Evaluation of the Uganda Social Assistance Grants for Empowerment (SAGE) Programme

Baseline report

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Preface/Acknowledgements

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All opinions expressed, and any mistakes, remain the responsibility of the authors.

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Executive Summary

Introduction

The Social Assistance Grants for Empowerment (SAGE) pilot social cash transfer scheme is a key element of the Government of Uganda's Expanding Social Protection Programme (ESPP). SAGE aims to help to tackle chronic poverty in Uganda and address the impact of poverty on social cohesion and the ability of chronically poor people to access healthcare, education and other key services.

The SAGE pilot will test a range of implementation modalities for an efficient, cost effective and scalable social transfer, to generate evidence for national policy making, and to provide a reference point to relevant stakeholders about the government's acceptance and commitment to social protection. The pilot is expected to reach around 600,000 people in about 95,000 households over a period of four years (April 2011-Feb 2015), covering approximately 15% of households in 14 targeted districts (see Figure 1, page 6).

Two targeting methodologies will be implemented in separate sub-counties of all 14 districts:

- **Vulnerable Family Support Grant (VFSG):** this employs a composite index based on demographic indicators of vulnerability such as disability, old or young age, orphanhood and widowhood to determine eligibility. The methodology for VFSG targeting puts the emphasis for selection into the programme on adults with disabilities, the elderly, and orphans. If present in a beneficiary household, adult women will be selected by the programme to be the actual recipient of transfers.

- **Senior Citizens Grant (SCG):** People above 65 years of age are registered onto the programme (above 60 years in the Karamoja region). The number of beneficiaries in a specific district and/or community will, therefore, depend on the age profile.

The two targeting methodologies will be evaluated by the ESPP against a range of criteria including (but not limited to): the simplicity and cost-effectiveness of their delivery; their impact on economic growth; the extent to which they create perverse incentives; popularity; and their impact on social cohesion; effectiveness in reaching the poor and people at risk of falling into poverty. All of these factors – and others – could also influence the long-term effectiveness and sustainability of social protection schemes in Uganda.

The purpose of the Evaluation Component is to assess the impact and operational effectiveness of the SAGE pilot programme, compare the relative performance of the two targeting methodologies used by the pilot, and ensure that evaluation findings are disseminated nationally. A robust Impact Evaluation (IE) can contribute to ESPP's learning aims and is a vital tool in ensuring the effectiveness of the programme and in uncovering potential challenges to its implementation and ability to achieve impact.

Methodology

The Impact Evaluation will assess SAGE against its main objective of empowering recipient households through:

- Reducing material deprivation.
- Increasing economic security.
- Reducing social exclusion.
- Increasing access to services.

In order to assess impact, the Evaluation will collect information over three years on a range of key indicators and supporting data. The impact analysis will be conducted using a mixed methods approach, combining qualitative research with a quasi-experimental quantitative survey design known as Regression Discontinuity Design (RDD).

The quantitative survey is implemented in 399 clusters across 48 sub-counties in eight programme districts. Qualitative fieldwork has taken place in four districts in the baseline year, selected purposively from within the eight SAGE evaluation districts to give a range of different contexts. The evaluation will include a comparison of the two distinct groups reached under the two targeting methodologies being piloted. Data will supplement nationally representative targeting efficiency data derived from analysis of the Uganda National Household Survey (UNHS) 2009/10 by the programme.

This report presents the results from the baseline impact evaluation of the SAGE target population. This is the sub-set of the population sampled, known as the 'study population' and comprising those around the eligibility thresholds for each of the two targeting mechanisms. Section 2 and an accompanying technical annexure give details of the methodology employed.

Characteristics of households in the programme areas

Demographics

Section 3 of the baseline report explains how the study population compares to the broader population of Uganda in terms of demographic characteristics. It includes information on age and sex, as well as a picture of household composition, including proportions of orphans and disabled people, and characteristics of the household head. The evaluation finds that elderly people are over-represented in the study population as compared to nationally. We find fewer children in eligible households compared to the average Ugandan household, especially for SCG households. Women and female heads of household, orphans and disabled people are over-represented in eligible households, which are also characterised by high numbers of dependents and a high proportion of household heads without formal education. Around a third of eligible households contain no able-bodied adult. Overall, these findings testify to the relative vulnerability status of the study population.

Economic and material welfare

Section 4 analyses the evaluation findings across a range of indicators associated with economic and material welfare. These include rates of poverty and consumption expenditure, food security and nutrition, livelihoods, child labour, housing and amenities, and reliance on remittances.

Overall, households in evaluation locations demonstrate higher levels of poverty than the national average as well as greater depth and severity of poverty, and greater inequality amongst poor households, especially amongst SCG households. SCG households also tend to demonstrate lower levels of welfare than VFSG households across a range of indicators, including food security. The survey found that the majority of VFSG eligible households had experienced little or no hunger in the past 30 days, whilst the majority of SCG eligible households had experienced at least moderate hunger over the same period.

Many more households appear to feel that they are living in poverty than would otherwise be suggested by official poverty rates (see Table 7). The qualitative research highlights that this may result from people viewing poverty in multi-dimensional terms beyond simple monetary poverty, including a lack of voice and a sense of dependence.

Almost half of the SCG and VFSG households in the sample report having suffered from a shock that they were unable to cope with using their normal resources. The most common shocks experienced by all households in the sample were illness or injury of a household member and loss of productive household member due to death (see Table F.7). This is unsurprising, given the advanced age of many household members and that households are overwhelmingly reliant on supply of their own labour to their household farms. The five most common shocks experienced all appear to be related to agricultural production, with the exception of increased cost of food.

The study population is overwhelmingly engaged in agricultural livelihood activities. Crop farming is the main source of livelihood, but is threatened by low prices, poor terms of trade, deterioration of soil quality, and adverse weather conditions. Casual labour was also a common livelihood across all locations. Formal employment is held by very few people.

In terms of investment in productive assets, around a quarter of the eligible population report having purchased productive assets in the previous 12 months. The figures are higher for the non-eligible population. An index constructed to measure asset accumulation also shows that that non-eligible households have a higher score than their eligible counterpart.

Rates of child labour are similar to the national estimate and the majority of children engaged in child labour are also enrolled in school.

Access to services

Section 5 of the baseline report looks at households' access to education, health and financial services, as well as receipt of formal transfers. It also considers levels of educational attainment and incidence of ill health, with the qualitative research reflecting community members' perceptions of education and health services.

Education: The research found low levels of education access and attainment for the adult population. Only around half of the adult population of our sample have ever attended formal education, and women are less likely to have any formal education than men. Age is a big driver of this, as older people are much less likely to have attended school. These patterns are also reflected in adult literacy rates. Such characteristics potentially limit earning power. School attendance by children is relatively high, but more so for boys than girls and more so for children in VFSG households than in SCG households. The primary completion rate is low across all households (around one in five).

Healthcare: A high proportion of the population seek healthcare when suffering illness or injury. Understandably, given the proportion of elderly people in the sample, respondents in SCG-eligible households were slightly more likely to report illness or injury than eligible households in VFSG areas. However, eligible households in VFSG areas spend twice as much on healthcare as those in SCG areas and this difference is statistically significant. They also spend more than non-eligible households in VFSG areas. The main reasons given for not seeking healthcare when ill or injured were treating the illness at home and cost.

Financial services: The majority of respondents in the sample have no cash savings. Eligible households in VFSG areas are more likely to have cash savings than eligible households in SCG areas. VFSG-eligible households are also much more likely to be saving, borrowing and purchasing goods on credit than their SCG counterparts. This finding may be partly explained by the increased poverty status of SCG households, who may thus face more barriers to access to financial services. Survey respondents claimed to lack access to formal financial services, and most savings and loans are informal (from family and friends, local traders, and village savings and loans associations). Receipt of formal transfers is low, but much higher for SCG households than for VFSG households.

Local markets and infrastructure

It may be expected that injecting cash into a community via a cash transfer could impact on the local economy of that community, for example by changing the level of local wages and prices for key goods and services. Section 6 presents the situation in evaluation communities found at baseline, prior to receipt of any cash transfers. It analyses data collected at the community level and provides a baseline picture of the price, economic activities and availability of services in the sampled communities.

In terms of wages and prices of key commodities, no substantial variation appears in the data between treatment and control communities, or between SCG and VFSG communities.

As regards infrastructure, the survey found that around a third of all communities have a road that is accessible by vehicle all year round, and almost all communities have mobile network coverage. Very few communities have a bank branch office. The most common mode of transport to reach health and education facilities is walking. Other common modes of transport are bicycle and *boda boda*.

Social relations and cohesion

Cash transfer programmes may both affect and be affected by established social relations and notions of social cohesion. Section 7 analyses data collected at both community and household levels before the introduction of SAGE cash transfers in order to provide a baseline picture of existing social relations and sense of social cohesion.

The report examines two types of informal support network, each underpinned by different sets of capacities and entitlements. Family-based networks are most characterised by ties of social obligation and tend to benefit the very poor that belong to them, because assistance is perceived as an obligation. Community-based support networks are more often underpinned by notions of reciprocity, and thus tend to exclude the poor who are unable to reciprocate the benefits they would receive. The survey found that eligible households are less able to borrow in an emergency than other households, and SCG-eligible households are less able to borrow than VFSG-eligible households. Cash transfers may impact these networks by improving communal perceptions of eligible households' credit-worthiness, especially in the case of SCG households. Support from both family and community-based mechanisms are said to be waning as a result of more generalised and widespread poverty within the social networks they draw upon.

Section 7 also examines social relations within the household and finds that social identities, particularly those based on sex and age, have a significant impact on levels of control over resources, asset ownership and participation in decision making processes. Control over, and ownership of, assets and resources within households is dominated by men, and social and cultural gender norms also mean that male-owned 'assets' sometimes also include women and children. Overall, asset ownership levels vary according to the types of asset. In general, the ownership of productive assets rests with men, while women generally own only smaller domestic resources.

Although the study finds that women are nominally almost half as likely as men to be the main person within a household to make decisions on key issues such as children's education, health and investment expenditure, this is largely a reflection of the high proportion of female heads of household in the study population. In households headed by men, men remain much more likely to be the main decision makers.

The evaluation produced conflicting evidence on the influence and belief in the social contract. Data from the quantitative study suggests that the majority of households feel they could (collectively) influence local elected officials. By contrast, the qualitative research indicates that citizens generally perceive themselves to have very little influence in social decision making and service provision. Despite this, there is a robust notion of the social contract as binding between government and citizens with obligations and entitlements on both sides, but some degree of disaffection regarding its current state.

Conclusions

Part C of the baseline report sets out the conclusions from the baseline data. The evaluation baseline has produced a wealth of data and findings across a broad array of indicators and research areas. The findings from the evaluation baseline study will feed into the ESPP and SAGE programme Learning Framework.

A study methodology has been developed which, as with all such evaluations, has certain limitations. Amongst these is the fact that the study sample is not representative of the entire programme beneficiary population. However, it is representative of the vast majority of the programme beneficiary population and there are no strong reasons to suppose that the small portion of the population that the evaluation data does not represent will respond any differently to receipt of the SAGE cash transfers than the portion that is represented. This means that, despite a small degree of caution being required when interpreting these results, the evaluation will provide a robust measure of programme impact.

The baseline suggests that the SAGE cash transfer may be enough to bring some households in poverty out directly, although it may not be enough to lift households at the very bottom of the income distribution above the poverty line. Since this is a baseline report, no measures of programme impact or operational effectiveness are provided at this stage. The measure of programme impact and the assessment of programme operational effectiveness will be provided by the two follow-up rounds of this evaluation in 2014 and 2015.

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Tables and figures

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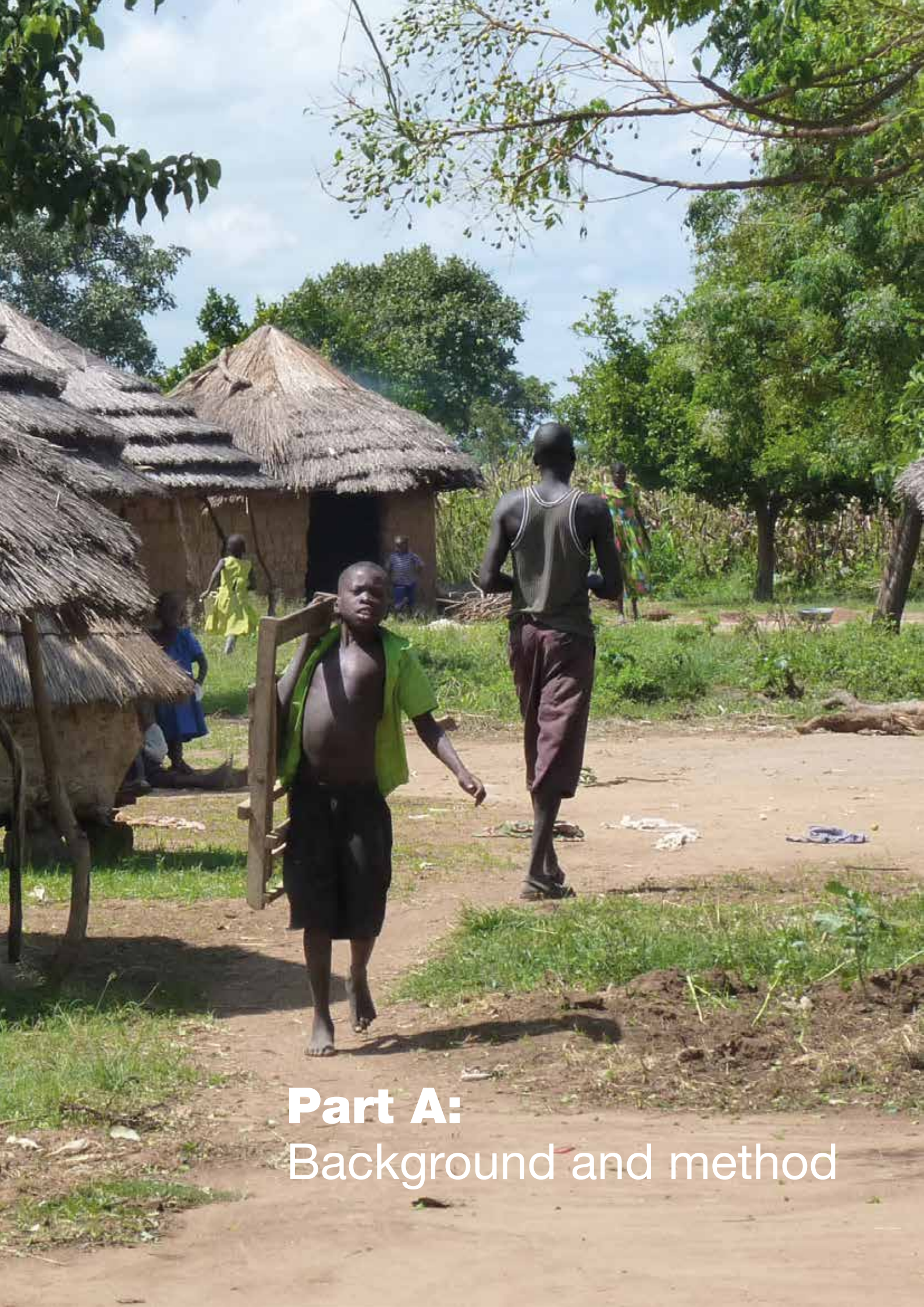
Abbreviations

BDR	Birth and Death Registration
DFID	UK Department for International Development
EA	Enumeration Area
EPRC	Economic Policy Research Centre
ESPP	Expanding Social Protection programme
FANTA	Food and Nutrition Technical Assistance Project
FCS	Food Consumption Score
HHS	Household Hunger Scale
LATE	Local Average Treatment Effect
LCD	Labour Capacity and Dependency targeting
MoFPED	Ministry of Finance, Planning & Economic Development
MoGLSD	Ministry of Gender, Labour and Social Development
OPM	Oxford Policy Management
PDC	Parish Development Committee
PER	Protein Efficiency Ratio
PPS	Probability Proportional to Size
PSM	Propensity Score Matching
PSU	Primary Sampling Unit
RDD	Regression Discontinuity Design
SAGE	Social Assistance Grants for Empowerment
SCG	Senior Citizens Grant
SRS	Simple Random Sampling
UBOS	Uganda Bureau of Statistics
UNHS	Uganda National Household Survey
UPE	Universal Primary Education
URSB	Uganda Registration Services Bureau
VFSG	Vulnerable Family Support Grant
VHT	Village Health Team
WHO	World Health Organisation



Part A:
Background and method

1 Introduction

1.1 Overview of the SAGE programme

In July 2010 the Government of Uganda approved the implementation of the Expanding Social Protection Programme (ESPP). One of the two key elements of the ESPP is to put in place a pilot social transfer programme – the Social Assistance Grants for Empowerment (SAGE) – in fourteen districts of Uganda.[1] The aim of the SAGE pilot is to help tackle chronic poverty in Uganda, test a range of implementation modalities for an efficient, cost effective and scalable social transfer, generate evidence for national policy making, and provide a reference point to relevant stakeholders about the government's acceptance and commitment to social protection.

The SAGE pilot is expected to reach around 600,000 people in about 95,000 households over a period of approximately four years (April 2011-Feb 2015), covering approximately 15% of households in the targeted districts. Transfers will progressively extend to all fourteen districts – beginning with a pre-pilot stage in six sub-counties in Kaberamaido, Kyenjojo and Kiboga districts. From October 2011, SAGE is expected to be gradually rolled out to all 14 districts. By the end of roll-out it is expected that all sub-counties within the 14 districts will be benefitting from the programme.

Two targeting methodologies will be implemented in separate sub-counties of all 14 districts: one – known as the Vulnerable Family Support Grant (VFSG)[2] – will employ a composite index based on demographic indicators of vulnerability to determine eligibility, while the other – Senior Citizens Grant (SCG) – will use age.

- **Vulnerable Family Support Grant:** Within each household, scores are allocated to key demographic indicators of vulnerability such as disability, old age, young age, orphanhood and widowhood, with negative scores allocated to individuals with labour capacity. These scores are weighted according to the policy priorities of government to ensure that the desired household types are targeted. Each household receives a composite score and the 15% of households within a District with the highest scores will be accepted on to the programme. The scores are generated from household registers that are produced by the local government working with the programme. The methodology for VFSG targeting puts the emphasis for selection into the programme on adults with disabilities, the elderly, and orphans.

1 Apac, Kaberamaido, Katakwi, Kiboga, Kyenjojo, Moroto, Nakapiripirit, Nebbi, plus the newly created districts of Zombo, Kole, Napak, Amudat, Kyegegwa and Kyankwanzi.
2 Also known as Labour Capacity and Dependency (LCD) Targeting.

- **Senior Citizens Grant:** Older persons above 65 years of age are registered onto the programme (above 60 years in the Karamoja region). The number of beneficiaries in a specific district and/or community will, therefore, depend on the age profile. Nationally, people aged 65 and above constitute 3.2% of the population and are represented in around 14% of households.[3]

The two targeting methodologies will be evaluated by the ESPP against a range of criteria including (but not limited to): the simplicity and cost-effectiveness of their delivery; their impact on economic growth; the extent to which they create perverse incentives; popularity; and their impact on social cohesion; effectiveness in reaching the poor and people at risk of falling into poverty. All of these factors – and others – could also influence the long-term effectiveness and sustainability of social protection schemes in Uganda.

The initial size of the monthly grant will be 23,000 UGX [2011 value], which is the amount calculated as necessary to increase the income of the average household in the lowest decile to that of the average income of households in the 11th percentile. The amount is expected to be pegged to an index related to the consumer price index and updated once a year.[4]

If present in a beneficiary household, adult women will be selected by the programme to be the physical recipient of transfers under the VFSG. In the case of the Senior Citizens Grant, the transfer is given to the individual older person enrolled. The programme makes provision for an alternate recipient to be able to collect the transfer in cases where the recipient is sick, infirm or where it is simply physically more convenient for another person to collect the money.

The telecoms provider MTN has been contracted to transfer cash to beneficiaries using electronic transfers where possible. An electronic Management Information System (MIS) has been developed to enable effective monitoring of the programme. Households are registered into the programme via a census-style registration system in which details are gathered from all households in a location and entered into the programme MIS. The registration exercise was carried out by local government with the support of URSB, UNICEF and the SAGE programme.

To avoid households moving in and out of eligibility over time, there will be a minimum enrolment period of 24 months. Households that move to SAGE communities may be registered upon arrival by the LC1, but will not be eligible for SAGE for a period of one year. Households which leave SAGE districts will be considered ineligible from the time of departure. Where changes in household composition or location mean that a household is no longer eligible, the household will exit the programme.[5] In order to facilitate their transition out of the programme, exiting households will be referred to other programmes where available and/or receive a SAGE Transition Support Grant equivalent to four months of transfers.

Newly eligible beneficiaries (i.e. households which, due to changes in composition, score higher than other households on the beneficiary list) will be admitted as spaces become available due to the exit of no-longer eligible households. An automated waiting list system – incorporated within the SAGE MIS – will identify households to be enrolled. In the case of the VFSG, new entrants will be enrolled on a priority basis, depending on their vulnerability scores. Provision will also be made for recipients to change their proxy recipient.

3 There will be some modification to the targeting methodologies in the Karamoja region (in the districts of Moroto, Nakapiripirit, Amudat and Napak). This is because a) the proportion of those over-65 is likely to be lower there than elsewhere in the country; and, b) the household registration system in both districts may not function adequately to serve as the basis for targeting. For this reason only the SCG will be deployed in Karamoja, with qualifying age lowered to 60 years.

4 The value of the transfer was increased to UGX 24,000 as of July 2012 and will increase again to UGX 25,000 in July 2013.

5 Beneficiaries of the SCG will in principle receive transfers until they pass away although this is clearly dependent on programme continuity.

Responsibility for implementation of SAGE, including management, coordination and monitoring of the programme, sits with the SAGE Implementation Unit based within the Social Protection Secretariat in the Ministry of Gender, Labour and Social Development (MoGLSD). The MoGLSD chairs the Inter-Ministerial Coordination Steering Committee which comprises representatives of different government departments. The ESPP Steering Committee oversees the work of the Social Protection Secretariat, including implementation of the SAGE programme. The ESPP Steering Committee reports to the Minister of MoGLSD, who in turn reports to Cabinet and Parliament on a regular basis keeping them informed on progress.

1.2 Overview of the Impact Evaluation

The SAGE programme includes an evaluation component. The purpose of the Evaluation Component is to assess the impact and operational effectiveness of the SAGE pilot programme, compare the relative performance of the two targeting methodologies used by the pilot, and ensure that evaluation findings are disseminated nationally.

The evaluation component will help to determine the relevance and effectiveness of cash transfers in delivering the broad aims of the ESP programme. The evaluation component will help to inform stakeholders of the programme's performance and enable lessons to be drawn to improve future practice and policy. An internal operational monitoring exercise is being conducted which together with results from the Impact Evaluation will feed into the SAGE programme Learning Framework.

1.2.1 What use is an impact evaluation?

The SAGE cash transfer is a pilot programme. This means that, as well as being the 'first run' of an ambitious programme to alleviate against poverty in the country it is also an opportunity to learn: about the population it is designed to help, about the effectiveness of the pilot approach, and about how to track and assess the progress of the programme against its aims. A robust Impact Evaluation (IE) can contribute to all of these learning aims and is a vital tool in ensuring the effectiveness of the programme and in uncovering potential challenges to its implementation and ability to achieve impact.

The challenges surrounding implementation are located at all stages of programme delivery, from the identification and registration of programme beneficiaries, to the delivery of payments and case management. Across all these stages are the difficulties associated with data collection and data management. As well as providing a robust measure of programme impact and explanation as to how and why impact is achieved, an independent Impact Evaluation will provide evidence on these challenges and in this way aid future policy formation and implementation.

It should also be acknowledged that impact evaluations of this type each provide their own difficulties and challenges. As Section 2.2 below describes, the SAGE IE is no exception, with a couple of challenges stemming from a combination of the programme's political commitments and operational constraints. These gave rise to the need to apply an innovative approach to the evaluation study design. The SAGE IE thus also provides a learning opportunity, whose experience can help inform future evaluations, both in the context of cash transfers and social protection in Uganda, and more broadly at the international level.

Box 1: A word on interpreting the data in this report

The multi-stakeholder process that led to the methodology adopted by this evaluation has an implication for the data that it reports. This is that **the study sample is not representative of the entire programme beneficiary population**. Although the study sample for the two targeting methodologies are not *fully* representative, they do represent a significant portion of the two treatment groups. This means that while the impact evaluation cannot provide an estimate of programme impact across the whole of the beneficiary population, it will provide a measure of impact upon the substantial portion of that population. A small degree of caution is thus necessary when generalising the results of this evaluation.

1.2.2 Assessing programme impact

The assessment of the impact of SAGE will inform decisions on whether and how to scale up the programme – its experience will also inform the development of other social protection programmes worldwide. The Evaluation will assess SAGE against its main objective of empowering recipient households through:

- Reducing material deprivation;
- Increasing economic security;
- Reducing social exclusion; and
- Increasing access to services.

In order to assess impact, the Evaluation will collect quantitative and qualitative information over three years on a range of key indicators and supporting data (see Section 2.1 below).

The impact analysis will be conducted using a mixed methods approach, combining qualitative research with a quasi-experimental quantitative survey design.

The quantitative survey is implemented in 399 clusters across 48 sub-counties in eight programme districts.[6] The two targeting mechanisms (SCG and VFSG) are randomly assigned evenly between the 48 sub-counties, with the exception of the Karamoja region in which only the SCG targeting mechanism was employed. The SAGE programme implemented the enrolment process in evaluation areas where selected recipients will receive the transfer, but only after they were surveyed at baseline. In the coming years a panel of these households will be interviewed on an annual basis for two rounds of follow-up surveys. There will be a gap of 12 months between each round of survey.

A sample of control communities was also surveyed in order to measure impact on a selection of community-level outcomes.

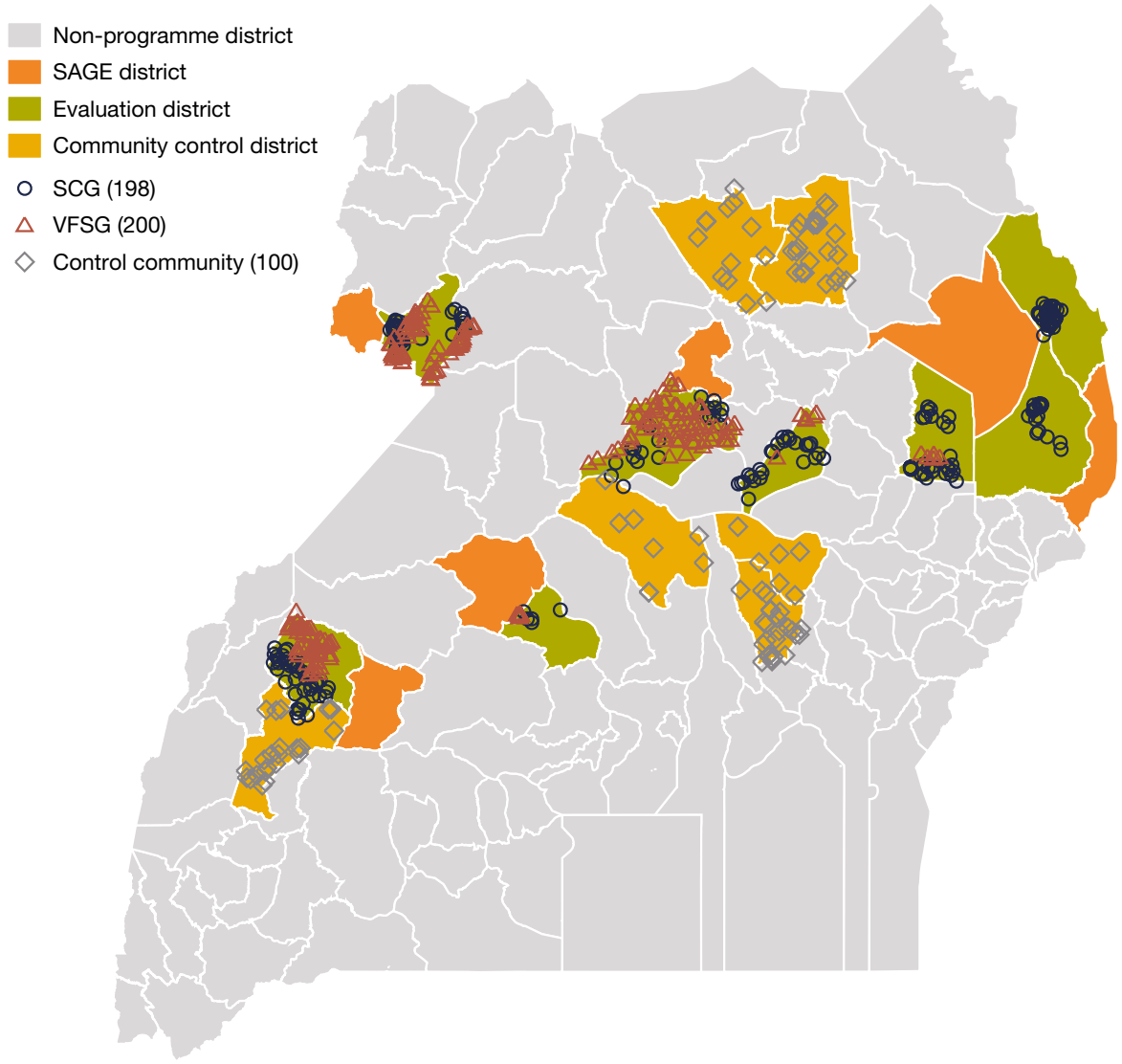
Qualitative fieldwork has taken place in four districts in the baseline year, selected purposively from within the eight SAGE evaluation districts to give a range of different contexts. The qualitative research is set to expand to all eight evaluation districts in the two follow-up years.

6 Apac, Kaberamaido, Katakwi, Kiboga, Kyenjojo, Moroto, Nakapiripirit and Nebbi.

1.2.3 Assessing operational effectiveness

The Evaluation will report on the operational effectiveness of the Programme and generate data that will feed into the programme's learning framework. The objectives are to provide an overall assessment of programme operational effectiveness on a range of indicators, such as functional effectiveness of the payments system, beneficiary satisfaction with the programme, and cost to beneficiaries of participating in the programme. Data on operational effectiveness will be gathered using both qualitative and quantitative methods and analysed using a mixed methods approach in the same way as programme impact. A list of operational effectiveness indicators is given in Table 1 below and figure 1 shows all the SCG and VFSG districts along with all the districts used as community control districts.

Figure 1: SAGE programme districts and evaluation communities



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

Table 1: Operational effectiveness indicators

Area of operations	Area	Quantitative indicators
Enrolment process and case management	**Functional effectiveness**	• % recipients reporting receipt of programme (MTN) cards • % recipients who made an appeal or raised a complaint with or about the programme – Number of households receiving responses to an appeal/complaint raised (satisfactory or unsatisfactory) • % households reporting correct knowledge of the programme on: – Amount of transfer – Payment regularity – Payment modality
	Household costs	• Direct and indirect costs of birth registration/enrolment process, including: – Documentation – Transport and accommodation – Other costs – Paying programme staff or others officials • Opportunity costs of targeting (average time taken to participate in targeting)
	Household perceptions	• % of households reporting that they consider the programme targeting approach to be fair • % beneficiaries reporting good treatment by programme staff during the birth registration process • % households reporting perceptions of shame associated with being enrolled in the programme • % households reporting perceptions of insecurity, tension caused by the programme
Effectiveness of transfer	**Functional effectiveness**	• % recipients reporting receiving regular payments (not missing or suffering delayed by payments) • % experiencing underpayment and non-payment, distinguishing where possible between: – Technical problems – Liquidity constraints at pay points – Discrimination or dishonesty at the pay point – Nominated recipient not transferring full value to beneficiary • Average distance to pay point • Use and allocation of grant
	Household costs	• Costs of receiving payment, including: – Transport and accommodation – Other costs – Payment to nominated recipient to receive transfer – Payment to pay point agent to receive transfer • Time taken to collect transfer: – Time to travel to pay point – Waiting time at pay point
	Household perceptions	• % beneficiaries reporting cash as preferred mode for the transfer • % beneficiaries reporting good treatment by pay point agents • % beneficiaries reporting: – Frustration at the process of collecting payment – Stigma associated with collecting transfers – Incidence of theft or attack to themselves – Perceived risk of theft or attack – Perception of general social insecurity, conflict, and violence as result of mode of transfer

1.2.4 Comparison of treatment groups under the two targeting methodologies

The evaluation will include a comparison of the two distinct groups reached under the two targeting methodologies being piloted. The targeting methodologies will be compared under each of the core impact areas, but also in terms of a range of operational and functional performance indicators. These include:

- Perceptions of fairness of the targeting process by beneficiaries and non-beneficiaries.
- Costs to beneficiaries and non-beneficiaries of participating in the targeting process.
- Perceptions of treatment by programme staff.
- Perceptions of insecurity, conflict and violence around targeting or involvement in the programme.

These data will supplement nationally representative targeting efficiency data derived from analysis of the UNHS 2009/10 by the programme.

1.2.5 Evaluation instruments

In line with the Evaluation objectives, the Evaluation will undertake two key activities:

1. Quantitative survey.
2. Qualitative fieldwork.

The first of these, the quantitative survey, will form the most substantial element of the Evaluation. It will comprise:

- A household panel survey conducted over a number of years (baseline, follow-up 1, follow-up 2) covering approximately 3,600 randomly selected households at baseline and thereafter in 48 evaluation sub-counties across eight districts.
- Quantitative community instruments administered in each treatment survey cluster as well as a number of control communities annually (at baseline, follow-up 1, follow-up 2).

The data gathered by the quantitative survey will provide the basis for a robust measure of both programme impact and assessment of the operational performance of the programme.

Collection and analysis of qualitative data will be combined with that of quantitative data to provide a more complete assessment of programme impact and operational effectiveness, and to increase the robustness of the overall analysis. The qualitative research will lead in areas of particular complexity and sensitivity, such as perceptions of the social contract and cultural attitudes. Including qualitative data will enable an assessment of impacts that are difficult to cover in the quantitative survey, providing nuance and explanatory information where possible.

1.2.6 Dissemination of evaluation results

Dissemination of findings from the Impact Evaluation will be coordinated with the ESPP evaluation component's broader dissemination strategy. It is envisaged that results from the Impact Evaluation will be presented by the Evaluation Team to a group of national and international stakeholders at the appropriate time in an event organised by the ESPP.

All of the relevant outputs produced by the Evaluation will be made available in order that they feed into the relevant formal mechanisms to update and improve performance of all components of the SAGE programme and the ESPP more generally. They will also be disseminated more broadly to help build the evidence base for social protection both in Uganda and internationally.

1.3 Purpose of this report

The baseline report of the Impact Evaluation serves two basic purposes:

1. To provide a description of the evaluation methodology; and

2. To present baseline findings for the study populations under each of the two targeting mechanisms.

Efforts have been made to deliver these two aims in as concise a manner as possible. The full findings from the qualitative research at baseline will be made available in a separate report and a full complement of quantitative data tabulations is presented in the annexure of this document.

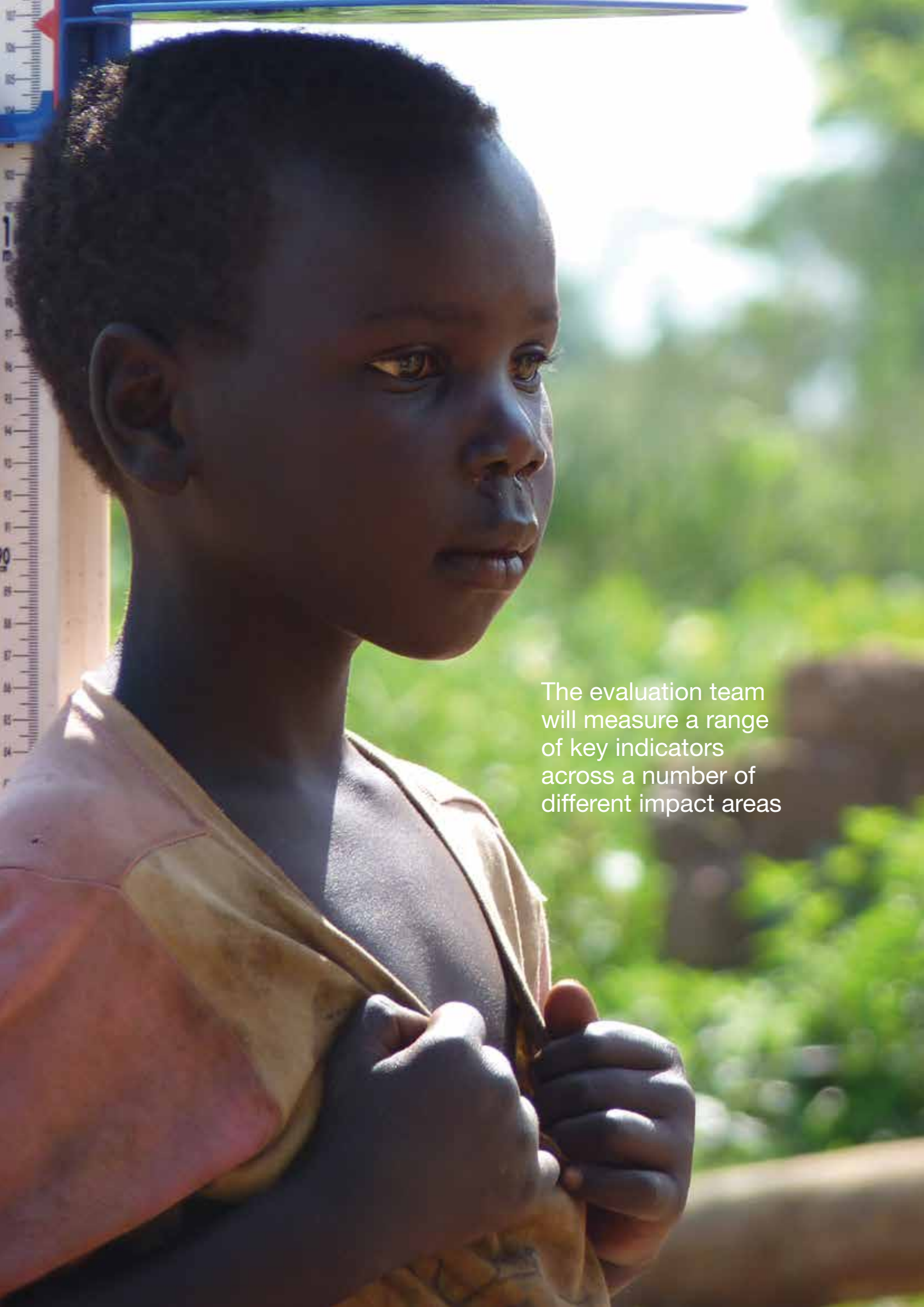
The measure of programme impact and the assessment of programme operational effectiveness will be provided by the two follow-up rounds of this evaluation in 2014 and 2015.

1.4 Structure of report

This report is structured in three parts. Part A summarises the background to the SAGE pilot and the purpose of the Impact Evaluation as set out above, and describes the Impact Evaluation methodology. Part B then presents the baseline findings across a number of dimensions. Section 3 presents data on the demographic characteristics of the study population. Section 4 provides information on economic and material welfare. Section 5 presents data relating to access to health, education and financial services. Section 6 describes the situation in relation to local markets, and Section 7 considers community cohesion and social exclusion. Part C offers conclusions from the evaluation at baseline stage.

A technical annexure details the evaluation theory of change, specification of the quantitative study design, sampling methodology and construction of survey weights, results of the Regression Discontinuity Design (RDD) tests, methodology for the construction of consumption aggregates, methodology for the construction of food security indicators, supplementary data tables, and standard errors, design effects and intra-cluster correlations.

This baseline report will be supplemented by a number of stand-alone policy-briefs on specific topics, drawing on further analysis of both quantitative and qualitative components of the baseline data. The measure of programme impact and the assessment of programme operational effectiveness will be provided by the two follow-up rounds of this evaluation in 2014 and 2015 respectively.



The evaluation team will measure a range of key indicators across a number of different impact areas

2 Evaluation method

2.1 How impact will be assessed

As described above (Section 1.2), the impact evaluation adopts a mixed methods approach to rigorously measure and assess the impact of the SAGE programme. A theory of change that identifies the core impact areas to be assessed and links them to the core quantitative indicators and qualitative research questions is presented in Annex A. Below we summarise the key impact indicators and research questions for both the quantitative survey and qualitative research components.

2.1.1 Key indicators and research questions

The evaluation team will measure a range of key indicators across a number of different impact areas. These indicators and areas of impact were identified in coordination with the programme and its stakeholders during the inception phase of the evaluation.

Table 2 below lists the core quantitative impact areas and indicators that will be measured by the Evaluation. In addition to these, but not listed, a variety of descriptive indicators will provide contextual information and describe the characteristics of the sample and various sub-samples, such as household composition and demographic characteristics (see Section 3).

In order to provide an assessment of the kinds of households the programme is reaching under the two different targeting mechanisms the Evaluation will compare household characteristics across those mechanisms. Impact estimates will be provided for each targeting mechanism separately.

Table 2: Core quantitative impact indicators

Programme objective	Area	Quantitative indicators
Reduce material deprivation	**Consumption expenditure**	• Mean household consumption expenditure per adult equivalent • Proportion of households below national poverty line (1) • Poverty gap • Chronic poverty as measured by proportion households below the national poverty line at time of both baseline and second follow-up survey (2 years after baseline)[2] • Value of transfer as proportion of household monthly expenditure
	Food security and nutrition	• % children < 5 severely and moderately stunted (height for age)[3] • % children < 5 severely and moderately wasted (weight for height)[3] • % children < 5 severely and moderately underweight (weight for age)[3] • Dietary diversity index – For household – For persons over 65 years • Mean per adult equivalent consumption value of food • FANTA Household hunger scale • Number of meals consumed in the day before the survey – Per child – Per adult – Per older person (over 65 years)
	Comfort and wellbeing	• Proportion of household expenditure on shoes and clothing (excluding school ware)
Increase economic security	**Labour participation**	• Labour participation rate: % of working-age adults engaged in economically productive activities • Mean number of hours per week spent working for (able-bodied) working-age adults
	Child work	• Child Labour participation rate: % of children (5-17) engaged in economically productive activities • Mean number of hours per week spent working (in economically productive activities) for children (5-17)[4] • % children performing domestic duties • Mean number of hours per week spent on domestic duties for children (5-17)[4]
	Investment in productive assets and income generating activities	• Value of productive assets purchased and sold in last 12 months • Ownership of key assets[5] • Mean number of cash income sources per household
	Vulnerability to shocks and ability to cope with shocks	• % reporting change in subjective welfare assessment and why • % of households reporting suffering a problem they could not cope with using their normal household resources • Distribution of coping strategies (rationing, borrowing, selling assets, withdrawing children from school, etc.)
Increase access to services	**Uptake of health services and improvements in health seeking behaviours**	• Mean spending on health care • % individuals ill/injured in past 30 days • % cases where healthcare was sought

Table 2: Core quantitative impact indicators (continued)

Programme objective	Area	Quantitative indicators
Increase access to services	**Uptake of education services and improved attendance at school[5]**	• % primary school-aged children currently enrolled school • % primary school-aged children not enrolled school due to cost and/or child labour requirement • % primary school-aged children currently attending school • % primary school-aged children not currently attending school due to cost and/or child labour requirement • Primary school class progression rate
	Access to financial services	• % households reporting borrowing from formal financial institution • % households reporting saving in a formal financial institution • % households reporting any saving • % of households reporting purchasing something on credit in last 3 months
	Access to other interventions	• Distribution of other interventions being received by households
Community cohesion and social exclusion	**Inter- and intra-household relations**	• % households reporting borrowing any money in the last 12 months • % households reporting being able to borrow a large amount of cash (e.g. UGX 60,000 or more) from a non-family member if needed • % households receiving cash support from other households • % households giving cash support to other households • % households receiving in-kind support from other households • % households giving in-kind support to other households • % of households where women are involved in decisions over children's education, serious health problems, or investment of money either independently or jointly • % women deciding how SAGE cash transfer is spent
	Impact on attitudes and notions of empowerment	• Girl primary enrolment rate • Distribution of reasons why school age girls not currently enrolled in education • % households that state they have got together with other community members to raise an issue that is important to them at a community meeting (not including to do with SAGE or ROSCO) • % households that report it is likely that you could get together with others and make your local elected councillor listen to your concerns about a matter of importance to the community • % households reporting that people from outside the family do sometimes come to a member of their household for advice • % of households where decisions over children's education, serious health problems, or investment of money are made jointly between one or more household members
Local markets	**Wages and opportunities**	• Wages for unskilled labour – In agriculture – In non-agriculture (if relevant)
	Local prices	• Price of key commodities • Price of boda-boda to sub-county centre
	Local enterprises	• Number of basic goods shops per cluster • Number of boda-boda drivers per cluster

Notes: (1) It is possible that comparability issues arise between the evaluation survey and national poverty estimates. (2) Decreasing denominator for this indicator means less likely to detect statistically significant impact. (3) 0-59 months. (4) The UNICEF definition of child labour refers to numbers of hours worked in either economic or domestic labour for children of different ages. The evaluation team will thus be able to provide a comparable measure of child labour if it were deemed appropriate. (5) These assets will be refined during design phase but could include items such as bicycle, car, TV, radio etc. (6) Education indicators will be disaggregated by gender and other categories as appropriate sample size permitting.

The qualitative research will not exactly mirror or duplicate the quantitative survey. Whilst it will provide some qualitative information on indicators covered by the quantitative survey, its main focus will be on capturing impacts and exploring contextual factors that are less easily quantifiable. This fits with a key element of the programme highlighted in the SAGE acronym, that of "empowerment". Whilst empowerment means different things to different stakeholders, it can broadly be defined via notions of choice and agency, such as the capacity to effectively translate choices into action. This implies that it will be important to understand the institutional context (formal and informal) through which the impacts of the cash transfers are mediated and which may themselves also both affect and be affected by the cash transfers.

The qualitative research is designed to increase the likelihood of identifying unexpected areas of impact that can then be explored further, both at follow up stages and through analysis of quantitative survey data. A number of key impact areas are explored through the qualitative research:

- Reduced poverty within recipient households.
- Reduced poverty within the wider community.
- Reduced vulnerability to the effects of seasonal stresses, longer term trends and shocks.
- Improved livelihood choices and options.
- Increased informal employment opportunities.
- Reduced social exclusion of marginalised individuals, groups or households.

In order to understand both the broad contextual issues and gather data on particular indicators, information is collected across a range of inter-related areas and grouped together under five key research areas. These are presented in Table 3. These research areas and questions are specified and linked to the four main programme objectives by the evaluation theory of change presented in Annex A.

