

A Cash Plus Model for Safe Transitions to a Healthy and Productive Adulthood **Round 3 Report**

Tanzania Social Action Fund (TASAF)
Tanzania Commission for AIDS (TACAIDS)
UNICEF Tanzania
UNICEF Office of Research – Innocenti
University at Buffalo
EDI Global

December 2020



EDI Global

A Mathematica Company



UNICEF OFFICE OF RESEARCH – INNOCENTI

The Office of Research – Innocenti is UNICEF's dedicated research centre. It undertakes research on emerging or current issues in order to inform the strategic direction, policies and programmes of UNICEF and its partners, shape global debates on child rights and development, and inform the global research and policy agenda for all children, and particularly for the most vulnerable.

Office of Research – Innocenti publications are contributions to a global debate on children and may not necessarily reflect UNICEF policies or approaches.

The Office of Research – Innocenti receives financial support from the Government of Italy, while funding for specific projects is also provided by other governments, international institutions and private sources, including UNICEF National Committees.

DISCLAIMER

The findings, interpretations and conclusions expressed in this paper are those of the authors and do not necessarily reflect the views of UNICEF.

This paper has been peer reviewed both externally and within UNICEF.

The text has not been edited to official publications standards and UNICEF accepts no responsibility for errors.

Extracts from this publication may be freely reproduced with due acknowledgement. Requests to utilize larger portions or the full publication should be addressed to the Communications Unit at: Florence@unicef.org. Any part of this publication may be freely reproduced if accompanied by the following citation: Tanzania Adolescent Cash Plus Evaluation Team. *A Cash Plus Model for Safe Transitions to a Healthy and Productive Adulthood: Round 3 Report*, UNICEF Office of Research – Innocenti, Florence, 2020.

For research and publication matters:

UNICEF Office of Research – Innocenti
Via degli Alfani, 58
50121 Florence, Italy
Tel: (+39) 055 20 330
Fax: (+39) 055 2033 220
florence@unicef.org
www.unicef-irc.org
twitter: @UNICEFInnocenti
facebook.com/UnicefInnocenti

For research enquires:

UNICEFTanzania
P.O. Box 4076
Dar es Salaam, United Republic of Tanzania
Tel: (+255) 22 219 6600
Fax: (+255) 22 266 4471
daressalaam@unicef.org
www.unicef.org/tanzania
twitter: @UNICEFTanzania
facebook.com/UNICEFTanzania

A Cash Plus Model For Safe Transitions to a Healthy and Productive Adulthood: **Round 3 Report**

December 2020

EVALUATION TEAM

UNICEF Office of Research – Innocenti: Valeria Groppo, Jacobus de Hoop, Lusajo Kajula, Leah Prencipe, Jennifer Waidler

University at Buffalo: Tia Palermo (co-Principal Investigator)

EDI Global: Johanna Choumert Nkolo (co-Principal Investigator), Respichius Mitti (co-Principal Investigator), Bhoke Munanka, Callum Taylor

TASAF: Paul Luchemba, Tumpe Mnyawami Lukongo

TACAIDS: Aroldia Mulokozi

UNICEF Tanzania: Ulrike Gilbert, Paul Quarles van Ufford, Rikke Le Kirkegaard, Frank Eetaama

ACKNOWLEDGEMENTS

The evaluation team would like to acknowledge the support of TASAF and TACAIDS, in particular Ladislaus Mwamanga (TASAF), Amadeus Kamagenge (TASAF) and Mishael Fariji (TASAF) for the implementation of this evaluation, as well as Leonard Maboko (TACAIDS) and Jumanne Issango (TACAIDS). In addition, the UNICEF personnel instrumental to the initial planning stages of this pilot and study include: Beatrice Targa, Patricia Lim Ah Ken, Victoria Chuwa, Naomi Neijhoft and Tulanoga Matwimbi. Funding for this pilot and evaluation has generously been provided by Oak Foundation and UNICEF Tanzania. Additional funding for the evaluation was provided by DFID and Sida, both through a grant to UNICEF Office of Research – Innocenti supporting the Transfer Project. Additional funding to complete the implementation was generously provided by Irish Aid Tanzania.

We would like to acknowledge the hard-working field teams of EDI Global, who conducted the data collection for this study to the highest professional standards.

CONTENTS

ACRONYMS	8
GLOSSARY OF KEY TERMS	9
EXECUTIVE SUMMARY	11
1. INTRODUCTION AND BACKGROUND	17
Tanzania’s Productive Social Safety Net (PSSN)	22
1.1 PSSN programme details	23
1.2 The ‘plus’ intervention: Programme details, training and implementation	24
1.2.1 Scalability, sustainability and looking forward in pilot planning	
1.2.2 The importance of evidence	
1.3 Evaluation and objective	30
2. CONCEPTUAL FRAMEWORK	31
3. IMPACT EVALUATION FRAMEWORK AND SAMPLE	33
3.1 Research questions	33
3.2 Study design	33
3.3 Randomization	35
3.4 Questionnaires	36
3.5 Data collection training and activities	37
3.6 Ethical guidelines and study registration	38
3.7 Data analysis	38
3.7.1 Quantitative analysis methodology	
3.7.2 Qualitative analysis methodology	
4. ATTRITION	43
5. IMPLEMENTATION	46
6. HEALTH FACILITY CHARACTERISTICS AND ADOLESCENT-FRIENDLY SERVICES	49
6.1 Data collection	50
6.2 Facility characteristics	50

6.3 Services and supplies	53
6.4 Personnel	56
7. SCHOOLING, ECONOMIC PARTICIPATION AND TIME USE	59
7.1 Schooling	59
7.2 Own business activity	67
7.3 Economic participation and time use	71
8. MENTAL HEALTH	80
8.1 Symptoms of depression	80
8.2 Stress	82
9. ASPIRATIONS, EXPECTATIONS AND ATTITUDES	86
10. ATTITUDES ON GENDER	96
11. PARTNERSHIPS, SEXUAL BEHAVIOUR AND HIV KNOWLEDGE	104
11.1 Partnerships	106
11.2 Sexual debut and characteristics of first sex	108
11.3 Fertility	109
11.4 Contraceptive knowledge and use	110
11.5 Sexual behaviours and HIV risk	114
11.6 Transactional sex	116
11.7 HIV knowledge	117
11.8 Perceived HIV risk and testing	119
12. ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES	122
13. VIOLENCE	129
13.1 Experiences of emotional, physical and sexual violence	129
13.2 Help-seeking and reporting among adolescents experiencing violence	133
13.3 Violence perpetration	134

14. CONCLUSION	136
APPENDIX A. STUDY MAP	139
APPENDIX B. CURRICULUM OVERVIEW, BY WEEK	140
APPENDIX C. MENTORING ACTIVITIES	144
APPENDIX D. BUSINESS PLAN TEMPLATE FOR PRODUCTIVE GRANT	145
APPENDIX E. ATTRITION	150
APPENDIX F. CASH PLUS IMPACTS BY GENDER	163
APPENDIX G. PROGRAMME COMPONENTS ANALYSIS	189

ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ARV	Antiretroviral
CCT	Conditional Cash Transfer
cRCT	cluster Randomized Controlled Trial
CES-D	Centre for Epidemiological Studies-Depression Scale
CT-OVC	Cash Transfer for Orphans and Vulnerable Children
DHS	Demographic and Health Survey
EDI	Economic Development Initiatives
GEM	Gender-Equitable Men
HIV	Human immunodeficiency virus
IPV	Intimate partner violence
NBS	National Bureau of Statistics
NGO	Non-governmental organization
PAA	Project Authority Areas
PMT	Proxy means test
PMTCT	Prevention of mother-to-child transmission
PSSN	Productive Social Safety Net
RCT	Randomized controlled trial
SRH	Sexual and reproductive health
TACAIDS	Tanzania Commission for AIDS
TASAF	Tanzania Social Action Fund
TZS	Tanzanian Shilling
UNICEF	United Nations Children's Fund
WHO	World Health Organization
MoHCDEC	Ministry of Health, Community Development, Gender, Elderly and Children

GLOSSARY OF KEY TERMS

Analysis of covariance (ANCOVA): an econometric model that evaluates whether the means of a dependent variable (the outcome) are equal across levels of a categorical independent variable, often called a treatment, while statistically controlling for the effects of other continuous variables that are not of primary interest, known as covariates.

Attrition: occurs when individuals interviewed at baseline are not found (and so not interviewed) at follow-up. These individuals 'attrited' or, in other words, were lost to follow-up.

Average Treatment on the Treated (ATT): the effects of an intervention on those receiving the intervention (i.e. participating in the policy or programme).

Baseline balance: this is verified when outcomes are similar at baseline in treatment and control groups. It allows to conclude that differences observed at follow-up on that same outcome are attributable to the intervention, rather than to systematic differences that already existed at baseline between treatment and control groups.

Cash Plus: refers to social protection programmes that combine cash transfers with 'plus' initiatives that link beneficiaries to other services and interventions. Such complementary interventions may include access to services (health, education, social services), livelihood strengthening interventions, or behaviour change communication on topics such as family planning, HIV, nutrition, hygiene and sanitation.

Control: the group of adolescents in villages that did not receive the 'plus' intervention. Comparisons between this group and the treatment group are made over time to estimate impacts of the 'cash plus' intervention.

Counterfactual: refers to the outcomes in the absence of an intervention; what would have occurred without the intervention.

Difference-in-differences (DD): an estimation strategy that compares changes in the treatment group between baseline and Round 3 to changes in the control group over the same time period. The control group allows researchers to identify changes that may have occurred due to other factors (e.g., floods, recession, inflation, rapid economic development), thus making it possible to isolate the impacts of the Cash Plus intervention.

Differential attrition: occurs when the characteristics of the individuals who are lost to follow-up are different between treatment and control groups. It threatens the internal validity of the study because it can eliminate the baseline balance.

Impact evaluation: an impact evaluation relies on rigorous methods to determine the changes in outcomes that can be attributed to a specific intervention, such as a project, programme or policy. It provides evidence of what works or not using a comparison between a treated population and a counterfactual.

Intent-to-treat (ITT): the effects of an intervention on the whole eligible population, without taking into account programme uptake among the eligible.

Overall attrition: represents the total share of individuals lost from baseline to follow-up, regardless of treatment status. It can lead to less accurate and less representative impact estimates but does not threaten the internal validity of the study (that is, the ability to attribute differences at follow-up between study arms to the intervention).

Social protection: Social protection comprises the set of policies and programmes aimed at preventing or protecting all people against poverty, vulnerability and social exclusion throughout their life course, with a particular emphasis on vulnerable groups. Cash transfers are a common tool within the umbrella of social protection.

Treatment: refers to the intervention itself. Receiving the treatment means participating in the intervention (Cash Plus programme).

Round: refers to a separate data collection effort. For example, baseline is one round of data collection and each follow-up is an additional round.

EXECUTIVE SUMMARY

This report provides **Round 3 findings from the impact evaluation of Ujana Salama: A Cash Plus model for safe transitions to a healthy and productive adulthood** pilot being implemented within the Government of the Republic of Tanzania's Productive Social Safety Net (PSSN) by the Tanzania Social Action Fund (TASAF) in collaboration with TACAIDS, and with technical assistance from UNICEF. This impact evaluation is a 26-month, mixed-methods study aimed at providing evidence on the potential for an additional plus component targeted to youth layered on top of a government cash transfer programme to improve youths' future economic opportunities and facilitate safe transitions to adulthood.

The intervention model of "Ujana Salama Cash Plus" was informed by results from a previous impact evaluation that examined how the PSSN affected the well-being of adolescents and youth, finding several positive impacts but also remaining gaps and vulnerabilities. Further information was gained through a workshop held in Tanzania in February 2016 with government, researchers and development partners. The intervention recognizes that cash alone is rarely sufficient to mitigate all risks and vulnerabilities youth face in transitioning from adolescence to safe, healthy and productive adulthoods. Many of these risks and barriers are related to education, HIV, early marriage and pregnancy, and economic opportunities. The intervention follows a capacities/asset-building framework, recognizing that **youth need a combination of social, health and financial assets to safely transition to adulthood.**

The intervention model comprises **livelihoods and life skills training, mentoring and an asset transfer, with linkages to strengthened government-run HIV and sexual and reproductive health (SRH) services.** It was designed to enable adolescents to leverage their households' participation in the PSSN, which aims to reduce extreme poverty and break the intergenerational cycle of poverty, for improved well-being today as well as increased opportunities and capacities for their future. UNICEF Office of Research – Innocenti, EDI Global and University at Buffalo (State University of New York) (starting at Round 3), in collaboration with TASAF, TACAIDS and UNICEF Tanzania have implemented the impact evaluation.

