A Cash Plus Model for Safe Transitions to a Healthy and Productive Adulthood: **Baseline Report**

Tanzania Social Action Fund (TASAF)

Tanzania Commission for AIDS (TACAIDS)

UNICEF Tanzania

UNICEF Office of Research - Innocenti

Economic Development Initiatives (EDI)

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CONTENTS

ACRONYMS

AIDS	Acquired immunodeficiency syndrome
ARV	Antiretroviral
CCT	Conditional cash transfer
cRCT	cluster Randomized Control Trial
CES-D	Centre for Epidemiological Studies-Depression Scale
DHS	Demographic and Health Survey
EDI	Economic Development Initiatives
ELDI	Enhanced Life Distress Index
GEM	Gender Equitable Men
HIV	Human immunodeficiency virus
IPV	Intimate partner violence
NGO	Non-governmental organization
PAA	Project Authority Area
PMT	Proxy Means Test
PSSN	Productive Social Safety Net
PWP	Public Works Program
RCT	Randomized control trial
SRH	Sexual and reproductive health
SSA	sub-Saharan Africa
TACAIDS	Tanzania Commission for AIDS
TASAF	Tanzania Social Action Fund
TZS	Tanzanian Shilling
USD	US Dollar
UNICEF	United Nations Children's Fund
WHO	World Health Organization

EXECUTIVE SUMMARY

This report provides the baseline results from the impact evaluation of 'A Cash Plus model for safe transitions to a healthy and productive adulthood' being implemented within the Government of the United Republic of Tanzania's Productive Social Safety Net (PSSN), with technical assistance from UNICEF and TACAIDS. The impact evaluation is a 24-month, mixed methods study to provide evidence on the potential for an additional plus component targeted to youth that is layered on top of a government cash transfer programme to improve future economic opportunities for youth and facilitate their safe transitions to adulthood. This is based on the recognition that cash alone is rarely sufficient to mitigate all risks and vulnerabilities youth face or to overcome structural barriers to education, delayed marriage and pregnancy, and other safe transitions. The model the intervention follows was informed by a workshop held in Tanzania in February 2016 with government, researchers and development partners. The framework utilizes a capacities/asset-building framework, which recognizes that youth need a combination of social, health and financial assets to safely transition to adulthood. Using the Livelihoods Enhancement component of the existing government cash transfer programme (Tanzania Social Action Fund's Productive Social Safety Net) as a strategic entry point, this intervention and study aims to examine how economic empowerment, HIV and sexual and reproductive health (SRH) education, and linkages to other existing and new services enable youth to leverage their households' participation in the government cash transfer programme. The programme aims to reduce extreme poverty and break the intergenerational cycle of poverty, to increase the well-being of youth today as well as provide them with opportunities and capacities for their future. The intervention is implemented by TASAF, with technical assistance from UNICEF Tanzania and TACAIDS. The research study and impact evaluation are being overseen by UNICEF Office of Research – Innocenti in collaboration with a Tanzanian national partner, Economic Development Initiatives (EDI). Findings aim to inform design of future iterations of the Government's social protection and provide innovative programmatic guidance on the safe transition to adulthood of Tanzanian youth, allowing them to reach their full productive potential as healthy adults.

UNICEF Office of Research – Innocenti and EDI have designed a rigorous mixed methods impact evaluation to estimate the effects of this Adolescent Cash Plus Initiative on youth well-being and the transition to adulthood, including outcomes related to livelihoods; aspirations; schooling; attitudes; violence; partnerships; sexual and reproductive health and care seeking; and HIV knowledge, testing and treatment. The study builds on learnings from the Transfer Project, a multi-organization consortium providing evidence on government-run cash transfers in Africa, including a recent study led by UNICEF Office of Research – Innocenti and Policy Research for Development (REPOA) examining the impacts of the PSSN on youth well-being and the transition to adulthood. The current evaluation utilizes a cluster randomized control trial (cRCT) design, where 130 villages[1] in two districts (Mufindi and Rungwe) were randomized into treatment (Cash Plus) or control (PSSN only) study arms. The youth study sample consists of 2,458 youth from 1946 households. Additionally, the qualitative study sample consists of 40 adolescents[2] to whom in-depth interviews were administered. Further, we conducted 91 health facility surveys and 130 community surveys to gather contextual information relevant to the intervention and study.

[1] The terms 'village' and 'community' are used interchangeably.
[2] The terms 'adolescent' and 'youth' are used interchangeably.

Analysis presented in this report demonstrates that the cRCT design worked well. Outcomes of interest were balanced between the treatment and controls groups, indicating a valid study design to measure programme impacts. We performed approximately 374 statistical tests for mean (or proportion) differences between the treatment and control groups across outcome domains, ranging from livelihoods, aspirations, mental health, schooling and sexual behaviours to violence, health-seeking and partnerships, as well as for basic characteristics of youth and their communities, such as household demographics and access to services. We found very few (5 per cent) statistically significant differences between the two groups and conclude that the cluster cRCT design was successful at creating a valid control group. Below we highlight some key findings from the study sample.

- Fewer than half of villages studied have a health facility in the village, and health facilities were often limited in the number/type of services offered and staffing.
- Utilization of health services is higher for females than males among adolescents aged 14-19 years in the study sample. Reasons for visits also differed according to gender: Whereas females visited health facilities for nearly all services – such as family planning, screenings and treatments, and post- and pre- natal care – males were generally accessing HIV/STI testing.
- Markets are not very common in the Cash Plus villages and are prohibitively distant otherwise; only one in ten villages has a daily market operating within the community, and the remaining villages report that the nearest daily markets are, on average, 18 kilometres away. This has implications for access to livelihood options.
- Adolescents live in labour-constrained households with many children and adolescents and few working-age adults. Many households where adolescents live are headed by the elderly, with average age of the household head approaching 60.
- Adolescents live in households with few educated adults; only one in four adults has attended secondary school.
- Few households in the study report having monetary savings (one in four), and even fewer report having applied for a loan in the 12 months before the interview.
- The vast majority of adolescents live in households that engage in agricultural activities, including crop production and livestock rearing. About one in five households operates a (small) non-agricultural business.
- Adolescents live in households that are commonly exposed to shocks, such as high food prices and illness of household members, forcing them to rely on informal coping mechanisms.
- School attendance rates drop rapidly with age, from about 80 per cent among 14-year-olds to about 15 per cent among 19-year-olds. Just under half of all youth attend school.
- Distance to school may hamper schooling rates. On average, it is a 30 minute walk to the nearest primary school and an 80 minute walk to the nearest secondary school. Only one in five villages has a secondary school within the community.
- While it is common for both female and male youth to participate in economic activities and household chores, there are clear gender differences. Boys are more likely to engage in (and spend more time working on) economic activities. The gender pattern is reversed for household chores.

- While about one in five adolescents owns a cell phone, only about one in 50 owns a smartphone.
- Overall, one in three adolescents exhibits depressive symptoms and the rate of depressive symptoms increases with age.
- While perceived quality of life is low, aspirations are quite high, with nearly all youth aspiring to secondary or tertiary education levels and many aspiring to jobs such as teachers and doctors.
- One in ten females report having ever been pregnant and, relative to nationally reported levels, the study youth have very low rates of marriage/cohabitation (one per cent having ever married/lived with partner). This is likely due to the sampling frame for the study, where those who have married have moved out of PSSN households.
- Adolescents in the study sample report higher rates of modern contraceptive use and lower rates of knowledge of modern contraception methods as compared to nationally comparable samples.
- Poverty and vulnerability is closely linked to partner formation and risky behaviours. About one in five adolescents started a relationship for financial reasons, and this rate is higher among females than males.
- While overall HIV/SRH service access rates were low due to a small proportion of the sample reporting sexual debut (17 per cent), nearly all youth seeking HIV/SRH services said staff were friendly and there was adequate confidentiality.
- Across the age range, males are almost exclusively seeking services related to STI testing and treatment. In contrast, younger females are more likely to seek services related to STI testing and treatment whereas older females are more likely to visit for other types of services (contraception, pregnancy-related).
- Female adolescents report higher rates of emotional violence than males across the age range, whereas males report higher rates of physical violence.
- Of the male and female adolescents reporting physical and emotional violence in the past 12 months, very few sought help from an authority figure.
- Among youth reporting sexual debut, 19 per cent report forced sex in their lifetime and 15 per cent report their first sex was forced, pressured, or tricked.

1 INTRODUCTION AND BACKGROUND

This report provides the baseline results from the impact evaluation of a ''Cash Plus' Model on Youth Well-Being and Safe, Healthy and Productive Transitions to Adulthood being implemented within the Government of the United Republic of Tanzania's Productive Social Safety Net (PSSN), with technical assistance from UNICEF and TACAIDS. This mixed methods evaluation is led by UNICEF's Office of Research – Innocenti and Economic Development Initiatives (EDI), and supporting evaluation team members include personnel from TASAF, TACAIDS and UNICEF Tanzania.

Adolescence is an intense period of physical transformation and brain development. As such, it represents a unique window of opportunity, and investments in adolescence are often referred to as having a "triple dividend"[3] with benefits today, in adolescents' future adult life, and in the next generation of children. Indeed, policymakers, advocates and researchers are increasingly recognizing the power of adolescents and youth for development and economic growth, and the potential they represent. In 2015, an estimated 17.5 million Tanzanians were aged between 15 and 34 years; a number expected to double by 2035.[4] Therefore, investments made today will largely determine whether Tanzania is able to translate its demographic dividend into accelerated economic growth, peace and stability, or whether the dividend will result in irreversible loss of opportunity.[5] Youth development is prominent in Tanzania's five-year development plan (2016–2020).[6] It is one of nine objectives in the plan: "Accelerate broad-based and inclusive economic growth that reduces poverty substantially and allows shared benefits among the majority of the people through increased productive capacities and job creation especially for the youth and disadvantaged groups." According to a recent study, investment in the capabilities of adolescents related to health and education in resource-poor settings would generate large economic and social returns.[7]

However, the dividend is not automatic and, despite this incredible potential, adolescence is not without its risks. Adolescents in Tanzania face many risks related to poverty, early pregnancy and marriage, violence, HIV, and lack of livelihood opportunities.[8,9] It is also during adolescence that gendered norms within their socio-cultural environments play an increasingly important role in adolescents' lives[10], shaping their current and future opportunities.

[3] Patton GC, *et al.*, 'Next steps for adolescent health: a Lancet Commission', *The Lancet*, vol. 383, no. 9915, 2014, pp. 385–6.

[4] Haji M, *Youth employment in Tanzania: Taking stock of the evidence and knowledge gaps.* International Development Research Centre, Ottawa, Canada, 2015.

[5] Jenkins A, Bangser M., *The promise of adolescence: UNICEF Tanzania Country Office adolescent strategy to guide the 2016–2020 country programme*, UNICEF Tanzania, Dar es Salaam, Tanzania, 2015.

[6] Planning MoFa. *National Five Year Development Plan 2016/17 - 2020/21*, Ministry of Finance and Planning, Dar es Salaam, Tanzania, 2016.

[7] Sheehan, P., *et al.*, 'Building the foundations for sustainable development: a case for global investment in the capabilities of adolescents', *The Lancet*, 2017.

[8] Population Council, Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), UNICEF Tanzania, *The Adolescent Experience In-Depth: Using Data to Identify and Reach the Most Vulnerable Young People, Tanzania 2009-2012*, Population Council, TACAIDS, ZAC and UNICEF Tanzania, Dar es Salaam, 2015.

[9] Haji M., *Youth employment in Tanzania: Taking stock of the evidence and knowledge gaps*, International Development Research Centre MasterCard Foundation, Ottawa, Canada, 2015.

[10] GAGE Consortium, *Gender and Adolescence: Why understanding adolescent capabilities, change strategies and context matters*, Overseas Development Institute, London, 2017.

To harness the demographic dividend for economic growth and development, the following are necessary conditions: 1) youth are prepared with necessary economic and livelihood skills while simultaneously empowered to address their health (including sexual and reproductive health needs) to transition safely to adulthood and delay marriage and childbearing; and 2) the job market responds to the increased supply of labour with increased demand.

The evidence described above, taken together with Tanzania's recent widespread expansion of social protection programming, highlights the current opportunity to examine the potential for social protection and complementary programming to facilitate safe transitions and maximize youth future productivity and well-being. The pilot and evaluation described in this report focus on impacts of a unique, multi-sectoral, government-implemented intervention targeted to vulnerable adolescents in impoverished households. The study builds on learnings from the Transfer Project, a multi-organization consortium providing evidence on government-run cash transfers in Africa, with a focus on safe transitions to adulthood for youth.[11]

As cash transfer programmes aim to reduce poverty and food insecurity and improve human capital, they rarely have outcomes such as adolescent mental health, risk behaviours and violence as primary objectives. However, by targeting poverty and vulnerabilities, these programmes may address some of the structural drivers of adverse outcomes in adolescence. The evidence from sub-Saharan Africa (SSA) linking cash transfers with safe transitions to adulthood is growing. In addition to increasing school enrolment among secondary school age youth[12] government cash transfer programmes have been found to delay sexual debut and pregnancy and to reduce transactional and age-disparate sex among adolescent girls.[13,14,15] Evidence from the region on non-governmental cash transfer programmes (both conditional and unconditional) demonstrates that these programmes have reduced intimate partner violence (IPV) and delayed sexual debut, pregnancy and marriage, as well as reduced HIV risks among adolescent girls.[16,17,18]

A recent study examining impacts of the PSSN alone (cash and public works program (PWP) components only) highlighted positive impacts on youth well-being, including increased school enrolment and reduction in children's paid work. Positive impacts on basic needs, youth's perceptions of control over their own lives, participation in household decision-making, and social

[11] The Transfer Project is currently operating in over 10 countries, including impact evaluations on youth in five countries. For further details see: https://transfer.cpc.unc.edu/

[12] Baird, Sarah, *et al.* "Relative effectiveness of conditional and unconditional cash transfers for schooling outcomes in developing countries: a systematic review." Campbell systematic reviews 9.8 (2013).

[13] Handa, S., Halpern, C. T., Pettifor, A., & Thirumurthy, H., 'The government of Kenya's cash transfer program reduces the risk of sexual debut among young people age 15-25', PLoS One, vol. 9, no. 1, 2014, e85473-e85473.

[14] Cluver, L., Boyes, M., Orkin, M., *et al.*, 'Child-focused state cash transfers and adolescent risk of HIV infection in South Africa: a propensity-score-matched case-control study', *The Lancet Global Health*, vol. 1, no. 6, 2017, e362-e370.

[15] Heinrich, C. J., Hoddinott, J., and Samson, M., 'Reducing adolescent risky behaviors in a high-risk context: The effects of unconditional cash transfers in South Africa', *Economic development and cultural change*, vol. 65, no.4, 2017 pp. 619–652.

[16] Baird, S. J., Garfein, R. S., McIntosh, C. T., & Ozler, B.,. 'Effect of a cash transfer programme for schooling on prevalence of HIV and herpes simplex type 2 in Malawi: a cluster randomised trial', *The Lancet*, vol. 379, no. 9823, 2012, pp. 1320–1329.

[17] Handa, S., *et al.*, 'Impact of the Kenya Cash Transfer for Orphans and Vulnerable Children on Early Pregnancy and Marriage of Adolescent Girls', *Social Science & Medicine*, vol. 141, 2015, pp. 36–45.

[18] Pettifor, A., *et al.*, 'HPTN 068: The Effect of a Conditional Cash Transfer on HIV Incidence among Young Women in Rural South Africa', *The Lancet Global Health*, 2016, S2214-109X(16).

support were also observed.[19] However, the evaluation also highlighted nuanced findings related to children's schooling and work; there is not always a direct trade-off and, in agricultural households, increased financial resources and thus investments in livestock, for example, are often accompanied by children's increased participation in home production (e.g. tending livestock). Furthermore, the programme had no impacts on other outcomes related to safe transitions to adulthood, including delayed sexual debut and pregnancy, contraceptive use, risky sexual behaviours and mental health. These findings underscore that while cash transfers can positively impact youth well-being and transitions to adulthood, they are rarely, if ever, sufficient to overcome the broad-based and interrelated social, economic and health risks youth face.[20] Thus linkages between social protection programmes and existing government and other services should be strengthened to best facilitate safe transitions to adulthood. This recognition has led advocates to highlight 'cash plus', or cash transfer programmes bundled with complementary interventions or linkages to existing services as important areas to invest in. The rationale behind this is that government cash transfer programmes identify the poorest and most vulnerable members of society with the aim of smoothing consumption and improving food security, and linking these vulnerable populations to other services may have synergistic impacts on their well-being. In this way, beneficiaries may be reached by health or social services or may be able to leverage the cash to have larger impacts on their productive activities and future well-being.

In recognition of the need for such linkages and complementary programming, governments in the region are increasingly piloting cash plus initiatives. Conceptually, cash plus is defined as cash transfers combined with one or more types of complementary support. These may consist of integral elements (e.g. additional benefits, in-kind transfers, information, behaviour change communication or psycho-social support); or external components (e.g. direct provision of access to services or facilitating linkages to services).[21] In Tanzania in particular, plus initiatives around the PSSN have included nutrition sensitization, with technical support from UNICEF, youth livelihoods training with technical support from ILO, and contraceptive knowledge sensitization, with technical support from the United Nations Population Fund.

To our knowledge, the current study is the first to specifically examine impacts of a cash plus model on youth well-being and transitions to adulthood in the context of a government transfer programme.

1.1 TANZANIA SOCIAL ACTION FUND (TASAF)

The Tanzania Social Action Fund (TASAF) was established in 2000 as part of a government strategy to supplement other government poverty reduction initiatives using a Community-Driven Development (CDD) approach. It started with a one-year pilot (from 1999 to 2000) in eight of the poorest districts of Tanzania, including Bagamoyo, Kibaha, Dodoma, Singida, Shinyanga, Tandahimba, Rombo and Bukoba. TASAF I, which was the first phase (2000–2005), focused on

[19] Palermo, Peterman, de Hoop, Prencipe, Groppo, Kilama, *Tanzania Youth Study: Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*. UNICEF Office of Research and REPOA. Florence, Italy/Dar es Salaam, Tanzania, 2017.

[20] Watson, C., & Palermo, T., *Options for a "Cash Plus" Intervention to Enhance Adolescent Well-being in Tanzania: An introduction and review of the evidence from different programme models in Eastern and Southern Africa*, 2016, Retrieved from Florence:

[21] Roelen, K., *et al.*, 'How to Make 'Cash Plus' Work: Linking Cash Transfers to Services and Sectors', *Office of Research - Innocenti Working Paper, WP-2017*-10, 2017.

improving social service delivery; capacity enhancement for communities, including overseeing 1,704 community-run sub-projects such as construction and rehabilitation of health care facilities, schools and other small-scale infrastructure; and a public works component with 113,646 direct beneficiaries. TASAF II, the second phase (2005–2013), built on the Millennium Development Goals (MDGs) and expanded the first stage commitments to address a shortage of social services, capacity enhancement (including 12,347 community sub-projects), and income poverty, including pilot conditional cash transfers (CCTs) reaching 11,576 households in communities that were strengthened during the first phase. Phase I and Phase II of TASAF were successfully implemented and achieved programme objectives.

However, despite successes of the first two phases, the programme faced some challenges including: Community demand for sub-projects in excess of TASAF financial capacity; limited financial capacity in TASAF II for the implementation of other interventions like conditional cash transfers, Saving and Investment, and Infrastructure across key sectors (health, education, water, etc.); presence of extremely poor households (9.7 per cent of population) that were not benefitting from services (education, health, etc.); malnutrition and stunted growth among the children from poor households; inadequate access to health facilities for children from poor households; and lack of school registration among children from poor households as well as non-attendance of those few who were registered. Children from poor households also experienced school dropout and were subjected to child labour. To address all these challenges, the Government needed to invest in human capital with the aim of breaking the intergenerational cycle of poverty. This called for a new comprehensive social protection programme.

1.2 TANZANIA'S PRODUCTIVE SOCIAL SAFETY NET (PSSN)

The Productive Social Safety Net programme (TASAF III) was officially launched in August 2012. Initially, PSSN aimed to support approximately 275,000 extremely poor households living in selected poor communities in rural and urban areas. In September 2013, with the overall objective of reducing extreme poverty by half, the Government of the United Republic of Tanzania, in collaboration with development partners, agreed to scale-up the PSSN to support the entire poorest population living below the food poverty line nationally. The programme includes consolidation of Integrated Social Safety Net Interventions to maximize the impact of a social safety net through implementation and up-scaling of labour-intensive public works and cash transfer interventions to targeted extremely poor and food insecure groups. The programme also consists of livelihood enhancement that involves income generating activities for the targeted poor and vulnerable groups.

The objectives of the current phase include: increase consumption of the extremely poor on a permanent basis, consumption smoothing during lean seasons and shocks, invest in human capital, strengthen links with income generating activities and increase access to improved social services. It aims to improve consumption and human capital accumulation and to reduce the poverty headcount and poverty gap by 5 per cent and 30 per cent, respectively.

The programme also aims to improve vulnerable populations' ability to cope with shocks, invest in human capital, and increase access to improved social services. The key element of the programme is a CCT provided to households living below the food poverty line, complemented with components for strengthening public works and livelihoods. To receive payments, participating

households are required to comply with certain conditions (or 'co-responsibilities') related to children's school attendance and health care, although a portion of the cash transfer is fixed and unconditional and relies only on eligibility of the household related to household poverty and number of children in the household. By early 2016, the CCT component had enrolled over 1.1 million of the poorest households in Tanzania, or approximately 10.5 per cent of the total population. Eventually, all eligible households nationwide (approximately 15 per cent of the population) are expected to be engaged in the programme.

The PSSN programme utilizes a three-stage targeting process, including geographical targeting, community-based targeting and a proxy means test (PMT). In the first stage, national poverty maps were utilized to identify the poorest Project Authority Areas (PAAs) and villages. At the village level, community teams were selected by village assembly meeting to list the potential beneficiaries that were later approved by both Village Council and Village Assembly meetings respectively. The households identified in this process were then enumerated for the PMT to ensure they met the poverty criterion. Those that met the poverty criterion (i.e. that scored below the designated threshold) were then enrolled in the programme.

For the Adolescent Cash Plus Initiative, two pilot districts were chosen based on overlaps between TASAF priorities (including areas not scheduled for pilot livelihood programmes as part of the overall PSSN) and UNICEF programme regions. The two selected districts for pilot and evaluation were Rungwe and Mufindi districts.

1.3 PROGRAMME DETAILS

The overall PSSN has four components:

1. Establishment of a National Safety Net incorporating transfers linked to participation in public works (PW) and adherence to co-responsibilities (CCT).
2. Enhancement of Livelihoods and increase in beneficiaries' incomes.
3. Targeted development of infrastructure (education, health, water).
4. Capacity building to ensure adequate programme implementation.

See Figure 1.1 (page 15) for programme details.

1.4 THE 'PLUS' INTERVENTION

The Cash Plus model complements the PSSN with a package of adolescent-focused interventions to strengthen productive, human and health capital, and may ultimately have synergistic impacts promoting sustainable and healthy livelihoods that increase resilience, well-being and empowerment today, tomorrow and for future generations.

The programme builds on the cash transfer and livelihood enhancement components of the PSSN and is designed to fit within PSSN's Livelihoods Framework, closely aligning to the objectives of the PSSN. The PSSN livelihoods component roll-out follows the adopted strategic approach to first design and gradually implement the livelihoods enhancement packages in phases to ultimately achieve full scale up. The programme builds on and further strengthens existing local government capacity and services related to adolescent health, livelihoods and social protection.

Figure 1.1. – *Programme details*[22]

As of 2015, the **Conditional Cash Transfer** provides:

- 10,000 TZS fixed benefit (approx. 4.50 USD);
- 4,000 TZS fixed benefit for each household if the household has a child under 18 years (approx. 1.80 USD);
- 4,000 TZS fixed additional for child under five, conditional on health compliance (approx. 1.80 USD);
- 2,000 TZS additional for each child (up to four children), conditional on enrollment in primary school (approx. 0.90 USD);
- 4,000–6,000 TZS additional for child, conditional on enrollment of child in lower or upper secondary school (approx. 1.80–2.70 USD); and
- Maximum monthly transfer of TZS 38,000 (approx. 17.00 USD).

The **Public Works** component or 'cash-for-work' provides:

- 2,300 TZS per day (approx. 1.00 USD) for one able-bodied adult per household age 18 and over for up to 60 days in four months.

The **Livelihoods Enhancement** component provides:

- Savings promotion and mobilization of beneficiaries to form savings groups;
- Basic training to help prepare beneficiaries to access existing productive opportunities;
- Support to households' income-generating capacity and income diversification; and
- A productive grant.

The 'plus' intervention follows a "capabilities approach"[23,24,25] and aims to strengthen youth productive, human and health capital. The intervention will jointly address livelihoods enhancement and education on HIV/SRHR and gender equity, as well as facilitate linkages to youth-friendly SRH services. Hence, the plus intervention will comprise the following three components (*see also Figure 1.2*):

1. **Livelihoods enhancement** (economic and social assets) – To develop the youth livelihoods curriculum, TASAF and UNICEF worked with Technoserv, building on lessons learned from Technoserv's extensive experience on livelihoods and working with youth in Tanzania. Technoserv supported the livelihoods curriculum development process and piloting of materials (for comprehension). The trained facilitators (e.g. community development officers, agricultural extension workers, etc.) will in turn work directly with youth to deliver livelihood

[22] Aide Memoire of the TASAF/PSSN Mid-Term Review and Implementation Support Mission September 8–19, 2014.
[23] Sen, A., 'Human rights and capabilities', *Journal of human development*, vol. 6, no. 2, 2005, pp. 151–166.
[24] Sen, A., 'Development as capability expansion', in *The Community Development Reader, 2nd ed.*, edited by DeFilippis, J., Saeger, S., 1990, pp. 319–327.
[25] GAGE Consortium, *Gender and Adolescence: Why understanding adolescent capabilities, change strategies and context matters*, Overseas Development Institute, London, 2017.

skills and provide linkages to employment for youth of appropriate skills and age groups. After completion of the training, youth will receive an 80 USD productive grant to be used for a business plan or to continue vocational training. Then, the facilitators will provide long-term mentoring (also termed 'aftercare') to youth. Design of the intervention takes into consideration the fact that adolescents and youth targeted by the programme are in different age brackets and may have different needs (for example, ages 14–17 years versus 18–19 years).

2. **HIV and sexual and reproductive health and rights and gender equity messaging** (social and health assets) – gender equity, violence prevention and HIV/SRHR messaging will be layered onto the livelihoods enhancement component by building on existing trainings and materials, using innovative modes of delivery. Sessions are planned to be delivered by professional cadre from the health and/or social welfare sectors (capacity building envisioned) working at the village/community/ward level (health care workers, community development officers). UNICEF partnered TAMASHA on the HIV/SRH component, building on lessons learned from TAMASHA's extensive experience working with youth in Tanzania on SRH interventions. TAMASHA supported the curriculum development process and piloting of materials (for comprehension).
3. **Strengthening linkages to existing HIV, SRH and violence response services** (health assets) – UNICEF Tanzania is currently working with the Ministry of Health, Community Development, Gender, Elderly and Children to strengthen adolescent and youth-friendly SRH services in government health facilities in target areas. As part of this process, the Standards for Adolescent Friendly Reproductive Health Services (2005) were updated in 2016 and training on and implementation of these standards are ongoing. Upon completion of this process, implementation will follow a training of trainers (ToT) approach. The current intervention aims to align with this ongoing government-led process and support roll-out in target areas. In addition, following mappings in the planning phase, linkages to government reproductive, maternal, new-born, child and adolescent health services and one-stop centres (or related community-based services) for women and children affected by violence (where available) will be promoted.

Face-to-face delivery of the livelihoods and HIV/SRH training will occur over a 10-week period, and facilitators will meet with youth groups in each village for two hours once a week during this period. Livelihoods and HIV/SRH training will occur jointly in each session (one hour for each). Topics and activities to be covered in the delivery of the intervention include:

Livelihoods component:

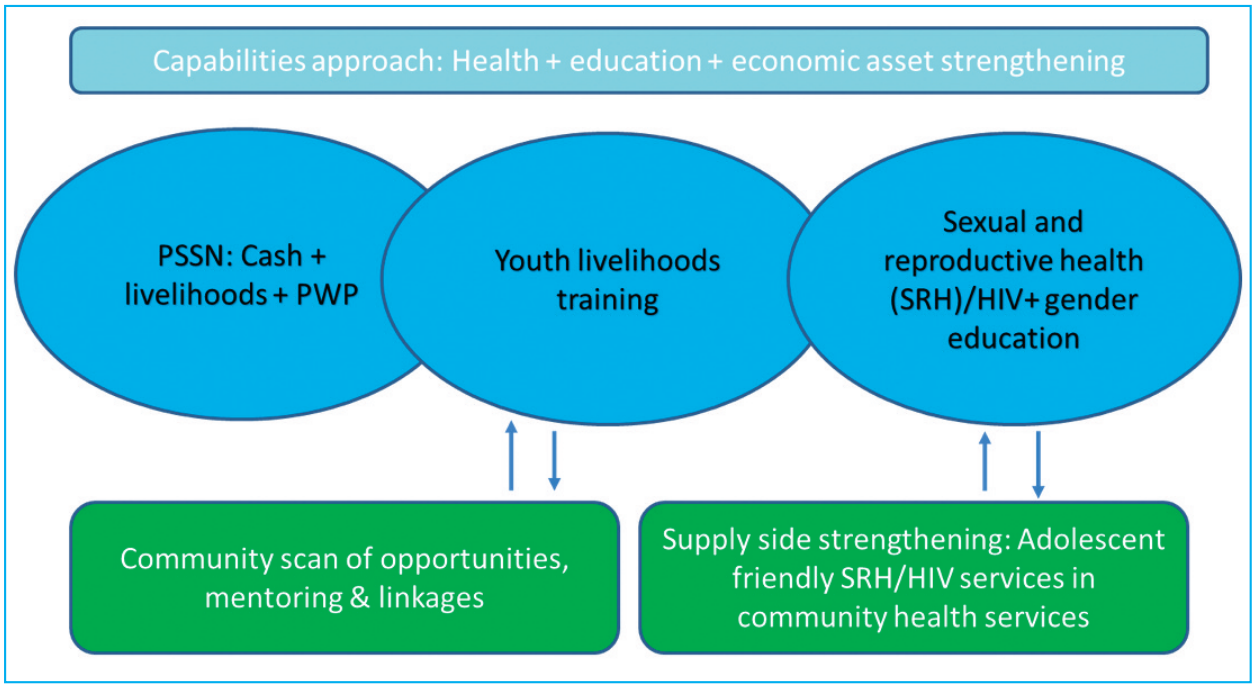
- Changes
- Dreams
- Goals
- Business plans
- Entrepreneurship
- Business record keeping
- Saving
- Obligations and requirements for entrepreneurs

Sexual and reproductive health component:

- Our community and our health
- Coping with puberty
- Relationships
- HIV knowledge – prevention and protection
- Sexual risk taking and protection
- Violence and gender-based violence
- Pregnancy
- Family planning
- Sexually transmitted infections
- Living with HIV and AIDS
- Alcohol and drugs
- Healthy living and nutrition

Afterwards, additional mentoring activities (also called 'aftercare') will continue for a period of up to one year. These activities will include facilitating linkages to training and apprenticeship activities. These coaching and mentoring activities will depend on adolescents' choice of future trajectory.

Figure 1.2. – ***Overview of intervention components***



Scalability, sustainability and looking forward in pilot planning

The key to scalability and sustainability of this pilot is linking to existing government services (primarily HIV/SRH services) and implementation within existing government frameworks and structures (the livelihoods component of the TASAF III/PSSN programme). A previous adolescent

SRH intervention conducted in Tanzania with public sector health workers demonstrates the feasibility of this approach[26, 27]. Although many of these components are envisioned within national sectoral action plans, on the ground they are often highly fragmented, of poor quality and rarely implemented in full. The current initiative adds unique value as it aims to develop or strengthen these linkages towards a more integrated systems approach, thereby reducing fragmentation of services and increasing effectiveness, while conducting capacity building to improve quality service provision to youth and providing rigorous evidence on the initiative's effectiveness.