Table 3: Matrix of key qualitative research areas and questions

Key research areas	Key research questions
Dimensions and definitions of poverty (levels and distribution of welfare, trends in welfare, and characteristics of the poor and better-off)	How is poverty defined? What different well-being categories exist within different communities? What are the main characteristics of each of these groups? (e.g. social characteristics, assets, coping strategies, power and influence, etc.) How are households in the community distributed amongst these categories? How does this distribution change over time? What is the distribution of poverty and wellbeing within households? What are the causes of poverty? How have these changed over time? **How has the SAGE cash transfer affected poverty levels amongst different groups of people?**
Risk and vulnerability	What are the key risks that different individuals, households and/or social groups face? How are these categorised (e.g. long term trends, seasonal changes, shocks)? Have risks changed over time? How and why? What determines different levels of vulnerability to these risks? What effects do these risks have if they occur? What strategies are adopted to reduce, mitigate and/or cope with vulnerability to and the effects of these? **How does the SAGE cash transfer affect the ability to reduce, mitigate and cope with different stresses and shocks?**
Livelihoods (including formal and informal employment)	What livelihood activities do different individuals and households typically engage in? How and why have these changed in recent years? How and why do people move between different livelihood activities? What are the preferred sources of livelihood and why? What are the constraints and challenges to participating in these forms of livelihoods? What role does formal or informal employment play in livelihoods? How does participation and forms of livelihood activities vary within households (particularly with regard to child participation in livelihood activities)? **How has the SAGE cash transfer affected livelihood choices and options?** **How has the SAGE cash transfer affected formal and informal employment opportunities?**
Informal institutions, social relations and cohesion	What influence do social norms based on gender, age ethnicity, etc. have on individuals' and households' capacities and entitlements? How does social identity affect control over resources and decision making? What patterns of differentiation and exclusion exist with respect to opportunities, markets, information, and services? What factors affect levels of social cohesion within the community? What are the forms and sources of disputes and tension between and within households? **How has the SAGE cash transfer affected, or been affected by, informal institutions, social relations and cohesion?**
Formal institutions and social contract	What are the key organisations and individuals inside and outside a community that influence peoples' lives? What are their relationships, importance and effectiveness to different groups within communities (e.g. in terms of decision making, accessibility, and services) and outside the community (in terms of participation, accessibility, and services)? On whom do people rely for different kinds of assistance (e.g. cash, goods, finding employment, entering university, etc.) What are perceptions of the social contract (i.e. relationships between and obligations/ ntitlements of governments and citizens), particularly around social protection and poverty reduction? **How has the SAGE cash transfer affected, or been affected by, formal institutions and perceptions of the social contract?**

2.1.2 Community-level effects

In discussions with the programme and its stakeholders community-level effects were identified as an area of interest to be covered by the impact analysis. However, as explained in Section 2.2 below, under the given study design quantitative estimates of these impacts were not possible.

The Evaluation Team thus developed an additional methodology in order to produce quantitative measures of community-level effects of interest. In addition to the data collected on a selection of community level indicators in all treatment clusters (c. 400 communities across 48 treatment sub-counties) these same data were collected in a number of control communities that are not part of the SAGE pilot. The control communities were identified using matching techniques, which matched treatment and control communities using a range of characteristics drawn from the 2002 Uganda Census. The control communities are located across six control districts, chosen using the same rationale as was used to select the 14 pilot programme districts to obtain maximum comparability.[7] The six control districts selected are: Nakasongola in central region; Kamuli and Buyende in eastern region; Pader and Agago in northern region; and Kamwenge in western region[8] (see Figure 1 above).

Community-level impacts declared to be of particular interest were inter-household relations and impacts on local markets. Many indicators relating to inter-household relations (e.g. informal transfers, lending, borrowing, sharing, tensions, etc.), can be measured at the household level, with impact defined as the difference in these indicators between treatment and control households. However, for impacts on local markets the evaluation will need to measure impacts on local wages and prices, as well as on local enterprises, at the community level (see Table 2).

It should be remembered that this is a baseline report and so no measures of programme impact or operational effectiveness are provided here.

2.2 Evolution of the study design[9]

The purpose of the Evaluation Component of the SAGE programme is to assess the impact and operational effectiveness of the SAGE programme, and to compare the relative performance of the two targeting methodologies used by the programme. During the inception period of the SAGE evaluation a range of evaluation methodologies were considered.

In the first instance the "gold standard" **Randomised Control Trial** (RCT) was explored as an ideal option. This involves randomly allocating the intervention (SAGE) to treatment and control communities within the same districts. However, a requirement for this type of evaluation methodology is that control communities are located within programme districts. As this was not feasible for the SAGE programme, the RCT methodology was discarded from consideration.

7 The pilot districts were selected by ranking all districts by region according to a composite index score based on the share of specific demographic groups as well as on health and education criteria using data from the 2002 Uganda Population and Housing Census. The composite score was constructed by summing up: the share of children and elderly persons in the entire population; share of orphans and vulnerable children in the child population; share of risky births; proportion of households living more than 5kms from the health facilities; and share of children (6-12 years) not attending school for each district. The probability of a district being a pilot district increases with score index. Based on this index the pilot districts selected by the programme were: Kiboga in Central region, Katwaki and Kaberamaido in Eastern region, Kyenjojo in Western region and Nebbi and Apac in Northern region. In 2010, the MGLSD also took the decision to add two districts in Karamoja that had been left out of the original design due to challenges in the region. This brought the total number of districts to eight. In 2010, the Government of Uganda sub-divided some of the original eight SAGE districts. The MGLSD subsequently decided to include those newly created districts which lie within the original geographic boundaries of the original eight SAGE districts. Therefore the districts of Kole, Zombo, Amudat, Napak, Kygegwa and Kyankwanzi were added to the SAGE pilot roll-out plan bringing the total number of districts to 14 (SAGE Implementation Manual V3 May 2011). Control districts can thus be selected as the next highest ranked districts.

8 In order to maintain continuity with the rationale for the selection of programme districts all six 'new' districts contained within the geographic boundaries of the four next highest ranked 'old' districts were included. This also maximised the universe from which control communities could be selected.

9 For a more comprehensive and detailed version of the discussion below see *Evaluation of the Uganda Social Assistance Grants For Empowerment (Sage) Programme Inception report: Impact Evaluation strategy*, 22 June 2012.

In response two alternative methodologies were considered: 1) **Community Matching**, with treatment communities randomly selected from within programme districts and 'matched' control communities randomly selected from outside programme districts; and 2) **Regression Discontinuity Design**, based on a comparison of randomly selected recipient households with eligibility scores just above the eligibility threshold with randomly selected non-recipient households with eligibility scores just below the eligibility threshold. The community matching approach could also be combined with a **Propensity Score Matching** (PSM) at the household level, which seeks to match treatment and control households using observable characteristics as a way to try to ensure treatment and control groups are as similar as possible.

The feasibility of both approaches was explored extensively by the Evaluation Team in discussion with the SAGE programme and its Peer Review Panel. The final decision to follow the Regression Discontinuity Design was taken by the SAGE programme Steering Committee on advice from the Peer Review Panel and following a presentation by the Evaluation Team highlighting the strengths and weaknesses of each approach.

2.3 Regression Discontinuity Design

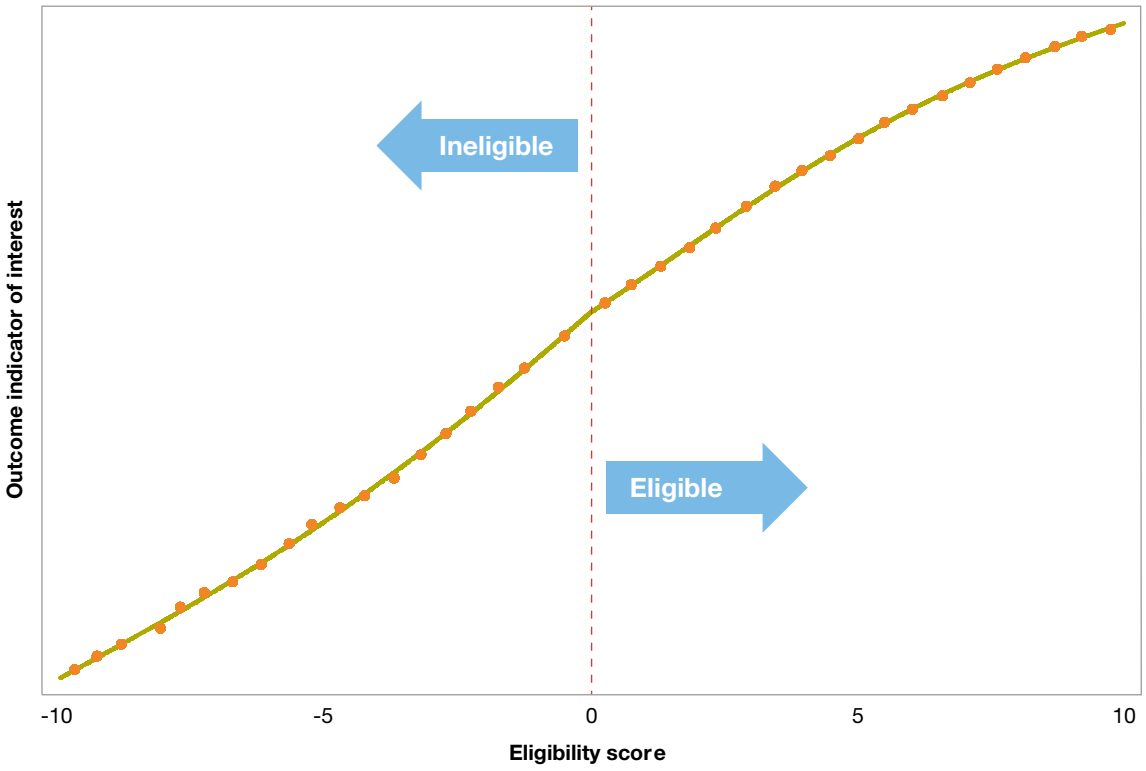
As a result of the discussions described above, the decision was made to base the Impact Evaluation on the quasi-experimental approach of Regression Discontinuity Design across a range of indicators between randomly selected **treatment group** households and randomly selected **control group** households.

Under any rigorous impact evaluation one of the main challenges that an evaluator faces is the identification of a valid counterfactual or control group. A valid control group would satisfy three conditions: 1) the treatment and control group must share on average the same characteristics; 2) treatment and control groups should react to the programme in the same way and; 3) treatment and control groups should not be differentially exposed to other interventions during the period of the evaluation.[10] With these conditions satisfied one can then safely attribute any differences between the two groups after the advent of the SAGE programme to the programme itself.

Under a Regression Discontinuity Design a valid counterfactual is identified by taking advantage of the eligibility rules of the programme. The targeting rules for both the Senior Citizens Grant (SCG) and the Vulnerable Families Support Grant (VFSG) define strict eligibility criteria, with a clearly defined 'cut-off score' or eligibility threshold. In the case of the Senior Citizens Grant the cut-off score is that you must be at least 65 years of age to receive the cash transfer,[11] whilst the Vulnerable Families Support Grant is targeted via a Labour Capacity and Dependency (LCD) Index, with fixed cut-off scores set in each programme sub-region and higher scores indicating an increased likelihood of being eligible.

10 Gertler, P.J., Martinez, S., Premand, P., Rawlings, L. and Vermeersch, C. (2011) "*Impact Evaluation in Practice*" World Bank.
11 60 years of age in Karamoja region.

Figure 2: Discontinuity in eligibility for the SAGE programme

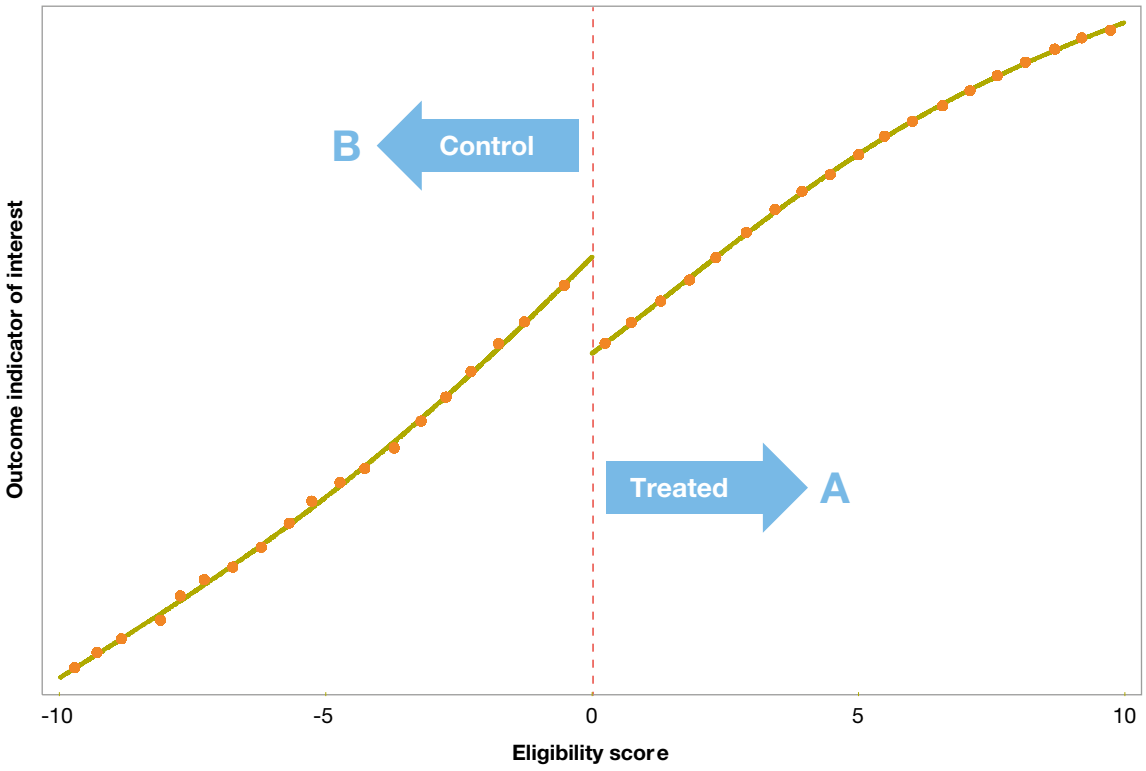


Source: Author's own.

Control group households are thus identified by taking a random sample of households who are not actually eligible for the programme but are in some small neighborhood around the eligibility threshold on the assumption that eligible households with scores just above the cut-off are likely to be very similar to ineligible households with scores just below the cut-off. In this way we can identify both the treatment group households as well as the valid counterfactual control group households. This is depicted in Figure 2 above, which illustrates that households on either side of the eligibility threshold score very similarly against a given outcome indicator. This highlights a key assumption of Regression Discontinuity Design, that the outcome variables of interest should be continuous across the eligibility threshold. If this assumption holds for all outcome variables (and covariates) at baseline then we can be assured that treatment and control groups are comparable.

Figure 3 then illustrates the intuition behind the Regression Discontinuity Design in application. Given that we have established a continuous relationship between the outcome indicators of interest, the covariates and the eligibility score around the eligibility threshold at baseline, we can attribute any difference between treatment and control group households observed at follow-up to the direct causal effect of the programme. In the figure below, programme impact is given by the difference between the treatment group A (who have received the transfer) and control group B (who have not).

Figure 3: Possible post-programme scenario



Source: Author's own.

Where necessary covariates will be included in the regressions used to produce the Regression Discontinuity estimates to control for time variant factors that may co-determine the impact indicators. This is because even by restricting the allocation of treatment and control group households to some close neighbourhood around the eligibility cut-off score, it is possible that statistically significant differences will be observable between the two groups. It may thus be necessary to control for these factors explicitly which potentially have an influence on the impact indicators, in order to further isolate the direct impact of the cash transfer.

As with any study design there are a number of risks and limitations associated with an RDD. These are explored in the next section.

Finally, as Box 1 above specifies, estimates from a Regression Discontinuity Design will provide a measure of the average effect of the programme for a given sub-population, namely the sub-population with eligibility scores in some small neighbourhood around the cut-off. Without strong assumptions that justify the generalisation of estimates to other sub-populations (such as homogeneity of the treatment effect), the Regression Discontinuity Design will not allow for the estimation for the average effect of the treatment across all households that are eligible for the SAGE programme.[12]

12 Imbens, G. W. and Lemieux, T. (2008) "*Regression discontinuity designs: A guide to practice*" Journal of Econometrics 142: 615-635.

2.3.1 Concerns for the evaluation design

This potential limitation of RDD in terms of external validity is one aspect of concern for the evaluation. A broader limitation, which is not associated with RDD in particular, is that the impact results will only be representative of the programme as *implemented in the Evaluation areas*, which may be different to how it is implemented in non-evaluation areas. Moreover, the 14 programme districts themselves are by no means typical of Uganda having been specifically chosen on the basis of a bespoke vulnerability index.[13]

Lastly, there is a risk relating to the contamination of the comparison group due to spill-over effects. This is a potential source of concern for any study design but is perhaps more marked in the case of RDD as both the treatment and comparison groups reside in the same communities, whereas in other design choices such as village level randomisation or village matching treatment and control households would be in different communities.

In a context in which households, and particularly poor households, exist in complex support networks, sharing money and other resources, it is possible that the programme may result in welfare improvements even for non-recipient households. Such benefits deriving from the programme for non-programme beneficiaries are characterised as spill-over effects. Further spill-over benefits to non-recipients might also occur if the programme provides a boost to the local economy which benefits the community at large. The effect of such spill-overs can be significant, and can lead to over or under estimating programme impact depending on the direction of the spill-over effect.[14]

Generally, spill-over effects on non-recipients in communities covered by the programme are a good thing, since they imply that the programme is having an even bigger impact than its direct effect on beneficiaries. However, the potential for spill-over effects represent a significant risk to the RDD approach because in their presence the impact estimates derived from RDD could significantly underestimate the impact of the programme on beneficiary households.

Like other evaluation study designs RDD is underpinned by a number of assumptions. However, not all of these assumptions can be tested prior to collecting data. For this reason RDD is usually applied in an ex-post setting in which the assumptions on which the RDD is based can be tested on existing data. In this case, while these tests were carried out on the 2009/10 Uganda National Household Survey (UNHS) data, they could only be tested on the actual evaluation data after that data had been collected.

The results of these tests at baseline suggest that the assumptions underpinning the RDD will hold. However, some of the assumptions can only be tested at follow-up. In the event that the RDD fails these tests the evaluation design will be replaced with a Propensity Score Matching (PSM) approach.

13 The external validity of the study may be further undermined by the fact that villages (clusters) with very low density around the eligibility threshold will be screened out of the study before the sample of villages to be covered by the evaluation is drawn (see Annex B).

14 See for instance Angelucci, M. and G. De Giorgi (2009). 'Indirect Effects of an Aid Program: How Do Cash Transfers Affect Ineligibles' Consumption?' *American Economic Review 99 (1), 486-508*. Lehmann, C. (2010). 'Benefiting Without Receiving Money? Externalities of Conditional Cash Transfer Programmes on Schooling, Health and the Village Economy.' *International Policy Centre for Inclusive Growth*. Research Brief No. 13.

PSM attempts to achieve a balance of treatment and control groups by constructing a model estimating the probability of the treatment based on the (observable) characteristics collected in the baseline survey. Treatment households are then matched with selected control households on the basis of this probability, or 'propensity score', in order to restrict comparison to the 'most comparable' subset of households. With a propensity score capturing observable differences that explain participation in the SAGE programme, the average difference between matched treatment and control households constitutes the impact of the programme on a given outcome indicator of interest.

A full specification of the econometric models used to estimate impact, whether RDD or PSM, will be provided as part of the technical annexure to the impact reports at the two follow-up stages of the evaluation.

It is possible that the programme may result in welfare improvements even for non-recipient households

2.3.2 Results of the RDD tests

RDD is underpinned by five technical assumptions which all have to be satisfied in order for the methodology to work:

1. Assumption 1: the assignment variable has a monotonic effect on the probability of being treated for everyone.

2. Assumption 2: the gains from treatment must be a function of the assignment variable at the cut-off.

3. Assumption 3: there must be a discontinuity in the probability of being treated by SAGE around the cut-off.

4. Assumption 4: the observable characteristics must be a continuous function of the assignment variable at the cut-off.

5. Assumption 5: the unobservables must be a continuous function of the assignment variable at the cut-off.

The most important assumptions that must hold for the RDD method to provide robust estimates of impact is Assumption 3, which cannot be tested until after the follow-up data collection and Assumptions 4 and 5. Assumption 4 and 5 relate to the appropriateness of the control group as a counterfactual for the treatment group. By satisfying Assumptions 4 and 5 we can be confident that the control group is as statistically similar to the treatment group as possible. Assumption 5 cannot be directly tested (given that by definition it refers to unobservable variables) but we can have some confidence that it is satisfied it we can satisfy Assumption 4.

The results of the tests of these assumptions are presented in Annex C. However, we find that about 80% of our impact indicators of interest pass the tests required in order to satisfy Assumption 4, suggesting that the control group is indeed an appropriate counterfactual. Furthermore we find that the key impact indicators of interest including poverty and per adult equivalent consumption expenditure also pass the tests required to satisfy Assumption 4.

For the outcome indicators that do not satisfy Assumption 4 we suggest in Annex C strategies to overcome this, including the addition of covariates into the RDD model and producing difference-in-difference estimates.

Nonetheless, whilst there are some reservations on the efficacy of the RDD method for a few of the impact indicators we can be confident that the RDD method will produce robust estimates of impact for the majority of the key impact indicators of interest.

2.4 Implications of the sample

As already referred to above (see Box 1), due to the decision to opt for the RDD approach the study sample is not representative of all beneficiaries but only of a sub-population around the eligibility threshold. The implication of this is that the characteristics of the study population as described by the various data in Part B of this report do not describe the entire beneficiary population, but only a sub-sample of that population.

Table 4: Proportion of SAGE beneficiaries represented by the evaluation sample

SCG	VFSG
79%	71%

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

Table 4 shows that while the study samples for the two targeting methodologies are not fully representative they do nevertheless represent a significant portion of the two treatment groups. However, a further caveat for the SCG group is that the control group for this sample excludes 64 year olds. This is because these observations would have become treatment observations before the end of the final year of the impact evaluation.[15]

Box 2: How to read the tables in this report

A key feature of the data presented below is the reporting of significance tests of differences between estimates.

The majority of tables below thus follow a standard format. The first three columns present data pertaining to the SCG sample and the second three columns present data pertaining to the VFSG sample. The first two columns under each targeting mechanism show the estimates for the eligible group and non-eligible group respectively, while the third column denotes the number of observations from which the estimates are derived. The final column in the table presents the difference between the two eligible groups for SCG and VFSG.

Asterisks (*) in the first column under each targeting mechanism indicate the significance of the difference between the eligible and non-eligible groups for that targeting mechanism at baseline. Asterisks in the final column indicates that the difference observed between the eligible groups themselves is significant (i.e. that the estimate is different for the SCG eligible population as compared to the VFSG eligible population). If no stars are given it means that the estimates are statistically similar. The level of significance is denoted as follows: three asterisks (***) indicate the difference is significant at the 99% level of confidence; two asterisks (**) indicate a 95% level of confidence; one asterisk (*) indicates a 90% level of confidence. All significance tests are based on standard errors taking into account the survey design and clustering by village.

The fact that the study sample does not represent the entire beneficiary population, but rather a substantial portion of it, means that while the impact evaluation cannot provide an estimate of programme impact across the whole of the beneficiary population, it will provide a measure of impact upon the substantial portion of that population. Moreover, there are no strong reasons to suppose that the small portion of the population that the evaluation data does not represent will respond any differently to receipt of the SAGE cash transfers than the portion that is represented. This means that, despite a small degree of caution being required when interpreting these results, the evaluation will provide a robust measure of programme impact.

15 SAGE has pledged not to retarget households in evaluation areas before end of data collection in the second follow-up survey round.

Part B: Findings

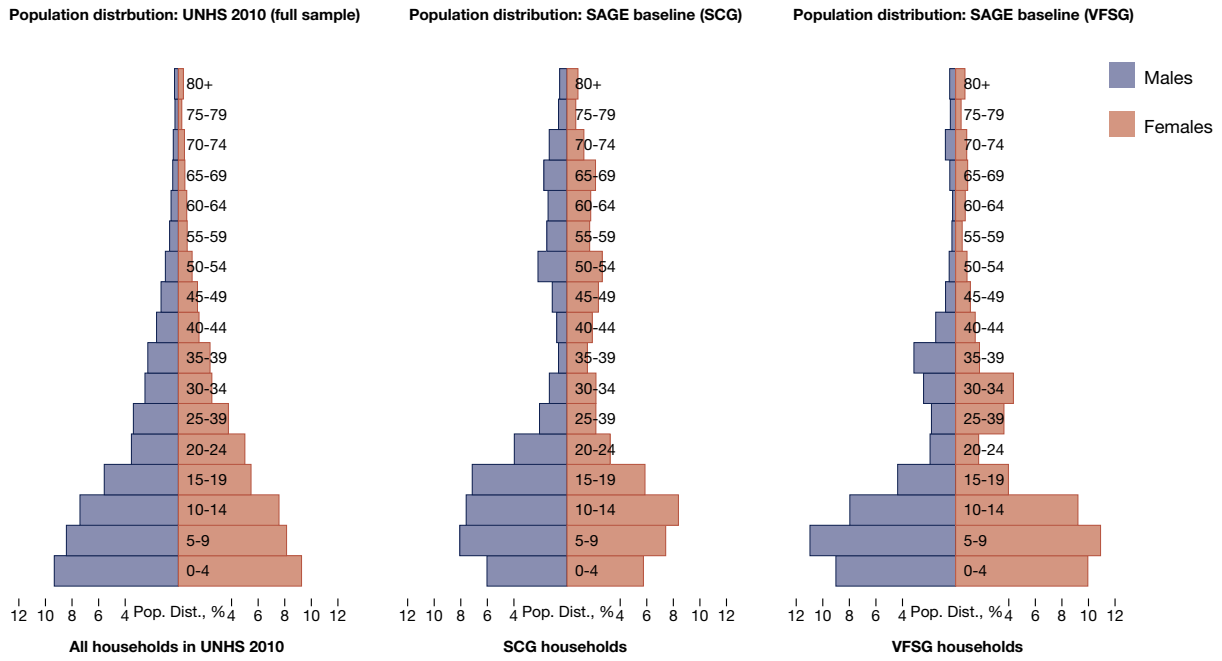
3 Demographic characteristics of the study population

This chapter presents information on demographic characteristics of household members including information on age and sex, as well as a picture of household composition, including proportions of orphans and disabled people, and characteristics of the household head. It compares the study population to the national population in order to describe the characteristics that distinguish programme beneficiaries from the rest of the population. As expected, it finds that elderly people are over-represented in the study population as compared to nationally, and children under five are under-represented. Women, orphans and disabled persons are over-represented in eligible households, whom are also characterised by high numbers of dependents and low levels of education. These characteristics testify to the vulnerability of SAGE households.

Throughout this document the population analysed under the Evaluation is referred to as the study population in order to distinguish it from the broader population of which it is a part. This is because the study design dictates that only a small sub-set of the population, those around the eligibility thresholds for each of the two targeting mechanisms, are sampled. All estimates are thus representative of these sub-groups only, and not of the broader populations. This is particularly important to remember when considering the eligible population groups as the estimates provided here do not describe the entire eligible populations. Although the sample is representative of only a sub-set of the beneficiary population, this sub-set does comprise a significant portion of that population (see Section 2.4 above).

Given that the SAGE programme is targeting specific sub-groups of the population, it is important to understand how the demographic characteristics of these groups compare to the broader population of Uganda.

Figure 4: Sex and age of the national population and study population

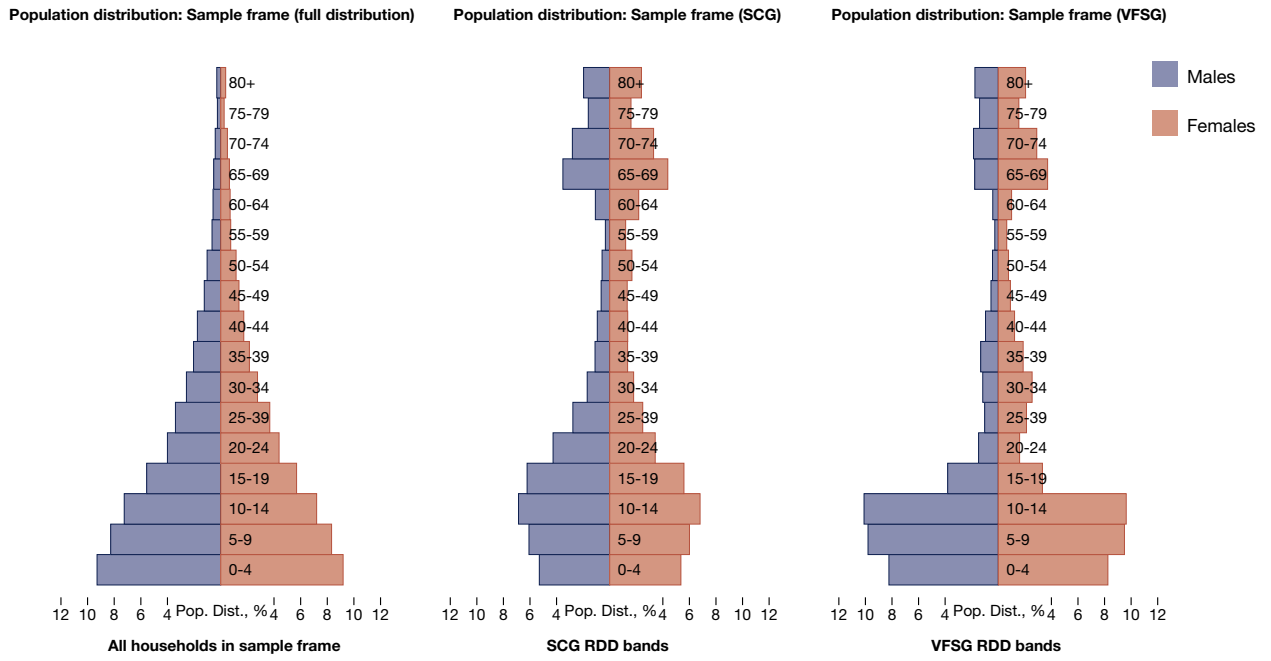


Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012; UNHS 2009/10 (Table F.3 and Table F.26).

The distribution of age as shown by Figure 4 shows how the study population differs from the national population. First of all, one can see that the elderly are over-represented: individuals aged 65 and above represent around 6% of the study population overall, against a national estimate of 3% (UNHS 2010). Another important characteristic is that the study population tends to under-represent children under five years of age. The proportion of children under five years of age is lower than the national statistics (16% as compared to 18% at the national level; see Table F.26 for national data). This is particularly the case for SCG-eligible households (11%) (Table F.1). Children under 18 years of age are similarly represented in the study population as they are nationally, constituting 57% of the former and 59% of the latter, but there is some disparity between the two targeting mechanisms. SCG-eligible households contain proportionately fewer children under 18 (47%), whereas VFSG-eligible households contain proportionately more (61%). Disaggregating by eligibility status we find that VFSG-eligible households have fewer children aged under five than their non-eligible counterparts, but for SCG households the proportion of children under five is roughly the same for eligible and non-eligible alike (Table F.1).

The SAGE programme registration data corroborates these findings. According to the SAGE programme registration data the average number of children aged under five across all households is 1.13. This figure drops to 0.96 for VFSG-eligible households and to 0.62 for SCG-eligible households. This implies that the SCG targets households that contain just half the number of children aged under five that average households in evaluation areas do—at the national level the number of children aged under five contained in the average household is 0.95 (UNHS 2009/10); for households containing old people the UNHS figure is 0.75. This implies that coverage of children under the SCG would increase slightly if scaled up nationally. However, these data show that neither VFSG nor SCG constitute the most ideal mechanisms for targeting children under five. Figure 5 below clearly illustrates this feature of the target population. The bottom rung of the population pyramid for both SCG and VFSG eligible households is significantly narrower than for the population overall.

Figure 5: Programme registration data population pyramid



Source: SAGE Programme registration data.

Table 5: Household composition

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean household size	4.8***	6.1	1,991	4.6***	5.8	1,989	0.1
Mean proportion of males in the household	45***	49	1,991	41***	47	1,989	3.8***
Mean proportion of dependents[2]	70***	53	1,991	75***	66	1,989	-5.0***
Mean number of children aged under 5	0.5***	0.7	1,991	0.7***	1.2	1,989	-0.2***
Mean number of children aged 5-17	1.7***	2.5	1,991	2.1***	2.5	1,989	-0.4***
Mean number of adults (18-64)[3]	1.6***	2.6	1,991	1.2***	1.8	1,989	0.4***
Mean number of elderly (65+)	0.9***	0.3	1,991	0.6***	0.2	1,989	0.3***
Proportion of households containing							
Orphans	26*	29	1,991	29***	19	1,989	-3.2
Elderly[3]	81***	28	1,991	51***	18	1,989	30.4***
Chronically ill or disabled	36***	29	1,991	37**	32	1,989	-1.3
No able-bodied adult (18-64)[4]	32***	7	1991	34***	8	1989	-2.9
Just one person	16***	6	1,991	25***	4	1,989	-8.2***
(of which) mean age	70***	56	223	72***	58	262	-1.4

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Proportion of dependents defined as the number of children (under 18) and aged population (65+) divided by the household size. (3) Elderly defined as those aged over 65 years, except in Karamoja region where elderly is defined as over 60 years of age. (4) RDD Panel study design dictated that 64 years olds were not sampled as part of the control group in SCG areas.

In 2009/10, the average household size in Uganda has been estimated at 5.0 (UNHS, 2010). The results of this study show that, while on average, the household size is similar to the national statistic, eligible households tend to be smaller than non-eligible households. This can be partly explained by the higher proportion of single-person households, normally comprising elderly people, within the eligible groups (Table 5).

Regarding the gender distribution it is seen that women are slightly over-represented in the study population, where the sex ratio (proportion of males in the household) is lower than nationally.

The study population, and in particular eligible households, also comprise households with high proportions of dependants (defined as the ratio of children under 18 and persons aged 65 and over to the household size).

The proportion of households with no able-bodied adults is much higher for eligible households compared to non-eligible households, with around a third of both SCG- and VFSG-eligible households containing no able-bodied adults.

The proportion of children under 18 that are orphans is above the national figure (18% vs. 12%), more so for SCG-eligible households (24%), and even more so for VFSG-eligible households (27%) (Table F.1). This results in a high proportion of eligible households containing orphans (26-29% for SVG and VFSG-eligible households respectively).

The proportion of people defined as chronically ill or disabled is higher for eligible households than non-eligible households for both SCG and VFSG groups, with over a third of eligible households containing a chronically ill or disabled member.

Another important finding is that among the SCG eligible group, which is obviously meant to target elderly people, only 81% of households contain at least one elderly person, where elderly is defined as being aged above the SCG eligibility threshold. Of those eligible households that don't contain a member of eligible age, some 15% are aged between 60-64 years, 43% are aged between 50-64 years, and 57% are younger than 50 years old. Of the ineligible households that do contain someone aged over the age of eligibility, 63% are aged between 60-70 years and 37% aged over 70. These findings suggest that not only are there some discrepancies between the ages of individuals between the survey data and the programme registration data, but that there are discrepancies pertaining to household composition data.

These findings do not necessarily show actual errors in the implementation of programme targeting for SCG. This is because the evaluation was required to collect data prior to any verification and appeals process by which SAGE might be able to screen out applicants that are unable to prove their eligibility status and screen in those that are. However, it does highlight one of the inevitable challenges for a programme such as SAGE, namely the difficulty of collecting and managing datasets like the one used for the registration and case management of SAGE beneficiaries. This difficulty extends to what in some contexts would be seen as 'simple' data such as age and household composition. Moving forward, it will be important for the programme to develop as robust a system of data collection and management as possible, in order to ensure that implementation errors are kept to minimal levels (whilst acknowledging that it is impossible to eliminate such errors altogether). It is also acknowledged that the programme is already pursuing a revised data collection and verification process outside evaluation areas.

These findings do not affect the impact evaluation as such, because the evaluation assesses the impact of the programme on households and individuals receiving the cash transfer, regardless of whether they strictly meet eligibility criteria. An assessment of programme targeting is not in the remit of this evaluation.

Table 6: Household head characteristics

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean age[2]	65***	56	1,970	58***	43	1,969	6.2***
Proportion of household heads							
Female	49***	35	1,991	55***	32	1,989	-5.7**
Aged under 18	0	0	1,970	0	0	1,969	0
Aged 65+	67***	19	1,970	48***	15	1,969	19.2***
Chronically ill or disabled	21***	10	1,991	22***	10	1,989	-0.9
Without formal education	50***	39	1,991	43***	16	1,989	7.0**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) RDD Panel study design dictated that 64 years olds were not sampled as part of the control group in SCG areas.

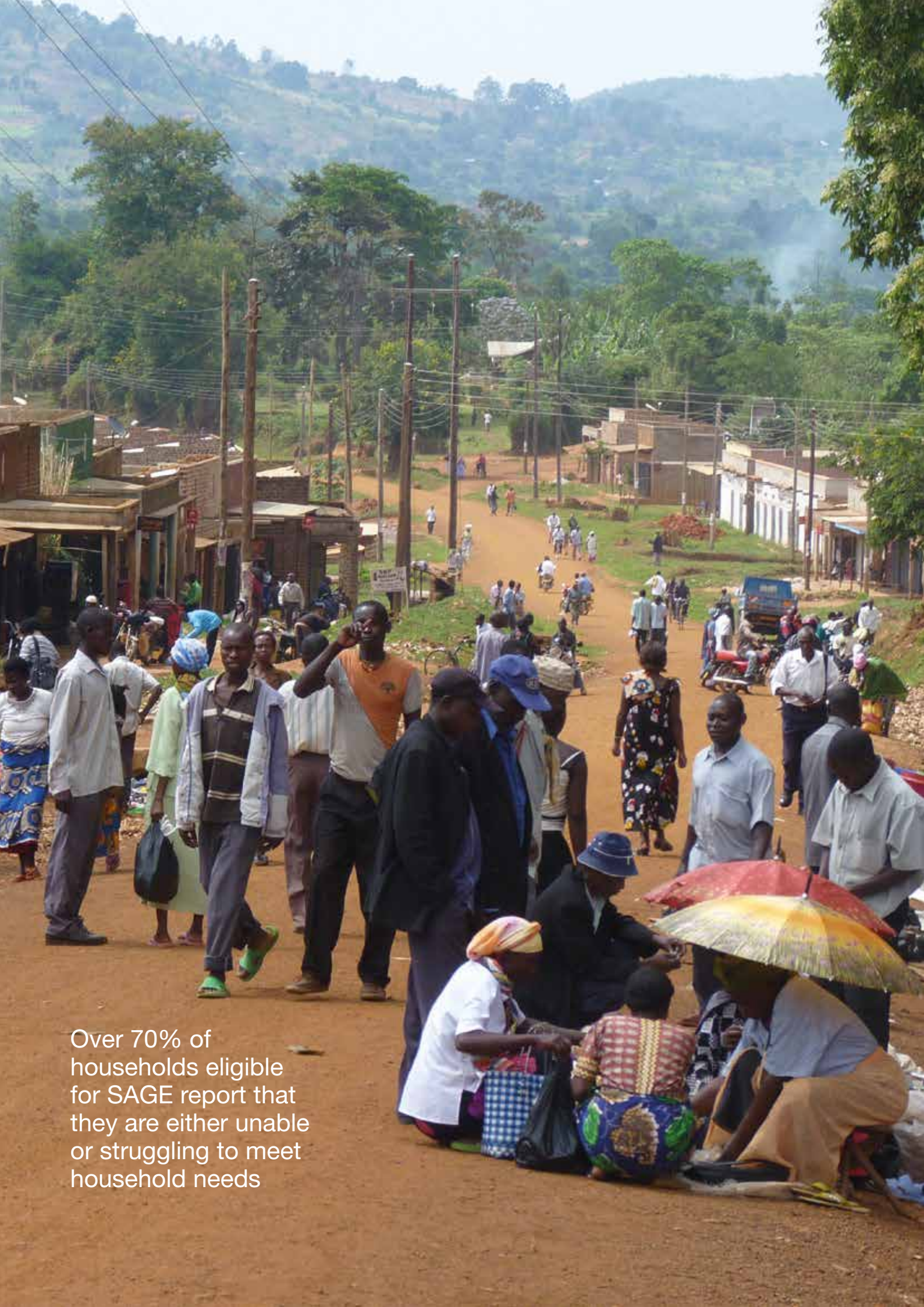
The head of the household is defined as the person that is named as head by the household itself. This is generally understood as the person who manages the income earned and expenses incurred by the household, and as the one who may be most knowledgeable about other members of the household.

The characteristics of the head of the household reflect the description provided above on the study population. Heads of the household are on average much older than in the population nationally. In Uganda, the majority of heads of the household are in the age group of 26-49 (UNHS, 2010) whereas in the present study the mean age of household heads is much higher: household heads aged 65+ represent 67% of the total in the SCG eligible group and 48% in the VFSG eligible group.

Female headed households, which constitute 30% of the households at the national level, represent around half of all eligible households.

Eligible households also have a much higher proportion of household heads with disability or lack of formal education than non-eligible households.

These findings testify to the relative vulnerability of the study population and thus to the potential benefit of the SAGE cash transfer on these households.



Over 70% of households eligible for SAGE report that they are either unable or struggling to meet household needs

4 Economic and material welfare

This section analyses the evaluation findings across a range of indicators associated with economic and material welfare. These include rates of poverty and consumption expenditure, food security and nutrition, livelihoods, child labour and housing and amenities. We find that overall households in the evaluation locations demonstrate higher levels of poverty than the national average as well as greater depth and severity of poverty. In addition, SCG households tend to demonstrate lower levels of welfare than VFSG households across a range of indicators, including food security. The study population is overwhelmingly engaged in agricultural livelihood activities, with rates of child labour slightly below the national level.

4.1 Poverty

It has been argued that in order to tackle poverty there is a need to take a multi-dimensional approach. Amartya Sen contended that "human lives are battered and diminished in all kinds of ways, and the first task… is to acknowledge that deprivations of very different kinds have to be accommodated" (Sen, 2000). In this section, we focus on both material and non-material dimensions of poverty, and how these relate to welfare as perceived by the households themselves. We also consider deprivations in food security, livelihoods, education and health, amongst others. It is important to keep in mind the interactions of these other factors as both symptoms and drivers of monetary poverty measures.

4.1.1 Household consumption expenditure

Poverty in Uganda is measured through the collection of household consumption expenditure. The SAGE baseline survey replicated the way in which the Uganda Bureau of Statistics (UBOS) normally collects households' consumption expenditure, on both food and non-food expenditure over recall periods relevant to each specific item.[16] Total household consumption is then normalised across households by representing each household member as some portion of a full 'adult equivalent', under the assumption that individuals of different ages consume different quantities. This yields the mean household consumption expenditure per adult equivalent as reported in Table 7 below.

16 For example recall period for food consumption expenditure is the last 7 days.

Table 7: Household consumption expenditure and poverty rates[17]

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean household consumption expenditure per adult equivalent	77,239	74,022	1,988	86,749**	77,649	1,987	-9,510**
Proportion of population below national poverty line (P0)	58	56	1,988	56	54	1,987	2
Mean poverty gap (P1)	25**	23	1,988	17	17	1,987	8***
Mean poverty severity (P2)	14**	12	1,988	7	7	1,987	7***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.: *** = 99%; ** = 95%; * = 90%. (2) RDD Panel study design dictated that 64 years olds were not sampled as part of the control group in SCG areas.

The findings suggest that VFSG eligible households are wealthier than their SCG counterparts. Furthermore, VFSG eligible households have statistically significant higher levels of per adult equivalent consumption expenditure than VFSG non-eligible households, by about UGX 12,000.[18]

Poverty is also measured by the head count ratio, or the proportion of the population living below the poverty line. In Uganda the poverty line is based on the cost of meeting basic caloric needs, given the typical food basket of the poorest half of the population, with some allowance given for non-food needs. The relevant poverty line set in 2012 prices relevant to the SAGE baseline survey is UGX 58,544. Table 7 shows that the evaluation sample of both SCG and VFSG households are relatively poor, with SCG households exhibiting higher rates of poverty than their VFSG counterparts. These rates of poverty amongst the study population can be compared to the Uganda National Household Survey (UNHS) 2009/10 which found national poverty rates of 25% and rural poverty rates of 27% (UBOS, 2010).

For SCG-eligible households it is possible to compare poverty rates of the study population with those for the equivalent population in the UNHS 2009/10 data.[19] The SCG-eligible population in the UNHS is marginally poorer than both the national population and the non-eligible population at the national level (31% vs. 25% and 24% respectively). However, it is also the case that the evaluation districts are a poorer than nationally (40% vs. 25%), which implies that a portion of the higher poverty rates we see in the study population as compared to the national population is accounted for by the geographic element of the SAGE pilot targeting.

As well as being poorer on average there is greater inequality amongst households, especially amongst SCG households. This is measured by the severity of poverty index which is calculated by squaring the poverty gap (the difference between the poverty line and a household's level of consumption expenditure). The high level of inequality amongst the poor in evaluation households can be seen by considering that the severity of poverty index is only three at the national and rural levels according to UNHS 2009/10, whereas it is double that for VFSG-eligible households (6%) and almost quadruple that (11%) for SCG-eligible households.

17 Definitions of all poverty measures given in full in Annex D.

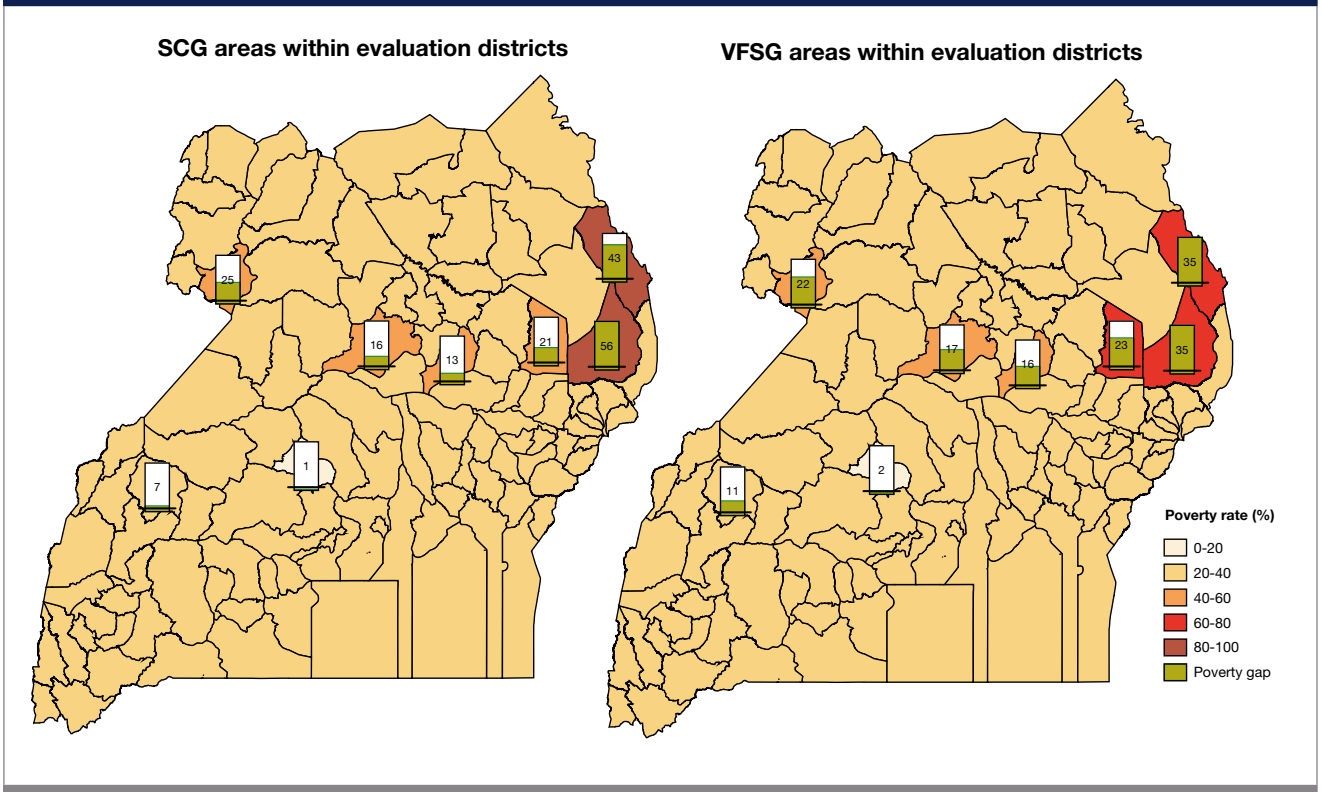
18 Caution should be taken in interpreting this result as a reflection of the VFSG targeting effectiveness, given that this evaluation only sampled those households in the close neighbourhood of the eligibility threshold. Including households with higher 'vulnerability' scores in the sample may have altered this finding (see Section 2.4). Table F.5 shows that household consumption per capita for the VFSG group follows the opposite pattern, with eligible households are significantly poorer than non-eligible households. This is as you might expect, however, given that the difference between the per adult equivalent measure and the per capita measure reflects a difference in the age structure of the household. The eligibility criteria for VFSG privileges older people and orphans, whom both have lower than 1 adult equivalence scores. This means that you are more likely to find fewer adult equivalents in each household than household members, and thus higher per adult equivalent consumption than per capita consumption.

