

The ZUPS money allow me to adequately cover the full household expenses for two days in a month.

Female recipient, Shaurimoyo

I spend 10,000 per day on food for the household.

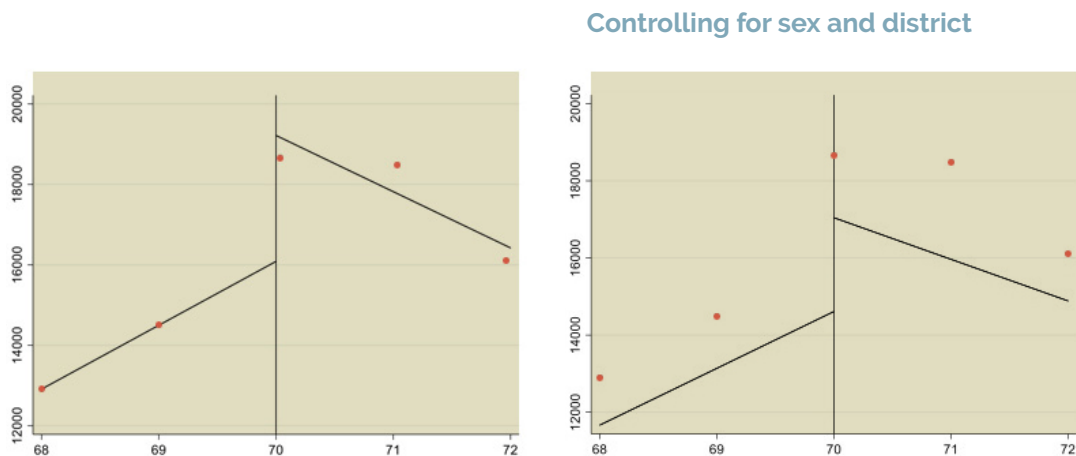
Female recipient, Madungu

It should be noted that the value of the ZUPS is equivalent to about half of the food poverty line (TSh

38,070 or US\$ 17) or 37 per cent of the basic-needs poverty line (TSh 53,377, US\$ 23) as defined by the 2014/15 Household Budget Survey. Further, it has not been adjusted since its introduction in April 2016, although the rate of annual inflation in this period has been between 4 and 6 per cent.

Any improvement in benefit levels is likely to strengthen the already positive impacts of the Scheme.

Figure 15. Sharp RD estimates on the impact of ZUPS on household per capita food expenditure



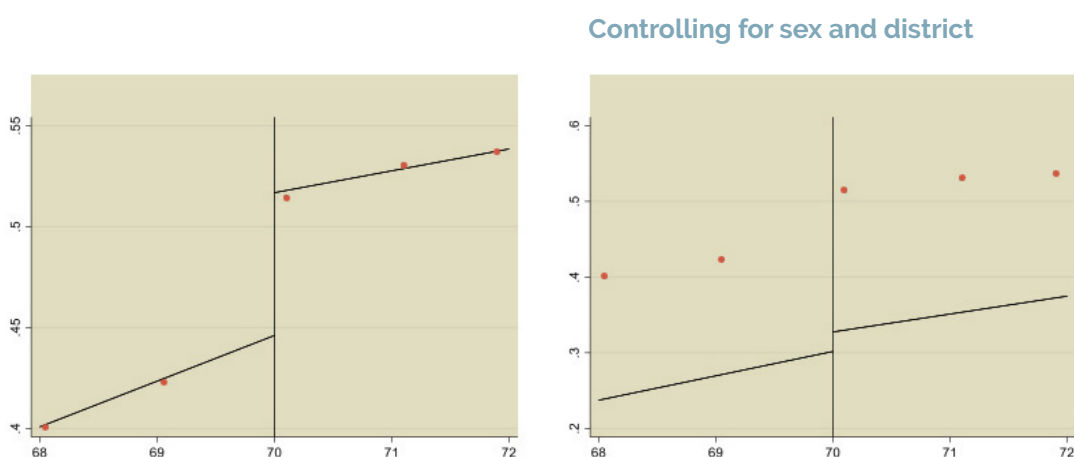
6.3.2. Impacts on households having three meals a day

Results indicate that the ZUPS increased the probability of a household eating three meals a day by 7 percentage points; the estimated impact is reduced to 2.5 percentage points when sex and district controls are included.

Table 19. Sharp RD estimates on the impact of ZUPS on households having three meals a day

Method	Coefficient	Standard error	P-value
Robust	0.07073	0.08489	0.000
Robust with Clustered Standard Errors		0.10565	0.002
Robust controlling for sex and district	0.02561	0.08445	0.039
Robust controlling for sex and district with Clustered Standard Errors		0.10554	0.071

Figure 16. Sharp RD estimates on the impact of ZUPS on households having three meals a day



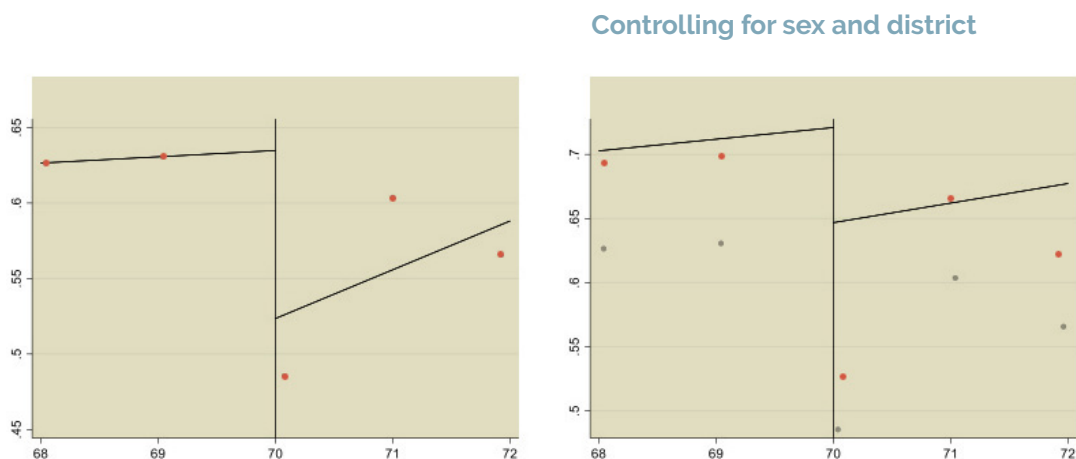
6.3.3. Impacts on running out of food

The ZUPS is also estimated to reduce the probability of a household running out of food due to lack of resources by 7.4 percentage points when sex and district controls are included. Results without these controls are not statistically significant.