The study team designed and carried out 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; SRH 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 REPOA (2015–2017) examining the impacts of the PSSN on youth well-being and the transition to adulthood.¹ The evaluation described in this report utilizes a cluster randomized controlled trial (cRCT) design, covering 130 villages² in two Project Area Authorities (PAAs), which are geographical classifications according to TASAF (corresponding to Local Government Authorities in Mainland and Zanzibar District Authorities). These two PAAs correspond to the following four councils: Mufindi and Mafinga in Iringa region; Rungwe and Busokelo in Mbeya region. Villages were randomized into treatment (Cash Plus) or control (PSSN only) study arms. The youth study sample consists of a panel sample of 2,191 (1,128 control and 1,063 treatment) youth from 1,779 households. Among these, 630 of the 1,128 control youth and 580 of the 1,063 treatment youth were attending school at baseline. Additionally, the qualitative study

1 PSSN Youth Study Evaluation Team. *Tanzania Youth Study of the Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*, UNICEF Office of Research – Innocenti and REPOA, Florence, Italy/Dar es Salaam, Tanzania, 2017. Available at: <https://www.unicef-irc.org/publications/942-.html> (accessed November 2020).

2 The terms 'village' and 'community' are used interchangeably.

sample consists of 32 adolescents³ to whom in-depth interviews were administered over three time periods (with replacement sampling). Further, we conducted 100 health facility surveys (over five rounds) and 130 community surveys (over three rounds) to gather contextual information relevant to the intervention and study.

Recognizing the **multisectoral inputs** of this intervention and the potential impacts on a broad range of aspects of adolescent well-being, we cast a wide net in terms of outcomes examined in this evaluation. We study impacts on economic participation, school attendance, health, violence and other aspects of well-being. It was **not expected that we would see significant programme impacts on all outcomes**, but **we tested the broadest range possible** precisely because the programme aimed to address the multi-faceted aspects of risk and vulnerability that adolescents face, and how economic vulnerability is closely linked and mutually reinforcing with health-related vulnerabilities.

This report summarizes findings from the Round 3 data collection, which was conducted 26–28 months after baseline (Round 1; April–June 2017), one year after completion of face-to-face training on livelihoods and life skills, and 1–2 months after productive grant payments (2–4 months after the first tranche, as payments were split into two tranches). Between Round 2 (June–July 2018) and Round 3 (June–August 2019), mentoring and strengthening of adolescent-friendly aspects of health services provision in study communities was ongoing.

It is important to consider that, for the first time since the start of the PSSN, **households experienced a delay in the bi-monthly PSSN transfers** after March 2019, shortly before data were collected for Round 3. Households received their last full payment in March and then should have received another payment in May but did not. No additional payments were made through the end of data collection (31 August 2019) and thus households interviewed in the final weeks of data collection had experienced five months since their last payment, which had previously been delivered every other month. This may have mitigated some of the potential positive benefits of the Cash Plus intervention, as households coped with an unexpected loss of regular income.

Below we highlight some key findings from Round 3.

Health facilities: Based on the intervention’s conceptual framework, we expected to see increases in adolescent-friendly services, including more accessible opening hours, provision of contraception to unmarried adolescents, and an increased number of adolescents accessing services over time.

Facility characteristics and adolescent-friendly services

- Approximately half of the facilities have current staff trained in youth-friendly HIV/SRH services. Of the facilities that had staff trained in HIV or family planning, 20 per cent received this training between rounds 4 and 5 of the health facility interviews. There was a notable increase in the percentage of facilities with staff trained on gender-based violence (GBV) services, increasing from 34 per cent in round 3 to 43 per cent in round 5. A total of 59 per cent of facilities had implemented changes in adolescent-friendly services at any point in time.
- In terms of community outreach, the percentage of health facilities with staff participating in community meetings increased over time from 37 per cent in round 3 to 51 per cent in round 5. We also observe improvements in other adolescent-friendly characteristics including having a referral system in place for adolescents, and having regular supervisory visits related to adolescent-friendly services from the Ministry of Health or similar trainers.

³ The terms ‘adolescent’ and ‘youth’ are used interchangeably.

- Almost all facilities provided contraceptives for all youth (both married and unmarried) at round 3 (92 per cent), but this increased to 100 per cent by round 5 of the health facility surveys. All facilities offered HIV testing services in rounds 3, 4 and 5.

Services and supplies

- The percentage of health facilities offering GBV services increased from 35 per cent in round 3 to 52 per cent in round 5.
- The services that experienced an increase in the number of hours opened for adolescents include outpatient consultations, antenatal clinics, HIV treatment, GBV services, post-natal care and prevention of mother-to-child transmission (PMTCT).
- In terms of drugs and supplies, the availability of male condoms, contraceptive pills, intrauterine devices, contraceptive injectables, contraceptive implants and emergency contraceptive pills had all increased by round 5 compared to baseline. However, 29 per cent of facilities experienced a stock-out of emergency contraceptive pills in the past three months, about 15 per cent experienced stock-outs in female condoms, contraceptive pills and contraceptive implants, and 10 per cent experienced stock-outs in male condoms.
- Each health facility saw 3.3 male and 10.7 female adolescents, on average, for HIV testing during the month prior to the survey. Overall, many more females accessed primary health facilities than males, with almost all family planning/contraceptive visits by women. On the other hand, males were more likely to go to clinics for condoms.

Schooling and economic activities: Based on the intervention's conceptual framework, we expected to see increases in participation in economic activities such as business ownership, caring for livestock and paid employment. In terms of education, the intervention was not expected to influence school attainment (grades of education completed); however, it was hypothesized that attendance of vocational training might increase.

- Treatment youth were significantly **more likely to having started a business** during the year before the survey, and this is consistent with the business focus of the livelihoods training.
- Overall youth participation (and hours) in economic activities during the week before the interview remained unchanged, but the **intervention increased youth participation (and hours) in livestock keeping** for the household during the same reference period. While this may seem to contradict the above-referenced impact on the probability of youth starting a business, there is no real contradiction as here we refer to businesses that belong to the youth or any other household member, whereas in the above we refer to businesses owned by the youth.
- The intervention did not affect youth exposure to work-related hazards, nor did it affect reports of injury or illness. It is a reassuring finding that increased business ownership and livestock keeping did not lead to an increase in work-related hazards.
- Youth engagement in household chores was not affected by the intervention.
- There were no programme impacts on highest grade of education completed, nor on primary school attendance.
- **There was an observed decrease in secondary school attendance.** This result is driven by dropout from secondary school in the subsample of females. Compared to males, females were more likely to be in secondary school at baseline, before the start of the intervention.

Females also had a higher participation rate in the Cash Plus training programme. These factors may have contributed to the observed effects for females. Most dropouts happened prior to receipt of the productive grant. This suggests that payment of the grant did not lead to dropout, but that it was possible youth may have decided to leave school during or in the months after the face-to-face training, in expectation of the productive grant and/or earnings from business. As reflected in qualitative interviews, several factors may have contributed to this decision, including financial barriers to education, lack of vocational training facilities available locally, as well as low perceived returns from schooling and lack of job opportunities for educated youth in study communities. Overall, the aforementioned schooling findings are not surprising given the business development focus of the livelihoods training. In fact, more youth submitted a business plan than an educational plan, especially among dropouts.

- However, some of the youth who were not in school at Round 3 had submitted an educational plan (schooling or vocational training plan). These youth may not have been enrolled at the time of the Round 3 survey but may have subsequently enrolled in school or training. As such, their school entry might not have been captured by the Round 3 data collection. Future data collection will allow further assessment of these impacts and the decision-making process.

Mental health, subjective well-being and social support: Based on the intervention's conceptual framework, it was hypothesized that depressive symptoms and self-perceived stress might decrease.

- The Cash Plus intervention was **protective of mental health**, leading to a decrease in depressive symptoms.
- There were no impacts on self-perceived stress. Qualitative interviews reflected how vulnerable economic situations contribute to stress related to food security, basic needs, and paying for school-related items, even among the treatment group.
- The intervention did not induce changes in subjective well-being or social support.
- Taken together, these findings reinforce the hypothesis that the intervention could have broad-ranging impacts beyond economic activities and physical health. The lack of significant impacts on stress, subjective well-being and social support is not surprising given that these were not a main focus of the intervention components but rather were potential secondary outcomes that we measured.

Attitudes and aspirations: Based on the intervention's conceptual framework, we expected to see increases in self-esteem, self-efficacy, quality of life, and more ambitious future expectations related to livelihoods and vocational training (but not regular schooling). The expected effect on migration was unknown but was examined as there is increasing interest in looking at the effects of social protection on migration.

- The intervention **improved entrepreneurial attitudes** of adolescent participants, and effects were driven by the female sample.
- Treatment adolescents had **higher levels of self-esteem** as a result of the intervention, and effects were driven by girls.
- The intervention **increased the likelihood that adolescents expected to run a business** in one and in three years.
- The programme did not change aspirations related to education, category of occupation or migration intentions.

- The attitudes- and aspirations-related findings also indicate the strongest impacts around business-related aspects, reflecting the livelihoods focus of the training. Lack of impacts on other dimensions, including ideal levels of education, locus of control, quality of life and migration intentions are not surprising given that these were not the focus of the training and intervention components.

Gender-equitable attitudes: Based on the intervention's conceptual framework, we expected to see increases in gender-equitable attitudes.

- The intervention **increased gender-equitable attitudes**, particularly as related to domestic chores and daily life, in the full sample. Further, among males, the intervention increased gender-equitable attitudes related to violence, domestic chores and daily activities.

Partnerships, sexual behaviour and contraceptive knowledge: Based on the intervention's conceptual framework, we hypothesized that there could be delays in sexual debut, pregnancy and marriage. We also expected increased knowledge and use of modern contraceptive methods and reduced risky behaviours such as transactional sex, concurrent partners and age-disparate relationships.

- The intervention did not have any effects overall on marriage/cohabitation, likelihood of having a girlfriend or boyfriend, sexual debut or pregnancy. In gender-stratified analyses, we see that the **programme delayed sexual debut** among females by approximately four months.
- The intervention **increased knowledge about contraceptives**. However, it did not increase use of these methods. Qualitative interviews revealed that misperceptions about family planning methods remain in the community and among peers, including about side effects or future impacts on fertility.
- The programme had no impacts on the following risky behaviours: number of sexual partners in the past 12 months, age-disparate relationships, concurrent relationships and transactional sex.
- Qualitative interviews underscored how several females experienced unintended pregnancies as a result of relationships where men promised marriage or financial support to attend school or start a business but then left without providing further support once a pregnancy occurred.
- Impacts on increased contraceptive knowledge and delays in sexual debut reflect a positive influence of the life skills component of the training, which contained information on reproductive health, contraception, gender and relationships, among other topics.

HIV knowledge, testing and perceived risk: Based on the intervention's conceptual framework, we expected increases in HIV-related knowledge and testing.

- The intervention **increased HIV-related knowledge** by 5.2 percentage points.
- The programme had no impacts on perceived HIV risk.
- The intervention **increased HIV testing** in the previous 12 months by 6.3 percentage points.
- Increases in HIV knowledge and testing reflect positive impacts of the life skills training (where there was a focus on HIV treatment and prevention) provided in the 12 weeks of face-to-face training, as well as linkages to adolescent-friendly health services.

Access to SRH services: Based on the intervention's conceptual framework, we expected increases in knowledge of services available at health facilities, visits to health facilities, and reports that facilities were adolescent friendly.

- The Cash Plus intervention led to an **increase in visits to health facilities** among boys. Qualitative interviews also revealed that male adolescents often prefer to seek condoms at kiosks and shops.
- The programme **increased the percentage of adolescents discussing contraception with the health facility staff** (among those visiting a health facility in the past 12 months).
- The intervention also led to an **increase in adolescents' knowledge on where to get contraception and condoms**.
- **Health facilities have become more adolescent-friendly over time**, compared to both baseline and Round 2.
- These positive impacts related to visiting health facilities, quality of care, and knowledge of where to receive services reflect positively on supply-side strengthening efforts and linkages to these services provided as part of the intervention.

Violence: Based on the intervention's conceptual framework, we expected increased economic empowerment and improved health capacities to lead to reductions in vulnerability to violence, particularly sexual violence.

- The Cash Plus intervention **reduced experience of sexual violence** in the previous 12 months by 3.7 percentage points.
- The intervention also **reduced the perpetration of physical violence** by 3.3 percentage points (representing a 47.8 per cent reduction in violence perpetration), and this impact was driven by males.
- There were no programme impacts on emotional or physical violence experiences.
- There were no programme impacts on any of the violence-related reporting (help-seeking) indicators.
- Qualitative interviews highlighted how female adolescents may be at risk of sexual violence while travelling to school or to perform domestic chores, such as carrying water. At school, girls discussed how they face bullying and sexual propositioning by boys, as well as recommendations from other girls on how to fight off these unwanted advances.

1. INTRODUCTION AND BACKGROUND

This report provides the Round 3 findings from the impact evaluation (2017–2019) of a ‘Cash Plus’ Model on Youth Well-Being and Safe, Healthy and Productive Transitions to Adulthood being implemented within the Government of the Republic of Tanzania’s Productive Social Safety Net (PSSN) by TASAf, in collaboration with TACAIDS, and with technical assistance from UNICEF. UNICEF Office of Research – Innocenti, University at Buffalo and EDI Global, in collaboration with TASAf, TACAIDS and UNICEF Tanzania implemented the impact evaluation.