[26] Hayes RJ, Changalucha J, Ross DA, Gavyole A, Todd J, Obasi AI, *et al.* The MEMA kwa Vijana project: design of a community randomised trial of an innovative adolescent sexual health intervention in rural Tanzania. Contemporary clinical trials. 2005;26(4):430-42.

[27] Larke N, Cleophas-Mazige B, Plummer ML, Obasi AI, Rwakatare M, Todd J, *et al.* Impact of the MEMA kwa Vijana adolescent sexual and reproductive health interventions on use of health services by young people in rural Mwanza, Tanzania: results of a cluster randomized trial. Journal of Adolescent Health. 2010;47(5):512-22.

2 CONCEPTUAL FRAMEWORK

Amartya Sen advocated for a "capability approach" to development.[28] This approach advocates for investments in individuals as a whole and emphasizes the importance of functioning ('doing' and 'being') over a simple assessment of commodities or happiness. In Sen's framework, development refers to an expansion of one's set of capabilities, and thus new opportunities to choose or decide a different future. Many poor and vulnerable adolescents have limited options to choose from and thus limited 'capabilities'. A new initiative on gender and adolescence, called GAGE[29], defines the following capability domains for adolescents:

1) education and learning,

2) bodily integrity,

3) physical and reproductive health and nutrition,

4) psychosocial well-being,

5) voice and agency, and 6) economic empowerment.

The current intervention and evaluation described in this report follows this capabilities approach developed by Sen and targets several capabilities highlighted in GAGE's framework for adolescents. It aims to increase adolescents' capabilities or assets along education, livelihoods (economic), sexual and reproductive health, bodily integrity and voice and agency dimensions.

The intervention and evaluation follow the Theory of Change highlighted in Figure 2.1, page 20. The theory identifies the relevant outcome indicators in the short- and medium/long-term among youth and hypothesizes potential pathways of impact in a framework linking to the intervention components (cash, livelihoods training, and HIV/SRH education and linkages). As highlighted above in the discussion of capabilities, the intervention aims to increase youth's economic capital through the PSSN component (strengthening household economic security) as well as investments for business among older (ages 18–19 years) youth via productive grants. It aims to improve educational capabilities/assets through face-to-face training, educational aspirations, and schooling or vocational training via productive grants. The intervention aims to increase social capital (voice and agency) through education and coaching related to behavioural and life skills, peer support, self-esteem, and mentoring related to future aspirations. Finally, it aims to improve health capabilities/assets through education on knowledge and access to SRH/HIV services and violence prevention.

Subsequently, in the short term, we hypothesize that the intervention may improve adolescents' aspirations and/or skills related to livelihoods and economic opportunities (expanded capabilities); increase their ability to take informed decisions around SRH, negotiate in sexual relationships, and protect themselves from potentially abusive situations; and increase their ability to seek appropriate SRH/HIV and violence response services. Improved future outlook and increased economic security may also reduce stress levels among youth and their households, which has subsequent implications for well-being.

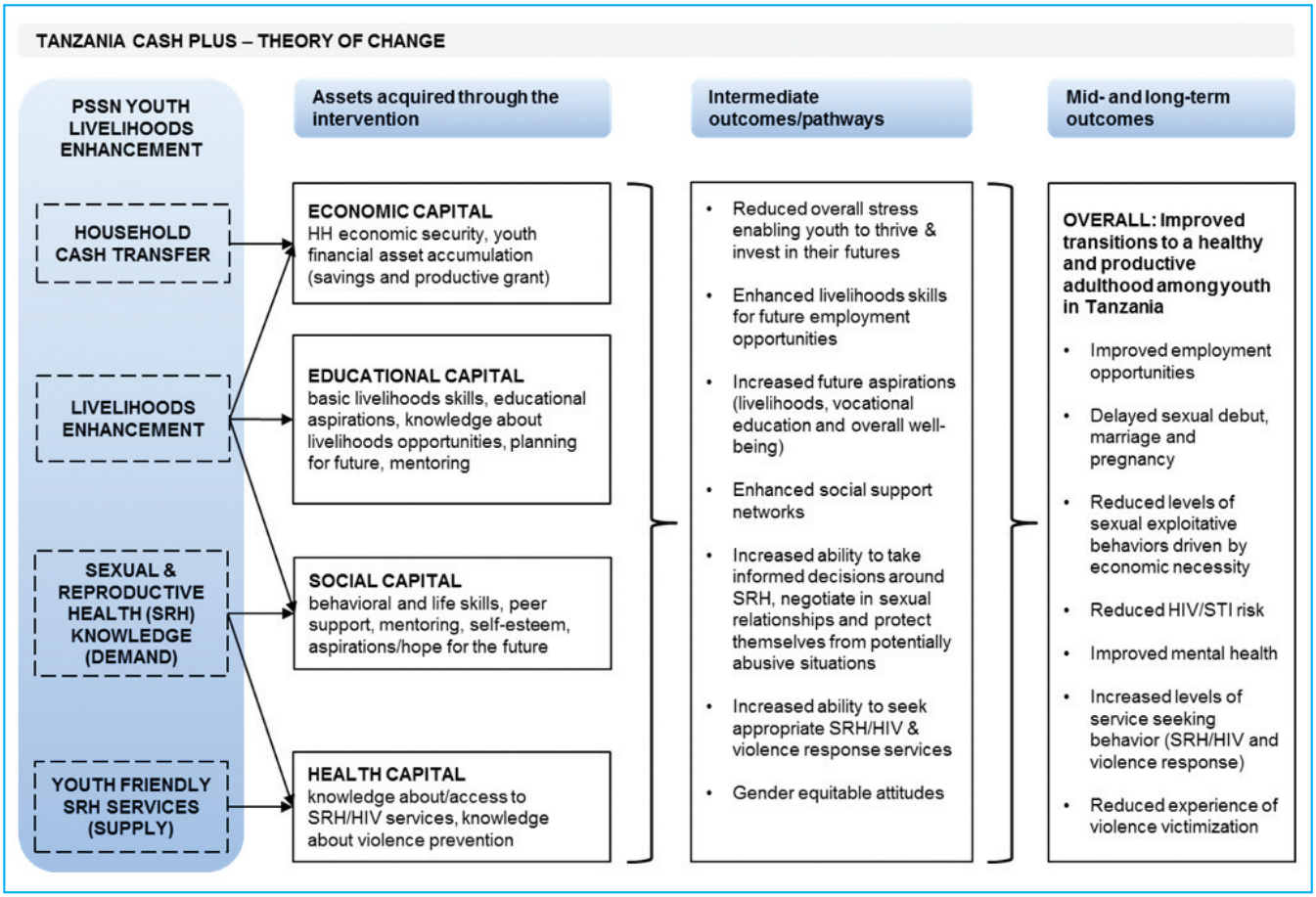
[28] Sen, A., 'Development as capability expansion', in *The Community Development Reader, 2nd ed*, edited by DeFilippis, J., Saeger, S., 1990, pp. 319–327.

[29] GAGE Consortium, *Gender and Adolescence: Why understanding adolescent capabilities, change strategies and context matters*, Overseas Development Institute, London, 2017.

Finally, in the mid- and long-term, the intervention (via the pathways and short-term outcomes outlined above) may improve adolescents' future employment opportunities and income-generating ability; delay sexual debut, marriage and pregnancy; reduce engagement in exploitative sexual partnerships and HIV risk behaviours; improve mental health; reduce levels of violence victimization; and increase levels of health-seeking for SRH/HIV services.

We aim to measure these outcomes through adolescent, household, community and health facility questionnaires described in more detail below.

Figure 2.1 – ***Program Theory of Change***



3 IMPACT EVALUATION FRAMEWORK AND SAMPLE

This section describes the overall design and sample selection for the impact evaluation.

3.1 RESEARCH QUESTIONS

The overarching research question to be answered by the accompanying impact evaluation is how and to what extent a 'plus component' integrated in government structures within a cash transfer programme can positively impact youth livelihood skills, well-being and the transition to adulthood.

Primary questions of interest include:

1. Do youth have increased livelihood knowledge and skills?
2. Are youth engaged in more productive, safer employment activities?
3. Do youth have increased knowledge about HIV prevention, HIV treatment and reproductive health services available to them?
4. Do youth access HIV testing, treatment and reproductive health services at an increased rate?
5. Does the programme reduce violence and exploitation victimization and violence perpetration among youth?
6. Does the programme delay sexual debut, marriage and/or pregnancy?
7. Does the programme reduce health- and sexual-risk behaviours?

Secondary questions of interest include:

1. Does the programme increase gender equitable attitudes?
2. Does the programme increase social assets?
3. Does the programme improve youth psychosocial well-being?
4. Through what pathways does the programme impact outcomes of interest?

3.2 STUDY DESIGN

To answer these questions, we implemented a cluster randomized control trial (cRCT) study design. With this, we will compare two study arms described in more detail below in order to assess whether the plus component improves the lives of youth, as compared to youth who receive cash only (that is, the control arm).

For administrative purposes, TASAF refers to geographic areas of programme implementation as PAAs. On the mainland, these are the same as local government councils. Then, within PAAs there are wards, and within wards, villages/mitaas[30]. The unit of sampling (also referred to as clusters) for the current cash plus intervention and evaluation is the village. In this cRCT design, clusters (villages) were randomized and households are nested within villages.

[30] A mtaa is an urban administrative unit in urban areas (municipalities, towns and cities) equivalent to a village in rural areas.

The evaluation design has two study arms (randomized at the village (cluster) level), and will allow us to estimate the impact of the combined youth livelihoods enhancement + SRH package on youth well-being among PSSN households. Randomization of villages to study arms was conducted in July 2017, after implementation of the baseline surveys (April – June 2017), and was stratified by district and village size (large v. small villages).

While we believe there may be synergies stemming from the combination of a cash transfer programme and a plus component (the whole package is greater than the sum of the parts), the evaluation design will not allow us to evaluate the 'synergy' effect. The design necessary for such an evaluation was infeasible given the number of youth and villages required to statistically power such estimates of programme impacts. Moreover, the cash component started much earlier than the 'Plus' intervention (2015 or earlier v. 2017, respectively).

The number of youth per village reached by the intervention will vary by village based on adolescent population in PSSN households and programme uptake, and the impact evaluation aimed to interview all eligible youth in each village in an intent-to-treat design (65 villages per study arm; *see Figure 3.1*). The baseline sample size for the impact evaluation study is 2458 youth combined across treatment and control arms (1287 youth interviewed in Mufindi and 1171 in Rungwe). The study includes adolescents (both males and females) between the ages of 14 and 19 years. To assess programme impacts, three waves of data collection are proposed:

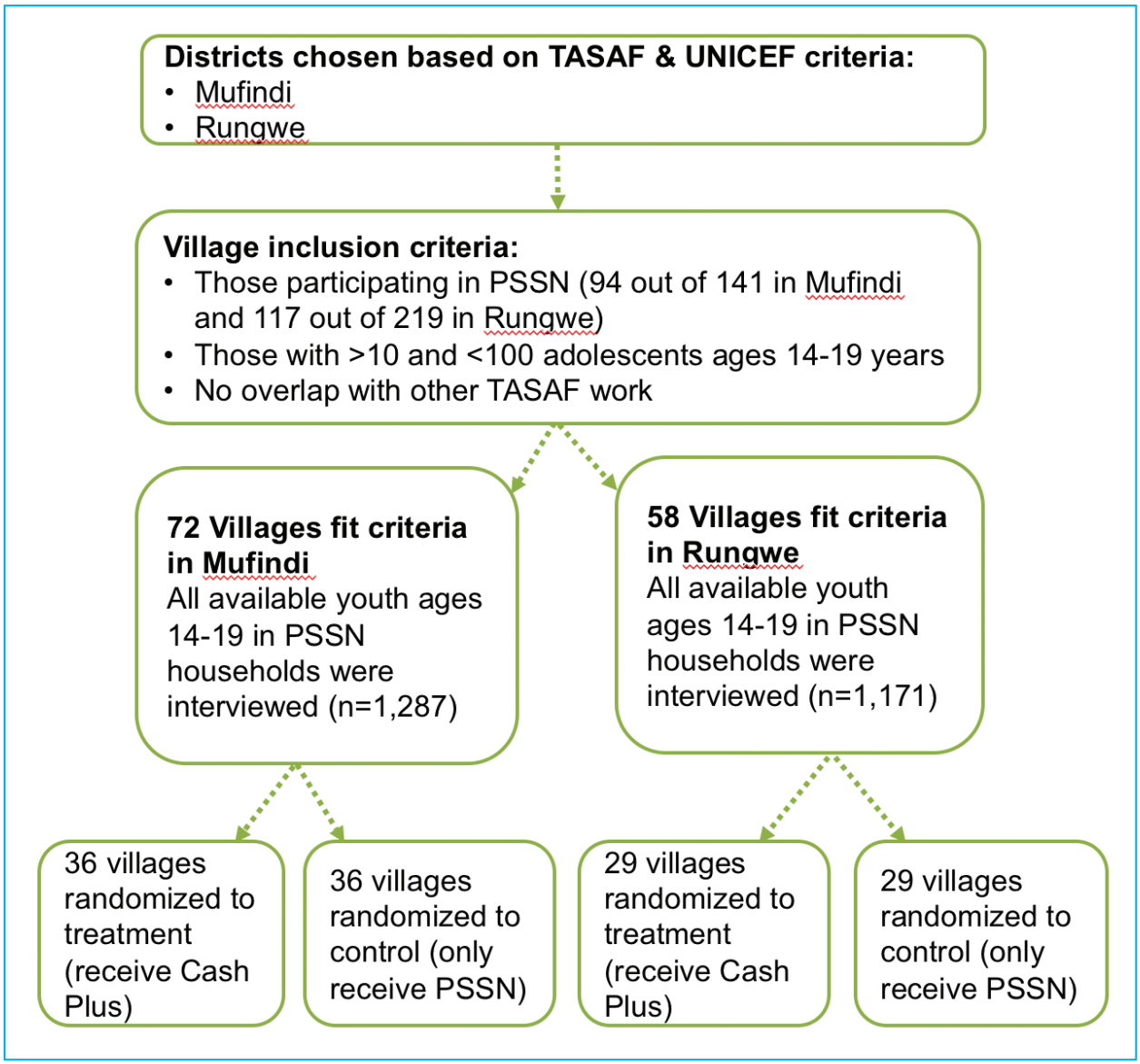
- Baseline pre-intervention implementation (completed April – June 2017)
- Midline six months post intensive period of intervention (expected April – June 2018)
- Endline 18 months post intensive period of intervention (expected April – June 2019)

Youth in both treatment and control villages will be interviewed during all survey waves in Rungwe and Mufindi districts. Baseline surveys will allow us to examine whether youth in the two study arms are similar at baseline and then follow-up surveys (midline and endline) will allow us to assess changes over time and between the study arms that are attributable to the Cash Plus intervention.

In villages selected for the treatment arm (combined youth livelihoods enhancement + HIV/SRH), all youth ages 14–19 living in PSSN households will be offered the intervention. For the evaluation, we interviewed all available, eligible youth per study village (in treatment and control study arms) for baseline and will repeat this at midline and endline surveys. We cannot predict ahead of time which adolescents, among those offered the programme, will ultimately participate. Thus we interview all eligible adolescents in PSSN households and estimate 'intent-to-treat' impacts of the programme. This reflects potential effectiveness of the programme were it to be scaled up at the population level, since in a fully scaled up programme not all adolescents offered the programme would choose to participate.

Figure 3.1 (page 23) demonstrates how the evaluation sample was chosen starting with a list of all PSSN participating communities (PAAs) in both Mufindi and Rungwe (n=211). All those that fit the following criteria listings were eligible for the evaluation: 1) at least 10 and no more than 100 adolescents between the ages of 14 and 19 according to TASAF listings; 2) no other TASAF activities, including evaluation with World Bank/National Bureau of Statistics. This left a total of 130 communities for the evaluation sample, of which half were randomized into treatment (Cash Plus) and half into control (PSSN only).

Figure 3.1 – ***Community selection***



3.3 RANDOMIZATION

Randomization into study arms was stratified by district and village size (large v. small). After baseline data were collected, we summed the total number of eligible youth per village in each district and calculated district-level medians (20.5 youth in Mufindi and 22 youth in Rungwe). This means that half of all villages in Mufindi and Rungwe have more than 20.5 and 22 eligible adolescents, respectively. Then we classified villages with youth totals below the district median as 'small' and those with youth totals above the median as 'large'.

To promote transparency and facilitate buy-in from district government and stakeholders, we held public randomization events to select villages for the treatment. The randomization events took place in July 2017 (3 July in Mufindi and 5 July in Rungwe), after baseline data collection was completed, and were led by study coordinator, Lusajo Kajula (researcher at UNICEF Office of Research – Innocenti). The randomization event participants included district and ward officials and

TASAF staff and were conducted separately in each district. Thirty-three individuals participated in the event in Rungwe and 39 participated in Mufindi.

Randomization events were conducted as follows in each district: First, a presentation was given providing an overview of the intervention, study and motivation for randomization, and district participants were given the opportunity to ask questions. Village names were divided into two hats (one for small villages, one for large villages). Then, an official randomly chose names out of one hat, while a second official read these out and the UNICEF researcher recorded them in the order selected (*see Figure 3.2*). Once all villages were selected from the hat, the lists were read out loud from the top (heads) to the bottom (tails). Finally, a coin toss was conducted to determine which group (heads or tails) would receive the Cash Plus intervention (*see Figure 3.3*). The process was then repeated for the second set of villages.

Figure 3.2 – ***Chairman of the council for Rungwe picks village names out of a hat during randomization event***

Figure 3.3 – ***Mafinga (Mufindi) District Executive Director and Chairperson during the coin toss***

3.4 QUESTIONNAIRES

Four types of questionnaires were implemented at baseline, including:

- Household surveys with household head or caregiver
- Youth surveys (quantitative and qualitative)
- Health facility surveys
- Community surveys

Youth quantitative questionnaires are multi-topical and based on the programme's theory of change. Key outcomes measured include livelihoods skills and knowledge, economic activities, sexual debut, pregnancy, marriage, school attendance, aspirations, psychosocial well-being, violence victimization and perpetration, sexual exploitation, and health and sexual risk-taking behaviours. Furthermore, we collected data on potential moderators of programme impacts, including perceived social support. Wherever possible, survey items were pulled from existing national survey instruments such as Violence Against Children Survey, Demographic and Health Surveys, and WHO Multi-Country Study on Domestic Violence and Women's Health. Similar surveys have been previously implemented in Tanzania and throughout Eastern and Southern Africa by the Transfer Project.

Further, we conducted in-depth, semi-structured (qualitative) surveys with a sub-sample of 32 youth to explore mechanisms and pathways for impacts on outcomes of interest. These were conducted in Swahili, digitally recorded, transcribed, and translated into English. The qualitative interviews are embedded in the longitudinal quantitative study. Since the sample is 'embedded', the full range of information from the household surveys would also be available for the households participating in interviews. This means that responses and challenges as reported in the in-depth interviews can be compared to the quantitative data collected from the same households to triangulate findings. Due to the sensitive nature of many topics, adolescent interviews were conducted in private locations (in Swahili) where other household members could not hear what was being discussed and were administered by same-sex enumerators.

Data collection supervisors administered one community questionnaire to a group of knowledgeable individuals (e.g. teachers, village leaders) in each community to assess topics such as access to markets, health facilities and schools; prices; village customs surrounding marriage (matrilineal, patrilineal, etc.) and caregiving (who would be expected to take in a child if the parent dies); and shocks. The aim of the community surveys is to understand availability of services, cultural norms and possible moderating impacts of these community-level factors.

Finally, health facility surveys were administered to assess age and gender breakdown of accessed services related to HIV and SRH.

3.5 DATA COLLECTION TRAINING AND ACTIVITIES

Enumerator training was carried out over a three-week period in April 2017, led by EDI, with support from researchers at UNICEF Office of Research – Innocenti. EDI conducted pre-testing of the configured tools based on draft questionnaires shared by UNICEF. The pre-testing took place between 4 and 6 April 2017, in Msimbu, Kitanga and Ruhangai villages in Kisarawe district, and was observed by a UNICEF researcher. Also at this time, the team conducted a listing exercise to verify

that adolescents included in TASAF listings from 2015 were still present in the households in 2017. This listing exercise took place in three villages in Mufindi from 19 to 21 April and suggested that a significant number of adolescents (around 40 per cent) may no longer live in TASAF households.

Supervisor training took place from 10 to 13 April in Bukoba and was conducted by the EDI coordination team, with support from a UNICEF researcher. Alongside training on tools, the supervisors received training on roles and responsibilities for overseeing the teams, administration and finance, and quality control activities. The supervisors also received training in research ethics and the response plan for youth respondents. A total of four supervisors were trained.

The health centre training and outdoor practice took place from 10 to 13 April in Bukoba (outdoor practice took place on 12 April). The training included an introduction to the project, in-depth training on the health facility questionnaire, administration and finance, and quality control activities.

The enumerator training and outdoor practice for the household and youth surveys took place from 18 to 28 April in Bukoba. This included an introduction to the project and in-depth training on household and youth questionnaires, as well as training on research ethics and response plan for youth respondents. There were two days of outdoor practice for the Household, Youth and Community tools (24 and 26 April in Mulayha and Mushozi, Kagera). Trainings and outdoor practices were led by EDI and observed by UNICEF researchers. Due to challenges identified during the practice, including the unavailability of a number of youth due to school or work, it was decided to shift the working days to include Sunday, when adolescents are not in school.

Two qualitative interviewers were trained alongside the main interviewer training and were present in all sessions except for that on 22 April, when they received dedicated qualitative training conducted by the EDI Team Leader with support from a UNICEF researcher. Qualitative interviewers took part in the same outdoor practice as the main interviewers.

Data collection was carried out by EDI between 22 April and 12 June 2017 by 40 EDI enumerators (including two qualitative enumerators and four supervisors) using portable tablets and the Computer-Assisted Personal Interview (CAPI) software Surveybe.

3.6 ETHICAL GUIDELINES

The research team adhered to the Ethical Principles and Guidelines for the Protection of Human Subjects of Research as outlined in the Belmont Report. Enumerators received instruction on ethical data collection and informed consent at data collection trainings. Informed consent was obtained from all youth aged 18–19 years, and caregiver/parental consent and youth assent was obtained for all youth aged 14–17 years. A split sample approach was used for administering modules on violence victimization, meaning that violence modules were alternately administered in one village for females and in a second village for males. This approach serves to protect the safety and confidentiality of respondents, eliminating the chance that a male perpetrator and a female victim living the same community are both interviewed. Ethics approval for the study was granted by the Tanzania Commission for Science and Technology (COSTECH).

All informed consent includes the ethical components regarding: 1) objectives and content of the study (without revealing to parents/caregivers the true nature of sensitive questions asked of youth),

2) privacy and data security, 3) voluntary participation, 4) the right to refuse or skip any questions without consequences, and 5) source to follow up regarding complaints or further information on the study. Interviews lasted approximately 30–45 minutes per youth. Survey enumerators and youth were matched based on sex (e.g. male enumerators will interview males, and female enumerators will interview females), and all interviews were conducted in private locations where other household members could not hear what is being discussed. Interviewers used electronic tablets to input data and interviews were administered in Swahili.

Following WHO guidelines[31], we provided anonymized referral information to survey respondents who were asked questions on experiences of violence. This referral information included contact numbers for district social welfare officers. Social welfare officers in the districts were contacted in advance to ensure they were aware of these referrals and to verify the services available. In total, 92 per cent of respondent adolescents accepted the offer of information and were provided referral numbers. In addition, enumerators also offered the option of taking down the youth's information directly and sharing this with appropriate personnel if the youth either needed immediate assistance or if they did not feel comfortable keeping the paper with the referral information (anonymized phone numbers); seven out of the 1,309 adolescents who were interviewed about experiences of violence chose this option. We also followed WHO guidelines for research on gender-based violence by training enumerators on gender-based violence, conducting the interviews in a private setting and skipping violence-related questions if a private setting could not be ensured.

3.7 DATA ANALYSIS

The objective of the baseline analysis is twofold. The first aim is to present baseline values of key outcomes to describe the characteristics of the study sample, and the second aim is to assess the degree of balance between the treatment and control groups. In other words, we aim to evaluate whether the randomization resulted in statistically equivalent treatment and control groups.
We tested all primary outcome measures and control variables for statistical differences between the treatment and control groups using ordinary least squares (OLS) regression, controlling for stratification variables on the level at which randomization was implemented (large v. small villages in both Rungwe and Mufindi). Standard errors were adjusted for clustering to account for the nested nature of our data because the survey design clustered households within communities (i.e., the unit of randomization). We therefore present baseline indicator values for control and treatment groups separately, and for each indicator a p-value of the mean comparison test (OLS regression described above). We define statistical significance as a p-value lower than 0.05 ($p<0.05$). In addition, we present descriptive information and graphs to illustrate age and gender differences in outcomes. Statistically significant differences between study arms at baseline indicate that the sample is not 'balanced' on that outcome. As such, we will not be able to say with any degree of certainty whether differences observed at follow-up waves on that same outcome are attributable to the intervention or to systematic differences that already existed at baseline between treatment and control groups. On the other hand, differences that are not statistically significant indicate a successful randomization and baseline balance, which increase our confidence in our ability to attribute observed differences at follow-up to impacts of the intervention.

[31] WHO and Path, *Researching violence against women: a practical guide for researchers and activists*, WHO and PATH, Geneva, 2005, http://www.who.int/reproductivehealth/publications/violence/9241546476/en/

After follow-up data has been collected (planned for 2018 and 2019), we will analyse programme impacts by comparing baseline data to data collected at follow-up using a difference-in-differences (DD) approach. Data from the control group allows us to identify which impacts over time are attributable to the Cash Plus Initiative, controlling for outside influences and trends over time. This is done by taking the overall changes experienced by the beneficiaries and subtracting the changes also experienced by control households. The differences between these two are attributed to the programme and are considered programme impacts.

Qualitative analysis was conducted in two phases: 1) rapid initial analysis to document observations during fieldwork and 2) in-depth analysis to increase overall understanding of participants' lives and the transition to adulthood. All interviews were audio-recorded and transcribed in Swahili before being translated into English. The research team checked the validity of the English translations to ensure Swahili nuances were captured. Transcripts were analysed using QSR NVivo software (QSR International, London). A codebook was created using a priori themes from the interview guides that were developed and was supplemented with themes that emerged during data analysis.[32,33] Initial coding structures were developed by the research coordinator and then, along with interview transcripts, shared with two other coders for recoding. In this way, the final coding structure was validated, ensuring consistency in the application of codes.[34]

[32] Denzin, N. K., & Lincoln, Y., *Qualitative research*, Thousand Oaks, CA, 2000, pp. 413–427.

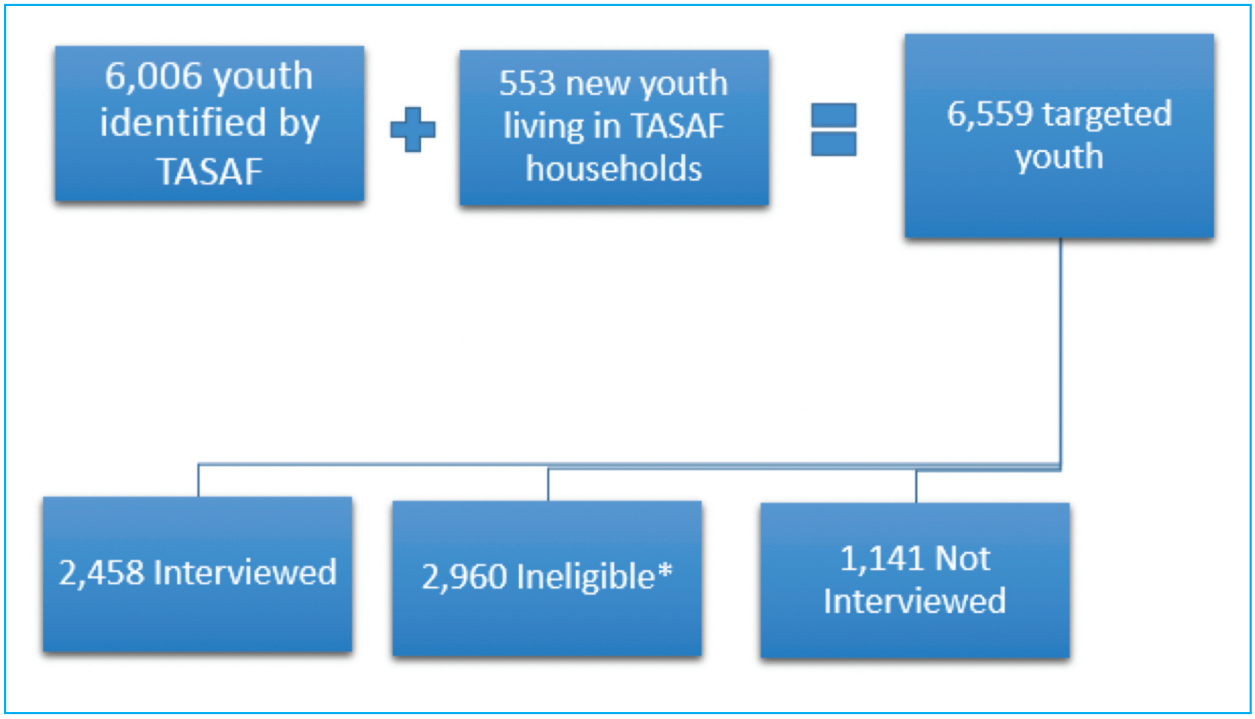
[33] Weber, R. P., *Basic content analysis* (No. 49), 1990, Sage.

[34] MacQueen, K. M., McLellan, E., Kay, K., & Milstein, B., 'Codebook development for team-based qualitative analysis' *CAM Journal*, vol. 10, no. 2, 1998, pp. 31–36.

4 YOUTH RESPONSE

A total of 6,006 youth in the 130 sample villages were identified by TASAF as eligible for the intervention. Youth were considered eligible if they were: 1) living in a PSSN household; and 2) aged 14–19 years. Ages were imputed from the TASAF listing, which was created two years prior to the data collection. An additional 553 youth were identified as eligible and living in TASAF households during the data collection period. Of the resulting sample of 6,559 youth, 2,458 completed an interview, whereas the remaining 4,101 did not. Of those who did not complete an interview, 2,960 were ineligible and 1,141 were not interviewed for other reasons (*see Figure 4.1*).

Figure 4.1 – *Youth sample by response status*



*Youth are ineligible for programme if they are outside the designated age range, if they are no longer living in the PSSN household or if the beneficiary of the PSSN no longer lives in their household.

Youth were considered ineligible if they were not aged within the range of 14–19 years (age provided by youth or household member if youth not available), if the PSSN beneficiary no longer lived in the household or if the youth no longer lived in the PSSN household. The reasons why some eligible youth were not interviewed included: incomplete interview, youth refusal, youth unavailable for interview, and household respondent unavailable for household interview/did not consent to interview (*see Table 4.1, page 30, for list of reasons for non-interview*). The interview status was balanced for Cash Plus versus PSSN only households for all eligible youth ($p = 0.105$).

Table 4.1 – ***Reasons for non-interview***

	N	Per cent
Eligible		
Incomplete	52	4.56
Refused	11	0.96
Unavailable	1,057	92.64
Untracked	21	1.84
Total eligible	**1,141**	**27.82**
Ineligible		
Household respondent not available/did not consent	491	16.59
Outside age range	745	25.17
Beneficiary not living in household	297	10.03
Youth moved from PSSN household	1.427	48.21
Total ineligible	**2,960**	**72.18**
Total not interviewed	**4,101**	**100**

5 HEALTH FACILITIES

Enumerators administered a health facility questionnaire to all primary health facilities in the study region in order to capture information on facility characteristics, equipment, services, drugs and medical supplies and personnel. By implementing health facility questionnaires, we capture characteristics that can act as important moderators of programme impacts. This section summarizes the findings from these surveys. For example, the programme may have stronger impacts on SRH utilization in locations where facilities have more services or personnel. A total of 91 health facilities were present in 69 villages within the study. Health services utilization will also be measured directly from the youth.