Table 27. Sharp RD estimates on the impact of ZUPS households running out of food due to a lack of resources

Method	Coefficient	Standard error	P-value
Robust	-0.11178	0.0934	0.208
Robust with Clustered Standard Errors		0.902	0.302
Robust controlling for sex and district	-0.07426	0.09307	0.012
Robust controlling for sex and district with Clustered Standard Errors		0.09064	0.062

Figure 17. Sharp RD estimates on the impact of ZUPS households running out of food due to a lack of resources



6.3.4. Impacts on sourcing food from markets

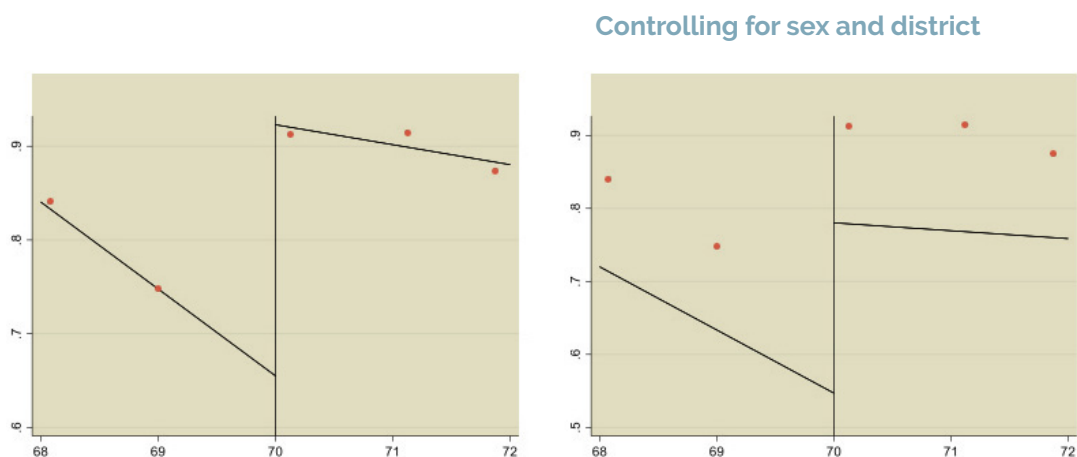
Although it is very common in Zanzibar for households to farm staple foods such as cassava and banana, what is produced through subsistence farming is often not enough to meet the household needs. Hence, in order to have sufficient food and a more diversified diet, most households need to buy food from markets.

The RDD analysis indicates a positive and statistically significant effect of the ZUPS on household's sourcing at least some of their food from markets. ZUPS recipients are estimated to be 26 percentage points more likely to buy food from the market compared to non-recipients.

Table 21. Sharp RD estimates on the impact of ZUPS household sourcing some of their food from markets (rather than own production or donations)

Method	Coefficient	Standard error	P-value
Robust	0.26779	0.06735	0.000
Robust with Clustered Standard Errors		0.1094	0.000
Robust controlling for sex and district	0.23308	0.06651	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.10637	0.000

Figure 18. Sharp RD estimates on the impact of ZUPS household mainly sourcing their food from markets



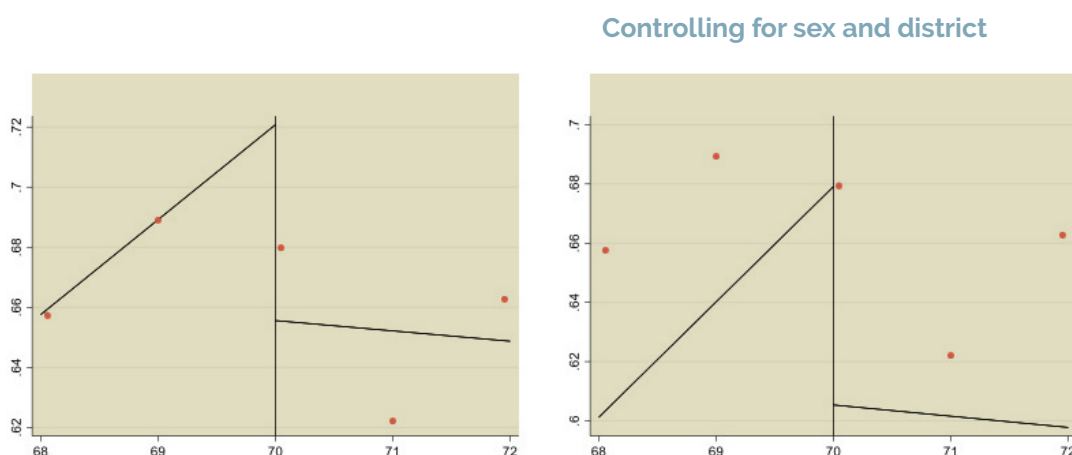
6.3.5. Impacts on worrying about not having enough food

The analyses also suggest that the ZUPS has had a positive impact on reducing people's concerns about availability of food. ZUPS recipients and their households were about 7 percentage points less likely to worry about not having enough food to eat due to a lack of resources compared to non-recipients.

Table 22. Sharp RD estimates on the impact of ZUPS on individuals or household members worrying about not having enough food to eat because of a lack of resources

Method	Coefficient	Standard error	P-value
Robust	-0.0649	0.08501	0.000
Robust with Clustered Standard Errors		0.10103	0.007
Robust controlling for sex and district	-0.07327	0.08522	0.001
Robust controlling for sex and district with Clustered Standard Errors		0.10139	0.014

Figure 19. Sharp RD estimates on the impact of ZUPS on individuals or household members worrying about not having enough food to eat because of a lack of resources



The quantitative analysis shows a strong impact of the ZUPS on food security, with positive significant results across all food security indicators. The qualitative evidence corroborates these findings, showing that the ZUPS not only improved the availability of food, but also contributed to increased food diversity.