The youth population of Tanzania (ages 15–34 years) is expected to increase from 16.7 million in 2015 to 30.3 million by 2025.⁴ The power of adolescents and youth for development and economic growth has been increasingly recognized by policymakers, advocates and researchers, and youth development is prominent in Tanzania’s five-year development plan (2016–2020).⁵ 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.⁶

During adolescence, intense physical and emotional transformations and rapid brain development occur. Adolescence is posited to represent a unique window of opportunity, and investments in adolescence are often referred to as having a “triple dividend.”⁷ That is because investments in adolescence have returns today, in adolescents’ future adult life, and in the next generation of children. Relatedly, Tanzania is poised for a one-time opportunity referred to as the ‘demographic dividend’, due to changes in its population structure. This dividend occurs when there are smaller birth cohorts (from decreases in fertility), leading to a one-time scenario where there is a larger than normal working-age population relative to the young and elderly.⁸ It is a situation that can be harnessed for economic growth and development. However, the potential benefits are not automatic, and require that youth are prepared with necessary education, economic and livelihood skills while simultaneously being empowered to address their health (including SRH needs) to transition safely to adulthood and delay marriage and childbearing. Additional requirements to facilitate the demographic dividend include adequate investments in health, infrastructure and education; and market conditions that facilitate fair competition and labour-intensive job growth in the private sector.⁹ Investments made today will largely determine whether Tanzania is able to translate its demographic dividend into accelerated economic growth, peace and stability, or, alternatively, whether an irreversible loss of opportunity will eventuate.¹⁰

4 National Population Projections, NBS and OCGS, February 2018.

5 Planning MoFa, National Five-Year Development Plan 2016/17–2020/21, Ministry of Finance and Planning, Dar es Salaam, Tanzania, 2016.

6 Sheehan, P, et al., ‘Building the foundations for sustainable development: a case for global investment in the capabilities of adolescents’, *The Lancet*, 2017.

7 Patton, G.C., et al., ‘Next steps for adolescent health: a Lancet Commission’, *The Lancet*, vol. 383, no. 9915, 2014, pp. 385–6.

8 Gribble, J., and Bremner, J., The Challenge of Attaining the Demographic Dividend, 2012. Retrieved from <https://www.prb.org/demographic-dividend> (accessed December 2020).

9 Locke Newhouse, D., ‘The demographic transition and labor markets in Sub-Saharan Africa’ Africa Can End Poverty Blog, 12 March 2015. Available at: <http://blogs.worldbank.org/africacan/the-demographic-transition-and-labor-markets-in-sub-saharan-africa> (accessed December 2020).

10 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.

Despite this immense potential for the adolescents of today, in Tanzania they face many risks related to poverty, early pregnancy and marriage, violence, HIV, and lack of livelihood opportunities.^{11,12} Moreover, during adolescence, gendered norms within adolescents' socio-cultural environments play an increasingly important role in their lives.¹³ These norms often shape opportunities, and for girls this often means a constraining of choice and opportunities. Social protection programming can help mitigate against some of these risks and, if designed to be transformative, it can expand opportunities for adolescents' future. Cash transfer programmes are a popular social protection tool and have been shown to improve food security,¹⁴ consumption, productive activities,¹⁵ and school enrolment¹⁶ at the household level. These programmes generally do not have outcomes relating to adolescent mental health, risk behaviours and violence as primary objectives. Nevertheless, by targeting poverty and vulnerabilities, they may address some of the structural drivers of these adverse outcomes. A growing body of evidence from sub-Saharan Africa suggests that cash transfers can facilitate safe transitions to adulthood. However, they are not a silver bullet and impacts vary by context and target group. The evidence has shown that government cash transfer programmes have increased school enrolment,¹⁷ delayed sexual debut and pregnancy, and reduced transactional and age-disparate sex among adolescent girls.^{18,19,20} Further, non-governmental cash transfer programmes (both conditional and unconditional) have been shown to reduce intimate partner violence (IPV) and delay sexual debut, pregnancy and marriage, as well as to reduce HIV risks among adolescent girls.^{21,22,23} Nevertheless, these protective effects vary based on programme characteristics and context. For example, delays in sexual debut and pregnancy resulted from government cash transfers in Kenya and South Africa, but these findings were not replicated in government programmes in Malawi, Tanzania, Zambia or Zimbabwe. Further, some of these findings – including those related to IPV among adolescents and reduced incidence of HIV – were from small-scale, non-governmental pilot programmes, which were not poverty-targeted. To date, these findings have not been replicated in studies of governmental cash transfers. Moreover, HIV reduction findings varied based on how the data were analysed,²⁴ and estimation power was limited by low incidence of HIV over the study period. Mental health among

-
- 11 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.
 - 12 Haji, M., *Youth employment in Tanzania: Taking stock of the evidence and knowledge gaps*, International Development Research Centre MasterCard Foundation, Ottawa, Canada, 2015.
 - 13 GAGE Consortium, *Gender and Adolescence: Why understanding adolescent capabilities, change strategies and context matters*, Overseas Development Institute, London, 2017.
 - 14 Hidrobo, M., et al. 'Social Protection, Food Security, and Asset Formation'. *World Development*, vol. 101, 2018, pp. 88–103.
 - 15 Davis, B., et al., *From evidence to action: the story of cash transfers and impact evaluation in sub Saharan Africa*, Oxford University Press, Oxford, 2016.
 - 16 Baird, S., et al., 'Conditional, unconditional and everything in between: a systematic review of the effects of cash transfer programmes on schooling outcomes'. *Journal of Development Effectiveness*, vol. 6, no. 1, 2014, pp. 1–43.
 - 17 Handa, S. and M. de Miliano, *Impact of Social Cash Transfer on Schooling in Africa: An Update from the Transfer Project*, The Transfer Project, Chapel Hill, NC, 2015.
 - 18 Handa, S., et al., '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.
 - 19 Cluver, L., 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, 2013, e362-e370.
 - 20 Heinrich, C.J., Hodinott, 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.
 - 21 Baird, S.J., et al., 'Effect of a cash transfer programme for schooling on prevalence of HIV and herpes simplex type 2 in Malawi: a cluster randomised trial', *Lancet*, vol. 379, no. 9823, 2012, pp. 1320-1329.
 - 22 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.
 - 23 Pettifor, A., et al., 'The Effect of a Conditional Cash Transfer on HIV Incidence among Young Women in Rural South Africa (HPTN 068): A Phase 3, Randomized Controlled Trial', *Lancet Global Health*, vol. 4, no. 12, 2016, e978-e988.
 - 24 Webb E.J., Hayes R.J. and J.R. Glynn, 'Cash transfer scheme for reducing HIV and herpes simplex type 2', *Lancet*, vol. 380, no. 9844, 2012 p. 802.

adolescents has also improved as a result of cash transfer programmes in the region^{25,26} but one study suggested that effects on mental health may be adverse when cash transfer programmes are conditional,²⁷ as compared to unconditional.

Between 2015 and 2017, an impact evaluation was implemented to understand how Tanzania's PSSN programme influenced youth well-being. The study found positive impacts on youth well-being, including increased school enrolment and reduction in children's paid work. There were also further positive impacts on basic needs, children's perceptions of control over their own lives, their participation in household decision-making, and social support.²⁸ These positive impacts came with caveats 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 for example, livestock, are often accompanied by children's increased participation in home production (e.g., tending livestock). In less positive findings, the programme had no impacts on other outcomes related to safe and healthy transitions from adolescence to adulthood including delayed sexual debut and pregnancy, contraceptive use, risky sexual behaviours and mental health. These mixed findings illustrate 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.²⁹ Thus, linkages between social protection programmes and existing government and other services should be strengthened to best facilitate safe transitions to adulthood. In this way, integrated programming is increasingly being designed and implemented. One type of integrated social protection is often referred to as 'cash plus', or cash transfer programmes bundled with complementary interventions or linkages to existing services as important areas to invest in. Cash plus programming is motivated by the fact that government cash transfer programmes identify the poorest and most vulnerable members of society, and linking these vulnerable populations to other services may have synergistic impacts on their well-being. Thus, 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.

More formally, cash plus is defined as cash transfers combined with one or more types of complementary support, and these may consist of integral elements (e.g., additional benefits, in-kind transfers, information, behaviour change communication or psychosocial support); or external components (e.g., direct provision of access to services or facilitating linkages to services).³⁰ Tanzania has experimented with various cash plus iterations within the PSSN, including nutrition sensitization (with technical support from UNICEF), youth livelihoods training (with technical support from ILO), and contraceptive knowledge sensitization (with technical support from UNFPA).

A related set of interventions targeted to adolescents recognizes the "interlinkages between economic and reproductive health challenges that adolescent girls face".³¹ It utilizes different combinations

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

26 Angeles, G., et al., 'Government of Malawi's Unconditional Cash Transfer Improves Youth Mental Health', *Social Science & Medicine*, vol. 225, 2019, pp. 108-119.

27 Baird, S., et al., 'Income shocks and adolescent mental health', *Journal of Human Resources*, vol. 48, no. 2, pp. 370-403.

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

29 Watson, C. and 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*, Retrieved from Florence, 2016.

30 Roelen, K., et al., How to Make 'Cash Plus' Work: Linking Cash Transfers to Services and Sectors, *Office of Research - Innocenti Working Paper, W/P-2017-10*, 2017.

31 Bandiera, O., et al., 'Women's empowerment in action: Evidence from a randomized control trial in Africa', *American Economic Journal: Applied Economics*, vol. 12, no. 1, 2020, pp. 210-59.

of economic strengthening (savings accounts, cash transfers, financial literacy, productive grants) together with training or information on gender and reproductive health topics; mentoring; and/or 'safe spaces' where adolescent girls can meet together to facilitate safe transitions to adulthood. These interventions vary in the combinations of components and age range of target groups, but several have been implemented in recent years in sub-Saharan Africa (generally to girls only). The evidence shows that these programmes have potential to facilitate safe and healthy transitions to adulthood. Nevertheless, several have either failed to find impacts on their main outcomes of interest or have found that a majority of significant impacts disappear completely as little as two years after the programme ends. For example, while the Empowerment and Livelihood for Adolescents programme implemented by BRAC Uganda found impressive increases in entrepreneurial skills, income generating activities and health knowledge, while simultaneously reducing forced sex and delaying childbearing and marriage, there were no impacts on outcomes such as wages, use of contraception other than condoms, and preferences related to marital age.³² Moreover, many of the impacts disappeared two years after the programme ended (reductions in forced sex and delayed age at marriage were sustained), and when BRAC attempted to implement the same programme in Tanzania, it failed to find any productive or protective impacts.³³

In Liberia, the Girl Empower Program, which combined cash transfers, gender transformative training and mentoring, failed to produce any impacts on its main objective of reducing sexual abuse, nor were there any impacts on schooling, psychosocial well-being, or broadly defined "protective factors".³⁴ There were, however, protective impacts on SRH knowledge, gender attitudes and life skills. In Zambia, the Adolescent Girls Empowerment Program (AGEP) combined mentoring and safe spaces with health, life skills and financial education, and a savings account (among a subsample of the girls). This programme found positive impacts on outcomes directly related to programme components – such as reporting having a safe place to meet with friends and financial literacy – but did not have any impacts on the main outcomes of interest, including educational attainment, delays in pregnancy and marriage, births, violence experience, or HIV/HSV-2 prevalence.³⁵ AGEP did, however, reduce reports of transactional sex and increased condom use at first sex. There have been similar programmes in Uganda and Kenya, also with mixed findings.^{36,37}

In Tanzania, an NGO-implemented cash plus intervention (providing cash combined with financial education) targeted to adolescent girls and young women and implemented under the DREAMS umbrella (DREAMS SAUTI/WORTH++) conducted qualitative interviews to understand how the programme may be working. These suggested that the intervention reduced dependence on male sex partners for basic needs;³⁸ however, quantitative estimates of programme impacts are not available. Moreover, the programme was only targeted to out-of-school girls and the evaluation did not collect information on how this targeting may have affected schooling decisions of in-school girls at the time of study enrolment.

32 Ibid.

33 Alam, R., *Empowering Adolescent Girls in East Africa: Evidence from BRAC*. Social Protection Plus Workshop. Dar es Salaam, 2016.

34 Özler, B., et al., 'Girl Empower—A gender transformative mentoring and cash transfer intervention to promote adolescent wellbeing: Impact findings from a cluster-randomized controlled trial in Liberia', *SSM-Population Health*, vol. 10, 2020, 100527.

35 Austrian, K., et al., *Adolescent Girls Empowerment Programme: research and evaluation mid-term technical report*, Population Council, Nairobi, 2016.

36 Austrian, K. and E. Muthengi, 'Can economic assets increase girls' risk of sexual harassment? Evaluation results from a social, health and economic asset-building intervention for vulnerable adolescent girls in Uganda', *Children and Youth Services Review*, vol. 47, 2014, pp. 168-175.