19 It is not possible to do tyhis for VFSG-eligible households because the SAGE programme has constructed region-specific cut-off thresholds for its pilot districts only.

Along with the finding that the depth of poverty as measured by the mean poverty gap is also higher than the national average of 6.7% (UBOS 2010), this indicates that evaluation households are heterogeneous in their poverty. The SAGE cash transfer may thus be enough to bring some households in poverty out directly, but it may not be enough to lift households at the very bottom of the income distribution above the poverty line.

Figure 6 below illustrates poverty headcount and poverty gap for the study populations (including both eligible and non-eligible households) as compared with national averages. It illustrates how, overall, the two study populations are poorer than the national average, and often have a much higher degree of poverty as measured by the poverty gap.

Figure 6: Poverty rates amongst evaluation study population compared to national averages

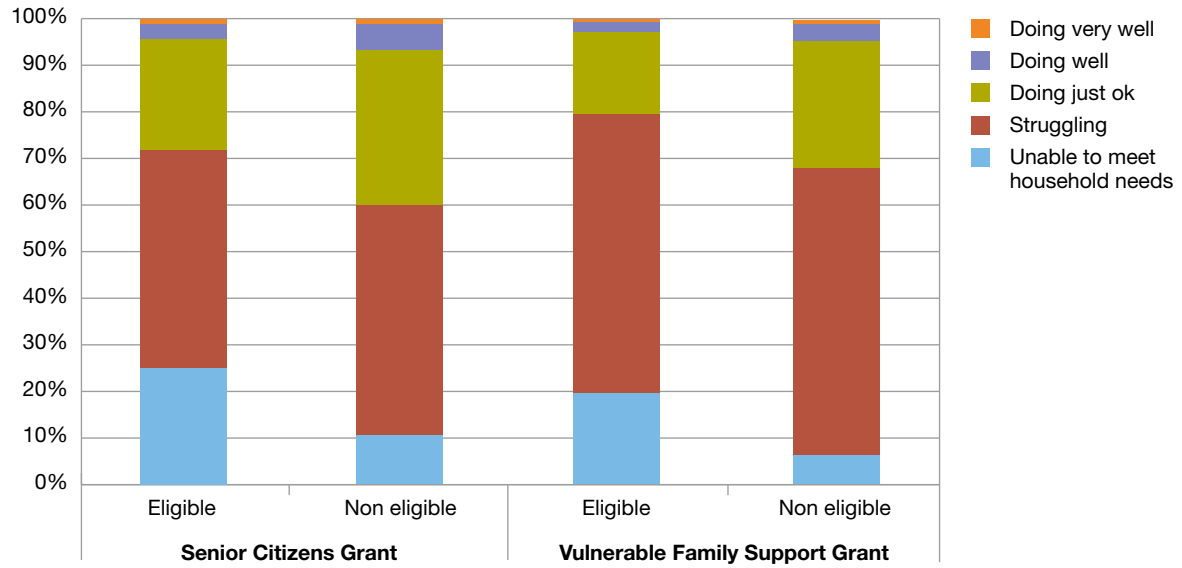


Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012; UNHS 2009/10.

4.1.2 Perceptions of welfare

Households were also asked to assess their own level of welfare on a subjective basis. Figure 7 below suggests that many more households feel that they are living in poverty than would otherwise be suggested by the official poverty rates given in Table 7. Over 70% of SCG and VFSG eligible households reported that they were either unable to meet household needs or struggling to meet household needs. This is compared to 4% of SCG and 2% of VFSG eligible households that reported that they were doing well or very well. Interestingly, the proportion of households who consider themselves to be struggling is much higher for the eligible group than the non-eligible group for both SCG and VFSG.

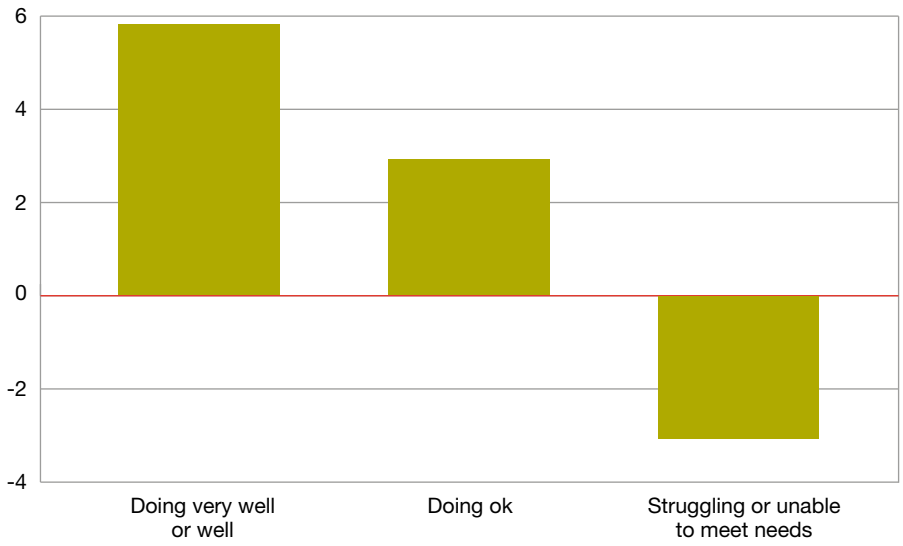
Figure 7: Perceptions of welfare



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

Figure 8 below suggests that relative poverty may also play a part in the self-reported levels of poverty reported above. It shows how the household views their ability to control their own choices and life outcomes, as compared to the perceived ability of other households in their community. Unsurprisingly we find that households who reported that they were doing very well or well feel that they have more control over their own choices and life outcomes as compared to other households in their community. The reverse is true for households who reported that they were struggling or unable to meet household needs.

Figure 8: Difference in perceptions of control over life choices



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

The qualitative research provides information about how community members perceive poverty and their own welfare. It sheds light on how poverty is understood and categorised, the causes of poverty, and perceptions of mobility between different categories of poverty and welfare.

In their assessment of their own poverty situation, communities referred to poverty as having both material and non-material aspects. From a material point of view responses pointed to a basic set of deprivations.

> "*For me poverty is an inability to acquire what you need. Your inability to provide meals for your family members is considered as poverty. Not being able to afford treatment for preventable diseases or take your children to school is poverty.*" FGD with male farmers, Chewente, Apac

Non-material perceptions of poverty were also emphasised, with poverty understood to be defined by a lack of voice and sense of dependence.

> "*Poverty is when you have no voice. Who can listen to you when you are in torn clothes and you have not bathed properly*"? FGD with males in market, Kyarusozi

> "*A poor person is someone who relies on hand-outs and good will of others*". FGD with female youth, Usuk

In general communities identified three distinct poverty categories: the poor, the very poor and the 'better-off'. Each category was perceived to have distinct economic and social characteristics, as shown on Table 8 below. The very poor households were typically described as "barely owning anything" (houses, land, wife, children etc.). Households falling within this category tended to be characterised as being were headed by widows, containing large numbers of dependents (orphans, chronically ill, elderly, people with disabilities). The majority of respondents in the qualitative study perceived themselves to fall within the 'poor category'. Compared to the very poor, the poor owned some economic assets although very few. 'Better off' households on the other hand were described as "having everything", referring to sufficient food, ownership of land and livestock, and regular full-time employment such as government jobs.

In describing their poverty status and welfare, respondents seemed to point to a downward trend in welfare across most communities.

Respondents often perceived their poverty status to be caused by a range of factors. These can be categorised into causes relating to factors which are external to households, such as agricultural pests and diseases, variations in weather conditions, fluctuating prices, poor access to markets, land shortages etc., or factors resulting from within the household, such as ill health or death of household members, alcoholism, and so on. Studies of the poverty dynamics in rural Uganda found that while men emphasised the causes of poverty that were external to households, women were more likely to emphasis internal causes.[20] This study did not find such differences, although particular causes of poverty were attributed to different social groups. For example, alcoholism was a main cause of poverty identified among men, while death of a breadwinner was a more likely cause of poverty identified among women. In general however, the external causes of poverty were most frequently mentioned in all locations.

20 Bird et al (undated).

Table 8: Wealth categories in Kyenjojo

Very poor	Poor	Better-off
No land Physically unable to cater for them selves No shelter or lives in dilapidated grass thatched house. Survives on hand outs from good Samaritans Can hardly earn up to 150 shillings a day Eats poor quality food, sometimes goes without food Alcoholism: The local beer is his blanket No wife, no children Households full of the elderly, disabled old age, widows and orphans They are hopeless Households headed by widows Cannot stand/be elected for any political position Lacks self-esteem, no participation in politics, is not educated and cannot conceptualise government programs	Can buy a goat and other household basics Have land but cannot utilise it well Casual labourer Goes to work in Fort Portal in Kampala or tea estate near sub county head quarters Rides Bodo boda for the rich Owns a small business Own pigs and goats Semi-permanent houses Children go to government school They have not much to eat May own 2-3 acres of land Cannot stand for a political post	"Manger" Own land (5-10 acres) Owns tea plantation Permanent houses, with iron sheet roof or tiles Has a bank account Own vehicles Home in the village is a second home, but they mainly live in Kampala Lots of money Traders Owns cows Sends children to private school, often boarding Can be in politics and be elected as councillor, get involved/engaged in government programmes, Has influence Progressive

4.1.3 Vulnerability to shocks and coping strategies

Households with the type of profile described above are vulnerable to suffering from exogenous shocks to the household that they unable to cope with using their normal resources. An exogenous shock can be understood as a traumatic event such as a flood or drought or death in the family that has the potential to negatively impact a household's wellbeing. SCG and VFSG households in the sample are no exception to this rule, with almost half of all sampled households reporting having suffered such a shock. SCG and VFSG households are equally as likely to have experienced a shock in the last year.

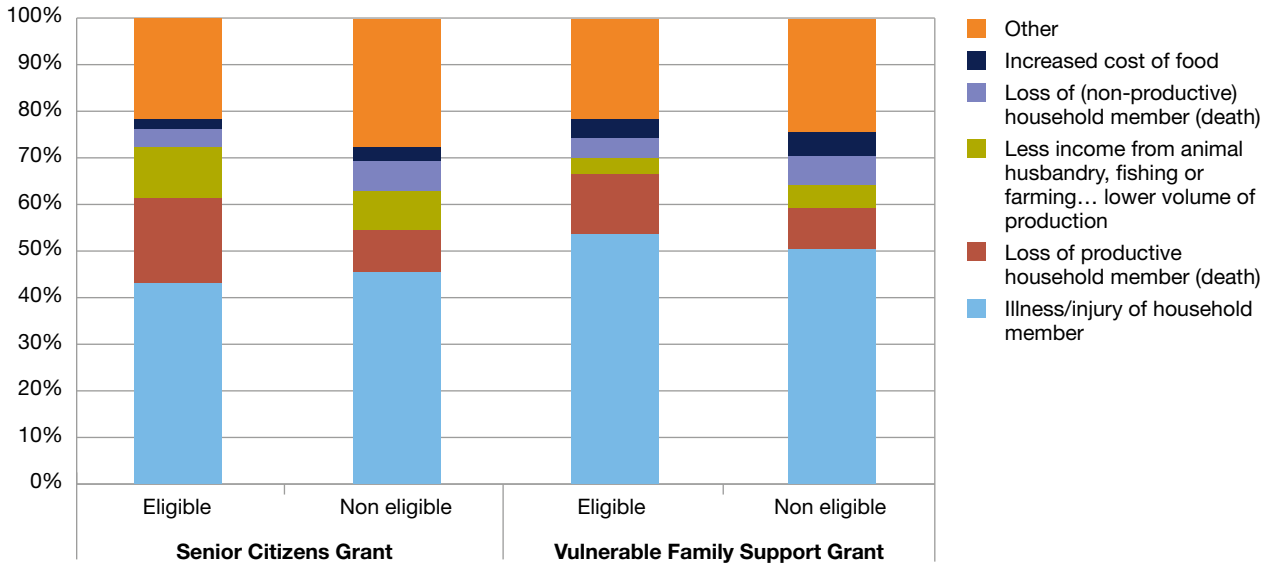
Table 9: Vulnerability to shocks

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households reporting suffering a problem in last 12 months that they could not cope with using normal household resources	46	46	1,991	43	43	1,989	3

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

The most common shocks experienced by all households in the sample were illness or injury of household member and loss of productive household member to death (see Table F.7). This does not come as a surprise given that households are overwhelming reliant on supply of their own labour to their household farms (see Section 4.3). The five most common shocks experienced all appear to be related to agricultural production, with the exception of increased cost of food.

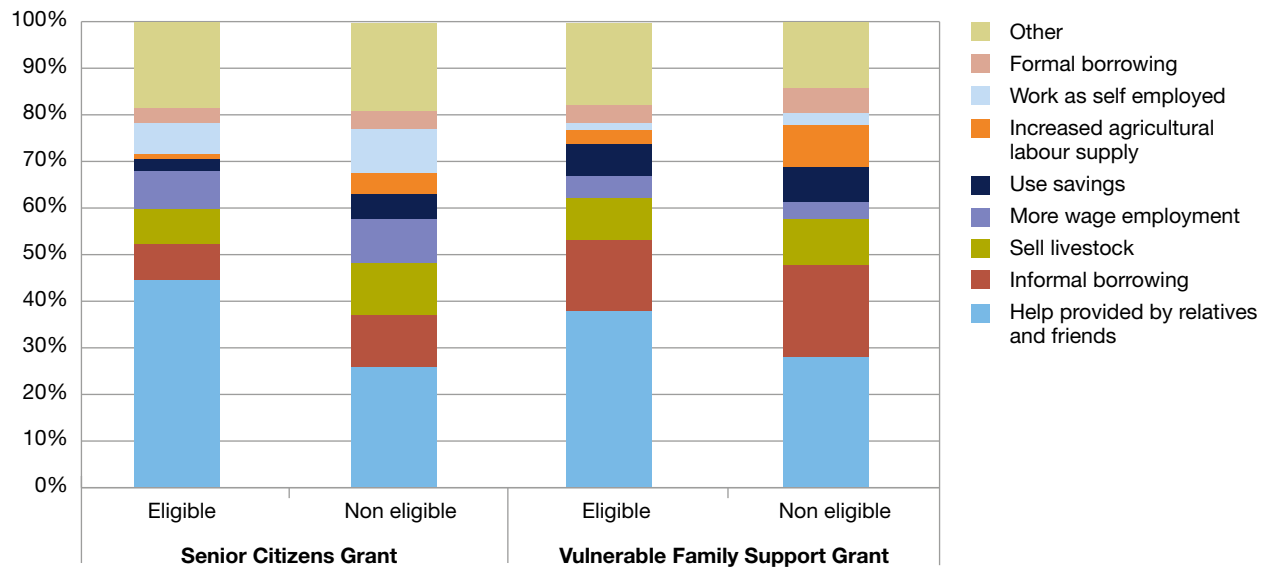
Figure 9: Main shock faced by households experiencing shock



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

In response to these shocks households most commonly resort to informal support systems through help provided by relatives and friends and informal borrowing. This is much more the case for the eligible group than the non-eligible group for both SCG and VFSG (Figure 10 below). The findings also suggest that some households are using increased labour effort to compensate for exogenous shocks. Patterns of increased labour supply differ between SCG and VFSG households, with SCG households more likely to increase labour supply to self-employment whilst VFSG households are more likely to use increased agricultural labour supply, possibly a reflection of the different human capital resources available across the two groups of households.

Figure 10: Coping strategy used for main shock



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

Some households are engaging in negative coping strategies that may have adverse long-term effects. For instance, some households resort to drawing down on savings or selling livestock. Reducing household consumption and children missing or even dropping out of school were also evidenced.

> "*I cope by reducing how much food I give to my siblings. I am unable to buy books and pens for my siblings and sometimes they may miss school: I also find it hard to get money for medical treatment.*" Child headed household, Chewente, Apac

> "*We can end up selling almost everything from the house so that people stop suffering.*" FGD with male farmers, Abongomole, Apac

Such negative strategies can have long term effects on poverty status and make households more vulnerable to future shocks. They can prompt a transient shock to cause a permanent fall into poverty.

4.1.4 Comfort and wellbeing

Malaria is strongly associated with poverty, particularly in Sub-Saharan Africa were 90% of malaria related deaths occur (WHO, 2012). In Uganda 90% of the population live in areas of high risk to transmission.[21] With this in mind the President's Malaria Initiative was inaugurated in 2006 which included a policy to increase the demand and supply of Insecticide Treated Nets (ITN) (Gov't of Uganda, 2006).

21 As defined by more than 1 case per 1,000 population (*WH0, 2012*).

Table 10: Expenditure on clothes and shoes and ownership of blankets and mosquito nets

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean expenditure on clothes and shoes (excluding school ware)	3,102***	5,155	1,988	3,329***	5,444	1,987	-227
Proportion of individuals owning blanket to sleep under	39	43	10,827	42	42	10,432	-3
Proportion of individuals sleeping under a mosquito net	29	32	10,827	40***	46	10,432	-10***
Treated	72	77	3,323	78	81	4,522	-6
Not treated	22	20	3,323	20	17	4,522	2
Don't know	6	3	3,323	2	2	4,522	4**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table 10 indicates that populations in VFSG households in our sample have a statistically significant higher chance of having slept underneath a mosquito net the previous night, with 40% of VFSG eligible population having done so as compared to just 29% of the SCG eligible population. This compares to 34% of the national population and 33% of the rural population (WHO 2012). That members of VFSG eligible households are more likely to sleep under mosquito nets than those of SCG eligible households may be a reflection of the way in which malaria net distribution programmes are targeted. For example two groups that are most often targeted are children and pregnant women. Table 5 in the previous section indicates that VFSG eligible households are more likely to contain children of all ages than SCG eligible households.

4.2 Food security and nutrition

4.2.1 Food sources and spending

Table 11 reports the mean level of per adult equivalent food consumption expenditure. As with total per adult equivalent consumption expenditure we find that eligible VFSG households report higher food expenditure than non-eligible VFSG households. Furthermore we find that SCG eligible households have statistically significant lower food expenditure per adult equivalent than their VFSG counterparts. Because SCG households contain on average more working age adults than VFSG households (Table 5), who are likely to have in general higher caloric intake needs, this may therefore be another indication that VFSG eligible households are in general wealthier than SCG eligible households at least in the evaluation sample.

Table 11: Food consumption expenditure

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean food expenditure per adult equivalent	50,733	47,893	1,988	58,781***	53,086	1,987	-8,048***
Mean share of food consumption in total household expenditure	67	67	1,988	69	70	1,987	-2**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

We find very high shares of food consumption in total household expenditure, well above the national average of 45% and the rural average of 51%.[22] This is likely a reflection of the poverty status of the households in our sample as well as of the fact that many households in the study population across both SCG and VFSG households are struggling to meet their basic consumption needs, leaving little in the household budget for other expenditures.

4.2.2 Early child malnutrition

Under-nutrition in Uganda remains a serious concern, with over two million children under the age of five affected. The situation for young children in SAGE households is no exception, with prevalence of malnutrition across the three indicators for all types of households reported in Table 12 that would be described as poor by WHO (1995). The exceptions are levels of wasting among VFSG households and levels of underweight amongst VFSG eligible households, which would be described as acceptable levels of malnutrition.

This is comparable to the national averages of wasting (5%), stunting (33%) and underweight (14%).[23] Despite the way in which SAGE is targeted it should not be surprising that malnutrition rates are similar given that they are dependent on a variety of exogenous factors such as public health and sanitation conditions and cultural feeding practices. Summarised below is a short definition of each indicator which are fully described in Annex E.

- **Wasting:** identifies children suffering from current or acute undernutrition, with weight significantly below the weight expected of a child of the same length or height in the standard population.
- **Stunting:** identifies past or present chronic undernutrition, but cannot measure short-term changes in undernutrition.
- **Underweight:** is a composite measure of stunting and wasting. As such, it measures both past (chronic) and present (acute) undernutrition, although it is impossible to distinguish between the two.

22 As reported by the UNHS 2009/10 (*UBOS 2010*).
23 *UBOS (2011a)*.

Table 12: Child malnutrition rates (0-59 months)

Indicator		Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
		Eligible[1]	Non eligible	N	Eligible	Non eligible	N	
Wasted	Moderate[2]	4	5	922	5	4	1,634	-1
	Severe[3]	1	1	922	1	0	1,634	0
Stunted	Moderate	25	22	922	23	23	1,634	2
	Severe	9	7	922	10	8	1,634	0
Underweight	Moderate	13	11	922	11*	7	1,634	2
	Severe	2	2	922	2*	1	1,634	0

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Measures of moderate include all children below -2SD. (3) Measures of severe include all children below -3SD (4) Technical annex on the calculation and definition of each measure is found in Annex E.

4.2.3 Food security and dietary diversity

To develop a more comprehensive picture of the level of food security within the household including the adult population we present three further indicators, Household Hunger Scale (HHS), Meals consumed per day and Food Consumption Score (FCS) the calculation of which are fully explained in Annex E.

The three indicators are complementary and measure different aspects of food security. The HHS focuses on reported incidences of hunger experienced by the household in the last 30 days, to understand if their households are experiencing a shortfall of food. The FCS is a composite score measuring dietary diversity and frequency of food consumption of different food groups in the previous seven days and is a good measure of the quality of diet in a household. Different food groups are assigned different weights to contribute to the final score to reflect that certain food groups have higher overall nutritional quality than others.

'Meals consumed per day' presents a simple measure of food security although caution should be exercised in its interpretation. The reporting period is the previous day, which ignores the natural fluctuation in meals taken throughout the week. Furthermore the definition of what is understood as a 'meal' can fluctuate across different regions in Uganda and so is not necessarily strictly comparable. Therefore it is recommended that the reader focus on other measures of food security.

Table 13 below indicates that VFSG households enjoy higher levels of food security than SCG households. The majority of VFSG eligible households have experienced little or no hunger in the last 30 days, whilst the majority of SCG eligible households have experienced at least moderate hunger over the same period. This finding corroborates the picture drawn so far of the welfare differentials between these two groups, which finds SCG households owning higher poverty rates, lower per adult equivalent expenditure and food expenditure (Table 7 and Table 11), and, as presented in Table 14 below, a higher likelihood of poor food consumption as compared to VFSG eligible households. SCG eligible households also have poorer outcomes on the FCS as compared to SCG non-eligible households.

Table 13: FANTA[24] Household hunger scale and number of meals consumed per day

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean FANTA hunger scale	1.61***	1.41	1,975	1.38*	1.26	1,977	0.23**
% households by FANTA hunger scale categories							
Little or no hunger in the household	40***	49	1,975	53	57	1,977	-14***
Moderate hunger in the household	57***	48	1,975	41	39	1,977	16***
Severe hunger in the household	3	3	1,975	5	4	1,977	-2***
Total	**100**	**100**	**1,975**	**100**	**100**	**1,977**	**0**
Mean number of meals consumed in the last day							
Per child (aged 17 and under)	1.75**	1.84	5,202	1.86	1.90	6,323	-0.11**
Per Adult (18-64)	1.68***	1.80	4,121	1.85	1.89	3,009	-0.17***
Per old person (65+)	1.66	1.69	1,198	1.66***	1.84	758	0
All persons	1.71***	1.81	10,521	1.83**	1.90	10,090	-0.12***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table 14: Food consumption score

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean food consumption score	39***	42	1,991	39***	41	1,989	0
% of households with							
Poor food consumption	17***	11	1,991	9**	7	1,989	8***
Borderline food consumption	30	27	1,991	36***	30	1,989	-6**
Acceptable food consumption	53***	61	1,991	55***	64	1,989	-2
Total	**100**	**100**	**1,991**	**100**	**100**	**1,989**	**0**

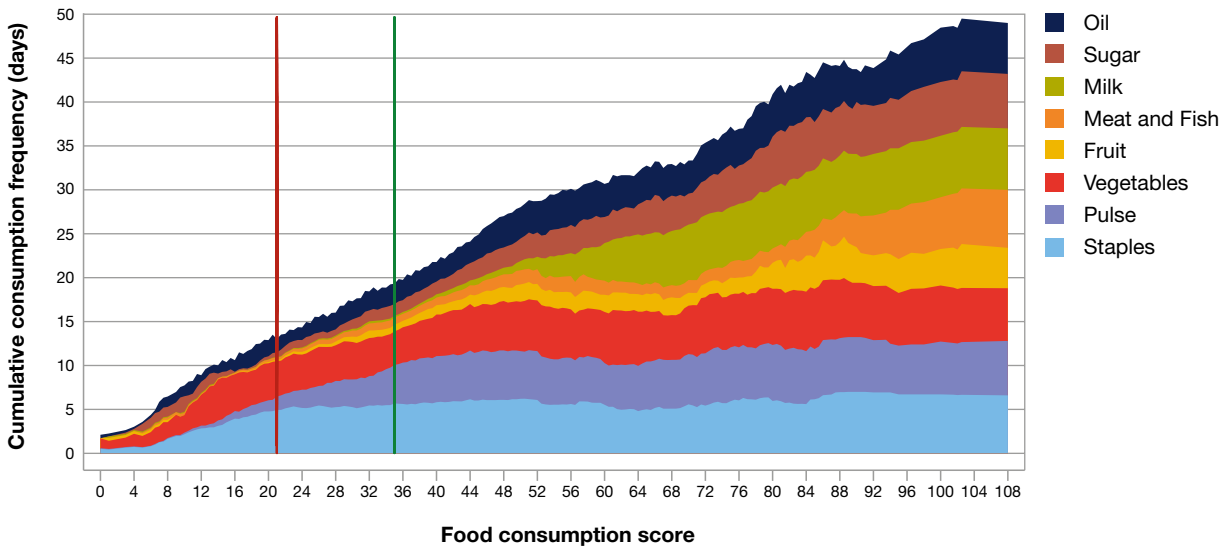
Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator: *** = 99%; ** = 95%; * = 90%.

24 The Food and Nutrition Technical Assistance Project that works to improve and strengthen nutrition and food security policies, strategies, programs and systems through technical support to the United States Agency for International Development (USAID) and its partners, including host country governments, international organisations, and non-governmental organisation implementing partners.

Figure 11 below presents a useful picture of the level of dietary diversity and the quality of diet as we move from households with low FCS to households with a high FCS. The transition from households with poor food consumption to households with borderline food consumption (the first threshold in red at FCS of 20 in Figure 11) shows a marked increase in the consumption of both staples, but more importantly in the consumption of pulses which have a higher Protein Efficiency Ratio (PER) than staples.

It is only when we cross the next threshold into acceptable food consumption, given by the green line at a FCS of 35, that we begin to see households consuming foods with the highest quality protein such as meat, fish and milk. Given that 47% of SCG eligible households and 45% of VFSG households have a FCS below this threshold, many SAGE households can be expected not to consume these high-nutrition foods very regularly.

Figure 11: Food consumption score against frequency of consumption in days



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

4.3 Livelihoods

Livelihoods refer to the capabilities, assets and activities required for a means of living or to generate an income (Chambers & Conway, 1991). The literature highlights five key assets or kinds of capital that households draw on in pursuing livelihood strategies: human capital; physical capital, natural capital, financial capital and social capital. Individuals and households use these assets to get involved in income generating activities, or let other people use them, earning a return. They may also earn a livelihood by selling assets, although this can come at the cost of future income generation. Finally, income can be obtained from remittances and in kind transfers from other households and individuals, and this can be seen as returns to forms of social capital (Dercon, 2002).

4.3.1 Labour participation and time use

The household survey examined labour participation rates and time use. Labour participation rates show that about one quarter of the working age population is not currently directly involved in productive market activities, because they are either unemployed (looking for work) or out of the labour force altogether. The figures are much in line with the national estimates, with VFSG households appearing to have a higher rate. Reasons for not working and/or looking for a job mainly relate to poor health conditions or being engaged in schooling or household duties.

Table 15: Labour participation rates and time use in productive activities

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of working-age adults (18-64) engaged in economically productive activities[2]	74	76.6	4,202	81**	84	3,059	-6.7***
Mean number of hours spent working per week[3]	23.6	24.3	3,180	25.4	25.9	2,541	-1.7**
Mean number of months spent working in main occupation in last year	7.5***	8.4	2,862	9.7	9.6	2,399	-2.2***
Proportion of working-age adults engaged in subsidiary occupations in addition to their main occupation	25	27	3,084	24	26	2,489	0.5

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) An adult is classified as engaged in economically productive activities if during the last 7 days they have: worked for payment in cash/in-kind outside the household; worked on household owned land or with household owned livestock or fished; worked in his/her own business or business owned by another member of the household; or even if not worked in last 7 days does have a permanent job or enterprise such as a retail shop, a factory, farm or service establishment that they will return to. (3) In all occupations.

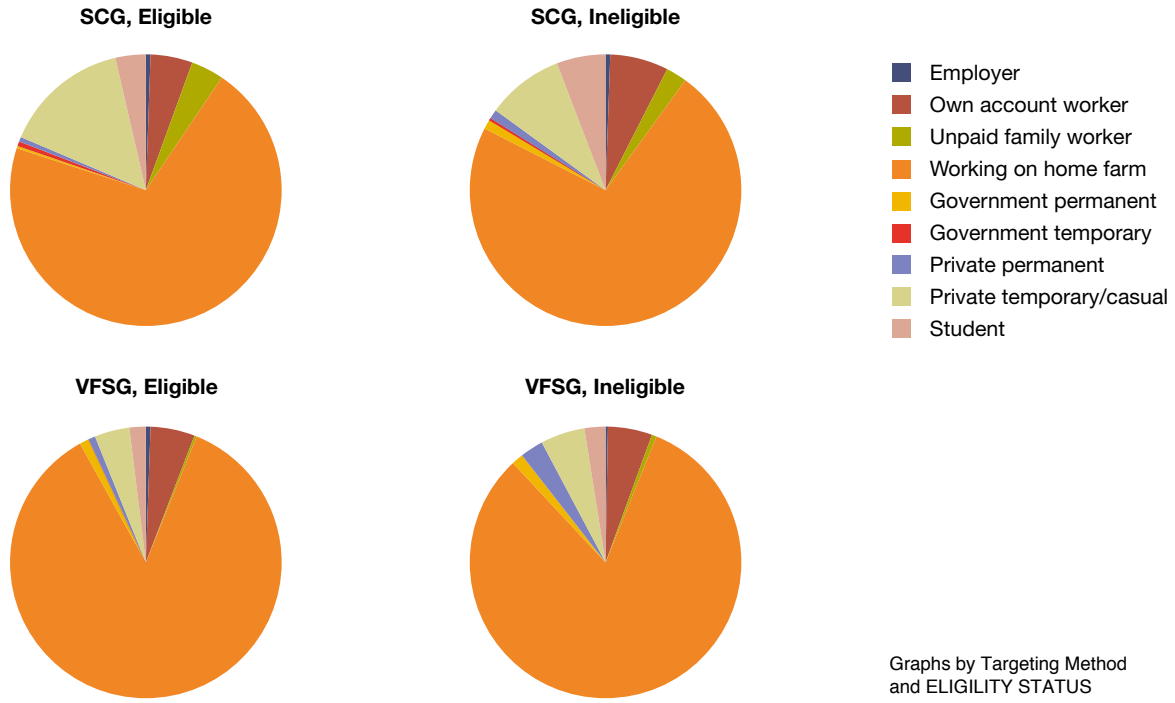
4.3.2 Livelihood sources

Figure 12 shows that the large majority of the economically active population is engaged in agriculture, mainly working on the home farm. It is also quite common for the economically active population to have a subsidiary occupation or livelihood source, such as engaging in casual work, working on their own account, and working on the home farm when agriculture is not the main activity.

This supports the findings from the qualitative baseline research, which show that across all the locations, crop framing was the main source of livelihood. Casual labour was also a common livelihood across all locations. However, there were some variations between and within districts. For example in Kiboga, while crop farming was the main livelihood activity in Bukomero, households in Kapeke were mainly pastoralists. Similarly fishing was commonly pursued in Apac and Katakwi districts, but not in Kigoba and Kjenjojo. Beekeeping was unique to Kyarusozi and Chewente but only pursued by a minority of people. Some livelihood activities are also only undertaken by specific groups of people (e.g. women or younger men).

Figure 12 also demonstrates that formal employment is held by very few people. This supports findings from the qualitative baseline research, which also found that formal employment was held by only a small segment of the population (generally more educated). In all the qualitative baseline research districts, the main sectors people worked in included local government –mainly civil servants. Others were working in NGOs based in the districts. Even in these cases though, where salaries were deemed to be too low, incomes were supplemented through farming.

Figure 12: Employment status of working adults



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

Below we provide a more nuanced analysis of the different livelihood sources to compliment the household survey data.

4.3.2.1 Crop farming

Crop farming was the most common livelihood strategy across all the locations. This was mainly undertaken on a subsistence basis, although some households produced a surplus which was sold for additional income.

Table 16 shows that land is owned by almost the entire population. Households own, on average, between three and five acres of land, normally cultivating only half of it at any given time. The data shows that SCG households have and cultivate, on average, slightly larger plots with respect to VFSG households. However, VFSG households tend to cultivate more on land that belong to somebody else.

Whilst the household survey indicates that not all land is cultivated, the qualitative research shows that the ability to produce a surplus was typically constrained by small land holdings (a result of customary inheritance laws and population increases); the need to leave land to fallow could also help explain this finding. Most households produced food crops which were indigenous to the specific areas. Cash crops like tea and coffee were cultivated in Kyenjojo district, and cotton in Apac district, but mainly by better-off farmers as these required higher levels of inputs. This could also be a contributory factor to the finding that not all land owned was cultivated. In general, crop farming as a livelihood activity is threatened by low prices, poor terms of trade, deterioration of soil quality, and adverse weather conditions.

Table 16: Land ownership

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households owning land	93	91	1,991	90***	86	1,989	2.5*
Mean acres owned	5.7	5.4	1,825	3.2	3.2	1,727	2.5***
Mean acres cultivated	2.3	2.5	1,822	1.6*	1.8	1,715	0.7**
Proportion of households renting out land owned	11	11	1,991	13.1*	11	1,989	-2.5
Proportion of households cultivating on land not owned	11***	21	1,991	25***	38	1,989	-13.7***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

4.3.2.2 Livestock keeping

Often, crop farming was combined with livestock rearing. Most households own some types of livestock, with poultry being kept by around half of the population. While most of households keep small animals such as goats and chickens, wealthier households often keep cattle, which is deemed to be the most lucrative and preferred livelihood source across all sites. Returns from selling a cow, for instance, could cover the cost of education for a whole term, or allow households to diversify into non-farm livelihood activities. Around a quarter of households purchased and sold livestock in the previous 12 months, with the figures for non-eligible households slightly higher than for eligible households.

Table 17: Livestock ownership and sales

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households owning livestock	65***	75	1,991	69***	77	1,989	-4.1
Proportion of households purchasing livestock in last 12 months	22***	34	1,991	25***	37	1,989	-2.2
Mean total value of livestock purchased	31,806*	56,294	1,991	27,085	37,821	1,989	4,721.4
Proportion of households selling livestock in last 12 months	24***	32	1,991	26**	31	1,989	-2.4
Mean total value of livestock sold	79,531	123,570	1,991	54,678	49,178	1,989	24,852.9

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

4.3.2.3 Fishing

In sub counties like Abongomole, Chawente and Kapujan some households were engaged in fishing. This was done by men, though women were also involved in the preparation, smoking and marketing when a surplus was made. Typically, fishing was on a small scale, better off fishermen were able afford more nets and boats, allowing them to earn incomes from sale of surplus catch. However, fishing as a livelihood activity is threatened by declining stock levels and a recent policy which places a restriction on the required size of fishing nets to be used.[25] The latter made fishing more difficult as many people could not afford this:

> "*We have been restricted by a recent government policy in terms of the type of fishing we can use. This has made fishing very expensive and most of us are now giving up fishing. This is making paying our children's school fees very difficult. Even feeding the home is becoming difficult.*" FDG with fishermen in Chawente, Apac

4.3.2.4 Casual labour

Casual labour was often the least preferred livelihood source, despite being widely undertaken, and was often mainly pursued by youth who had not yet accumulated capital. The type of casual labour undertaken includes digging other peoples farms, picking tea in the case of the tea growing areas, brick making (mainly during the dry season), charcoal burning and riding bodaboda (cyclist) as means of transport for hire (typically owned by others). Casual labour is largely seen as precarious, unreliable and low paid.

25 A National Fisheries Taskforce (NFT) was formed constituting Officers from Department of Fisheries Resources, Uganda Fish Processors and Exporters Association (UFPEA), Uganda Police, Uganda Revenue Authority, Beach Management Unit representative to (i) Enforce relevant laws and control illegal importing and criminal use of illegal fishing gears, trading in immature fish, trading without proper documentation, smuggling and practicing Illegal Unregulated Unrecorded (IUU) fishing; (Ministry of Agriculture animal industries and fisheries. Annual report 2010/11.

However, casual labour was also often described as a "starting point" where one could "graduate" into other livelihood activities when one amassed more capital:

> "*The basic starting point for those without capital is to burn and sell charcoal in order to start chicken business which requires capital of between 10,000 to 30,000 shillings at least. Between 70,000 to 120,000 shillings you graduate to goat business. Then cattle business follows after getting capital between 500,000 to 1,500,000 shillings, but very few youth reach this level of business transaction, the majority are in the chicken and goats business.*" FGD with young men, Usuk, Katakwi

4.3.2.5 Petty trade

Petty trading is another common livelihood strategy. Although undertaken on only a very small scale, some respondents found trading to be more reliable compared to crop farming where income is seasonal. Trading is defined by gender, largely undertaken by women selling processed food (maize, millet, sorgum, cassava flour) and agricultural produce (beans, groundnuts, peas, rice, maize and other staples) in nearby markets. However, whilst some men participated in trading, their businesses tended to be larger scale, trading agricultural produce and other merchandise. While women, constrained by their domestic responsibilities, could only participate in nearby markets, male traders did not face such restrictions. However, for both men and women capital was a major constraint:

> "*Most people are constrained by the lack of capital. The option of doing business, stocking a shop with groceries, needs capital which I do not have.*" KII with LC I, Kapake, Kiboga

4.3.2.6 Brewing

Women were typically involved in brewing local beer. Culturally, this was defined to be an activity undertaken by women, as it requires kneeling, grinding, collecting water and roasting, all perceived to be female jobs, especially in Northern (Apac) and Eastern (Katakwi) Uganda. However, in western and Central Uganda ((kyenjojo and kiboga respectively) the process of brewing is done jointly depending on the type of brew. In some instances, men may take the lead while women assist and vice versa. The women are responsible for grinding the roasted sorghum which is mixed in the banana juice in order to ferment, while the pressing (kusogola) of the ripe bananas are done by men, given the energy needed to do it. However in Kyarusozi, which is more of a migrant community from Kigezi (Kabale and Kisoro), men seem to have taken an upper hand in the process. Overall the men tend to control the proceeds from brewing while women are tasked with sales.

4.3.2.7 Migrant remittances and in-kind transfers

Across all locations it was reported that many young people migrated to Kampala and other cities to find (often poorly paid) jobs in the informal sector, working as bus conductors, hawkers, housemaids and in other such jobs. In some cases respondents mentioned receiving remittances from such relatives, although the amounts are often constrained by the low wages the migrants receive.

> "*It is not easy for them to send money because they are not working in places where they are paid highly.*" A female respondent in Abongomole

Particularly for elderly respondents, those retired from agriculture and without another means of income, remittances and in-kind transfers were a life line. However, the value and extent of these remittances is limited by general extent of poverty and other hardships.

> "*There are some elderly who are just sitting at home suffering, some are widowed or some may have children working outside this district. In some cases they may get a bar of soap and little financial support from their children working away from this community.*" Female farmers, Kyarusozi, Kyenjojo

Trading is often undertaken by women selling processed foods and agricultural produce in nearby markets

4.3.3 Investment in productive assets and income generating activities

Productive assets are defined as agricultural or non-agricultural tools or machines which are used for economic activities. Many of the above livelihood strategies require some form of investment in productive assets, and around a quarter of the eligible population report having purchased productive assets in the previous 12 months.The figures are higher for the non-eligible population.

Table 18: Purchase and sale of productive assets[2]

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households purchasing productive assets in last 12 months	21***	29	1,991	26***	43	1,989	-5.4**
Mean total value of productive assets purchased	2,977***	5,228	1,991	3,642***	7,683	1,989	-665.1
Proportion of households selling productive assets in last 12 months	1	1	1,991	0	0	1,989	0.3
Mean total value of productive assets sold	95*	438	1,991	1,113	22	1,989	-1,017.6

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Productive assets are assets used for any economic activity.

An asset index has been constructed to provide a composite measure of a household's cumulative stock of productive assets. The asset index is calculated using household's ownership of selected assets, including household and productive assets, land and livestock. The index is generated using principal components analysis and places individual households on a continuous scale where a higher score corresponds to higher measure of asset accumulation. Table 20 and Figure 13 show the distribution of the asset index scores along the different population groups. Non-eligible households have significant higher mean asset scores than eligible households.

Table 19: Asset Index

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Asset Score	1.3***	1.7	1,991	1.3***	1.6	1,989	0

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

4.3.4 Changes in livelihood strategies over time

Although livelihood activities are dominated by crop production, respondents noted many changes that have occurred in recent years. These changes were reported to be in response to some of the threats and risks associated with agriculture (see Section 4.3.2.1 above). The most frequently mentioned change was the diversification of households into non-farm activities.

> "*Most of us have been involved in agriculture and we are still doing that. But of late people have started doing all sorts of businesses. They are operating bars, restaurants along the highway and in most trading centres. There are stalls where people are selling fruits, potatoes and vegetables. People are discovering other ways of making money because they cannot rely on agriculture alone. This was not the case here about five years ago.*" Women in Kisojo

However some changes also occurred within agriculture-based livelihood activities, whereby farmers improved their stock through selective breeding or adopting hybrid seeds etc. Some farmers also diversified into new crops but with varying success.

4.4 Child labour and child work

Households with large numbers of dependents often have to adopt child labour as a livelihood strategy. Table 20 below reports the level of child labour and the level of child work prevalent within the evaluation sample. For consistency we use the UBOS definition of child labour (UBOS 2010).[26]

Table 20: Child labour participation rates

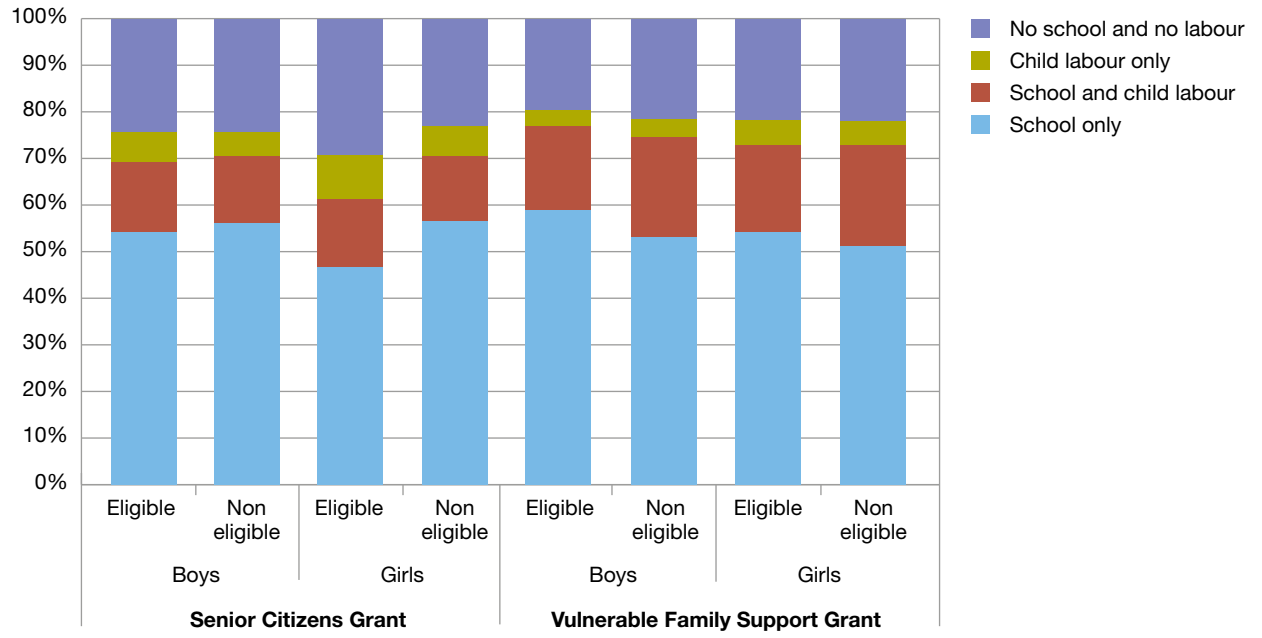
Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible[1]	Non eligible	N	Eligible	Non eligible	N	
Proportion of children aged 5-17 engaged in child labour[2]							
Boys	21	19	2,030	21*	25	2,305	0
Girls	24	21	1,978	24	27	2,273	0

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) UBOS definition of child labour.

The findings illustrate that the rate of child labour participation is broadly similar across SCG and VFSG households, though we find that children in VFSG eligible households have statistically significant lower rates of child labour than their counterparts in VFSG non-eligible households. The rate of child labour in the evaluation sample is similar to that found in Uganda, with the national rate of child labour participation at 27% for boys and 24% for girls (UBOS 2010). This suggests that SCG and VFSG households are not more likely to have to resort to child labour as a livelihood strategy than the average household.

26 A child is considered to be involved in child labour activities under the following classification: (a) children 5 to 11 years of age that during the week preceding the survey did at least one hour of economic activity or at least 14 hours of domestic work; (b) children 12 to 13 years of age that during the week preceding the survey did at least 14 hours of economic activity; and (c) children aged 15-17 years of age that during the week preceding the survey worked more than 43 hours.

Figure 13: Child labour and education (children aged 5-17 years)



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** UBOS definition of child labour.

In some cases care givers are faced with a stark choice: whether to send children in their care to school or whether to engage them in child labour. The opportunity cost of sending their child to school is the foregone earnings of the child. This opportunity cost can be particularly high for the poorest households, especially for households with a high number of dependents. Figure 13 above explores this choice, illustrating that of those children engaged in child labour, the majority are in fact currently enrolled in school.