The majority of focus group discussion participants reported relying on subsistence farming for the bulk of their food, but many talked about how they find it increasingly difficult to produce enough food because of declining physical strengths, and also due to insect plagues. They noted that although there is always some food in their households, it is often not in sufficient quantity and of very limited variety. The main impact of the ZUPS in this context has been to enable households to, at least for a few days, complement their diet with food bought from the market (rice, fish) and buy ingredients and staples that they can not produce, such as cooking oil, salt and sugar.

[Before the pension] we survived using cassava and banana we grow.

Female recipient, Mtemani

Because we did not get money in the past, some of the people were eating one meal, now the situation is better.

Female recipient, Mtemani

We all are in the same situation, about 70 to 90 per cent of the ZUPS and any other income goes to food.

Female recipient, Shaurimoyo

From 40,000 we collect [my wife and myself] 35,000 is spent on food.

Male recipient, Mtemani

[When I receive the pension] I go buy 4kg of rice and fish.

Male recipient, Mtemani

The pension does not reach home, it finishes at the market. I buy rice, sugar and fish.

Male recipient, Matemani

Eating meat was only in a party, if you are invited then you get to eat meat. But today, you have 20,000 shillings and the decision is yours.

Male recipient, Shaurimoyo

When I receive it [ZUPS], the children celebrate at home. They are sure that that day they will eat nice food, it becomes celebration day to them.

Male recipient, Mtemani

Nowadays if I do not have food I go take a loan from a shop, they trust me. I borrow until when I get my 20,000 I pay back.

Female recipient, Madungu

To be honest the nutritional status has changed because elders get their pension and he/she gets a little to enable him/her to buy good food.

Health worker

6.4. Impacts on health

The theory of change guiding this evaluation assumes that receiving the ZUPS will increase the income of recipients, leading to changes in their levels and patterns of expenditure. On the basis of global evidence,¹⁷ it is assumed that an increase in health expenditure will result in improvements in intermediary outcomes that are important for recipients' health, including increased health-seeking behaviour and the ability of older people meet out-of-pocket health expenses.

To capture expenditure priorities at the individual and household-level, both individual and household-level health expenditure were collected. It should be noted, however, that both sets of expenditure may benefit recipients as well as other households-members.

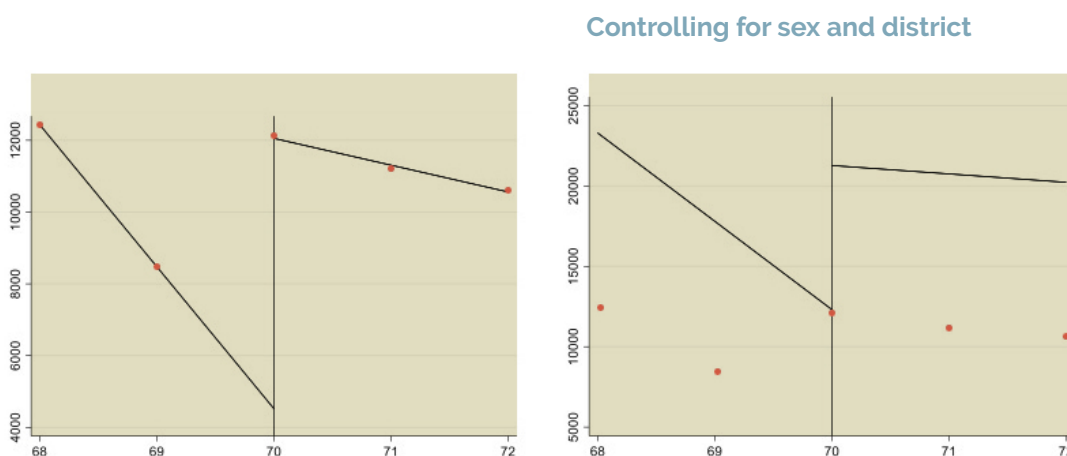
6.4.1. Impacts on individual health expenditure

The ZUPS is estimated to lead to a statistically significant increase of TSh 7,533.9 (USD 3.29) in individual-level health expenditure. When controlling for sex and district, health expenditure is estimated to increase by TSh 8,958.3 (USD 3.91). Both results are statistically significant.

Table 23. Sharp RD estimates on the impact of ZUPS on individual health expenditure

Method	Coefficient	Standard error	P-value
Robust	7,533.9	4,780.8	0.011
Robust with Clustered Standard Errors		4,922.3	0.019
Robust controlling for sex and district	8,958.3	4,734.8	0.000
Robust controlling for sex and district with Clustered Standard Errors		4,759.8	0.001

Figure 20. Sharp RD estimates on the impact of ZUPS on individual health expenditure



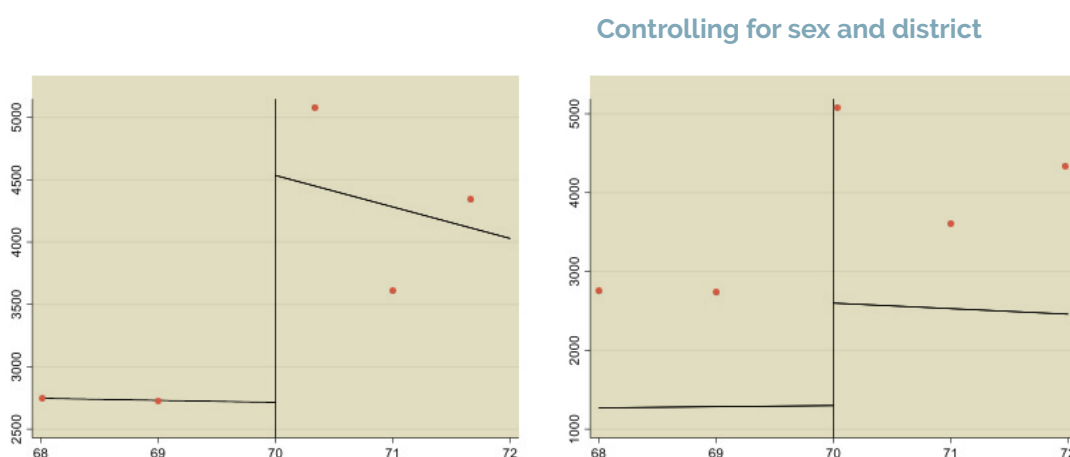
6.4.2. Impacts on household health expenditure

Mirroring increases in reported health expenditure at the individual level, the pension is estimated to increase households' reported per capita expenditure on health by TSh 1,828 (USD 0.80). When controlling for sex and district, households' per capita health expenditure increased by TSh 1,304 (USD 0.57). Both estimates are statistically significant.