37 Austrian, K., et al., 'The adolescent girls initiative-Kenya (AGI-K): study protocol', *BMC Public Health*, vol. 16, no. 1, 2016, p. 210.

38 Pettifor, A., et al., 'Cash plus: exploring the mechanisms through which a cash transfer plus financial education programme in Tanzania reduced HIV risk for adolescent girls and young women', *Journal of the International AIDS Society*, vol. 22, 2019, e25316.

Taken together, this body of evidence suggests that, not only do these multi-faceted risks and vulnerabilities in adolescence require multisectoral solutions, but the most effective combination remains elusive and context is important: what works in one place might not work in another. Most importantly, none of the summarized interventions were implemented through government structures and so questions remain about their scalability and sustainability. The current study contributes to filling this gap in the evidence base.

Inspired by the aforementioned evidence, the pilot and evaluation described in this report focuses 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.³⁹

This study is, to our knowledge, the first to specifically examine impacts of a cash plus model on youth well-being and transitions to adulthood **implemented within the context of a government transfer programme in sub-Saharan Africa**. The government ownership and implementation aspect of this intervention has important implications for sustainability and scale-up. As none of the aforementioned multi-faceted interventions targeted to adolescents were run by government, this study provides unique insights.

The study's midline (Round 2) report showed that, at Round 2, after adolescents had been exposed to 12 weeks of face-to-face training, there were positive impacts on participation in economic activities, gender-equitable attitudes, and HIV- and SRH-related knowledge. However, there were no programme impacts at midline on violence experiences or HIV risk behaviours, nor were there improvements in SRH/HIV health-seeking. Thus, in the current report we examine whether longer term exposure to the intervention has resulted in more changes in behaviours, economic activities, or experiences such as sexual debut, partnerships, health-seeking, and violence.

In interpreting findings from this Round 3 report, there are several points to keep in mind.

1. The first is the **timing of the different intervention components**. Round 3 data collection occurred more than a year after the delivery of the life skills and livelihoods training and followed at least nine months of mentoring. Moreover, it took place approximately two months after disbursement of the productive grant. Adolescents opting for a business plan received the productive grant in two disbursements (one in March 2019 and one in June 2019), while those opting for an education plan received the full grant in one disbursement in March 2019. Data collection fieldwork for Round 3 of this evaluation happened between June and August 2019. Thus, the exposure time to the productive grant was short, and full impacts of the productive grants may take more time to materialize.
2. **Payment delays** occurred in the overall PSSN during the study period (affecting both treatment and control households, as all received the PSSN, but only the treatment group received the 'plus' intervention). For the first time since the start of the PSSN in 2015, **households experienced a delay in the bimonthly PSSN transfers** after March 2019, shortly before data were collected for Round 3. Households received their last full payment in March and then should have received another payment in May. This did not occur and no additional payments were made through the end of data collection (31 August 2019). Thus, households

³⁹ 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/>

interviewed in the final weeks of data collection had experienced five months since their last payment, which had previously been delivered every other month. This may have mitigated some of the potential positive benefits of the cash plus intervention, as households were coping with an unexpected loss of regular support.

3. Evaluation outcomes examined in this study cast a ‘wide net’. Recognizing the **multisectoral inputs** of this intervention and the potential impacts on a broad range of aspects of adolescent well-being, we examined a broad range of outcomes. We study impacts on economic participation, school attendance, health, violence and other aspects of well-being. It was **not expected that we would see significant programme impacts on all outcomes, but we tested the broadest range possible** precisely because the programme aimed to address the multifaceted aspects of risk and vulnerability that adolescents face, and recognizing that economic vulnerability is closely linked and mutually reinforcing with health-related vulnerabilities.
4. Many similar, multifaceted interventions targeted to adolescents (and almost exclusively to girls) evaluated in Southern and Eastern Africa have either failed to find impacts on their main outcomes of interest or have found that a majority of significant impacts disappear completely as little as two years after the programme ends.

The remainder of this report is organized as follows: Section 1 presents information on the PSSN and Cash Plus programmes. Section 2 outlines the conceptual framework informing the programme and evaluation. Section 3 describes the impact evaluation framework and sample, while Section 4 describes attrition. Section 5 discusses programme implementation, while Section 6 presents findings related to health facility surveys. Sections 7 through 13 describe impacts by topic, and Section 14 concludes.

Tanzania’s Productive Social Safety Net (PSSN)

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 approach.⁴⁰ The PSSN programme (TASAF III) was officially launched in August 2012. Initially, this aimed to support approximately 275,000 extremely poor households living in selected poor communities in rural and urban areas. With the overall objective of reducing extreme poverty by half, in September 2013, 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. By early 2016, the conditional cash transfer (CCT) component had enrolled over 1.1 million of the poorest households in Tanzania, or approximately 10.5 per cent of the total population, in 70 per cent of all villages in the country. Eventually, all eligible households nationwide (approximately 15 per cent of the population) are expected to receive the programme. A further scale-up to expand the programme to 30 per cent of remaining villages is envisaged under phase II, which starts in 2019. The programme includes consolidation of Integrated Social Safety Net Interventions to maximize the impact of a social safety net through implementation and scale-up of labour-intensive public works and cash transfer interventions to targeted extreme poor and food insecure groups. The programme also consists of livelihood enhancement that involves income-generating activities for the targeted poor and vulnerable groups.

⁴⁰ 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 improving social service delivery; capacity enhancement for communities, including overseeing community-run 1,704 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 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 a pilot CCT reaching 11,576 households in communities that were strengthened during the first phase. Phases I and II of TASAF were successfully implemented and achieved programme objectives.

The objectives of the PSSN Phase 1 include: increase consumption of the extremely poor on a permanent basis; smooth consumption 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 public works and livelihoods strengthening components. 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 in terms of household poverty and number of children in the household.

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 PAAs and villages. At the village level, community teams were selected by village assembly meetings 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 (that scored below the designated threshold), were then enrolled into the programme.

1.1 PSSN programme details

The overall PSSN has four components:

1. Establishment of a National Safety Net incorporating transfers linked to participation in Public Works (PW component) and adherence to co-responsibilities (CCT component).
2. Enhancement of livelihoods and increasing beneficiaries' incomes.
3. Development of targeted infrastructure (education, health, water).
4. Capacity building to ensure adequate programme implementation.

See Figure 1.1 for programme details, current as of the writing of this report and reflecting PSSN Phase 1. The benefit and fee structure are expected to change in PSSN Phase 2.

Figure 1.1. Programme details⁴¹

The **Cash Transfer** component provides the following benefits, up to a maximum monthly transfer of TZS38,000 (US\$17.00):

- TZS10,000 (US\$4.50) per household;
- TZS4,000 (US\$1.80) per household with children under 18 years;
- TZS4,000 (US\$1.80) per household with children under five or pregnant women, conditional on health compliance;
- TZS2,000 (US\$0.90) per child (up to four children), conditional on primary school attendance;
- TZS4,000 (US\$1.80) per child and TZS6,000 (US\$2.70) per child, conditional on lower and upper secondary school attendance, respectively, up to TZS12,000 (US\$5.4).

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

- TZS2,300 (US\$1.00) per day for one able-bodied 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 support beneficiaries in accessing productive opportunities;
- Support to household income generation and diversification; and
- A productive grant.

1.2 The 'plus' intervention: Programme details, training and implementation

The Cash Plus model evaluated in this report is planned and designed as part of TASAF's PSSN programme, and particularly the livelihoods component of this programme. It was envisaged that the Cash Plus intervention would make a significant contribution to the planned role of TASAF's livelihood programme and address a particular need of adolescents in TASAF households.

The Cash Plus intervention was implemented by the Government of Tanzania through TASAF with support from UNICEF, and in close collaboration with TACAIDS and the Ministry of Health, Community Development, Gender, Elderly and Children.

The Cash Plus model complements the PSSN with a package of adolescent-focused interventions comprising livelihoods and life skills training, mentoring and an asset transfer, as well as linkages to strengthened, adolescent-friendly government health services. These components together may ultimately have synergistic impacts promoting sustainable and healthy livelihoods that increase resilience, well-being and empowerment today, tomorrow and for future generations.

Approximately 908,346 adolescents aged 14–19 years lived in households being reached by the PSSN

⁴¹ Aide Memoire of the TASAF/PSSN Mid-Term Review and Implementation Support Mission 8–19 September 2014.

nationally as of April 2019; thus, there is huge potential for scale-up and leveraging positive impacts for this key sub-population. The Cash Plus 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 programme. The PSSN livelihoods component roll-out follows the adopted strategic approach to first design and gradually implements the livelihoods enhancement packages in phases to ultimately achieve full scale-up. The Cash Plus programme builds on and further strengthens existing local government capacity and services related to adolescent health, livelihoods and social protection. It is implemented in two pilot PAAs, which were chosen based on overlaps between TASAF priorities and regions in which UNICEF was supporting existing programmes. These PAAs comprise four councils in Southern Tanzania: Mufindi and Mafinga in Iringa region; Rungwe and Busokelo in Mbeya region (see Appendix A for a map of intervention sites).

The 'plus' intervention follows a "capabilities approach"^{42,43,44} and aims to strengthen youth productive, human and health capital. The **guiding principles** for the Cash Plus programme are as follows:

- Government ownership
- Implementation within TASAF/PSSN livelihoods enhancement strategy and existing government frameworks
- Linkages with other government services
- Age- and gender-sensitive livelihood interventions
- Financial, health and social asset-building framework for adolescent development and well-being.

Based on a review of evidence on what works, stakeholder consultations and a consensus process, the programme was designed with the following three components:

1. **Adolescent livelihood and SRH-HIV life skills training:** This programme includes concurrent training sessions on livelihood and economic empowerment, and SRH and HIV prevention and treatment education for adolescents. The programme builds on lessons emerging from other initiatives and uses a mixed livelihoods approach to meet the diverse needs of older and younger adolescents. Further included are a bundle of high impact behaviour change communication approaches, including peer support groups, to strengthen knowledge and skills among adolescent girls and boys related to HIV prevention and treatment, SRH, violence prevention, and promoting gender equity.
2. **Mentoring and coaching:** Parallel with and following the training sessions, the programme connects adolescent participants with a community-based mentor who will mentor and coach them on livelihood options and life concerns. This includes referral to education, vocational training, savings groups or a productive grant.
3. **Supply-side strengthening and linkages to existing SRH and HIV services for adolescents:** The programme links adolescent programme participants from PSSN households with HIV and SRH services that are responsive to and acceptable for adolescents.

42 Sen, A., 'Human rights and capabilities', *Journal of human development*, vol. 6, no. 2, 2005, pp. 151-166.

43 Sen, A.K., 'Development as capability expansion', *The Community Development Reader, 2nd ed.*, edited by DeFilippis, J., Saeger, S., 1990, pp. 319-327.

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

The training of those implementing the programme followed a cascade model, starting with 'training of trainers' (TOT). Those trained included community development officers, planning officers, nurses, medical doctors, social welfare officers and agriculture and livestock officers. The timing of the TOT sessions and implementation of intervention activities was as follows:

- The district TOT training took place from 20 August to 1 September 2017. Twenty individuals were trained in TOT sessions (10 from Rungwe/Busokelo and 10 from Mufindi/Mafinga).
- The coaches and peer educators were trained from 20 to 25 November 2017 in Mufindi and from 27 November to 2 December 2017 in Rungwe. A total of 130 peer educators (58 from Rungwe/Busokelo and 72 from Mufindi/Mafinga) and 130 peer educators (58 from Rungwe/Busokelo and 72 from Mufindi/Mafinga) were trained. The male to female ratio was 1:1 in both trainings.

Face-to-face delivery of the livelihoods and HIV/SRH life skills training occurred over a 12-week period between February and May 2018. Facilitators met with youth groups in each village for two to four hours once a week for 12 weeks. The opening and closing weeks consisted of two-day workshops. The opening session focused on getting to know each other and dangers and opportunities in the community. The closing session was a 'graduation' ceremony, where parents and community members were invited to celebrate the participants' achievements. Livelihoods and HIV/SRH training occurred jointly in each session (one to two hours for each, on a weekly basis). Topics and activities covered in the livelihoods and SRH/HIV life skills training component of the intervention include:

Livelihoods:

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

Life skills, HIV and SRH:

- 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
- Addressing negative gender attitudes and norms

A more detailed outline of the combined training topics, by week, is provided in Appendix B.

Following the 12-week period of intensive training, asset transfers and additional mentoring activities began and continued for a period of nine months (June 2018 to March 2019).