Figure 13 also demonstrates that SCG and VFSG households have made broadly similar choices with respect to sending their children to school or work. The exception appears to be the lower rates of school only for girls in SCG eligible households as compared to boys in those households. This is likely to do with the higher rates of participation in household chores observed for girls in these households (Table F.11), where 77% of girls have helped with chores compared to just 69% of boys.

4.5 Housing and amenities

Table 21: Dwelling characteristics, fuel, water and sanitation

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible[1]	Non eligible	N	Eligible	Non eligible	N	
Proportion of households owning their own dwelling	95	94	1,991	93**	90	1,989	2.3*
Mean number of rooms[2]	2.4***	2.6	1,991	2.3	2.3	1,989	0.1
Proportion of households whose main source of lighting is electricity[3]	2.1	2.4	1,991	1.2	2.1	1,989	0.9
Proportion of households whose main source of cooking fuel is charcoal or firewood	99	99	1,991	99	99	1,989	0.1
Proportion of households with safe water source[4]	75	72	1,991	71	70	1,989	3.9
Proportion of households with good quality toilet[5]	33***	40	1,991	38**	42	1,989	-4.7

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Includes bedrooms and living rooms; does not include storage rooms, bath rooms, toilets or rooms used solely for business; includes kitchen only if used for living room or sleeping as well. (3) Includes grid, generator or solar electricity supply. (4) Improved water sources include piped water, public taps, boreholes, protected well/springs, rain water and gravity-fed schemes. Note that the definition used for improved water sources is consistent with UNHS definition and it differs from the one used internationally which excludes rain water. (5) Includes covered pit latrine, ventilation improved pit latrine and flush toilet – Following international convention, sanitation facilities cannot be considered good quality if shared.

Electricity as a source of lighting is extremely rare possibly reflecting the predominantly rural environment the study population lives in. Most of the households use either tadooba, firewood or candles (Table F.12). Charcoal/firewood is almost the only source of fuel for cooking across household groups. Over two thirds of the households have a safe water source with boreholes being by far the main source of water for drinking. On average it takes around an hour to collect water (Table F.12). A third of households have access to good quality sanitation, mainly using covered and uncovered pit latrines. It is worth noting that using the bush is still very common, especially among SCG households, where more than 30% of the households do not use any type of toilet against around 15% of VFSG households (Table F.12). These results are much higher than the national estimate, according to which 9% of the households do not use any type of toilet facilities (UNHS, 2010).

School attendance by children is relatively high, but more so for boys than girls

5 Access to services

This section looks at households' access to education, health and financial services, as well as receipt of formal transfers. It considers levels of educational attainment and incidence of ill health. It finds low levels of education access and attainment for the adult population, which is especially marked for programme-eligible households and women, patterns that are reflected in adult literacy rates. School attendance by children is relatively high, but more so for boys than girls and more so for children in VFSG households than children of SCG households. A high proportion of the population seek healthcare when suffering illness or injury. A higher proportion of VFSG-eligible households are saving, borrowing and purchasing goods on credit than their SCG counterparts whom are considered less credit-worthy. Receipt of formal transfers is low, but much higher for SCG households than for VFSG households.

5.1 Education

It is expected that the SAGE cash transfer will facilitate access to education services thereby improving children's education attendance and consequently education outcomes. It is hoped that households will increase the proportion of expenditure meeting the costs associated with educating children, such as school fees, uniforms, text books, stationary, and boarding fees. By increasing expenditure in these areas, there is an expectation of lower levels of absenteeism and better retention rates resulting in better completion rates. It is hoped that impacts such as these, as well as impacts elsewhere, such as improved nutritional status, may positively impact performance for those children in school.

This section looks at current levels of education access and attainment. The qualitative research complements this by looking at community members perceptions of education services. The primary emphasis is on demand side issues, as these are the main areas of cash transfer impact. However, we present some findings on a few supply side issues emerging from the qualitative research.

5.1.1 Adult literacy and levels of education

Table 22 below shows that across the adult population of our sample, only around half have ever attended formal education. Adults from eligible households are less likely to have attended formal education than adults from non-eligible households, and women are less likely to have any formal education than men. Age is a big driver of this, as older people are much less likely to have attended school. However, the difference between the proportion of eligible (57%) and non-eligible adults (77%) who attended formal education in VFSG areas is particularly striking.

The low levels of formal education attendance are reflected in low levels of education attainment, with fewer than one in five adult respondents actually reaching secondary school. There are also a large number of adults in the sample who have never received any education. It appears that eligible households have lower levels of education attainment than non-eligible households (Figure 14). For those who had never received any education, the most common explanation was that their parents did not think it worth it. Nearly half of all respondents who had been to school also mentioned that they left school at some point because of financial reasons.

These low levels of education are reflected in adult literacy rates. Table 22 shows that the majority of the adults in programme-eligible households are unable to read and write, with a higher proportion of illiterate adults in eligible households as compared to non-eligible households. For example, four out of ten adults in eligible households in SCG areas can read and write, compared to around half in non-eligible households. As with education attendance and attainment, literacy rates for men are better than for women across the sample. Overall, the adult literacy rate in our sample is lower than the national average (nationally, 71% of adults are able to read and write, with literacy rates for men (81%) also higher than for women (61%) (UNHS 2010). Once again, this is likely to be driven by the higher average age of the study population in comparison to the national population.

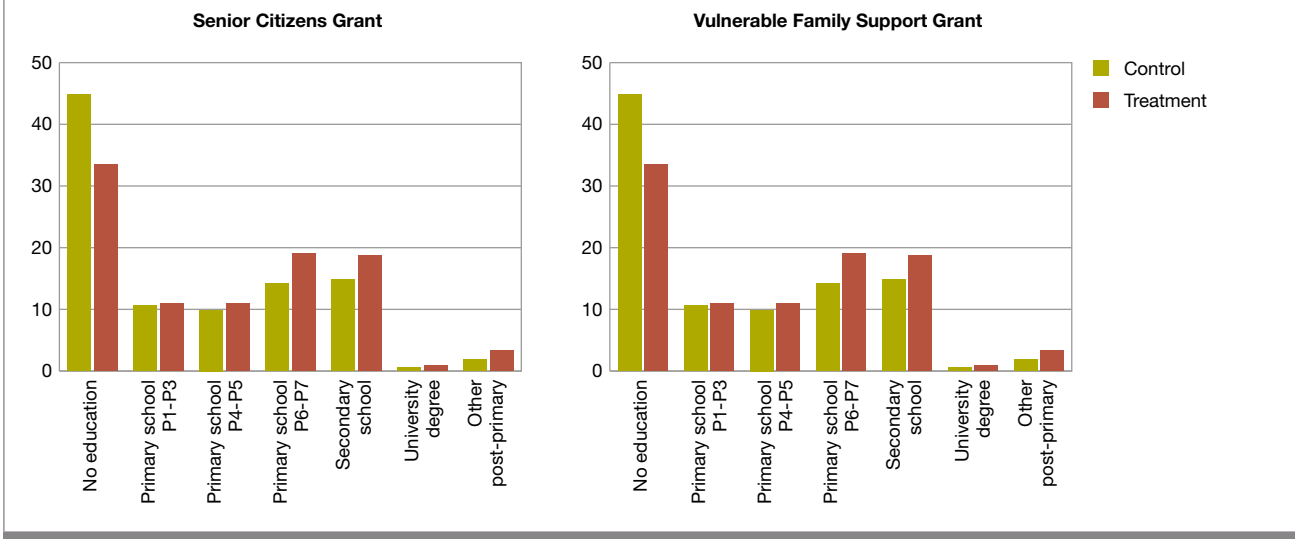
These characteristics potentially limit earning power, suggesting that a social cash transfer such as SAGE can act as an important buttress against hardship for these households.

Table 22: Adult literacy and formal education rates

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of adults (18+) able to read and write	39***	52	5,399	41***	57	3,814	-2.2
Male	53***	68	2,445	66***	78	1,579	-12.3***
Female	27***	37	2,954	25***	40	2,235	2
Proportion of adults (18+) attended formal education	45***	51	5,399	57***	77	3,814	-11.8***
Male	56	58	2,445	74***	85	1,579	-17.4***
Female	37***	44	2,954	47***	70	2,235	-9.7***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Figure 14: Adult education attainment



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

5.1.2 Household spending on education

Overall, households in SCG areas spend considerable more on education (nearly twice as much) than households in VFSG areas. The above trend is peculiar given that households in SCG areas were found to be poorer than those in VFSG. The differences in the mean monthly expenditure per child between eligible and non-eligible households is only significant in SCG areas, where eligible households spend an average of UGX 6,773 less per month on education compared to non-eligible households.

Table 23: Education expenditure

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean monthly household education expenditure per child[2] (UGX)	12,967**	19,739	1,482	7,317	6,645	1,521	5,650**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Households containing children of school-age (6-17) or other aged person currently attending school.

5.1.3 School attendance and attainment

The majority of children aged 6-17 were currently attending school (see Table 24 below). For example, amongst eligible households in VFSG areas, four out of every five children were currently in formal education. This proportion is a significant improvement when compared to the rates of education attendance and attainment for the adult population reported above. Respondents from the qualitative survey commented that the introduction of Universal Primary Education (UPE) among the current generation of children had helped to encourage greater access and levels of attendance, especially for poor families who would otherwise not have children in formal education because of the high cost. Others mentioned a broader change in attitudes. These corroborate the responses adult respondents gave as reasons for never attending school or for leaving school.

Eligible households in VFSG areas are more likely to be attending school compared to children in eligible households in SCG areas, a pattern that remains when the data is disaggregated by gender. Across the entire sample boys are more likely to be attending formal education than girls.

Table 24 also shows class progression rates. Nearly 60% of children across the entire sample were reported to have graduated to the next appropriate grade since the last academic year. In general class progression rates are better for households in SCG areas, perhaps attributable to the higher amount of education expenditure by SCG households compared to VFSG households. Disaggregating progression rates by gender, boys in SCG areas have higher rates than girls. Across all households less than a quarter of children complete primary education at the appropriate age range,[27] perhaps due to a combination of delays in starting school and relatively low progression rates.

Respondents were also asked how many school days their children had missed in the last 30 school days. Taken together, households in our sample missed around two days of school in the last 30 school days. The three most common reasons given for children missing school were ill health, affordability, and the need to help at home (Table F.14).

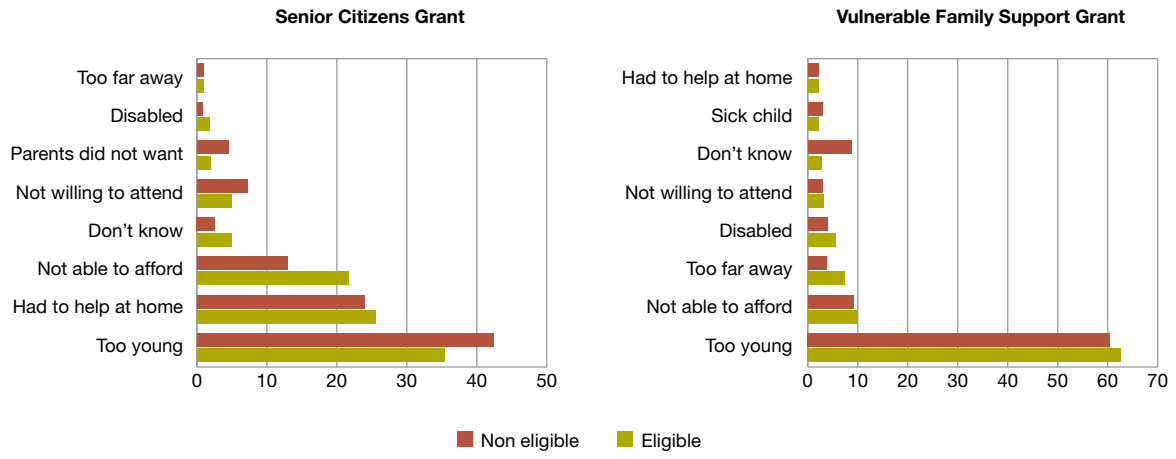
Table 24: Child education attendance, attainment and literacy

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of children 6-17 currently attending formal education	69**	74	3,900	81	80	4,244	-11.9***
Boys	73	75	1,957	82	81	2,151	-8.9***
Girls	65***	74	1,943	80	79	2,093	-15.0***
Mean number of days missed in last 30 scheduled school days	1.7	1.9	2,722	1.9	1.9	3,329	-0.2
Boys	1.8	2.1	1,402	2.0	1.9	1,699	-0.2
Girls	1.5	1.7	1,320	1.8	1.9	1,630	-0.2
Class progression rate[2]	69	70	2,805	62	59	3,398	7.5***
Boys	70	71	1,458	60	60	1,727	10.0***
Girls	68	68	1,362	64**	58	1,658	3.5
Cohort primary completion rate (aged 15-20)	22	25	1,695	16	20	1,010	5.9*
Boys	23	28	931	19	20	541	4.3
Girls	21	22	764	13	19	469	7.8**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Proportion of children graduating to next appropriate grade since last academic year.

27 This is measured using a cohort primary completion rate constructed by looking at the proportion of individuals aged 15-20 that have completed primary education. The reason for using this measure as opposed to simply looking at the age-appropriate age range of those who should have completed primary education is the prevalence of late starters and sporadic attendance year by year which mean that people are more likely to complete primary education than would otherwise be supposed from just looking at the strictly age appropriate sub-population.

Figure 15: Reasons for children never attending school



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

While the majority of children aged 6-17 currently attend school, it is interesting to investigate the reasons given by respondents for children who have never attended school. Figure 15 above shows that, across household groups, children do not attend school mainly because of the belief that the child is too young. This corroborates data from the recent national household survey, which found that nationally 62% of children aged 6-12 report that they were not attending school because their parents or guardian thought they were too young (UNHS, 2010). SCG households also report helping out at home as a significant reason why their children are not attending school. This can be compared to the national figure of only 5% of children reporting that they do not go to school because had to help either at home or on the farm. Being unable to afford the costs of education was another significant reason given by both SCG and VFSG households, although more so for the former.

The findings from the qualitative research shed some light on respondents' perceptions of education services across a range of supply-side issues. Supply side issues are relevant in this context because they determine the extent of demand and utilisation of particular services. Many respondents perceived education quality to be poor. For example, respondents mentioned very high teacher-pupil ratios, as well as text book-pupil ratios, which they felt undermined the quality and effectiveness of education services. It was also felt that many schools did not have adequate infrastructure and sanitation facilities. These findings may help explain the lower attendance rates for girls in particular.

5.2 Health

A number of studies have shown that cash transfers can leverage sizeable gains in access and utilisation of health services by helping poor households overcome economic barriers. As with education, cash transfers can increase the level of household expenditure devoted to healthcare, helping to meet the direct cost of that care such as medicines, and indirect costs such as transport and loss of income and productivity.

This section describes the incidence of ill health in programme areas, as well as health seeking behaviour. It sheds light on perceptions of healthcare services, which, as in the case of education, can also affect households' preferences for accessing healthcare.

5.2.1 Health status and healthcare-seeking behaviour

Just under a quarter of individuals reported being ill or injured in the last three months prior to the survey (Table 25). Respondents in SCG-eligible households were slightly more likely to report illnesses or injury (23%) than eligible households in VFSG areas (21%). This could be related to the demographic composition of SCG households, which are more likely to contain more elderly people and therefore show a higher probability of illness. This point was emphasised by the qualitative survey which noted ill health as the main risk associated with being elderly, as well as a characteristic strongly associated with poverty.

The majority of households that suffer an illness or injury consult formal health care providers when needed. Of those households that reported illness, non-eligible households are more likely to seek formal healthcare than eligible households, although this difference is only significant in VFSG areas. In general households in SCG areas are more likely to seek formal health care compared to those in VFSG areas.

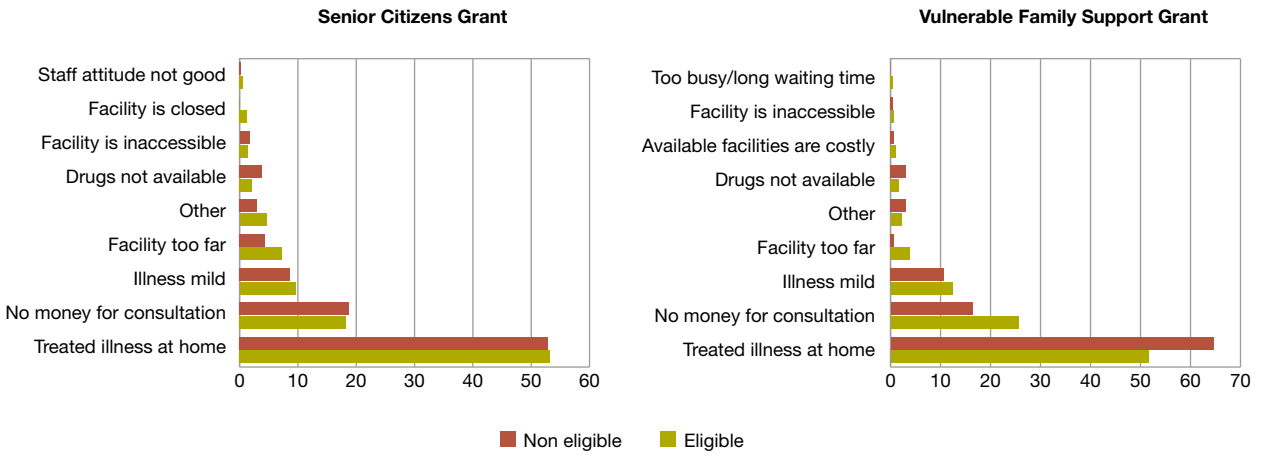
Curiously, eligible households in VFSG areas spend twice as much on healthcare as those in SCG areas and this difference is statistically significant. They also spend more than non-eligible households in VFSG areas.

Table 25: Incidence of ill health, health seeking behaviour and expenditure on health

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of individuals ill or injured in the past 3 months	23***	20	10,827	21	21	10,432	2.5**
Proportion of those ill or injured in past 3 months seeking formal healthcare[2]	70	73	2,309	63*	68	2,181	7.1**
Mean total cost of consultation (per individual)[3]	16,307	16,897	1,722	21,023	19,291	1,507	-4,715.6
Mean monthly per capita health expenditure (UGX)	1,494	1,580	1,988	2,933***	1,314	1,987	-1,439.7**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Includes community health workers, private or government hospitals, health centres or clinics. (3) Includes cost of transportation and accommodation incurred as a result of seeking consultation, cost of consultation, and cost of any medicines prescribed.

Figure 16: Reasons for not seeking health care when ill or injured



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

The two main reasons given for not seeking healthcare when ill or injured were treating the illness at home and cost. This corroborates the UNHS 2010, which finds that the majority of people not seeking formal healthcare do so either because the illness was perceived to be mild (38%) or because the cost of consultation was perceived to be high (23%).

The majority of respondents sought healthcare from government health facilities. This contrasts with findings from the national household survey, however, where 43% of people who feel sick first sought health care from private clinics. Evidence from the Evaluation qualitative fieldwork suggested that the government is indeed the main provider of health services in the research areas. Non-government facilities were used when services in government facilities were lacking.

Overall respondents were rather scathing about the quality of available government healthcare services. Health centres were considered ineffective because of insufficient health workers, poor management, and poor accessibility. The most common reason for the perceived ineffectiveness of government-run healthcare institutions across all districts surveyed in the qualitative research was the unavailability of drugs:

> "*They have limited access to medicine and treatment in the hospital. The medicine in the health centre is only Panadol and Coartem. When you take sick children to hospital, there is always a queue for medicine, and by the time it gets to your turn, they have run out.*" FGD with female, Okki, Katakwi

In contrast, the services run by NGOs were perceived to be higher quality.

> "*The government services take too long to be delivered. Most services end up at the sub-county level only. They do not reach the villages easily. But NGOs deliver their services up to the village and grassroots level.*" FGD with PLWHIV, Abongomole, Apac

5.3 Financial services

Table 26: Household saving, borrowing and access to credit

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Saving							
Proportion of households reporting current cash savings	22***	33	1,991	35***	42	1,989	-13.4***
Of which, Proportion of households with savings in a formal financial institution	7	10	547	4	6	764	3.3
Of which Proportion of households with savings in an informal savings institution[2]	89	91	547	94	93	764	-4.9**
Mean total value of current savings, for those with any savings	131,772*	501,950	516	119,117**	216,508	712	12,656.7
Borrowing							
Proportion of households reporting borrowing money in last 12 months	36***	51	1,991	44***	59	1,989	-8.5***
Mean total value of borrowing in last 12 months (UGX)	433,611	279,887	842	170,980***	264,158	1,014	262,631.8
Mean total value of current outstanding debt, for those with outstanding debt (UGX)	345,943	286,840	653	118,485***	187,563	838	227,457.9
Credit							
Proportion of households reporting purchasing on credit last 3 months	30***	37	1,991	41***	50	1,989	-11.1***
Mean total value of credit in last 3 months, for those who purchased on credit (UGX)	27,459	27,757	655	32,945	22,033	895	-5,486.2
Mean total value of outstanding credit debt, for those with outstanding credit debt (UGX)	14,865	17,319	639	9,190	12,480	885	5,674.7**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Includes ROSCA/SACCO/MFI/VSLA.

5.3.1 Saving

The majority of respondents in the sample have no cash savings. Table 26 shows that eligible households in VFSG areas are more likely to have cash savings (around a third) than eligible households in SCG areas (around a fifth). It is interesting to note that the proportion of households who save is lower for eligible households compared to non-eligible household in both SCG and VFSG areas. The lower savings rate in SCG compared to VFSG is probably related to the relatively higher levels of poverty of eligible households with respect to the non-eligible counterpart. The qualitative data show that poverty was one of the main reasons why people found it difficult to save money. The low proportion of households that save is therefore not a reflection of a lack of willingness or interest to save, as many households articulated the importance of saving:

> "*I cannot even buy soap because I do not have the money. It is not an issue of interest but it is the problem of having nothing to save.*" FGD with female elderly, Apac, Abongomole

> "*We have not yet tried out saving but we think it would be a good idea. But for now, we do not have the surplus to save.*" FGD with male farmers, Kisojo, Kisojo

The qualitative data also revealed that people's ability to save was highly seasonal. When harvests are good, households earn a surplus and could therefore put money aside:

> "*Some people are able to save some money when they sell their produce, but those are the minority.*" FGD with Kyenjojo, Kyarusozi

> "*During harvest times there is enough food, people are not spending much and others can afford to save some money. But when children go back to schools, they take most of the money. And during drought, January to March and July to September, food reduces and we have to spend most of the money.*" FGD with male, Bukomero

In general households preferred to save in assets such as livestock. This was because of high levels of inflation and low returns on cash savings:

> "*I try to save but I would rather invest in livestock and chicken. I have rejected cash saving because the returns are so low.*" FGD with youth brick layers, Abongomole, Apac

> "*Because of the inflation we reject cash saving, because at the end of the year you cannot do anything with the money.*" FGD with young women, Abongomola

Of those who saved, non-eligible households seem to have a higher mean total value of current savings than eligible households.

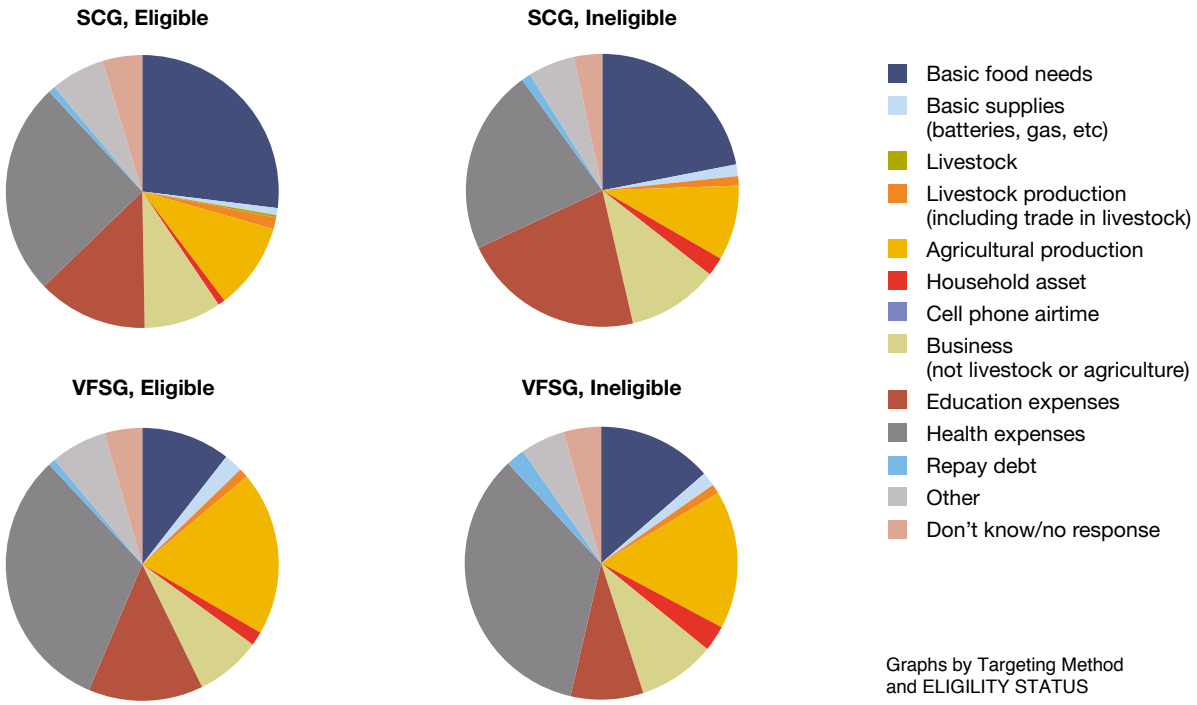
The majority of people saved informally, typically with credit and savings groups amongst friends and close ties.

5.3.2 Borrowing

The majority of eligible households did not borrow any money in the 12 months prior to the survey. Borrowing is even less frequent amongst eligible households. The households in VFSG (44%) were more likely to borrow compared to households in SCG areas (36%). Households in SCG areas borrowed mainly for basic needs and health expenditures. In contrast, households in VSFG borrowed mainly for health and agricultural expenditures (Figure 17). These findings differ from results across the whole of Uganda, where the main reason for borrowing is to purchase working capital (26%), and the second and third most common reasons are to buy consumption goods (16%) and to pay for education expenses (15%) (UNHS, 2010).

The majority of respondents who did not borrow claimed that the reason for this was that they did not perceive themselves to be credit worthy. This will be interesting to track given evidence elsewhere that cash transfers can improve beneficiaries' credit worthiness (OPM, 2012). The second major reason for not borrowing was that respondents simply preferred not to.

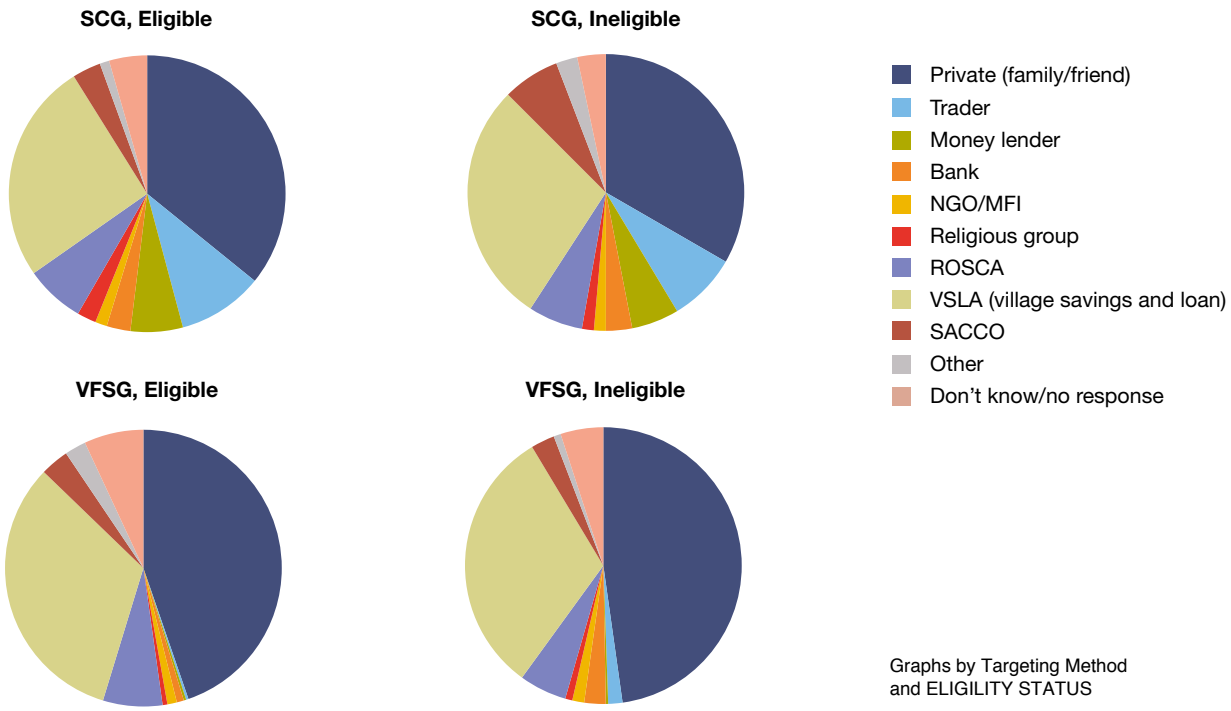
Figure 17: Why people borrow



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F). **Notes:** Reported reasons for most recent loan.

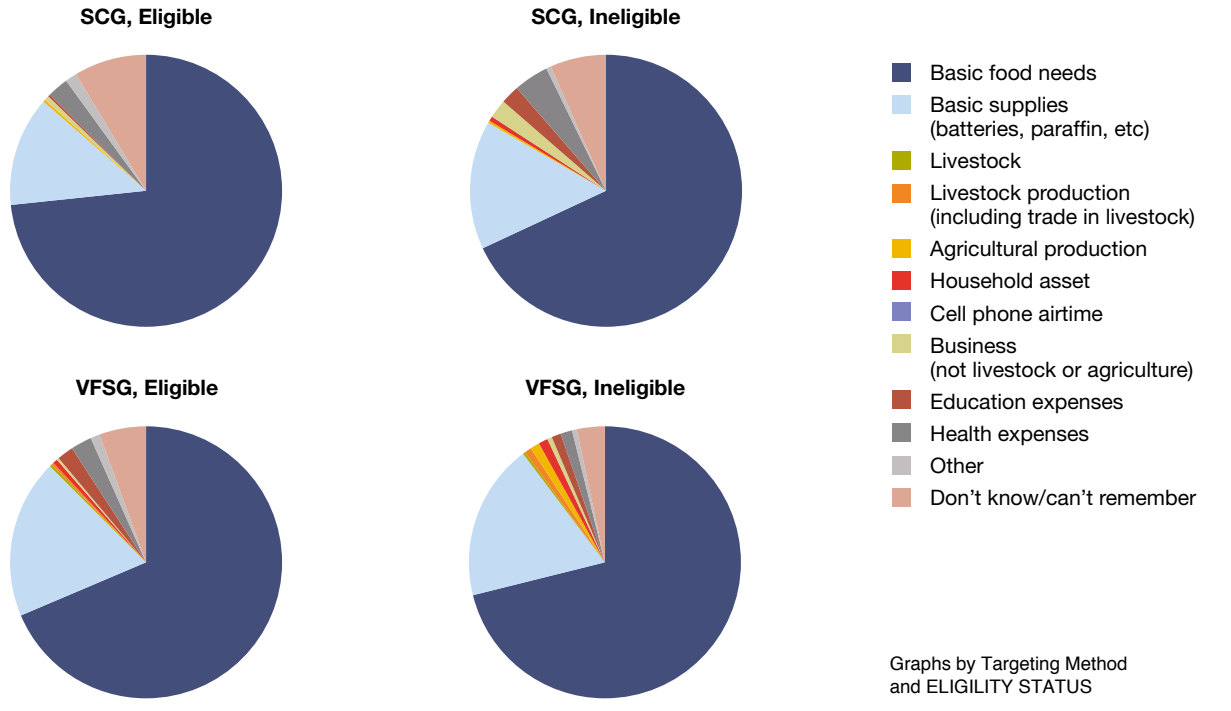
The majority of loans were taken from family and friends on a private basis, or from village savings and loan associations (Figure 18). This was corroborated by the qualitative research which suggested that most people make use of informal borrowing and lending on the basis of trust and reciprocity. In addition, in most locations visited for the qualitative study, respondents claimed to lack access to formal financial services. Where they existed they were often only accessible to better off households with the collateral to secure a loan.

Figure 18: Lending institutions



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F). **Notes:** reported lending source for most recent loan.

Figure 19: Items purchase on credit



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F). **Notes:** reported for most recent credit purchase.

5.3.3 Credit

As with savings and borrowing, buying on credit is less frequent amongst eligible households, and less frequent amongst households in SCG areas (30%) compared to households in VFSG areas (41%). These findings may be partly explained by the increased poverty status of SCG households, who may thus face more barriers to accessing and repaying credit.

At the time of the interview, eligible households in SCG areas owned a higher mean total value of outstanding credit debt than households in VSFG areas. The vast majority of all credit taken was for basic needs. Similar to the reasons given for not borrowing, the majority of households who did not take items on credit attributed this to lack of credit worthiness and preferring not to owe money.

5.4 Formal transfers

Respondents were asked about transfers received from various sources in the three months preceding the survey. Table 27 shows proportions and values of formal transfers received, defined as the cash and in-kind assistance received in the last three months from either government sources, NGOs or religious organisations. The proportion of households receiving formal transfers appears to be very low, especially among VFSG households. SCG households seem to receive a higher proportion of food or other in-kind assistance than their VFSG counterparts. The amounts received through formal transfers are smaller than informal transfers.

Across all study sites for the qualitative research, respondents seemed to have very limited access to formal transfers, particularly to those provided by the government. However, there were some formal transfers programmes provided by NGOs. The following quotes illustrate the sort of assistance provided by NGOs across the different communities:

> "*We have World Vision which is assisting OVCs and their caretakers. They are giving the children uniforms, scholastic materials and facilitating income generating activities by giving households animals like goats and pigs. Then we have One World which is giving children food at school for lunch. They pay school fees for orphans even in secondary schools.*" FGD with women, Bukomero, Kiboga

> "*On support to the elderly, the government is not doing much. But NGOs and churches give aid to the elderly and the poor in the form of food, clothes etc. An NGO, called NUMAT is giving ARV, mosquito nets, hoes, school uniform, books.*" FGD with PLWHIV, Abongomole, Chewente

Table 27: Formal transfers

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households receiving any formal assistance in last 3 months	19**	15	1,991	3	3	1,989	16.0***
Proportion of households receiving any cash aid in last 3 months	2	3	1,991	1	2	1,989	0.5
Proportion of households receiving any in-kind aid in last 3 months	18***	13	1,991	2	2	1,989	15.6***
Mean total value of formal assistance in last 3 months, for those receiving it	8,459	6,768	1,991	1,833	2779.2	1,989	6626.1***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

5.5 Migration

This section discusses the migration patterns of the study population. While the analysis of the migration is of interest per se, it is also a household behaviour that the cash transfer could potentially have an influence on. Table 28 describes the migration patterns of the study population at baseline. Respondents were asked to report and provide details of any household member who left the household in the previous 12 months.

Around a quarter of the sample reports having at least one member of the household leaving the household in the previous 12 months. Non-eligible households experience more migration than the eligible counterpart. Individuals who left the household are on average young (between 17 and 24 years old) and they are equally distributed by gender. They report leaving the household mainly to join another household, because of changes in the household relationship (marriage, divorce, etc.), for education or because of employment (see Table F.20). Only a very small proportion of those that have left send remittances back, though this is more likely for SCG households than VFSG.

Table 28: Migration

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households with migrating member	29.4***	35.9	1,991	28.6**	33.7	1,989	0.8
Characteristics of migrants							
Age (mean)	24.1**	21.6	1,065	19.3**	17.3	881	4.8***
Proportion female	51.6	50.3	1,170	53.2	54.1	1,041	-1.6
Proportion sending remittances	11.8	9.7	1,170	5.8	8.4	1,041	6.0***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.


Injecting cash into a community via a cash transfer could impact on the local economy
OSCAR

6 Local markets and infrastructure

This section analyses data collected at the community level and provides a baseline picture of the price, economic activities and availability of services in the sampled communities. In terms of wages and prices of key commodities, no substantial variation appears in the data between treatment and control communities, or between SCG and VFSG communities. Prices are slightly higher in programme areas for salt, cooking oil and maize flour, and the results suggest that agricultural wages for women in programme communities are higher than in control communities. No significant differences appear between SCG and VFSG communities.

It may be expected that injecting cash into a community via a cash transfer could impact on the local economy of that community, which might be reflected in changes in the level of local wages and prices for key goods and services. Below we present the situation in evaluation communities found at baseline, prior to receipt of any cash transfers.

6.1 Local wages

Table 29 depicts agricultural and non-agricultural wages in evaluation communities. The figures represent wages for casual work that, depending on the area and season, involve activities such as digging other peoples farms, picking tea (in the case of the tea growing areas of Kyenjojo), brick making, charcoal burning and driving *boda boda* (typically owned by others). The results show no substantial variation across groups. Wages are higher for men than women in non-agricultural work. Agricultural wages are slightly higher in programme communities but mainly for women.

Table 29: Agricultural and non-agricultural wages for non-skilled work[2]

Indicator	Senior Citizens Grant communities		Vulnerable Family Support Grant communities		Control communities		Difference between SCG and VFSG communities
	Estimate	N	Estimate	N	Estimate	N	
Agricultural wages per person per day (UGX)	3,551**	198	3,409	198	3,222	98	142
Men	3,668	198	3,470	198	3,500	98	198
Women	3,470***	198	3,365***	198	2,944	98	105
Non-agricultural wages per person per day (UGX)	3,957	198	3,742	198	3,903	98	215
Men	4,462	198	4,342	198	5,069	98	119
Women	3,473	198	3,334	198	3,160	98	138

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Typical wages earned for a full day's labour for the most common type agricultural and non-agricultural type of work in each community.

6.2 Local prices

The evaluation gathered data on local prices for key goods and services in all treatment and control communities. It found that in around half all communities these key goods are available and normally purchased within the village. When they are not purchased within the village, they are normally bought at the nearest local trading centre or at a nearby village. Programme communities exhibit higher prices for salt, cooking oil and maize flour than control communities but the study finds no significant differences for other goods. Moreover, no significant difference is found between SCG and VFSG communities.

Table 30: Prices of key local goods and services

Indicator	Senior Citizens Grant communities		Vulnerable Family Support Grant communities		Control communities		Difference between SCG and VFSG communities
	Estimate	N	Estimate	N	Estimate	N	
Cost of key goods							
Sugar (kg)	3,614	198	3,769	196	3,594	100	-155
Salt (kg)	1,010*	198	1,060*	196	926	100	-50
Cooking oil (litre)	5,924***	120	6,097***	101	5,353	99	-173
Maize flour (kg)	2,042***	119	2,081***	100	1,884	94	-39
Bar soap[2]	811	120	573*	101	747	100	237**
Paraffin (litre)	3,671	102	4,026	100	3,877	97	-355
Cost of one way journey for one person to the sub-county centre by *boda boda* (UGX)	4,456	197	5,121	200	4,739	98	-664*

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Bar soap priced at most commonly sold unit locally.

6.3 Consumer services

Table 31: Local markets and market services

Indicator	Senior Citizens Grant communities		Vulnerable Family Support Grant communities		Control communities		Difference between SCG and VFSG communities
	Estimate	N	Estimate	N	Estimate	N	
Mean number of limited consumer outlets per community	6	198	7	199	4	100	-0.5
Mean number of boda-boda drivers stationed in the community	2	198	2	199	2	100	-0.3
Proportion of communities with local saving institution[2]	71	198	60***	200	78	100	11.2**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) ROSCA/SACCO.

The Evaluation also gathered data on the presence of some local consumer outlets and key market services such as the number of *boda boda* drivers stationed in the community and presence of savings institutions in the community (Table 31). Depending on the level of impact on the local economy the cash transfer may be seen to increase supply of such services in response to increased demand. The study finds some differences only with respect to the presence of local saving institutions. The proportion of VFSG communities with saving institutions is much lower than among SCG and control communities.

6.4 Local infrastructure

The levels and quality of local infrastructure may have an enabling or disabling effect on the impact of the transfer. Access to markets by way of good roads and transport, distances to schools and health facilities, mobile phone network coverage and other like indicators, are all factors that may positively or negatively influence economic productivity and levels of human capital.

Broadly speaking, we don't find significant differences between treatment and control communities in relation to most local infrastructure (see Table F.21-Table F.24).

Around a third of all communities have a road that is accessible by vehicle all year round, and almost all communities (c.95%) have mobile network coverage. Very few communities have a bank branch office (1-3%). SCG and VFSG communities are located on average 22 and 31 km away from the district centre respectively.

Around a third of SCG and VFSG communities also have a government primary school. For those that don't the facility is about 2 km away. A high proportion of communities also report havingsome kind of Early Child Development centre or pre-primary school (c.40%).

Presence of government health units is very low in both SCG and VFSG communities (11% and 6% respectively), with the nearest available facility located between 5-6 km away. A higher proportion (around a third) of communities have a private clinic, and the nearest government hospital is an average of around 30 km distance.

The most common mode of transport to reach health and education facilities is walking. Other common modes of transport are bicycle and *boda boda*.

Family-based networks are most characterised by ties of social obligation whereas community-based support networks are more often underpinned by notions of reciprocity

7 Social relations and cohesion

This section analyses data collected at both community and household levels to provide a baseline picture of the social relations and sense of social cohesion that may both mediate the impacts of the cash transfer across various dimensions and also be affected by it. Broadly speaking, we find two types of informal support network each underpinned by different sets of capacities and entitlements. Family-based networks are most characterised by ties of social obligation whereas community-based support networks are more often underpinned by notions of reciprocity. Cash transfers may impact these networks by improving communal perceptions of eligible households' credit-worthiness, especially in the case of SCG households. There was a robust notion of the social contract as binding between government and citizens with obligations and entitlements on both sides, but some degree of disaffection regarding its current state.

A key element of the programme highlighted in the SAGE acronym is that of "empowerment". Whilst empowerment means different things to different stakeholders, it can broadly be defined via notions of choice and agency, such as the capacity to effectively translate choices into action. This implies that it is important to understand the institutional context (formal and informal) through which the impacts of the cash transfers are necessarily mediated and which may themselves also both affect and be affected by the cash transfers—by informal institutions we mean the informal 'rules' (e.g. the political, social and cultural norms, practices or habitual ways of doing things) that exist in every society in different ways and at different levels. By impacting and being affected by the formal and informal social institutions extant in a given community, the cash transfer may affect established social relations and notions of social cohesion.

7.1 Social relations within the community

Family-based support mechanisms are generally underpinned by socially constructed moral obligations operative through networks of the nuclear family (parents and children), the extended family, and clan members (e.g. clans providing assistance to clan members that are poor). In contrast, community-based support mechanisms are more typically underpinned by social capital based on trust and reciprocity, operating through networks of support amongst friends, neighbours, religious-based organisations, mutual self-help groups (like labour or rotational cultivation groups, savings associations, and burial groups). These informal rules and institutions determine notions of credit-worthiness.

"*Those who don't help others are not helped as well. Also those who do not reimburse are never helped. I cannot give you if I know you cannot give it back. If you ask for 100,000 shillings and I have I will give but it depends on how much I feel that you can give the money back.*" Chair of farmers association, Chewente, Apac

"*Other people may only help you if you have been dealing with them properly, meaning if you have been also helping them when they have problems.*" FGD with males, Kyarusozi, Kyenjojo

Providing assistance to others is also a form of insurance, in which informal rules based on trust play an important role.

"*It is good to give the poor because it is like you are storing there. Next time when you have a problem they can remember and help you.*" FGD with widows, Kisojo, Kyenjojo

The informal rules which underpin and govern community-based support mechanisms can also exclude particular groups. Whilst family-based networks tend to benefit the very poor that belong to them because assistance is perceived as an obligation, community-based mechanisms, being based on reciprocity and contributory obligation, tend to exclude the poor who are unable to reciprocate the benefits they would receive. Being able to make regular contributions to such networks is vital for membership, so failure to do so is seen as the main source of exclusion for the very poor. Exclusion can also be based on social and cultural norms around behaviour.

"*Some people may be excluded from help due to their behaviours. For example if they are anti-social and rumour mongers.*" FGD with males, Kisojo, Kyenjojo

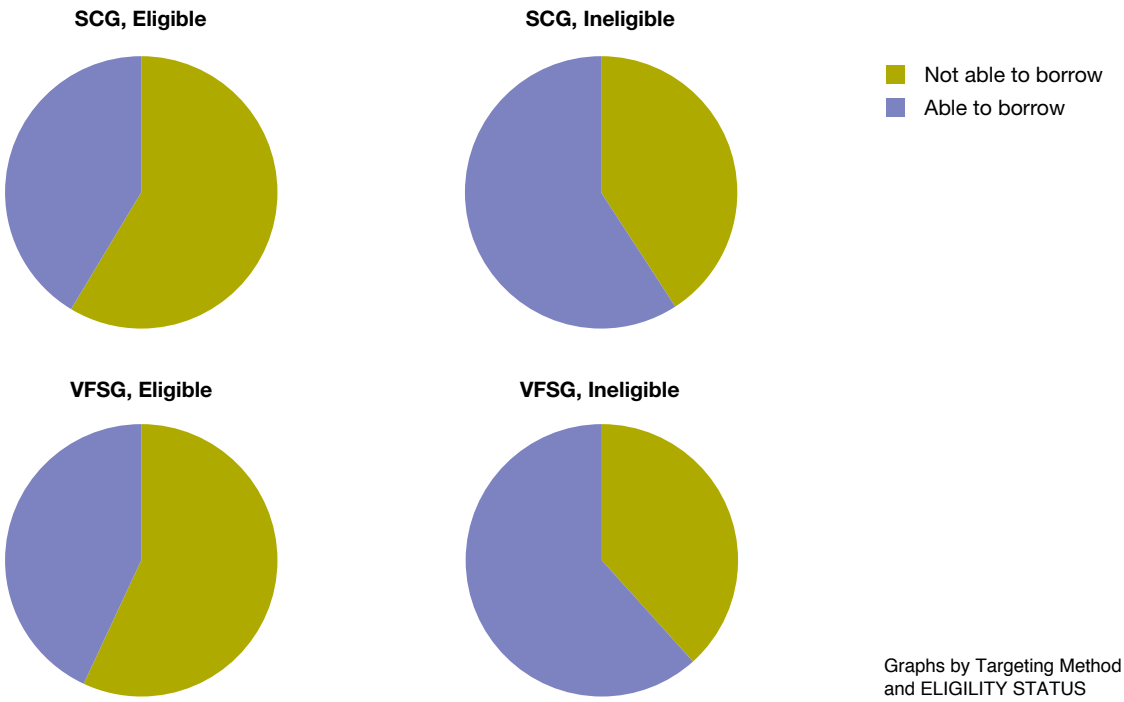
"*Many factors determine assistance. Help is normally given depending on a person's behaviour, if one is well behaved they are easily helped.*" Elderly male farmers, Abongomole, Apac

The reciprocal nature of community-based support mechanisms mean that borrowing can be more problematic for elderly people resulting from negative perceptions of their ability to repay loans due to their lack of income.

"*You are only helped if you are going to pay back or have something. The Elderly are never helped because they think they are not able to pay back.*" Elderly woman, Abongomole, Apac

These findings are reflected by the data from the household survey, which show that SAGE-eligible households eligible are less able to borrow in an emergency than other households, and SCG-eligible households less able to borrow then VFSG-eligible households (Figure 20; Table 26 also shows lower levels of borrowing amongst SCG-eligible households compared to VSFG-eligible households). Table 32 shows that on the whole SCG households are less likely than VFSG households to receive any kind of informal support from other households, and total value of the help they do receive is less.