Table 31. Sharp RD estimates on the impact of ZUPS on household per capita health expenditure

Method	Coefficient	Standard error	P-value
Robust	1,828	1,150	0.000
Robust with Clustered Standard Errors		1,211	0.002
Robust controlling for sex and district	1,304	1,144	0.039
Robust controlling for sex and district with Clustered Standard Errors		1,243	0.061

Figure 21. Sharp RD estimates on the impact of ZUPS on household per capita health expenditure



6.4.3. Impacts on health-care seeking behaviour

Informed by global evidence, the evaluation set out to establish the impacts of the ZUPS on 'health-care seeking behaviour' of those that were ill in the month prior to the survey. However, since only 40 per cent of respondents were ill in the month prior to the survey, the resulting sample was insufficient to infer quantitatively the impact of the ZUPS on recipients' health-care seeking behaviour. In any case, respondents from both treatment (93 per cent) and control groups (91 per cent) already show near-universal propensity to see a medical professional when ill, leaving very limited scope for potential improvements induced via the pension.

However, the qualitative evidence provides interesting insights into older people's health status, their health-care seeking behaviour and how this has changed with the ZUPS.

A large number of participants in focus group discussions said they feel unwell or in pain quite often – main complaints including pain in the legs and hip, and non-communicable diseases (NCDs) such as hypertension and diabetes.

In line with the quantitative findings, access to health services did not seem to be a problem for most of the older people in these areas. Older people said that they were able to access free healthcare at government hospitals or health facilities relatively easily. The main issue, voiced by virtually all participants, was the limited supply of drugs at these facilities. Older people said that only the most basic medicines are available free of charge and they end up having to buy most of the prescribed drugs. This was a particularly important issue for those who have to take medication regularly for their conditions. The cost of drugs was normally borne by older people themselves or family members; when money is not sufficient, older people said they buy only part of the prescribed medication, buy cheaper “substitutes”, or just do not buy it at all.

When you go to the hospital you get services. We have health centres we can use. No charge. The main expense is when you are prescribed drugs and you need them to regain your health but they are not available for free, you have to buy them.

[female non-recipient, Shaurimoyo]

If you are prescribed three or four medications, you only get one or two of them.

[female recipient, Mtemanel]

When you go to the hospital after seeing the doctor you go to the small window, they give you Panadol; other medication you don't get.

[Female recipient, Madungu]

At the hospital there are good periods and bad ones when you cannot find even a single pill, or if you are prescribed two you get one. We also need money to travel [to the health facility].

[Male recipient, Madungu]

Indeed, being able to buy medication for themselves and other family members was, according to focus group participants, the most important contribution of the ZUPS to their health.

It is a big relief, when I don't get medicine I borrow, I have a hope when I get my pension will pay back.

[Female recipient, Mtemani]

Because now [with the pension] when you tell them [older people] to buy drugs they can buy even small amount.

[Health worker]

It [the pension] has assisted them for when an elder today has problems then he/she can go to buy medicines and other medical needs. For there are times when there are no medicines in the hospital. If it is three medicines an elderly is prescribed, then they can get two and that one he/she has to buy.

[Health worker, Madungu]

6.5. Impacts on recipients' wellbeing and empowerment

Pensions have been linked to the empowerment and increased wellbeing of older people, as having an income of their own can generate feelings of independence, self-worth and dignity. For instance, research into the impact of the New Rural Pension Scheme in China found a 40 percent reduction in the prevalence of depressive symptoms amongst older people.¹⁸ A study of Mexico's universal social pension found a significant reduction of depressive symptoms, increased participation in household decision-making, reduction of sadness, and an increased feeling of empowerment.¹⁹

Peru's social pension has been found to reduce levels of depression by 9 percentage points and increase recipients' sense of contribution and self-worth by 12 percentage points and 7 percentage points respectively.²⁰

In order to establish the impact of the ZUPS on beneficiaries' empowerment and wellbeing, survey respondents were asked a series of questions regarding their participation in household decision-making and their subjective wellbeing.

The data suggests that the ZUPS has had a small positive and statistically significant impact on older people's participation in general household decision-making. By contrast, the pension's effect appears negative when decisions concern financial issues.

Regarding subjective wellbeing, the quantitative data suggests that the ZUPS has had a positive impact in reducing negative feelings such as sadness, but mostly negative impacts on positive feelings such as happiness (although largely only statistically significant when controls were included).