A list was provided to the supervisors by the District Reproductive and Child Health Coordinators (DRCHCo) from Mufindi and Rungwe districts. Respondents were staff from the health facility (*see Table 5.1 for role of respondent)*. Each facility specified which community they service, and 16 facilities listed a secondary community, resulting in a total of 91 primary health facilities serving 69 of the Cash Plus study villages. This means that nearly half (61 of 130) of communities are not the primary or secondary users of the health facilities identified in the study.

Table 5.1 – *Respondents of facility questionnaires*

Respondent role at facility	Freq.	Per cent
(Assistant) medical officer	4	3.45
Medical attendant	21	18.1
Nurse	64	55.17
Medical assistant / Clinical officer	27	23.28
Total	**116**	**100**

Note: Multiple respondents per facility possible

5.1 FACILITY CHARACTERISTICS

The basic characteristics of the health facilities are presented in Table 5.2, page 32. Average year of facility opening was 1993, but the range is large – from as long ago as 1930 to as recently as 2016. Only about half (53 per cent) of facilities have electricity, and very few have a generator (just two per cent). Approximately half have access to an improved source of water (53 per cent), while nearly all provide housing for employees (91 per cent). One in three facilities has a vehicle of some kind, 85 per cent have a refrigerator to keep medications, and just 4 per cent have a waiting room for patients.

The health facility survey also asked a number of questions about adolescent-friendly characteristics, as shown in Table 5.3, page 32. Over half of the facilities had staff trained in youth-friendly HIV/family planning services, although only one in five of the facilities had a training in the year prior to the survey. About the same proportion, one in five, reported implementation of changes to make services more youth friendly. Examples include separate waiting areas for youth, expanded hours and attitudes training for health care workers with respect to adolescent access to SRH/HIV services. Just 8 per cent of facilities added a youth-specific waiting room and 19 per cent implemented youth-friendly hours or extended opening hours to make them more youth friendly.

Table 5.2 – *Health facility basic characteristics*

	Mean
Year built	1993
Has electricity	0.53
Has a generator	0.02
Water source improved	0.53
Housing provided for employees	0.91
Has at least one vehicle	0.30
Has refrigerator for medications	0.85
Has a waiting room	0.04
N	91

Table 5.3 – *Adolescent-friendly characteristics*

	Mean
Staff trained	0.57
Staff trained in past year	0.20
Youth accessible changes	0.21
Change includes youth waiting room	0.08
Change includes youth-friendly operating hours	0.19
N	91

5.2 SERVICES AND SUPPLIES

The surgical and testing services are summarized in Table 5.4, page 33. Only 9 per cent of facilities have an operating theatre, resulting in very few (4 per cent) being capable of performing a C-section. However, 65 per cent perform circumcisions. While only one in five facilities has a laboratory on site, most test for a number of illnesses: all test for Malaria using rapid diagnostic tests (RDTs); all test for HIV; and 90 per cent test for other sexually transmitted infections (STIs). Moreover, 95 per cent of facilities are able to conduct pregnancy tests. However, just seven per cent are able to conduct a Papanicolaou (Pap) test and only 18 per cent test for anaemia. No facilities test for malaria using a malaria parasite smear (MPS).

The Pap test is a simple and quick screening test used to detect pre-cancer and cancer processes in the cervix. The Pap test is effective and cost-effective and has been pivotal in reducing the number of cervical cancer deaths in high income countries.[35] Chronic anaemia, which is a condition characterized by low levels of healthy red blood cells, can have many negative effects on youth and is associated with poor school performance and attendance[36], retarded intrauterine growth,

[35] Safaeian, M., Solomon, D., & Castle, P. E., 'Cervical cancer prevention—cervical screening: science in evolution', *Obstetrics and gynaecology clinics of North America*, vol. 34, no. 4, 2007, pp. 739–760.

[36] Haas, J. D., & Brownlie, T., 'Iron deficiency and reduced work capacity: a critical review of the research to determine a causal relationship', *The Journal of nutrition*, vol. 131, no. 2, 2001, pp. 676S–690S.

miscarriage, and maternal morbidity and mortality[37]. Adolescent girls in particular are at high risk of negative outcomes related to chronic anaemia[38], putting their own health and that of future generations of children at risk.

Table 5.4 – *Surgical and testing services*

	Mean
Surgical services	
Has an operating theatre	0.09
Performs circumcision	0.65
Performs C-section	0.04
Testing services	
Has laboratory	0.18
Malaria (RDT)	1.00
Malaria (MPS)	0.00
HIV	1.00
Pregnancy	0.95
Other STI	0.90
Pap test	0.07
Anaemia	0.18
N	91

Table 5.5 presents details on the types of services offered by the health facilities in the study areas. Respondents reported the number of hours each service is available each day of the week. The first column shows whether a service is available for any number of hours on any day. The second column reports the mean number of days a service is available for any number greater than zero. The final column sums the hours for all days, which is then divided by seven to represent the number of hours the service is available per day, on average. All health facilities offer outpatient consultations, well baby clinics, family planning and HIV testing/counselling. Moreover, nearly all health facilities can perform deliveries, conduct other STI testing/counselling and provide treatment for HIV. Mobile clinics and adolescent-friendly SRH are less common, being available at 69 per cent and 43 per cent of facilities, respectively. The availability of these services ranges from nearly every day, all day for deliveries, to an average of just two hours a day and two days a week.

For each health facility, the availability of select drugs and supplies was also provided (Table 5.6, page 34). Supervisors collected information on whether the facility normally carries the item and then if the item was actually in stock at the time of the survey. In terms of modern contraceptives, male condoms, contraceptive pills and contraceptive injectables were listed as carried by nearly all health facilities and the vast majority also had them in stock. About half usually carry emergency

[37] Chen, L. P., Murray-Kolb, L. E., Chen, P., & Caulfield, L. E., 'The Impact of Anaemia on Maternal Mortality: An Updated Review', *The FASEB Journal*, vol. 25(1 Supplement), 2011, pp. 779–12.

[38] Brabin, L., & Brabin, B. J., 'The cost of successful adolescent growth and development in girls in relation to iron and vitamin A status', *The American journal of clinical nutrition*, vol. 55, no. 5, pp. 955–958.

contraceptive pills and contraceptive implants, with 35 and 40 per cent, respectively, having them in stock at the time of the survey. Additionally, one in three normally carry intrauterine devices (IUDs), though fewer had them in stock. Female condoms are carried in 22 per cent of facilities and were in stock in 15 per cent of all facilities. No facilities normally carry spermicides.

Common drugs, such as paracetamol, folic acid tablets, antibiotics, and antiretrovirals (ARVs) to treat HIV were carried in nearly all of the health facilities. However, despite nearly all facilities reporting that they carry folic acid tablets, only one in three actually had them in stock at the time of the survey. Pregnant women are recommended to take folic acid tablets to improve their micronutrient status during pregnancy and to prevent anaemia and spinal cord deformities in the fetus.

Table 5.5 – *Service availability*

Service	Has service 1/0 (mean)	Number of days available (mean)	Number of hours/day* (mean)
Outpatient consultations	1.00	6.16	15.08
Deliveries	0.98	6.78	23.00
Well baby clinics	1.00	4.93	5.57
Antenatal clinics	1.00	5.02	5.67
Family planning	1.00	5.11	6.04
Mobile clinics	0.69	2.43	2.10
HIV testing/counselling	1.00	5.57	10.06
Other STI testing/counselling	0.92	4.96	8.13
HIV treatment	0.96	4.79	5.68
Adolescent friendly SRH	0.43	2.13	2.41
N	91	91	91

*Note: Daily average over 7 days

Table 5.6 – *Availability of supplies*

	Carries (mean)	In stock (mean)
Male condoms	1.00	0.87
Female condoms	0.22	0.15
Spermicides	0.00	0.00
Contraceptive pills	0.98	0.82
Intrauterine device (IUD)	0.30	0.19
Contraceptive injectables	0.99	0.78
Emergency contraceptive pills	0.51	0.35
Contraceptive implants	0.54	0.40
Paracetamol/Panadol	1.00	0.97
Folic Acid tablets	0.98	0.30
Antibiotics injection/tablets	1.00	0.99
Antiretrovirals (ARVs)	0.95	0.92
N	91	91

5.3 PERSONNEL

Table 5.7 presents summary statistics on the type of personnel employed by the health facilities, by gender. Information was also collected on whether personnel are employed on a part-time or full-time basis. Given that nearly all personnel were employed on a full-time basis, this statistic is not included below. First we show the number of personnel in each service type for each gender. The final column then shows the percentage of facilities that have any of each type of personnel. Overall, there are over twice as many female health care workers as male, although males are more likely to be medical officers, assistant medical officers, medical assistants and laboratory technologists. The number of women who were listed as enrolled nurses/midwives, registered nurses/midwives and medical attendants was also much higher relative to their male counterparts. Physiotherapists and pharmaceutical assistants are not employed by any of the health facilities, and a pharmacist is present in just one of the facilities. The most common types of employee are enrolled nurses/midwives and medical attendants, with nearly all facilities having at least one of these, followed by medical assistants, which are present in half of all facilities.

Table 5.7 – *Personnel by gender*

Type of personnel	Number male (mean)	Number female (mean)	Proportion with any
Medical officers	0.02	0.01	0.03
Assistant medical officers	0.05	0.02	0.05
Medical assistants	0.40	0.15	0.53
Enrolled nurses/midwives	0.36	1.18	0.89
Registered nurses/midwives	0.05	0.15	0.20
Pharmacists	0.00	0.01	0.01
Physiotherapists	0.00	0.00	0.00
Pharmaceutical assistants	0.00	0.00	0.00
Laboratory technologist	0.10	0.03	0.09
Medical attendants	0.18	1.31	0.85
All staff	1.16	2.87	1.00
N	91	91	91

Finally, each facility reported on the number of youth aged 14–19 years who visited the facility during the 30 days prior to the survey (Table 5.8). The survey captured the primary reason for the visit, but youth could be counted more than once if they accessed multiple services. On average, 1.22 males and 3.11 females visit for HIV/STI testing per month, per facility. Overall, many more females accessed primary health facilities than males, with almost all family planning/contraceptive visits undertaken by women. More than twice as many females as males visited clinics for HIV/STI testing and HIV treatment, although males were more likely to go to clinics for condoms. Overall, most youth visited health centres to access HIV and STI testing, followed closely by family planning and contraceptives and prenatal care. The least utilized services were for STI treatment, condom procurement and anaemia treatment.

Table 5.8 – ***Utilization of services by youth, by gender (past 30 days)***

Service	Number male (mean)	Number female (mean)	Number both male and female (mean)
Family planning/contraceptives	0.14	2.91	3.05
HIV/STI testing	1.22	3.11	4.33
HIV treatment	0.53	1.34	1.81
STI treatment	0.00	0.07	0.07
Prenatal care	–	2.45	2.45
Postnatal care	–	1.44	1.44
Circumcision	0.18	–	0.18
Anaemia	0.04	0.29	0.33
Condoms	0.07	0.02	0.09
All services	2.16	11.58	13.75
N	91	91	91

Note: Not all facilities had data for each service resulting in missing values for some services. Youth accessing more than one service could be counted more than once. Dash refers to gender-specific service rendering it not applicable.

6 COMMUNITY CHARACTERISTICS

The study is carried out in 130 villages, covering two districts (Mufindi and Rungwe). The districts are situated in the southern part of the country, within the regions of Iringa and Mbeya, respectively. The study area is rather mountainous and has one of the coolest and rainiest climates in Tanzania.

With the community questionnaires, we collected information on factors that may moderate the impact of the Cash Plus intervention, including: access to markets; access to health services and schools; services provided by NGOs specifically to youth aged 14 to 19 years; occurrence of negative and positive shocks; and local prices. The survey also collects information on cultural norms to provide a better understanding of the local context.

Table 6.1 reports the number of communities in each district, by treatment status. While Mufindi has a higher number of communities than Rungwe, there is an equal number of PSSN only (control) and Cash Plus (treatment) communities within each district. Overall, the sample includes 65 control and 65 treatment communities.

Table 6.1 – ***Number of communities in each district, by treatment status***

	PSSN only	Cash Plus	Total
District:			
Mufindi	36	36	72
Rungwe	29	29	58
Total	**65**	**65**	**130**

6.1 ACCESS TO BASIC SERVICES

Table 6.2, page 38, ns shows the estimated number of households per village, together with road characteristics, access to basic services (e.g. markets and schools), and access to water and electricity. Values are shown for the pooled sample and by treatment status.

Sample villages comprise an average of about 487 households, with no statistically significant differences in the number of households between treatment and control villages. Only 4 per cent of villages have asphalt roads, with the majority of villages having gravelled or dirt roads. About 46 per cent of villages have dirt tracks only. The average distance to the nearest asphalt road is 25 km and the average cost to go by regular mini-bus from the village centre to the nearest district centre is 6,203 TZS (about 3 USD).

The presence of markets in the village can influence the pathways of impacts of the Cash Plus intervention. For example, regular access to markets can ease the purchase of inputs for farm or non-farm work, which, in turn, can increase the likelihood that youth engage in these activities. Therefore, we test whether Cash Plus and PSSN only villages have similar access to markets at baseline. Overall, only 10 per cent of villages have a daily market (12 per cent have a weekly market), with the average distance to the nearest daily market being about 18 km (16 km to weekly market). We do not find statistically significant differences in access to markets between Cash Plus and PSSN only villages. In 58 per cent of villages it is possible to buy common medicines, while the average distance to the nearest place to purchase medicines is about 6 km.

Table 6.2 – ***Baseline means of community services, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Estimated number of households in village	487.24	130	496.09	65	478.38	65	0.70
Roads							
Road type: Tar/asphalt	0.04	130	0.06	65	0.02	65	0.17
Road type: Gravelled/dirt road (maintained)	0.50	130	0.49	65	0.51	65	0.86
Road type: Dirt track	0.46	130	0.45	65	0.48	65	0.72
Distance to nearest tar/asphalt road (km)	24.98	125	25.23	61	24.74	64	0.93
Cost to go by regular mini-bus from here to nearest district centre (TZS)	6,203.39	130	5,800.63	65	6,606.15	65	0.36
Markets							
Daily market in the village	0.10	130	0.12	65	0.08	65	0.38
Distance to the nearest daily market (km)	18.43	117	18.07	57	18.78	60	0.73
Weekly market in the village	0.12	130	0.12	65	0.11	65	0.78
Distance to the nearest weekly market (km)	16.10	115	18.00	57	14.24	58	0.18
Place to purchase common medicines	0.58	130	0.55	65	0.62	65	0.47
Distance to nearest place to purchase medicines (km)	6.14	54	6.14	29	6.13	25	0.87
Schools							
Distance to nearest government primary school (km)	0.07	130	0.08	65	0.05	65	0.57
Nearest government primary school is electrified	0.30	130	0.40	65	0.20	65	0.01
Any feeding programmes at government primary schools	0.37	130	0.42	65	0.32	65	0.19
Distance to nearest government secondary school (km)	5.25	130	4.90	65	5.61	65	0.41
Nearest government secondary school is electrified	0.72	130	0.62	65	0.82	65	0.01
Water and electricity							
Access to electricity through the public grid	0.45	130	0.54	65	0.37	65	0.05
Access to public piped water	0.36	130	0.32	65	0.40	65	0.36
Main drinking water source: Piped water	0.22	130	0.23	65	0.20	65	0.67
Main drinking water source: Wells/boreholes	0.34	130	0.37	65	0.31	65	0.45
Main drinking water source: Spring/river	0.45	130	0.40	65	0.49	65	0.28

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Almost all villages have a government primary school but only 30 per cent of these schools are electrified. Secondary schools are present in only 22 per cent of villages and youth travel an average of 5 km to the nearest secondary school. Seventy-two per cent of secondary schools are electrified (62 v. 82 per cent in control and treatment villages, respectively; $p<.05$). Electricity

through the public grid is available in 45 per cent of villages. Thirty-six per cent of villages have access to piped public water, but this is the main drinking water source in only 22 per cent of villages. In the remaining communities, the main water sources are springs or rivers (45 per cent) or wells (34 per cent).

Overall, access to basic services is balanced between PSSN only and Cash Plus communities, with the exception of availability of electricity in primary schools (significantly higher in control villages) and in secondary schools (significantly higher in treatment villages).

6.2 HEALTH SERVICES

Health facilities are present in 38 per cent of villages. For the remaining villages, the average distance from the village to the nearest health facility is 5 km *(see Table 6.3)*. Table 6.3 also shows that, as reported by community leaders, 88 per cent of health facilities have a nurse or midwife who is always available and 65 per cent employ a medical doctor.[39] The average distance to the nearest medical doctor is about 16 km. In about half of the villages there are active groups or programmes providing insecticide-treated mosquito bed nets. Overall, treatment and control communities have equal access to health services.

Table 6.3 – ***Baseline means of health services, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Health facility in the village	0.38	130	0.40	65	0.37	65	0.72
Distance to nearest health clinic (km)	4.48	80	4.60	39	4.35	41	0.51
Nurse, midwife or medical assistant always available at this health clinic	0.88	130	0.83	65	0.94	65	0.04
Medical doctor or clinical officer in this clinic	0.65	130	0.71	65	0.58	65	0.13
Distance to nearest medical doctor or clinical officer (km)	15.50	46	15.16	19	15.74	27	0.76
Type of health facility where nearest doctor is: Government	0.88	130	0.89	65	0.86	65	0.58
Type of health facility where nearest doctor is: Religious	0.08	130	0.08	65	0.09	65	0.75
Type of health facility where nearest doctor is: Private	0.04	130	0.03	65	0.05	65	0.65
Any groups or programmes providing insecticide-treated bed nets	0.51	130	0.51	65	0.51	65	1.00

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

[39] According to the health facility survey, about 40 percent of health facilities have a medical assistant *(see Table 5.7 page 35)*. The difference in the reported presence of medical staff at health facilities between community and health facility surveys may be related to village leader perceptions and interpretations versus actual staffing at facilities.

6.3 NGO SERVICES

One in four communities report existing active development programmes or NGOs providing support and care services, other than TASAF/PSSN (Table 6.4). Of these, 39 per cent receive services specifically directed to youth aged 14 to 19 years, while a smaller percentage receives non-PSSN cash transfers to households (3 per cent of communities) or youth (6 per cent of communities).

The most common youth-focused services are livelihoods or vocational training interventions (69 per cent of the communities receiving youth-focused services), followed by facilitation of peer groups (46 per cent), and water and sanitation interventions (38 per cent). Less commonly delivered services include youth-focused HIV/SRH information (e.g. on sexually transmissible infections and family planning), parenting groups or support groups for pregnant girls, and safe spaces for youth.

NGO presence and service delivery are equally distributed across treatment and control villages, with the exception of water and sanitation and economic development and training services for youth, which are significantly more likely to be delivered in Cash Plus than in PSSN only communities.

Table 6.4 – *Baseline means of NGO services, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash PI Mean	Cash PI N	p-value
Any development programs/NGOs to provide support and care for people (other than	0.25	130	0.29	65	0.22	65	0.31
Cash grants to households (other, not TASAF/PSSN)	0.03	33	0.00	19	0.07	14	0.29
Cash grants to youth aged 14-19 (other, not TASAF/PSSN)	0.06	33	0.00	19	0.14	14	0.13
Other services to youth aged 14-19	0.39	33	0.42	19	0.36	14	0.88

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

6.4 SCHOOL CHARACTERISTICS

Table 6.5 (page 41) reports detailed characteristics of government primary and secondary schools in sample villages and these outcomes are balanced across treatment and control villages. Almost all villages have a primary school, which were reported as not charging formal/informal fees. However, about 13 per cent of primary schools charge additional fees (e.g. for examination), which totalled approximately 7,234 TZS or about 3 USD per child per term. Moreover, most schools require uniforms and shoes, which entail a substantial expenditure averaging about 52,463 TZS (about 23 USD). Most respondents perceived school quality as quite or very satisfying, 15 per cent gave a neutral response and the remaining 20 per cent rated school quality as quite or very dissatisfying.

Government secondary schools are only present in 22 per cent of the villages and are generally more expensive than primary schools. While only 4 per cent of government secondary schools charge formal/informal fees, 11 per cent charge for School Development Fund and 25 per cent charge additional fees. Total school fees for secondary school amount, on average, to 85,000 TZS (about 38 USD) per child per term, with families also requested to spend a similar average amount on uniforms and shoes.

Table 6.5 – ***Baseline means of government school characteristics, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Primary school							
School present in community	0.94	130	0.91	65	0.97	65	0.14
School charges formal/informal fees (compulsory)	0	122	0	59	0	63	-
School charges for School Development Fund	0.03	122	0.05	59	0.02	63	0.28
Any additional fees (e.g. examination fees)	0.13	122	0.14	59	0.13	63	0.78
Total fees per child per term, basic and additional (TZS)	7,234.38	16	6,625.00	8	7,843.75	8	0.92
Allowed to go to school without uniform	0.17	122	0.24	59	0.11	63	0.06
Allowed to go to school without shoes	0.14	122	0.15	59	0.13	63	0.76
Cost for uniform and shoes (TZS)	52,463.11	122	52,686.44	59	52,253.97	63	0.73
Community perceived satisfaction with school quality: Very/quite satisfied	0.66	122	0.63	59	0.70	63	0.43
Community perceived satisfaction with school quality: Neither satisfied nor dissatisfied	0.14	122	0.15	59	0.13	63	0.67
Community perceived satisfaction with school quality: Quite/very dissatisfied	0.20	122	0.22	59	0.17	63	0.54
Secondary school School present in community	0.22	130	0.25	65	0.18	65	0.39
School charges formal/informal fees (compulsory)	0.04	28	0.00	16	0.08	12	0.29
School charges for School Development Fund	0.11	28	0.13	16	0.08	12	0.61
Any additional fees (e.g. examination fees)	0.25	28	0.25	16	0.25	12	0.90
Total fees per child per term, basic and additional (TZS)	85,000.00	6	28,333.33	3	142,666.70	3	–
Allowed to go to school without uniform	0.11	28	0.19	16	0.00	12	0.05
Allowed to go to school without shoes	0.04	28	0.06	16	0.00	12	0.29
Cost for uniform and shoes (TZS)	85,214.29	28	82,000.00	16	89,500.00	12	0.11
School quality: Very/quite satisfied	0.68	28	0.63	16	0.75	12	0.64
School quality: Neither satisfied nor dissatisfied	0.25	28	0.25	16	0.25	12	0.82
School quality: Quite/very dissatisfied	0.07	28	0.13	16	0.00	12	0.15

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

6.5 SHOCKS

In the community questionnaire, we also collected information on the occurrence of positive and negative shocks during the year before the survey (Table 6.6). Almost 90 per cent of villages suffered a negative shock, with the most commonly occurring shock being a sharp change in prices (which occurred in 75 per cent of sample villages), followed by livestock disease (62 per cent of villages), human epidemic disease (36 per cent), crop disease/pest (23 per cent), and massive job

lay-offs (20 per cent). Less common shocks include power outages (16 per cent), loss of key social services (12 per cent), and drought (8 per cent).

Positive shocks benefited almost 70 per cent of villages, with the most common improvement being off-grid electricity (37 per cent of villages), followed by transportation (30 per cent), and on-grid electricity (15 per cent). Overall, shocks occurred evenly across PSSN only and Cash Plus villages.

Table 6.6 – *Baseline means of shocks, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Negative shocks							
Any negative shock (yes to any of the items)	0.88	130	0.88	65	0.88	65	1.00
Drought	0.08	130	0.09	65	0.08	65	0.74
Flood	0.01	130	0.02	65	0.00	65	0.31
Crop disease/pests	0.23	130	0.23	65	0.23	65	1.00
Livestock disease	0.62	130	0.55	65	0.69	65	0.08
Human epidemic disease (HIV, etc.)	0.36	130	0.34	65	0.38	65	0.58
Sharp change in prices	0.75	130	0.75	65	0.75	65	1.00
Massive job lay-offs	0.20	130	0.28	65	0.12	65	0.03
Loss of key social service(s)	0.12	130	0.14	65	0.09	65	0.38
Power outage(s)	0.16	130	0.20	65	0.12	65	0.20
Positive shocks							
Any positive shock (yes to any of the items)	0.68	130	0.71	65	0.66	65	0.57
New employment opportunity	0.08	130	0.06	65	0.09	65	0.51
New health facility	0.05	130	0.06	65	0.03	65	0.40
New road	0.07	130	0.09	65	0.05	65	0.29
New school	0.01	130	0.02	65	0.00	65	0.31
On-grid electricity	0.15	130	0.17	65	0.14	65	0.62
Off-grid electricity	0.37	130	0.34	65	0.40	65	0.46
Improved transportation	0.30	130	0.32	65	0.28	65	0.56

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

6.6 CULTURAL NORMS

The survey also included questions on community-level cultural norms, which contribute to our understanding of the context in which the intervention is implemented. We describe village norms related to marriage, death and inheritance (characteristics not reported by treatment status).

Marriage norms are guided by patrilineal descent in 96 per cent of communities, with the remaining communities having both matrilineal and patrilineal descent. About 60 per cent of the communities report having nearly all monogamous marriages, while the rest of the communities have proportions of polygamous households varying between 25 and 50 per cent.

Almost half of the communities report that immediate family have sole responsibility for funeral costs in case of death of a community member. In the remaining communities, funeral expenses are shared amongst community members (37 per cent of communities), extended family (3 per cent), or all of the above (11 per cent). Inheritance is mostly settled by family members (80 per cent of communities) or by the larger clan (20 per cent).

In the vast majority of communities wives can inherit land, houses or other property from the husband when he dies.

7 SAMPLE DESCRIPTION: HOUSEHOLD AND YOUTH CHARACTERISTICS

The analysis that follows provides a description of the households in which the interviewed youth reside.[40] We report statistics for the full sample and then separately for the households that are receiving PSSN only (control) and those that are receiving Cash Plus (treatment). Overall, households in these two groups are equivalent. So, unless otherwise specified, the pooled mean is used when describing the sample.

7.1 HOUSEHOLD DEMOGRAPHICS

Figure 7.1 shows the age composition of the households in our sample. Compared to the overall population of rural Tanzania, sampled households include a higher fraction of individuals younger than age 20 and a lower fraction of individuals aged 20 to 40 years. Hence, sample households include a relatively lower number of adults who are fit to work and thus these households can be described as labour-constrained. In addition, given that the sampling frame was PSSN households and targeted this programme, the sample households are also amongst the poorest and most food insecure households nationally.

Table 7.1 provides more information on the demographic composition of these households. On average, sample households have nearly five members and include about an equal number of dependent and working age members, which gives a dependency ratio of close to 1.[41] This compares to a dependency ratio close to 1.5 in another recent study of TASAF households.[42] Hence, the fact that we specifically target PSSN households with adolescents in the current study leads to a lower dependency ratio for the households considered in this report, compared to other PSSN households. The dependency ratio as stated in Table 7.1 is also lower than that of households in the 2015/2016 Tanzania Demographic and Health Survey (DHS), which is approximately 1.3, on average.[43] Table 7.1 also shows that youth mostly live with their parents (65 per cent of households include at least one biological parent) or grandparents (30 per cent of households include at least one grandparent, with biological parents absent). About one third of the youth living with grandparents or other relatives are orphans, so that overall 14 per cent of households include an orphan youth. About two in three households have a female head. The highest level of education completed by adults tends to be low: only 24 per cent of households have adult members who completed 'some' secondary education. Household composition is not significantly different between the treatment and the control group.

[40] We focus on the sample of households having at least one youth who completed the interview. Out of a total sample of 4,302 eligible households, 1,946 households included at least one youth who completed the interview (see Section 4 for a detailed description of youth response).

[41] The dependency ratio is defined as the number of dependent individuals below age 15 plus those aged 65 and above, divided by the number of individuals aged 15–64.

[42] PSSN Youth Impact Evaluation Team, *Tanzania Youth Study: Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*, UNICEF Office of Research and REPOA. Florence, Italy/Dar es Salaam, Tanzania, 2017.

[43] Henceforth, we refer to households in the poorest wealth quintile from the 2015–16 DHS survey.

Figure 7.1 – ***Baseline household age structure***

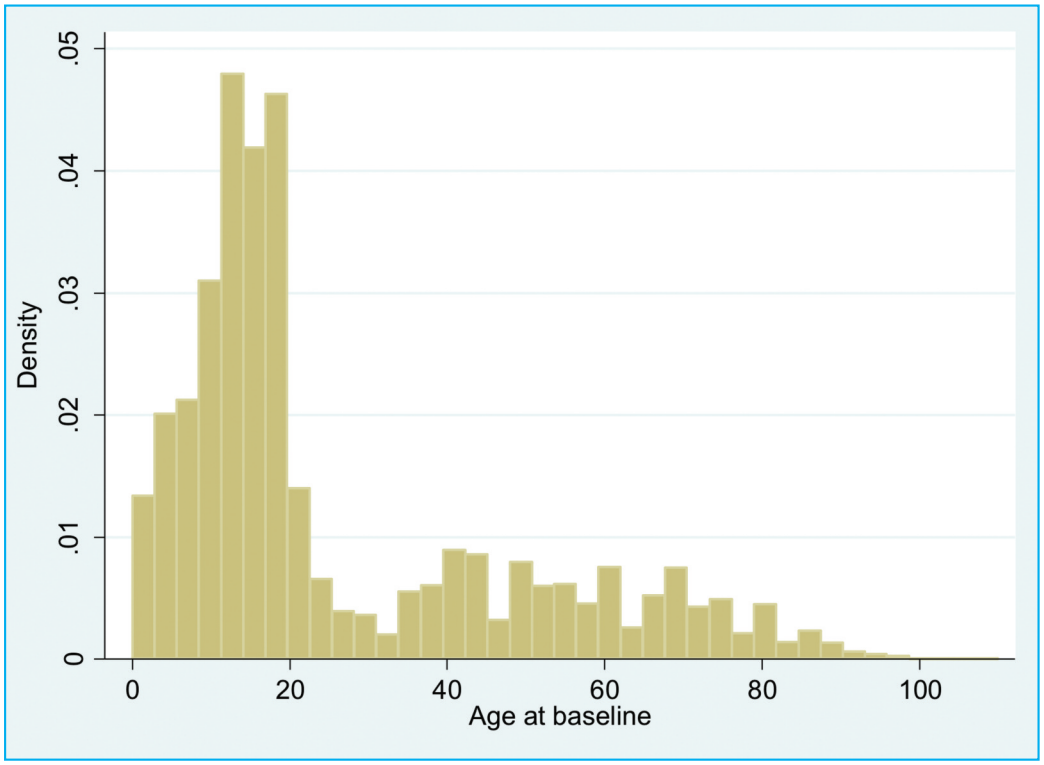


Table 7.1 – ***Baseline means of household structure indicators, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Household size	4.71	1,946	4.65	989	4.78	957	0.21
Dependency ratio	1.10	1,884	1.08	955	1.13	929	0.34
At least one biological parent of youth in the household	0.65	1,946	0.65	989	0.65	957	0.84
At least one grandparent of youth in the household (absent parents)	0.30	1,946	0.31	989	0.30	957	0.70
Parents and grandparents of youth are absent (youth live with other relatives)	0.04	1,946	0.04	989	0.04	957	0.66
Household includes an orphan youth	0.14	1,929	0.14	982	0.14	947	0.69
Head female	0.66	1,946	0.68	989	0.65	957	0.17
Head age	58.79	1,945	58.60	988	58.99	957	0.83
Adult highest grade of education: none	0.23	1,946	0.22	989	0.23	957	0.72
Adult highest grade of education: some primary	0.12	1,946	0.11	989	0.13	957	0.28
Adult highest grade of education: primary	0.42	1,946	0.42	989	0.42	957	0.95
Adult highest grade of education: some secondary	0.24	1,946	0.25	989	0.22	957	0.38

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

7.2 HOUSING CHARACTERISTICS

About 96 per cent of sample households own the dwelling they live in, with the rest mainly renting or occupying the dwelling for free. Table 7.2 (page 47) reports descriptive statistics on dwelling characteristics, showing that dwellings have about four rooms on average. In 67 per cent of dwellings, outer walls are made of bricks – either mud bricks (39 per cent of households) or burnt bricks (28 per cent of households). For the remaining households in the sample, outer walls are mainly made of mud (32 per cent) or wood (about 1 per cent). The majority of dwellings have 'improved' roofs made of iron/plastic sheets or wood (80 per cent of households), while the rest have roofs made of grass. Only 17 per cent of dwellings have improved floors (concrete, flagstone, cement), while the majority have earth or mud floorings.