Mentoring activities included facilitating linkages to training and apprenticeship activities, providing input on business plans, facilitating health facilities linkages and peer education. The programme connected adolescent participants with a community-based adult mentor. Two Cash Plus adult mentors (one male, one female) were selected per village by local government staff and community members. Mentors were meant to offer regular support, guidance and encouragement through meeting with adolescent Cash Plus participants on a group basis bi-monthly and then monthly over the mentoring period. Adolescents were also encouraged to request one-on-one meetings with their mentors regarding specific individual or sensitive matters. In addition, young, trained peer educators functioned as the link between adolescents and mentors, and between adolescents and health facilities. Peer educators were selected amongst adolescents from PSSN households eligible for the Cash Plus intervention by their fellow adolescents, supported by local government. Two peer educators (one boy, one girl) were selected from each village. More detailed information on mentorship and peer educator activities is included in Appendix C.

Mentors guided adolescents on livelihood options and healthy life choices and provided guidance on educational or business plans. Specifically, mentors were tasked with the following responsibilities: 1) Raising awareness of the viability of self-employment as a career option; 2) Enhancing awareness among older adolescents about available vocational training opportunities; and 3) Supporting start-up support services. For those who had not completed school, mentors provided support to complete schooling. The adolescent-mentor partnership was built around an 'accompanied livelihood development' approach in which the adolescent makes his or her own decisions based on inputs and facilitation from the mentor. This approach has been found useful for fostering a culture of entrepreneurship and skills building amongst young people.⁴⁵ For adolescents aged 14–17 years, the mentorship focus was to build confidence, communication skills and aspirations. The focus for older adolescents aged 18–19 years was to engage in livelihoods training linked to local job opportunities and execution of business plans.

The **productive grant** to support a business or education (schooling or vocational training) plan was provided for those adolescents who completed the training and who developed a plan, and had it approved by the village committee. Messaging around the grants was that they were intended to help adolescents start up their own business or access vocational training for those out of school, and to offer support to complete school for those who were still in school. Nevertheless, the grants were

⁴⁵ International Labour Organization, 'Being 'real' about youth entrepreneurship in East and Southern Africa. Implications for adults, institutions and sector structures', ILO, Geneva, 2005.

unconditional transfers and there were no penalties for using the money for other purposes. Out-of-school adolescents who submitted a viable business or vocational training plan could access the grant, as could in-school adolescents who submitted a schooling plan for staying in school. The grant amount was US\$80. For those submitting a business plan, the grant was disbursed in two tranches, in person, via two cash payments (first US\$50 and then US\$30) during the regular bimonthly PSSN payment disbursements in March and June 2019, whereas for those submitting an education-related plan the grant was disbursed in one cash payment during the March PSSN payment cycle. Mentors monitored the use of the grant to ensure it was utilized for the intended purpose and to link adolescents with other technical support (including agricultural extension services, legal aid and vocational training) through the mentoring activities described above.

In the final component of the intervention, **health facilities were strengthened** to make them more adolescent friendly and **linkages were facilitated among adolescent programme participants**. Health facility trainings to strengthen adolescent-friendly services were conducted by the Ministry of Health, Community Development, Gender, Elderly and Children, with technical assistance from UNICEF in July 2018. The 'Standards for Adolescent Reproductive Health Services'⁴⁶ served as a guide for the strengthening. These standards were developed by the Ministry of Health in 2005 together with different organizations interested in the promotion of adolescent-friendly reproductive health services. Mentors and peer educators proactively linked adolescent programme participants to HIV, SRH and violence prevention services via government health facilities in and around study communities throughout the mentoring and asset transfer phase (from June 2018 to June 2019). This approach was informed by evidence demonstrating that programmes that promote access to and uptake of adolescent-responsive SRH and HIV services have been found to be more effective when facility-based interventions are combined with supportive adults and when community acceptance to access such services is promoted.⁴⁷

An implementation timeline of intervention and research activities is provided in Figure 1.2.

⁴⁶ United Republic of Tanzania, Standards for Adolescent Friendly Reproductive Health Services, Ministry of Health, Dar es Salaam, Tanzania, 2005.

⁴⁷ Denno, D.M., Hoopes, A.J. and Chandra-Mouli, V., 'Effective Strategies to Provide Adolescent Sexual and Reproductive Health Services and to Increase Demand and Community Support', *Journal of Adolescent Health*, vol. 56, no. 1, 2015, pp. S22-S41.

Figure 1.2. Timeline of evaluation and implementation activities



The current report covers impacts through July and August 2019, which occurred 14–15 months post face-to-face trainings, one year post supply-side strengthening, and 2–4 months after the first of two asset transfers (and 0–1 month/s post the second and final asset transfer).

1.2.1 Scalability, sustainability and looking forward in pilot planning

By implementing within government frameworks (the livelihoods component of the TASAF III/PSSN programme) and facilitating linkages to existing government services (primarily HIV/SRH services), this pilot has increased potential for sustainability and scalability. A previous adolescent SRH intervention conducted in Tanzania with public sector health workers demonstrates the feasibility of this approach.^{48,49} Although components of this intervention 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 generating synergies for increased effectiveness, while conducting capacity building to improve quality service provision to youth and providing rigorous evidence on the initiative's effectiveness.

1.2.2 The importance of evidence

This pilot intervention, implemented within government structures, is being rigorously evaluated through an impact evaluation to measure effectiveness. Rigorous evidence is key to understanding effectiveness of programming for adolescents, as well as for understanding how future programming can be improved and leveraged for better outcomes for youth. There are several examples of interventions in Eastern Africa with similar objectives (strengthening capacities of adolescents) through bundled programming, which have been implemented by NGOs or researchers.^{50,51,52} Some of these have been rigorously evaluated, while others have not. Most of them make recommendations for scale-up. Nevertheless, context is different when implementing through government structures. Delivery is key and thus testing in this setting is essential for making assumptions or recommendations about scale-up.

1.3 Evaluation and objective

Recognizing the importance of evidence to inform programme adaptation and scale-up, UNICEF Office of Research – Innocenti, University at Buffalo (State University of New York) and EDI Global, in collaboration with TASAF, TACAIDS and UNICEF Tanzania have designed a rigorous mixed-methods impact evaluation with the objective of estimating the effects of this Adolescent Cash Plus Initiative on youth well-being and the transition to adulthood. Outcomes examined in this evaluation include those related to livelihoods; aspirations; schooling; attitudes; violence; partnerships; SRH 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 REPOA (2015–2017) examining the impacts of the PSSN on youth well-being and the transition to adulthood.⁵³ The current evaluation makes a contribution by strengthening the national evidence base on targeted programmes for adolescents, and more specifically, those implemented by government.

48 Larke, N., 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*, vol. 47, no. 5, 2010, pp. 512-22.

49 Hayes, R.J., 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*, vol. 26, no. 4, 2005, pp. 430-42.

50 Austrian, K. and E. Muthengi, 'Can economic assets increase girls' risk of sexual harassment? Evaluation results from a social, health and economic asset-building intervention for vulnerable adolescent girls in Uganda', *Children and Youth Services Review*, vol. 47, 2014, pp. 168-175.

51 Austrian, K., et al., 'Adolescent Girls Initiative-Kenya: Midline Results Report', Population Council, Nairobi, 2018.

52 Bandiera, O., et al., 'Women's empowerment in action: Evidence from a randomized control trial in Africa', *American Economic Journal: Applied Economics*, vol. 12, no. 1, 2020, pp. 210-59.

53 PSSN Youth Study Evaluation Team. *Tanzania Youth Study of the Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*, UNICEF Office of Research - Innocenti and REPOA, Florence, Italy/Dar es Salaam, Tanzania, 2017. Available at: <https://www.unicef-irc.org/publications/942-.html> (accessed December 2020).

2. CONCEPTUAL FRAMEWORK

The “capability approach” to development⁵⁴ advocated for by Amartya Sen envisions 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 have limited “capabilities”. For adolescents, the GAGE initiative on gender and adolescence defines the following capability domains: 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.⁵⁵ The current intervention and evaluation described in this report follows the 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), SRH, bodily integrity, and voice and agency dimensions.

The intervention and evaluation follow the Theory of Change highlighted in Figure 2.1. It 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 youths’ economic capital through the PSSN component (strengthening household economic security), as well as productive activities or investments for business 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. A further aim is 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.

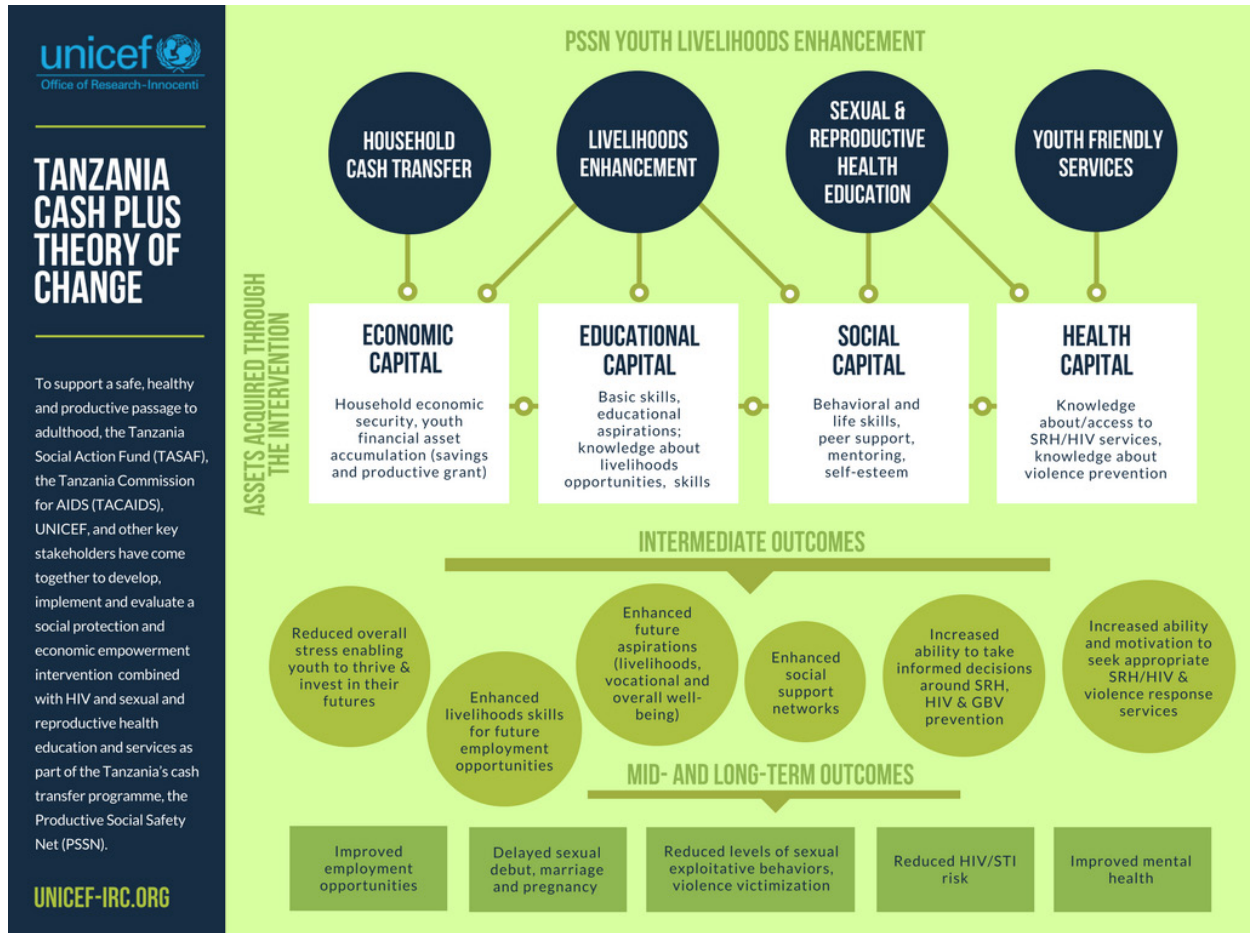
Subsequently, in the short term, we hypothesize that the intervention may improve adolescents’ aspirations and/or skills related to livelihoods and economic opportunities (expanded capabilities); increase their knowledge and ability to make informed decisions around SRH, negotiate in sexual relationships, 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 implications for stress levels and subsequent well-being.

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.

54 Sen, A.K., ‘Development as capability expansion’ in *The Community Development Reader*, 2nd ed., edited by DeFilippis, J. and Saeger, S., 1990, pp. 319-327.

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

Figure 2.1. Conceptual framework



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 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 which pathways does the programme impact outcomes of interest?

The current report assesses combined effects of all three components of the 'plus' intervention. However, the time period between asset transfers (two over the period between April and July 2019) and the Round 3 survey was short, and effects may take longer than the observed time period to materialize.

3.2 Study design

This evaluation utilizes a cluster randomized controlled trial (cRCT) study design and compares across study arms over time to assess whether the plus component (treatment) improves the lives of youth, compared to youth receiving cash only (that is, the control arm).

For administrative purposes, TASAF refers to geographic areas of programme implementation as Project Authority Areas (PAAs). On the mainland, these are the same as local government councils. Then, within PAAs there are wards, and within wards, villages/mtaas.⁵⁶ 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.

⁵⁶ A mtaa is an administrative unit in urban areas equivalent to a village in rural areas.