6.5.1. Participation in household decision-making

Table 25. Participation in household decision-making

Method	Coefficient	Standard error
Sometimes or often participating in household decision making		
Robust	0.00026	0.05428
Robust with Clustered Standard Errors		0.05886
Robust controlling for sex and district	0.01928	0.05377
Robust controlling for sex and district with Clustered Standard Errors		0.05903
Sometimes or often participating in household financial decision making		
Robust	-0.02549	0.05322
Robust with Clustered Standard Errors		0.05844
Robust controlling for sex and district	-0.00721	0.05271
Robust controlling for sex and district with Clustered Standard Errors		0.05872

6.5.2. Subjective wellbeing

Table 26. Positive indicators of subjective wellbeing

Method	Coefficient	Standard error	P-value
Often feel happy			
Robust	-0.03404	0.07665	0.246
Robust with Clustered Standard Errors		0.7578	0.308
Robust controlling for sex and district	0.00524	0.07595	0.003

Robust controlling for sex and district with Clustered Standard Errors		0.07631	0.007
Often Enjoy life			
Robust	-0.01566	0.07506	0.168
Robust with Clustered Standard Errors		0.06682	0.189
Robust controlling for sex and district	0.02711	0.07419	0.001
Robust controlling for sex and district with Clustered Standard Errors		0.06672	0.003
Often feel hopeful about the future			
Robust	-0.10384	0.0785	0.446
Robust with Clustered Standard Errors		0.06931	0.398
Robust controlling for sex and district	-0.07287	0.07813	0.038
Robust controlling for sex and district with Clustered Standard Errors		0.07032	0.027
Feels satisfied with life*			
Robust	-0.00571	0.08524	0.002
Robust with Clustered Standard Errors		0.10621	0.007
Robust controlling for sex and district	-0.0271	0.08537	0.024
Robust controlling for sex and district with Clustered Standard Errors		0.10723	0.053

Table 27. Negative indicators of subjective wellbeing

Method	Coefficient	Standard error	P-value
Rarely or never have poor appetite			
Robust	0.03729	0.06599	0.000
Robust with Clustered Standard Errors		0.6833	0.000
Robust controlling for sex and district	0.06214	0.06559	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.6721	0.000
Rarely or never feel depressed			
Robust	0.10869	0.08598	0.000
Robust with Clustered Standard Errors		0.7432	0.000
Robust controlling for sex and district	0.15624	0.08572	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.07497	0.000
Rarely or never feel everything is an effort			
Robust	0.09314	0.08535	0.000

* Possible answers were: Yes, very satisfied; Yes, somewhat satisfied; No, not satisfied; No answer

Robust with Clustered Standard Errors		0.10151	0.000
Robust controlling for sex and district	0.11571	0.08534	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.10211	0.000

Rarely or never has restless sleep

Robust	0.04901	0.0831	0.000
Robust with Clustered Standard Errors		0.08191	0.000
Robust controlling for sex and district	0.07341	0.0829	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.08254	0.000

Rarely or never feels lonely

Robust	-0.04291	0.08603	0.014
Robust with Clustered Standard Errors		0.10266	0.036
Robust controlling for sex and district	-0.01223	0.08581	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.10232	0.002

Rarely or never feel people are unfriendly

Robust	0.00812	0.0677	0.000
Robust with Clustered Standard Errors		0.0902	0.000
Robust controlling for sex and district	0.05314	0.06675	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.08833	0.000

Rarely or never feel sad

Robust	0.20264	0.08525	0.000
Robust with Clustered Standard Errors		0.09359	0.001
Robust controlling for sex and district	0.23432	0.0847	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.09358	0.000

Rarely or never feel disliked

Robust	0.07989	0.07189	0.000
Robust with Clustered Standard Errors		0.08576	0.001
Robust controlling for sex and district	0.12049	0.07078	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.08496	0.000

Rarely or neve feel lethargic

Robust	0.14176	0.08575	0.000
Robust with Clustered Standard Errors		0.09639	0.001
Robust controlling for sex and district	0.16526	0.08575	0.000
Robust controlling for sex and district with Clustered Standard Errors		0.09572	0.000

The qualitative evidence suggests that the ZUPS has had a positive impact on the wellbeing of beneficiaries. During the discussions, pension recipients spoke about how the pension had given them a sense of dignity and independence by allowing them cover some of their own expenses, reducing their reliance on children and other family members, or in the case of those who have no family support, the charity of others. Community leaders (Shehas) and health workers also noticed improvements in older people's wellbeing since the introduction of the ZUPS.

I now have my own money without being dependent on anyone. We were not used to see money regularly but now we do. This is a proud thing.

Female recipient, Shaurimoyo

When I get the pension, I become happy because I feel I have use.

Female recipient, Mtemani

To tell you the truth, the ZUPS has done a huge thing; when you meet older people, you can witness this from the way they talk about it, because it is something helpful to them. It seems little, but for older persons is not that little. Now when they go to a shop they are trusted. They may borrow some things with the expectation that after a certain moment they will manage to pay back. It has reduced the sharpness of live to older people. And this appears even when you talk to older people themselves, they speak so positively about the programme.

Sheha

Change that I started noticing from the first day is that people were very happy. If washing their bodies during payday they do it early, and the next day you find older people in the community are very happy.

Sheha

[The ZUPS] is very good. When they receive it, you see the elderly eating well and feeling like he/she is part of the world. Because if you are poor and do not have anything, to be honest, the soul is unwell; but if there is something for even one day you desire and you have the means and you can get it, you are relived.

Health worker

It is also worth noting that the pension has had a positive impact on the self-esteem of older men, who often feel increasing pressure to fulfil the role of head of the household and main provider as their capacity to earn income from work declines. This can be particularly challenging for men in polygamous marriages supporting more than one household.

The responsibility of buying food for the entire households is mine. At that point it comes to the role of head of household; one has to struggle, borrow from one and beg to another to earn something. You may even sleep hungry, leaving the food to the children.

Male recipient, Shaurimoyo

Because you can find yourself with nothing that day, the moment you receive it [the ZUPS] you become an important husband. It helps you and your family in that day.

Male recipient, Matemwe

I am the head of household. I have to struggle to find food, when I get it [the ZUPS] I give it to them.

Male recipient, Mtemani

7. Impressions on the implementation of the ZUPS and community awareness of the social pension

The following sections share insights on recipients' experiences with the implementation of the ZUPS and community awareness of the pension. The findings presented below might provide useful guidance to further strengthen the implementation of the ZUPS.

7.1. The implementation of the ZUPS

Respondents in the treatment group were asked about their experience as recipients of the ZUPS, including the application process, the regularity of the transfer, and the collection of payments.

The experience of registering for the ZUPS was considered to be either easy or reasonable for 93 per cent of respondents. Men were slightly more likely to report the experience of registering as easy or reasonable. Less than 6 per cent of women and men receiving the pension report the process to be difficult.