Basically all households have access to a toilet, with the most common type being a pit latrine (98 per cent of households). However, only about 2 per cent of sample households have access to 'improved' toilet facilities (private or shared flush; ventilated improved pit latrine). For the vast majority of households, the main source of fuel/energy for cooking is firewood (99 per cent), with the remaining households mainly using charcoal. About 16 per cent of dwellings have access to electricity, but this represents the main lighting source in only 4 per cent of households. The most common lighting sources are lanterns, candles and paraffin (31 per cent of households). The rest of the households use solar panels or fire lit sticks for lighting.

On average, dwellings are about a 30-minute walking distance from a primary school, an 80-minute walking distance from a secondary school and a 92-minute walk away from a vocational school, as reported by household questionnaire respondents (household head or caregiver).

Overall, dwelling characteristics appear balanced between Cash Plus and PSSN only households. We found statistically significant differences between the two groups for three of the observed characteristics (improved floor, water treatment and improved toilet), which are significantly more common in PSSN only households than in Cash Plus households.

7.3 HOUSEHOLD ECONOMIC ACTIVITIES, ASSET OWNERSHIP AND OVERALL WEALTH

About 97 per cent of households owned or cultivated land during the rainy season before the baseline interview (this includes all plots, including kitchen/garden plots, owned and rented; Table 7.3, page 47). A similar percentage of households had planted crops during the same time period. The most common crops are maize (96 per cent of planting households), beans (50 per cent), nuts (16 per cent), and sunflower (12 per cent). Other less commonly cultivated crops are bananas, Irish or sweet potatoes, vegetables, cassava and rice.

Livestock herding is also very common, with about 92 per cent of sample households owning livestock. Households most commonly own chickens (91 per cent of herding households), pigs (39 per cent), cattle (20 per cent), goats or sheep (13 per cent), and guinea pigs (13 per cent). On average, herding households own about seven animals.

About one in five households operated a non-agricultural income-generating enterprise during the 12 months before the interview. The most common businesses are petty trading (43 per cent of business-operating households), home brewery (23 per cent), bar/restaurant/take away (8 per cent), and transportation and construction (each involving about 3 per cent of business-operating households). Other less common non-farm businesses include operating mills, making bricks, repairing clothes and hairdressing

Table 7.2 – ***Baseline means of dwelling indicators, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Number of rooms	3.83	1,945	3.93	989	3.74	956	0.12
Improved outer walls (mud/burnt bricks, cement)	0.67	1,946	0.67	989	0.67	957	0.96
Improved roof (iron/plastic sheets, wood)	0.80	1,946	0.82	989	0.78	957	0.31
Improved floor (Concrete/flagstone/cement, tile, wood)	0.17	1,946	0.21	989	0.13	957	0.02
Water treatment	0.32	1,946	0.36	989	0.28	957	0.01
Improved toilet	0.02	1,946	0.03	989	0.01	957	0.03
Household's main source of fuel/energy for cooking: Firewood	0.99	1,946	0.99	989	0.99	957	0.87
Dwelling has working electricity	0.16	1,946	0.18	989	0.14	957	0.10
Dwelling's main lighting source: Torch (battery powered/rechargeable/solar)	0.51	1,945	0.48	989	0.56	956	0.05
Dwelling's main lighting source: Lanterns/candles/paraffin	0.31	1,945	0.32	989	0.29	956	0.31
Dwelling's main lighting source: Solar panel	0.10	1,945	0.12	989	0.09	956	0.15
Dwelling's main lighting source: Electricity via national grid	0.04	1,945	0.05	989	0.03	956	0.22
Dwelling's main lighting source: Fire lit sticks, grass or pit	0.03	1,945	0.03	989	0.04	956	0.75
Walking distance to the nearest primary school (n. of minutes)	32.67	1,913	32.60	975	32.76	938	0.89
Walking distance to the nearest secondary school (n. of minutes)	79.62	1,712	78.50	878	80.79	834	0.59
Walking distance to the nearest vocational school (n. of minutes)	92.39	547	83.29	275	101.58	272	0.14

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 7.3 – ***Baseline means of household economic indicators, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Land							
Owned/cultivated any land (last rainy season)	0.97	1,946	0.97	989	0.98	957	0.17
Planted any crops (last rainy season)	0.99	1,893	0.98	955	0.99	938	0.65
Livestock							
Owned any livestock (last 12 months)	0.91	1,946	0.91	989	0.92	957	0.81
Chicken	0.91	1,780	0.89	903	0.92	877	0.08
Pig	0.39	1,780	0.41	903	0.36	877	0.18
Cattle	0.20	1,780	0.20	903	0.20	877	0.71
Goat/sheep	0.13	1,780	0.13	903	0.12	877	0.60
Guinea pig	0.13	1,780	0.13	903	0.12	877	0.97
Rabbit	0.03	1,780	0.03	903	0.03	877	0.48
Duck	0.02	1,780	0.02	903	0.01	877	0.34
Other	0.01	1,780	0.01	903	0.00	877	0.19
Total number of livestock owned	7.10	1,779	6.70	903	7.52	876	0.05
Non-agricultural business							
Operated any non-farm income-generating enterprise	0.19	1,946	0.24	989	0.13	957	0.31

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 7.4 reports average ownership of durable items by sample households. Durables ownership is balanced between households in the treatment and control groups. However, when considering a comprehensive measure of household wealth, we find that households in the control group are significantly better off than households in the treatment group.[44]

Table 7.4 – *Baseline means of household wealth indicators, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Mortar/pestle	0.66	1,946	0.66	989	0.66	957	0.98
Bed	0.82	1,946	0.84	989	0.79	957	0.11
Table	0.77	1,946	0.79	989	0.74	957	0.10
Chair	0.93	1,946	0.94	989	0.91	957	0.08
Radio (wireless)	0.26	1,946	0.27	989	0.24	957	0.16
Bicycle	0.16	1,946	0.16	989	0.17	957	0.41
Lantern (kerosene)	0.27	1,946	0.29	989	0.25	957	0.31
Solar panel	0.10	1,946	0.12	989	0.09	957	0.15
Lamp (battery)	0.46	1,946	0.43	989	0.49	957	0.15
Mosquito net	0.79	1,946	0.79	989	0.79	957	0.96
Regular mobile phone	0.59	1,946	0.62	989	0.55	957	0.08
Smartphone	0.02	1,946	0.02	989	0.01	957	0.70
Wealth Index	-0.00	1,778	0.10	903	-0.10	875	0.03
Lowest tertile	0.33	1,778	0.28	903	0.39	875	0.02
Middle tertile	0.33	1,778	0.33	903	0.34	875	0.85
Highest tertile	0.33	1,778	0.39	903	0.27	875	0.01

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

7.4 OTHER HOUSEHOLD CHARACTERISTICS

Here we describe household savings and loans, receipt of transfers and exposure to shocks. Table 7.5 (page 49) shows that one quarter of households had monetary savings at the time of interview (these include money in cash, in a bank or in a rotating savings group). On average, households had about 54,104 TZS (approximately 25 USD) in savings. Only about 12 per cent of households applied for a loan during the 12 months before the interview. Almost all applicants obtained the loan. About one quarter of respondents reported they were confident of obtaining a 100,000 TZS loan in a month if needed. There are no statistically significant differences in household savings and loans between the treatment and the control groups.

[44] The wealth index is obtained with factor analysis, considering dwelling characteristics, livestock and durable ownership.

Table 7.5 – *Baseline means of household saving and loan indicators, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Any monetary savings	0.25	1,930	0.25	981	0.25	949	0.90
How much does your household have in savings? (TZS)	54,103.96	480	49,498.35	243	58,826.16	237	0.34
Applied for a loan, last 12 months	0.11	1,938	0.11	983	0.12	955	0.42
Obtained a loan	0.97	222	0.95	106	0.98	116	0.37
If needed, could obtain a loan of 100,000 TZS within the next month	0.24	1,876	0.24	951	0.24	925	0.86

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 7.6 reports average household transfers during the 12 months before the interview. Both transfer receipt and amount received are reported. By definition, all sample households received the PSSN cash transfer. About 3 per cent of sample households also reported receiving the PSSN livelihood grant.[45] Receipt of other cash transfers is very rare; only 0.6 per cent of households received cash transfers other than PSSN. Receipt of other transfers from households or individuals is also uncommon; seven per cent of households received such transfers, mainly from relatives and friends. Overall, transfer receipt and amounts are balanced between the treatment and the control groups, with the only exception being amounts received for the PSSN livelihood grant. However, this likely represents a misunderstanding among households about the origin or type of support they are receiving, as TASAF had not rolled out any livelihoods interventions in study sites at the time the baseline was conducted. Households in the control group reported receiving significantly higher PSSN livelihood grants compared to households in the treatment group.

Table 7.6 – *Baseline means of household safety net indicators, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Transfer receipt							
PSSN cash transfer (including payment for public works)	1.00	1,944	1.00	988	1.00	956	–
PSSN livelihood grant	0.03	1,944	0.03	988	0.04	956	0.53
Cash transfers other than PSSN	0.01	1,943	0.01	988	0.00	955	0.25
Other transfers from households or individuals	0.07	1,941	0.08	985	0.06	956	0.37
Amount received							
PSSN cash transfer (including payment for public works)	261,385.03	1,937	261,654.19	983	261,107.69	954	0.95
PSSN livelihood grant	93,845.00	60	107,148.15	27	82,960.61	33	0.04
Cash transfers other than PSSN	45,200.00	10	58,857.14	7	13,333.33	3	0.09
Other transfers from households or individuals	69,116.54	133	71,931.51	73	65,691.67	60	0.66

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

[45] At the time of interview, no PSSN livelihood grants had been distributed by TASAF, so this likely represents a misunderstanding of source of the grant on the behalf of the household.

Lastly, we report average means of household exposure to shocks *(see Table 7.7)*. About 80 per cent of households experienced a shock during the 12 months before the interview, with no significant differences in the prevalence of any shocks between treatment and control households. Households were also asked which of the experienced shocks was most severe. 'Unusually high prices for food' were reported as the most severe shock by about 27 per cent of households having experienced any shock, followed by 'serious illness/accident of household members' (21 per cent), 'Drought/irregular rains' (20 per cent), and 'Unusually high level of livestock disease' (10 per cent). Other shocks that were less commonly reported as being the most serious include 'Unusually high levels of crop pests or disease', 'Death of other household members', 'Death of income earners' and 'Floods/landslides'.

For each different type of shock, the respondent was also asked what the household did in response. The most common responses reported by households who indicated 'Unusually high prices for food' as the most severe shock were: 'Relied on own savings' (35 per cent), 'Received unconditional help from the government' (18 per cent), 'Changed eating patterns (e.g. relied on less preferred food options or reduced the portions or the number of meals per day)' (17 per cent), 'Received unconditional help from relatives/friends' (3 per cent), 'Adult household members who were previously not working had to find work' (3 per cent), 'Employed household members took on more employment' (3 per cent), 'Other (e.g. sold crop stock or livestock)' (6 per cent). About 13 per cent of households 'Did not do anything' in response to the most severe shock.

Table 7.7 – Baseline means of shocks indicators, by treatment status

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Affected by any shock past 12 months	0.79	1,946	0.79	989	0.79	957	0.88
Most severe shock							
Unusually high prices for food	0.27	1,535	0.30	782	0.25	753	0.05
Serious illness or accident of household member(s)	0.21	1,535	0.20	782	0.22	753	0.44
Drought/irregular rains	0.20	1,535	0.18	782	0.22	753	0.18
Unusually high level of livestock disease	0.10	1,535	0.10	782	0.11	753	0.53
Unusually high level of crop pests or disease	0.07	1,535	0.07	782	0.06	753	0.41
Death of other household member(s)	0.03	1,535	0.03	782	0.03	753	0.70
Death of income earner(s)	0.03	1,535	0.03	782	0.03	753	0.84
Floods/landslides	0.02	1,535	0.01	782	0.02	753	0.34
Unusually high costs of agricultural inputs	0.02	1,535	0.02	782	0.01	753	0.09
Unusually low prices for agricultural output	0.01	1,535	0.01	782	0.01	753	1.00
Theft of money/valuables/assets/agricultural output	0.01	1,535	0.01	782	0.01	753	0.50
Birth in the household	0.01	1,535	0.01	782	0.01	753	0.59
Break-up of household	0.01	1,535	0.01	782	0.00	753	0.21
Conflict/violence	0.01	1,535	0.01	782	0.01	753	0.59

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

8 EDUCATION, LABOUR AND POSSESSIONS

The analysis that follows is conducted on the sample of 2,458 youth who completed interviews (see Section 4 for a detailed description of youth response). In the majority of cases, youth are children (about 54 per cent) or grandchildren (about 39 per cent) of the household head *(see Table 8.1)*. The remaining youth are mainly other relatives (6 per cent, mostly nieces/nephews or sisters/brothers) of the household head. Only 22 youth (1 per cent) are heads of household or spouses of the head. Almost all youth (99 per cent) are single/never married, while a small minority is married, separated or cohabiting. In PSSN households from a recent study[46], 72 per cent of youth aged 14 to 19 years are children of the household head, 22 per cent are grandchildren, 4 per cent are other relatives and 2 per cent are heads of households or spouses of household heads. Hence, the youth considered in this report are more likely to live with their grandparents and less likely to live with their parents, compared to youth from other PSSN households. The same holds if we compare our sample youth to youth in the DHS poorest households.

Table 8.1 – Baseline relationship to the household head, by treatment status

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Child/adopted child	0.54	2,457	0.53	1,271	0.55	1,186	0.45
Grandchild	0.39	2,457	0.41	1,271	0.38	1,186	0.26
Other	0.06	2,457	0.06	1,271	0.06	1,186	0.45
Head of household or wife/husband	0.01	2,457	0.01	1,271	0.01	1,186	0.51

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

8.1 YOUTH EDUCATION AND HEALTH

Figure 8.1 (page 52) shows the fraction of youth attending school at baseline, by gender.[47] The fraction attending school declines with age, from about 80 per cent at age 14 to about 18 per cent at age 19. Females are significantly more likely to be in school compared to males at younger ages, while the gender gap closes by age 18. Figure 8.2 shows school attendance by age and school level (primary and secondary). At age 14, the majority of youth are attending primary school. By age 16 years, youth who are in school are mainly attending secondary school. The average (and the modal) youth completed about seven years of education, corresponding to completion of primary school *(see Figure 8.3)*. Overall, females completed significantly more years of education compared to males (all gender differences in education here discussed are statistically significant at the 1 per cent level).

[46] PSSN Youth Impact Evaluation Team, T*anzania Youth Study: Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*, UNICEF Office of Research and REPOA. Florence, Italy/Dar es Salaam, Tanzania, 2017.

[47] In mainland Tanzania, the education system includes two years of preschool education (starting at age 5), seven years of primary education (starting at age 7), four years of lower secondary education (starting at age 14) and two years of upper secondary education (starting at age 18). Primary and lower secondary education are mandatory and free. However, families still incur significant costs for their children's education. These costs mainly relate to uniforms, transport to school, and school lunches. Source: UNESCO World Data on Education VII Edition 2010/11, Global Education Monitoring Report 2016 (GEM 2016), World Education Blog (https://gemreportunesco.wordpress.com/about/).

Figure 8.1 – ***Baseline youth school attendance, by gender***

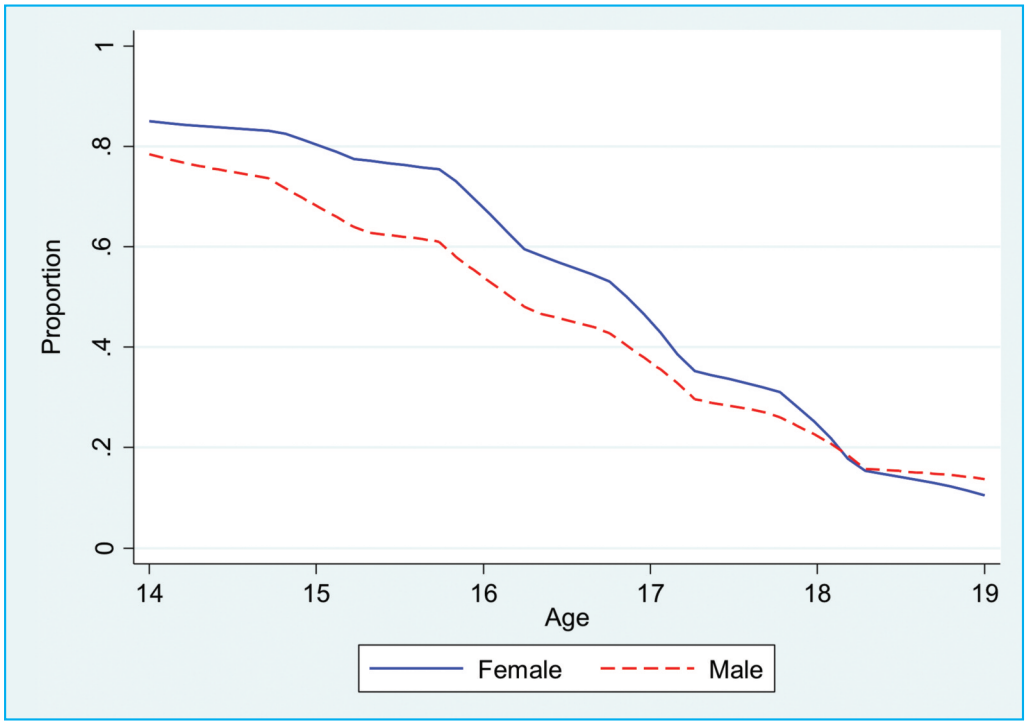


Figure 8.2 – ***Baseline youth school attendance by age and school level***

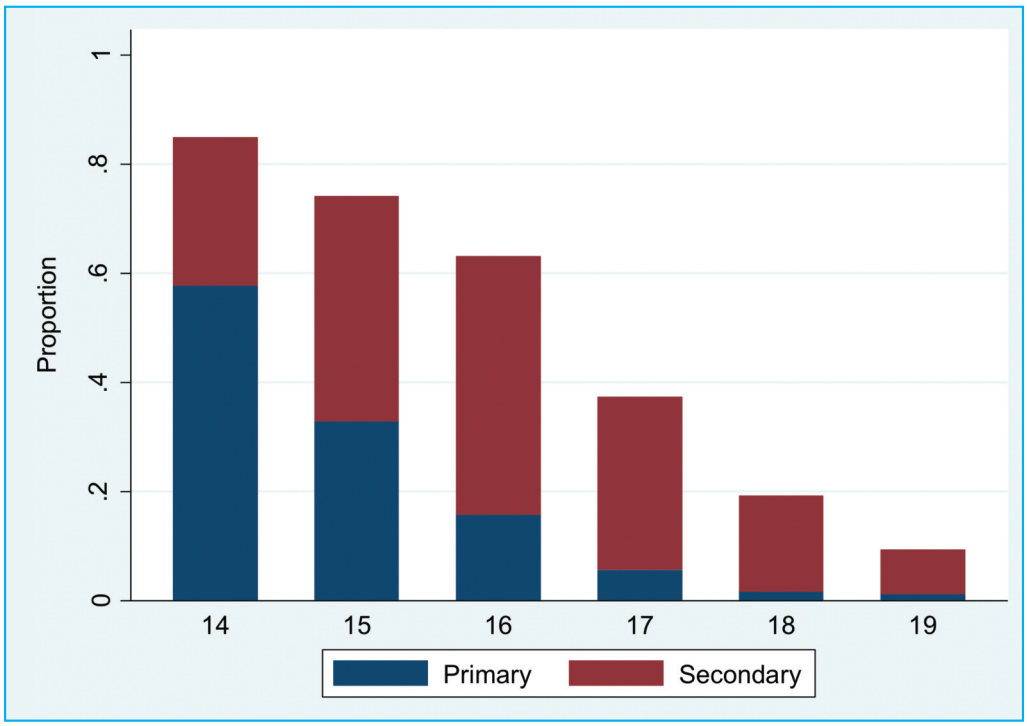


Figure 8.3 – ***Years of education completed by youth at baseline***

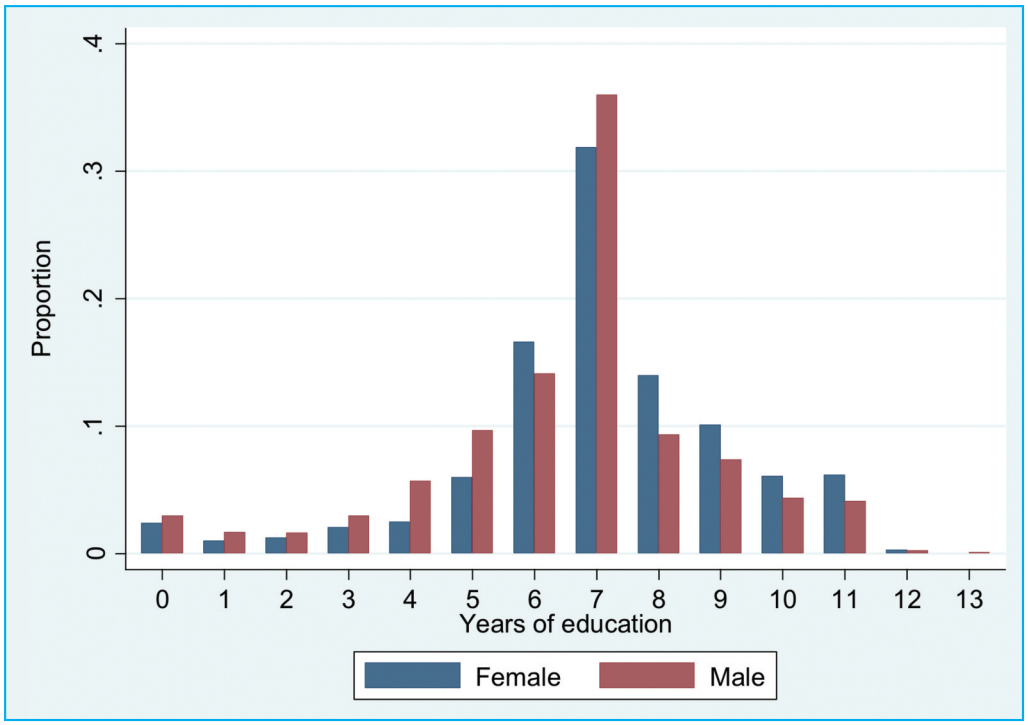


Table 8.2 (page 54) shows mean education values at baseline, by treatment status. About 98 per cent of youth self-report being able to read and write and 54 per cent are attending school. For the same age range, the school attendance rate in PSSN households from another study of PSSN households was very similar, at 53 per cent.[48] However, data from the poorest DHS quintile show a lower attendance rate (26 per cent), which increases to 30 per cent if the DHS sample is limited to youth who are children or grandchildren of the household head. Table 8.2 also shows that youth are divided into roughly equal proportions among those who completed some primary education (33 per cent), all primary education (34 per cent), and some secondary education (31 per cent). A small percentage of youth did not complete any education (3 per cent). Baseline education indicators are balanced between the treatment and control groups.

Treatment and control youth are also balanced in terms of baseline health *(see Table 8.3, page 54)*. The vast majority of youth can easily walk for 5 km (94 per cent) and easily sweep the dwelling floor (98 per cent). About 56 per cent of youth rated their overall health status as good, while very good health status was reported by another 37 per cent. Only 1 per cent of youth rated their health status as bad or very bad, while 6 per cent provided a neutral response.

[48] PSSN Youth Impact Evaluation Team, *Tanzania Youth Study: Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*, UNICEF Office of Research and REPOA. Florence, Italy/Dar es Salaam, Tanzania, 2017.

Table 8.2 – *Baseline means of education indicators, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Ever attended school full-time	0.98	2,458	0.98	1,272	0.98	1,186	0.59
Can read and write	0.91	2,456	0.93	1,271	0.90	1,185	0.13
Currently attending school or any type of training	0.54	2,458	0.55	1,272	0.53	1,186	0.46
Highest grade completed: none	0.03	2,458	0.03	1,272	0.03	1,186	0.72
Highest grade completed: some primary	0.33	2,458	0.31	1,272	0.35	1,186	0.12
Highest grade completed: primary	0.34	2,458	0.33	1,272	0.35	1,186	0.56
Highest grade completed: some secondary	0.31	2,458	0.33	1,272	0.28	1,186	0.09
Ever completed any livelihood or vocational programme	0.01	2,458	0.01	1,272	0.01	1,186	0.30

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 8.3 – *Baseline means of health indicators, by treatment status*

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Can walk for 5 km easily	0.94	2,458	0.93	1,272	0.95	1,186	0.11
Can sweep the dwelling floor easily	0.98	2,458	0.98	1,272	0.98	1,186	0.81
Self-rated health status: very good	0.37	2,458	0.36	1,272	0.39	1,186	0.26
Self-rated health status: good	0.55	2,458	0.56	1,272	0.54	1,186	0.59
Self-rated health status: neutral	0.06	2,458	0.07	1,272	0.05	1,186	0.26
Self-rated health status: bad or very bad	0.01	2,458	0.02	1,272	0.01	1,186	0.11

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

8.2 YOUTH ECONOMIC ACTIVITIES AND HOUSEHOLD CHORES

The baseline youth questionnaire includes a wide range of questions on youth participation and hours spent on economic activities during the week before the interview and household chores during the day before the interview. Information is sought about six types of economic activities (farm work for the household, excluding livestock; livestock herding for the household; fishing for the household; work in the non-farm household business; paid work outside the household; participation in the TASAF Public Works Program) and five types of unpaid household services (collecting water; collecting firewood or other fuel materials; collecting nuts or other tree fruits; taking care of children, cooking or cleaning; taking care of the elderly or sick household members).

Overall, about 80 per cent of youth participated in economic activities during the week before the interview. Figure 8.4 (page 55) shows that youth participation in economic activities increases with age for both males and females. Moreover, males have higher participation rates and work significantly more hours in economic activities than females, across all ages, with gender differences being statistically significant at the 1 per cent level *(see Figure 8.5, page 55)*.

Figure 8.4 – ***Baseline youth participation in economic activities (past week), by gender***

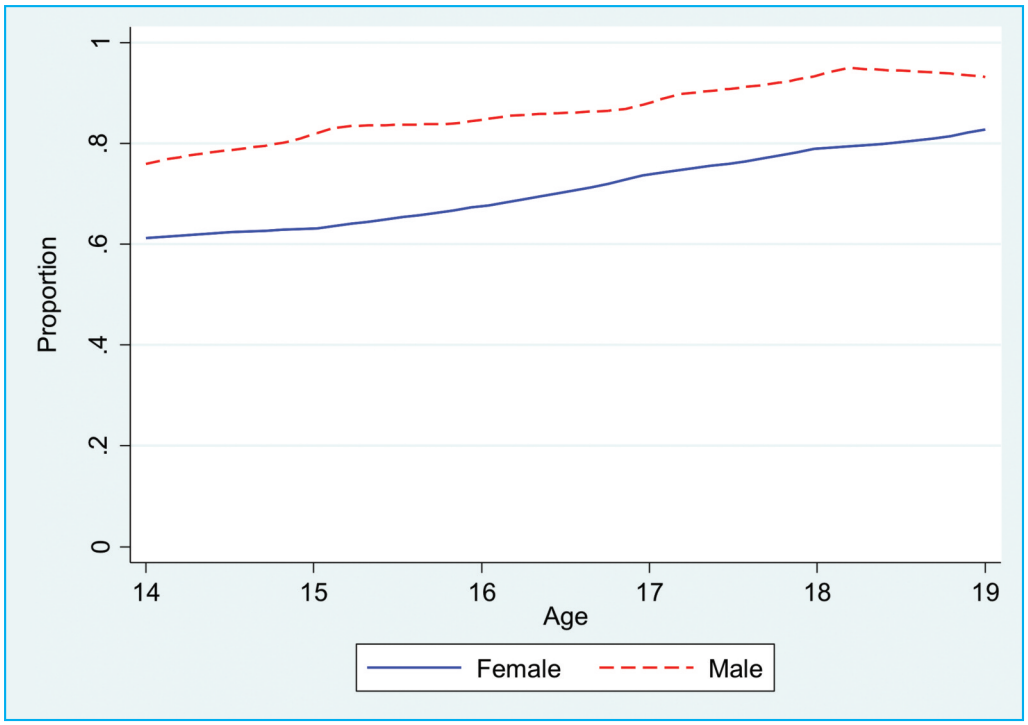


Figure 8.5 – ***Baseline youth hours spent on economic activities (past week), by gender***

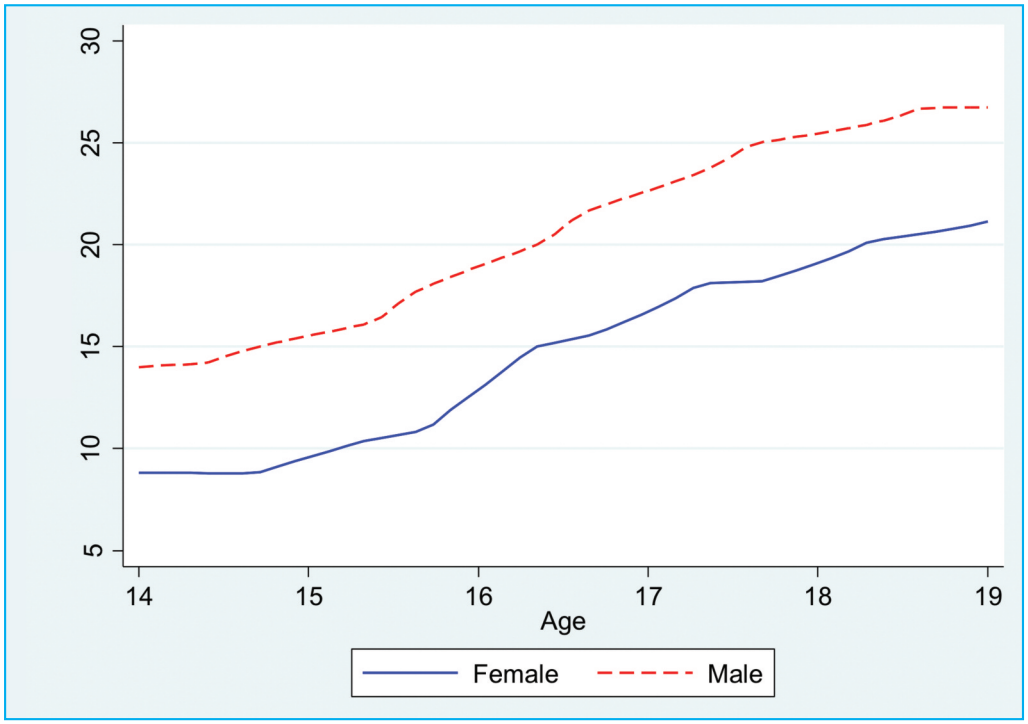


Table 8.4 provides detailed statistics for each type of economic activity, with the top panel showing average participation rates and the bottom panel showing average hours worked (the latter for youth who actually reported working).