The evaluation design has two study arms (randomized at the village (cluster) level), which allows us to estimate the impact of the combined youth livelihoods enhancement and 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 PAA and village size (large v. small villages).

While 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 its parts), the evaluation design does not allow us to evaluate the ‘synergy’ effect, as such a study design was not feasible as it would have required a significantly larger sample of youths and villages. Moreover, the cash component started much earlier than the ‘plus’ intervention (2015 or earlier v. 2017). Thus, disentangling impacts of the cash versus the plus component versus the combination of both is not possible with the current evaluation design. As such, estimates presented in this report illustrate impacts of the ‘plus component’, among youth in households receiving government cash transfers as part of the PSSN.

The number of adolescents per village reached by the intervention varies by village based on adolescent population in PSSN households and programme uptake rates, 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 was 2,458 youth combined across treatment and control arms (1,287 youth interviewed in Mufindi/Mafinga and 1,171 youth interviewed in Rungwe/Busokelo). At Round 2, one year later, 2,104 adolescents were re-interviewed, and at Round 3, two years later, 2,191 adolescents were re-interviewed. The study includes adolescents (both males and females) aged 14 to 19 years at baseline. To assess programme impacts, three rounds of data collection were implemented:

- Baseline, pre-intervention implementation (completed April–June 2017)
- Round 2, at six months post intensive period of intervention (completed May–July 2018)
- Round 3, at 18 months post intensive period of intervention (completed June–August 2019)

Youth in both treatment and control villages are interviewed at all survey rounds in both study PAAs. The baseline surveys allowed us to examine whether youth in the two study arms are similar at baseline, and the baseline report demonstrated that randomization was successful and that there was baseline balance among the indicators. This gives us confidence to attribute observed differences at follow-up rounds to impacts of the intervention. In this way, follow-up surveys (Rounds 2 and 3) 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 and HIV/SRH), all youth aged 14–19 living in PSSN households were offered the intervention. For the evaluation, we interviewed all available, eligible youth in each study village (in treatment and control study arms) for baseline and, at each follow-up round, we aimed to re-interview the sample of adolescents interviewed at baseline. When offering a programme, it is not possible to predict ahead of time which adolescents will choose to participate. Thus, for this impact evaluation, we interviewed 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 to the population level since, in a fully scaled-up programme, not all adolescents offered the programme would choose to participate. Adolescents who take up the programme and those who do not may differ in terms of both observed (age, marital status, etc.) and unobserved (cognition and motivation, etc.) characteristics and thus estimating

impacts on only those who take up the programme when offered would lead to impact estimates that are misleading in terms of what we could expect to see at the population level through a scaled-up programme.

Figure 3.1. Community selection

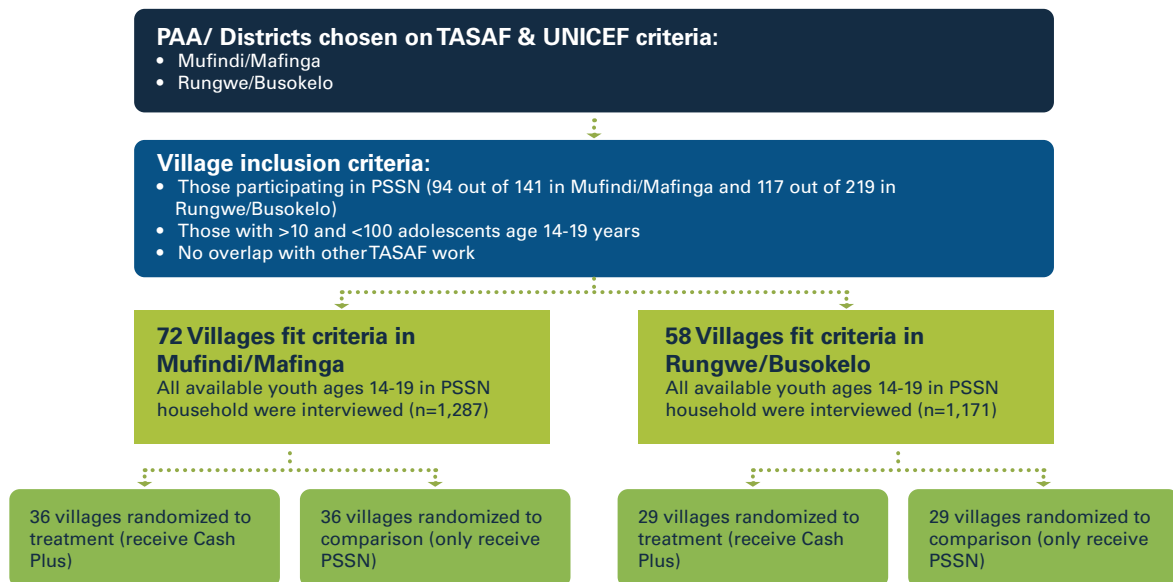


Figure 3.1 illustrates selection of the evaluation sample, starting with a list of all PSSN participating communities (PAAs) in both Mufindi/Mafinga and Rungwe/Busokelo (n=211). All those villages that fit the following criteria during baseline listings were eligible for the evaluation: 1) at least 10 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/NBS. 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).

3.3 Randomization

Randomization into study arms was stratified by PAA and village size (large v. small). After baseline data were collected, we summed the total number of eligible youth by village in each PAA, and calculated PAA-level medians (20.5 youth in Mufindi/Mafinga and 22 youth in Rungwe/Busokelo). This means that half of all villages in the PAAs have more than 20.5 and 22 eligible adolescents, respectively. Then we classified villages with youth totals below the PAA 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 PAA. Thirty-three participants participated in the event in Rungwe (representing Rungwe/Busokelo) and 39 participated in Mufindi (representing Mufindi/Mafinga).

Randomization events were conducted as follows in each PAA: First, a presentation was given on the overview of the intervention, study and motivation for randomization. District participants were then given the opportunity to ask questions. Village names were subsequently 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 the names out, and the UNICEF researcher recorded the names in the order selected. Once all villages were selected from the hat, the lists were read out loud from the top (heads) and bottom (tails). Finally, a coin toss was conducted to determine which group (heads or tails) would receive the Cash Plus intervention. The process was then repeated for the second set of villages.

3.4 Questionnaires

Four types of questionnaires were implemented at all survey rounds, including:

1. Household surveys with household head or caregiver
2. Youth surveys (quantitative and qualitative)
3. Health facility surveys
4. 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 collect data on potential moderators of programme impacts, including perceived social support. Wherever possible, survey items were pulled from existing national survey instruments such as the Violence Against Children Survey, Demographic and Health Surveys, and the 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 subsample of 32 youths to explore mechanisms and pathways for impacts on outcomes of interest. Attempts were made to interview the same adolescents at each round for the qualitative interviews, and replacements were made when this was not possible. In the third round of data collection, three replacements were made, two for male participants and one for a female participant. The interviews were conducted in Swahili, digitally recorded, transcribed, and translated into English. The qualitative sample is embedded in the longitudinal quantitative sample. Since the sample is 'embedded', the full range of information from the household survey would also be available for these households, and their responses and challenges as reported in the in-depth interviews can be compared to the quantitative data collected from them to understand the relationship between the two. Due to the sensitive nature of many topics, adolescent interviews were conducted in private locations 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 (matrilinal, 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 cultural norms and the availability of services to ultimately test for possible moderating impacts of these community-level factors.

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

3.5 Data collection training and activities

Round 3 enumerator training was carried out in June 2019, led by EDI Group, with support from researchers at UNICEF Office of Research – Innocenti.

Supervisor training took place on 10 June (1 day) at EDI Group training facilities in Bukoba and was conducted by the EDI coordination team (Team Leader, Project Coordinator and Data Processing Officer together with a study coordinator based at UNICEF Office of Research – Innocenti). The training consisted of an introduction to the project; training of the community questionnaire (which supervisors were to administer); and training of the household and youth questionnaires. Alongside training on the tools, the supervisors received training on their roles and responsibilities in overseeing their teams, administration and finance, as well as quality control activities. The supervisors also received training in research ethics and the response plan for youth respondents. In total, five supervisors were trained.

The main interviewer training took place from 11 to 21 June with 35 trainees invited to take part. The training introduced trainees to the project and included in-depth training on the household and youth questionnaires. It also included training on research ethics led by UNICEF Office of Research – Innocenti researchers. There were two days of outdoor practice for the Household, Youth and Community tools, as well as an opportunity for supervisors to practice reporting to village offices.

The two qualitative interviewers were trained alongside the main interviewer training for part of the time and then in separate sessions – where they received dedicated qualitative interviewer training – for the remainder of the time. This training covered the basics of qualitative interviewing technique, in-depth training on the tool and mock interviews. Qualitative interviewers took part in the same outdoor practice as the quantitative interviewers.

Household, youth (quantitative and qualitative) and community data collection was carried out by EDI between 24 June and 31 August 2019 using portable tablets and the computer-assisted personal interview software Surveybe. A reduced sweeper team, consisting of 20 interviewers and two supervisors (and subsequently 10 interviewers and one supervisor), remained in the field after the first set of interviewers returned on 4 August 2019. These teams who stayed for extended periods did so to interview youth who were not available during the main interview period.

The health facility trainings included an introduction to the project, in-depth training on the health facility questionnaire, administration and finance, and quality control activities. The timeline for these data collections were as follows:

- Round 1: 22 April to 29 May 2017
- Round 2: 20 February to 16 March 2018
- Round 3: 17 July to 7 August 2018
- Round 4: 28 November to 18 December 2018
- Round 5: 17 September to 5 October 2019

Results from Rounds 1–3 have been previously reported in baseline and Round 2 reports.

3.6 Ethical guidelines and study registration

Ethics approval for the study was granted by the National Institute for Medical Research (NIMR/HQ/R.8a/Vol.IX/2784) and the Tanzania Commission for Science and Technology. The study is also registered with the Pan African Clinical Trial Registry as PACTR201804003008116.

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 individuals aged 18 years and above as well as married adolescents of any age. Caregiver/parental consent and youth assent was obtained for all unmarried adolescents 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 in the same community are both interviewed.

All informed consent includes the ethical components regarding: 1) objectives and content of the study (without revealing the true nature of sensitive questions asked of youth to parents/caregivers), 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. Quantitative interviews lasted an average of 58 minutes per youth. Survey enumerators and youth were matched based on sex (e.g. male enumerators interviewed males, and female enumerators interviewed females), and all interviews were conducted in private locations where other household members could not hear what was being discussed. Enumerators used electronic tablets to input data, and questionnaires were administered in Swahili.

Following WHO guidelines,⁵⁷ 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 PAAs were contacted in advance to ensure they were aware of these referrals and to verify the services available. In total, 99.8 per cent of adolescent respondents in the violence subsample accepted the offer of information and were provided referral numbers at Round 3. In addition, enumerators also offered the option of taking down the youth's information directly and sharing with appropriate personnel if they either needed immediate assistance or if they did not feel comfortable keeping the paper with the referral information (anonymized phone numbers). At Round 3, none of the 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 this topic, conducting the interviews in a private setting, and skipping violence-related questions if a private setting could not be ensured.

3.7 Data analysis

In order to quantitatively estimate impacts of the intervention, we utilize baseline and Round 3 data from both treatment and control youth and compare changes over time between the two groups in an analytical approach called analysis of covariance (ANCOVA). This approach is described in more detail below.

We define statistical significance as a *p-value* lower than 0.05 ($p < 0.05$). If a programme impact estimate is statistically significant at $p < 0.05$ level, we conclude that the intervention had an impact

⁵⁷ WHO and Path, *Researching violence against women: a practical guide for researchers and activists*, WHO and PATH, Geneva, 2005. Available at: <http://www.who.int/reproductivehealth/publications/violence/9241546476/en> (accessed December 2020).

on this outcome. If impact estimates are not significant at this level, then we lack sufficient evidence to conclude that the programme caused changes with respect to this outcome. This may be due to a true lack of programme impact or insufficient statistical power to detect changes attributable to the intervention. For example, because our study was powered to detect changes in the full sample (males and females combined), lack of significant impact estimates in subsamples by gender may be due to a lack of statistical power. Therefore, we provide combined estimates in the main report text, and differences by gender in Appendix F. In addition, we present descriptive information and graphs to illustrate age and gender differences in outcomes over time.

In the impact results presented in the subsequent chapters, column 1 reports Intent-to-Treat (ITT) estimated effects, while column 2 reports average treatment on the treated (ATT) effects. These different treatment impacts are described in more detail below.