Table 28. Recipients' experience of registering for the ZUPS, by sex

	Female		Male		Total	
Easy	109	47.81%	123	52.56%	232	50.22%
Reasonable	103	45.18%	96	41.03%	199	43.07%
Difficult	12	5.26%	14	5.98%	26	5.63%

Participants in focus group discussions generally found the process of registering for the ZUPS to be very straightforward. The majority were contacted directly by the Shehia office and invited to apply for the Scheme.

There was no problem getting registered for the ZUPS, it was very easy.

Male recipient, Shaurimoyo

It was easy to register, there was no problem.

Female recipient, Mtemani

It was very simple; it was done at home.

Male recipient, Matemwe

For me it was good because they came home and ask me to show them my ID card and registered me immediately.

Female recipient, Madungu

However, several participants in focus group discussions said they know people in their communities who are 70 years and above that were not yet registered in the ZUPS. The main reason for that, they believed, was that some people did not have the right documentation to apply, or in some cases had ID documents with the wrong date of birth.

I have a sister who is older than me and she is not receiving [the ZUPS]. And my brother too is not receiving it.

Female recipient, Matemwe

Some people are older than we are but they do not receive it [ZUPS]. Their identity cards say they have not reached the age. Some cannot walk anymore because of old age, but on their cards they appear younger.

Male recipient, Mtemani

It depends on your identity card; some cards have given them less age.

Male recipient, Matemwe

Some have lost their certificates, they have no memories. So, when they go to Sheha they are asked to bring their documents, but they do not have them. So those people look like they have already reached 70 years, but they do not get it because they do not have the required documents to satisfy the clerk.

Male recipient, Shaurimoyo

Another challenge is identification of the age of older people. You find an older person is 70 years old, but their ID cards have a lower age.

Sheha

Nearly all (99 per cent) recipients report to have received the full pension amount of TSh 20,000 in the last payment and 98 per cent confirm to have received it on time.

57 per cent of older women and 79 per cent of older men reported collecting their pension independently. Women were twice more likely to rely on a representative (proxy) to collect their pensions as compared to men.

Table 29. Collection of payments, by sex

	Female		Male		Total	
Collect independently	132	57.89%	186	79.49%	318	68.83%
Representative collects	94	41.23%	46	19.66%	140	30.30%
Accompanied by a family member	2	0.85%	2	0.88%	4	0.87%

Around 60 per cent of recipients needed less than one hour to collect their pension payment, and most (93 per cent) needed less than two hours. Four per cent of recipients needed between two and three hours, and only a handful of recipients required more time.

At the pay-point, most recipients (67 per cent) needed to wait less than one hour to receive their pension. Overall, women reported slightly longer waiting times at the pay-points compared to men.

Table 30. Time needed to collect payments, by sex

	Female		Male		Total	
Less than 1 hour	126	55.26%	151	64.53%	277	59.96%
1 to 2 hours	87	38.16%	73	31.20%	160	34.63%

2 to 3 hours	11	4.82%	8	3.42%	19	4.11%
3 to 10 hours	4	1.75%	2	0.85%	6	1.30%

While 65 per cent of recipients reported not to have spent any money to get to the pay-point and back in the last payment, 25 per cent spent an amount below TSh 1,000. Amongst women, 28 per cent spend an amount below TSh 1,000, a slightly higher rate as compared to men (23 per cent). A non-negligible percentage of recipients (8 per cent) spent between TSh 1,000 and TSh 3,000 on travel costs. Again, women were slightly more likely to have travel costs in this range.

Table 31. Recipients' expenditure to get to pay-points and back, by sex

	Female		Male		Total	
Nothing	141	61.84%	159	67.95%	300	64.94%
Less than 1,000 TSh	64	28.07%	55	23.50%	119	25.76%
1,000 - 3,000 TSh	21	9.21%	17	7.26%	38	8.23%

Recipients, regardless of sex, overwhelmingly preferred payment at pay-points, and only very few recipients reported a preference for payment through banks or mobile money.

Table 32. Recipients' preferred payment methods, by sex

	Female		Male		Total	
Pay-point	196	85.96%	203	86.75%	399	86.36%
Mobile money	18	7.89%	11	4.70%	29	6.28%
Bank (branch/agent)	3	1.32%	8	3.42%	11	2.38%
Others (specify)	11	4.82%	12	5.13%	23	4.98%

The majority of ZUPS recipients participating in focus groups were very satisfied with the payment process: they found it to be very timely (payment always take place in the same day of the month) and well organised. Paypoints were generally easily accessible and had good facilities (such as seating, toilets) to accommodate older people on payment days, although in some cases the same paypoint covered several Shehias increasing travel and waiting times. Participants also found it helpful that they are able to use proxies to receive the pension when they are not able to go to the pay point themselves.

We do not wait too long to receive the payment, and when there are many people at the paypoint they put good arrangements to reduce waiting time.

Female recipient, Shaurimoyo

The work is done quickly. They ask your name and you say it and go.

Male recipient, Matemwe

There was limited understanding amongst recipients of the ZUPS' communication, grievance and redress channels. When asked where they would turn to for support in the context of the pension, or lodge a grievance, a large proportion of recipients (37 per cent) did not know who to approach. A majority, 61 per cent, identified Shehias as the responsible institution.

6.2. Awareness and understanding of the ZUPS by older non-recipients

Members of the control group, older people aged between 68 and 69 years who can be expected to be enrolled in the pension in a matter of years or even months, were asked about their awareness and understanding of the ZUPS, as well as their sources of information. Slightly less than half of respondents from the control group (47.05 per cent) were aware of the ZUPS before the interviews, with similar levels of awareness between older women and men.

Table 33. Non-recipients' awareness of the ZUPS, by sex

	Female		Male		Total	
	N°	%	N°	%	N°	%
Aware	127	46.52%	104	47.71%	231	47.05%
Not aware	147	53.48%	114	52.29%	260	52.95%

Of those that were aware of the ZUPS, most (41.9 per cent) learned about it from Shehias or their assistants. A significant proportion heard about the pension from friends, family or relatives (36 per cent) and the media (13 per cent). Only a handful of older people received information about the ZUPS from government channels, older people's associations (OPA) or public meetings.