Table 8.4 – ***Baseline means of economic activity indicators (past week), by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Participation							
Any economic activities	0.78	2,458	0.77	1,272	0.78	1,186	0.56
Farm work for the household, excluding livestock	0.66	2,458	0.64	1,272	0.67	1,186	0.44
Livestock herding for the household	0.43	2,458	0.43	1,272	0.42	1,186	0.73
Fishing for the household	0.01	2,458	0.01	1,272	0.01	1,186	0.78
Household business	0.05	2,458	0.06	1,272	0.04	1,186	0.36
Paid work outside the household	0.16	2,458	0.17	1,272	0.15	1,186	0.45
TASAF Public Works Program	0.02	2,458	0.01	1,272	0.04	1,186	0.01
Looked for a job in the past 7 days	0.08	1,697	0.09	896	0.07	801	0.36
Hours worked (only if hours >0)							
Hours in any economic activities	17.59	1,912	17.67	982	17.49	930	0.85
Hours in farm work for the household, excluding livestock	12.27	1,611	12.29	820	12.24	791	0.94
Hours in livestock herding for the household	6.93	1,054	6.96	551	6.89	503	0.86
Hours in fishing for the household	4.64	33	3.44	16	5.76	17	0.29
Hours in household business	13.78	123	13.67	70	13.92	53	0.82
Hours in paid work outside the household	11.54	385	11.30	210	11.82	175	0.63
Hours in TASAF Public Works Program	4.46	61	3.24	17	4.93	44	0.10
Amount received for last payment in paid job (TZS)	14,258.12	382	14,711.06	208	13,716.67	174	0.94

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size.

The most common economic activity is farm work for the household (about 66 per cent of youth engaged in this activity), followed by livestock herding for the household (about 43 per cent of youth). About 16 per cent of youth participated in paid work outside the household, with the most common type of paid occupation being agricultural wage labour (70 per cent of paid workers), followed by services (cleaning, hotel, waitress, 9 per cent), crafts or trade work (6 per cent), and transport work (taxi/boda, 2 per cent). Other relatively less common types of paid work include grazing cattle, operating milling machines, and carrying various materials (such as bricks or timber). Participation in the household non-farm enterprise (mostly petty trade and craft works) is relatively uncommon (about 5 per cent of youth). The same holds for participation in the TASAF Public Works Program (2.5 per cent of youth) and participation in fishing activities for the household (1 per cent of youth). Qualitative findings also reinforced the finding that the majority of youth engage in farming as an economic activity:

> *"I usually go to work like uprooting nuts ....To go uproot peanuts and harvest sunflower"* (Male, 15 years);

Qn: maybe, what kinds of activities do you do to get an income?
R: "It is farming. I farm cassava, maize, beans and peanuts" (Male, 16 years)*;*

"We normally farm maize and beans. We also plant vegetables." (Female, 15 years);

"I only cultivate my uncle's farm" (Female, 14 years)*;*

"We just cultivate and plant potatoes. Down there, I also farm beans" (Male, 16 years).

Looking at hours worked, we see that youth who work in the household non-farm business work particularly long hours (about 14 hours per week, on average). The same holds for youth who work on the household farm and for those who work for pay outside the household (about 12 hours per week in both cases). Youth who worked outside the household earned an average of 14,258 TZS (about 6 USD) during the week before the interview. In the in-depth interviews, the majority of youth reported starting the day quite early (e.g. 5:30 – 6:00 a.m.).

Even youth who go to school continue with household and family economic activities after returning:

Qn: so at six when you get home what do you do?
R: "I put garbage for the pigs and sometimes I take them to pasture. I then go to fetch water, to fetch firewood, to the machine and other household chores"
(Female, 16 years)

Only 8 per cent reported that they were looking for a job (the question on job search was only asked of youth who worked less than 16 hours during the week before the interview). The most commonly reported reasons for not looking for a job were: 'Student' (74 per cent), 'Engaged in household chores' (15 per cent), 'Does not know where to search for a job' (3 per cent), 'Lacks experience, training or qualification' (2 per cent), and 'Illness/disability (2 per cent). Other less commonly reported reasons included 'Work seasonally', 'Content with amount of work done', and 'Tired of looking for work and believes no suitable work is available'.

Youth labour outcomes are mostly balanced between treatment and control groups, with the exception of participation in the TASAF Public Works Program, which is significantly higher in the treatment than in the control group.

Figures 8.6 and 8.7 (page 58) below report participation rates and hours spent on household chores, respectively, during the day before the interview (by gender). As expected, we find significant gender differences in participation and hours spent on chores, with females being significantly more likely to participate in household chores and spending significantly more time on these activities compared to males (gender differences are statistically significant at the 1 per cent level). Male involvement in household chores is rather stable across ages, both in terms of participation and in terms of hours. For females, involvement in chores appears to increase with age, especially in terms of hours.

Figure 8.6 – ***Baseline youth participation in household chores (past day), by gender***

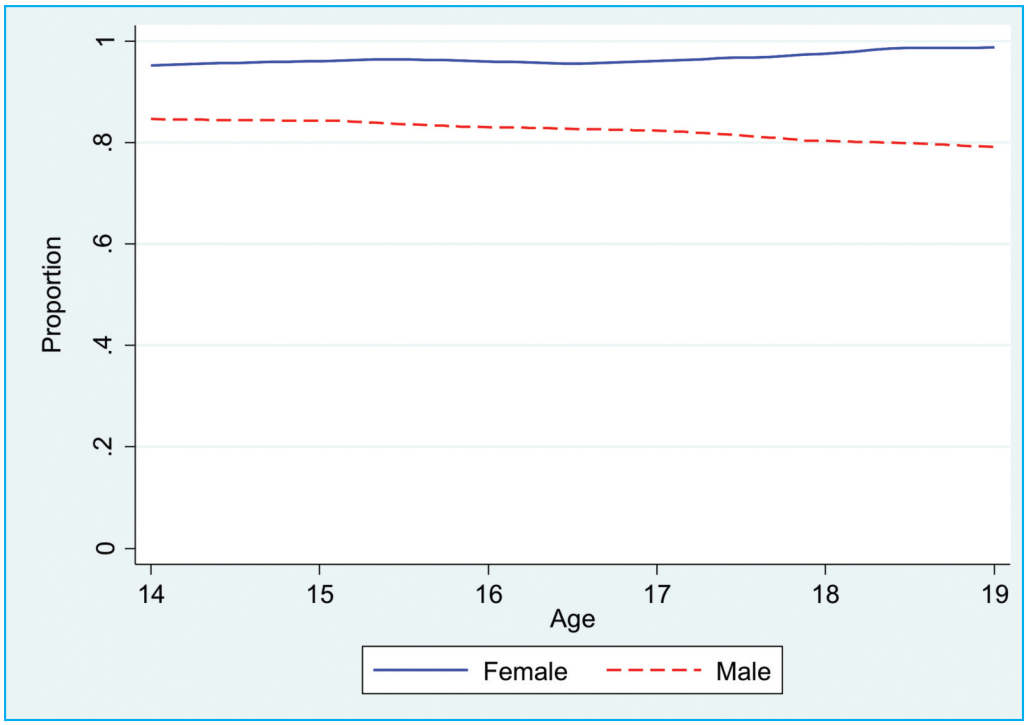
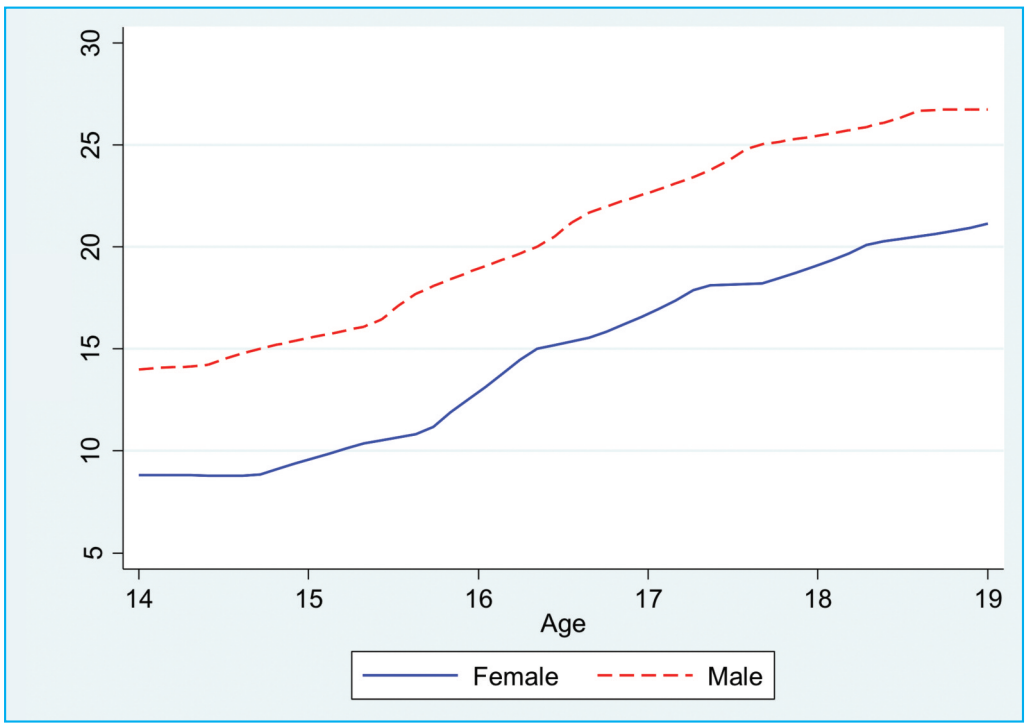


Figure 8.7 – ***Baseline youth hours spent on household chores (past day), by gender***



About 90 per cent of youth carried out household chores during the day before the interview, with the most common activities being taking care of children, cooking or cleaning (72 per cent of youth), followed by collecting water (66 per cent) and collecting firewood (36 per cent; Table 8.5).

Taking care of the elderly or sick household members and collecting nuts are relatively less common (23 and 10 per cent, respectively). Youth who are engaged in household chores perform these activities for a considerable number of hours, amounting to about three hours per day, on average. Youth spend particularly long hours taking care of children, cooking or cleaning and taking care of elderly or sick household members. Findings from in-depth interviews elaborate the different household chores that the youth did at home:

> *"If it's a school day, I usually go to fetch water, come back, bathe and go to school"* (Male, 18 years);

> *Qn: What do you usually do from morning to evening?*
> *R: "I do work such as fetching water; washing clothes and collecting firewood; I do cleaning. I am always cooking"* (Male, 15 years);

> *"I do some cleaning, I sweep the house and wash the utensils. I go to fetch water; I pick vegetables and cook it with ugali"* (Female, 14 years).

Almost all youth interviewed mentioned that fetching water was an activity they do daily, and lack of water is an important indicator of low socio-economic status.

Participation and hours spent by youth on household chores are balanced between treatment and control groups, with the exception of hours spent taking care of elderly or sick household members, which are significantly higher in the treatment group than in the control group.

Table 8.5 – *Baseline means of household chores indicators, by treatment status*

	Pooled		PSSN only		Cash Plus		
Variables	Mean	N	Mean	N	Mean	N	p-value
Doing any chores	0.89	2,458	0.90	1,272	0.88	1,186	0.12
Collecting water	0.66	2,458	0.65	1,272	0.66	1,186	0.95
Collecting firewood	0.35	2,458	0.33	1,272	0.38	1,186	0.12
Collecting nuts	0.10	2,458	0.09	1,272	0.11	1,186	0.20
Taking care of children, cooking or cleaning	0.72	2,458	0.74	1,272	0.70	1,186	0.05
Taking care of elderly or sick	0.23	2,458	0.23	1,272	0.23	1,186	0.93
Hours doing any chores	3.43	2,188	3.37	1,148	3.50	1,040	0.38
Hours collecting water	1.11	1,612	1.16	833	1.07	779	0.08
Hours collecting firewood	1.42	872	1.46	425	1.39	447	0.45
Hours collecting nuts	1.32	255	1.27	120	1.37	135	0.63
Hours taking care of children, cooking or cleaning	1.81	1,776	1.80	947	1.82	829	0.74
Hours taking care of elderly or sick	1.65	560	1.49	290	1.83	270	0.02

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

8.3 YOUTH PURCHASES INDICATORS

Table 8.6 below reports indicators of youth material well-being, such as cell phone ownership and whether youth purchased a set of items for themselves during the four weeks before the interview. The following items are considered in the baseline questionnaire: clothing or shoes, communication time for mobile phone (airtime/data/phone charging), personal goods and hygiene items (e.g. soap, make up, sanitary napkins, hairdressing), transportation (e.g. boda boda, bus, bike repair), and entertainment (including sports, shows, going out for food). About 20 per cent of sample youth own a cell phone (in the vast majority of cases a regular mobile phone, not a smartphone), with average cell phone ownership being significantly higher in the control than in the treatment group.
The indicators of purchases by youth during the four weeks before the interview are balanced among treatment and control. About 36 per cent of youth purchased personal hygiene items, 28 per cent purchased clothing or shoes and 18 per cent purchased communication time for cell phones. A smaller fraction of youth purchased transportation (11 per cent), while only 6 per cent spent money on entertainment. Half of the youth purchased any of these items, spending on average 15,279 TZS (about 7 USD) during the four weeks before the interview.

Table 8.6 – ***Baseline means of purchases indicators, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Owns a cell phone	0.21	2,458	0.23	1,272	0.19	1,186	0.03
Regular mobile phone	0.91	511	0.92	290	0.90	221	0.35
Smartphone	0.09	511	0.08	290	0.10	221	0.35
Purchased past 4 weeks: clothing or shoes	0.28	2,458	0.28	1,272	0.28	1,186	0.78
Purchased past 4 weeks: communication time for cell phone	0.18	2,458	0.19	1,272	0.17	1,186	0.18
Purchased past 4 weeks: personal goods/hygiene items	0.36	2,458	0.39	1,272	0.34	1,186	0.10
Purchased past 4 weeks: transportation	0.11	2,458	0.11	1,272	0.11	1,186	0.92
Purchased past 4 weeks: entertainment	0.06	2,458	0.07	1,272	0.06	1,186	0.75
Purchased past 4 weeks: any of the above items	0.49	2,458	0.51	1,272	0.48	1,186	0.33
Total amount spent past 4 weeks on the above items (TZS)	15,279.06	1,213	15,061.49	644	15,525.30	569	0.69

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

9 MENTAL HEALTH

Persistent food insecurity, exposure to violence and other adverse outcomes associated with living in poverty can increase stress, depression, and affect motivation and productivity[49], perpetuating the cycle of poverty. Recently, more attention has been given to psychosocial well-being in lower and middle income countries through global platforms like the Sustainable Development Goals (SDGs)[50], WHO Mental Health Action Plan[51] and a Lancet series dedicated to highlighting the burden of disease related to mental health issues[52]. With recognition of these issues, there is increased demand for interventions and policies which can mitigate the adverse impacts of poor mental health, and researchers and advocates are beginning to examine whether social protection programmes may address poverty-induced mental health issues.

To date, there is some evidence that cash transfers can improve mental health among youth, but results are limited. Two studies, one in Zomba, Malawi and another in Kenya, demonstrated the ability of cash transfer programmes to improve mental health outcomes among youth. The evaluation of a cash transfer programme in Malawi showed positive impacts on mental health for females (males were not part of the study), and these impacts disappeared after the transfers stopped.[53] Additionally, the Kenyan Government's Cash Transfer for Orphans and Vulnerable Children (CT-OVC) improved mental health among males, but not females.[54] Thus, there is potential for social protection programmes to address poverty-induced mental health issues, though impacts may vary by gender or other characteristics.

9.1 DEPRESSIVE SYMPTOMS

We measured mental health using the internationally validated[55,56,57] 10-item short-form of the Centre for Epidemiological Studies-Depression (CES-D) scale. Ten questions were asked regarding feelings and behaviours in the past seven days, including "how often did you have trouble concentrating?", "how often did you feel depressed?" and "how often did you feel that everything you did was an effort?". Responses were given using a 4-point Likert scale, ranging from "rarely (0-1 days)" to "all of the time (6–7 days)" over the last week. To calculate the CES-D, scores were

[49] Lund, Crick, *et al.* 'Mental health and poverty: A systematic review of the research in low-and middle-income countries', *The South African journal of psychiatry*, vol. 14, no. 3, 2008, pp. 104-+.

[50] Target 3.4 requests that countries: "By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing."

[51] http://www.who.int/mental_health/action_plan_2013/en/

[52] Patel, Vikram, *et al.*, 'A renewed agenda for global mental health' Lancet (London, England) 378.9801 (2011): 1441.

[53] Baird, S., J. De Hoop, and B. Özler, 'Income shocks and adolescent mental health', *Journal of Human Resources*, vol. 48, no. 2, 2013, pp. 370–403.

[54] Kilburn, K., *et al.*, 'Effects of a large-scale unconditional cash transfer program on mental health outcomes of young people in Kenya', *Journal of Adolescent Health*, vol. 58, no. 2, 2016, pp. 223–229.

[55] Boey, K. W., 'Cross validation of a short form of the CES D in Chinese elderly', *International journal of geriatric psychiatry*, vol. 14, no. 8, 1999, pp. 608–617.

[56] Bojorquez Chapela, I. and N. Salgado de Snyder, 'Psychometric characteristics of the Centre for Epidemiological Studies-depression Scale (CES-D), 20-and 10-item versions, in women from a Mexican rural area', *Salud Mental*, vol. 32, no. 4, 2009, pp. 299–307.

[57] Cheung, Y.B., K.Y. Liu, and P.S. Yip., 'Performance of the CES-D, and its short forms in screening suicidality and hoplessness in the Community', *Suicide and Life-Threatening Behaviour*, vol. 37, no. 1, 2007, pp. 79–88.

summed for all 10 questions, leaving a scale ranging from 0 to 30, with higher scores reflecting more depressive symptoms. We then created a binary indicator to assess whether youth scored greater than or equal to 10 on the CES-D scale to define the presence of depressive symptoms, a cut-off used in previous studies implemented in Africa.[58] Cronbach's alpha, a measure of inter-item reliability for the CES-D in the overall sample is 0.80, indicating a good consistency between indicators. A score greater than 0.70 is generally considered acceptable internal validity of the overall scale.[59]

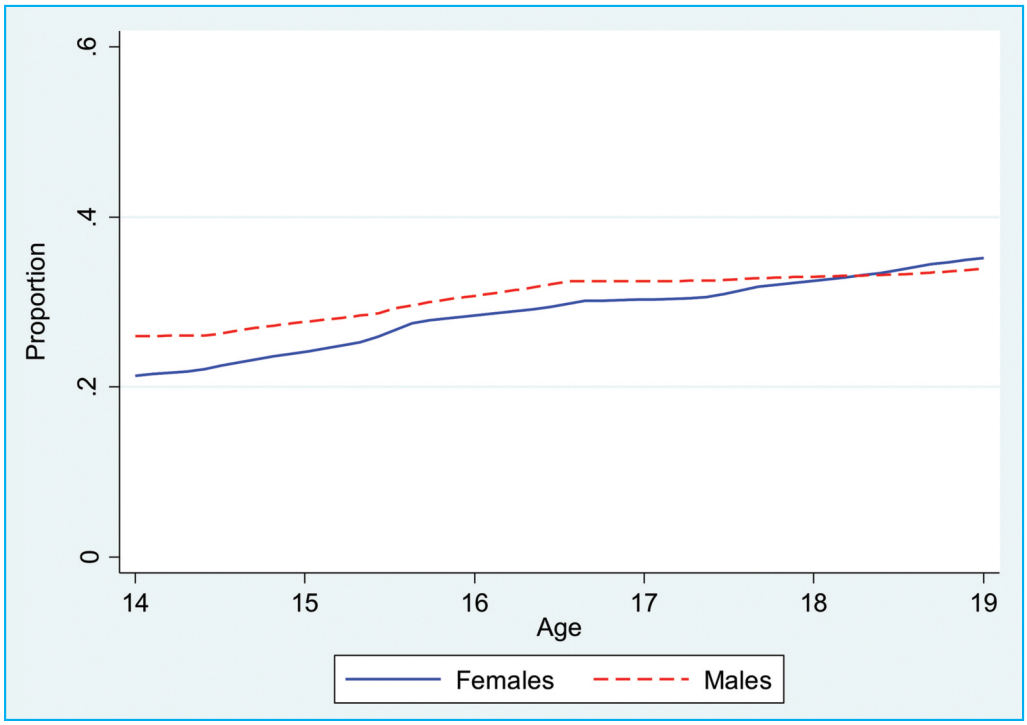
Table 9.1 shows that almost one in three adolescents (29 per cent) in our sample exhibit depressive symptoms, and the median CES-D score is six. This outcome is balanced between treatment and control groups. Moreover, depressive symptoms increase across the age range for both males and females (Figure 9.1).

Table 9.1 – *Baseline means of mental health indicators, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Reports depressive symptoms (CES-D>=10)	0.29	2,458	0.28	1,272	0.30	1,186	0.59
Enhanced Life Distress Index (0–39)	3.48	2,458	3.60	1,272	3.35	1,186	0.28

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Figure 9.1 – *Proportion of youth exhibiting depressive symptoms, by gender*



[58] Onuoha, F.N., *et al.*, 'Negative mental health factors in children orphaned by AIDS: natural mentoring as a palliative care', AIDS and Behaviour, vol. 13, no. 5, 2009, pp. 980–988.

[59] Nunnally J, Bernstein L., *Psychometric theory*. McGraw-Hill Higher, INC, New York, 1994.

9.2 STRESS

Stress levels were measured using the Enhanced Life Distress Index (ELDI).[60] The ELDI is a tool being developed by UNICEF as an alternative way to measure chronic stress, as existing measures developed in the United States may be inadequate to capture stress in the sub-Saharan African context.[61] The ELDI first asks whether the respondent has been worried about 13 items over the past seven days. The categories include economic stressors, such as employment, education and lack of access to food, as well as relationship stressors associated with family or romantic partners, and other stressors, such as risk of theft or pregnancy. If respondents answer affirmatively, they are then asked how distressed they were. Each stressor is ranked on a 1–3 scale (with higher numbers indicating greater distress) and where no worry is reported for a particular item it is coded as zero, resulting in a scale with scores ranging from 0 to 39. Cronbach's alpha for this index is 0.75, suggesting good reliability.

Table 9.1 shows that both mental health indicators are balanced for youth in PSSN only households versus those in Cash Plus households, with 29 per cent of youth exhibiting depressive symptoms, and a mean of 3.48 on the ELDI. Forty-one per cent of youth report not feeling any distress in any of the 13 categories.

Figure 9.2 – *Enhanced Life Distress Index, by gender*

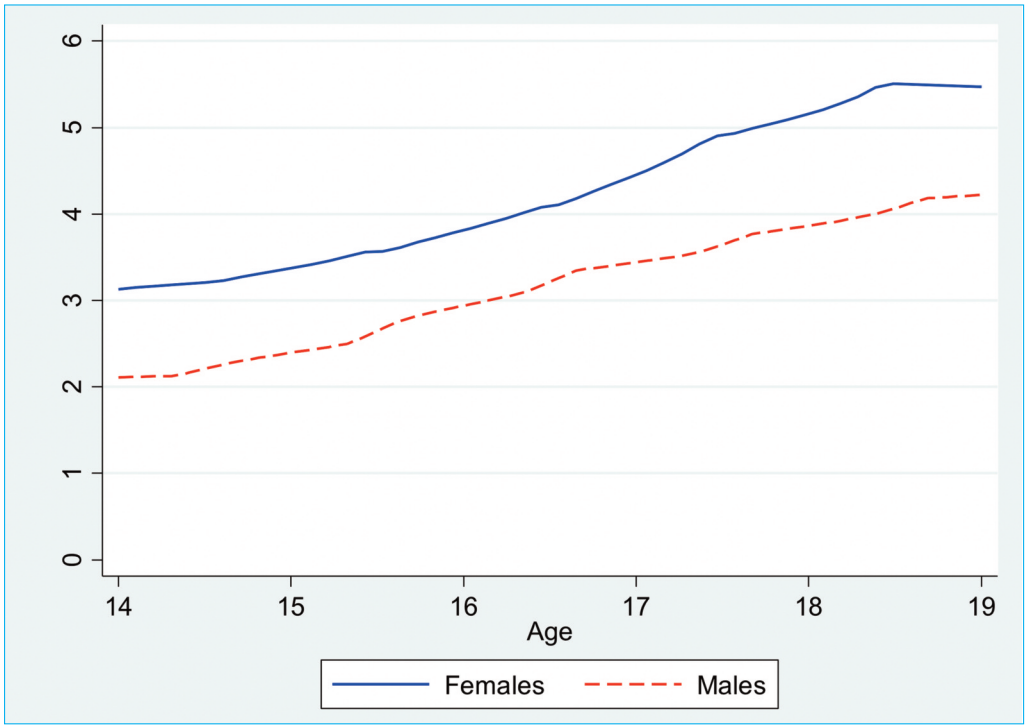


Figure 9.2 illustrates how females have higher rates of distress than males at every age in our sample, and how for both males and females, distress increases with age. Further, our qualitative

[60] The ELDI is a new quantitative measure of stress being developed by researchers led by Tia Palermo and Jacob de Hoop at UNICEF Office of Research – Innocenti and is loosely based on the Life Distress Index developed by Thompson *et al.* described in Thompson, M., Yoshioka, M., & Ager, R., 'Life distress inventory'. in *Measures of clinical practice: A sourcebook*, 2nd ed., edited by Fischer, J. & K. Corcoran, Free Press, New York, 1994, pp. 267..

[61] Hjelm L., *et al.*, 'Poverty and perceived stress: Evidence from two unconditional cash transfer programs in Zambia', *Social Science & Medicine,* vol. 177, 2017, pp. 110–117.

findings illustrate some of the issues that are stressful for the youth in this sample, including pregnancy and income shocks:

> *Qn: is there any issue that makes you have worries or concerns about your safety and livelihood? R: "It's just this one of pregnancy. I usually just think how it will be. How will I raise the child? How will it be? How will life be?"* (Female, 17 years);

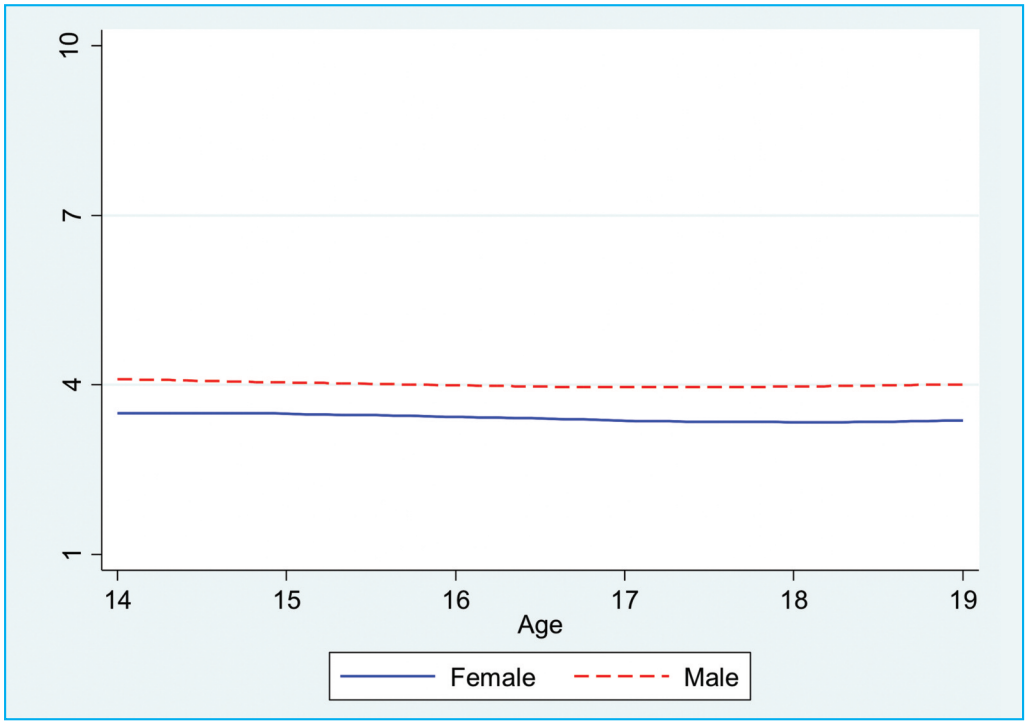
> *Qn: How is life there at home?*
> *R: "Hard. I was doing something that was giving me an income, and it stopped. Last year I had 50 TZS, I planted potatoes, they were all rotten."*
> *Qn: And after that did you do something else?*
> *R: "I was cooking pastries, my young sibling was going to sell, s/he ate there at school, so now I just sit"* (Female, 16 years)

10 YOUTH ATTITUDES, RISK AND SUPPORT

The Cash Plus intervention may influence youth perceived quality of life, educational and occupational aspirations, attitudes towards risk and patience. As these qualities may also moderate programme impacts, we aimed to measure them at baseline.

We measured perceived quality of life with the following question: "Imagine a ladder where on the bottom, the first step represents the worst possible life for you and the highest step, the tenth, represents the best possible life for you. On which step of the ladder would you say you are today?" Figure 10.1 shows average responses, by age and gender. Reported values average around four, are stable across ages and are consistently higher for males than females (this gender difference is statistically significant at the .01 level).

Figure 10.1 – ***Youth perceived quality of life, by gender***



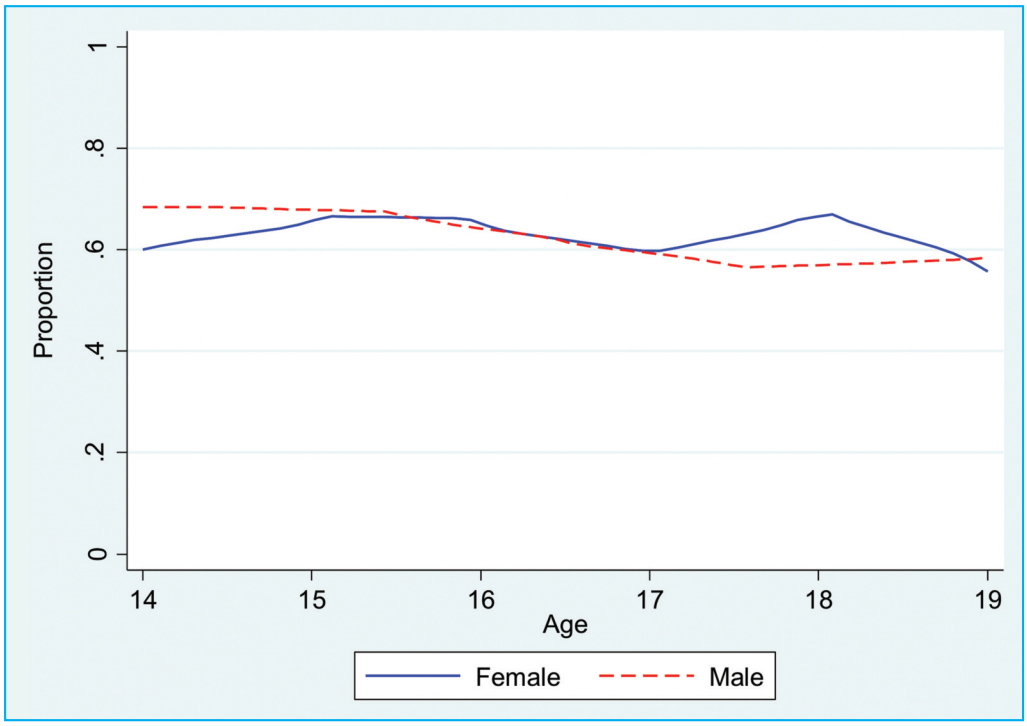
Youth were also asked about their educational aspirations. The majority reported that they aspire to tertiary education (i.e. university education). Figure 10.2 (page 66) shows that the proportion of youth aspiring to tertiary education is rather stable across ages, without a clear gender pattern (gender differences are not statistically significant).