Impact estimates can be interpreted as follows:

1. For **binary outcomes** (for example, sexual debut), impact estimates represent the percentage point change, on average, in the probability that an outcome occurs, attributable to the intervention. For example, as a result of the intervention at Round 2, treatment adolescents were 4.5 percentage points less likely to say they do not know where to obtain contraception, as compared to adolescents in the control group. We discuss binary findings in two different ways, but with the same meaning. For example, we may say, “Youth in Cash Plus villages were 6 percentage points more likely to have participated in livestock herding for the household compared to youth in villages receiving cash only.” Alternatively, we may say, “the Cash Plus intervention increased the probability that youth participate in livestock herding for the household by 6 percentage points.”
2. For **continuous outcomes** (for example, gender-equitable attitude scales), the impact estimate represents the average change in the outcome attributable to the programme. For example, the Cash Plus intervention increased gender-equitable attitudes by 0.263 points (on a scale ranging from zero to five). Another way to say this is, the treatment group has, on average, gender-equitable attitudes that are 0.263 points higher as compared to the control group, and this difference is a result of the intervention.

Furthermore, in our description of results, we refer in the text below to ‘baseline balance’ among the panel sample and ‘attrition’. Statistically significant differences in outcomes between study arms at baseline indicate that the sample is not ‘balanced’ on that outcome, and thus we will not be able to say with any degree of certainty whether differences observed at follow-up rounds on that same outcome are attributable to the intervention or rather to systematic differences that already existed at baseline between treatment and control groups.

‘Attrition’ refers to the fact that some individuals were not interviewed at follow-up and thus they ‘attrited’. Another way to say this is that they were lost to follow-up. This is expected in any longitudinal study because people may move, die or be unavailable for interviews. Two types of attrition can be of concern for longitudinal studies: differential and overall. Overall attrition represents the total share of individuals lost from baseline to follow-up, regardless of treatment status. This can lead to less accurate and less representative estimates but does not threaten the internal validity of the study (that is, the ability to attribute differences at Round 3 between study arms to impacts of the intervention). In contrast, differential attrition occurs when the characteristics of the individuals who leave the sample are different between treatment and control groups. This threatens the internal validity of the study because it can eliminate the balance between treatment and control groups that was present at baseline.

To further explore our findings and pathways of impact, we conduct complementary, qualitative analysis, also described in more detail below.

3.7.1 Quantitative analysis methodology

We used an ANCOVA specification, where Cash Plus impacts are estimated as a function of the treatment indicator and of a set of control variables, including the baseline value of the considered outcome. ANCOVA is a more efficient estimation method compared to Difference-in-Differences when the correlation between outcome values at baseline and follow-up is low.⁵⁸ Within the set of outcomes measured both at baseline and Round 3, 71 per cent of outcomes have an autocorrelation below or equal to 0.2, which can be used as a threshold to define low autocorrelation.⁵⁹ Autocorrelation of outcomes in the current sample ranges from -0.002 (for the indicator “Would leave relationship if partner did not financially support”) to 0.82 (for highest grade of education completed).

We estimated the following model:

$$Y_{1ij} = \alpha_0 + \alpha_1 T_j + \alpha_2 Y_{0ij} + \alpha_3 X_{ij} + \varepsilon_{ij} \quad (1)$$

Where Y_{ij1} is the Round 3 value of the considered outcome for adolescent i living in community j . T_j is a dummy (binary) variable equal to one if the youth lived in a community where the Cash Plus programme was implemented (and zero if the youth lived in a community receiving cash only). Y_{0ij} is a variable measuring the baseline value of the considered outcome, while X_{ij} is a vector of controls including gender, age at baseline, and PAA x size fixed effects. Finally, ε_{ij} is the error term. The estimated coefficient of interest is $\hat{\alpha}_1$, which measures the impact of the Cash Plus programme on the outcome of interest. In equation (1), the variable T_j is equal to one for all youth living in a treatment village, even if a youth did not actually receive the Cash Plus intervention. Hence, this equation estimates ITT impacts.

We estimated the above model on the panel of youth who were interviewed both at baseline and at Round 3. If the outcome of interest was only collected at Round 3, we used the same equation as above, but without controlling for the baseline value of the outcome (referred to as ‘single difference’ models in the results described throughout the report). In all our regressions, standard errors were clustered at the community level.

ITT regressions are estimated both for the pooled sample of males and females and for two separate subsamples by gender.

We also estimated the impact of actually participating in the Cash Plus programme (average treatment-on-the-treated, ATT). Training was the main component of the Cash Plus programme and only youth who attended the training qualified to receive the mentoring and grant components. Therefore, when estimating ATT impacts, we focus on whether youth attended the Cash Plus training. The decision to attend the training may be related to unobservable youth characteristics, which may also influence the outcome of interest. Hence, a simple specification using youth Cash Plus attendance instead of the village-level treatment indicator in equation (1) would provide biased impact estimates. For this reason, we obtained ATT impacts using an instrumental variable approach, where the endogenous variable Cash Plus attendance is instrumented with the exogenous village-level treatment indicator.

58 Difference-in-Differences (DD) models compare changes in the treatment group between baseline and follow-up to changes in the control group over the same period (the control group allows to single out changes due to confounding factors, such as weather shocks, thus making it possible to isolate the impact of the intervention). DD models fully control for baseline differences in means between the treatment and the control group, which is inefficient when baseline outcomes have little predictive power on outcomes at follow-up (low correlation of outcomes at baseline and follow-up).

59 McKenzie, D., ‘Beyond baseline and follow-up: The case for more T in experiments’, *Journal of Development Economics*, vol. 99, no. 2, 2012, pp. 210-221.

We use the following Two-Stage Least Squares instrumental variable specification:

$$\text{First stage: } \text{Attend Cash Plus}_{ij} = \beta_0 + \beta_1 T_j + \beta_2 Y_{0ij} + \beta_3 X_{ij} + \varepsilon_{ij} \quad (2i)$$

$$\text{Second stage: } Y_{1ij} = \gamma_0 + \gamma_1 \widehat{\text{Attend Cash Plus}}_{ij} + \gamma_2 Y_{0ij} + \gamma_3 X_{ij} + \varepsilon_{ij} \quad (2ii)$$

Where $\text{Attend Cash Plus}_{ij}$ is a binary variable equal to one if the youth attended at least one Cash Plus training session, and zero otherwise. In the first stage, this is estimated as a function of whether the youth lived in a Cash Plus village (T_j). The predicted value from the first stage ($\widehat{\text{Attend Cash Plus}}_{ij}$) is then used in the second stage, where the estimated coefficient γ_1 measures the impact of actually attending the Cash Plus training. While we obtain ATT impacts based on the training attendance component, we note that by Round 3, some of the youth also received the mentorship and grant components. Hence, ATT impacts obtained at Round 3 likely also capture the impact of the additional components, beside training.

We test the robustness of our estimates using Difference-in-Differences (DD) models, to address baseline imbalances and differential attrition. These results are included in a supplementary online appendix. DD results are largely consistent with the ANCOVA results included in this report. The main exceptions are for the few outcomes that were unbalanced at baseline. For these, DD estimates differ in some cases from ANCOVA estimates. We list these outcomes in the Attrition section below, and we comment on DD impacts on these outcomes in the results sections below.

Finally, we assess the contribution of the various programme components to the overall impact.⁶⁰ First, we estimate the ITT model specified as in equation (1) above, obtaining our ITT impact, as reported in the main text tables of this report. For ease of exposition, we call this ‘impact from base model’. Second, we estimate a model similar to (1), now including additional control variables indicating whether the youth participated in the various components of the Cash Plus programme. We include the following additional control variables: an indicator equal to one if the youth met at least once with a mentor, or zero otherwise; an indicator equal to one if the youth received the business grant, or zero otherwise; and an indicator equal to one if the youth received the educational or vocational training grant, or zero otherwise. This provides a different ITT estimated impact, which we call ‘impact from full model’. We then obtain the difference between the impact from the base model and the impact from the full model. This difference represents an approximation of the combined effect of all programme components. In other words, the difference tells how much of the ITT observed impact is explained by the actual programme components. Third, we calculate the separate contribution that each programme component provides to the overall explained effect.⁶¹ In line with the literature using this decomposition, we acknowledge that the estimated contributions of the programme components are most likely biased. This is because any decision to participate in any of the Cash Plus programme components is voluntary. As mentioned above for training attendance, youths’ decisions to participate in mentoring or to submit a business or education plan (and hence receive a productive grant) may be related to unobservable youth characteristics, which may also influence the outcome of interest. The methodology does not address this source of bias. Hence, the results of the decomposition analysis should be interpreted as suggestive evidence of the direction and relevance of the effects of programme components. These results are reported in Appendix G.

60 This analysis is based on the omitted variable bias formula, as described in Gelbach, J.B., ‘When Do Covariates Matter? And Which Ones, and How Much?’, *Journal of Labor Economics*, vol. 34, no. 2, 2016, pp. 509-543. This methodology is also applied by, among others, Bandiera, O., et al., ‘Women’s empowerment in action: Evidence from a randomized control trial in Africa’, *American Economic Journal: Applied Economics*, vol. 12, no. 1, 2020, pp. 210-59; Buckles, K. S., and Hungerman, D.M., ‘Season of Birth and Later Outcomes: Old Questions, New Answers’, *The Review of Economics and Statistics*, vol. 95, no. 3, 2012, pp. 711-724. To perform this decomposition, we used the user-written Stata command ‘b1x2’.

61 All youth who received mentoring or a grant had also completed the Cash Plus training. Therefore, this analysis provides an estimate of the role of training and mentoring combined, as well as the role of training and grant combined. We do not attempt to single out the effect of training alone, because those youth who attended the training without any further programme components only attended very few sessions of the training.

3.7.2 Qualitative analysis methodology

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 the MAXQDA software programme (*MAXQDA 11 – Software for Qualitative Data Analysis 1989–2016*. VERBI, Berlin, Germany). A codebook was created using a priori themes from the interview guides that were developed and this was supplemented with themes that emerged during data analysis.^{62,63} Initial coding structures were developed by the research coordinator and then, along with interview transcripts, shared with the other two other coders for recoding. In this way, the final coding structure was validated, ensuring consistency in the application of codes.⁶⁴

62 Denzin, N.K., and Lincoln, Y., *Qualitative research*, Thousand Oaks, CA, 2000, pp. 413-427

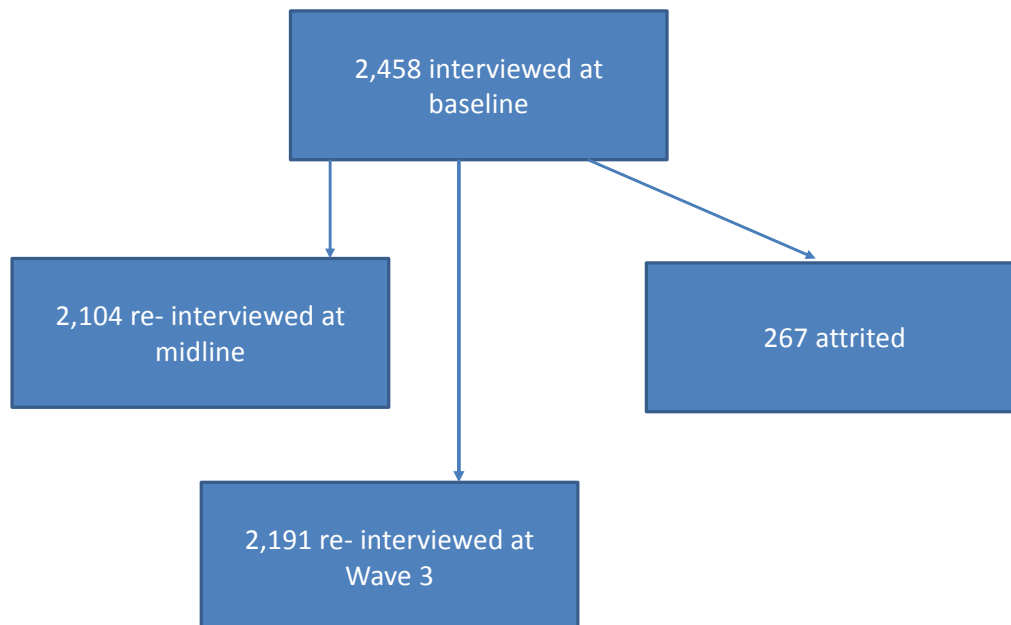
63 Weber, R.P. *Basic content analysis*, no. 49, 1990, Sage.

64 MacQueen, K.M., et al., 'Codebook development for team-based qualitative analysis', *CAM Journal*, vol. 10, no. 2, 1998, pp. 31-36.

4. ATTRITION

Attrition occurs when youth from the baseline sample are missing in the follow-up sample. Figure 4.1 describes the study sample at Round 3. At baseline, 2,458 youth were interviewed.⁶⁵ A total of 2,191 youth interviewed at baseline were re-interviewed at Round 3, representing a re-interview rate of 89 per cent. The impact analysis findings in this report analyse data from those adolescents who were interviewed at both baseline and Round 3, also referred to as the ‘panel sample’. Our attrition rate is in line with other longitudinal studies of adolescents in Eastern and Southern Africa.⁶⁶ The attrition rate does not differ significantly between treatment and control villages, as we explain in more detail below. Moreover, in the panel sample, the vast majority of baseline youth characteristics remain balanced for youth in treatment versus control villages. Therefore, we are confident that our estimated impacts accurately reflect the effects of the Cash Plus training.