We heard about it [the ZUPS]. Older people aged 70 years are the ones receiving it.

Male non-recipient, **Matemwe**

The procedure is that you go to Sheha's office, you submit your documents, if accepted then he sends your name to the office.

Female non-recipient, **Mtemani**

Table 34. Non-recipients' source of information on the ZUPS, by sex

	Female		Male		Total	
	N°	%	N°	%	N°	%
Shehias or assistant	49	47.12%	48	37.80%	97	41.99%
Friends	23	22.12%	19	14.96%	42	18.18%
Family or relatives	5	4.81%	37	29.13%	42	18.18%
Media	18	17.31%	13	10.24%	31	13.42%
OPAs	3	2.88%	4	3.15%	7	3.03%
Government	2	1.92%	2	1.57%	4	1.73%
Public meetings	2	1.92%	1	0.79%	3	1.30%

Note: Includes only those that knew about the ZUPS

Although about half of older people below the age of eligibility for the ZUPS were aware of the pension, only 36 per cent claimed to know the eligibility criteria. Men were somewhat more likely to claim awareness of the eligibility criteria.

Those who managed to get into the Scheme were registered by Sheha's assistants during house to house visit. For me to get into the plan, I don't know what to do.

Female non-recipient, Mtemani

I am not sure when will they come to identify people.

Female non-recipient, Madungu

Table 35. Non-recipients' knowledge of ZUPS eligibility criteria, by sex

	Female		Male		Total	
	N°	%	N°	%	N°	%
Knowledge of criteria	42	33.07%	43	40.38%	84	36.36%
No knowledge of criteria	62	66.93%	85	59.62%	147	63.64%

Note: Includes only those that knew about the ZUPS

8. Conclusions

When the Zanzibar Universal Social Pension (ZUPS) was established in April 2016, it was the first of its kind in East Africa. Since then a universal social pension has been established in Kenya, Uganda is expanding its Senior Citizen Grant to achieve universal coverage, and other countries in the region are seriously considering following suit, with the Malawian Parliament debating a universal social pension bill and the Zimbabwean government launching a feasibility study.

Zanzibar's experience has been critical in establishing universal social pensions as a feasible policy option for the region, and hence documenting and learning from this initiative is particularly important.

This mixed-methods evaluation looked at the impact of the ZUPS on older people and their households in four outcome areas, namely material wellbeing, food security, health and subjective wellbeing. It also sought to gauge the views of older people on the implementation of the Scheme.

Beneficiaries were largely very satisfied with the implementation of the Scheme by the Ministry of Empowerment, Social Welfare, Youth, Women and Children with the support of local Shehas. Older people found it easy to register for the pension, and said the payments were timely and carried out efficiently. Although the coverage of the Scheme is high, continued and sustained awareness and registration activities are needed, not only to ensure that older people can enrol in the Scheme as soon as they become eligible, but also to actively reach out to those who have not been able to access the pension despite being entitled to it due lack of documentation or other factors.

The study shows that the pension is, in most instances, the only regular source of income for beneficiaries, and is largely spent on household consumption. Older people are often part of a complex interaction of resources intra- and between households, and with the receipt of a pension are likely to be able to contribute more. Indeed, evidence from this study suggests that the ZUPS has had positive impacts on household material wellbeing – there is evidence that the pension has resulted in an increase in household per capita expenditure, and improved perception of income adequacy. The ZUPS has also been found to have positive impacts on household food

security, with both quantitative and qualitative evidence pointing to an improvement in the availability and diversity of food in recipient households. **Overall, given the modest amount of the transfer in relation to household consumption, these results are very encouraging, and improvements in the level of the pension benefit is likely to boost impacts further.**

This evaluation has also sought to establish the impact of the ZUPS on health, and results suggest an increase in both individual and household health expenditure. Although it has not been possible to quantitatively estimate the impact of the ZUPS on health-care seeking behaviour, qualitative evidence suggests that the ZUPS has been used by beneficiaries to cover costs related to accessing healthcare such as medication and transport to get to healthcare facilities.

While the quantitative evidence of the impact of the ZUPS on subjective wellbeing is inconclusive, the qualitative suggests improvements in relation to improved autonomy and a sense of dignity in line with evidence from other countries which shows that older people get substantial fulfilment from remaining agents and being able to contribute to family and community life.

This study also provided important evidence that the ZUPS did not lead to changes in informal forms of support through families and communities. One concern sometimes raised about formal social protection Schemes – such as social pensions – is that they could undermine existing informal systems of social protection. This evaluation added to the existing evidence that pensions can have the opposite dynamic and in fact strengthen informal social protection, as individuals are more likely to be able to access support when they have strong social networks, and these networks are often stronger when they are able to contribute to them.

The evidence produced by this evaluation largely supports the theory of change of social pensions and suggests that social pensions are a viable policy option, one that can generate positive and wide-ranging benefits for older people and their families. This evidence should provide reassurances for countries just embarking on the implementation of social pensions, and motivation for others considering this policy.

Table 36. Summary of ZUPS impacts

Impact Areas	Indicators	Impact estimates	
		RDD Robust	RDD Robust with sex and district covariates
Material wellbeing			
Mean individual income	Mean individual income on an average month (TSh), estimated (self-declared)	41,423***	46,408***
Seasonality of individual income	Mean individual income on a good month (TSh), estimated (self-declared)	61,225***	69,331***
	Mean individual income on a poor month (TSh) (self-declared)	32,578***	32,986***

Income sources	% of respondents engaged in engagement in economic activities in the previous month	-0.19975	-0.11377***
	% of respondents receiving material support (cash or in-kind) from family members in the previous year	0.0514***	0.0102

Household per capita expenditure, savings and debt

Expenditure	Household per capita expenditure (TSh), estimated (self-declared)	7,362***	6,211***
	Total household expenditure on education	6,532.4*	7,129.2**
Savings	% of households with savings	0.03768	0.05846***
Debt	% of households with debts	-0.00359**	0.02894***
Perception of household income adequacy	% of respondents who think their household income is adequate	0.11391***	0.11631***

Food security

Food expenditure	Household per capita food expenditure (TSh), estimated (self-declared)	3,293***	2,615***
Worry about food	% of respondents who worry about not having enough food to eat	-0.0649***	-0.07327***
Running out of food	% of households running out of food due to lack of resources	-0.11178	-0.07426**
Food from Markets	% of households sourcing food from markets	0.26779***	0.23308***
Three meals a day	% of households eating 3 meals a day	0.07073***	0.02561**

Health

Health expenditure	Older person individual health expenditure (TSh)(self-declared)	7,533**	8,958***
	Household per capita health expenditure (TSh), estimated (self-declared)	1,828***	1,144**
Seeking treatment	% cases where healthcare was sought	n.a.*	n.a.