Average values for occupational aspirations are reported in Table 10.1 (page 67). The most sought-after occupation is teacher (40 per cent of youth), followed by doctor (14 per cent), health care professional (10 per cent), and other occupations (including journalist, mechanic, religious or political leader; 10 per cent). Data from the in-depth interviews with youth elaborate some of their occupational aspirations:

> *Qn: In future what are your plans for earning a living or working?*
> *R: "I want to be a doctor." (Female, 14 years);*
> *"I always just think, after I am educated, I want to become a car mechanic"*
> (Male, 16 years);

Qn: What kind of training would you like to have?
R: "Tailoring"
Qn: Why would you like tailoring?
R: "So that I can get money" (Female, 19 years)

Figure 10.2 – ***Proportion of youth aspiring to university education, by gender***



Adolescents were also asked about the extent of social support they receive, for example when they take decisions or need to share emotions. Adolescents were asked to report the degree to which they agree with a set of four affirmations on different kinds of support (e.g. from friends or family). Answers range from one 'Strongly agree' to five 'Strongly disagree'. We rescaled the response values so that a higher value indicates higher social support. For each adolescent, we then obtained the average value across the four answers. The 'Social support index' ranges from one (minimum support) to five (maximum support). We use a similar procedure to construct an index of self-esteem and an index of 'Locus of control', indicating the degree to which youth believe that they have control over the outcome of events in their lives, as opposed to external forces mainly governing their lives. Average values of these three indexes are shown in Table 10.2 below. Adolescents reported rather high values of social support and self-esteem (both close to four, on average). The 'Locus of control' index is relatively lower, averaging about three and thus indicating that youth perceive that external circumstances have a non-negligible role in determining their life outcomes. In the qualitative interviews, adolescents elaborated the extent and source of social support they receive:

"My neighbour . . .s/he usually advises me to study so that I can go to secondary school. And also my maternal aunt, if we don't have flour, I go to ask"
(Female, 19 years);

"There is my other sister, she is in KK . . . when I go to help her with chores, she sometimes gives me money, some days she doesn't give me" (Female, 16 years);

Qn: What are some things that your uncle advises you?
R: "He just says study hard"
Qn: What does Mama advise you?
R: "Mama just stays in pubs" (Male, 16 years)

Table 10.1 – Baseline means of ideal education and job, by treatment status

	Pooled		PSSN only		Cash Plus		
Variables	**Mean**	**N**	**Mean**	**N**	**Mean**	**N**	**p-value**
Quality of life ladder: 1 (Worst) to 10 (Best)	3.75	2,458	3.70	1,272	3.80	1,186	0.64
Ideal level of education							
None	0.03	2,458	0.02	1,272	0.03	1,186	0.37
Some primary	0.00	2,458	0.00	1,272	0.00	1,186	0.61
Primary	0.03	2,458	0.03	1,272	0.04	1,186	0.29
Some secondary	0.31	2,458	0.31	1,272	0.31	1,186	0.90
Some tertiary	0.63	2,458	0.64	1,272	0.62	1,186	0.59
Ideal job							
Teacher	0.40	2,458	0.40	1,272	0.41	1,186	0.51
Doctor	0.14	2,458	0.13	1,272	0.15	1,186	0.35
Health care professional	0.10	2,458	0.10	1,272	0.10	1,186	0.53
Other	0.10	2,458	0.02	1,272	0.03	1,186	0.68
Government/ parastatal	0.05	2,458	0.05	1,272	0.05	1,186	0.73
Business owner	0.04	2,458	0.05	1,272	0.03	1,186	0.03
Farmer	0.04	2,458	0.03	1,272	0.05	1,186	0.01
Driver	0.04	2,458	0.04	1,272	0.04	1,186	0.48
Tailor	0.03	2,458	0.03	1,272	0.04	1,186	0.95
Police officer	0.03	2,458	0.04	1,272	0.03	1,186	0.41
Electrician	0.03	2,458	0.03	1,272	0.02	1,186	0.18

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 10.2 (page 68) also reports average indicators of risk aversion and patience. To measure risk aversion, youth were asked to choose between five hypothetical games in which they will flip a coin. Each game implies a different degree of risk aversion, with risk aversion being at a maximum for game one and a minimum for game five. The majority of youth chose game one, two or three (about 20 per cent each), 16 per cent chose game four, and the remaining 25 per cent chose game five (lowest risk aversion).

To elicit information on patience, youth were asked to choose between receiving a sum of money now or a different amount later (hypothetical, no cash was given to adolescents). Question (1) was a filter question, seeking a choice between a larger sum (1,000 TZS) now versus a lower sum (900 TZS) later. Each adolescent who said they wanted to receive the larger amount now (N=1,871)

was then asked successive questions, each indicating an increasing amount later as compared to the previous one. Questions (2) to (7) were formulated as follows:

(2) Choose between 1,000TZS now or 1,100TZS one month from now

(3) 1,000TZS now or 1,300TZS one month from now

(4) 1,000TZS now or 1,500TZS one month from now

(5) 1,000TZS now or 2,000TZS one month from now

(6) 1,000TZS now or 2,500TZS one month from now

(7) 1,000TZS now or 3,000TZS one month from now

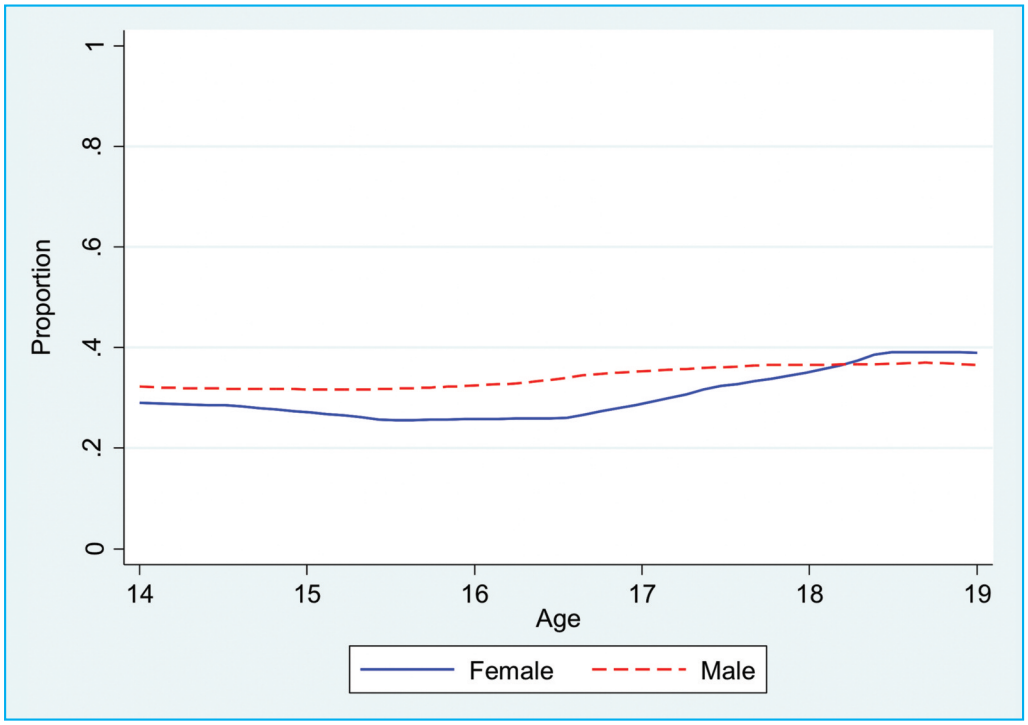
Based on the answers to these questions, we constructed a patience index, with higher values indicating a greater degree of patience. This index is an ordinal variable ranging from one if the individual selected to have money soon in all cases (lowest patience), to seven if the individual already chose to have the money later in question (2) (highest patience). The 'Patience index' has a mean value of about four (out of seven), indicating a moderate degree of patience. About one third of youth show the lowest degree of patience, with males being significantly more likely to have a lesser degree of patience than females (see Figure 10.3).

Table 10.2 – ***Baseline means of support and attitudes, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Social support index	4.06	2,457	4.04	1,271	4.08	1,186	0.26
Locus of control index	2.75	2,458	2.75	1,272	2.76	1,186	0.68
Self-esteem index	3.99	2,414	3.97	1,255	4.02	1,159	0.25
Risk aversion							
Game 1: 2,500TZS if head, 2,500TZS if tail	0.19	2,458	0.21	1,272	0.17	1,186	0.03
Game 2: 2,000TZS if head, 4,000TZS if tail	0.19	2,458	0.18	1,272	0.20	1,186	0.18
Game 3: 1,500TZS if head, 5,500TZS if tail	0.21	2,458	0.22	1,272	0.20	1,186	0.38
Game 4: 1,000TZS if head, 7,000TZS if tail	0.16	2,458	0.15	1,272	0.17	1,186	0.16
Game 5: 0TZS if head, 10,000TZS if tail	0.25	2,458	0.24	1,272	0.25	1,186	0.53
Patience							
Patience index	3.97	1,871	3.92	967	4.01	904	0.61
Patience index=1 (always choose money soon)	0.32	1,871	0.34	967	0.30	904	0.32
Patience index=2 (switches at 3,000TZS)	0.04	1,871	0.04	967	0.04	904	0.64
Patience index=3 (switches at 2,500TZS)	0.04	1,871	0.04	967	0.04	904	0.73
Patience index=4 (switches at 2,000TZS)	0.12	1,871	0.10	967	0.13	904	0.14
Patience index=5 (switches at 1,500TZS)	0.13	1,871	0.13	967	0.14	904	0.34
Patience index=6 (switches at 1,300TZS)	0.16	1,871	0.14	967	0.17	904	0.12
Patience index=7 (switches at 1,100TZS)	0.20	1,871	0.21	967	0.18	904	0.15

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level

Figure 10.3 – ***Proportion of youth with low degree of patience, by gender***



11 ATTITUDES TO GENDER

Gender norms, defined as societal expectations of men's and women's roles, rights and responsibilities[62], have been associated with a number of outcomes related to health and wellness. Inequitable ideas about gender roles can increase the risk of experiencing IPV[63] , early sexual debut and risky sexual behaviours[64], leading to increased incidence of HIV and other STIs[65]. Although social protection programmes are not targeted to change social norms, these may moderate programme impacts. Programming which educates youth on violence prevention as well as risky sexual behaviours and other adverse outcomes that are influenced by individual-level attitudes may, in fact, also be influenced by the perceptions of gender norms (at the community or societal level) among the youth.

We use a 24 item short version of the Gender Equitable Men (GEM) scale, the full version of which has been used and validated in African settings[66,67], including among adolescents[68]. The original scale has 35 items[69] and, in consideration of questionnaire length, we selected the 24 items we felt were most relevant to the intervention and study sample. GEM Scale items address attitudes related to violence, reproductive health and disease prevention, sexuality, and household decision-making. Response options for each item were agree, partially agree, and do not agree at all, which we coded as equal to one if they agreed or partially agreed to each statement, and then summed the items to create a scale. Lower scores indicate lower support for equitable gender attitudes, and a higher score indicates more equitable attitudes. Cronbach's alpha for the full scale is 0.87, showing good internal validity.

Table 11.1 (page 72) first shows the modified GEM scale, followed by each of the 24 items that make up the scale. The mean of each item signifies the proportion of respondents who agree with the statement. The percentage of youth who agree with gender norms pertaining to violence ranged from 27 per cent of youth who agree it is okay for a man to hit his wife if she withholds sex to nearly half agreeing it is okay for a husband to beat his unfaithful spouse. In relation to reproductive health, responses ranged from 36 per cent agreeing that a real man produces a male child to 56 per cent agreeing that a woman only becomes a real woman when she has a child. For sexuality norms,

[62] Vu, L., *et al.*, 'Inequitable gender norms from early adolescence to young adulthood in Uganda: Tool validation and differences across age groups', *Journal of Adolescent Health*, vol. 60, no. 2, 2017, pp. S15–S21.

[63] Conroy, Amy A. 'Gender, power, and intimate partner violence: a study on couples from rural Malawi', *Journal of interpersonal violence*, vol. 29.5, 2014, pp. 866–888.

[64] Varga, Christine A. 'How gender roles influence sexual and reproductive health among South African adolescents', *Studies in family planning*, vol. 34.3, 2003, pp. 160–172.

[65] Jewkes, Rachel K., Jonathan B. Levin, and Loveday A. Penn-Kekana, 'Gender inequalities, intimate partner violence and HIV preventive practices: findings of a South African cross-sectional study', *Social science & medicine*, vol. 56.1, 2003, pp. 125–134.

[66] Pulerwitz, J., *et al.*, 'Changing gender norms and reducing intimate partner violence: results from a quasi-experimental intervention study with young men in Ethiopia', *American Journal of Public Health* (ajph).

[67] Vu, L., *et al.*, 'Inequitable gender norms from early adolescence to young adulthood in Uganda: Tool validation and differences across age groups', *Journal of Adolescent Health*, vol. 60, no. 2, 2017, pp. S15–S21.

[68] Vu, L., *et al.*, 'Inequitable gender norms from early adolescence to young adulthood in Uganda: Tool validation and differences across age groups', *Journal of Adolescent Health*, vol. 60, no. 2, 2017, pp. S15–S21

[69] Pulerwitz, J., & Barker, G., 'Measuring attitudes toward gender norms among young men in Brazil: Development and psychometric evaluation of the GEM Scale', Men and Masculinities, vol. 10, no. 3, pp. 322–338.

the range starts at 32 percent of respondents agreeing that a man needs other women besides his wife, all the way to nearly one quarter of youth (73 per cent) agreeing that it is disgusting when a man acts like a woman. When it comes to household decision-making, the majority agree with all items, ranging from 58 per cent agreeing that the husband should make decisions on all major purchases, to 75 per cent who agree that a woman's most important role is to take care of her home and cook for her family. Females, on average, have a full point lower score on the GEM scale than males (at 11.9 versus 13.0), suggesting that females profess less equitable attitudes than males. Select indicators are shown by gender in Table 11.1. These gender attitude outcomes and overall scale were balanced at baseline between study arms.

Figure 11.1 – ***Proportion of adolescents who believe that a man using violence against his wife is a private matter that should not be discussed outside the couple, by gender***

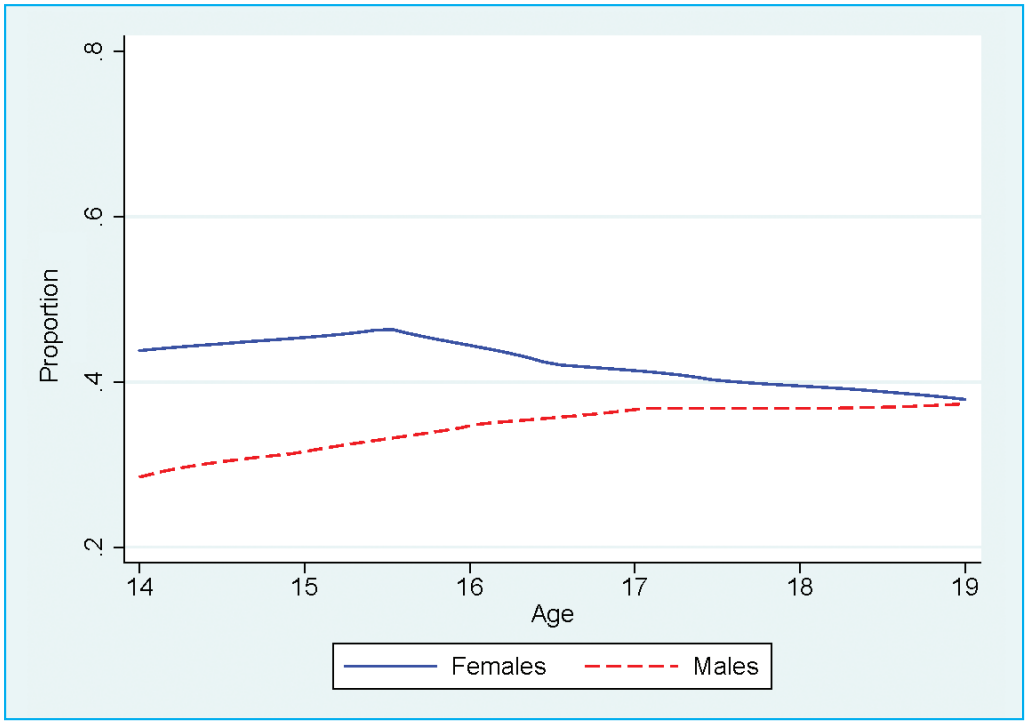


Table 11.1 – ***Baseline means of attitudes on gender indicators, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Modified GEM scale (0–24)	12.52	1,880	12.77	996	12.23	884	0.21
Violence							
There are times a woman deserves to be beaten	0.37	2,447	0.36	1,268	0.38	1,179	0.68
A woman should tolerate violence in order to keep her family together	0.42	2,446	0.41	1,265	0.43	1,181	0.36
If someone insults a man he should defend his reputation with force if he has to	0.38	2,444	0.38	1,268	0.39	1,176	0.64
It is okay for a man to hit his wife if she will not have sex with him	0.27	2,403	0.25	1,236	0.29	1,167	0.08
A man using violence against his wife is a private matter that should not be discussed outside the couple	0.38	2,408	0.38	1,245	0.38	1,163	0.94
It is alright for a man to beat his wife if she is unfaithful	0.48	2,426	0.48	1,255	0.49	1,171	0.62
Reproductive health							
It is a woman's responsibility to avoid getting pregnant	0.54	2,365	0.54	1,229	0.53	1,136	0.74
A man should be angered/shocked if his wife asks him to use a condom	0.39	2,329	0.38	1,211	0.40	1,118	0.45
Women who carry condoms on them are easy	0.42	2,203	0.40	1,160	0.43	1,043	0.29
Only when a woman has a child is she a real woman	0.56	2,393	0.56	1,239	0.55	1,154	0.62
A real man produces a male child	0.36	2,397	0.35	1,237	0.36	1,160	0.56
Sexuality							
It disgusts me when I see a man acting like a woman	0.73	2,429	0.74	1,258	0.72	1,171	0.38
A woman should not initiate sex	0.48	2,250	0.47	1,177	0.49	1,073	0.49
You do not talk about sex, you just do it	0.37	2,226	0.36	1,164	0.37	1,062	0.63
A woman who has sex before she marries does not deserve respect	0.52	2,392	0.51	1,244	0.53	1,148	0.26
Men need sex more than women do	0.34	2,311	0.33	1,200	0.35	1,111	0.42
Men are always ready to have sex	0.41	2,243	0.40	1,168	0.43	1,075	0.36
A man needs other women, even if things with his wife are fine	0.32	2,373	0.33	1,234	0.32	1,139	0.58
It is the man who decides how he wants to have sex	0.45	2,266	0.44	1,184	0.47	1,082	0.19
Household decision-making							
Giving the kids a bath and feeding them are the mother's responsibility	0.68	2,440	0.69	1,262	0.68	1,178	0.87
A woman's most important role is to take care of her home and cook for her family	0.75	2,448	0.73	1,269	0.77	1,179	0.06
A man should have the final word on decisions in his home	0.66	2,442	0.66	1,266	0.67	1,176	0.77
The husband should decide what major household items to buy	0.58	2,438	0.57	1,262	0.59	1,176	0.49
A woman should obey her husband in all things	0.61	2,443	0.59	1,264	0.63	1,179	0.21

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Figure 11.2 – ***Proportion of adolescents who believe it is a woman's responsibility to avoid getting pregnant, by gender***

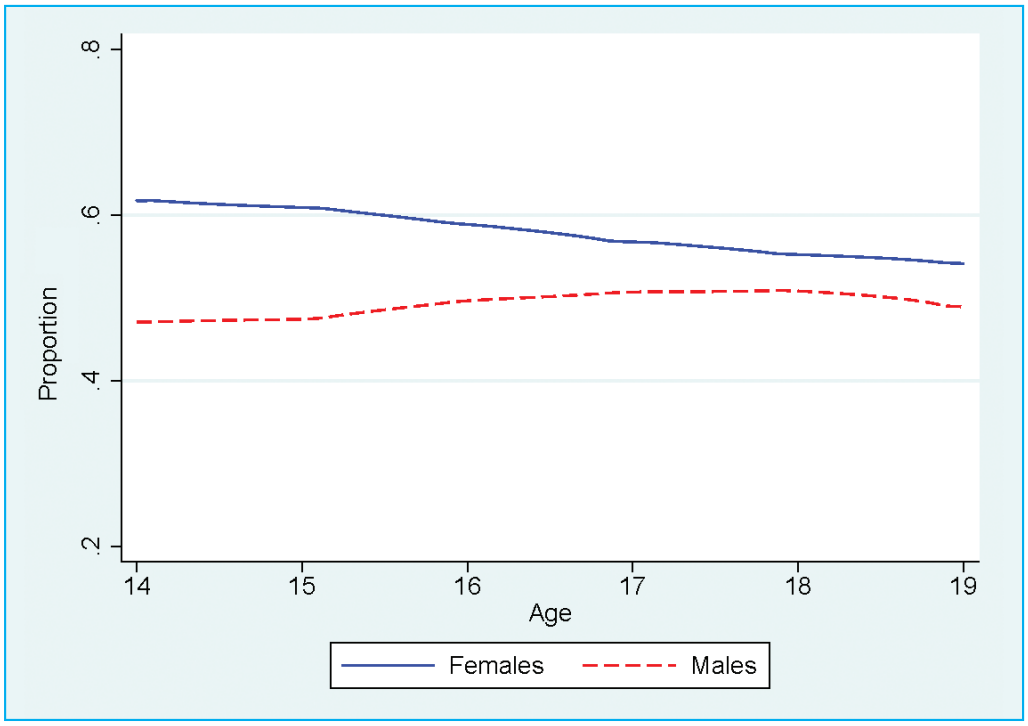
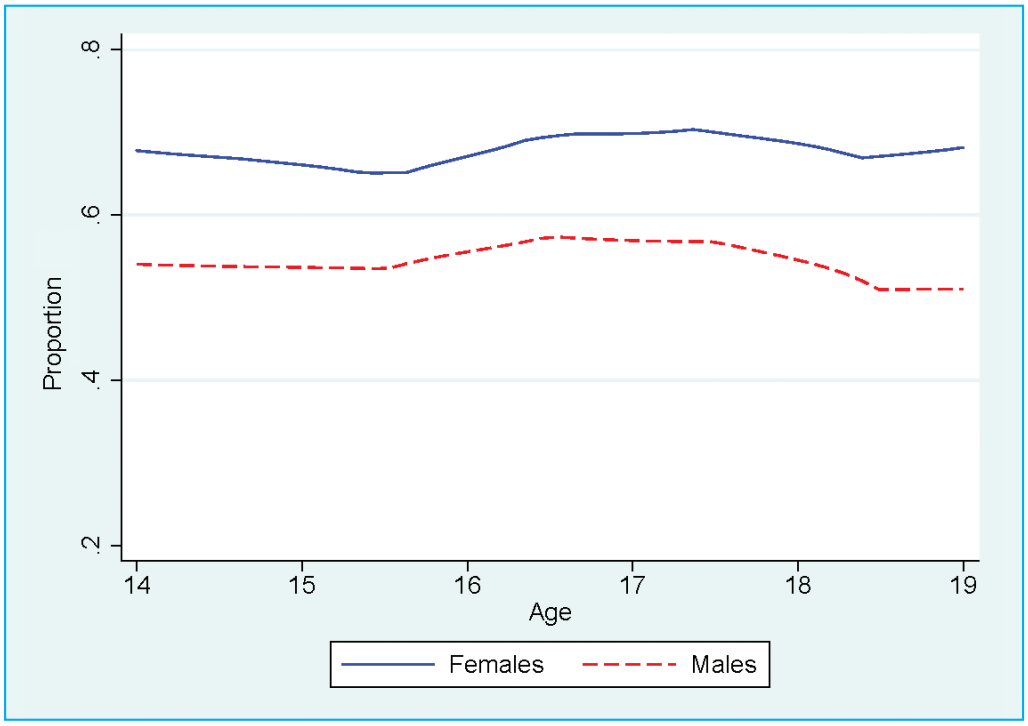


Figure 11.3 – ***Proportion of adolescents who believe a woman should obey her husband in all things, by gender***



Figures 11.1, 11.2, and 11.3 display three gender normative beliefs, by gender. In all cases females are more likely to agree with the less equitable statements than males, across all ages.

12 Partnerships, sexual behaviour and HIV knowledge

Early marriage and pregnancy are prevalent in Tanzania, where one in three (31–37 per cent) girls is married before age 18, and 43 per cent of females aged 20–24 years give birth before age 18.[70] Not only is child marriage a human rights violation according to the Convention on the Rights of the Child, but it also has adverse effects on both the children entering these marriages and on their future children, reinforcing an intergenerational cycle of poverty and disadvantage. Girls from rural areas, poor households and those with low educational attainment are more likely to marry as children.[71,72] It is of concern that Tanzania, unlike many other countries in the region, has not made progress in reducing rates of child marriage in the past 20 years.[73] Two other countries from SSA (Malawi and Ethiopia) have shown evidence that cash transfers can delay age at marriage among adolescent girls; however, in Tanzania, a recent evaluation of the PSSN did not show that the programme had any impact on delaying marriage.[74] Thus, in this context, cash alone targeted to poor households may not be sufficient to delay marriage.

12.1 PARTNERSHIPS

Among the adolescents in this sample, only 1 per cent report having ever been married or cohabiting (2 per cent of controls/PSSN only and 1 per cent of the treatment; p<.05; *see Table 12.1 page 75*), which is much lower than national rates. In fact, according to the Tanzania DHS from 2015/2016, one in four youth (26.3 per cent) aged 15–19 from the poorest wealth quintile have ever been married. Our selection criteria for youth to be interviewed limited the Cash Plus sample to only those living in the household with the PSSN beneficiary at the time of interview. Thus, we excluded youth who may have lived in PSSN households previously but subsequently moved out to start their own households through marriage and cohabitation. Given the absence of dynamic PSSN enrolment (that is, there has been no retargeting and new enrolment), these new households are not likely to be part of PSSN, and this may explain the low rates of marriage and cohabitation seen in our sample. When considering spouses, boyfriends and girlfriends (non-cohabiting) combined, 17 per cent of the sample reported having one. The latter outcome is balanced between treatment and controls, but having ever married, cohabiting and single/never married were imbalanced at baseline between the two study arms (though rates were very low in both arms; 2 and 1 per cent of the PSSN only and Cash Plus adolescents, respectively, had ever been married or were cohabiting). Findings from in-depth interviews reflect the quantitative results, with most of those interviewed stating that they had never been in a cohabiting relationship. A few participants who reported having previously been in a relationship indicated that they were currently single for various reasons, such as getting pregnant:

[70] Population Council, Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), UNICEF Tanzania. *The Adolescent Experience In-Depth: Using Data to Identify and Reach the Most Vulnerable Young People, Tanzania 2009-2012*, Population Council, TACAIDS, ZAC & UNICEF Tanzania, Dar es Salaam, 2015.

[71] Jensen R, Thornton R, 'Early female marriage in the developing world', *Gender & Development*, vol. 11, no. 2, 2003, pp. 9–19.

[72] Loaiza E, Wong S, 'Marrying too young. End child marriage', UNFPA, New York, 2012.

[73] Koski, A., Clark, S., & Nandi, A., 'Has Child Marriage Declined in sub-Saharan Africa? An Analysis of Trends in 31 Countries' *Population and Development Review*, vol. 43, no. 1, 2017, pp. 7–29.

[74] PSSN Youth Impact Evaluation Team, *Tanzania Youth Study: Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*. UNICEF Office of Research and REPOA. Florence, Italy/Dar es Salaam, Tanzania, 2017.

"We broke up after I told him I was pregnant. I mean he is far and we broke up. He then switched off his phone and cannot be reached." (Female, 17 years)

Table 12.1 – *Baseline means of partner/relationship indicators, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Ever had spouse/cohabiting partner	0.01	2,458	0.02	1,272	0.01	1,186	0.03
Single/never married	0.99	2,458	0.98	1,272	0.99	1,186	0.03
Has a girlfriend or boyfriend	0.17	2,444	0.18	1,260	0.16	1,184	0.22

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

12.2 FERTILITY

Next we asked youth about fertility-related outcomes. We asked females whether they were currently pregnant; had ever been pregnant; had ever had a pregnancy end in miscarriage, abortion or stillbirth; and total fertility (defined as total live births to date). We asked males whether they had ever made a female pregnant. Twelve per cent of females reported having ever been pregnant (Figure 12.1), and 3 per cent reported being currently pregnant *(see Table 12.2 page 76)*. This compares to 12 per cent of females who reported being pregnant at the time of interview for the DHS survey. Among the pooled sample of males, less than 1 per cent reported having made a female pregnant. Further, among females, average total fertility was less than one, and less than 1 per cent of respondents reported having had a pregnancy end in miscarriage, still birth or abortion. The fertility-related indicators were balanced between study arms.

Figure 12.1 – *Proportion of females who have ever been pregnant*

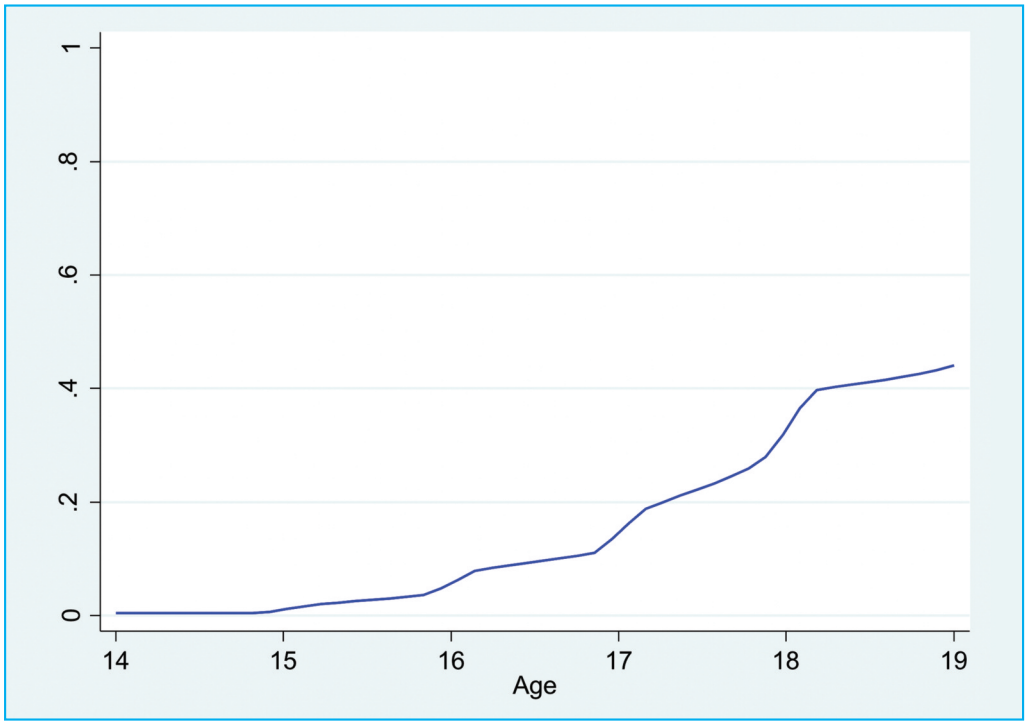


Table 12.2 – *Baseline means of fertility indicators, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Ever been pregnant	0.12	1,139	0.12	609	0.11	530	0.85
Currently pregnant	0.03	1,139	0.03	609	0.03	530	1.00
Ever had pregnancy end in miscarriage/abortion/stillbirth	0.00	1,139	0.00	609	0.00	530	0.76
Total fertility	0.09	1,139	0.10	609	0.09	530	0.77
Males: ever made a female pregnant	0.00	1,319	0.01	663	0.00	656	0.42

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

12.3 SEXUAL DEBUT AND CHARACTERISTICS OF FIRST SEX

Seventeen per cent of adolescents (n=420) in the sample had had sexual intercourse and, among these, the average age of first sex was 15.9 years *(see Table 12.3, page 77)*. This compares to 67 per cent of females and 49 per cent of males aged 15–19 reporting having had sexual intercourse in the DHS. The average age of debut was 15 years among the DHS youth for both genders. In our sample, among those who had ever had sex, 15 per cent said that their first sex was pressured, forced or tricked. All of the indicators related to first sexual intercourse in Table 12.3 were balanced between study arms.