Figure 20: Emergency borrowing from other households



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012 (see Annex F).

Table 32: Informal transfers between households – receiving support from others

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households receiving any informal help from other households in last 3 months	45*	41	1,991	51**	46	1,989	-5.4*
Proportion of households receiving cash help from other households in last 3 months	20	19	1,991	25*	21	1,989	-4.8**
Proportion of households receiving in-kind help from other households in last 3 months	37***	31	1,991	42**	37	1,989	-5.0*
Mean total value of informal help received in last 3 months (UGX)	17,132	18,678	1,991	24,886	17,586	1,989	-7754.1*

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

Despite the negative perceptions of the ability of elderly people to repay loans, social and cultural values also support feelings of obligations to support elderly people in some cases, overriding the need to ensure money is returned. As above, such notions of obligation are more often rooted in family-based support systems than community-based ones. This is supported by the findings from the household survey which show help provided by relatives and friends as the main way people cope with shocks, particularly for SCG eligible households (see Figure 10).

"In our community here we usually expect that you pay when you borrow money. We take into consideration age: like for the elderly we help them because it is an obligation." [Youth brick layers, Abongomole, Apac]

Overall, and despite the positive benefits of informal support mechanisms, including the sense of social cohesion they help maintain, such mechanisms are under increasing pressure. Support from both family and community-based mechanisms are said to be waning as a result of more generalised and widespread poverty within the social networks they draw upon. This is compounded in the case of those shocks which affect everybody more or less equally, such as inflation. Only the closest friends and relatives are now perceived as able to render support.

Table 33: Informal transfers between households receiving – giving from others

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households giving any informal help from other households in last 3 months	27***	38	1,991	35***	46	1,989	-8.0***
Proportion of households giving cash help from other households in last 3 months	9***	15	1,991	13***	20	1,989	-3.6**
Proportion of households giving in-kind help from other households in last 3 months	24***	33	1,991	29***	39	1,989	-5.5**
Mean total value of informal help given in last 3 months	10,325	11,799	1,989	10,407	16,774	1,989	-82.2
Proportion of households either giving or receiving any informal help from other households in last 3 months	58	61	1,991	65	66	1,989	-7.1**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

7.2 Social relations within the household

The qualitative baseline research indicates that social identities, particularly identities based on sex and age, have a significant impact on levels of control over resources, asset ownership and participation in decision making processes.

7.2.1 Intra-household asset ownership and control over resources

Across all qualitative baseline research sites, control over and ownership of assets and resources within households is dominated by men. However, ownership varies according to the types of asset. In general, the ownership of productive assets (e.g. particularly land, livestock, etc.) rests with men. Women generally own only smaller domestic resources such as utensils and small animals (e.g. chickens).

> "*The cows, the goats, and bicycle are for the men. Although both men and women keep things, the overall boss is the man.*" FGD with farmers, Chewente, Apac

> "*The men in this community own the land. Women cannot even buy land without the permission of their husband. It is unheard of that a woman may own her own piece of land.*" Female farmers, Kyarusozi

Social and cultural gender norms also mean that male-owned "assets" sometimes even include women and children.

> "*Usually the man is the head of the household and so he owns the land, the house, the wife and children and all other assets.*" FGD with males, Bukomero

The inequality of asset ownership within households is in part a function of customary patrilineal inheritance practices. Whilst formal succession laws are present and give women inheritance rights over, for instance land and other assets, women and girls are typically not allowed to inherit property from their parents because customary practice and social norms support the notion that they belong to the husband's family. The paying of a bride price in some areas also results in males being prioritised in inheritance practices.

> "*Only men are given property like land and animals. Girls were expected to get married and move to their husband's homes.*" FGD with males, Bukomero, Kiboga

Even after marriage, access to productive assets is denied upon separation or the death of a husband. Property and assets typically go to the husband's brother(s) unless the deceased has an older son; in which case the wife is still excluded.

7.2.2 Intra-household decision making processes

Table 34 presents the findings from the household survey regarding decision making within households.

Table 34: Decision making within households

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households a female is the main person to make decisions on							
Children's education	44***	35	1,351	49***	30	1,373	-4.1
What to do about a serious health problem	48***	36	1,837	54***	33	1,806	-3.8
How to invest money	52***	39	1,817	53***	33	1,805	-1
Proportion of households where at least two people share decisions on							
Children's education	41***	55	1,991	37***	54	1,989	4.1*
What to do about a serious health problem	62***	70	1,991	56***	69	1,989	5.8**
How to invest money	57***	66	1,991	51***	67	1,989	6.3**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

The finding that a higher proportions of women are likely to be the main decision makers in eligible households compared to non-eligible households (whether SCG of VFSG) is only partially explained by demographic data which show that female headed households comprise 49–54% of eligible but only 32–35% of non-eligible households (Table 6). If one excludes households that are headed by a female from the indicator (see Table F.25) the estimates reduce drastically, implying that where men head the household women tend not to be the main decision maker. A female is the main decision maker with respect to children's education in only 17% of SCG-eligible households and less than 13% of VFSG-eligible households. However, especially for SCG households, the proportion of women likely to be the main decision maker is still higher in comparison to non-eligible households.

The picture presented in Table 34 is not always supported by the findings from the qualitative baseline research, which shows that men are responsible for and dominate most household decisions. This is particularly the case in relation to decisions regarding major household sales or expenditures.

> "*Men play the biggest role in decision making since they are the one who marries the woman. The man is regarded as the pillar in the household.*" FGD with women, Usuk, Katakwi

> "*The man is the decision maker. He is the president of the home while the woman is the vice president.*" Male elders, Abongomole, Apac

> "*Most women have no say at home. The man can start selling land or animals without the consent of the women. If she complains, the man will remind her that she came to his home and so she is under his authority.*" FGD with women, Kapake, Kiboga

Men are more likely to make 'important' or 'major' decisions, such as which school children attend, how household income is spent, types of livestock to be reared and what constituted good or bad behaviour by children. Women, on the other hand, make smaller or less important decisions such as purchase of basic household goods or what to grow as food for the family.

> "*The woman makes decision about how the family will be fed and looked after.*" FGD with women, Kapake, Kiboga

> "*When it comes to the health problems of the children the decision making rests with woman. It is the same about for food. Men make the important decisions of the household.*" FGD with women Usuk, Katakwi

Male dominance in decision making is perceived as "natural", reflecting the high influence of patriarchal norms around gender and control over resources and decision making.

> "*Even if a woman has some property, once she marries him, she will have to surrender it. He has power over her property by the fact that he is her husband.*" FGD with women, Kapake, Kiboga

> "*Culturally men are the ones who own land. They own the woman so they have authority over them. When children are born, they also become the property of men. So the men make all the important decisions in the home.*" KII with opinion leaders, Bukomero, Kiboga

The evidence from the qualitative baseline research does not support the relatively high levels of joint decision making shown in Table 34 either. The qualitative research indicates that even when consultation occurs between women and men, the final decisions are made by men. Only in the absence of a male breadwinner or household head, as in the case for female-headed households, do decision making responsibilities de facto fall on women.

It will be interesting to see if SAGE has any impact here, as studies of other cash transfers in the region have produced some tentative evidence that programmes such as SAGE can indeed impact intra-household relations, particularly those between men and women.[28]

7.3 Social cohesion and tension between households

It may be expected that cash transfers may have either a positive or negative effect on social cohesion, either alleviating or exacerbating extant antagonisms between households. For instance, a cash transfer may generate feelings of resentment amongst non-beneficiaries, if beneficiaries are perceived to be undeserving or receipt of transfers upsets traditional relationships by empowering some groups against others, such as between men and women. On the other hand, the cash transfers may have more positive effects, for instance if the economic benefit from the transfer is broader than just that on the beneficiary. This can occur when the increased spending power of beneficiaries produces increased demand for locally supplied goods and services, thereby increasing economic activity across the whole community.[29]

28 OPM (2012) *Kenya Hunger Safety Net Programme Monitoring and Evaluation Component Qualitative Impact Evaluation Report: 2009/10 to 2010/11*.
29 Evidence of both such effects have been found in similar cash transfers operating in the region. See OPM, 2012a and OPM, 2012b.

7.3.1 Relations, disputes and tension between households

Across the qualitative baseline research sites, the main sources of conflict between community members related to land boundary disputes and land ownership rights between families, friends and neighbours. Such tensions are traditionally solved through local formal and/or informal structures, although there is an increasing trend for such cases to be taken to court.

> "*Conflicts with neighbours are usually due to land wrangles. Most of these conflicts are solved within the community. But for the land disputes, these may be taken up to the sub-county or to the courts of law.*" Elderly male farmers, Kyarosozi, Kyenjojo

> "*Conflicts occur over land disputes, especially when one crosses land boundaries by a few inches.*" FGD with XXX Usuk, Katakwi

> "*Most disputes are due to land demarcations which usually are not clear. People end up in LCI courts and some are made to a pay fine.*" FGD with women, Kapake, Kiboga

Disputes also occur over the damage to other community members' crops and gardens caused by livestock, or over the use of community resources and assets for individual livelihoods and income (e.g. using wetlands for fish farming or grazing).

In some communities conflicts arise between immigrants and indigenous populations, particularly, for instance, when immigrant populations try to own or control productive assets.

> "*We are treated as poor people in this community and they don't want us to own even a chicken and we feel uncomfortable with this. I have spent 15 years here and life is not very easy at all because we feel that we are isolated by the people who are natives of this land. For us we cannot do those things like farming because we don't have land in the first place and they cannot allow us to acquire land here. People from here cannot offer their land to us because they think that when we get rich after doing a lot in their land then we will run away. So, they want us to remain their workers from January to December.*" Female immigrant in Chawente

7.3.2 Relations, disputes and tension within households

Most intra-household tensions and conflicts relate to decision making and control over resources. This can be common between spouses, for instance when one party (usually the male) sells household assets without the consent of the other.

> "*A man can sell property like land and animals without telling the woman and he drinks the money or gives it to other women. This usually ends up in fierce fights, or at worse divorce.*" Young woman from Bukomero

Tensions also occur both within households (especially within extended families) over inheritance rights. These can be between orphaned children and carers, or between widows and in-laws.

"*Care takers of orphans may sell off the land left to orphans. A grandfather may sell the land of his orphaned grandchildren. When these orphans grow up, they may demand their land back. This often leads to conflict which has to be settled in the court of law.*" KII with LC III Kisojo, Kyenjojo

"*This [conflict] happens a lot. For example a man dies and leaves behind property for his wife and children, his brothers come along and chase the wife and children and grab the properties.*" KII with CDO, Kapake, Kyenjojo

Alcohol use was also a major source of intra household conflict. Many women across the qualitative baseline research sites complained that their husbands picked unnecessary quarrels when they were drunk, which sometimes escalated to violence. In other cases, household resources were used to fund alcohol use, resulting in other household needs going unmet.

"*It is very common for men to stay out late in the night, drinking alcohol. When women ask the men where they have been, the men just beat them up.*" FGD with women, Kapake, Kiboga

Polygamy was a noted cause of intra-household conflict. The practice of polygamy can promote significant inequalities within the household, providing a catalyst for potential conflict (Bolt et al 2003). For many women, polygamy is a serious cause of conflict, which eventually leads to separation.

"*Mostly when a man is polygamous and has children from different mothers, there will be disputes concerning inheritance especially among the boys. They all want to be heirs or get some property from their father. Some men have favoured some wives over others, which brings tension in the home.*" FGD with women Bukomero, Kiboga

7.4 Perceptions of influence and the social contract

If the cash transfer empowers beneficiaries it may produce an impact on beneficiaries' social status and active participation in social activity. Also, and as a result, it may thus impact opinions regarding the social contract. The quantitative survey collected data from households on a selection of indicators from the Afrobarometer[30] in order to gain an insight into this dimension of impact.

Table 35 indicates that the majority of respondents in the household survey had raised issues during public meetings and felt they could (collectively) influence local elected officials. By contrast, however, across the qualitative baseline research sites and across respondent types, qualitative findings indicate that citizens generally perceived themselves to have very little influence in social decision making and service provision.

"*People do not generally have influence on services provided by the government. All influence and decision-making is up to those in higher authorities.*" KII with an LC3

"*Rarely do they ask for our opinions. They just introduce things as directives from the government.*" FGD with women, Kisojo, Kyenjojo

30 The Afrobarometer is an independent, nonpartisan research project that measures the social, political, and economic atmosphere in Africa. Afrobarometer surveys are conducted in more than a dozen African countries and are repeated on a regular cycle. Because the instrument asks a standard set of questions, countries can be systematically compared. (http://www.afrobarometer.org/)

The qualitative research also shows that whist respondents reported being able to raise their voice and express opinions, they did not feel that these would lead to influence or action. This is different from the household survey responses, which indicate a more positive perception of the ability to influence factors of importance to their lives.

"*We cannot influence service provision directly but we can voice our dissatisfaction to the authority for action through our elected leader. We are not very sure whether our grievances are always forwarded.*" FGD with farmers, Chewente, Apac

"*The elected leaders promised to take our needs to the government. But so far they have not done it. They are the ones who should connect us to the people responsible. After they get elected, they go away and never come back.*" FGD with women, Bukomero, Kiboga

Table 35: Capacity to voice opinions, collective action and influence

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households reporting they had raised an issue a community meeting in the last 12 months	59***	67	1,983	62*	67	1,980	-2.9
Proportion of households reporting it likely that together with others they could make their local elected councillor listen to their concerns	64	66	1,991	63***	71	1,987	1.1
Proportion of respondents reporting that people from outside of their family come to them for advice	69***	75	1,991	67***	76	1,989	1.8

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

There were also perceptions in some cases that local officials themselves were no longer influential in decision making, with their roles now merely reduced to solving local disputes.

"*We are the people who are supposed to give our views to our leaders up to the district. But the LCs are no longer influential. We solve disputes like when cows destroy the crops.*" A local councillor in Bukemero

These findings are interesting given that top-down decision making was one of the noted reasons for ineffectiveness of government institutions.

Although respondents in the qualitative baseline research generally perceived themselves as having little influence, they often had clear perceptions of the social contract that should exist between state and citizens. Social contract in this context refers to public expectations and the degree of trust citizens have towards the government. This also includes the rights and responsibilities of citizens towards the state. In other words, it is what gives the state legitimacy to provide services to its citizens. Respondents often, though not always, highlighted that the provision of services should still lie with government.

"*It is the responsibility of the government to provide key services because they are in charge of all the citizens' welfare.*" FGD with male farmers, Kisojo, Kyenjojo

"*The government is like our father, it should help us in these problems.*" A female respondent in Bukomero

Taxation was the basis of this envisaged social contract in which citizens expect that the government exchanges their money or taxes with social services. The ineffectiveness of social services and lack of responsiveness of elected leaders as expressed above was thus interpreted as a breach of the contract which respondents were vocally unhappy about.

"*It is the government who should provide key services because we pay taxes. We as a country have natural resources the government can collect revenue from to provide these services. The problem is after elections people forget their roles. There is a lot of bribing and corruption. The government eat the funds. There is no supervision of these services.*" Male pastoralist, Kapake, Kiboga

"*It is the LC1 – 5 [local officials] who should provide these services before we look at the government because they know what the people need.*"

Similarly, voting was also seen as a basis to hold politicians to account for providing social services. Citizens give their votes in expectation that politicians deliver the services they have promised.

"*We are also supposed to vote for people and we expect that they will be able to represent us genuinely and provide services for us.*" FGD with male, Kisojo, Kyenjojo

Part C: Conclusions

8 Conclusions

The evaluation baseline has produced a wealth of data and findings across a broad array of indicators and research areas. A study method has been developed which, as with all such evaluations, has certain limitations. Amongst these is the fact that **the study sample is not representative of the entire programme beneficiary population**. There are no strong reasons to suppose that the small portion of the population that the evaluation data does not represent will respond any differently to receipt of the SAGE cash transfers than the portion that is represented. This means that, despite a small degree of caution being required when interpreting these results, the evaluation will provide a robust measure of programme impact. This round of the evaluation constitutes the findings at baseline, before any households have received any SAGE cash transfers. The impact findings will be presented in two subsequent follow-up reports after 12 months and 24 months of programme operations. The impact results are due in 2014 and 2015 respectively.

Demographics

In terms of the demographic characteristics of households and household members, such as age and sex and household composition, the baseline study finds that elderly people are over-represented in the study population as compared to nationally, and children under five years of age are under-represented. This is especially so for SCG households. Children under 18 years of age are similarly represented in the study population as they are at national level, but there is some disparity between the two targeting mechanisms. SCG-eligible households contain proportionately fewer children under 18, whereas VFSG-eligible households contain proportionately more. This finding is not surprising given the way that the SAGE transfer is expressly targeted at older persons and vulnerable families. However, it does indicate that **the transfer, especially under the SCG, targets households containing fewer children under five than are present in the average Ugandan household**.

Women are over-represented in the study population, as are female heads of household, especially for eligible households. The study also finds that both **SCG- and VFSG-eligible households are more likely to contain orphans** than the average household at the national level. They also contain **high numbers of people living with disabilities or chronic illness** in comparison to non-eligible households. **Eligible households are thus characterised by high numbers of dependents**. In addition, around **a third of eligible households contain no able-bodied adult**. These findings testify to the relative vulnerability of the study population and thus to the potential benefit of the SAGE cash transfer on these households.

Challenges associated with the collection of demographic data such as age, which is used to determine eligibility for the SAGE programme, suggest **there is a need to develop a robust system for the collection and management of beneficiary data**.

Welfare

The evaluation looks at a range of indicators associated with economic and material welfare. These include rates of poverty and consumption expenditure, food security and nutrition, livelihoods, child labour and housing and amenities. It finds that, overall, **households in evaluation locations demonstrate higher levels of poverty than the national average as well as greater depth and severity of poverty**. This is partially due to the geographical element of the SAGE pilot targeting. These findings correspond to households' perceptions of their own welfare status, with the majority of households declaring themselves to be either unable or struggling to meet their basic needs.

SCG households tend to demonstrate lower levels of welfare than VFSG households across a range of indicators, including consumption and food security.

Livelihoods

The evaluation finds that **about one quarter of the working-age population is not currently involved in productive market activities**, because they are either unemployed (looking for work) or out of the labour force altogether. The figures are largely in line with the national estimates, with VFSG households appearing to have a higher rate of labour participation.

The study population is overwhelmingly engaged in agricultural livelihood activities, largely employed working on their own farm and dependent on their own labour for income. About a quarter of the working-age population are also engaged in subsidiary occupations in addition to their main occupation. The vast majority of households own a small amount of land, between three and five acres, with some households also cultivating on rented land owned by others. Households' ability to produce a surplus was typically constrained by small land holdings, and it is reported that crop farming as a livelihood activity is threatened by low prices, poor terms of trade, deterioration of soil quality, and adverse weather conditions.

A high proportion of households also own some livestock, with eligible households slightly less likely to do so than non-eligible households. Buying and selling of livestock is also quite common, though less so for eligible than non-eligible households.

Some quarter of all eligible households had invested in productive assets in the last 12 months, less than was the case for non-eligible households, **but SCG households were less likely to have done so than VFSG households**.

Rates of child labour are broadly similar to the national level, for both SCG and VFSG households and for girls and boys, suggesting that **SAGE households are not more likely than the average household to have to resort to child labour** as a livelihood strategy. Children who are engaged in child labour are most likely to combine this with school.

Access to services

The study analyses households' access to education, health and financial services, as well as receipt of formal transfers. It considers rates of educational attainment and incidence of ill health.

The evaluation finds **low levels of education access and attainment for the adult population, which is especially marked for programme eligible households and women**; patterns that are reflected in adult literacy rates. These characteristics potentially limit earning power, suggesting that a social cash transfer such as SAGE can act as an important buttress against hardship for these households.

School attendance by children is fairly high, but more so for boys than girls and more so for children in VFSG households than children in SCG households. The primary completion rate is low across all households, with only around one in five of the relevant age-cohort completing primary education.

A high proportion of those reporting illness or injury seek formal healthcare. Respondents in SCG-eligible households were slightly more likely to report illness or injury than eligible households in VFSG areas. The main reasons given for not seeking healthcare when ill or injured were treating the illness at home and cost.

VFSG-eligible households are much more likely to be saving, borrowing and purchasing goods on credit than their SCG counterparts. The majority of savings and loans are taken with informal institutions such as family and friends, local traders, and village savings and loans associations. Those that do not borrow or purchase items on credit claim the main reason for this is that they are not credit-worthy. **Respondents claim to lack access to formal financial services**. Receipt of formal transfers is low, but much higher for SCG households than for VFSG households.

These findings indicate that **SCG households face more barriers to accessing financial services than VFSG households**. The SAGE cash transfer could be especially beneficial to SCG households in this regard if it improves their credit-worthiness.

Local markets

At the community level the baseline findings present a picture of local prices, economic activities and availability of services in evaluation communities. **No substantial variation is found in terms of wages and prices of key commodities between treatment and control communities, or between SCG and VFSG communities**.

Around a third of all communities have a road that is accessible by vehicle all year round, and almost all communities have mobile network coverage. Very few communities own a bank branch office. The most common mode of transport to reach health and education facilities is walking. Other common modes of transport are bicycle and *boda boda*.

Social relations

Social relations and a sense of social cohesion may both mediate the impacts of the cash transfer across various dimensions and be affected by them. The evaluation finds two types of informal support network, each underpinned by different notions of capacities and entitlements. Family-based networks are most characterised by ties of social obligation; whereas community-based support networks are more often underpinned by notions of reciprocity. **Family-based networks tend to benefit the very poor** that belong to them because assistance is perceived as an obligation. **Community-based mechanisms, based on reciprocity and contributory obligation, tend to exclude the poor** who are unable to reciprocate the benefits they would receive.

The reciprocal nature of community-based support mechanisms mean that borrowing can be more problematic for elderly people resulting from negative perceptions of their ability to repay loans due to their lack of income. **Eligible households eligible are less able to borrow in an emergency than other households, and SCG-eligible households less able to borrow then VFSG-eligible households**.

Overall, and despite the positive benefits of informal support mechanisms, including the sense of social cohesion they help maintain, such mechanisms are under increasing pressure. Support from both family and community-based mechanisms are said to be waning as a result of more generalised and widespread poverty within the social networks they draw upon.

Cash transfers may well impact these networks, both by improving overall wellbeing and by improving perceptions of eligible households' credit-worthiness, especially in the case of SCG households.

Intra-household relations

In terms of intra-household relations the study finds that control over, and ownership of, assets and resources within households is dominated by men. However, ownership levels vary according to the types of asset. In general, the ownership of productive assets rests with men, while women generally own only smaller domestic resources.

Although the study finds that women are nominally almost half as likely as men to be the main person within a household to make decisions on key issues such as children's education, health and investment expenditure, this is largely a reflection of the high proportion of female heads of household in the study population. In households headed by men, men remain much more likely to be the main decision makers.

It will be interesting to see if SAGE has any impact in this area, as studies of other similar cash transfers have produced some tentative evidence that programmes such as SAGE can indeed impact intra-household relations, particularly those between men and women.

Social cohesion

The evaluation produced conflicting evidence on the influence and belief in the social contract. The quantitative study produced data showing that the majority of households feel they could (collectively) influence local elected officials. By contrast, the qualitative research indicates that citizens generally perceive themselves to have very little influence in social decision making and service provision. Despite this, **there is a robust notion of the social contract as binding between government and citizens with obligations and entitlements on both sides, but some degree of disaffection regarding its current state.**

Next steps

The findings from the evaluation baseline study will feed into the ESPP and SAGE programme Learning Framework. All of the relevant outputs produced by the Evaluation will be made available in order that they can be used to update and improve performance of all components of the SAGE programme and the ESPP more generally. They will also be disseminated more broadly in order to help build the evidence base for social protection and the reduction of chronic poverty both in Uganda and internationally.

This baseline report will be supplemented by a range of other publications in the coming months, including a separate report with the full findings from the qualitative research at baseline and a number of stand-alone policy-briefs on specific topics, drawing on further analysis of both quantitative and qualitative components of the baseline data. The measure of programme impact and the assessment of programme operational effectiveness will be provided by the two follow-up rounds of this evaluation in 2014 and 2015.

References/Bibliography

Bird et al. (undated).

Cogill, B. (2003). *Anthropometric Indicators Measurement Guide*. Food and Nutrition Technical Assistance, USAID.

FANTA II (2010). *The analysis of the nutrition situation in Uganda*. Food and Nutrition Technical Assistance II Project, USAID.

Gov't of Uganda (2006). *President's Malaria Initiative, Uganda. Malaria Action Plan*. Government of Uganda.

Imbens, G., and Kalyanaraman, K., (2009) *Optimal bandwidth choice for the regression discontinuity design*. NBER Working Paper 14726.

Imbens, G., and Lemieux, T., (2008) *Regression discontinuity design: a guide to practice*. Journal of Econometrics 142: 615-635.

Lee, C., and Card, D., (2008) *Regression discontinuity inference with specification*. Journal of Econometrics 142: 655-674.

Lee, D., and Lemieux, T., (2010) *Regression discontinuity design in economics*. Journal of Economic Literature 48: 281-355.

McCrary, J., (2007) *Testing for manipulation of the running variable in the regression discontinuity design*. Journal of Econometrics 142.

Mei, Z. and Grummer-Strawn, L. (2007). *Standard deviation of anthropometric Z-scores as a data quality assessment tool using the 2006 WHO growth standards: a cross country analysis*. Bulletin of the WHO.

OPM (2012a) *Kenya Hunger Safety Net Programme Monitoring and Evaluation Component Quantitative Impact Evaluation Report*: 2009/10 to 2010/11.

OPM (2012b) *Kenya Hunger Safety Net Programme Monitoring and Evaluation Component Qualitative Impact Evaluation Report*: 2009/10 to 2010/11.

Sen, A. (2000) *A decade of human development*. Journal of Human Development, 1(1), 17-23.

UBOS (2001). *Child labour in Uganda*. A report based on the 2000/2001 Uganda Demographic Health Survey. Uganda Bureau of Statistics.

UBOS (2010) *Uganda National Household Survey 2009/10. Socio-economic module, abridged report*. Uganda Bureau of Statistics.

UBOS (2011a) *Uganda Demographic and Health Survey Preliminary Report, 2011*. Uganda Bureau of Statistics.

UBOS (2011b) *Uganda Demographic and Health Survey, 2011*. Uganda Bureau of Statistics.

WHO (1995). *Physical status: the use and interpretation of anthropometry*. Technical Report Series No. 854.

WHO (2006) *WHO Child Growth Standard*. Department of Nutrition for Health and Development, World Health Organisation.

WHO (2012) *World Malaria Report 2012*. World Health Organisation.

Annexes

Annex A: Theory of change

The Evaluation of the Social Assistance Grants for Empowerment (SAGE) originates from a theory of change developed by the Evaluation Team that recognises the overall effectiveness of social cash transfers in tackling poverty and vulnerability, while promoting broader developmental impacts.

The main objective of SAGE is empowering recipient households by:

- **reducing material deprivation**;
- **increasing economic security**;
- **increasing access to services**; and
- **reducing social exclusion**.

The two programmes to be implemented (**Vulnerable Family Support Grant** and the **Senior Citizens Grant**) will deliver cash transfer to the most vulnerable households putting the main emphasis on adults with disabilities, the elderly, orphan hood, and widowhood.

Cash transfers directly reduce material deprivation as the payment of cash to poor and vulnerable directly improves their living standard and increases consumption levels. An increase in food consumption is expected to improve the overall food security and nutrition within the household. Moreover, the increase in welfare of the poor may reduce the gap between the poor and the wealthier, thereby having a positive impact on inequality level, and may even reduce the likelihood of households falling beneath the national poverty line.

Cash transfers are likely to produce other positive effects by allowing households to consume more productive consumption bundles, participate in or diversify their economic activities, and invest in physical, social, and human capital (i.e. education, health, nutrition) to reduce vulnerability and ensure future income streams.

Providing households with regular cash transfers may help obviate or remove barriers of access to social and other services such as education, health and financial services.

Increased material well-being and access to services may thus translate into increased subjective well-being. Households in receipt of cash transfers who are experiencing or feel like they are experiencing increases in the quality of their daily existence and the number and types of choices they are able to make may feel more empowered, have an increased sense of dignity and self-worth, and an increased sense of social belonging and solidarity.

The aim of the Evaluation is to assess SAGE against its main objectives by identifying and tracking specific indicators for each objective.

A.1 Objective 1: Reducing material deprivation

Consumption expenditure, poverty and wellbeing	Receipt of cash transfers directly raises household consumption level. The cash transfer will be used to increase consumption over a range of different items (such as food, clothing, assets, water, housing, health care and transport). Some of the cash will also be devoted to non-consumption transaction – such as repaying debts, saving, or providing informal support to vulnerable relatives. The poor devote a larger share of their consumption to food in comparison to the wealthier. An increase in food expenditure is thus likely, however the budget share of food consumption may decrease as more resources are now available for other spending purposes. The overall increase in consumption levels reduces the poverty headcount as some of the households with a consumption level below the poverty line consume more and thus graduate out of poverty. Over the longer term, if the additional resources supplied by the cash transfer are productively invested or used to build assets or savings, the fall in poverty amongst SAGE recipients would be expected to be even more marked (investment in income generation and possible multiplier effects). For some households the increase in consumption will not be sufficient to increase their consumption level above the poverty line. However, we expect to see a reduction in the poverty gap and inequality as the gap between the poorer and the wealthier is now reduced.
Quantitative Indicators	Mean household consumption expenditure per adult equivalent. Proportion of households below national poverty line. Poverty gap. Chronic poverty as measured by proportion households below the national poverty line at time of both baseline and second follow-up survey (2 years after baseline). Value of transfer as proportion of household monthly expenditure. Proportion of household expenditure on shoes and clothing (excluding school ware).
Food security and nutrition	As a large share of the consumption of the poor is devoted to food, we expect the receipt of cash to raise food spending in the household. Cash transfers allow additional food to be purchased in households that face food deficits or chronic hunger, as well as more variety of food and possibly better quality food. More and better food consumption implies increased food security and higher nutritional intake for the members of the household. Therefore, provided there are no significant supply-side constraints in local food markets, a regular transfer of cash should substantially reduce food insecurity and increase the nutritional status of the members of the household, including children.
Indicators	% children<5 severely and moderately stunted (height for age). % children<5 severely and moderately wasted (weight for height). % children<5 severely and moderately underweight (weight for age). Dietary diversity index: For household For persons over 65 years Mean per adult equivalent consumption value of food Number of meals consumed in the day before the survey: Per child Per adult Per older person (over 65 years)
Qualitative research questions	How is poverty defined? What different well-being categories exist within different communities? What are the main characteristics of each of these groups? (e.g. social characteristics, assets, coping strategies, power and influence, etc.) How are households in the community distributed amongst these categories? How does this distribution change over time? What is the distribution of poverty and wellbeing within households? What are the causes of poverty? How have these changed over time? **How has the SAGE cash transfer affected poverty levels amongst different groups of people?**

A.2 Objective 2: Increase economic security

Labour participation	A concern in policy debates surrounding safety nets is whether the additional income provided constitutes, in the short run, an incentive to reduce work effort in income-generating activities. Conversely, if the program is successful in encouraging households to engage in production and investment, in the long run the number of adults working within treated households may actually increase. However, as household's take time to move into productive and investment activities, it is unlikely that we will see a positive impact on labour supply in the short term. Moreover, given that the target recipients are the most vulnerable households, identified as those mostly comprising elderly, orphans and disables, the expected impact on labour participation is likely to be very small on the direct recipients. A positive impact is likely to be more apparent in those households where the most vulnerable members live with other working-age adults.
Indicators	Labour participation rate: % of working-age adults engaged in economically productive activities. Mean number of hours per week spent working for (able-bodied) working-age adults.
Child work	Cash transfers targeted to the most vulnerable households are expected to reduce the time children spend in economically productive activities and/or domestic duties. If child work was needed to meet ends, extra-resources are likely to alleviate poverty for recipient households and therefore reduce the need for children to engage in productive activities. More assets and better housing conditions also reduce the amount of time to be devoted to household duties.
Indicators	Child Labour participation rate: % of children (5-17) engaged in economically productive activities Mean number of hours per week spent working (in economically productive activities) for children (5-17)(3) % children performing domestic duties Mean number of hours per week spent on domestic duties for children (5-17)(3)
Investment in productive assets and income generating activities	Cash transfers are expected to have a positive impact on assets accumulation and investment activities. Cash transfers might both protect households from drawing down on their assets at times of hardship, as well as facilitating investment in productive assets (including livestock) or activities, thus enabling households to have a more sustainable impact on their well-being. Receipt of extra resources might even allow households to to start or invest more in income generating activities with positive effects on income diversification and overall living standards.
Indicators	Value of productive assets purchased in last 12 months Ownership of key assets Mean number of cash income sources per household
Vulnerability to shocks and ability to cope with shocks	The cash transfer may enable households to better cope with unexpected events and risks in the short term. It is expected that households' capacity to mitigate risk through access to a wider range of non-destructive coping mechanisms (formal and informal credit, more assets, more productive income sources, etc.) will decrease their vulnerability to poverty in the longer term.
Indicators	% households reporting change in subjective welfare assessment and why. Distribution of coping strategies (rationing, borrowing, selling assets, withdrawing children from school, etc.)
Qualitative research questions	What livelihood activities do different individuals and households typically engage in? How and why have these changed in recent years? How and why do people move between different livelihood activities? What are the preferred sources of livelihood and why? What are the constraints and challenges to participating in these forms of livelihoods? What role does formal or informal employment play in livelihoods? How does participation and forms of livelihood activities vary within households (particularly with regard to child participation in livelihood activities)? **How has the SAGE cash transfer affected livelihood choices and options?** **How has the SAGE cash transfer affected formal and informal employment opportunities?** What are the key risks that different individuals, households and/or social groups face? How are these categorised (e.g. long term trends, seasonal changes, shocks)? Have risks changed over time? How and why? What determines different levels of vulnerability to these risks? What effects do these risks have if they occur? What strategies are adopted to reduce, mitigate and/or cope with vulnerability to and the effects of these? **How does the SAGE cash transfer affect the ability to reduce, mitigate and cope with different stresses and shocks?**

A.3 Objective 3: Increasing access to services

Uptake of health services and improvements in health seeking behaviours	Cash transfers are expected to increase the proportion of consumption expenditure allocated to accessing health services. Health is relevant not only for wellbeing but as an investment in human capital. We therefore expect an increase in the level of consumption devoted to health as well as more health seeking behaviours. Improved access to health services and increased well-being more generally in terms of nutritional status, poverty status, and reduced labour for children and old people and increased productive capacity through investment in productive assets (which may increase efficiency etc.) may lead to less incidence of illness or injury. It should be noted that the effect on access to treatment, health expenditure and ultimately health status is highly dependent on the state of the supply of health services in SAGE areas.
Indicators	Mean spending on health care. % individuals ill/injured in past 30 days. % cases where healthcare was sought.
Uptake of education services and improved attendance at school	Cash transfers are expected to increase the proportion of consumption expenditure allocated to meeting the various expenses associated with educating children (and other household members) in recipient households. These costs can include school fees or 'funds', transport, boarding fees, uniforms, books and stationery. By reducing the financial barriers to education services the cash transfer is expected to ensure higher school retention rates and lower absenteeism. Increased attendance and class retention may result in better class completion rates. As with health services, the effect on access to education and education status outcomes depends to a great deal on the availability and quality of schools in the areas where the programme operates.
Indicators	% primary school-aged children currently enrolled school. % primary school-aged children not enrolled school due to cost and/or child labour requirement. % primary school-aged children currently attending school. % primary school-aged children not currently attending school due to cost and/or child labour requirement. Primary school class progression rate.
Access to financial services and other services	By providing a reliable source of income the cash transfer may increase households' demand for and access to financial services. Recipients may be more likely to be seen as credit worthy by formal and informal financial providers. Also, the cash transfer might allow households to accumulate savings, thereby increasing the likelihood that the household will access formal or informal financial products. As with the social services referred to above, this effect is likely to be more apparent where formal financial products are available and appropriate. Receipt of the SAGE cash transfer may either increase or decrease the likelihood of households receiving other benefits from other social support programmes. Distributers of other social support programmes may view SAGE recipients either more deserving of support due to their receipt of the SAGE cash transfer because they have already been identified of needing support. Similarly they may view them as less deserving given that they are already receiving some kind of support.
Indicators	% households reporting being able to borrow from a formal financial institution if desired. % households reporting borrowing from formal financial institution. % households reporting being able to save in formal financial institution. % households reporting saving in a formal financial institution. % households reporting any saving. Distribution of other interventions being received by households.

A.4 Objective 4: Reducing social exclusion

Inter- and intra-household relations **Impact on attitudes and notions of empowerment**	By alleviating household budget constraints cash transfers may have an indirect positive effect on inter- and intra-household relations. By reducing households vulnerability to poverty and other shocks, increasing access to services, and increasing income generating activities receipt of cash transfers should allow households to enjoy better living standards. Improved living standards may both reduce the burden of poor households on other households in the community, and better enable households to support the needy both within and between households. The cash transfer may improve the sense of empowerment felt by households and household members by increasing wellbeing, access to services and the number and types of choices available to households. Where the woman is the recipient of the transfer and/or is in charge of deciding how to spend the transfer and manage the household budget there may also be a positive impact on women's empowerment in particular. Improving nutrition, material assets and reducing child work are likely to benefit girls especially, as they are often the most deprived members of poor households. We therefore expect better gender balance in terms of health, education, labour participation and empowerment within the household as well as in the community.
Indicators	% households receiving cash support from other households % households giving cash support to other households % households receiving in-kind support from other households % households giving in-kind support to other households % women making major household budget decisions % women deciding how cash transfer is spent Girl primary enrolment rate Distribution of reasons why school age girls not currently enrolled in education Distribution of agree/disagree statements on various social and gender roles within the household and community(7) % households who feel they have control over changes in their own household % of households who feel they have control over changes in their community % households voting in national elections % households voting in local elections % households attending village/community meetings
Qualitative research questions	What influence do social norms based on gender, age ethnicity, etc. have on individuals' and households' capacities and entitlements? How does social identity affect control over resources and decision making? What patterns of differentiation and exclusion exist with respect to opportunities, markets, information, and services? What factors affect levels of social cohesion within the community? What are the forms and sources of disputes and tension between and within households? **How has the SAGE cash transfer affected, or been affected by, informal institutions, social relations and cohesion?** What are the key organisations and individuals inside and outside a community that influence peoples' lives? What are their relationships, importance and effectiveness to different groups within communities (e.g. in terms of decision making, accessibility, and services) and outside the community (in terms of participation, accessibility, and services)? On whom do people rely for different kinds of assistance (e.g. cash, goods, finding employment, entering university, etc.) What are perceptions of the social contract (i.e. relationships between and obligations/entitlements of governments and citizens), particularly around social protection and poverty reduction? **How has the SAGE cash transfer affected, or been affected by, formal institutions and perceptions of the social contract?**

Annex B: Sampling methodology and survey weights

B.1 Sampling methodology

The quantitative survey was implemented in 399 clusters across 48 sub-counties in eight programme districts.[31] The two targeting mechanisms (SCG and VFSG) were randomly assigned evenly between the 48 sub-counties, with the exception of the Karamoja region in which only the SCG targeting mechanism was employed. The SAGE programme implemented the targeting process in evaluation areas were selected recipients will receive the transfer, but only after they were surveyed at baseline by the Evaluation teams.

The households in the evaluation areas that were selected for the programme are referred to as the **treatment group**. Control households are selected as those households that fall just shy of the selection thresholds. For SCG the threshold is 65 years of age, dropping to 60 years of age in the Karamoja region. For VFSG eligibility depends on a household's Labour Capacity and Dependency (LCD) score, with the threshold score for eligibility varying by region. Households who fall just below the relevant SCG/VFSG threshold are referred to as the **control group**.

Given the selection of Regression Discontinuity Design analysis was conducted on the UNHS and the SAGE pre-pilot sub-county MIS data to determine the appropriate bandwidth of eligibility scores that would be included in the evaluation sample. This selection was based on a trade-off between being close enough to the eligibility threshold to increase the chances of satisfying the assumptions underpinning RDD as described in Annex C, whilst ensuring that there was enough density of households within each community to ensure that the budgeted fieldwork model was still affordable.

Based on this analysis a bandwidth of +/-15 around the eligibility threshold for both the SCG and VFSG targeting methodologies was applied.

B.1.1 Selection of evaluation sub-counties

Evaluation sub-counties were randomly selected from a list of sub-counties was provided by the Uganda 2002 census, but had to be adjusted to incorporate the 2010 sub-county boundary changes with population for the new sub-counties provided by SAGE. The sample frame was thus comprised of the 74 sub-counties[32] in the eight programme districts, minus six that were excluded from selection for the evaluation. These are the first six "pre-pilot" sub-counties for which the registration process has already been implemented: two in Kyenjojo, two in Kiboga, and two in Kaberamaido.

Prior to selection, the full list of 68 sub-counties was first randomly divided into two lists, one from which SCG sub-counties were drawn and one from which VFSG sub-counties were drawn. This random allocation of treatment was done to ensure a similar spread of sub-counties in both SCG and VFSG lists, allowing for rigorous comparison across the two targeting methodologies. The 24 SCG and 24 VFSG sub-counties to be covered by the evaluation were then randomly selected from the SCG and VFSG sub-county lists respectively. Sub-counties were selected with Probability Proportional to Size (PPS) via specially designed excel worksheets.

31 Apac, Kaberamaido, Katakwi, Kiboga, Kyenjojo, Moroto, Nakapiripirit and Nebbi.
32 74 sub-counties as defined by the old administrative boundaries.

The sampling of evaluation sub-counties had to account for the fact that in Karamoja only the SCG targeting mechanism will be applied. To avoid sub-counties in the Karamoja region being over-represented in the SCG sub-county list, the list of VFSG sub-counties was not restricted to exclude those in the Karamoja region. Instead those Karamoja sub-counties that were randomly allocated to the VFSG sub-county list were then excluded, with the 24 VFSG evaluation sub-counties randomly selected from the restricted sub-county list.

The 48 evaluation sub-counties thus constitute close to two thirds of all sub-counties in the eight evaluation districts, and seven tenths of all available sub-counties in those districts.

B.1.2 Selection of evaluation PSUs

Within selected evaluation sub-counties a number of Primary Sampling Units (PSUs) or clusters were drawn. The precise number of clusters depends on balancing a number of different factors: whether the unit is practically viable for use as a cluster for survey implementation; the population density of treatment and control households per cluster at the specified bandwidth; the number of clusters required at the specified bandwidth in order to achieve the proposed household sample size; and the number of clusters that are financially viable to survey.

400 clusters (200 SCG; 200 VFSG) were randomly selected from across the 48 evaluation sub-counties, where the unit of cluster is the village and using Probability Proportional to Size (PPS) based on the number of households within the bandwidth in each PSU.

B.1.3 Selection of evaluation households

From each of the 400 sampled villages, five treatment and five control group households were randomly selected for interview. In the case that there were insufficient treatment or control households within a particular village then the sample will be re-distributed according to the following protocol:

- For low density villages that contain between six and nine evaluation households (i.e. treatment or control households within the evaluation bandwidth), replacements will be taken from other sampled villages within the same sub-county. This will be done by randomly selecting replacement households from the full list of households living in sampled evaluation villages in the same sub-county that have not already been sampled.
  - In order to minimise the negative effect of the redistribution of sampled households between clusters on the logistics of the fieldwork, we will restrict the total number of households that will be interviewed within a particular village to a maximum of twelve households.
- Extremely low density villages containing less than six households within the bandwidth in total (either treatment or control) will be dropped from the sample frame. Analysis of the most recent available SAGE MIS data from the six pre-pilot sub-counties shows that this represents only a very small proportion of beneficiaries and villages.

Table B.1: Villages and beneficiary households to be dropped		
	Number dropped as a result of rule	Proportion dropped as a result of rule
VSFG		
Beneficiaries	2	0.1%
Villages	2	1.3%
SCG		
Beneficiaries	3	0.2%
Villages	5	3.3%
Source: SAGE enrolment data from 6 pilot sub-counties.		

Under this proposed approach the **RDD impact estimates are representative of programme impact amongst households close to the eligibility thresholds that are located in villages with sufficient population density around the eligibility threshold**.

B.1.4 Final sample size

Table B.2 presents the final sample size of PSUs and households for the SAGE baseline survey.

Table B.2: Final sample size				
	Number PSUs[33]	Treatment households	Control households	Total households
SCG	198	992	999	1,991
VFSG	200	989	1,000	1,989
Total	398	1,981	1,999	3,980

33 For the SCG sample, one community was selected twice by PPS. Furthermore during fieldwork it was found that two communities in the sample frame that had been selected were in fact one community in reality. This means that the final number of SCG communities is 198 and not 200.

B.2 Survey weights

Weights are given by the inverse of the probability of being selected. The household's probability of selection being broken down into two component parts: 1) the probability of selection of the PSU; and 2) the probability of being selected into treatment and control groups from the list of all possible SAGE eligible and non-eligible households within the specified bandwidths in that PSU. In the calculation of the survey weights we ignore the probability associated with the selection of the evaluation sub-counties. Doing so reduces the variance of the final weights; thereby reducing the variance of point estimates, increasing the likelihood of detecting impact should the SAGE programme impact key outcome indicators. Furthermore 48 out of a total 68 sub-counties have been included in the evaluation meaning that the evaluation sample of sub-counties is already very representative of the total pilot population of sub-counties.

We define the two component probabilities:

P1: Probability of a PSU being selected. PSUs were randomly selected using Probability Proportion to Size (PPS) techniques separately for SCG and VFSG areas, drawn from a sample frame of all PSUs within evaluation sub-counties.

$$P_1 = \frac{Number\ of\ households\ in\ bandwidth\ in\ PSU}{Total\ number\ of\ households\ in\ bandwidth\ in\ evaluation\ sub\text{-}counties}$$

P2: Probability of being selected from the full list of treatment or control group households within a PSU (depending on whether household was a treatment or control household).

$$P_2 = \frac{Number\ of\ sampled\ treatment\ or\ control\ households\ in\ PSU}{Total\ number\ of\ treatment\ or\ control\ households\ in\ PSU}$$

The final probability of a household being selected for the SAGE baseline survey is calculated by combining the above probabilities as follows:

$$P_{Selection} = P_1 \times P_2$$

Thus, the final analytical weights applied to each household are constructed by taking the inverse probability of selection:

$$Weight = P^{-1}$$

Annex C: Regression Discontinuity Design test results

RDD can be used to estimate the causal effect of a treatment on one or more outcomes of interest when the treatment is a deterministic function of an assignment variable and the threshold that determines the treatment is known. Under certain assumptions, we can use observations close to the eligibility threshold and work with them as if treatment around this threshold were random. In the close neighbourhood of the threshold, we can then identify the causal impact of having access to the SAGE treatment (i.e. receiving the SAGE transfer) on an outcome of interest (y_i) by taking the difference in the mean outcome for the treatment and control observations:

$$Y(1) - Y(0) = E(Y_i|x_i, SAGE_i = 1, S_i) - E(Y_i|x_i, SAGE_i = 0, S_i)$$

In a parametric setting, we can define the outcome equation as:

$$Y_i = \beta x_i + \alpha_i, SAGE_i + \varepsilon_i$$

And the treatment equation as:

$$SAGE = \delta w_i + \gamma S_i + u_i$$

where x_i are covariates (such as household characteristics) that affect the outcome, S_i is the assignment variable (the score that determines the eligibility status of an individual or household), and w_i are covariates, other than the assignment variable, that are likely to affect the probability of being treated.