* Not possible to estimate given the reduced number of observations for this variable (not enough statistical power to run the RDD model).

Wellbeing and empowerment

Decision-making	% of respondents who participate in household decision making (sometimes or often)	0.00026*	0.01928*
	% of respondents who participate in household decision making regarding financial issues (sometimes or often)	-0.02549***	-0.00721***
Subjective wellbeing	% of respondents who often feel happy	-0.03404	0.00524***
	% of respondents who often enjoy life	-0.01566	0.02711***
	% of respondents who are often hopeful about the future	-0.10384	-0.07287*
	% of respondents who feel satisfied with life	-0.0057***	-0.0271**
	% of respondents who rarely or never have poor appetites	0.03729***	0.06214***
	% of respondents who rarely or never feel depressed	0.10869***	0.15624***
	% of respondents who rarely or never feel that everything in an effort	0.09314***	0.11571***
	% of respondents who rarely or never have restless sleep	0.04901***	0.07341***
	% of respondents who rarely or never feel lonely	-0.04291**	-0.01223***
	% of respondents who rarely or never think people are unfriendly	0.00812***	0.05314***
	% of respondents who rarely or never feel sad	0.20264***	0.23432***
	% of respondents who rarely or never feel disliked	0.07989***	0.12049***
	% of respondents who rarely or never feel lethargic	0.14176***	0.16526***
Significance levels: p < 0.0_***, p < 0.05_**, p < 0.10_*			

References

- 1 Francesca Bastagli, Jessica Hagen-Zanker, Luke Harman, Valentina Barca, Georgina Sturge and Tanja Schmidt, Luca Pellerano (2016). *Cash transfers: what does the evidence say? A rigorous review of programme impact and of the role of design and implementation features*. Overseas Development Institute (ODI) and Oxford Policy Management OPM).
- 2 HelpAge International (2017). *Cash transfers and older people's access to healthcare: A multi-country study in Ethiopia, Mozambique, Tanzania and Zimbabwe*.
- 3 Rosangela Bando, Sebastian Galiani, and Paul J. Gertler (2016). *The Effects of Non-Contributory Pensions on Material and Subjective Well Being*. Inter-American Development Bank, University of Maryland, University of California, National Bureau of Economic Research (NBER).
- 4 Aarón Salinas-Rodríguez, Ma. Del Pilar Torres-Pereda, Betty Manrique-Espinoza, Karla Moreno-Tamayo, Martha María Téllez-Rojo Solís (2014). *Impact of the Non-Contributory Social Pension Program 70 Y Más on Older Adults' Mental Well-Being*. PLoS ONE 9, no. 11 (2014).
- 5 Wei Huang and Chuanchuan Zhang (2016). *The Power of Social Pensions*. IZA – Institute of Labor Economics.
- 6 Gertler et al. (2011). *Impact evaluation in practice*. World Bank.
- 7 Calonico, Cattaneo and Titiunik (2014). *Robust Data-Driven Inference in the Regression-Discontinuity Design*. Stata Journal 14(4): 909-946.
- 8 Washington Group on Disability Statistics (2009). *Understanding and interpreting disability as measured using the Washington Group short set of questions*. Centers for Disease Control and Prevention.
- 9 Alex Sienaert (2008). *The Labour Supply Effects of the South African State Old Age Pension: Theory, Evidence and Implications*. Oxford University and SALDRU Research.
- 10 Lei Shu (2018). *The effect of the New Rural Social Pension Insurance program on the retirement and labor supply decision in China*. The Journal of the Economics of Ageing. Volume 12, November 2018, Pages 135-150.
- 11 Neeraj Kaushal (2013). *How Public Pension affects Elderly Labor Supply and Well-being: Evidence from India*. NBER Working Paper No. 19088. Issued in May 2013.
- 12 Stephen Kidd, Anh Tran (2018). *Social Pensions and their Contribution to Economic Growth*. Government of Uganda and Development Pathways.
- 13 HelpAge International (2018). *Impacts of Malawi's Social Cash Transfer on Older People and their Households. A mixed method evaluation of the Social Cash Transfer and discussion of a universal old age social pension for Malawi*. (Unpublished)
- 14 Bastagli et al (2016).
- 15 Michael Samson (2009). *Social Cash Transfers and Employment. A note on empirical linkages in developing countries*. Economic Policy Research Institute (EPRI). Promoting Pro-Poor Growth: Employment. OECD.
- 16 Bastagli et al (2016).
- 17 Ebenezer Owusu-Addo, Andre Renzaho, Ben Smith (2018). *The impact of cash transfers on social determinants of health and health inequalities in sub-Saharan Africa: a systematic review*. Health Policy and Planning, Volume 33, Issue 5, June 2018, Pages 675–696.
- 18 Xi Chen, Tianyu Wang and Susan Busch (2016). *Does Money Relieve Depression? Evidence from Social Pension Expansions in China*. Institute for the Study of Labor. Discussion Paper No. 10037.
- 19 Aarón Salinas-Rodríguez et al (2014).
- 20 Ministerio de Economía y Finanzas (n.d.). *Reseña de Evaluación de Impacto. Programa Nacional de Asistencia Solidaria Pensión 65 (2012-2015)*. Government of Peru.