Figure 12.2 – *Proportion of adolescents reporting sexual debut, by gender*

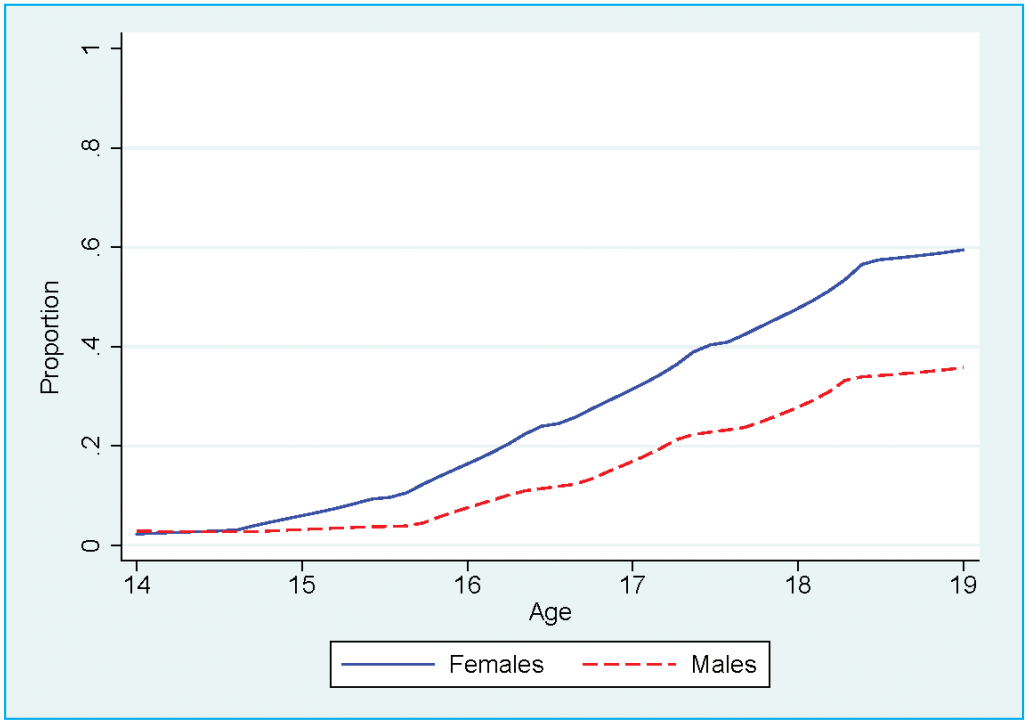


Figure 12.2 illustrates sexual debut rates and shows that rates of sexual debut are similar between males and females at age 14 and start to diverge quickly, with more females reporting sexual debut than males across the age range ($p<.01$). By age 19 years, over 60 per cent of females reported sexual debut.

Table 12.3 – ***Baseline means of first sex indicators, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Ever had sex	0.17	2,458	0.17	1,272	0.17	1,186	0.73
Age at first sexual intercourse	15.88	420	15.90	221	15.85	199	0.88
First sex forced/pressured/tricked - among sexually debuted	0.15	418	0.17	220	0.14	198	0.30

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

12.4 CONTRACEPTIVE KNOWLEDGE AND USE

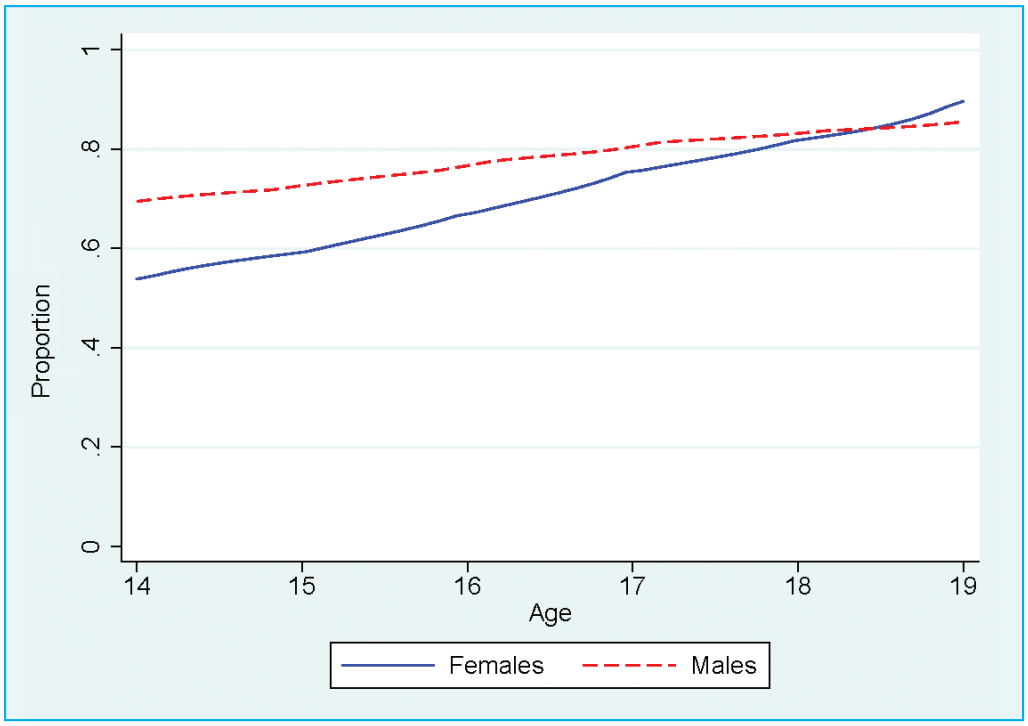
We also asked all youth questions related to knowledge of modern contraceptive methods and we asked those who reported sexual debut about the use of a modern contraceptive method. Approximately 77 per cent of adolescents knew about any contraceptive method when asked to list methods spontaneously, and 73 per cent knew of a modern method (Table 12.4). This compares to 91 per cent of males and 92 per cent of females nationally, according to the DHS. Modern methods were defined as male or female sterilization, injectables, implants, intrauterine devices, pills, condoms (male or female), diaphragms, foam or jelly, lactational amenorrhea method or emergency contraceptive pills. These are in contrast to withdrawal or rhythm methods, which are all considered to be traditional or non-modern methods of contraception and have lower efficacy rates. Among those youth who reported having ever had sex (N=420), 53 per cent reported current use of a modern method (55 per cent any method). Youth in the DHS data report lower rates of modern contraceptive use: Among those who had sexually debuted, only 21 per cent of males and just 12 per cent of females reported using some form of modern contraception at the time of the survey. Knowledge and use of contraceptive methods was balanced between treatment arms.

Table 12.4 – ***Baseline means of contraceptive use and knowledge indicators, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Has knowledge about contraceptives	0.77	2,428	0.79	1,258	0.75	1,170	0.19
Has knowledge about modern contraceptives	0.73	2,428	0.74	1,258	0.71	1,170	0.22
Currently using contraceptive - among sexually debuted	0.55	420	0.52	221	0.58	199	0.35
Currently using modern contraceptive - among sexually debuted	0.53	420	0.50	221	0.57	199	0.25

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level. Contraceptive knowledge among all adolescents; use among currently or at one time sexually active.

Figure 12.3 – ***Proportion of adolescents with knowledge about modern contraceptives, by gender***



In figure 12.3, we see that female adolescents, on average, have lower rates of knowledge of modern contraceptives than males until approximately 18 years of age, with knowledge steadily increasing with age for both.

Figure 12.4 – ***Proportion of adolescents currently using modern contraceptive - among sexually debuted, by gender***

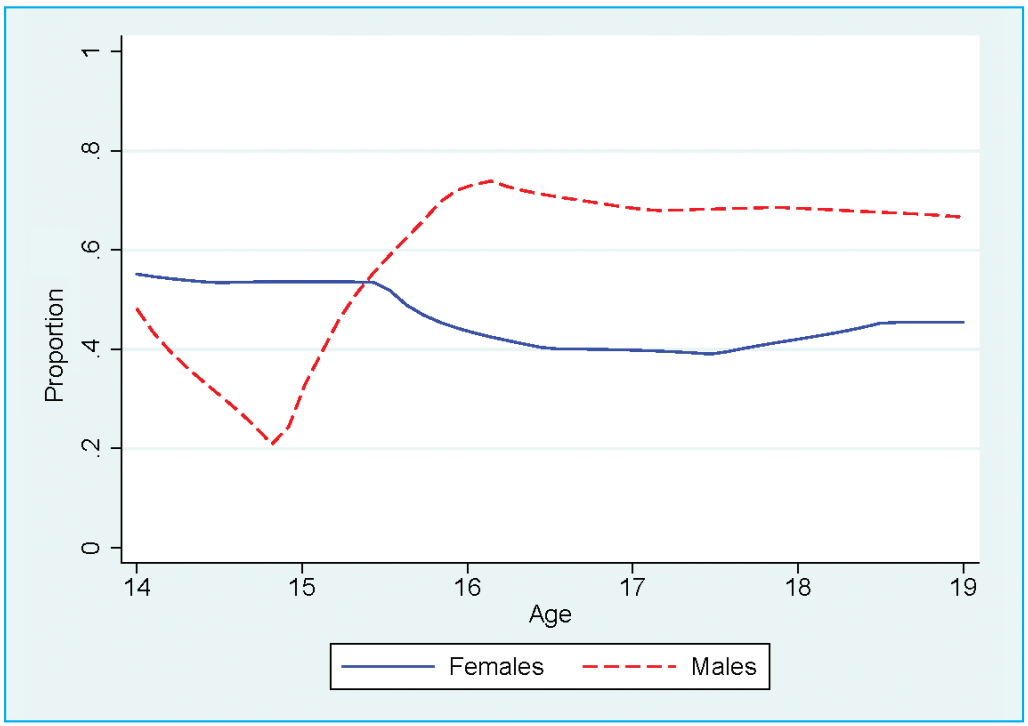


Figure 12.4 (page 78) demonstrates that males age 15–19 years report higher rates of modern contraceptive use than females of the same age. Below age 15, comparisons are imprecise given low rates of sexual debut in that age range *(see Figure 12.2)*.

12.5 SEXUAL BEHAVIOURS AND HIV RISK

To adolescents who had ever had sex, we posed additional questions about sexual behaviours related to HIV risk in the past 12 months, including number of partners, concurrent relationships, condom use and disparate age of partner at last sex. The average number of sexual partners in the past 12 months was one, and 6 per cent of youth reported a concurrent sexual relationship in the past 12 months *(see Table 12.5)*.

Table 12.5 – *Baseline means of recent sex indicators, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Number of sexual partners in last 12 months	1.15	420	1.19	221	1.11	199	0.30
Among those who have ever had sex: concurrent sexual relationships in last 12 months	0.06	420	0.05	221	0.07	199	0.67
Last sex: used condom	0.54	366	0.50	194	0.58	172	0.19
Last sex: used condom - never married youth	0.57	339	0.56	174	0.59	165	0.64
Last sex: partner 5 or more years older	0.16	366	0.18	194	0.15	172	0.38
Last sex: partner 10 or more years older	0.02	366	0.02	194	0.02	172	0.56

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Approximately half of sexually debuted adolescents reported using a condom at last sex (54 percent; *see Table 12.5*), and this was slightly higher among never married youth (57 per cent) compared to the overall proportion. Sixteen per cent of adolescents reported that their last sexual partner was five years older than themselves, and 2 per cent reported that their partner was 10 or more years older. All of the indicators related to most recent sex were balanced between study arms.

12.6 TRANSACTIONAL SEX

Because poverty may create incentives for transactional sex in order to meet basic needs as well as obtain material wants[75], and due to the increased risk of HIV infection associated with transactional sex, we asked youth about motivations and financial transactions related to their sexual partnerships. We asked youth to list their motivations for starting their current or most recent relationship, and created a variable indicating whether any of these reasons were financial. Approximately 17 per cent reported that financial reasons motivated the start of their current or last relationship, and 20 per cent said that they had ever started a relationship for financial reasons *(see Table 12.6, page 80)*. A further 39 per cent reported receiving money from their most recent partner, and 7 per cent said they would leave the relationship if their partner did not support them financially.

[75] Kamndaya, M., *et al.*, 'The role of material deprivation and consumerism in the decisions to engage in transactional sex among young people in the urban slums of Blantyre, Malawi', *Global Public Health*, vol. 11, no. 3, 2016, pp. 295–308.

Table 12.6 – ***Baseline means of transactional sex for males and females who have ever had sex, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Financial reasons motivated current or start of last relationship	0.17	420	0.17	221	0.18	199	0.97
Given money by current/most recent partner	0.39	420	0.38	221	0.39	199	0.86
Would leave relationship if partner did not financially support	0.07	420	0.07	221	0.08	199	0.97
Financial reasons motivated start of a relationship at some point	0.20	420	0.19	221	0.20	199	0.94
Provided money, favours or gifts for sex last 12 months	0.06	420	0.08	221	0.05	199	0.09

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Tables 12.7 and 12.8 show the transactional sex variables for females and males, respectively. Twenty-six per cent of females (6 per cent of males) report that financial reasons motivated the start of their current or last relationship, and 55 per cent (17 per cent of males) reported that they were given money by their current or most recent partner. When asked if they had ever provided money, favours or gifts for sex in the past 12 months, 5 per cent of females and 9 per cent of males responded affirmatively.

Table 12.7 – ***Baseline means of transactional sex for females who have ever had sex, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Financial reasons motivate current or start of last relationship	0.26	240	0.24	130	0.28	110	0.44
Given money by current/most recent partner	0.55	240	0.54	130	0.56	110	0.80
Would leave relationship if partner did not financially support	0.11	240	0.10	130	0.13	110	0.59
Financial reasons motivated start of relationship at some point	0.28	240	0.25	130	0.32	110	0.24
Provided money, favours or gifts for sex last 12 months	0.05	240	0.08	130	0.01	110	0.00

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 12.8 – ***Baseline means of transactional sex, males, by treatment status***

Variables	Pooled Mean	Pooled N	PSSN only Mean	PSSN only N	Cash Plus Mean	Cash Plus N	p-value
Financial reasons motivate current or start of last relationship	0.06	180	0.08	91	0.04	89	0.27
Given money by current/most recent partner	0.17	180	0.15	91	0.18	89	0.61
Would leave relationship if partner did not financially support	0.02	180	0.03	91	0.01	89	0.40
Financial reasons motivated start of relationship at some point	0.08	180	0.12	91	0.04	89	0.03
Provided money, favours or gifts for sex last 12 months	0.09	180	0.09	91	0.09	89	0.96

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Figure 12.5 – ***Primary reason for being with current/last partner***

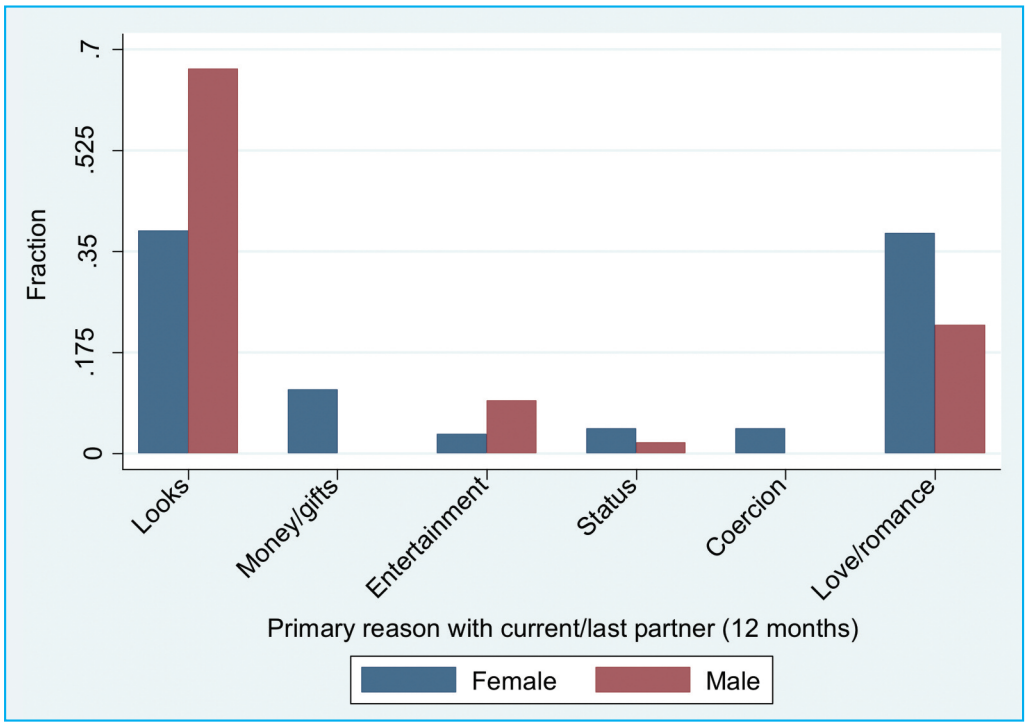


Figure 12.5 illustrates respondents' reported primary reason for being with their current or last partner. Among males, looks was the most common reason given, and among females, love/romance and looks were the most common reasons reported. Females also reported money/gifts and coercion. These were not reported by males. A small proportion of males and females both reported entertainment and status.

12.7 PERCEIVED HIV RISK

In Table 12.9, we examined adolescents' self-perceptions of HIV risk. Fourteen per cent of youth thought their risk of contracting HIV was moderate or high, and only 1 per cent believed the risk to be none (84 per cent thought their risk was low). Among the adolescents in our sample, 44 per cent had ever received an HIV test, and 20 per cent had done so in the past 12 months. Among those undergoing testing in the past 12 months, 64 per cent reported that they had received their test results. We also examined separately the perceived HIV risk among youth who were never married/cohabiting. Among these, 14 per cent perceived their HIV risk as high, and 43 per cent had at some point taken an HIV test (29 per cent in the past 12 months). All of the HIV risk perceptions and testing indicators in Table 12.9 were balanced between the study arms.

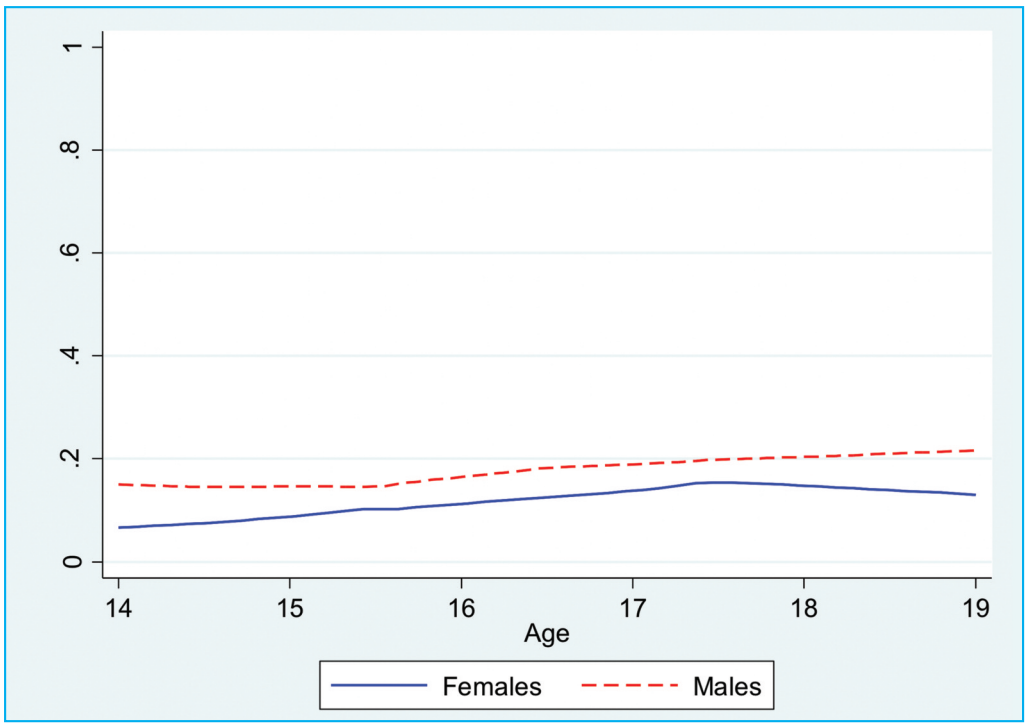
Table 12.9 – ***Baseline means of perceived HIV risk and HIV testing indicators, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Perceived HIV risk: moderate/high	0.14	2,398	0.15	1,241	0.14	1,157	0.80
Perceived HIV risk: low	0.84	2,398	0.84	1,241	0.85	1,157	0.58
Perceived HIV risk: none	0.01	2,398	0.02	1,241	0.01	1,157	0.22
Tested for HIV: Lifetime	0.44	2,448	0.43	1,265	0.45	1,183	0.45
Tested for HIV: past 12 months	0.29	2,458	0.28	1,272	0.30	1,186	0.47
Received HIV test results: past 12 months	0.64	1,073	0.63	540	0.66	533	0.39
Perceived HIV risk: moderate/high - Never married youth	0.14	2,372	0.15	1,222	0.14	1,150	0.77
Perceived HIV risk: low - Never married youth	0.84	2,372	0.84	1,222	0.85	1,150	0.58
Perceived HIV risk: none - Never married youth	0.01	2,372	0.02	1,222	0.01	1,150	0.26
Tested for HIV: Lifetime - Never married youth	0.43	2,420	0.42	1,245	0.45	1,175	0.37
Tested for HIV: past 12 months - Never married youth	0.29	2,429	0.27	1,251	0.30	1,178	0.38

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Figure 12.6 (page 83) illustrates that males are more likely than females at each age to believe their risk of contracting HIV is moderate or high, and perceptions are relatively stable across the age range for both genders.

Figure 12.6 – ***Proportion of adolescents who perceive their risk of HIV to be moderate or high, by gender***



12.8 HIV KNOWLEDGE

In Table 12.10 (page 84) we examine HIV knowledge, including whether adolescents have heard about HIV, from what source, and whether they know HIV-related facts. Almost all adolescents in the sample (97 per cent) had heard of HIV. Among these, 82 per cent have heard about HIV from educators, 3 per cent from religious leaders, 50 per cent from family or friends, 17 per cent from media, and 22 per cent from health professionals.[76]

[76] Totals sum to over 100 per cent because individuals may hear about HIV from multiple sources.

Table 12.10 – ***Baseline means of HIV knowledge, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		
	Mean	N	Mean	N			
Has heard about HIV	0.97	2,454	0.97	1,269	0.97	1,185	0.63
Heard about HIV from educators	0.82	2,378	0.82	1,226	0.82	1,152	0.99
Heard about HIV from religious leaders	0.03	2,378	0.04	1,226	0.03	1,152	0.29
Heard about HIV from friends/family	0.50	2,378	0.52	1,226	0.49	1,152	0.35
Heard about HIV from media (phone/internet/tv/radio)	0.17	2,378	0.17	1,226	0.17	1,152	0.93
Heard about HIV from health professionals	0.22	2,378	0.22	1,226	0.22	1,152	0.94
Knows that condoms reduce risk of HIV	0.76	2,378	0.78	1,226	0.75	1,152	0.09
Knows that a healthy person can have HIV	0.81	2,378	0.82	1,226	0.80	1,152	0.27
Knows about mother-to-child transmission of HIV	0.69	2,378	0.71	1,226	0.67	1,152	0.17
Has knowledge about antiretroviral treatment	0.88	2,378	0.88	1,226	0.88	1,152	0.91
Knows male circumcision can reduce risk of HIV	0.71	2,378	0.70	1,226	0.72	1,152	0.42
Knows where to obtain condoms	0.85	2,456	0.86	1,272	0.83	1,184	0.14

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

HIV knowledge was generally high, with over 70 per cent of youth knowing the correct answer for each of five HIV-risk related questions. Eighty-one per cent of adolescents knew that condoms can reduce the risk of HIV; 83 per cent knew that a healthy person can have HIV; and 73 per cent knew about mother-to-child transmission of HIV. Further, 91 per cent knew about antiretroviral treatment and 76 per cent knew that male circumcision can reduce the risk of HIV. Finally, 85 per cent of adolescents said they know where to obtain condoms.

13 HIV/SRH SERVICES

In this section we examine adolescents' experiences seeking HIV and sexual and reproductive heath (SRH) services, defined as services related to contraception, pregnancy and sexually-transmitted infections (STI) testing or treatment. Table 13.1 shows that 16 per cent of adolescents had ever visited a health facility for HIV/SRH services (39 per cent of adolescents who reported sexual debut and 11 per cent of adolescents who reported never having had sex; results not shown).

13.1 ACCESS TO SERVICES

In the past 12 months, 13 per cent of adolescents visited facilities for SRH services. Among those who sought SRH services in the past 12 months (n=328), the most common type of facility accessed was a dispensary (33 per cent), while 65 per cent of respondents sought services at another type of facilitiy, including clinic, health care centre or hospital. Further, among those seeking services, 92 per cent did so at a government-run facility or dispensary (as opposed to private, religious or NGO-run facility) *(see Table 13.1)*. While most youth in our qualitative interviews reported knowing that SRH services are found in hospitals or dispensaries, there were some who did not know where services were located:

> *Qn: Where do youth in your society go to get information or services concerning HIV/AIDS services?*
> *R: "I don't know really"* (Female, 14 years);
>
> *Qn: I would also like to know where in this community do youth go to get inforamtion about HIV prevention and infection, and also to test for sexually transmitted infections and family planning?*
> *R: "I don't know which hospitals they go to"* (Male, 16 years);
> *"I just know dispensary"* (Female, 17 years);
> *"In hospitals, for example in dispensaries"* (Female, 17 years).

Table13.1 – *Baseline means of HIV and sexual and reproductive health services access indicators, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		
	Mean	N	Mean	N	Mean	N	p-value
Visited health facility for SRH services - lifetime	0.16	2,458	0.16	1,272	0.16	1,186	0.86
Visited health facility for SRH services - past 12 months	0.13	2,458	0.13	1,272	0.14	1,186	0.82
Last SRH visit at dispensary - past 12 months	0.33	328	0.34	167	0.32	161	0.78
Last SRH visit at clinic, health care centre, hospital, doctor - past 12 months	0.65	328	0.63	167	0.66	161	0.65
Last SRH visit at government facility - past 12 months	0.92	328	0.94	167	0.90	161	0.30

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

We see that the likelihood of visiting a facility for SRH services increases from age 15 through age 19 for females, and remains constant for males until age 18 when there is a slight increase through age 19 *(see Figure 13.1, page 86)*.

Figure 13.1 – ***Proportion of adolescents who visited a health facility for SRH services in the past 12 months, by gender***

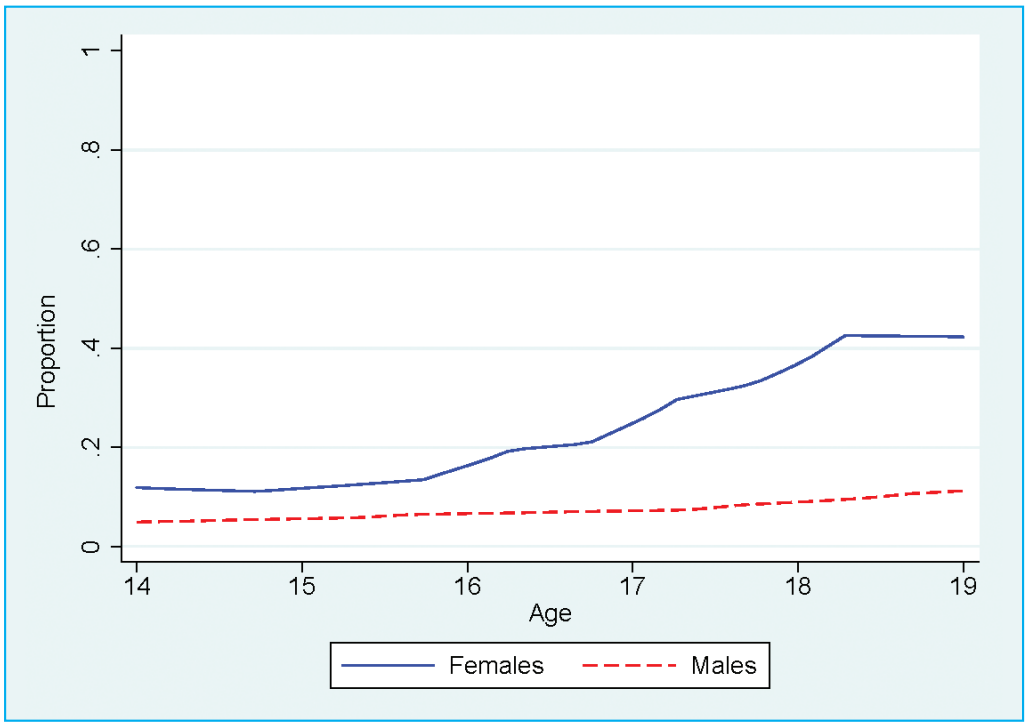


Figure 13.2 – ***Proportion of adolescents who visited a government facility, among those who sought SRH services in the past 12 months, by gender***

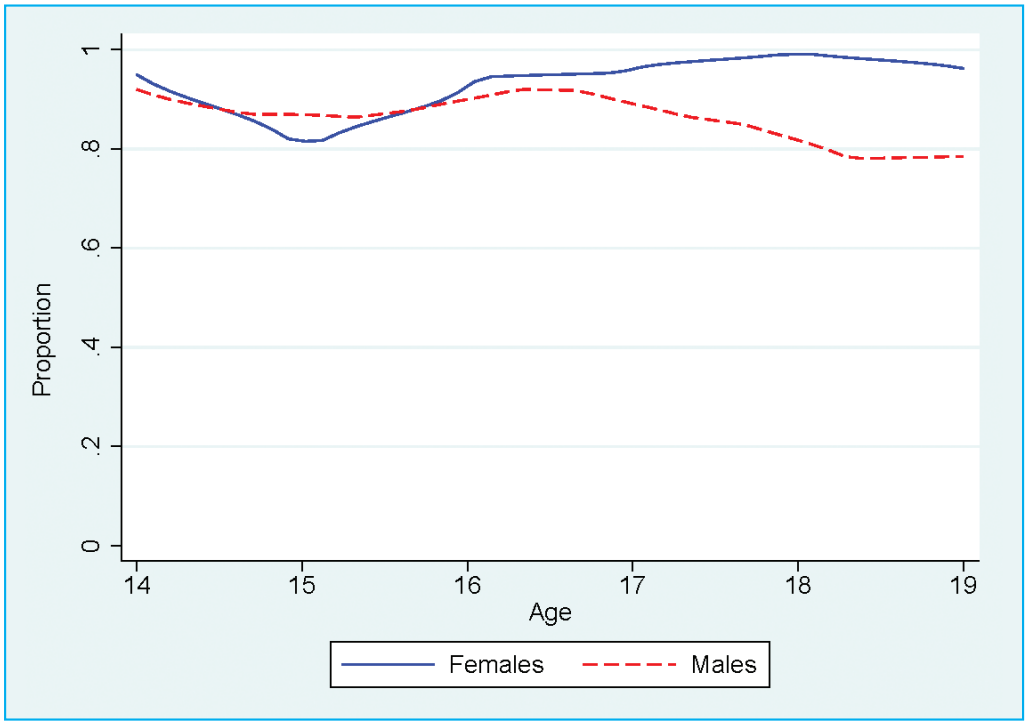


Figure 13.2 indicates that the proportion seeking services at government facilities (among those who sought any SRH services) is high among both males and females across the age range, with older males (above age 17) slightly more likely to seek non-governmental services.