Taking expectations of the outcome equation gives:

$$E(Y_i|S_i) = \beta E(x_i|S_i) + P(SAGE_i = 1|s_i)E(\alpha_i|SAGE_i = 1, S_i) + E(\varepsilon_i|S_i)$$

- When looking at the outcomes of interest, any discontinuity in the outcome at the cut-off (s_0) could be attributed to:
- Differences in gains of treatment on either side of the cut-off (people with higher potential gains from treatment game the assignment to ensure they are treated – a discontinuity in $E(\alpha_i|S_i)$ *at* s_0.
- Differences in observable characteristics on either side of the cut-off – a discontinuity in $E(x_i|S_i)$ at s_0.
- Differences in unobservable heterogeneity on either side of the cut-off – a discontinuity in $E(\varepsilon_i|S_i)$ at s_0.
- Differences in the probability of being treated on either side of the cut-off – a discontinuity in $P(SAGE_i = 1|S_i)$ at s_0. Ruling out the first three possible reasons for a discontinuity in the outcome at the cut-off allows us to attribute impact to differences in the probability of being treated. I.e. impact can be attributed to being treated or not by the SAGE cash transfer.

Different regression methods

As identified in *Lee & Lemieux* (2010) and elsewhere there are two main regression methods that can be applied in Regression Discontinuity Design: **parametric** or **non-parametric** regressions. In both the parametric and non-parametric settings we implement the RDD by estimating two separate regressions on each side of the cut-off score. We can then estimate the value of the regression functions at the cut-off point, which can give us the estimate of impact via RDD.

Given that the assignment scores for both the SCG and VFSG are discrete rather than continuous variables we exclude the non-parametric method which requires the possibility of ever decreasing the bandwidth in which the Local Linear Regression is conducted. This is not possible with a discrete variable.

Polynomial regression

In a **parametric setting** we can estimate the following (linear) regression:

$$outcome_i = \alpha + \beta_1 SAGE_i + \beta_2 S_i + \beta_3 SAGE_i * S_i + \varepsilon_i$$

Where, as above, $SAGE_i$ is a dummy variable defining beneficiary status (i.e. whether the household is actually receiving treatment or not) and S_i is the value of the assignment score. The estimated impact or discontinuity is then given by the estimate of the coefficient β_1. In addition there is no reason to assume that the true model is linear, and this assumption can be relaxed by including polynomial functions[34] of the assignment score S in the regression model. In fact it is sensible to be flexible with the specification in a parametric setting when we do not know the true functional form, to assess the robustness of the RDD estimates of impact.

It should be noted that households were sampled to be in some neighbourhood of the cut-off score, such that only households +/-15 points[35] from the cut-off score were included to be part of the survey. Therefore the polynomial models are applied not to the full distribution of all beneficiary and non-beneficiary households, but to those households within 15 points of the cut-off score.

Lee & Lemieux (2010) point out that a possible disadvantage with this approach is that polynomial regressions of this type provide global estimates of the regression function over all values of S, while RDD depends instead on local estimates of the regression function at the cut-off point. In other words data far away from the cut-off point (i.e. data corresponding to values of the assignment score further away from the cut-off point) may have too much predictive power over the value of the outcome variable of interest at the cut-off point. However, given that the evaluation households were specifically sampled within a bandwidth of +/-15 points of the eligibility cut-off score, we can be more confident that this critique does not apply in this case.

34 That is we can include quadratic, cubic, quartic, etc. specifications. In a quadratic setting the regression model would be:

$$outcome_i = \beta_1 SAGE_i + \beta_2 S_i + \beta_3 SAGE_i * S_i + \beta_4 S_i^2 + \beta_5 SAGE_i * S_i^2 + \varepsilon_i$$

35 Ie. in the case of the SCG intervention only households containing a member 15 years older or 15 years younger than 65 were sampled.

Discrete assignment variable

When, as is the case in the SAGE programme, the assignment variable is discrete (i.e. we have age in years, and the LCD score is only in integers), it can make it impossible to compare outcomes for observations "just above" and "just below" the cut-off score due to the lumpiness of the data. Conventional standard errors will ignore the group structure induced by specification errors and tend to overstate the precision of estimates of impact on indicators of interest. In both a parametric and non-parametric setting we follow *Lee & Card* (2008) and correct for the group structure of these specification errors by clustering estimates by the assignment variable (LCD scores or age).

Risks associated with RDD

Contamination of the comparison group due to spill-over effects

In a context in which households, and particularly poor households, exist in complex support networks, sharing money and other resources, it is possible that the programme may result in welfare improvements even for non-recipient households. Such benefits deriving from the programme for non-programme beneficiaries are characterised as spill-over effects. Further spill-over benefits to non-recipients might also occur if the programme provides a boost to the local economy which benefits the community at large. The effect of such spill-overs can be significant.[36]

Generally, spill-over effects on non-recipients in communities covered by the programme are a good thing, since they imply that the programme is having an even bigger impact than its direct effect on beneficiaries. However, the potential for spill-over effects represent a significant risk to the RDD approach because treatment and control households are drawn from the same community. This is in comparison to other possible design choices, such as village level randomisation or village level matching where treatment and control households are drawn from different communities.

In the presence of spill-over effects the impact of the programme can be over or under estimated depending on the direction of the spill-over effects, which are not necessarily positive in every case.

External validity

As mentioned above, the RDD method requires the sample of interviewed households to be restricted to those within a narrow bandwidth of eligibility scores around the cut-off score that defines whether a household is eligible or ineligible for the SAGE transfer (i.e. age of eldest household member under SCG, and LCD score under VFSG targeting). The sample of recipient households is therefore not fully representative of the entire beneficiary population. Furthermore the RDD method produces the estimates of impact upon the marginal household (i.e. households with eligibility scores right at the cut-off score. Whilst this will allow us to understand clearly the impact of the programme on the marginal household, without strong assumptions on the homogeneity of the treatment effect across the eligibility score we cannot say with certainty whether this impact will be true if the programme decides to increase coverage by relaxing the eligibility score further.

36 See for instance Angelucci, M. and G. De Giorgi (2009). 'Indirect Effects of an Aid Program: How Do Cash Transfers Affect Ineligibles' Consumption?' *American Economic Review 99 (1), 486-508*. Lehmann, C. (2010). 'Benefiting Without Receiving Money? Externalities of Conditional Cash Transfer Programmes on Schooling, Health and the Village Economy.' *International Policy Centre for Inclusive Growth*. Research Brief No. 13.

This has implications for the external validity of the impact evaluation. If recipient households within the defined bandwidth around the threshold score are statistically different in their characteristics, and, more importantly, respond differently to the transfer from those recipients outside this bandwidth, then impact estimates derived from the RDD will not be representative of the actual average impact on recipient households overall. This risk is potentially dampened in this case because the proportion of all households receiving the transfer is quite low at 15%, but nevertheless remains (see Table 4 above).

Community-level effects

Community-level effects are effects that are measured across the whole community as opposed to across just some households within the community. Early on in discussions with the programme and its stakeholders a number of community-level effects were identified as key areas of interest. These included the effect of the SAGE cash transfer on local prices and local wages. However, RDD as an evaluation design methodology is not able to produce quantitative estimates of these impacts. This is because in order to measure community-level effects it is necessary to have control communities in the sample. Community-level effects are then measured by estimating the difference in community-level impact indicators of interest between treatment and control communities.

To address this limitation, an additional methodology has been deployed to produce quantitative measures of community-level effects (see Section 2.1.2 above).

Testing the assumptions behind RDD

RDD will identify the causal impact of being treated by SAGE on the outcomes of interest if the only source of discontinuity in the outcomes at the threshold is the probability of getting the SAGE treatment. In order for this to hold, we need to satisfy five assumptions, which are presented along with analysis in what follows.

Assumption 1: The assignment variable has a monotonic effect on the probability of being treated for everyone

Whilst we cannot test this directly at this stage, we can be reasonably confident that the older you are the more likely you are to be targeted for SAGE under the SCG. Similarly we can be reasonably confident that the higher is your score as calculated by the labour constrained index the more likely you are to be targeted for the SAGE under the VFSG. We will test this assumption during the analysis of the SAGE follow-up survey data.

Assumption 2: The gains from treatment must be a function of the assignment variable at the cut-off

$$\lim_{s \to s_0^+} E(\alpha_i | S_i = s) = \lim_{s \to s_0^-} E(\alpha_i | S_i = s)$$

This assumption relates to worries about the ability of households to have an influence on the assignment variable, particularly if they are able to manipulate the assignment variable to increase their probability of receiving the SAGE transfer.

The worry is that if households understand the link between the targeting exercise (i.e. the data collection exercise carried out for the Births and Deaths Registration (BDR)), the targeting criteria of the SCG and the VFSG and becoming a beneficiary of SAGE programme, some households will attempt to manipulate their assignment score to ensure that they become beneficiaries. If the distribution of these manipulators is non-random in the sense that they are the best-informed or best-connected households, this could lead to bias in any estimates of impact made using RDD.

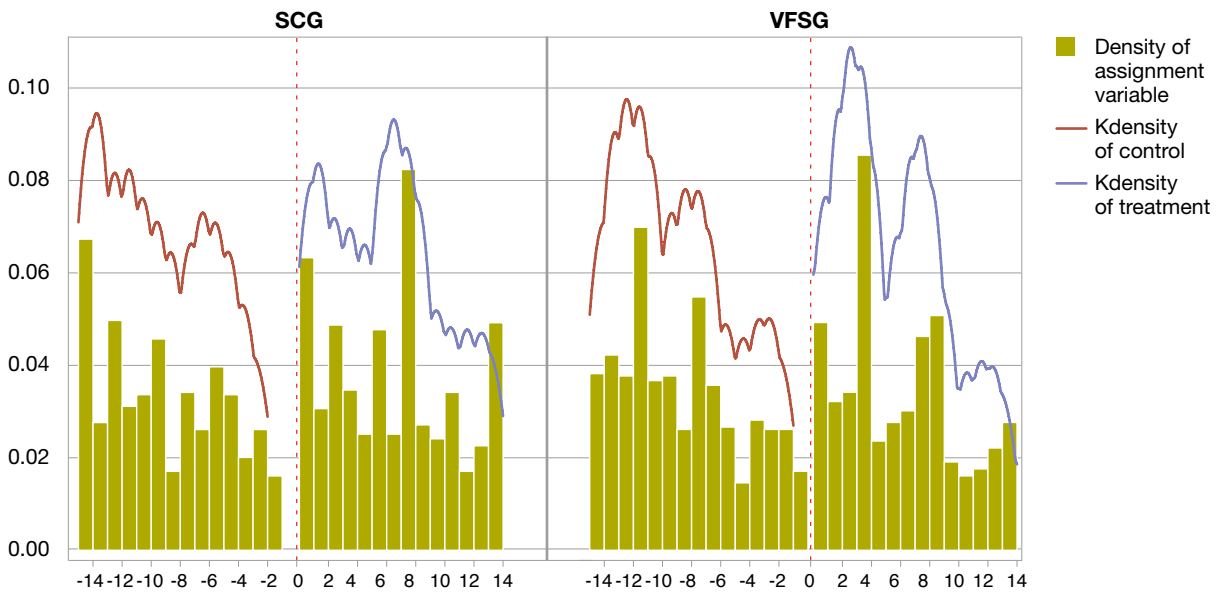
McCrary (2007) suggests testing the null hypothesis of continuity of the density of the assignment variable at the cut-off threshold, against the alternative hypothesis of a jump in the density function at that point. In principle one does not need continuity of the density of the assignment variable at the cut-off threshold, but a discontinuity is suggestive of violations of the non-manipulation assumption.

A first useful step to understanding whether there is discontinuity in the assignment variable is to consider the density of the normalised assignment variables[37] for SCG and VFSG given in Figure C.1 below. This gives the first indication that there appears to be significant clumping of the assignment variables, particularly for age under the SCG, though also under the labour constrained score for VFSG.

The clumping of data with regards to ages is to be expected given the lack of official documentation and the general uncertainty of many older Ugandans living in rural areas as to their exact date of birth. This increases the tendency for age to be rounded up to multiples of 5, explaining the large number of households with a normalised assignment score of 0 as shown in Figure C.1, which presents the density of the assignment variable around the cut-off score for SCG and VFSG households as observed in the data.

37 Assignment variables are normalised such that the cut-off score is normalised to 0. For example with SCG targeting where the threshold is 65 years old, the assignment variable is normalised by: $normscore = age - 65$.

Figure C.1: Density of assignment variable



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

However, Figure C.1 also appears to show a discontinuity in the density of the assignment variable for the VFSG, which could be potentially more worrying given the absence of a similar explanation for this phenomenon. This can be tested more formally following McCrary (2007), by looking at whether or not the marginal density of the assignment variable is continuous as described above.

Table C.2: McCrary test for discontinuity in density

	Evaluation sample (SCG)	Evaluation sample (VFSG)	Evaluation frame (VFSG)	UNHS (VFSG)
Discontinuity estimate (log difference in height)	2.649*	1.575*	0.884*	0.292
	(0.285)	(0.157)	(0.042)	(0.157)

Note: std errors reported in parentheses, *p<0.0.5

Table C.2 illustrates that we must reject the null hypothesis that there is continuity in the assignment variables across the cut-off threshold for both the SCG and VFSG assignment variables.

For SCG this is not necessarily an indication that potential beneficiaries have been successful in manipulating their individual assignment variable. Indeed as described above we would expect some clumping in ages on multiples of five.[38]

However, this same reasoning cannot be applied to the VFSG assignment variable. To understand whether the construction of the assignment variable will somehow lead to an expected discontinuity at the cut-off threshold we perform the McCrary test on households in the Uganda National Household Survey 2009/10 (UNHS) for which we can derive the labour constrained score. As reported in Table C.2, we do not reject the null hypothesis that there is continuity in the VFSG assignment variable across the cut-off threshold.

38 This said, it should also be noted that where households were aware of a connection between the BDR exercise and SAGE targeting in SCG areas, this could have produced a tendency to 'clump' ages upward rather than down by astute households. The programme registration protocols mitigate against this type of gaming due to the documentary evidence of age required for registration, but the possibility for astute and well-connected households to manipulate this system remains due to the way in which, in the absence of extant proof of age, an applicant can apply for a voters card (acceptable documentation for registration in the programme) with the approval of the LC1. These considerations do not point towards a firm indication that SCG beneficiaries were likely to manipulate the assignment variable but they do indicate at least the possibility to do so.

Furthermore we analyse whether there is a discontinuity in the density of the VFSG assignment score at the cut-off threshold in the sample frame data in order to check whether the construction of the evaluation sample did not somehow lead to us falsely observing a discontinuity that does not exist in the sample frame. As reported in Table C.2, in this case we also reject the null hypothesis of no discontinuity.

Ruling out that the construction of the assignment variable for VFSG somehow leads to an expected discontinuity raises the serious concern that this result is because of manipulation of the assignment variable by potential beneficiary households, with this manipulation somehow being correlated with particular households, such as the best connected or most informed. Manipulation is more likely if households understood the link between the BDR process and targeting of the SAGE programme. Whilst no definitive answer can be given here, the OPM team certainly found anecdotal evidence that the connection (though not the exact criteria) were well understood by potential beneficiaries in the communities that were visited during fieldwork for the baseline survey.[39]

Assumption 3: There must be a discontinuity in the probability of being treated by SAGE around the cut-off

$$\lim_{s \to s_0^+} P(\alpha_i | SAGE_i = s) \neq \lim_{s \to s_0^-} P(SAGE_i | S_i = s)$$

This assumption requires that the programme is sufficiently well implemented such that those who are eligible by their value of the assignment variable actually receive the SAGE cash transfer, whilst those who are deemed ineligible do not. This assumption cannot be tested prior to receipt of payments, but we assume that the programme will be well implemented enough to satisfy this assumption.

Assumption 4: The observables must be a continuous function of the assignment variable at the cut-off

$$\lim_{s \to s_0^+} E(x_i | S_i = s) = \lim_{s \to s_0^-} E(x_i | S_i = s)$$

In practice this assumption applies to both observable variables that might affect our outcome variables of interest, as well as the outcome variables themselves. Considering first the outcome variables themselves RDD would require that the baseline values of the outcome variables are a continuous function of the assignment variable at the cut-off. If this is not the case then we would not be sure whether a discontinuity in a given outcome variable found following the follow-up impact survey is a result of the impact of receiving the SAGE transfer, or because of a pre-existing discontinuity.

39 Although it is highly improbable that households were aware of the precise calculation by which the VFSG score was constructed, and thus able to manipulate it, manipulation of sorts could still be likely if households understood the link between the BDR process and targeting of the SAGE programme. If the population were aware that 'vulnerable' households were being targeted, they might aim to game the system by reporting characteristics that are associated with 'vulnerability' in their communities, such as presence of aged household members, orphans and disabilities etc., all of which would influence the VFSG score (we know from the way that CBT is implemented in a number of settings, for instance, that communities do often associate certain categorical characteristics with poverty and vulnerability).

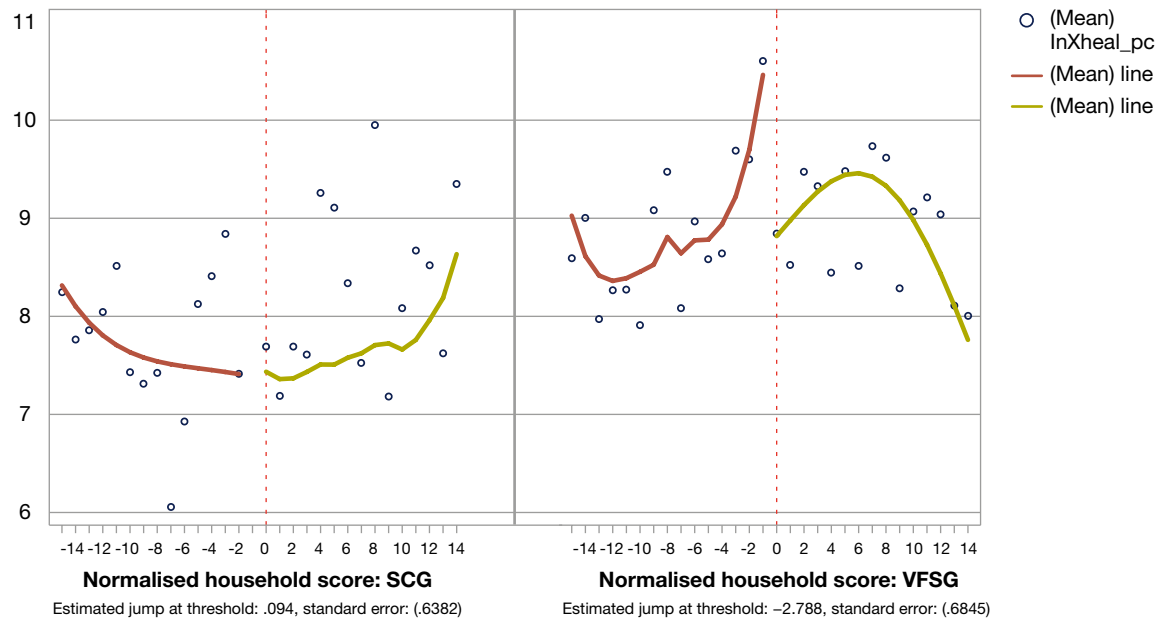
Similarly we would like to check that other observable variables that may affect our outcome variables are continuous in the assignment variable at the cut-off. If this is not the case then we would be unsure whether any discontinuity observed in the outcome variable at the follow-up impact survey is a result of receipt of the SAGE cash transfer, or because of the discontinuity in the observable variable. For example if there was a discontinuity in the education levels of the household at the cut-off, with treatment households exhibiting higher levels education, we would be uncertain whether perceived impact of the SAGE on indicators of interest is real, or because of a pre-existing discontinuity in the level of education of the household head.

Discontinuity in outcome variables

Table C.3 provide the estimates of the discontinuity in outcome variables for SCG and VFSG households that have been estimated using the quartic specification of the polynomial regression

To help visualise what Table C.3 shows it is useful to consider Figure C.2, which focusses on monthly health expenditure as an example. This plots the quartic polynomial regression allowing for flexible trends on either side of the normalised cut-off score, for both SCG and VFSG households. In the case of SCG households we see from Table C.3 that the RDD estimate of the discontinuity is -0.255, with this being statistically insignificant. In the case of VFSG households we see from Table C.3 that the local linear regression estimate of the discontinuity is -2.788, with this being statistically significant. This can be visualised in Figure C.2, where we can see the discontinuity for VFSG households is much more pronounced than the discontinuity amongst SCG households.

Figure C.2: 4th order polynomial regression of monthly health expenditure



Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

Table C.3 presents the estimates of whether or not there are discontinuities in outcome variables using a 4th order polynomial for both SCG and VFSG households.

The analysis presented in Table C.3 suggests evidence of discontinuities in 20% of the outcome variables for SCG households and 23% of outcome variables for VFSG households. This means that in the case of about a fifth of the outcome variables for each evaluation sample, *Assumption 4* that *the observables must be a continuous function of the assignment variable at the cut-off* is violated for this proportion of the outcome variables.

However, it is worth noting here that for the majority of the key impact indicators, such as poverty and per adult equivalent consumption expenditure we do not find any evidence of a discontinuity in the baseline value between treatment and control households. Furthermore we find that we can accept Assumption 4 for roughly 80% of outcome indicators across SCG and VFSG households.

In the next section we consider whether there are observed discontinuities in certain household characteristic covariates that might be driving the discontinuities that we observe in the outcome indicators.

Table C.3: Estimates of the discontinuity at the cut-off – 4th order polynomial regression

	SCG Beta	Std Error	VFSG Beta	Std error
Poverty	0.09	0.07	-0.07	0.12
Food poverty	0.03	0.05	-0.16	0.12
Per adult equivalent consumption expenditure	-0.11	0.12	0.17	0.16
Monthly expenditure on clothes	-0.03	0.25	-0.50	0.45
Monthly expenditure on education	-0.34	0.22	1.138*	0.54
Monthly expenditure on health	-0.26	0.51	-2.788***	0.69
Monthly expenditure on food	-0.12	0.11	0.01	0.15
Food consumption expenditure	-3.33	2.83	5.02	4.21
Hunger score	-0.01	0.14	-0.80	0.55
hh reporting current cash savings	-3.46	4.81	7.78	16.00
hh reporting savings in formal institutions	-4.41	5.17	-0.10	6.82
hh reporting savings in informal institutions	-5.96	4.63	-22.005**	7.87
Mean total value of current savings	-31,951.34	326,519.24	-41,584.66	164,864.80
hh reporting borrowing money in the last 12 months	0.66	3.03	-5.41	13.69
Mean total value of money borrowed in the last 12 months	-449,247.22	292,117.42	52,740.02	170,307.16
Mean total value of current outstanding debt	-185,924.21	252,168.30	-109,286.00	218,196.83
hh reporting buying on credit in the last 3 months	3.54	5.00	3.03	13.51
Mean total value of purchases on credit in the last 3 months	-34957.453*	12,969.43	-27,868.57	28,952.08
Mean total value of current outstanding credit debt	-3,460.89	5,600.70	4,750.65	6,858.19
hh receiving formal assistance in the last 3 months	6.54	4.43	-1.25	4.28
hh receiving cash aid (formal) in the last 3 months	-1.92	1.79	3.37	2.45
hh receiving in-kind aid (formal) in the last 3 months	9.386*	4.49	-5.50	4.10

Table C.3: Estimates of the discontinuity at the cut-off – 4th order polynomial regression (continued)

	SCG Beta	Std Error	VFSG Beta	Std error
Total value of formal assistance received in the last 3 months	9473.386***	1,979.43	-25782.243***	1,666.81
At least 2 people share decision on children education	-9.159*	3.58	2.69	12.52
At least 2 people share decision on health	-14.847***	3.11	-0.06	9.62
At least 2 people share decision on money	-9.675***	2.60	-7.70	9.30
Female makes decision on children's education	12.422**	3.70	-12.50	25.71
Female makes decision on health	22.849***	3.46	4.04	21.01
Female makes decision on money	15.377***	4.04	1.90	21.65
hh receiving informal assistance in the last 3 months	5.60	4.93	3.47	7.24
hh receiving cash aid (informal) in the last 3 months	0.58	5.15	3.20	8.47
hh receiving in-kind aid (informal) in the last 3 months	3.20	3.46	8.41	9.46
Total value of informal assistance received in the last 3 months	-8,089.23	11,913.86	6,433.84	12,237.50
hh giving informal assistance in the last 3 months	0.58	3.40	0.73	11.55
hh giving cash aid (informal) in the last 3 months	-0.12	1.79	-4.26	6.47
hh giving in-kind aid (informal) in the last 3 months	1.68	3.32	-0.48	11.20
Total value of informal assistance given in the last 3 months	1,317.33	5,540.02	2,085.96	15,252.49
hh either giving or receiving informal assistance in the last 3 months	5.39	3.81	11.77	11.22
hh able to borrow cash in emergency	-6.37	4.14	5.74	14.16
hh reporting they have raised an issue in the last 12 months	-7.703*	3.26	-3.65	14.11
hh reporting likely they could make the councillor listen to concerns	-4.12	4.21	15.14	11.78
hh reporting people come to them for advice	3.04	3.13	17.100*	8.04
Proportion of hhs reporting negative change in welfare	-6.82	5.26	29.098*	10.78
Proportion of hhs experiencing problem	-3.82	4.11	-19.89	17.72
Household currently owning land	4.59	2.72	-4.99	6.32
Household currently rented out land	-6.714*	2.93	-17.850**	5.17
Household currently cultivating on land not owned	-8.614**	2.74	-21.72	13.44
Acres of land owned	-2.02	1.25	3.989**	1.25
Electricity the main source of lighting in the household	-2.57	1.62	0.94	4.52
Charcoal or firewood main source of fuel used for cooking	-1.18	0.96	-1.27	2.51
Household with improved water source	7.27	4.47	20.652*	8.15
Household with improved sanitation facility	3.17	5.18	-1.99	10.43

Table C.3: Estimates of the discontinuity at the cut-off – 4th order polynomial regression (continued)

	SCG Beta	Std Error	VFSG Beta	Std error
Proportion of individual ills/injured in the last 30 days	1.70	2.25	-5.29	5.34
Proportion of those ill/injured who sought formal healthcare	-6.49	6.34	12.67	7.00
Children attending school	7.76	5.23	19.146*	7.26
Male children attending school	9.73	4.81	21.165**	6.87
Female children attending school	6.35	6.83	17.321*	8.16
Number of school days missed	-0.06	0.36	1.35	0.77
Number of school days missed – male	-0.10	0.54	1.38	1.08
Number of school days missed – female	-0.04	0.32	1.32	1.24
Literacy rate	-1.90	3.94	5.45	10.70
Literacy rate – male	3.17	4.31	-10.01	12.96
Literacy rate – female	-3.84	5.10	19.164*	8.88
Working age adult (18-64) engaged in ec. Productive activities	6.14	3.29	14.189*	5.46
Hours spent working per week	1.91	1.39	7.22	3.68
Number of months spent working in main occupation	0.37	0.47	1.50	0.79
Individual engaged in secondary occupation	2.18	3.47	5.68	6.76
Child engaged in child labour	3.67	1.88	12.38	9.12
Individuals owning a blanket	-1.79	6.10	9.94	9.93
Individuals sleeping under a mosquito net	-5.36	4.20	-14.458**	4.82
Individuals sleeping under a mosquito net – treated	-12.674**	3.87	-17.168*	8.33
Individuals sleeping under a mosquito net – not treated	13.681**	4.40	29.139*	12.26
Number of meals consumed yesterday	0.02	0.08	0.12	0.20
Child stunted	4.02	5.61	-25.25	15.62
Child wasted	0.08	3.24	-7.09	4.08
Underweight child	2.63	3.05	-11.33	5.66

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** ** p<0.01 discontinuity significant at 1% level of significance; *p<0.05 discontinuity significant at 5% level of significance (t-statistics in parentheses).

Discontinuity in observable household characteristics

Given the observed discontinuities in some of the key outcome indicators of interest we consider whether there are similar discontinuities in household characteristics that might help us to understand what may be driving this result. Table C.4 presents the estimates of the discontinuity for a variety of household characteristics. It suggests that we find discontinuities in 38% of covariates for SCG households and 13% of covariates for VFSG households.

In terms of the model as applied to SCG households we find evidence that treatment households have more female members, are more likely to contain members with disabilities and are more likely to have members who are divorced or widowed rather than married. It is possible that some of these observed discontinuities in the demographics between treatment and control SCG households are driving the discontinuities that we observe in the outcome variables. For example it is reasonable to expect that it is more likely for a to make a decision on child health as observed in Table C.3 above in a household in which there are more women and which is more likely to be headed by a female.

In terms of the model as applied to VFSG households the evidence presented in Table C.4 below is more encouraging with only 4 observed covariates showing evidence of a discontinuity. Of these, three directly relate to indicators that are used to construct the VFSG eligibility score (each relating presence of household members with disabilities) and therefore it should be unsurprising that a discontinuity is found.

Overall this provides further evidence that, at least for SCG households, there are failures of *Assumption 4 the observables must be a continuous function of the assignment variable at the cut-off* for some observable characteristics. However, Table C.4 below provides an insight into what may be driving the discontinuities that are observed in the outcome variables presented in Table C.3 above. In the next section we include covariates in the regression discontinuity model to explore whether controlling for covariates will remove the discontinuities observed in the outcome variables.

Table C.4: Estimates of the discontinuity at the cut-off (4th order polynomial regression)

	SCG Beta	Std Error	VFSG Beta	Std error
Household size	-0.254	0.319	-0.684	1.486
% of male in the household	-8.975***	1.442	-13.408	6.804
% of under 18 and 65+ in the household	8.902***	2.122	0.797	5.176
Number of children under 5 in the household	-0.048	0.064	0.066	0.36
Number of children aged 6-17 in the household	0.108	0.193	-0.471	1.033
Proportion of households with orphans (father and/or mother not alive)	-1.036	3.602	-23.186	13.448
Proportion of households with disabled	7.158*	3.481	-43.888***	8.253
Proportion of households with adult (18-64) disabled	8.995***	1.906	-29.063**	10.499
Proportion of households with 1 member only	4.775	3.028	19.171	15.842
Age household head	0.198	1.368	6.438	9.947
Proportions of female headed households	18.310***	2.952	9.283	19.404
Proportions of disabled headed households	4.961	2.698	-13.903	12.337
Proportions of household heads without formal education	2.219	5.003	-3.574	10.434
Dwelling owned by the household	4.085	2.259	-21.839**	6.103
Number of rooms in the household	0.124	0.185	0.248	0.345
Mean age	-0.739	0.74	0.263	4.593
Proportion of children under 5	-0.182	0.936	2.917	2.279
Proportion of children (5-18)	2.996	1.875	-2.633	6.43
Proportion of adults (18-65)	-8.194***	1.57	-3.439	2.79

Table C.4: Estimates of the discontinuity at the cut-off – 4th order polynomial regression (continued)

	SCG Beta	Std Error	VFSG Beta	Std error
Proportion of elderly (over 65)	5.381***	0.748	3.155	5.943
Proportion of disables	2.366*	0.879	-7.136*	2.967
Proportion of children under 18 that are orphans	-2.493	3.674	-10.47	6.407
Proportion of 15-20 who reached p7	6.981	3.899	0.338	8.027
Proportion of 15-20 who reached p7 – male	16.574**	5.725	-7.163	10.524
Proportion of 15-20 who reached p7 – female	-4.807	5.783	7.185	15.709
Proportion of adults (18+) who attended formal education	4.006	5.531	0.581	11.34
Proportion of adults (18+) who attended formal education MALE	7.199	3.762	-6.572	9.501
Proportion of adults (18+) who attended formal education female	2.575	7.595	7.003	12.456
Civil status – married	-12.548***	2.711	-9.418	10.665
Civil status – divorced	3.590*	1.608	0.779	4.891
Civil status – widow	9.246***	1.447	3.64	7.944
Civil status – never-married	-0.221	1.645	3.207	6.26

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. Notes: ** p<0.01 discontinuity significant at 1% level of significance; *p<0.05 discontinuity significant at 5% level of significance (t-statistics in parentheses).

Including covariates in the Regression Discontinuity Model

In Table C.5 we include in our 4th order polynomial regressions to estimate discontinuities at the cut-off the observable household characteristics as well as district dummy variables. This is done to see if the estimate of the discontinuity at the cut-off becomes statistically insignificant, conditional on observable household characteristics that may be driving the discontinuities in the key indicators of impact.

However, as reported in Table C.5 the discontinuities observed in key indicators of impact observed in Table C.3 do not disappear entirely, though the % of outcome variables for which we observe a discontinuity has fallen to 19% for SCG households and just 16% for VFSG households. This suggests that there are either other observable or unobservable characteristics that are driving the discontinuities in the key indicators of impact.

Despite this we can be encouraged that we do not observe discontinuities in some of our key impact indicators, as well as 80% of the total outcome indicators. Referring to Table C.3 where covariates are not included we find that for poverty, food poverty, consumption expenditure and child anthropometry that there is no evidence of discontinuity for either SCG or VFSG households. Furthermore (and as discussed below) we will explore the possibility of further mitigating these concerns by combining RDD with difference-in-differences techniques, taking advantage of the panel nature of the dataset, following the follow-up survey.

Table C.5: Estimates of the discontinuity at the cut-off including covariates

	SCG Beta	Std Error	VFSG Beta	Std error
Poverty	9.702*	4.28	2.69	14.23
Per adult equivalent consumption expenditure	-0.10	0.07	-0.08	0.19
Monthly expenditure on clothes	-0.07	0.19	-0.59	0.38
Monthly expenditure on education	-0.05	0.22	0.44	0.32
Monthly expenditure on health	-0.28	0.75	-2.221**	0.75
Monthly expenditure on food	-0.11	0.07	-0.19	0.16
Food consumption expenditure	-4.50	2.57	-1.17	2.90
Hunger score	0.03	0.13	0.03	0.21
hh reporting current cash savings	-2.90	3.93	-4.57	11.34
hh reporting savings in formal institutions	-2.61	4.27	-7.57	6.53
hh reporting savings in informal institutions	-6.23	4.10	-18.207*	8.90
Mean total value of current savings	15,719.97	364,534.45	-92,400.97	141,499.17
hh reporting borrowing money in the last 12 months	0.68	2.89	2.41	12.16
Mean total value of money borrowed in the last 12 months	-332,767.89	268,027.43	-97,157.30	166,690.41
Mean total value of current outstanding debt	2,443.27	221,459.24	-174,551.09	228,200.34
hh reporting buying on credit in the last 3 months	3.71	4.80	-6.47	11.53
Mean total value of purchases on credit in the last 3 months	-31948.910*	14,117.70	-32,939.89	28,648.77
Mean total value of current outstanding credit debt	-2,981.04	5,413.30	3,580.32	7,800.57
hh receiving formal assistance in the last 3 months	7.974**	2.49	-1.17	4.30
hh receiving cash aid (formal) in the last 3 months	-1.53	1.90	3.05	2.66
hh receiving in-kind aid (formal) in the last 3 months	10.536***	2.69	-4.81	4.07
Total value of formal assistance received in the last 3 months	10227.785***	1,799.11	-29048.816***	3,234.95
At least 2 people share decsion on children education	-5.17	3.65	0.68	9.66
At least 2 people share decsion on health	-12.283***	3.03	-0.95	9.24
At least 2 people share decsion on money	-6.204*	2.70	-8.53	8.75
Female makes decision on children's education	-1.27	2.09	-6.09	8.70
Female makes decision on health	7.470***	1.75	-5.73	7.46
Female makes decision on money	0.85	2.64	-6.60	8.08
hh receiving informal assistance in the last 3 months	5.62	5.31	-8.17	6.69
hh receiving cash aid (informal) in the last 3 months	-0.82	5.31	1.18	9.24
hh receiving in-kind aid (informal) in the last 3 months	4.11	3.82	-3.45	6.17

Table C.5: Estimates of the discontinuity at the cut-off including covariates (continued)

	SCG Beta	Std Error	VFSG Beta	Std error
Total value of informal assistance received in the last 3 months	-9,630.44	12,480.90	5,535.21	13,737.35
hh giving informal assistance in the last 3 months	2.60	3.04	-15.20	7.98
hh giving cash aid (informal) in the last 3 months	0.58	1.86	-14.937*	5.95
hh giving in-kind aid (informal) in the last 3 months	3.31	3.25	-14.51	8.02
Total value of informal assistance given in the last 3 months	1,425.97	4,865.35	-5,840.65	15,064.07
hh either giving or receiving informal assistance in the last 3 months	5.27	3.28	1.05	9.09
hh able to borrow cash in emergency	-6.05	4.22	-4.22	9.84
hh reporting they have raised an issue in the last 12 months	-4.66	3.39	-0.70	12.40
hh reporting likely they could make the councillor listen to concerns	-1.24	4.69	1.98	9.63
hh reporting people come to them for advice	5.353*	2.60	12.22	8.43
Proportion of hhs reporting negative change in welfare	-6.97	4.66	35.890***	7.78
Proportion of hhs experiencing problem	-3.81	4.39	5.16	9.36
Household currently owning land	2.80	2.17	2.45	3.40
Household currently rented out land	-6.437*	2.65	-10.378*	4.20
Household currently cultivating on land not owned	-7.800**	2.81	-23.79	13.63
Acres of land owned	0.00	0.00	0.00	0.00
Electricity the main source of lighting in the household	-2.51	1.50	-1.39	2.69
Charcoal or firewood main source of fuel used for cooking	-1.61	0.99	-0.53	2.67
Household with improved water source	6.63	3.29	5.26	5.20
Household with improved sanitation facility	1.27	3.37	-5.02	8.08
Proportion of individual ills/injurend in the last 30 days	1.29	2.31	-1.23	4.28
Proportion of those ill/injured who sought formal healthcare	-5.54	5.58	-0.65	7.64
Total cost of consultation	-9,592.62	6,723.91	-9,040.11	9,075.08
Children attending school	6.478*	2.62	16.993*	8.14
Male children attending school	10.438**	3.63	19.167*	8.04
Female children attending school	3.47	4.06	15.94	9.00
Number of school days missed	-0.19	0.35	1.25	0.72
Number of school days missed – male	-0.21	0.60	1.21	1.04
Number of school days missed – female	-0.21	0.34	1.21	1.28

Table C.5: Estimates of the discontinuity at the cut-off including covariates (continued)

	SCG Beta	Std Error	VFSG Beta	Std error
Literacy rate	0.66	3.26	-2.20	11.05
Literacy rate – male	5.63	3.92	-14.86	12.88
Literacy rate – female	-3.66	3.94	4.62	10.43
Working age adult (18-64) engaged in ec. Productive activities	5.10	3.34	8.45	5.38
Hours spent working per week	1.81	1.16	5.780*	2.52
Number of months spent working in main occupation	0.558*	0.22	0.80	0.44
Individual enganged in secondary occupation	2.04	3.57	-1.66	5.93
Child labour	0.97	1.89	3.27	4.51
Individuals owning a blanket	-4.94	3.10	12.863**	3.97
Individuals sleeping under a mosquito net	-4.74	4.62	-16.608**	5.06
Individuals sleeping under a mosquito net – treated	-9.443*	4.29	-20.324**	7.29
Individuals sleeping under a mosquito net – not treated	8.79	4.91	32.105***	8.75
Number of meals consumed yesterday	0.01	0.07	-0.05	0.08
Child stunted	4.77	5.84	-15.69	15.36
Child wasted	1.06	2.83	-7.85	4.33
Underweight child	3.55	3.27	-5.77	5.86

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** ** p<0.01 discontinuity significant at 1% level of significance; *p<0.05 discontinuity significant at 5% level of significance (t-statistics in parentheses).

Assumption 5: The unobservables must be a continuous function of the assignment variable at the cut-off

$$\lim_{s \to s_0^+} E(\varepsilon_i | S_i = s) = \lim_{s \to s_0^-} E(\varepsilon_i | S_i = s)$$

This assumption relates to concerns over the possibility of a discontinuity in unobservable variables (such as ability) that could affect the outcome variable of interest. If such a discontinuity existed, then one could not be sure if a discontinuity in the outcome indicator of interest observed at follow-up was a result of the SAGE cash transfer or the unobservable.

By the nature of unobservable indicators it is not possible to test this assumption. However, given that we observe discontinuity a wide variety of observable indicators as shown above, it is unlikely that this assumption will hold.

Using panel data to control for baseline discontinuity

A potential solution to the apparent discontinuities observed in key outcome indicators could be to take advantage of the panelled nature of the data and include baseline values of outcome indicators of interest and household characteristics as additional covariates to the RDD model. In this way it may be possible to control for systematic time invariant differences observed across treatment and control households, such as the % of households that are female headed. This would allow for the use of difference-in-differences to control for baseline discontinuities at the cut-off, and to allow for a more accurate estimate of the impact of the SAGE programme.

To justify this as a potential solution to the discontinuities we observe at baseline we must satisfy the equivalent of the assumption of common trends; i.e. that in the absence of any intervention the observed discontinuity at baseline will remain constant over time, for both VFSG and SCG households.

Clearly this assumption cannot be verified with the SAGE evaluation data, given the exposure to treatment by the time of the follow-up surveys. However, it would be possible to exploit the Uganda National Panel Survey (UNPS), which visited a sample of 7,426 households in 2005/06, which were then re-visited in 2009/10 and 2010/11. Applying the SCG and VFSG targeting mechanisms to households in the UNPS sample to identify "pseudo" treatment and control groups will allow us to test whether this assumption holds.

However, it is worth noting that to the best of our knowledge RDD in combination with the difference-in-difference technique has not been attempted before. It is unusual to design an evaluation and subsequently sample specifically for RDD ex-ante, as RDD is normally applied ex-post on confirmation that RDD is applicable to the data.

Whilst the Evaluation team will be seeking advice from RDD specialists concerning the viability of combining RDD with difference-in-difference techniques as a solution to the discontinuities observed in baseline outcome and household characteristic variables, the Evaluation team would also seek guidance from the SAGE peer review panel.

Annex D: Methodology for the construction of consumption aggregates

Stage 1: Comparison of the SAGE household survey with previous Uganda nationally representative household surveys (UNHS) conducted by the Uganda Bureau of Statistics (UBOS)

Survey duration: Unlike the routine Uganda National Household Survey conducted by UBoS, the SAGE household survey was conducted in four (4) months from August to November 2012, with nearly 92% of the households interviewed in September and October (Table D.1).

Table D.1: Distribution of the SAGE sampled households by month of interview

District	Aug	Sept	Oct	Nov	Missing	Total
Kiboga	10	119	0	0	0	**129**
Katakwi	17	268	41	0	1	**327**
Kaberamaido	12	203	84	0	0	**299**
Apac	11	312	428	157	2	**910**
Moroto	9	218	126	0	5	**358**
Nebbi	18	416	462	0	3	**899**
Nakapiripirit	0	0	127	42	0	**169**
Kyenjojo	17	387	462	14	9	**889**
Total	**94**	**1,923**	**1,730**	**213**	**20**	**3,980**

Content relevant for construction of the consumption aggregate: The relevant sections of the survey questionnaire include: household roster, consumption modules, housing conditions, and locational variable including region, district and whether household resides in rural or urban area.

On household roster, the information captured is almost similar to that of UNHS. However, the SAGE survey did not collect information on the individual member's residence status [usual, regular and guest/visitor]. In other words, it is difficult to tell whether a household member at the time of the survey was a usual, regular or visitor as is the case with UNHS. While aggregate information was collected on the number of adults, children and visitors, this information is not detailed enough to enable the analyst to identify the usual members. In the previous poverty works on Uganda consumption aggregate is adjusted for household composition based on the usual members (Appleton, 2001 2003; Ssewanyana & Okidi 2009). As discussed in detailed below, the SAGE household size include all members as captured at the time of the survey.

Regarding household consumption modules, the SAGE survey shared very similar sections on consumption expenditure with identical recall period similar list of item descriptions. However, there are some changes worth noting. The SAGE sub-module of food consumption has two additional food items (i.e. green gram and lentils); and captures three of source of food acquisition compared to four in UNHS. SAGE did not separately capture food acquisition 'away from home" though this omission might not lead to underestimation of household consumption. This is a negligible source even in the UNHS e.g accounted for about 1% in the UNHS 2009/10.

The UNHS captures information on one-off expenses (non-consumption expenditure items) though irrelevant for the construction of the consumption aggregate.

Next we consider information on the housing conditions. The SAGE is more detailed in some aspects compared to UNHS; and the reverse is true. The incidence of households without information on rent is common in both surveys. In this case, a hedonic model was estimated to impute missing rent for about 212 households.

Unlike the UNHS, the SAGE survey did not directly capture information on whether the household resided in rural or urban areas. However, with the assistance from UBoS, we were able to reconstruct this variable based on the sample frame that was developed in preparation of the next population and housing census.

Stage 2: Data transformation

Consistent with the UNHS, all purchases by household members and items received free as gifts were valued and recorded as per the current prices. The items consumed out of home produce were valued at the current farm-gate/producer prices while rent for owner occupied houses was also imputed at current market prices. Food consumption sub-module includes actual consumption out of purchases, consumption out of home produce and consumption through receipt of in-kind/free.

Different recall periods were used to capture information on different sub-components of household consumption expenditures. While a 7-day recall period was used for expenditure on food, beverages and tobacco, a 30-day recall period was used in the case of household consumption expenditure on non-durable goods and frequently purchased services. For the semi-durable and durable goods and services a 365-day recall period was used.

Expenditure data were collected on item by item basis. The expenditures were aggregated according to the recall period used and by broader sub-components of expenditures to a household level. Given the different recall periods used to collect data on household expenditures, some conversion factors were applied to change the data on a monthly basis -30 days. This was done by converting the expenditures, first on a daily basis and thereafter multiplied it 30 days.

Price adjustments

The price adjustments included accounting for intertemporal and spatial price variations, revaluation of foods derived from own consumption into market prices.

Revaluation of consumption out of home produce into market prices

On food consumption module – the information was reported based on household specific units of measurement. The quantities consumed were converted into their metric equivalent (kilograms/litres) using the conversion factors (at national level) supplied by the UBoS. There are cases where such conversions were not possible and there were also cases of outliers. This transformation was necessary for the conversion of consumption out of home produce from farm-gate to market prices and the derivation of the district food price indices as will be discussed in the subsequent section.

As already alluded to, the food consumption out of home produce was values in farm-gate prices. These food items and those obtained as gifts/free collection were revalued into market prices. This exercise involved derivation of the ratios of market price to farm-gate price item by item, which are in turn applied to the affected food items. The procedure involved estimating (i) derivation of median unit price per item at regional level with rural/urban divide; and at ALL SAGE level. The unit prices were derived based on the information on values and quantities (in metric terms). This exercise was done separately for food consumed from purchases and those consumed out of home produce. The median unit values for home consumption are used as estimates for farm gate prices whereas the unit values of household food purchases are used as estimates for market prices. Thereafter, the ratio of market price to farm-gate price was constructed.

Next step involved summing the food consumed out of home produce and that obtained as gifts/free collection together at item per household. This component of expenditure was multiplied by the above ratio to convert these food expenses into their market prices equivalent.