In Table 13.2 we examine reasons for SRH visits, again only among those who visited a facility for SRH services in the past 12 months (n=328). We find that the most common reason was for STI testing or treatment (60 per cent). Further, 30 per cent sought services related to pregnancy (testing, prenatal, gynecological exams), and only 8 per cent sought to access information or services related to contraception (including condoms).

Table 13.2 – *Baseline means of sexual and reproductive health services access indicators - Reasons for visit, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Last SRH visit reason: contraception, condoms	0.08	328	0.08	167	0.09	161	0.73
Last SRH visit reason: STI testing/treatment	0.60	328	0.59	167	0.61	161	0.92
Last SRH visit reason: pregnancy, maternity, gynaecological exam	0.30	328	0.32	167	0.29	161	0.75

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

When examining differences by gender and patterns across ages, we see that males are almost exclusively seeking services related to STI testing and treatment (across the age range), while younger females are more likely to seek services related to STI testing and treatment and older females are more likely to visit for other types of services (contraception, pregnancy-related; *see Figure 13.3*). Females were more likely than males to seek services mainly to access contraceptives, and this was increasingly true as age increased *(see Figure 13.4, page 88)*.

Figure 13.3 – *Proportion of adolescents who reported STI testing/treatment was main reason for last SRH visit in the past 12 months, by age and gender*

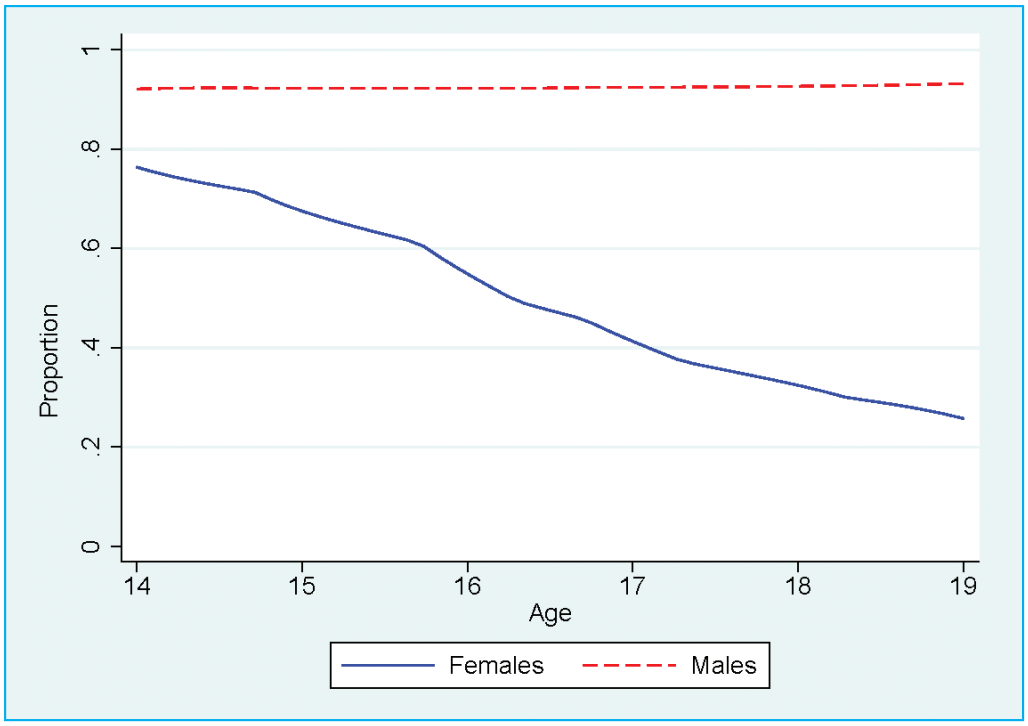
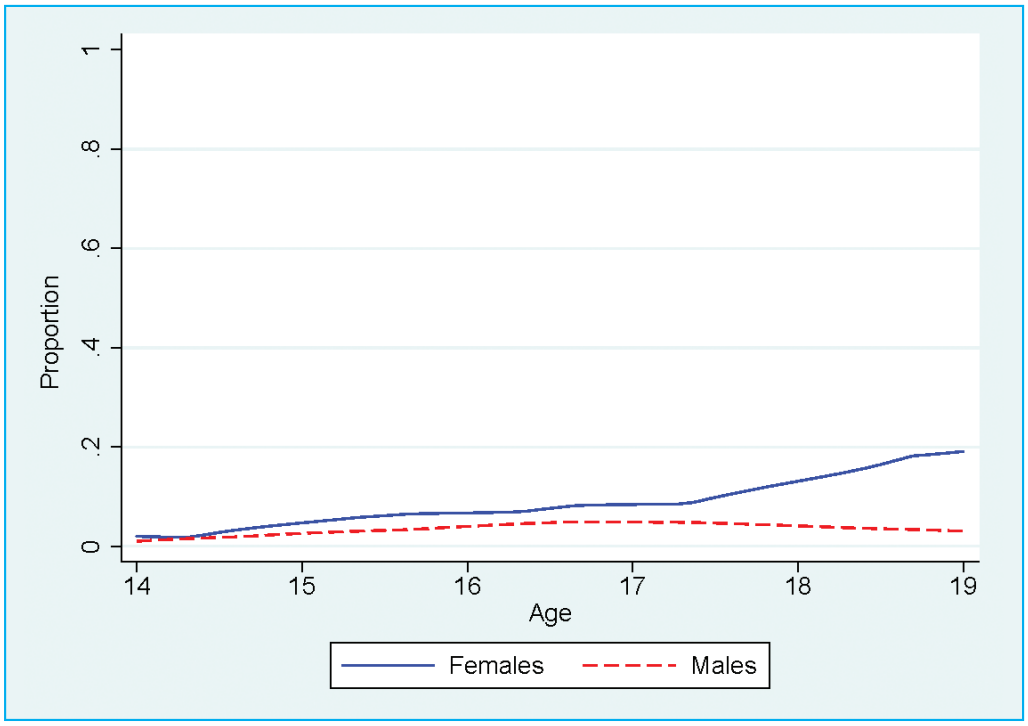


Figure 13.4 – ***Proportion of adolescents who reported contraception was main reason for last SRH visit in the past 12 months, by age and gender***



13.2 PERCEIVED QUALITY OF SERVICES PROVIDED

Next, we asked about topics discussed by health facility staff during their last visit, regardless of the reason for this visit as reported by the adolescent *(see Table 13.3)*. One in four (25 per cent) reported that staff spoke to them about contraception, 63 per cent discussed STI testing or treatment, and 24 per cent discussed pregnancy. Eleven per cent of adolescents who sought services reported that staff did not discuss contraception, STIs or pregnancy.

Table 13.3 – ***Baseline means of sexual and reproductive health services access indicators - Topics discussed, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
At last SRH visit, staff discussed contraception	0.25	328	0.28	167	0.22	161	0.27
At last SRH visit, staff discussed STI testing/treatment	0.63	328	0.63	167	0.63	161	0.85
At last SRH visit, staff discussed pregnancy	0.24	328	0.25	167	0.24	161	0.84
At last SRH visit, staff did not discuss contraception, STIs, pregnancy	0.11	328	0.10	167	0.12	161	0.39

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Finally, we examined perceived quality of services rendered *(see Table 13.4, page 89)*. Approximately three out of four (78 per cent) adolescents said they felt comfortable asking staff questions about sexual and reproductive health issues, and 95 per cent (out of a slightly reduced sample size of 256

due to some missing values) reported that staff adequately answered their questions. Further, 98 per cent of those seeking SRH services said staff were friendly, and four out of five reported that there was adequate confidentiality.

Table 13.4 – *Baseline means of Sexual and Reproductive Health services access indicators - quality of service provided, by treatment status*

Variables	Pooled		PSSN only		Cash Plus		p-value
	Mean	N	Mean	N	Mean	N	
Adolescent felt comfortable asking SRH staff questions	0.78	328	0.80	167	0.76	161	0.70
Staff answered SRH questions adequately	0.95	256	0.95	133	0.95	123	0.89
At last SRH visit, staff was friendly	0.98	328	0.98	167	0.98	161	0.98
SRH services were adequately confidential	0.80	328	0.80	167	0.81	161	0.66

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

In general, findings related to SRH access indicate that while only a small proportion of adolescents sought SRH services in the past 12 months, a large proportion of those who did reported high levels of perceived quality and friendliness of staff. This suggests that the intervention may have little room to improve perceived quality of services, but rather may have potential to increase the proportion of youth who access services.

14 VIOLENCE

In this section we examine adolescents' experiences of emotional, physical and sexual violence. Childhood violence adversely affects adolescents' health and well-being and has adverse economic impacts in adulthood, particularly for women. The various forms of violence may be perpetrated by intimate partners (spouses, boyfriends/girlfriends), family members, authority figures, peers, strangers and more. Regarding intimate partner violence, it is estimated that one in three women globally experience this form of violence in their lifetime[77], and IPV has adverse effects not only on women's health and well-being but also on the health and survival of their children.[78,79] A recent study highlighted that IPV begins early (often in adolescence)[80], thus any efforts to prevent it are most appropriate during this period, when individuals start forming romantic relationships for the first time. The first national study on violence against children in Tanzania, conducted in 2009, showed that 3 in 10 females and one in seven males experienced sexual violence before age 18, and three-quarters of males and females experienced physical violence by an adult or intimate partner before age 18.[81] Among those who experienced childhood sexual violence in the national study, few told someone about the abuse or sought help following an incident; alarmingly, far from all those who sought services actually received them (59.4 per cent of females and about one in three males). The report further highlighted that for 30 per cent of females and 20 per cent of males their sexual debut was forced, and half of married females aged 15 to 24 had a partner 10 or more years older, which increases risk of IPV and HIV.

14.1 EXPERIENCES OF EMOTIONAL AND PHYSICAL VIOLENCE AND RELATED HELP-SEEKING

To assess adolescents' experiences of violence in the current study, we used validated survey items from the Violence Against Children Survey and DHS previously implemented in Tanzania.
We assessed physical violence experience by asking respondents whether anyone had done the following in the previous 12 months: (1) slapped or pushed him/her; (2) hit him/her with a fist, (3) kicked him/her or beat her up; (4) tried to choke him/her or burn him/her on purpose; (5) threatened or attacked him/her with a knife, gun or any other weapon. For both emotional and physical violence, we asked about perpetrators and grouped these into intimate partner (spouse/boyfriend/girlfriend), family member, authority figure (including teachers), peers or others. We then asked whether adolescents had ever tried to seek help or tell someone about the emotional and physical violence they had experienced and classified these help-seeking behaviours into formal (police, doctor/health worker, priest/religious leader, counsellor, NGO/women's organization or local leader) and informal (friends, family, husband/partner's family, neighbours).

[77] Devries, K. M., *et al.* 'The Global Prevalence of Intimate Partner Violence Against Women', *Science,* vol. 340, 28 June 2013, pp. 1527–1528.

[78] Ackerson LK, Subramanian S., 'Domestic violence and chronic malnutrition among women and children in India', *American journal of epidemiology*. vol. 167, no. 10, 2008, pp. 1188–96.

[79] Åsling-Monemi K, Pena R, Ellsberg MC, Persson LÅ. 'Violence against women increases the risk of infant and child mortality: a case-referent study in Nicaragua', *Bulletin of the World Health Organization*. vol. 81, no. 1, 2003, pp. 10–6.

[80] Peterman, A., Bleck, J., & Palermo, T. 'Age and intimate partner violence: an analysis of global trends among women experiencing victimization in 30 developing countries', *Journal of Adolescent Health*, vol. 57, no. 6, 2015, pp. 624–630.

[81] UNICEF Tanzania, United States Centers for Disease Control and Prevention (CDC), Muhimbili University of Health and Allied Sciences. *Summary report on prevalence of sexual, physical and emotional violence, context of sexual vioence, and health and behavioural consequences of violence experienced in childhood*, United Nations Children's Fund Tanzania, Dar es Salaam, Tanzania, 2011.

As explained in section 3.5, a split sample approach was used for administering modules on violence victimization, so the sample size analysed in this section is half the overall sample.

Table 14.1 indicates that 39 per cent of control and 32 per cent of treatment adolescents experienced emotional violence in the past 12 months (p<.10, indicating marginally statistically siginficant imbalance in this outcome between study arms). Furthermore, 26 per cent of adolescents experienced physical violence in the past 12 months. Among those who reported experiencing physical or emotional violence (n=521), 32 reported telling someone or seeking help related to the violence (both informal and formal sources combined). However, only 7 per cent of those experiencing violence in the past 12 months sought help from a formal source, as defined above.

Table 14.1 – ***Baseline means of emotional and physical violence indicators, by treatment status***

Variables	Pooled		PSSN only		Cash Plus		
	Mean	N	Mean	N	Mean	N	p-value
Experienced emotional abuse – past 12 months	0.36	1,165	0.39	611	0.32	554	0.07
Experienced physical violence – past 12 months	0.26	1,165	0.28	611	0.24	554	0.13
Experienced emotional or physical violence – past 12 months	0.45	1,165	0.48	611	0.42	554	0.08
Sought help for emotional/physical violence – past 12 months	0.32	521	0.33	291	0.31	230	0.65
Sought help from formal source for emotional/physical violence – past 12 months	0.07	521	0.08	291	0.07	230	0.86
Sought help from informal source for emotional/physical violence – past 12 months	0.26	521	0.27	291	0.24	230	0.42

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Figure 14.1 – ***Proportion of adolescents experiencing emotional violence – past 12 months, by gender***

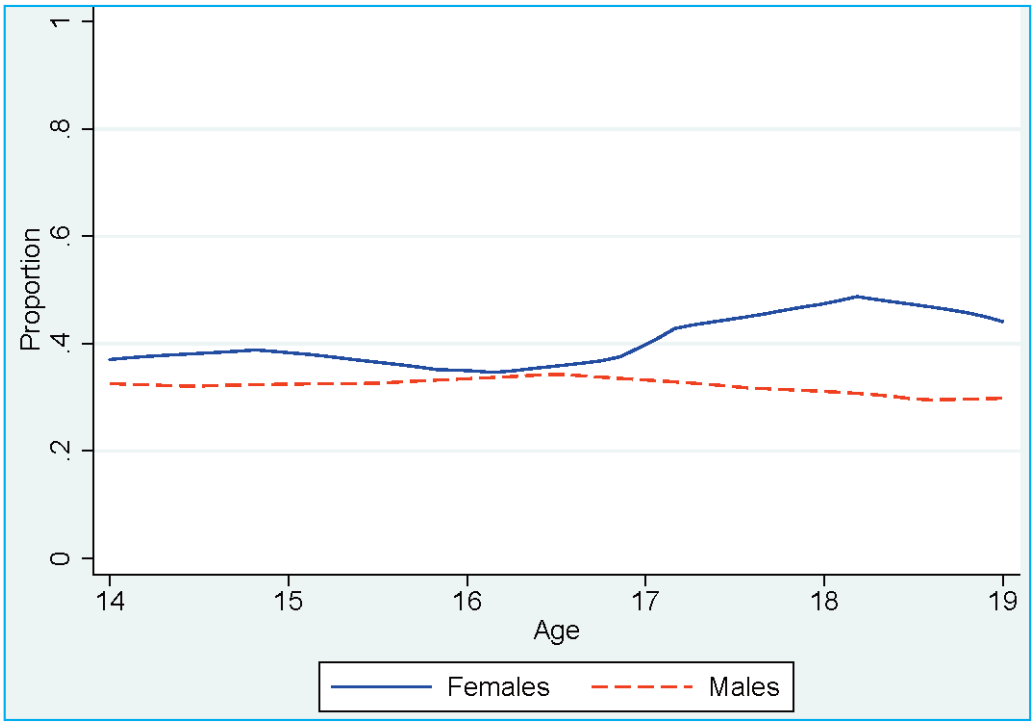
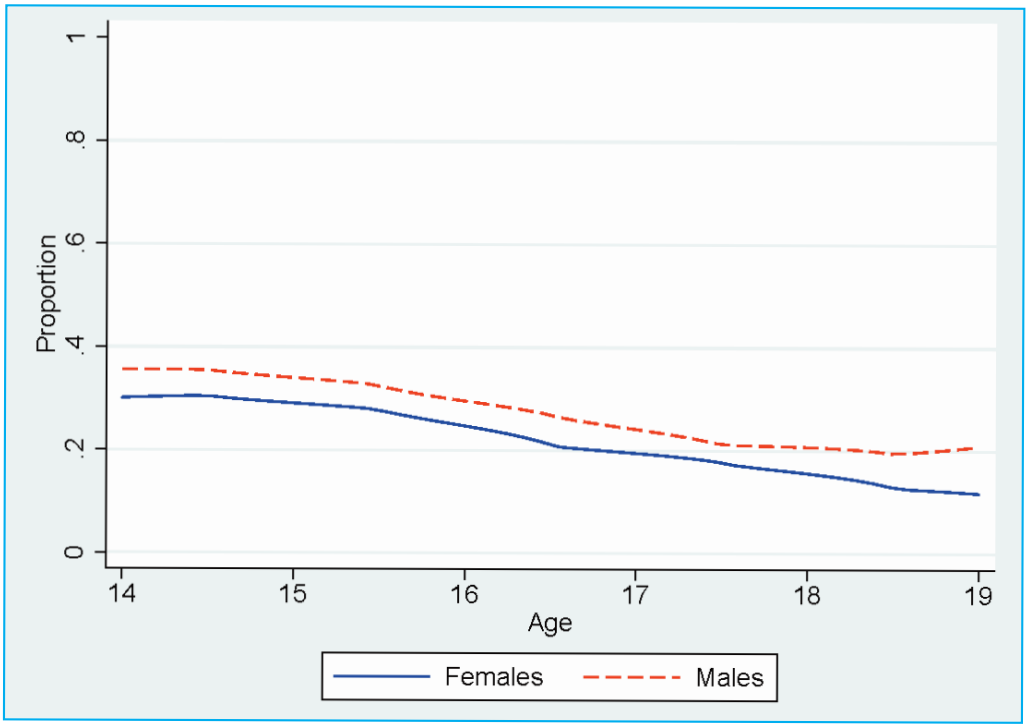


Figure 14.2 – ***Proportion of adolescents experiencing physical violence – past 12 months, by gender***



When examining patterns across age and gender, we see from Figures 14.1 and 14.2 that female adolescents report higher rates of emotional violence than males across the age range, whereas males report higher rates of physical violence. For females, emotional violence increases with age, while for males it remains steady. Physical violence experience declines with age for both males and females.

In Figures 14.3 and 14.4 (page 93), we examine overlapping experiences of emotional and physical violence among females and males, respectively.

Figure 14.3 – ***Overlapping experiences of emotional and physical violence in the past 12 months, females***

Figure 14.4 – ***Overlapping experiences of emotional and physical violence in the past 12 months, males***

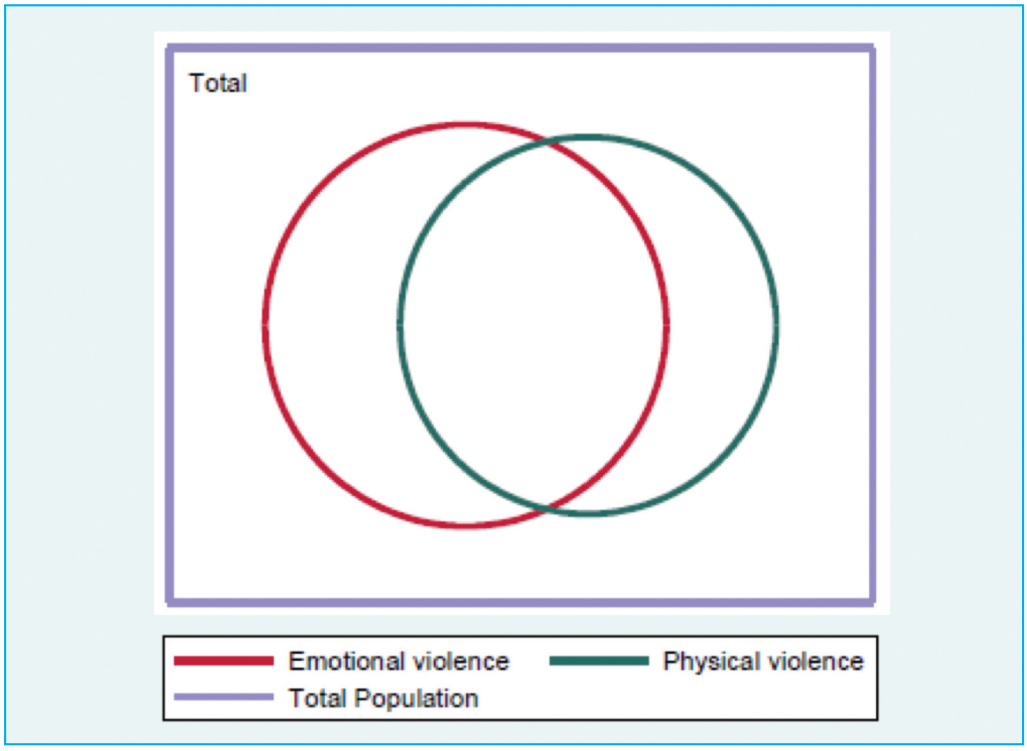
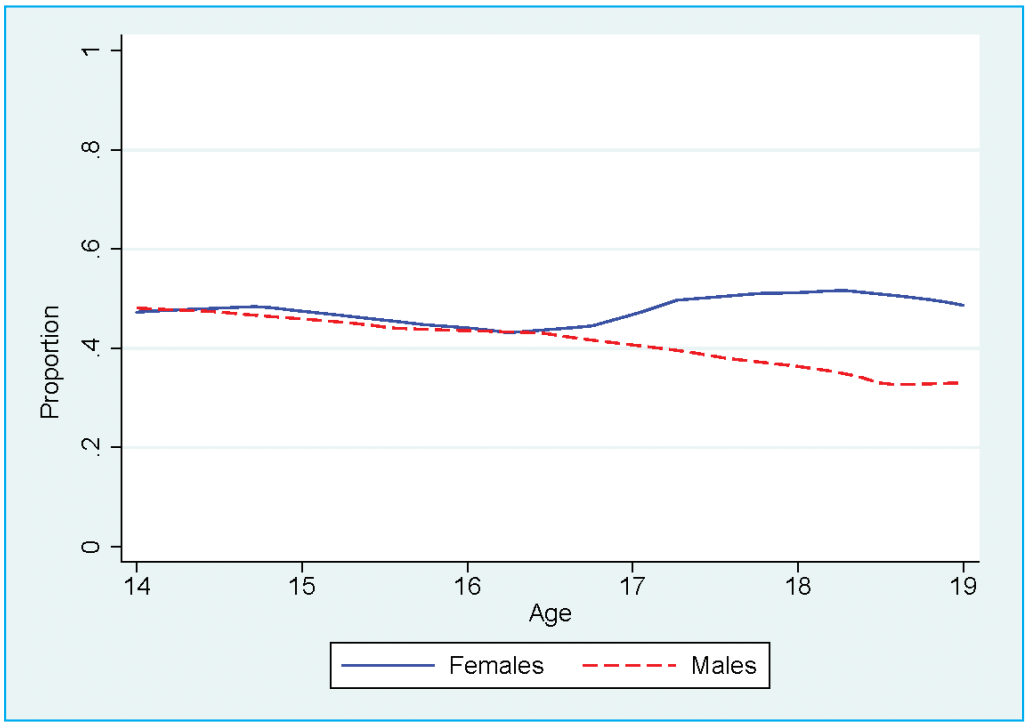


Figure 14.5 – ***Proportion of adolescents experiencing emotional or physical violence – past 12 months, by gender***



Finally, Figure 14.5 illustrates that the combined risk of physical and/or emotional violence in the past 12 months is similar for male and female adolescents at age 14, but then starts to diverge slightly at age 15 to 16, and more dramatically after age 17, at which point females are at higher risk of emotional and/or physical violence, as compared to males. Further, the risk of overall violence declines over the age range for males, but remains constant for females.

All of the physical violence and help-seeking indicators were balanced between study arms, with the exception of emotional abuse. This indicates that for physical violence and help-seeking, internal validity of the study is confirmed. However, we may be less confident in our ability to detect programme impacts on emotional violence at follow-up waves.

14,2 EXPERIENCES OF SEXUAL VIOLENCE

Sexual violence (experienced over the past 12 months and during their lifetime) was assessed among youth who reported having ever had sex by asking whether anyone had ever:

(1) physically forced the adolescent to have sexual intercourse or

(2) forced the adolescent to perform other sexual acts that they did not want to.

We also asked whether their sexual debut was forced, pressured or tricked, and classified these adolescents as also having experienced sexual violence. Adolescents who reported never having sex were classified as never having experienced forced sexual intercourse. Thus, we report proportions among all youth for forced sex (lifetime and 12 months), and then we report other sexual violence indicators among only those who reported sexual debut.

Table 14.2 ***–Baseline means of sexual violence indicators, by treatment status***

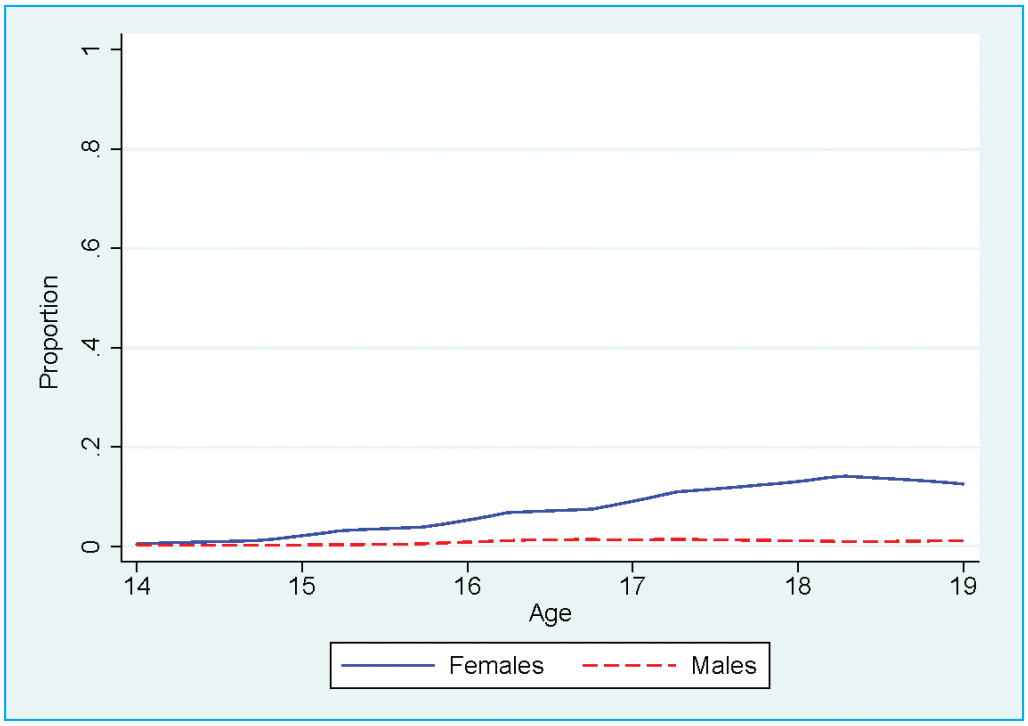
Variables	Pooled		PSSN only		Cash Plus		
	Mean	N	Mean	N	Mean	N	p-value
Experienced forced sex – during lifetime	0.03	2,458	0.04	1,272	0.03	1,186	0.40
Experienced forced sex – past 12 months	0.03	2,458	0.03	1,272	0.03	1,186	0.61
Experienced forced sex – past 12 months, among those who have ever had sex	0.18	420	0.19	221	0.17	199	0.62
Experienced forced sex - lifetime, among those who have ever had sex	0.19	420	0.20	221	0.18	199	0.38
First sex forced/pressured/tricked, among those who have ever had sex	0.15	418	0.17	220	0.14	198	0.30
Experienced other forced sexual acts - lifetime, among those who have ever had sex	0.07	420	0.09	221	0.05	199	0.14
Experienced other forced sexual acts – past 12 months, among those who have ever had sex	0.05	420	0.05	221	0.04	199	0.29

Notes: Regressions test difference between Cash Plus (treatment) and PSSN only (control) groups, controlling for stratification variables including district and village size. Standard errors are clustered at the community level.

Table 14.2 indicates that 3 per cent of the entire sample reports forced sex within their lifetime and in the past 12 months. When restricting the results to only those who report having had sex (n=420), the pproportions reporting forced sex within their lifetimeand within the past 12 months are 19 and 18 per cent, respectively. Further, 15 per cent of those reporting sexual debut said their first sex was forced, pressured or tricked. In addition to forced sex, we asked those who had sexually debuted about other forced sexual acts, and 7 per cent and 5 per cent reported forced sexual acts in their lifetime and in the past 12 months, respectively. These sexual violence indicators are balanced across PSSN only and Cash Plus study arms.

Figure 14.6, page 96, illustrates the proportion of adolescents who reported forced sex in the past 12 months by age and gender. The figure highlights that the rates are similar and very low for males and females at age 14, remain steady for males and increase for females across the age range.

Figure 14.6 – ***Proportion of adolescents experiencing forced sexual intercourse – past 12 months, by age and gender***



15 CONCLUSION

This report documents the design of the impact evaluation of the 'Cash Plus' Model on Youth Well-Being and Safe, Healthy and Productive Transitions to Adulthood being implemented within the Government of the United Republic of Tanzania's PSSN Programme. The impact evaluation aims to examine programme impacts on youth well-being and transitions to adulthood. It describes the beneficiary sample and assesses randomization of treatment (PSSN plus) and control (PSSN only) groups. We show that implementation of randomization was highly successful, with baseline equivalence confirmed over a large number of indicators across domains as diverse as education, livelihoods, HIV knowledge and testing, contraceptive use, HIV/SRH services access, violence and mental health. A strength of this study is its combined assessment of both demand-side (youth) and supply-side (community services, health facilities) factors related to adolescent well-being and transitions to adulthood.

This baseline study demonstrates that despite living in households benefiting from the PSSN social protection programme, these adolescents still face myriad challenges to safe and productive transitions to adulthood. The Cash Plus Pilot studied here aims to boost the impacts of the cash and support delivered through the PSSN programme by providing additional training, education and linkages around livelihoods, sexual and reproductive health services and HIV prevention and treatment to adolescents.

Poverty underlies many of the challenges the youth face, including living in labour-constrained households which rely on agricultural activities and negative coping strategies when faced with shocks. These households are often headed by older individuals and those with lows levels of education.

At the adolescent level, some of the challenges they face is school drop-out, lack of access to markets, depression and poor perceived quality of life. They also face challenges related to early pregnancy, financial motivations to engage in partnerships and violence.

On a positive note, adolescents in the study had high aspirations, indicating that they may be able to take advantage of the trainings provided in this Cash Plus Initiative to change their future trajectory. Additionally, fewer than one in five youth had sexually debuted, and thus the programme is well targeted to an age range that can benefit from increased HIV/SRH education and linkages to services. This means that when they do form partnerships and engage in sexual activity, adolescents may do so safely and plan for families when they are ready. Further, those adolescents who accessed HIV/SRH services reported high levels of satisfaction, which indicates that there is a good starting point from which to expand access for more adolescents. Together, these outcomes which may be influenced by the programme can help youth transition safely to healthier, more productive adulthoods, with benefits today, tomorrow and for the next generation.

The summary of results presented here has aimed to integrate quantitative and qualitative data analysis. More in-depth analysis of the topics will be pursued at a later date, particularly after follow-up data are collected in 2018 and 2019. The innovation in a range of health and well-being outcomes examined in this study will contribute to understanding of how 'plus components' within national cash transfer programmes can contribute to safe transitions to adulthood of youth in Tanzania, SSA and globally.

APPENDIX A: STUDY MAP