Spatial price adjustment

Food prices vary markedly across geographical location – partly explained by the fact that Uganda's food markets are not well integrated. This required adjustments for these spatial variations. We constructed the Paasche index at regional (rural/urban) level. The first steps involved are similar to those as discussed under revaluation of home consumption in market prices. As already alluded to, most households reported consumption based on their household-specific measurements. In the calculation of the food budget shares (based on all the three food acquisition sources), efforts were made to minimise on those food items with possible measurement errors. In other words, we relied on purchased items with comparable units of measurement. The weights for the food index at region level (with rural/urban divide) are based on the ALL SAGE level expenditure shares of the major food items and associated minor items. Some of the excluded items include alcoholic drinks and beverages such as soda. And the price relative is the ratio between the median prices at region level (with rural/urban divide) to the median price at ALL SAGE level per item. The estimates based on the SAGE survey unit values are presented in Table D.2.

These indices are used to deflate nominal food expenditures excluding tobacco, alcoholic drinks and beverages such as soda for the eight sampled districts. There are no similar adjustments made for non-food component, as most non-food items in the survey are reported only in values. In this case, the prices for non-food prices are assumed to be the same across the sampled districts.

Table D.2: Spatial food price index

Region (rural/urban)	Food index
Central, rural	111.9
Central, urban	104.4
Eastern, rural	97.3
Eastern, urban	103.5
Northern, rural	99.7
Northern, urban	99.7
Western, rural	101.9
Western, urban	99.9
	100.0

Intertemporal price adjustment

The Bureau conducts monthly price collection exercises that are used in the calculation of the consumer price index (CPI). The CPI mainly covers major urban/towns in Uganda; and was last updated (base revision) in 2005/6. Whereas the previous poverty works based on the nationally representative survey adjusted for inflation by using CPI, this was not possible for the SAGE survey. The SAGE survey is not nationally representative and skewed towards relatively poorer areas of Uganda. And for that matter the consumption patterns are radically different from those of the national level and one would expect SAGE prices to be different from the national ones. Thus applying the CPI as is the case with nationally representative surveys is not the best approach.

Instead, we calculated a composite inflation price index for food as follows: We multiplied the food CPI between 2005/6 and SAGE survey; with that of the inter-survey Laspeyeres food inflation between most recent nationally representative survey of 2009/10 and SAGE survey. Thereafter, the food expenditure were adjusted for inflation using this composite index. The non-food expenditure component was adjusted for inflation using the non-food CPI between 2005/6 and SAGE survey. Thus the consumption aggregate expressed in 2005/6 prices is the summation of these two inflation adjusted components – food and non-food.

Adjusting for household size

As already alluded to, the SAGE survey did not explicitly separate usual and regular members whereas previous poverty analyses were restricted to usual members only. However, the derivation of the adult equivalent scale follows the Appleton et al. (1999).[40] These scales are derived based on the energy requirements by age and sex using the male aged 18-30 years as a reference person. The energy requirements for this reference person is 3,000 calories. For children aged below 14 years, their equivalent scale was calculated by dividing their energy requirement according to age with that of the reference person (i.e. 3,000 calories). Whereas for adults, the equivalent scales were derived as 0.42 + 0.58*(energy requirement according to age/energy requirement of the reference person). The 58% was based on an estimate of food share of the poor. These numbers are drawn from Appleton et al. (1999) and have not been adjusted.

The per adult equivalent consumption aggregate was derived by dividing consumption aggregate by the adult equivalent.

40 Appleton, S., T. Emwanu, J. Kagugube and J. Muwonge (1999), Changes in poverty in Uganda 1992-1999, WPS/99.22.

Stage 3: Poverty line

The absolute poverty line as derived by Appleton *et al*. (1999) is widely used as the "official" poverty line by the Uganda Government. It is anchored on the cost of meeting the basic needs with a focus on meeting caloric requirements. In their derivation of this absolute poverty line, Appleton *et al*. follows Ravallion & Bidani (1994). We briefly summarise Appleton's et al. derivation below (see also Ssewanyana & Muwonge, 2004).[41] The poverty line is derived on the basis of caloric requirements adjusted for age, sex, daily activities as laid out by WHO (1985). In estimating the minimum cost of attaining caloric requirements, they focused on the food basket consumed by the poorest 50% of Ugandans based on 1993/94[42] monitoring survey. The food basket consisted of 28 major food items including staple and non-staples. These food items were converted into their caloric equivalent using caloric equivalent and retention rates taken from West *et al*. (1988). During this survey period, the poorest 50% consumed 1,373 calories per person per day, which was scaled up by a factor of 2.19 to generate 3,000[43] calories per day, the amount WHO estimates for an 18-30 male adult subsistence farmer (moderate activity). Caloric and food items were valued according to the median unit values of food purchases in the same survey but restricted to only those food items in metric measurements.[44] The food poverty line is national and not allowed to differ by geographical location of the households. This sounds simplistic in Uganda where staples vary across regions and some staples are more expensive than the others.

The regression-based approach of Ravallion & Bidani (1994) was followed to estimate the non-food requirements, allowing for these requirements to vary by region and rural/urban location. The minimum cost of attaining 3,000 calories per day and cost of the non-food requirements were combined to generate the absolute total poverty line.

The poverty line is used in the analysis is expressed both in 2005/6 prices and 2012 prices. The latter was derived as follows: the food poverty line was multiplied by composite food inflation as discussed above; and the non-food poverty line (derived as the difference between the total poverty line and food poverty line) multiplied by the non-food CPI between 2005/6 and the SAGE survey.

A household or individual is classified as poor if the per adult consumption is below the poverty line.

41 Ssewanyana S. and J. Muwonge (2004), Measuring and monitoring poverty: The Uganda Experience, a paper prepared for the Poverty Analysis and Data Initiative (PADI) Meeting, Mombasa, Kenya, May 6-8, 2004.

42 However, there are significant changes in the Ugandans food basket and this has raised issues of the relevance of the current poverty line.

43 The requirement of 3,000 calories per adult equivalent corresponds to an average requirement of 2,283 calories per capita in Uganda.

44 Efforts were made (where possible) to convert those food items reported in household specific measurement units into metric terms using the conversion factors in Kayiso (1993).

Annex E: Measures of food security

E.1 Calculation of child malnutrition measures

All anthropometric measures presented in Section 4.2.2 of the main report to assess a child's nutritional status have been measured using the z-score system. The z-score system allows for the standardisation of anthropometric data with reference to an international standard. In this case, the international standard is the WHO Multicentre Growth Reference Study (WHO 2006). These new standards were developed *in accordance with the idea that children, born in any region of the world and given an optimum start in life, all have the potential to grow and develop within the same range of height and weight for age* (*Mei and Grummer-Strawn*, 2007). This allows for the WHO 2006 child growth standards to be used worldwide and to thus provide a common basis for the analysis of growth data.

The z-score system expresses anthropometric values as several standard deviations above or below the reference median value taken from the WHO MGRS and is calculated following the equation below:

$$zscore_i = \left\{ \frac{(x_i - median(x)}{standard\ deviation(x)} \right\}$$

That is, for each indicator i of interest, including height-for-age, weight-for-age and weight-for-height, the z-score is calculated as the difference between the child's indicator and the median value in the reference population, divided by the standard deviation of the indicator.

Three standard indices of physical growth that describe the nutritional status of children are presented in this report, as defined in *Cogill* (2003):

- Height-for-age.
- Weight-for-height.
- Weight-for-age.

Each indicator is expressed in standard deviation units (z-scores) from the median of the standard population. Each of the indices provides different information about growth and body composition, which is used to assess nutritional status:

- **Wasting (weight-for-height/length):** identifies children suffering from current or acute undernutrition, with weight significantly below the weight expected of a child of the same length or height in the standard population. Causes include inadequate current food intake, incorrect feeding practices, disease and infection or, more frequently, a combination of these factors. Wasting in individual children can change rapidly and shows marked seasonal patterns associated with changes in food availability or disease prevalence.

  Children whose z-score is below minus two standard deviations (-2 SD) from the median of the standard population are considered **wasted** for their height and are acutely undernourished. Children whose z-score is below minus three standard deviations (-3 SD) from the median of the standard population are considered to be **severely wasted**.

- **Stunting (length-height-for-age – length is measured for children below 2 years of age, height is measured for children aged 2):** identifies past or present chronic undernutrition, but cannot measure short-term changes in undernutrition, i.e. it is not responsive to recent changes in dietary intake or health status. Stunting in a child occurs when growth falters or stops altogether, resulting in a failure to achieve expected height-for-age compared to a healthy well-nourished child. It is associated with a number of long-term factors, often in combination, including chronic insufficient protein, energy and micro-nutrient intake, frequent infection/disease, sustained inappropriate feeding practices and poverty.

  Children whose height-for-age z-score is below minus two standard deviations (-2 SD) from the median of the standard population are considered to be stunted and are chronically undernourished. Children below minus three standard deviations (-3 SD) from the standard population are considered to be **severely** stunted.

- **Underweight (weight-for-age):** is a composite measure of stunting and wasting. As such, it measures both past (chronic) and present (acute) undernutrition, although it is impossible to distinguish between the two.

  Children with z-scores below minus two standard deviations (-2 SD) from the median of the standard population are considered to be **underweight**. Children whose z-score is below minus three standard deviations (-3 SD) from the median of the standard population are considered to be **severely underweight**.

Table E.1 gives the seriousness of malnutrition from a public health perspective as defined by the prevalence of malnutrition of different types within a population.[45]

Table E.1: WHO classification of public health importance of prevalence of malnutrition[45]

	Acceptable	Poor	Serious	Critical
Wasted	<5%	5-10%	10-15%	>15%
Stunted	<20%	20-30%	30-40%	>40%
Underweight	<10%	10-20%	20-30%	>30%

E.2 Household Hunger Scale

The Household Hunger Scale (HHS) is a household food deprivation scale, derived from research to adapt the United States household food security survey module for use in a developing country context. This HHS was developed by the Food and Nutrition Technical Assistance (FANTA) project to produce a measure of household food security that would be appropriate for cross-cultural comparisons. The HHS is not meant to be used as the only measure of food security, but instead as one of a suite of tools to measure complementary aspects of food insecurity.

The HHS is calculated by first administering the following module as part of the household survey, in which the respondent is asked about the availability, access and consumption of food in the last 30 days. Responses to questions Q2, Q4 and Q6 are then weighted as follows: responses against *rarely* and *sometimes* are assigned a weight of 1; responses against often are assigned a weight of 2. If the response is no to Q1, Q3 or Q5, then a weight of 0 is assigned to that aspect of household hunger.

45 *WHO, 1995.*

Table E.2: HHS module		
Number	**Question**	**Response Option**
Q1	**In the past 30 days**, was there ever no food to eat of any kind in your house because of lack of resources to get food?	01 = Yes 02 = No → Q3
Q2	How often did this happen **in the past 30 days**?	01 = Rarely (1-2 days) 02 = Sometimes (3-10 days) 03 = Often (More than 10 days)
Q3	**In the past 30 days**, did you or any household member go to sleep at night hungry because there was not enough food?	01 = Yes 02 = No → Q5
Q4	How often did this happen **in the past 30 days**?	01 = Rarely (1-2 days) 02 = Sometimes (3-10 days) 03 = Often (More than 10 days)
Q5	**In the past 30 days**, did you or any household member go a whole day and night without eating anything at all because there was not enough food?	01 = Yes 02 = No → Finish module
Q6	How often did this happen in the past 30 days?	01 = Rarely (1-2 days) 02 = Sometimes (3-10 days) 03 = Often (More than 10 days)

The weights across the three aspects of household hunger are then summed to give the HHS, with a maximum value of 6 and minimum value of 0. Each household can then be categorised according to the level of hunger in the household as described in Table E.3.

Table E.3: HHS categorical indicator	
Household hunger score	**Household hunger categories**
0-1	Little or no hunger in the household
2-3	Moderate hunger in the household
4-6	Severe hunger in the household

Food Consumption Score

The Food Consumption Score (FCS) is a composite score based on dietary diversity, food frequency and the relative importance of different food groups, which was originally designed by the World Food Programme for monitoring and surveillance of household economic access to food. It is constructed based on information on household-level food consumption, where the respondent is asked about the household's frequency of consumption in number of days of days over the past week for each food item. In the case of the SAGE baseline survey a question was added to consumption expenditure module asking how many days the household had consumed each food item over the past 7 days.

Food items were then grouped into 8 standard food groups. The consumption frequency of each food group (taken as the maximum frequency of any food item within that food group) with a maximum value of 7 days/ week, is the multiplied by an assigned weight that is based on its nutrient content. Those values are then summed to obtain the FCS.

The 8 food groups, their associated weights and the justification for the assigned weights are summarised in Table E.4.

Table E.4: Food groups in the FCS

Food group	Weight	Justification
Main staples	2	Energy dense, protein content lower and poorer quality than legumes, micro nutrients (bound by phytates).
Pulses	3	Energy dense, high amounts of protein but of lower quality than meats, micro-nutrients (inhibited by phytates), low fat.
Vegetables	1	Low energy, low protein, no fat, micro-nutrients.
Fruit	1	Low energy, low protein, no fat, micro-nutrients.
Meat and fish	4	Highest quality protein, easily absorbable micro nutrients (no phytates), energy dense fat. Even when consumed in large quantities improvements to the quality of diet are large.
Milk	4	Highest quality protein, micro-nutrients, vitamin A, energy. However, milk could be consumed in very small amounts and should then be treated as a condiment.
Sugar	0.5	Empty calories. Usually consumed in small quantities.
Oil	0.5	Energy dense but usually no other micro-nutrients. Usually consumed in small quantities.

Once the FCS has been calculated households can then be classified into three groups based upon their score as summarised in Table E.5.

Table E.5: FCS threshold scores

Threshold	Profile
0-21	Poor food consumption
21.5-35	Borderline food consumption
>35	Acceptable food consumption

Annex F: Supplementary tables

This volume of tables provides supporting and supplementary data to Volume 1 of the SAGE Evaluation Baseline Report.

Table F.1: Study population characteristics

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean age	29.5***	24.1	10,820	23.8***	18	10,424	5.6***
Proportion aged under 5	11.1	11.6	10,820	15.9***	20.5	10,424	-4.8***
Proportion aged 5-17	36.1***	40.8	10,820	45.3	44.2	10,424	-9.2***
Proportion aged 18-64[2]	33.7***	43	10,820	26.6***	31.8	10,424	7.1***
Proportion aged 65+	19.1***	4.6	10,820	12.2***	3.5	10,424	6.9***
Proportion chronically ill or disabled	9.4***	6.6	10,820	10.2***	6.9	10,424	-0.8
Proportion children under 18 that are orphans	23.5	20.9	10,820	27.1***	12.4	10,424	-3.6

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) RDD Panel study design dictated that 64 years olds were not sampled as part of the control group in SCG areas.

Table F.2: Study population age pyramid

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Under 5	11.1	11.6	10,820	15.9***	20.5	10,424	-4.8***
5 to 9	14.7	15.6	10,820	19.5***	22.4	10,424	-4.8***
10 to 14	14.5***	16.4	10,820	19.1***	16.2	10,424	-4.6***
15 to 19	11.3***	14.5	10,820	9.4**	8	10,424	1.9***
20 to 24	7	7.8	10,820	3.3	3.7	10,424	3.6***
25 to 29	4.7	4.2	10,820	3.3***	6	10,424	1.4***
30 to 34	4.1***	3.2	10,820	3.9***	6.7	10,424	0.2
35 to 39	2.2	1.9	10,820	3.8***	5.1	10,424	-1.7***
40 to 44	2.2*	2.8	10,820	2.7	3.1	10,424	-0.5
45 to 49	2.2***	3.7	10,820	1.2***	1.9	10,424	1.0***
50 to 54	1.9***	6.4	10,820	1.7	1.3	10,424	0.2
55 to 59	1.6***	4	10,820	1.3**	0.8	10,424	0.3
60 to 64	3.3	3.5	10,820	2.4***	0.8	10,424	0.9**
65 to 69	7.4***	2.3	10,820	2.9***	1.2	10,424	4.5***
70 to 74	5.8***	1	10,820	3.8***	1.2	10,424	2.0***
75 to 79	3.3***	0.5	10,820	2.3***	0.4	10,424	1.0**
80 to 84	1.6***	0.5	10,820	2.1***	0.5	10,424	-0.5*
85 to 89	0.6***	0.2	10,820	0.5***	0.1	10,424	0.1
90+	0.4*	0.2	10,820	0.6***	0.2	10,424	-0.2

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) RDD Panel study design dictated that 64 years olds were not sampled as part of the control group in SCG areas.

Table F.3: Study population age pyramid, by targeting method and gender

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant		
	Eligible	Non eligible	N	Eligible	Non eligible	N
Under 5	11.8	11.1	10,820	20.4	18.7	10,424
5 to 9	16.6	14	10,820	23.1	20.5	10,424
10 to 14	16	15.6	10,820	17.1	16.7	10,424
15 to 19	15.1	12	10,820	9.5	7.3	10,424
20 to 24	8.5	6.6	10,820	3.4	3.9	10,424
25 to 29	4.6	4.2	10,820	3.5	7.2	10,424
30 to 34	2.7	4.2	10,820	5	7.2	10,424
35 to 39	1.4	2.5	10,820	5.8	4	10,424
40 to 44	1.5	3.6	10,820	3.4	2.6	10,424
45 to 49	1.9	4.4	10,820	1.9	1.5	10,424
50 to 54	4.8	5.2	10,820	1.2	1.6	10,424
55 to 59	3.1	3.3	10,820	0.7	1.1	10,424
60 to 64	3.2	3.6	10,820	0.6	1.6	10,424
65 to 69	3.6	4.2	10,820	1.1	2	10,424
70 to 74	2.4	2.6	10,820	1.6	1.9	10,424
75 to 79	1.4	1.3	10,820	0.6	0.9	10,424
80 to 84	0.7	0.9	10,820	0.6	1	10,424
85 to 89	0.3	0.4	10,820	0.1	0.2	10,424
90+	0.2	0.3	10,820	0.3	0.3	10,424

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) RDD Panel study design dictated that 64 years olds were not sampled as part of the control group in SCG areas.

Table F.4: Civil status characteristics

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion aged 18+							
Married or living with partner	44.3***	49.7	5,399	47.0***	68.6	3,814	-2.6
Divorced/separated	8.2**	6.2	5,399	9.1***	6.6	3,814	-0.9
Widowed	21.2***	12.1	5,399	28.7***	11.2	3,814	-7.5***
Never married	25.6***	31.5	5,399	14.9	13.3	3,814	10.7***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Included Uganda passport.

Table F.5: Household consumption expenditure and poverty rates

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean total household consumption expenditure	235,482.9***	329,592.4	1,988	239,683.1***	285,853.3	1,987	-4200.2
Mean total household consumption expenditure per capita	253,537.1***	353,237.5	1,988	262,149.8***	310,598.1	1,987	-8612.7

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.6: Change in subjective welfare and why

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households reporting negative change in welfare in last 12 months	37.3	37.4	1,991	38.4	39.8	1,989	-1.2
Reasons for negative change in welfare							
Less income from farming, husbandry or fishing – lower volume of production	45	45.1	722	44.5	42.1	780	0.5
Illness/injury of household member	18.8**	12	722	22.2*	16.4	780	-3.4
Less income or loss of job	8.4	7	722	6.6	7.2	780	1.9
Loss of productive household member (death)	6.9	4.4	722	3.3	3	780	3.6**
Increased cost of food	1.4	3	722	3.6	4.6	780	-2.3**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.7: Shocks and coping strategies

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Main problems suffered by households in last 12 months							
Illness/injury of household member	43.2	45.9	900	53.9	50.6*	859	-10.7***
Loss of productive household member (death)	18.1***	8.9	900	12.5*	8.7	859	5.6**
Less income from animal husbandry, fishing or farming, lower volume of production	11.6***	8.1	900	3.3	5.1	859	8.2*
Loss of (non-productive) household member (death)	3.5**	6.5	900	4.6	6.3	859	-1.2
Increased cost of food	1.9	3.3	900	4.2	4.9	859	-2.3***
Less income or loss of job	2.5	1.7	900	3.5	4.1	859	-1.0
Large expenditure due to ill health or death of hh member (inc funeral)	1.7	2.9	900	2.6	3.6	859	-1.0
Loss of productive household member (leaving hh)	2.0	1.8	900	0.8	1.2	859	1.2
Loss of hhs own land or water resources	3.0	1.8	900	0.9	0.5	859	2.1**
Large expenditure on social obligations	1.1	1.8	900	1.2	1.4	859	-0.1
Other	11.5**	17.4	900	12.5	13.7	859	-1.0
Total	100	100	900	100	100	859	
Main Coping strategies used							
Help provided by relatives and friends	44.7*	26.0	900	38.3*	28.4	859	6.4
Informal borrowing	7.8***	11.1	900	15.1	19.4	859	-7.4*
Sell livestock	7.7***	11.4	900	9.0	10.2	859	-1.4
More wage employment	8.0	9.5	900	4.6	3.3	859	3.3*
Use savings	3.0	5.2	900	6.7	7.8	859	-3.8**
Increased agricultural labor supply	0.8*	4.7*	900	3.3*	9.2*	859	-2.5*
Work as self employed	6.8	9.4	900	1.5	2.4	859	5.4*
Formal borrowing	2.8	4.1	900	4.0	5.4	859	-1.2
Sell assets	2.1	2.9	900	2.4	1.5	859	-0.3
Help provided from local governments	2.0	2.9	900	2.6	1.3	859	-0.6
Other	14.5	13.0	900	12.5	11.2	859	2.0
Total	100	100	900	100	100	859	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.8: Livelihoods

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Main reasons for not working							
Student	31.2**	41.3	933	21.3	17	463	9.9**
Sick	19.7	24.1	933	39.7	41.5	463	-20.0***
Household duties	11.1	9.7	933	10.8*	16.7	463	0.2
Distribution of employment status for main activity							
Employer	0.6	0.7	3,079	0.6	0.2	2,495	0
Own account worker	4.9*	6.7	3,079	5.2	5.2	2,495	-0.3
Unpaid family worker	3.9	2.5	3,079	0.3	0.8	2,495	3.6***
Working on home farm	70.5	72.6	3,079	85.9**	81.7	2,495	-15.4***
Gov.t permanent	0.5*	1.3	3,079	1.1	1.6	2,495	-0.6
Gov.t temporary/casual	0.3	0.2	3,079	0.1	0	2,495	0.2
Private permanent	0.8	1	3,079	0.7***	2.6	2,495	0
Private temporary/casual	14.8***	9.2	3,079	4.1	5.3	2,495	10.7***
Full time student	3.7***	5.9	3,079	1.9	2.5	2,495	1.8**
Distribution of employment status for subsidiary activities							
Employer	1	0.7	803	0.4	0.5	623	0.6
Own account worker	15.5	19.3	803	16.9	20.8	623	-1.5
Unpaid family worker	8.1	7.4	803	3.4	3.2	623	4.7*
Working on home farm	29.7	31.7	803	27.5	28.1	623	2.1
Gov.t permanent	0.3	0.4	803	0.9	0.3	623	-0.5
Gov.t temporary/casual	0.7	0.4	803	1.2	0.2	623	-0.4
Private permanent	0.0*	0.6	803	0.8	0.8	623	-0.8
Private temporary/casual	33.7	28.1	803	34.1	37.1	623	-0.4
Full time student	0.3	0	803	0	0	623	0.3
None	2.2	3.2	803	4	3.2	623	-1.9
Other	2.3	1	803	5.3	1.7	623	-3
DK	6.1	7.3	803	5.4	4.1	623	0.7

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) An adult is classified as engaged in economically productive activities if during the last 7 days they have: worked for payment in cash/in-kind outside the household; worked on household owned land or with household owned livestock or fished; worked in his/her own business or business owned by another member of the household; or even if not worked in last 7 days does have a permanent job or enterprise such as a retail shop, a factory, farm or service establishment that they will return to. (3) In all occupations.

Table F.8: Livelihoods (continued)

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Distribution of occupation status for working adults							
Legislators, senior officials and managers	0.0***	0.7	3,021	0.2	0.3	2,484	-0.2
Professionals	0.8	1	3,021	0.5	1.1	2,484	0.3
Technicians and associate professionals	0.2**	0.7	3,021	0.7	0.9	2,484	-0.5*
Clerks	0	0	3,021	0.2	0	2,484	-0.2
Service workers and shop and market sales workers	2.2	1.6	3,021	1.6	1.5	2,484	0.6
Skilled agricultural and fishery workers	65.5***	73.8	3,021	87.3**	83.5	2,484	-21.8***
Craft and related trade workers	0.4	0.8	3,021	0.6	0.6	2,484	-0.2
Plant and machine operators and assemblers	0.6	0.6	3,021	0.4	0.3	2,484	0.2
Elementary occupations	25.6***	17	3,021	5.9**	8.8	2,484	19.7***
Armed forced	0	0	3,021	0	0	2,484	0
Distribution of occupation status for subsidiary activities							
Legislators, senior officials and managers	0.0***	1.9	803	0	0.5	623	0
Professionals	3.3	2	803	1.4	2.1	623	1.9
Technicians and associate professionals	0.3	0.3	803	0.8	0.4	623	-0.5
Clerks	0	0	803	0.5	0	623	-0.5
Service workers and shop and market sales workers	6.3	6.8	803	3.2	3.1	623	3.1
Skilled agricultural and fishery workers	30.6	36	803	41.6	45.9	623	-11.0*
Craft and related trade workers	1.9	1.6	803	1.5	1.9	623	0.4
Plant and machine operators and assemblers	2	1.2	803	1.4	1.3	623	0.6
Elementary occupations	49.3	44.9	803	45.9	43.6	623	3.4
Armed forced	0	0	803	0	0	623	0

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) An adult is classified as engaged in economically productive activities if during the last 7 days they have: worked for payment in cash/in-kind outside the household; worked on household owned land or with household owned livestock or fished; worked in his/her own business or business owned by another member of the household; or even if not worked in last 7 days does have a permanent job or enterprise such as a retail shop, a factory, farm or service establishment that they will return to. (3) In all occupations.

Table F.9: Land ownership

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean acres rented	0.3	0.2	1,752	0.2	0.2	1,612	0.1
Mean acres cultivated on land not owned	1.7	1.9	329	2	1.6	634	-0.3

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.10: Livestock ownership and sales

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households owning livestock	65.4***	74.9	1,991	69.4***	77.4	1,989	-4.1
Cattle	26.9***	38.7	1,991	21.6**	26	1,989	5.3**
Goats	41.9***	52.6	1,991	45.1	47.4	1,989	-3.3
Sheep	15.5**	19.9	1,991	10.6	10	1,989	5.0**
Camels	0.2	0.1	1,991	0	0.1	1,989	0.2
Donkey/mule/ass	0.2	0.2	1,991	0	0.1	1,989	0.2
Pigs	15.1***	20.5	1,991	15.5**	19.5	1,989	-0.4
Poultry	48.9***	59	1,991	56.5***	63	1,989	-7.6**

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.11: Child domestic work and time use for domestic activities[2]

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of children aged 5-17 performing domestic duties							
Boys	69	66	2,119	75	73	2,355	-6**
Girls	77	75	2,089	81	80	2,337	-4
Mean number of hours in past week spent fetching water							
Boys	2.9	2.7	2,119	3.6**	3.1	2,355	-0.7**
Girls	3.2	3.2	2,089	4.8***	4.0	2,337	-1.6***
Mean number of hours in past week spent collecting firewood							
Boys	1.0	1.0	2,119	1.3	1.3	2,355	-0.3*
Girls	1.9	2.0	2,089	2.4**	2.0	2,337	-0.5***
Mean number of hours in past week spent cooking							
Boys	0.8	1.0	2,119	1.3	1.2	2,355	-0.5***
Girls	2.5	2.8	2,089	4.1**	3.4	2,337	-1.6*
Mean number of hours in past week spent caring for children							
Boys	0.5	0.5	2,119	0.9***	1.5	2,355	-0.5***
Girls	0.7**	1.1	2,089	2.0*	2.5	2,337	-1.3***
Mean number of hours in past week spent on other household chores							
Boys	1.2	1.2	2,119	1.6	1.7	2,355	-0.3**
Girls	1.8	1.7	2,089	2.1	1.9	2,337	-0.4*

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) A child is considered to perform domestic duties if they spend any time each week collecting water or firewood, cooking, caring for other children, or performing any other household chore (such as cleaning).

Table F.12: Dwelling characteristics and fuel

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Main source of lighting							
Electricity[3]	2.2	2.6	1,991	1.8*	3	1,989	0.5
Paraffin lantern	4.7	6.3	1,991	4.0**	6.6	1,989	0.6
Battery powered torch/lantern	9.3**	13	1,991	12.5**	17.2	1,989	-3.2*
Candle/*tadooba*	51.3	53.4	1,991	73.7	70.2	1,989	-22.3***
Firewood	29.9***	24.2	1,991	4.3***	1.6	1,989	25.6***
Main source of cooking fuel							
Electricity[3]	0.2	0.4	1,991	0.3	0.3	1,989	-0.1
Paraffin/kerosene	0.3	0.2	1,991	0.3	0.2	1,989	0
Charcoal/firewood	98.8	98.9	1,991	98.7	99	1,989	0.1
Gas	0	0.1	1,991	0	0.1	1,989	0
Main source of drinking water							
Private connection to mains water	0.9	1.6	1,991	1.2	0.8	1,989	-0.3
Public tap	1.4	0.9	1,991	1.4**	3.1	1,989	-0.1
Borehole	66.4	63.4	1,991	56.4	55.4	1,989	10.0**
Protected well/spring	3.8	5.2	1,991	10.2	9.9	1,989	-6.4***
Vendor/tanker truck	0.1	0.1	1,991	0	0.2	1,989	0.1
Unprotected source[2]	25.9	27.9	1,991	30.1	30	1,989	-4.2
Mean time to collect water (minutes)[3]	59.3	63.5	1,952	75.5	75.3	1,926	-16.1***
Toilet type							
Covered pit latrine	47.9***	54	1,991	63.8**	69.3	1,989	-15.9***
Ventilation improved pit latrine	2.8	2.7	1,991	1.0*	2.1	1,989	1.8***
Uncovered pit latrine	10.2	11.9	1,991	16.2	16.9	1,989	-6.0***
Flush toilet	0.2	0.2	1,991	0	0	1,989	0.2*
Bush	37.7***	30.7	1,991	17.7***	11.1	1,989	20.0***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Includes bedrooms and living rooms; does not include storage rooms, bath rooms, toilets or rooms used solely for business; includes kitchen only if used for living room or sleeping as well. (3) Includes grid, generator or solar electricity supply.

Table F.13: Highest level of education attained (adult population 18+)

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
No education	44.8***	33.5	5,399	36.8***	18	3,814	8.0***
Primary school P1-P3	10.6	10.9	5,399	15.3	17.4	3,814	-4.7***
Primary school P4-P5	9.9	10.9	5,399	17.3	19.1	3,814	-7.4***
Primary school P6-P7	14.2***	19.1	5,399	16.7***	26.5	3,814	-2.5*
Secondary School	14.9***	18.7	5,399	9.5***	14.6	3,814	5.4***
University degree	0.5	0.9	5,399	0.3	0.4	3,814	0.3
Other post-primary	1.8***	3.4	5,399	1.8	2.1	3,814	0
Don't know	3.3	2.9	5,399	2.6	2	3,814	0.7

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.14: Reasons for missing school in last 30 school days (children 6-17)

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Not able to afford	16.3*	23	847	18.2	19.4	1,174	-1.8
Too far away	1.4	0.8	847	0.2	0.7	1,174	1.3
Poor school quality	3.1	2.8	847	0.8	0.7	1,174	2.3
Had to help at home	9.1	8.7	847	16.1	13.1	1,174	-7.0**
Had to help with farm work	1.8*	4.7	847	3.6	6	1,174	-1.8
Had to help with family business	0	0.3	847	2.1**	0.1	1,174	-2.1**
Sick child	45.8	41.8	847	33.2*	39.8	1,174	12.5**
Education not useful	0	0	847	0.8	0	1,174	-0.8
Parents did not want	0	0.9	847	0.3	0.2	1,174	-0.3
Not willing to attend	8.2	6.9	847	6.2	7.7	1,174	2
Too young	0	0	847	0.2	0	1,174	-0.2
Orphaned	0	0	847	0.3	0	1,174	-0.3
Displaced	3.7	0.9	847	0.8*	0	1,174	2.9
Disabled	0.3	0.4	847	0	0.3	1,174	0.3
Insecurity	0.5	0	847	0	0.2	1,174	0.5
School not available	0	0.6	847	0.1	0	1,174	-0.1
Culturally inacceptable	0	0.3	847	0.3	0	1,174	-0.3
Other	8.5	6	847	14.9	11	1,174	-6.3*
Don't know	1.3	1.8	847	1.9	0.7	1,174	-0.7

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.15: Reasons for never attended school (children 6-17)

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Not able to afford	21.7*	13	806	9.9	9.2	594	11.8**
Too far away	1	1	806	7.4	3.7	594	-6.5**
Poor school quality	0	0.2	806	1.3	1.1	594	-1.3*
Had to help at home	25.5	23.9	806	2.1	2.2	594	23.4***
Had to help with farm work	0.7	2.1	806	0.6	0.5	594	0.1
Had to help with family business	0.7	0.4	806	0.1	0	594	0.6
Sick child	0.4	0.5	806	2.2	3	594	-1.8*
Education not useful	0	0	806	1.3	0	594	-1.3
Parents did not want	1.9*	4.5	806	0.5	1.8	594	1.4
Not willing to attend	4.9	7.2	806	3.1	3	594	1.9
Too young	35.4*	42.4	806	62.7	60.5	594	-27.3***
Orphaned	0.7	0.4	806	0.1	0	594	0.6
Displaced	0	0.2	806	0.0*	0.8	594	0
Disabled	1.8	0.8	806	5.5	3.9	594	-3.7*
Insecurity	0	0.3	806	0	0	594	0
School not available	0.3	0	806	0	0.6	594	0.3
Other	0.0*	0.7	806	0.3	1.1	594	-0.3
Don't know	4.9	2.6	806	2.7***	8.7	594	2.2

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.16: Reasons for not seeking health care when ill or injured

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Illness mild	9.6	8.6	484	12.4	10.7	589	-2.8
Treated illness at home	53.2	52.9	484	51.6**	64.6	589	1.6
Facility too far	7.2	4.3	484	3.9**	0.7	589	3.4
No money for consultation	18.3	18.8	484	25.6**	16.4	589	-7.3
Available facilities are costly	0.0*	4.6	484	1.1	0.7	589	-1.1
No qualified staff present	0	0	484	0.3	0	589	-0.3
Staff attitude not good	0.6	0.3	484	0.3	0	589	0.3
Too busy/long waiting time	0.6	1.1	484	0.4	0	589	0.2
Facility is inaccessible	1.5	1.7	484	0.6	0.4	589	0.8
Facility is closed	1.3	0	484	0	0.3	589	1.3
Facility is destroyed	0.5	0	484	0	0	589	0.5
Drugs not available	2.1	3.8	484	1.7	3.1	589	0.4
Other	4.6	3	484	2.2	3.1	589	2.4
Don't know	0.5	0.8	484	0	0	589	0.5

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.17: Lending institutions

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Private (family/friend)	36	33.4	860	44.7	47.7	1,028	-8.8**
Trader	9.8	8	860	0.3***	1.7	1,028	9.5***
Money lender	6.3	5.5	860	0.3	0.3	1,028	6.0***
Bank	2.7	3.1	860	0.9**	2.6	1,028	1.8*
NGO/MFI	1.3	1.2	860	1	1.4	1,028	0.3
Religious group	2.3	1.6	860	0.6	0.7	1,028	1.7*
ROSCA	7	6.4	860	7	5.5	1,028	0
VSLA	25.7	28.3	860	32.5	31.5	1,028	-6.8
SACCO	3.4**	6.7	860	3.2	2.8	1,028	0.2
Other	1.1	2.2	860	2.4*	0.9	1,028	-1.3
Don't know	4.6	3.5	860	7.1	5	1,028	-2.5

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.18: Why people borrow

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Basic food needs	26.8	21.9	860	10.6	13.7	1,028	16.2***
Basic supplies (batteries, gas, etc.)	1	1.5	860	2	1.6	1,028	-1
Livestock	0.3	0	860	0	0	1,028	0.3
Livestock production	1.2	1.1	860	1.1	1.2	1,028	0.1
Agricultural production	10.3	8.8	860	19.6	16.2	1,028	-9.3***
Household asset	0.8	2.2	860	1.6	3.1	1,028	-0.8
Cell phone airtime	0	0.2	860	0	0	1,028	0
Business	9.3	10.6	860	7.8	9.2	1,028	1.5
Education expenses	12.9***	21.7	860	13.6***	8.6	1,028	-0.7
Health expenses	25.4	21.9	860	31.5	34.6	1,028	-6.1*
Repay debt	0.8	1.4	860	0.8*	2.2	1,028	0
Other	6.4	5.4	860	6.8	5.3	1,028	-0.3
Don't know	4.6	3.3	860	4.4	4.4	1,028	0.2

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.19: Items purchased on credit

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Basic food needs	73.4	67.9	670	68.7	71.2	906	4.7
Basic supplies (batteries, gas, etc.)	12.9	15.3	670	18.8	18.5	906	-5.9**
Livestock	0	0	670	0.3	0.2	906	-0.3
Livestock production	0	0	670	0.4	0.8	906	-0.4
Agricultural production	0.3	0.3	670	0.0**	1.2	906	0.3
Household asset	0.0*	0.6	670	0.5	1	906	-0.5
Cell phone airtime	0	0.2	670	0	0.2	906	0
Business	0.6	2	670	0.4	0.5	906	0.2
Education expenses	0.3**	2.2	670	1.8	1	906	-1.5*
Health expenses	2.4	4.4	670	2.5	1.4	906	0
Repay debt	1.5	0.6	670	1.3	0.5	906	0.2
Other	8.6	6.5	670	5.5	3.4	906	3.1
Don't know							

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.20: Reason for migrating

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between eligible groups
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Basic food needs	73.4	67.9	670	68.7	71.2	906	4.7
Employment	14.1	15.7	1,170	8.9	8.3	1,041	5.1**
Education	30.8*	37.3	1,170	32.1	27.3	1,041	-1.3
Apprenticeship/training	0.8	0.5	1,170	1	0	1,041	-0.2
Medical care	2.7	2	1,170	3.2	3.3	1,041	-0.5
Change in family relationship (marriage/divorce)	20.2	16.6	1,170	12	11	1,041	8.2**
Conflict /violence	2.7	1.6	1,170	0.7	1.8	1,041	2.0**
Flooding /drought/famine	2.6	3.6	1,170	0.6	0.9	1,041	2.0*
Joining other household	20.3	18.6	1,170	34.6	39.3	1,041	-14.3***
Other	5.5	3.9	1,170	6.1	7	1,041	-0.6
Don't know	0.3	0.2	1,170	0.7	1	1,041	-0.4

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.21: Presence of or distance to key infrastructure

Indicator	Senior Citizens Grant Communities		Vulnerable Family Support Grant Communities		Control Communities		Difference between SCG and VFSG communities
	Estimate	N	Estimate	N	Estimate	N	
Proportion of communities with a							
Road that is accessible all year round by motor vehicle	63.6	198	58.0	200	70	100	5.6
Bus stop	9.1	198	10.0	200	24	100	-0.9
Taxi/matatu stop	13.1	198	14.5	200	28	100	-1.4
Truck/pick-up for transporting inputs/produce	18.7	198	27.5	200	30	100	-8.813**
Cell phone network (coverage)	94.9	198	96.0	200	96	100	-1.1
Bank branch office	1.5	198	2.5	200	1	100	-1.0
Mean distance to nearest facility if not in community (km)							
Bus stop	22.3	180	20.0	180	11.2	76	2.3
Taxi/matatu stop	15.1	172	9.8	171	9.4	72	5.3
Truck/pick-up for transporting inputs/produce	14.6	161	14.7	145	8.2	70	-0.1
Cell phone network (coverage)	210.4	10	505.6	8	252.1	4	-295.3
Bank branch office	33.3	195	25.7	195	25.1	99	7.6
District headquarters	22.0	198	30.5	198	29.2	100	-8.488***
Nearest trunk road	2.8	197	3.9	197	2.4	100	-1.1

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.22: Access to education facilities

Indicator	Senior Citizens Grant Communities		Vulnerable Family Support Grant Communities		Control Communities		Difference between SCG and VFSG communities
	Estimate	N	Estimate	N	Estimate	N	
Proportion of communities with a							
Government primary school	34.3	198	30.0*	200	40.0	100	4.3
Private primary school	16.1**	198	17.0**	200	29.0	100	-0.8
Government secondary school	3.5**	198	2.5**	200	11.0	100	1.0
ECD centre/pre-primary school	41.9	198	37.5	200	37.0	100	4.4
Mean distance to nearest facility if not in community							
Government primary school	2.3	129	2.3	140	2.4	60	0.0
Private primary school	9.1	159	6.2	166	9.3	71	2.9***
Government secondary school	7.4	190	7.0	195	8.1	89	0.4
ECD centre/pre-primary school	16.3***	114	3.1**	125	5.4	63	13.3***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.23: Access to health care

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between Prog. communities
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Mean distance to place of first consultation							
Kilometres	7.9	7.6	1,723	6.6	7.6	1,519	1.2
Minutes	89.0*	79.4	1,761	84.1*	75.1	1,518	4.8
Distribution of type of health provider sought							
Neighbour/friend	0	0.5	1,789	2.5	1.7	1,553	-2.5***
Community health worker	0.6	0.6	1,789	0.5**	2.5	1,553	0.1
Homapak drug distributor	0.2	0.2	1,789	0.1	0.1	1,553	0.1
Ordinary shop	0.1	0.2	1,789	0	0	1,553	0.1
Drug shop/pharmacy	3.3***	0.8	1,789	1.5	1.1	1,553	1.8
Private clinic	21.4*	26	1,789	37.1	35.3	1,553	-15.7***
Private hospital	2.1	2.6	1,789	1.9	2.5	1,553	0.1
Health unit government	39.7	36.6	1,789	37	34.1	1,553	2.7
Health unit NGO	4.9	5.2	1,789	1.4	2.7	1,553	3.5***
Hospital government	22.1	22.5	1,789	13.7	14.9	1,553	8.3**
Hospital NGO	1.8	1.9	1,789	1.9	2.1	1,553	0
Traditional	0.8	0.2	1,789	0.5	0.4	1,553	0.4
Other	0.4	0.2	1,789	0.7	1.8	1,553	-0.3
DK/NA	2.7	2.4	1,789	1.2	0.9	1,553	1.5

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%.

Table F.24: Distance to health facilities

Indicator	Senior Citizens Grant Communities		Vulnerable Family Support Grant Communities		Control Communities		Difference between SCG and VFSG communities
	Estimate	N	Estimate	N	Estimate	N	
Proportion of communities with a							
Government health unit	10.6	198	5.5	200	8.0	100	5.1*
Government hospital	1.0	198	0.5	200	0.0	100	0.5
Private clinic	30.8	198	33.5	200	33.0	100	-2.7
Pharmacy[2]	11.616*	198	16.500***	200	6.0	100	-4.9
Mean distance to nearest facility if not in community							
Health unit government	5.6	176	5.4	189	5.9	91	0.3
Hospital government	29.155*	194	29.483*	197	36.0	97	-0.3
Private clinic/health unit	5.5	137	3.610**	133	5.1	66	1.9***
Pharmacy[2]	17.174***	172	12.058***	167	32.8	93	5.1***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Includes outlets dispensing medicines at least up to category B. includes pharmacies located within health units or hospitals.

Table F.25: Decision making within households (female-headed households excluded)

Indicator	Senior Citizens Grant			Vulnerable Family Support Grant			Difference between Prog. communities
	Eligible	Non eligible	N	Eligible	Non eligible	N	
Proportion of households a female is the main person to make decisions on							
Children's education	17.4***	8.7	935	12.6**	7.5	925	4.9*
What to do about a serious health problem	16.4***	9.5	1,193	10.8	8.2	1,137	5.6**
How to invest money	19.5***	13.1	1,177	9.6	7.8	1,137	9.8***

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant treatment comparator: *** = 99%; ** = 95%; * = 90%. (2) Includes outlets dispensing medicines at least up to category B. includes pharmacies located within health units or hospitals.

Table F.26: Sex and age of Uganda population

	All Uganda (%)			RDD Bands (%)		
Age group	Male	Female	Total	Male	Female	Total
0-4	9.34	9.27	18.6	5.96	5.67	11.63
5-9	8.43	8.14	16.56	7.5	7.16	14.65
10-14	7.4	7.57	14.97	8.4	8.35	16.75
15-19	5.58	5.47	11.04	7.38	6.95	14.34
20-24	3.53	5	8.54	3.98	3.97	7.95
25-39	3.39	3.76	7.15	1.92	1.67	3.59
30-34	2.52	2.52	5.04	0.74	1.31	2.05
35-39	2.3	2.38	4.68	0.65	1.47	2.12
40-44	1.64	1.55	3.2	0.26	1.79	2.05
45-49	1.31	1.44	2.74	0.34	2.32	2.66
50-54	0.98	1.04	2.02	3.29	3.43	6.73
55-59	0.66	0.67	1.33	2.26	2.15	4.41
60-64	0.55	0.63	1.18	1.86	1.99	3.85
65-69	0.43	0.49	0.92	1.5	1.57	3.06
70-74	0.39	0.46	0.84	1.3	1.4	2.71
75-79	0.26	0.26	0.52	0.73	0.71	1.44
80+	0.29	0.38	0.67	0	0	0
Total	**48.99**	**51.01**	**100**	**48.07**	**51.93**	**100**

Source: UNHS 2010.

Annex G: Standard errors, design effects and intra-cluster correlations

Table G.1: SCG study population estimates – weighted

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Household size	4.766	0.116	4.539	4.993	1.463	1.210	0.007	
% of male in the household	44.716	0.922	42.909	46.523	1.167	1.080	0.003	
% of under 18 and 65+ in the household	69.512	0.996	67.560	71.465	1.506	1.227	0.008	
Number of children under 5 in the household	0.530	0.035	0.462	0.598	1.504	1.226	0.008	
Number of children aged 6-17 in the household	1.716	0.064	1.591	1.841	1.260	1.122	0.004	
Number of individuals aged 18-64 in the household	1.604	0.062	1.484	1.725	1.726	1.314	0.011	
Number of elderly (aged 65+) in the household	0.910	0.028	0.854	0.965	2.054	1.433	0.016	
Proportion of households with orphans	25.804	1.427	23.007	28.601	0.993	0.997	-0.000	
Proportion of households with eligible elderly	81.346	1.633	78.145	84.547	1.739	1.319	0.012	
Proportion of households with disabled	35.795	1.731	32.403	39.188	1.377	1.174	0.006	
Proportion of households with adult (18-64) disables	13.335	1.232	10.920	15.750	1.289	1.135	0.005	
Proportion of households with 1 member only	16.347	1.422	13.559	19.134	1.244	1.115	0.004	
Age of one person household	70.104	0.879	68.380	71.827	2.334	1.528	0.021	
Age household head	64.526	0.597	63.355	65.696	1.723	1.313	0.011	
Proportions of female headed households	48.917	1.822	45.346	52.489	1.301	1.141	0.005	
Proportions of household heads aged 65+	67.434	2.227	63.069	71.800	2.527	1.590	0.024	
Proportions of disabled headed households	20.910	1.410	18.146	23.674	1.221	1.105	0.003	
Proportions of household heads without formal education	49.863	2.410	45.138	54.587	2.579	1.606	0.025	
Household reporting current cash savings	21.537	1.631	18.341	24.734	1.573	1.254	0.009	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	6.140	0.110	5.925	6.356	1.234	1.111	0.002
	48.657	0.797	47.095	50.219	1.187	1.089	0.002
	53.055	0.782	51.523	54.587	1.000	1.000	-0.000
	0.712	0.033	0.647	0.777	1.153	1.074	0.001
	2.508	0.065	2.381	2.635	1.205	1.098	0.002
	2.638	0.057	2.525	2.751	1.263	1.124	0.002
	0.282	0.018	0.248	0.317	1.149	1.072	0.001
	29.054	1.439	26.234	31.874	0.977	0.989	-0.000
	27.813	1.547	24.781	30.844	1.182	1.087	0.002
	29.314	1.653	26.073	32.554	1.298	1.139	0.003
	16.799	1.216	14.415	19.183	0.979	0.990	-0.000
	6.142	0.827	4.521	7.763	1.148	1.071	0.001
	56.341	1.301	53.790	58.892	1.547	1.244	0.005
	55.479	0.410	54.675	56.283	1.453	1.205	0.004
	35.330	1.861	31.682	38.977	1.664	1.290	0.006
	18.805	1.334	16.191	21.419	1.102	1.050	0.001
	10.391	1.050	8.333	12.449	1.143	1.069	0.001
	39.419	2.354	34.806	44.033	3.324	1.823	0.022
	33.212	1.832	29.620	36.803	1.622	1.273	0.006

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Household reporting savings in formal institutions	7.440	1.825	3.863	11.017	1.030	1.015	0.000	
Household reporting savings in informal institutions	89.219	2.074	85.154	93.283	1.320	1.149	0.005	
Mean total value of current savings	131,772.300	30,597.970	71,800.270	191,744.300	1.289	1.135	0.005	
Household reporting borrowing money in the last 12 months	35.544	1.732	32.149	38.940	1.251	1.119	0.004	
Mean total value of money borrowed in the last 12 months	433,611.300	250,538.500	-57,444.050	924,666.800	1.089	1.044	0.001	
Mean total value of current outstanding debt	345,942.800	219,516.900	-84,310.320	776,195.900	0.767	0.876	-0.004	
Household reporting buying on credit in the last 3 months	30.087	1.733	26.690	33.484	1.442	1.201	0.007	
Mean total value of purchases on credit in the last 3 months	27,458.710	4,029.031	19,561.810	35,355.610	1.252	1.119	0.004	
Mean total value of current outstanding credit debt	14,864.660	2,635.553	9,698.975	20,030.340	0.839	0.916	-0.003	
Household receiving formal assistance in the last 3 months	18.868	2.315	14.331	23.405	4.763	2.182	0.059	
Household receiving cash aid (formal) in the last 3 months	1.601	0.419	0.780	2.423	1.044	1.022	0.001	
Household receiving in-kind aid (formal) in the last 3 months	17.551	2.311	13.021	22.081	5.270	2.296	0.067	
Total value of formal assistance received in the last 3 months	8,459.327	1,247.847	6,013.548	10,905.110	1.468	1.212	0.007	
At least 2 people share decision on children education	69.286	2.047	65.275	73.297	1.008	1.004	0.000	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	9.786	1.668	6.516	13.055	0.783	0.885	-0.002
	90.830	1.527	87.837	93.822	1.268	1.126	0.002
	501,949.900	206,761.600	96,697.210	907,202.600	6.343	2.518	0.050
	51.039	1.737	47.635	54.443	1.210	1.100	0.002
	279,886.500	27,226.200	226,523.200	333,249.900	1.117	1.057	0.001
	286,840.000	93,440.480	103,696.600	469,983.300	0.585	0.765	-0.004
	37.261	1.805	33.723	40.799	1.477	1.215	0.004
	27,756.510	3,467.560	20,960.100	34,552.930	1.289	1.135	0.003
	17,319.010	2,809.227	11,812.920	22,825.090	2.492	1.579	0.014
	15.055	1.757	11.611	18.499	3.439	1.854	0.023
	2.604	0.562	1.503	3.705	1.193	1.092	0.002
	13.147	1.707	9.802	16.492	3.833	1.958	0.026
	6,767.843	991.764	4,823.986	8,711.700	1.572	1.254	0.005
	72.015	1.681	68.720	75.310	1.001	1.001	0.000

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
At least 2 people share decision on health	69.544	1.727	66.159	72.929	1.211	1.101	0.003	
At least 2 people share decision on money	65.377	1.849	61.752	69.002	1.303	1.142	0.005	
Female makes decision on children's education	44.428	2.140	40.233	48.624	0.975	0.988	-0.000	
Female makes decision on health	49.692	2.013	45.746	53.637	1.308	1.144	0.005	
Female makes decision on money	51.717	2.185	47.434	56.000	1.605	1.267	0.009	
Household receiving informal assistance in the last 3 months	45.260	1.941	41.455	49.065	1.480	1.217	0.007	
Household receiving cash aid (informal) in the last 3 months	20.404	1.449	17.564	23.244	1.234	1.111	0.004	
Household receiving in-kind aid (informal) in the last 3 months	36.982	1.963	33.135	40.828	1.693	1.301	0.011	
Total value of informal assistance received in the last 3 months	17,132.050	2,097.236	13,021.460	21,242.630	1.371	1.171	0.006	
Household giving informal assistance in the last 3 months	27.109	1.837	23.509	30.709	1.689	1.299	0.011	
Household giving cash aid (informal) in the last 3 months	9.214	1.078	7.101	11.327	1.370	1.170	0.006	
Household giving in-kind aid (informal) in the last 3 months	23.831	1.744	20.413	27.249	1.615	1.271	0.010	
Total value of informal assistance given in the last 3 months	10,324.540	2,169.794	6,071.739	14,577.330	1.037	1.019	0.001	
Household either giving or receiving informal assistance	58.022	1.996	54.110	61.934	1.511	1.229	0.008	
Household able to borrow cash in emergency	41.375	1.741	37.962	44.789	1.142	1.069	0.002	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	73.269	1.602	70.128	76.409	1.240	1.113	0.002
	69.753	1.702	66.418	73.088	1.339	1.157	0.003
	34.472	2.001	30.550	38.395	1.503	1.226	0.005
	36.375	1.784	32.878	39.872	1.390	1.179	0.004
	39.105	1.876	35.428	42.781	1.515	1.231	0.005
	40.843	1.638	37.632	44.053	1.137	1.066	0.001
	19.107	1.209	16.736	21.477	0.869	0.932	-0.001
	30.530	1.582	27.430	33.630	1.206	1.098	0.002
	18,678.320	4,494.939	9,868.236	27,488.400	1.028	1.014	0.000
	37.921	1.870	34.255	41.586	1.603	1.266	0.006
	14.765	1.429	11.964	17.567	1.685	1.298	0.006
	32.629	1.711	29.274	35.983	1.372	1.171	0.003
	11,798.880	1,947.137	7,982.489	15,615.260	1.256	1.121	0.002
	60.540	1.667	57.272	63.808	1.180	1.086	0.002
	59.085	1.701	55.750	62.419	1.177	1.085	0.002

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Household reporting they have raised an issue in the last 12months	59.031	1.842	55.420	62.642	1.324	1.151	0.005	
Household reporting could make the councillor listen to concerns	63.603	1.891	59.897	67.309	1.568	1.252	0.009	
Household reporting people come to them for advice	68.939	1.747	65.515	72.363	1.304	1.142	0.005	
Food consumption score	39.189	0.955	37.317	41.061	3.260	1.806	0.035	
Fanta household hunger scale	1.613	0.061	1.492	1.733	2.476	1.573	0.023	
Prop. Of households reporting negative change in welfare	37.259	1.822	33.689	40.830	1.422	1.192	0.007	
Prop. Of households experiencing problem	45.570	1.961	41.725	49.414	1.552	1.246	0.009	
Household currently owning land	92.484	1.012	90.500	94.468	1.438	1.199	0.007	
Household currently rented out land	10.604	1.110	8.429	12.780	1.337	1.156	0.005	
Household currently cultivating on land not owned	11.310	1.045	9.263	13.358	1.052	1.026	0.001	
Acres of land owned	5.719	0.746	4.257	7.181	2.065	1.437	0.017	
Dwelling owned by the household	95.249	0.772	93.737	96.762	1.349	1.162	0.005	
Number of rooms in the household	2.418	0.087	2.248	2.587	3.152	1.775	0.034	
Electricity the main source of lighting in the household	2.216	0.544	1.149	3.282	1.503	1.226	0.008	
Charcoal or firewood main source of fuel used for cooking	98.791	0.351	98.104	99.478	0.931	0.965	-0.001	
Household with improved water source	74.584	2.706	69.281	79.887	5.997	2.449	0.078	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	66.587	1.726	63.204	69.970	1.372	1.171	0.003
	66.388	1.667	63.120	69.655	1.235	1.111	0.002
	75.424	1.574	72.339	78.509	1.336	1.156	0.003
	42.210	0.853	40.538	43.882	3.086	1.757	0.019
	1.414	0.066	1.284	1.543	3.149	1.774	0.020
	37.377	1.872	33.707	41.047	1.583	1.258	0.005
	46.074	1.747	42.649	49.498	1.248	1.117	0.002
	90.546	1.222	88.150	92.942	1.832	1.353	0.008
	11.027	1.138	8.796	13.258	1.314	1.146	0.003
	20.780	1.415	18.006	23.554	1.254	1.120	0.002
	5.445	0.511	4.444	6.446	1.340	1.158	0.003
	94.345	1.065	92.257	96.432	2.402	1.550	0.013
	2.622	0.081	2.462	2.782	3.617	1.902	0.024
	2.632	0.629	1.398	3.866	1.661	1.289	0.006
	98.935	0.336	98.277	99.593	1.103	1.050	0.001
	71.962	2.589	66.888	77.036	6.436	2.537	0.051

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Household with improved sanitation facility	33.151	2.431	28.386	37.916	3.327	1.824	0.036	
Monthly consumption expenditure per adult equivalent	79,665.040	2,997.035	73,790.850	85,539.230	2.122	1.457	0.018	
HH has consumption below national poverty line	47.788	2.525	42.839	52.737	2.996	1.731	0.031	
Poverty gap by 2012 prices	0.172	0.011	0.150	0.195	2.924	1.710	0.030	
Poverty severity by 2012 prices	0.081	0.006	0.069	0.094	2.367	1.539	0.021	
Monthly expenses on clothing in 2012 prices	3,102.028	268.265	2,576.228	3,627.827	2.075	1.440	0.017	
Monthly food expenditure per adult equivalent in 2012 prices	53,161.390	1,852.688	49,530.120	56,792.660	1.907	1.381	0.014	
Share of food (incl. Bev & alch drinks) in total HH consumption	69.062	0.606	67.875	70.249	1.693	1.301	0.011	
Monthly education expenditure per child aged 6-17	12,966.590	2,189.836	8,674.510	17,258.670	1.153	1.074	0.002	
Monthly health expenditure per capita in 2012 prices	1,493.650	322.915	860.736	2,126.563	1.257	1.121	0.004	
Monthly total household expenses	235,482.900	11,151.770	213,625.400	257,340.300	2.336	1.528	0.021	
Monthly nominal household expenditures in market prices	253,537.100	10,908.050	232,157.300	274,916.900	2.127	1.458	0.018	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	39.771	2.370	35.125	44.417	3.291	1.814	0.021
	76,883.150	2,859.795	71,277.950	82,488.340	2.039	1.428	0.010
	50.165	2.133	45.985	54.346	2.208	1.486	0.011
	0.179	0.010	0.159	0.199	2.656	1.630	0.015
	0.084	0.006	0.073	0.096	2.222	1.490	0.011
	5,154.867	550.351	4,076.180	6,233.554	1.519	1.233	0.005
	50,420.900	1,570.548	47,342.630	53,499.180	1.556	1.248	0.005
	68.778	0.669	67.467	70.090	1.874	1.369	0.008
	19,739.300	2,861.808	14,130.160	25,348.450	1.392	1.180	0.004
	1,579.543	599.914	403.711	2,755.375	1.114	1.056	0.001
	329,592.400	17,836.950	294,632.000	364,552.800	2.108	1.452	0.010
	353,237.500	17,808.750	318,332.300	388,142.600	1.925	1.388	0.009

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Member-level indicators								
Mean age	29.460	0.470	28.539	30.380	1.559	1.249	0.002	
Prop. of children under 5	11.128	0.615	9.923	12.334	1.355	1.164	0.001	
Prop. of children 5-18	36.057	0.787	34.515	37.599	1.184	1.088	0.001	
Prop. of adults (18-65)	33.703	0.779	32.176	35.231	1.215	1.102	0.001	
Prop. of elderly (over 65)	19.111	0.837	17.471	20.752	2.174	1.474	0.004	
Prop. of disables	9.359	0.552	8.276	10.441	1.855	1.362	0.003	
Prop. of children under 18 that are orphans	23.528	1.537	20.516	26.540	2.985	1.728	0.006	
Under 5	11.128	0.615	9.923	12.334	1.355	1.164	0.001	
5 to 9	14.713	0.550	13.636	15.791	0.983	0.991	-0.000	
10 to 14	14.547	0.523	13.521	15.573	1.027	1.014	0.000	
15 to 19	11.315	0.501	10.334	12.296	1.080	1.039	0.000	
20 to 24	6.970	0.378	6.229	7.712	0.970	0.985	-0.000	
25 to 29	4.696	0.341	4.028	5.364	1.128	1.062	0.000	
30 to 34	4.122	0.305	3.525	4.720	0.977	0.989	-0.000	
35 to 39	2.171	0.230	1.721	2.621	0.896	0.947	-0.000	
40 to 44	2.208	0.216	1.784	2.632	0.927	0.963	-0.000	
45 to 49	2.219	0.220	1.788	2.649	0.859	0.927	-0.000	
50 to 54	1.926	0.208	1.519	2.333	0.974	0.987	-0.000	
55 to 59	1.584	0.200	1.193	1.975	1.072	1.035	0.000	
60 to 64	3.288	0.256	2.786	3.790	0.934	0.966	-0.000	
65 to 69	7.376	0.445	6.503	8.248	1.330	1.153	0.001	
70 to 74	5.827	0.399	5.045	6.609	1.495	1.223	0.002	
75 to 79	3.295	0.308	2.692	3.897	1.485	1.219	0.002	
80 to 84	1.589	0.213	1.171	2.006	1.633	1.278	0.002	
85 to 89	0.609	0.125	0.364	0.854	1.025	1.012	0.000	
90+	0.417	0.107	0.208	0.626	1.676	1.295	0.002	
Proportion of individual ills/injured in the last 30 days	22.990	0.794	21.433	24.547	1.697	1.303	0.002	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	24.140	0.246	23.658	24.622	0.960	0.980	-0.000
	11.598	0.462	10.693	12.503	1.149	1.072	0.000
	40.843	0.691	39.488	42.197	1.133	1.064	0.000
	42.960	0.641	41.704	44.216	0.915	0.957	-0.000
	4.599	0.296	4.018	5.180	1.266	1.125	0.000
	6.551	0.421	5.727	7.376	1.793	1.339	0.001
	20.913	1.253	18.457	23.369	3.314	1.820	0.003
	11.598	0.462	10.693	12.503	1.149	1.072	0.000
	15.565	0.485	14.614	16.515	1.026	1.013	0.000
	16.387	0.450	15.505	17.270	0.860	0.927	-0.000
	14.497	0.444	13.627	15.367	0.904	0.951	-0.000
	7.768	0.374	7.035	8.500	1.062	1.030	0.000
	4.208	0.294	3.631	4.785	1.207	1.099	0.000
	3.179	0.234	2.720	3.638	1.095	1.047	0.000
	1.909	0.173	1.570	2.249	0.953	0.976	-0.000
	2.779	0.222	2.343	3.215	1.099	1.048	0.000
	3.651	0.231	3.200	4.103	0.868	0.931	-0.000
	6.425	0.305	5.827	7.023	0.941	0.970	-0.000
	3.968	0.260	3.458	4.478	1.015	1.007	0.000
	3.466	0.254	2.968	3.965	1.232	1.110	0.000
	2.253	0.230	1.802	2.703	1.455	1.206	0.001
	0.987	0.138	0.717	1.257	1.297	1.139	0.000
	0.489	0.083	0.326	0.652	0.866	0.931	-0.000
	0.495	0.093	0.313	0.678	1.226	1.107	0.000
	0.185	0.056	0.075	0.295	1.183	1.087	0.000
	0.191	0.061	0.070	0.311	1.013	1.006	0.000
	19.766	0.816	18.166	21.366	2.460	1.568	0.002

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Member-level indicators								
Proportion of those ill/ injured who sought formal healthcare	70.340	1.841	66.730	73.949	1.649	1.284	0.002	
Total cost of consultation	16,307.380	1,745.520	12,886.160	19,728.590	2.073	1.440	0.003	
Proportion of 15-20 who reached p7	21.904	2.200	17.592	26.215	1.675	1.294	0.002	
Proportion of 15-20 who reached p7 – male	22.717	2.914	17.006	28.427	1.797	1.340	0.003	
Proportion of 15-20 who reached p7 – female	20.818	2.756	15.416	26.219	1.481	1.217	0.002	
Children attending school	69.166	2.712	63.850	74.482	5.723	2.392	0.015	
Male children attending school	73.136	2.610	68.022	78.251	2.781	1.668	0.006	
Female children attending school	65.083	3.344	58.529	71.637	4.290	2.071	0.011	
Number of school days missed	1.657	0.126	1.410	1.904	1.759	1.326	0.002	
Number of school days missed – male	1.753	0.157	1.446	2.060	1.709	1.307	0.002	
Number of school days missed – female	1.546	0.176	1.202	1.890	1.203	1.097	0.001	
Class progression rate	69.388	1.650	66.153	72.622	1.370	1.170	0.001	
Class progression rate – male	70.148	2.300	65.640	74.656	1.315	1.147	0.001	
Class progression rate –female	67.954	2.361	63.325	72.582	1.419	1.191	0.001	
Literacy rate	38.543	2.015	34.595	42.492	4.319	2.078	0.011	
Literacy rate – male	53.405	2.594	48.321	58.489	3.275	1.810	0.007	
Literacy rate – female	27.267	1.925	23.495	31.039	2.530	1.591	0.005	
Prop of adults (18+) who attended formal education	45.379	2.200	41.066	49.692	5.147	2.269	0.013	
Prop of adults (18+) who attended formal education – male	56.102	2.629	50.949	61.255	3.435	1.853	0.008	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	73.203	1.823	69.631	76.775	1.880	1.371	0.001
	16,897.390	1,697.067	13,571.140	20,223.640	1.521	1.233	0.001
	24.837	1.630	21.642	28.033	1.262	1.123	0.000
	27.648	2.135	23.464	31.831	1.060	1.030	0.000
	21.584	2.009	17.646	25.521	0.987	0.993	-0.000
	74.193	1.865	70.539	77.848	5.464	2.338	0.007
	74.459	1.960	70.618	78.301	2.742	1.656	0.003
	73.925	2.204	69.606	78.244	4.227	2.056	0.005
	1.919	0.158	1.610	2.228	2.027	1.424	0.002
	2.123	0.195	1.741	2.506	1.547	1.244	0.001
	1.712	0.190	1.340	2.084	1.689	1.300	0.001
	69.701	1.388	66.981	72.421	1.304	1.142	0.000
	70.902	1.824	67.328	74.477	1.258	1.122	0.000
	67.809	1.882	64.119	71.498	1.300	1.140	0.000
	51.647	2.001	47.726	55.569	5.735	2.395	0.007
	67.834	2.174	63.572	72.096	4.230	2.057	0.005
	37.231	2.110	33.095	41.367	3.195	1.787	0.003
	50.867	1.836	47.269	54.466	5.086	2.255	0.006
	57.996	1.927	54.220	61.772	2.697	1.642	0.003

Table G.1: SCG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Member-level indicators								
Prop of adults (18+) who attended formal education – female	37.243	2.142	33.045	41.441	2.771	1.665	0.006	
Working age adult (18-64) engaged in economic productive activities	74.282	1.598	71.150	77.415	1.947	1.395	0.003	
Hours spent working per week	23.613	0.547	22.540	24.685	1.884	1.373	0.003	
Number of months spent working in main occupation	7.471	0.186	7.106	7.836	5.102	2.259	0.013	
Individual engaged in secondary occupation	24.399	1.600	21.263	27.535	1.374	1.172	0.001	
Child labour	22.643	1.596	19.514	25.771	1.897	1.377	0.003	
Individuals owning a blanket	39.228	2.593	34.145	44.310	18.138	4.259	0.055	
Individuals sleeping under a mosquito net	29.813	2.289	25.326	34.300	12.168	3.488	0.036	
Individuals sleeping under a mosquito net – treated	72.428	3.513	65.543	79.313	8.977	2.996	0.026	
Individuals sleeping under a mosquito net – not treated	21.781	3.288	15.337	28.225	8.710	2.951	0.025	
Civil status – married	44.327	1.297	41.786	46.868	1.753	1.324	0.002	
Civil status – divorced	8.229	0.694	6.869	9.590	1.796	1.340	0.003	
Civil status –widow	21.205	0.937	19.369	23.041	1.290	1.136	0.001	
Civil status – never married	25.554	1.142	23.316	27.792	1.475	1.215	0.002	
Number of meals consumed yesterday	1.708	0.033	1.643	1.773	17.009	4.124	0.052	
Child stunted	24.692	2.615	19.566	29.817	1.410	1.187	0.001	
Child wasted	5.063	1.186	2.738	7.388	0.972	0.986	-0.000	
Underweight child	13.058	1.993	9.152	16.963	1.223	1.106	0.001	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	44.519	2.056	40.488	48.549	3.155	1.776	0.003
	76.588	1.225	74.188	78.988	2.127	1.458	0.002
	24.298	0.477	23.364	25.233	2.817	1.678	0.003
	8.382	0.161	8.066	8.697	8.237	2.870	0.011
	26.994	1.294	24.458	29.530	1.754	1.324	0.001
	19.952	1.111	17.774	22.129	1.988	1.410	0.001
	42.540	2.519	37.603	47.478	27.171	5.213	0.039
	32.884	1.727	29.500	36.268	9.458	3.075	0.013
	76.900	2.433	72.130	81.669	9.285	3.047	0.012
	19.780	2.275	15.321	24.240	8.593	2.931	0.011
	49.657	1.157	47.389	51.926	1.543	1.242	0.001
	6.189	0.583	5.047	7.331	1.754	1.324	0.001
	12.124	0.720	10.713	13.535	1.585	1.259	0.001
	31.455	1.006	29.483	33.427	1.294	1.137	0.000
	1.814	0.034	1.747	1.880	21.642	4.652	0.031
	22.675	1.884	18.983	26.368	1.209	1.099	0.000
	6.496	0.891	4.750	8.242	0.739	0.859	-0.000
	11.672	1.461	8.809	14.535	1.244	1.116	0.000

Table G.2: VFSG study population estimates – weighted

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Household size	4.635	0.111	4.418	4.852	1.143	1.069	0.003	
% Of male in the household	40.900	0.984	38.972	42.829	0.937	0.968	-0.001	
% Of under 18 and 65+ in the household	74.515	1.021	72.514	76.516	1.364	1.168	0.008	
Number of children under 5 in the household	0.736	0.034	0.670	0.802	1.009	1.004	0.000	
Number of children aged 6-17 in the household	2.096	0.072	1.954	2.237	1.281	1.132	0.006	
Number of individuals aged 18-64 in the household	1.232	0.040	1.153	1.310	1.099	1.049	0.002	
Number of elderly (aged 65+) in the household	0.567	0.024	0.519	0.615	1.436	1.199	0.010	
Proportion of households with orphans	29.045	1.478	26.148	31.942	0.945	0.972	-0.001	
Proportion of households with eligible elderly	50.977	2.025	47.008	54.946	1.468	1.212	0.010	
Proportion of households with disabled	37.100	1.868	33.439	40.762	1.335	1.155	0.007	
Proportion of households with adult (18-64) disables	10.800	1.131	8.584	13.015	1.260	1.122	0.006	
Proportion of households with 1 member only	24.593	1.691	21.279	27.908	1.330	1.153	0.007	
Age of one person household	71.476	1.278	68.971	73.981	1.174	1.084	0.004	
Age household head	58.291	0.786	56.750	59.833	1.550	1.245	0.012	
Proportions of female headed households	54.569	1.944	50.758	58.380	1.181	1.087	0.004	
Proportions of household heads aged 65+	48.213	1.980	44.333	52.094	1.452	1.205	0.010	
Proportions of disabled headed households	21.837	1.576	18.748	24.925	1.377	1.173	0.008	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	5.767	0.081	5.609	5.925	1.082	1.040	0.001
	46.654	0.704	45.273	48.035	1.099	1.049	0.001
	65.533	0.637	64.286	66.781	1.333	1.154	0.003
	1.181	0.029	1.125	1.237	0.896	0.946	-0.001
	2.550	0.057	2.438	2.661	1.030	1.015	0.000
	1.832	0.032	1.770	1.894	1.218	1.104	0.002
	0.202	0.015	0.172	0.231	1.120	1.058	0.001
	19.370	1.315	16.794	21.947	1.105	1.051	0.001
	17.790	1.286	15.269	20.311	1.171	1.082	0.001
	31.700	1.592	28.580	34.820	1.170	1.082	0.001
	13.281	1.210	10.909	15.652	1.288	1.135	0.002
	3.604	0.604	2.421	4.787	1.036	1.018	0.000
	57.463	3.355	50.888	64.038	1.444	1.202	0.003
	43.007	0.537	41.955	44.059	1.160	1.077	0.001
	31.854	1.633	28.653	35.054	1.258	1.122	0.002
	14.914	1.193	12.576	17.253	1.143	1.069	0.001
	10.163	1.048	8.108	12.217	1.231	1.109	0.002

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Proportions of household heads without formal education	42.855	1.654	39.613	46.096	0.955	0.977	-0.001	
Household reporting current cash savings	34.908	2.012	30.965	38.852	1.680	1.296	0.015	
Household reporting savings in formal institutions	4.131	1.195	1.789	6.472	2.003	1.415	0.022	
Household reporting savings in informal institutions	94.073	1.282	91.561	96.585	1.002	1.001	0.000	
Mean total value of current savings	119,115.600	25,731.070	68,682.740	169,548.500	1.529	1.236	0.012	
Household reporting borrowing money in the last 12 months	44.028	1.842	40.417	47.639	1.283	1.133	0.006	
Mean total value of money borrowed in the last 12 months	170,979.500	20,779.080	130,252.500	211,706.500	2.184	1.478	0.026	
Mean total value of current outstanding debt	118,484.900	13,331.730	92,354.740	144,615.100	2.324	1.525	0.029	
Household reporting buying on credit in the last 3 months	41.165	1.734	37.767	44.563	1.088	1.043	0.002	
Mean total value of purchases on credit in the last 3 months	32,944.910	14,086.410	5,335.544	60,554.290	1.098	1.048	0.002	
Mean total value of current outstanding credit debt	9,189.989	1,096.744	7,040.371	11,339.610	1.413	1.189	0.009	
Household receiving formal assistance in the last 3 months	2.850	0.604	1.667	4.034	1.416	1.190	0.009	
Household receiving cash aid (formal) in the last 3 months	1.139	0.335	0.481	1.796	1.409	1.187	0.009	
Household receiving in-kind aid (formal) in the last 3 months	1.939	0.470	1.018	2.861	1.117	1.057	0.003	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	16.079	1.298	13.534	18.624	1.305	1.143	0.002
	42.262	1.782	38.769	45.755	1.349	1.162	0.003
	6.407	1.346	3.770	9.045	1.198	1.095	0.001
	92.994	1.281	90.484	95.504	0.861	0.928	-0.001
	216,507.600	36,203.360	145,549.000	287,466.200	0.825	0.908	-0.001
	58.751	1.565	55.683	61.818	1.003	1.002	0.000
	264,158.000	29,261.800	206,804.800	321,511.100	1.595	1.263	0.004
	187,563.200	22,543.060	143,378.800	231,747.600	1.845	1.358	0.006
	49.614	1.758	46.169	53.058	1.289	1.135	0.002
	22,033.400	2,127.792	17,862.930	26,203.880	1.040	1.020	0.000
	12,480.080	2,004.227	8,551.797	16,408.370	1.202	1.096	0.002
	3.030	0.589	1.875	4.185	1.250	1.118	0.002
	1.790	0.429	0.949	2.631	1.043	1.021	0.000
	1.924	0.471	1.000	2.848	1.263	1.124	0.002

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Total value of formal assistance received in the last 3 months	1,833.220	988.818	-104.864	3,771.304	1.858	1.363	0.019	
At least 2 people share decision on children education	61.850	2.220	57.499	66.201	1.209	1.100	0.005	
At least 2 people share decision on health	65.293	2.036	61.302	69.285	1.422	1.193	0.009	
At least 2 people share decision on money	58.993	1.975	55.122	62.865	1.147	1.071	0.003	
Female makes decision on children's education	48.531	2.504	43.623	53.440	1.361	1.167	0.008	
Female makes decision on health	53.490	2.101	49.371	57.609	1.203	1.097	0.004	
Female makes decision on money	52.741	2.176	48.476	57.005	1.294	1.137	0.006	
Household receiving informal assistance in the last 3 months	50.659	2.033	46.675	54.643	1.492	1.222	0.011	
Household receiving cash aid (informal) in the last 3 months	25.167	1.625	21.982	28.352	1.304	1.142	0.007	
Household receiving in-kind aid (informal) in the last 3 months	41.950	2.007	38.016	45.884	1.474	1.214	0.010	
Total value of informal assistance received in the last 3 months	24,886.120	4,068.376	16,912.100	32,860.140	0.944	0.972	-0.001	
Household giving informal assistance in the last 3 months	35.105	1.881	31.417	38.792	1.462	1.209	0.010	
Household giving cash aid (informal) in the last 3 months	12.818	1.401	10.072	15.565	1.316	1.147	0.007	
Household giving in-kind aid (informal) in the last 3 months	29.309	1.699	25.980	32.639	1.295	1.138	0.007	
Total value of informal assistance given in the last 3 months	10,406.710	1,868.125	6,745.186	14,068.240	1.220	1.104	0.005	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	2,779.187	1,045.088	730.814	4,827.560	1.118	1.058	0.001
	70.288	1.802	66.756	73.820	1.267	1.126	0.002
	73.102	1.619	69.929	76.276	1.307	1.143	0.002
	71.022	1.610	67.867	74.178	1.227	1.107	0.002
	30.302	1.728	26.914	33.689	1.108	1.053	0.001
	32.747	1.656	29.501	35.993	1.200	1.095	0.002
	32.771	1.695	29.449	36.092	1.282	1.132	0.002
	45.525	1.822	41.955	49.096	1.413	1.189	0.003
	21.322	1.417	18.545	24.099	1.231	1.110	0.002
	37.368	1.745	33.947	40.788	1.362	1.167	0.003
	17,585.860	2,041.141	13,585.220	21,586.500	0.974	0.987	-0.000
	45.628	1.801	42.097	49.158	1.380	1.175	0.003
	20.164	1.474	17.276	23.053	1.451	1.204	0.003
	39.282	1.742	35.868	42.696	1.327	1.152	0.002
	16,773.560	3,503.284	9,907.119	23,639.990	1.399	1.183	0.003

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Household either giving or receiving informal assistance	65.073	1.860	61.428	68.719	1.398	1.182	0.009	
Household able to borrow cash in emergency	42.997	2.166	38.752	47.242	1.676	1.295	0.015	
Household reporting they have raised an issue in the last 12months	61.971	1.928	58.191	65.751	1.449	1.204	0.010	
Household reporting could make the councillor listen to concerns	62.521	1.980	58.640	66.402	1.636	1.279	0.014	
Household reporting people come to them for advice	67.118	1.748	63.692	70.544	1.293	1.137	0.006	
Food consumption score	39.194	0.665	37.890	40.497	1.808	1.345	0.018	
Fanta household hunger scale	1.381	0.076	1.231	1.531	4.008	2.002	0.066	
Prop. Of households reporting negative change in welfare	38.415	1.948	34.597	42.233	1.479	1.216	0.011	
Prop. Of households experiencing problem	42.918	2.056	38.888	46.949	1.648	1.284	0.014	
Household currently owning land	89.937	1.128	87.726	92.147	1.610	1.269	0.013	
Household currently rented out land	13.138	1.433	10.329	15.947	1.783	1.335	0.017	
Household currently cultivating on land not owned	24.998	1.878	21.318	28.679	1.588	1.260	0.013	
Acres of land owned	3.229	0.216	2.807	3.652	1.235	1.111	0.005	
Dwelling owned by the household	92.904	0.946	91.050	94.758	1.607	1.268	0.013	
Number of rooms in the household	2.347	0.075	2.200	2.493	2.928	1.711	0.043	
Electricity the main source of lighting in the household	1.763	0.510	0.763	2.763	2.390	1.546	0.031	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	65.762	1.709	62.412	69.111	1.366	1.169	0.003
	61.660	1.612	58.501	64.818	1.080	1.039	0.001
	66.467	1.675	63.183	69.751	1.316	1.147	0.002
	70.677	1.847	67.057	74.297	1.879	1.371	0.007
	75.970	1.447	73.133	78.807	1.169	1.081	0.001
	41.485	0.647	40.216	42.753	2.013	1.419	0.008
	1.263	0.065	1.135	1.390	2.920	1.709	0.014
	39.837	1.947	36.020	43.654	1.760	1.326	0.006
	43.319	1.827	39.738	46.899	1.436	1.198	0.003
	85.612	1.436	82.797	88.427	1.771	1.331	0.006
	10.464	1.051	8.404	12.525	1.216	1.103	0.002
	38.391	1.575	35.304	41.478	1.062	1.031	0.000
	3.232	0.187	2.867	3.598	1.365	1.169	0.003
	90.235	1.301	87.684	92.785	2.150	1.466	0.009
	2.303	0.065	2.175	2.432	3.377	1.838	0.018
	2.977	0.633	1.736	4.218	1.366	1.169	0.003

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Household-level indicators								
Charcoal or firewood main source of fuel used for cooking	98.698	0.418	97.880	99.516	1.285	1.133	0.006	
Household with improved water source	70.648	2.758	65.243	76.054	5.361	2.315	0.096	
Household with improved sanitation facility	37.809	1.945	33.996	41.622	1.407	1.186	0.009	
Monthly consumption expenditure per adult equivalent	92,550.590	2,816.912	87,029.440	98,071.730	1.224	1.106	0.005	
HH has consumption below national poverty line	38.206	1.818	34.643	41.769	1.292	1.137	0.006	
Poverty gap by 2012 prices	0.107	0.007	0.094	0.120	1.405	1.185	0.009	
Poverty severity by 2012 prices	0.043	0.004	0.035	0.050	1.508	1.228	0.011	
Monthly expenses on clothing in 2012 prices	3,329.369	210.679	2,916.438	3,742.300	1.406	1.186	0.009	
Monthly food expenditure per adult equivalent in 2012 prices	63,325.440	2,000.105	59,405.230	67,245.650	1.184	1.088	0.004	
Share of food (incl. Bev & alch drinks) in total HH consumption	70.390	0.677	69.063	71.717	1.814	1.347	0.018	
Monthly education expenditure per child aged 6-17	7,316.630	836.089	5,677.896	8,955.364	0.850	0.922	-0.003	
Monthly health expenditure per capita in 2012 prices	2,933.368	517.179	1,919.697	3,947.039	1.062	1.031	0.001	
Monthly total household expenses	239,683.100	9,349.228	221,358.600	258,007.600	1.254	1.120	0.006	
Monthly nominal household expenditures in market prices	262,149.800	9,849.837	242,844.200	281,455.500	1.245	1.116	0.005	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	99.050	0.310	98.442	99.658	0.958	0.979	-0.000
	70.406	2.416	65.671	75.142	4.727	2.174	0.028
	42.176	1.885	38.482	45.870	1.603	1.266	0.005
	80,956.800	2,464.172	76,127.020	85,786.590	1.888	1.374	0.007
	41.135	1.860	37.490	44.780	1.532	1.238	0.004
	0.123	0.007	0.108	0.137	1.637	1.279	0.005
	0.052	0.004	0.044	0.060	1.660	1.288	0.005
	5,444.294	450.167	4,561.968	6,326.621	1.007	1.004	0.000
	56,504.680	1,416.824	53,727.700	59,281.660	1.385	1.177	0.003
	71.168	0.671	69.853	72.482	2.564	1.601	0.012
	6,644.872	557.874	5,551.439	7,738.304	1.220	1.105	0.002
	1,313.501	302.740	720.131	1,906.871	1.570	1.253	0.004
	285,853.300	9,293.396	267,638.200	304,068.300	1.915	1.384	0.007
	310,598.100	9,717.860	291,551.100	329,645.100	1.880	1.371	0.007

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Member-level indicators								
Mean age	23.822	0.442	22.956	24.687	1.911	1.382	0.004	
Prop. of children under 5	15.899	0.545	14.830	16.967	0.911	0.955	-0.000	
Prop of children 5-18	45.257	0.759	43.770	46.744	1.087	1.043	0.000	
Prop. of adults (18-65)	26.600	0.523	25.574	27.626	0.612	0.782	-0.002	
Prop. of elderly (over 65)	12.244	0.687	10.898	13.590	2.415	1.554	0.007	
Prop. of disables	10.152	0.601	8.975	11.329	2.097	1.448	0.005	
Prop. of children under 18 that are orphans	27.103	1.687	23.797	30.410	4.478	2.116	0.016	
Under 5	15.899	0.545	14.830	16.967	0.911	0.955	-0.000	
5 to 9	19.541	0.524	18.515	20.567	0.738	0.859	-0.001	
10 to 14	19.122	0.545	18.054	20.190	0.854	0.924	-0.001	
15 to 19	9.402	0.439	8.542	10.263	0.904	0.951	-0.000	
20 to 24	3.323	0.288	2.759	3.887	1.158	1.076	0.001	
25 to 29	3.313	0.305	2.715	3.911	0.904	0.951	-0.000	
30 to 34	3.942	0.309	3.335	4.548	1.025	1.012	0.000	
35 to 39	3.847	0.307	3.245	4.448	0.869	0.932	-0.001	
40 to 44	2.712	0.274	2.175	3.249	1.082	1.040	0.000	
45 to 49	1.189	0.158	0.879	1.499	0.970	0.985	-0.000	
50 to 54	1.746	0.211	1.332	2.159	1.079	1.039	0.000	
55 to 59	1.310	0.205	0.909	1.711	1.504	1.226	0.002	
60 to 64	2.411	0.265	1.891	2.930	1.315	1.147	0.001	
65 to 69	2.918	0.275	2.380	3.457	1.386	1.177	0.002	
70 to 74	3.785	0.299	3.200	4.370	1.195	1.093	0.001	
75 to 79	2.295	0.242	1.820	2.770	1.374	1.172	0.002	
80 to 84	2.138	0.254	1.642	2.635	1.677	1.295	0.003	
85 to 89	0.491	0.108	0.280	0.702	1.438	1.199	0.002	
90+	0.616	0.120	0.381	0.851	1.293	1.137	0.001	
Proportion of individual ills/injured in the last 30 days	20.455	0.856	18.778	22.132	2.110	1.453	0.005	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	17.996	0.220	17.565	18.427	0.914	0.956	-0.000
	20.490	0.435	19.638	21.343	0.635	0.797	-0.000
	44.227	0.591	43.068	45.385	0.833	0.913	-0.000
	31.784	0.411	30.980	32.589	0.456	0.675	-0.001
	3.499	0.271	2.967	4.030	1.315	1.147	0.000
	6.880	0.397	6.101	7.658	1.405	1.185	0.001
	12.364	1.035	10.335	14.393	3.912	1.978	0.004
	20.490	0.435	19.638	21.343	0.635	0.797	-0.000
	22.356	0.429	21.515	23.196	0.611	0.781	-0.001
	16.249	0.438	15.391	17.107	0.796	0.892	-0.000
	8.013	0.376	7.277	8.750	1.066	1.033	0.000
	3.732	0.271	3.201	4.264	1.380	1.175	0.000
	6.025	0.318	5.401	6.648	1.012	1.006	0.000
	6.745	0.315	6.127	7.363	0.886	0.941	-0.000
	5.092	0.280	4.543	5.641	0.917	0.958	-0.000
	3.071	0.222	2.636	3.506	0.978	0.989	-0.000
	1.850	0.181	1.494	2.206	0.985	0.992	-0.000
	1.319	0.164	0.998	1.641	1.193	1.092	0.000
	0.800	0.122	0.561	1.038	1.081	1.040	0.000
	0.759	0.115	0.534	0.984	1.069	1.034	0.000
	1.215	0.170	0.882	1.549	1.530	1.237	0.001
	1.152	0.152	0.855	1.449	1.165	1.079	0.000
	0.365	0.081	0.206	0.524	1.205	1.098	0.000
	0.490	0.090	0.315	0.666	0.988	0.994	-0.000
	0.096	0.039	0.019	0.174	1.081	1.040	0.000
	0.179	0.061	0.059	0.299	1.054	1.027	0.000
	20.939	0.746	19.477	22.400	1.948	1.396	0.001

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Member-level indicators								
Proportion of those ill/ injured who sought formal healthcare	63.255	2.381	58.588	67.922	2.327	1.525	0.006	
Total cost of consultation	21,023.020	2,700.034	15,730.950	26,315.080	1.165	1.079	0.001	
Proportion of 15-20 who reached p7	15.994	2.058	11.961	20.027	1.684	1.298	0.003	
Proportion of 15-20 who reached p7 – male	18.463	2.948	12.685	24.240	1.431	1.196	0.002	
Proportion of 15-20 who reached p7 – female	13.062	2.735	7.702	18.423	1.267	1.125	0.001	
Children attending school	81.084	1.105	78.918	83.250	1.574	1.254	0.003	
Male children attending school	82.001	1.552	78.960	85.042	1.678	1.295	0.003	
Female children attending school	80.058	1.441	77.233	82.882	1.050	1.025	0.000	
Number of school days missed	1.888	0.166	1.562	2.214	2.425	1.557	0.007	
Number of school days missed – male	1.975	0.228	1.527	2.422	1.724	1.313	0.003	
Number of school days missed – female	1.790	0.177	1.444	2.136	1.711	1.308	0.003	
Class progression rate	61.907	1.470	59.026	64.789	1.261	1.123	0.001	
Class progression rate – male	60.136	1.685	56.833	63.439	0.904	0.951	-0.000	
Class progression rate –female	64.422	2.095	60.315	68.528	1.316	1.147	0.001	
Literacy rate	40.774	1.535	37.765	43.783	1.499	1.225	0.002	
Literacy rate – male	65.702	2.342	61.112	70.291	1.522	1.234	0.002	
Literacy rate – female	25.232	1.573	22.150	28.314	1.241	1.114	0.001	
Prop of adults (18+) who attended formal education	57.132	1.519	54.154	60.109	1.441	1.201	0.002	
Prop of adults (18+) who attended formal education – male	73.464	1.894	69.751	77.177	0.999	1.000	-0.000	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	67.967	2.060	63.929	72.004	2.197	1.482	0.002
	19,291.110	1,462.286	16,425.030	22,157.190	0.927	0.963	-0.000
	19.467	1.995	15.558	23.377	1.263	1.124	0.000
	19.632	2.599	14.539	24.725	1.032	1.016	0.000
	19.286	2.684	14.025	24.546	1.049	1.024	0.000
	79.821	1.009	77.843	81.799	1.541	1.241	0.001
	80.698	1.188	78.368	83.027	1.042	1.021	0.000
	78.978	1.306	76.418	81.538	1.334	1.155	0.000
	1.868	0.141	1.592	2.144	1.905	1.380	0.001
	1.851	0.156	1.546	2.157	1.070	1.035	0.000
	1.884	0.182	1.528	2.240	1.692	1.301	0.001
	58.883	1.491	55.960	61.806	1.747	1.322	0.001
	60.095	2.108	55.963	64.226	1.592	1.262	0.001
	58.106	1.806	54.567	61.646	1.267	1.126	0.000
	56.822	1.457	53.965	59.678	1.847	1.359	0.001
	77.451	1.752	74.017	80.885	1.693	1.301	0.001
	40.435	1.740	37.025	43.845	1.477	1.215	0.001
	76.472	1.102	74.311	78.632	1.371	1.171	0.000
	85.143	1.275	82.644	87.641	0.981	0.990	-0.000

Table G.2: VFSG study population estimates – weighted (continued)

	Eligible group							
			Confidence intervals @ 95%					
Indicator	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC	
Member-level indicators								
Prop of adults (18+) who attended formal education – female	46.949	1.822	43.377	50.521	1.358	1.165	0.002	
Working age adult (18-64) engaged in economic productive activities	80.935	1.507	77.982	83.889	1.558	1.248	0.003	
Hours spent working per week	25.360	0.662	24.062	26.657	2.282	1.511	0.006	
Number of months spent working in main occupation	9.682	0.134	9.420	9.945	3.070	1.752	0.010	
Individual engaged in secondary occupation	23.886	2.262	19.453	28.319	2.267	1.506	0.006	
Child labour	22.821	1.386	20.104	25.537	2.105	1.451	0.005	
Individuals owning a blanket	41.971	2.863	36.359	47.582	20.690	4.549	0.092	
Individuals sleeping under a mosquito net	40.214	1.789	36.707	43.721	6.393	2.529	0.025	
Individuals sleeping under a mosquito net – treated	77.985	2.183	73.706	82.264	6.138	2.477	0.024	
Individuals sleeping under a mosquito net – not treated	19.994	2.105	15.868	24.119	5.966	2.443	0.023	
Civil status – married	46.976	1.906	43.241	50.712	2.104	1.450	0.005	
Civil status – divorced	9.088	0.827	7.468	10.709	1.347	1.161	0.002	
Civil status –widow	28.695	1.380	25.990	31.400	1.502	1.226	0.002	
Civil status – never married	14.860	1.028	12.844	16.876	1.196	1.094	0.001	
Number of meals consumed yesterday	1.829	0.034	1.764	1.895	15.816	3.977	0.069	
Child stunted	24.020	2.109	19.886	28.154	1.349	1.162	0.002	
Child wasted	5.474	0.952	3.607	7.340	0.911	0.954	-0.000	
Underweight child	11.104	1.665	7.841	14.368	1.302	1.141	0.001	

Source: SAGE Impact Evaluation Baseline Survey Sep-Oct 2012.

	Non-eligible group						
			Confidence intervals @ 95%				
	Mean estimate	Standard Error	Lower limit	Upper limit	deff	deft	ICC
	69.584	1.555	66.536	72.632	1.365	1.168	0.000
	84.314	1.050	82.256	86.372	1.474	1.214	0.001
	25.947	0.581	24.808	27.085	2.683	1.638	0.002
	9.629	0.109	9.415	9.844	3.316	1.821	0.003
	26.309	1.525	23.321	29.297	1.990	1.411	0.001
	26.083	1.244	23.643	28.522	2.105	1.451	0.001
	42.163	2.520	37.223	47.103	26.369	5.135	0.033
	46.895	1.573	43.812	49.978	6.433	2.536	0.007
	80.665	1.895	76.951	84.379	7.449	2.729	0.008
	16.897	1.792	13.384	20.410	7.232	2.689	0.008
	68.617	1.384	65.905	71.330	1.884	1.373	0.001
	6.600	0.630	5.364	7.835	1.442	1.201	0.001
	11.242	0.728	9.816	12.668	1.160	1.077	0.000
	13.274	0.907	11.496	15.053	1.318	1.148	0.000
	1.895	0.027	1.843	1.948	14.389	3.793	0.017
	23.166	1.520	20.188	26.145	1.473	1.214	0.001
	4.908	0.641	3.653	6.164	0.877	0.937	-0.000
	8.011	0.921	6.206	9.817	1.448	1.203	0.001









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