Figure 4.1. Youth sample by response status at Round 3



In the remainder of this section, we explain eligibility and tracking criteria at Round 3 and outline the main reasons for attrition. Only youth who had been interviewed at baseline were eligible for interview at Round 3.⁶⁷ If a youth was no longer considered a member of the baseline household,⁶⁸ the

⁶⁵ For information on sample response at baseline, see baseline report.

⁶⁶ See, for instance: Austrian, K., et al., *Adolescent Girls Initiative-Kenya: Midline Results Report*, Population Council, Nairobi, 2018; Bandiera, O., et al., ‘Women’s empowerment in action: Evidence from a randomized control trial in Africa’, *American Economic Journal: Applied Economics*, vol. 12, no. 1, 2020, pp. 210-59.

⁶⁷ Eligibility criteria for interview differ between Rounds 2 and 3. At Round 2, also youth who were not interviewed at baseline were eligible for interview if they had been living in the household since baseline and were in the correct age range. However, youth who were interviewed at Round 2 but not at baseline were then not included in the Round 2 analysis sample. This is because the Round 2 analysis controls for the baseline value of the considered outcome. For Round 3 analysis, we decided to be consistent with Round 2 and control for the baseline outcome value. Therefore, for Round 3 interviews, we only targeted youth who were interviewed at baseline.

⁶⁸ A household member is defined as someone who normally lives and eats their meals together with others in a certain household. A youth is considered as no longer part of the household if he or she has been gone for six months or more. The baseline household is defined as where the head of household was living at baseline.

baseline household would be given a short interview and the youth was then tracked to his or her new household, where the household survey was conducted in full.⁶⁹

Out of the 267 youth who were not re-interviewed at Round 3, 54 per cent were reported as still living in the same household but temporarily away, approximately 34 per cent were living in a different household, and the remainder were either deceased or their households were not trackable (see *Table 4.1*). Among youth with known reasons for attrition, the majority were temporarily away to visit relatives or had left the household for work – either permanently (21.72 per cent) or temporarily (14.61 per cent). A smaller percentage of youth had moved out of the household for school (3.75 per cent) or marriage (5.99 per cent).

Table 4.1. Reason not interviewed

	N	Percentage
Temporarily away: Visiting relatives/friends	52	19.48
Temporarily away: Work	39	14.61
Temporarily away: School	21	7.87
Temporarily away: Other	17	6.37
Temporarily away: Unknown	15	5.62
Moved out of household: Work	58	21.72
Moved out of household: School	10	3.75
Moved out of household: Marriage, co-habitation	16	5.99
Moved out of household: Other	7	2.62
Household not found	21	7.87
Deceased	11	4.12
Total	267	100

Next, we describe in detail the analysis we conducted to test for differential attrition. In our study, the overall attrition from baseline to Round 3 is 11 per cent. As mentioned in the previous section, if youth from control and treatment villages attrit at different rates, the balance in baseline characteristics between study arms could be eliminated. This differential attrition implies that differences in youth outcomes at follow-up between study arms cannot be attributed with certainty to the intervention as they may be due to systematic differences already present at baseline. We tested whether attrition differs between treatment and control villages by running a simple cross-sectional regression with an indicator for youth lost to follow-up as dependent variable and the treatment as independent variable. In these regressions, we controlled for PAA × size fixed effects and clustered the standard errors at the community level. A significant coefficient on the treatment variable in this regression would provide evidence of differential attrition by treatment status. However, *Table E.1* in Appendix E shows that this is not the case in our sample (p-value = 0.460). Thus, internal validity of the impact evaluation is maintained.

We also examine differential attrition by background characteristics of the sample. *Tables E.2–E.8* in Appendix E provide this analysis for baseline household-level characteristics. To do this, we run similar

⁶⁹ Within the panel sample (N=2,191), 209 youth (about 10 per cent) had left the original baseline household and were tracked to a new household at Round 3. Among tracked youth, 67 per cent were female and 80 per cent were found in the same village or in a neighbouring village. The reasons for moving were marriage/co-habitation (55 per cent of tracked youth), setting up a new household (19 per cent), work (4 per cent), school (2 per cent), and other or not reported (20 per cent).

regressions as above, using the treatment dummy to predict each baseline characteristic among the panel sample (and the sample lost to follow-up). If the p-value on the treatment coefficient in Column 6(3) is below 0.05, the panel sample (and the sample lost to follow-up) varied significantly by treatment status along the considered characteristic. Tables E.2–E.8 in Appendix E provide this analysis for baseline household-level characteristics. We focus on describing any imbalances within the panel sample, i.e. the sample used to obtain the impact estimates. Out of 83 indicators of household characteristics at baseline, 10 indicators (12 percent) vary significantly in treatment versus control villages within the panel sample. However, these characteristics were unbalanced for the full baseline sample to start with (see baseline report). These are mostly household wealth indicators. For example, Table E.5 in Appendix E shows that within the panel sample, households in treatment villages have a significantly lower wealth index compared to households in control villages. So, any programme impact of Cash Plus may be underestimated and can thus be considered a lower bound. Table E.9 in Appendix E provides the same analysis for baseline youth-level variables, none of which showed evidence of differential attrition in the panel sample. Finally, Tables E.10–E.18 in Appendix E report on attrition of outcome variables. Of the 129 outcomes measured at both baseline and round 3, seven outcomes (5 per cent) vary significantly in treatment versus control villages within the panel sample. Of these, three indicators were unbalanced in the full baseline sample to start with (ever had a spouse or cohabiting partner; single/never married). The remaining three indicators were balanced in the full baseline sample, but are unbalanced in the Round 3 panel sample, thus showing evidence of differential attrition (own a mobile phone; partner five or more years older, last sex; provided money, favours or gifts for sex, last 12 months). For the indicators that vary significantly in treatment versus control villages within the panel sample, we also comment on results from DD models.

5. IMPLEMENTATION

In this chapter we describe findings related to implementation of the second-phase activities (mentoring, productive grant and linkages to services), providing more insights into how these activities worked in practice and how many adolescents benefitted from them.

Table 5.1 shows that among those adolescents from the study sample who participated in any amount of the livelihoods and SRH-HIV life skills training (n=512), approximately 50 per cent continued to meet with a mentor afterwards. The percentage of youth who submitted a plan is higher, at about 60 per cent (33 per cent of total youth living in treatment villages). Most of these (74.4 per cent) chose a business plan over a schooling or vocational one. Among those who submitted a business plan, the majority (82 per cent) received the first tranche of the grant, and 59 per cent also reported receiving the second tranche. Most adolescents submitting an education-related plan chose a schooling plan (20 per cent of the total plans submitted, or 79 per cent of those submitting an education-related plan), while only 5.4 per cent submitted a vocational training plan. Moreover, 84 per cent of those submitting a schooling plan and 63 per cent of those submitting a vocational training plan had already received the grant at the time of data collection. Funds for business plans were disbursed over two tranches, while education funds were supposed to be disbursed in full in the first tranche. Half of the Round 3 data collection occurred in between the tranche disbursements, and this could explain why some adolescents reported receiving only one tranche.

Figure 5.1 shows the frequency of interactions with mentors among those who reported meeting at least once with mentors (n=268). Most participants (around 50 per cent) met with mentors once a week, which is more often than the bimonthly and then monthly meeting schedule set out in the programme guidelines. Slightly more than 20 per cent of adolescents met with their mentors twice a week, and around the same percentage met with their mentors once or twice per month. Meanwhile, fewer than 10 per cent met with their mentor less than once a month.

Table 5.1. Descriptive information about the *mentorship* phase among treatment group

	Yes		No		total
	%	n	%	n	
Total treatment eligible	48.5	1,063	51.5	1,128	2,191
Attended training	48	512	52	551	1063
Met mentor after training	25.7	268	74.3	776	1044
Submitted a plan	33.0	350	67.0	713	1063
■ <i>Business plan</i>	74.4	261			
Received grant (first tranche)	82.0	214			
Received grant (second tranche)	59.0	154			
■ <i>Education plan (schooling)</i>	20.0	70			
Received grant	84.3	59			
■ <i>Education plan (vocational)</i>	5.4	19			
Received grant	63.2	12			

Figure 5.1. Frequency of interaction with mentors

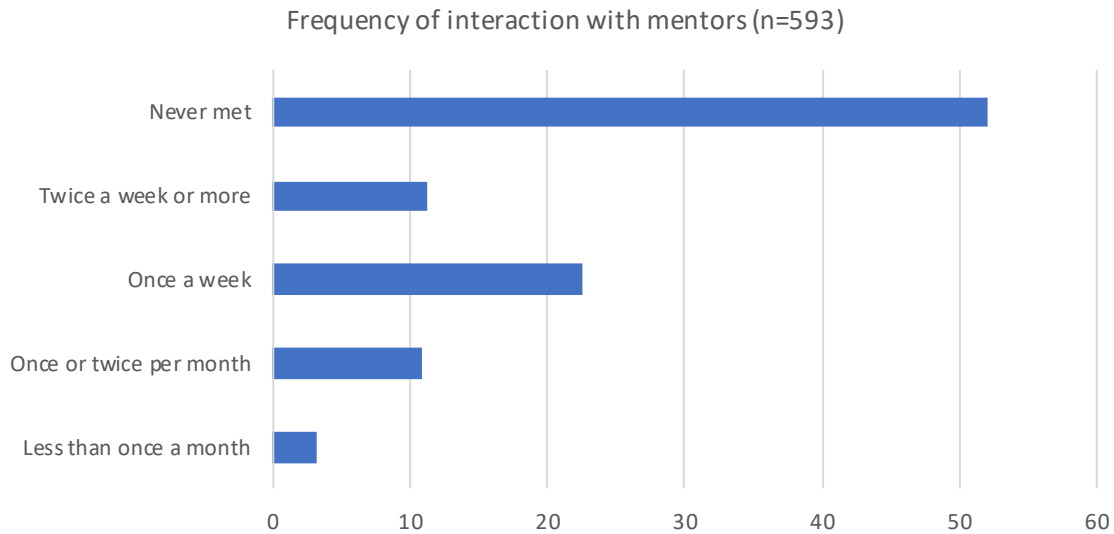


Figure 5.2 shows the topics most discussed with mentors. Respondents could choose multiple responses. More than 80 per cent discussed topics related to business plan issues as well as apprenticeships. The percentage of youth discussing health issues was also very high at 77 per cent. Finally, only 10 and 16 per cent discussed vocational training and school plan issues, respectively. In terms of services referred to by mentors and peer educators (see Figure 5.3), a large majority of adolescents (78 per cent) were referred to health services, in line with one of the main aims of the programme, which is to increase health service utilization. Additionally, more than 70 per cent of adolescents were referred to livestock keeping and agricultural activities; 50 per cent were referred to savings and lending services; and 27 per cent were encouraged to go back to school. Moreover, 22 per cent were referred to police or social welfare; 20 per cent to vocational training; 17 per cent to apprenticeships; and 13 per cent to extension services.

Figure 5.4 shows how adolescents used the productive grant, and the average amount spent on each expenditure category. Seventy-two per cent of the youth spent the grant on a business plan, and they spent on average 95,066 TZS. Twenty-five per cent of productive grant recipients spent the grant on a schooling plan, spending a higher amount on average (135,985 TZS). Fewer than 10 per cent of adolescents spent the grant on the vocational training plan, day-to-day expenses for themselves, or day-to-day expenses for other household members.

Figure 5.2. Topics discussed with mentors (n=268)

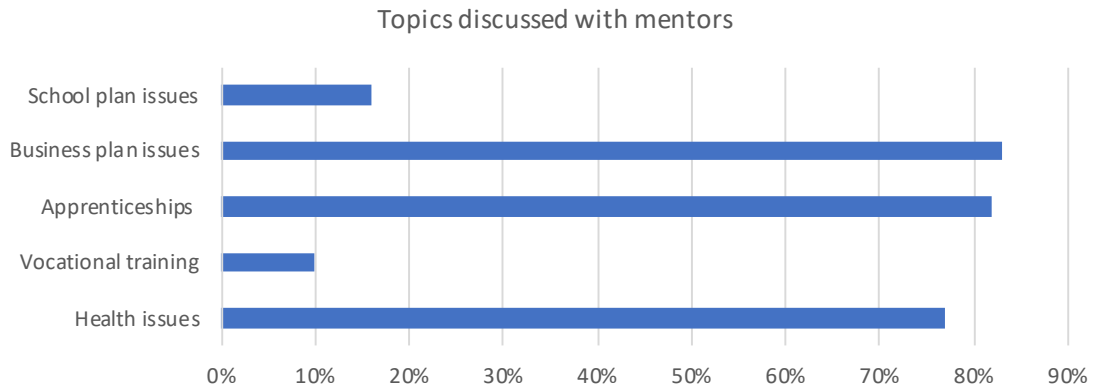


Figure 5.3. Services referred to by mentors and peer educators

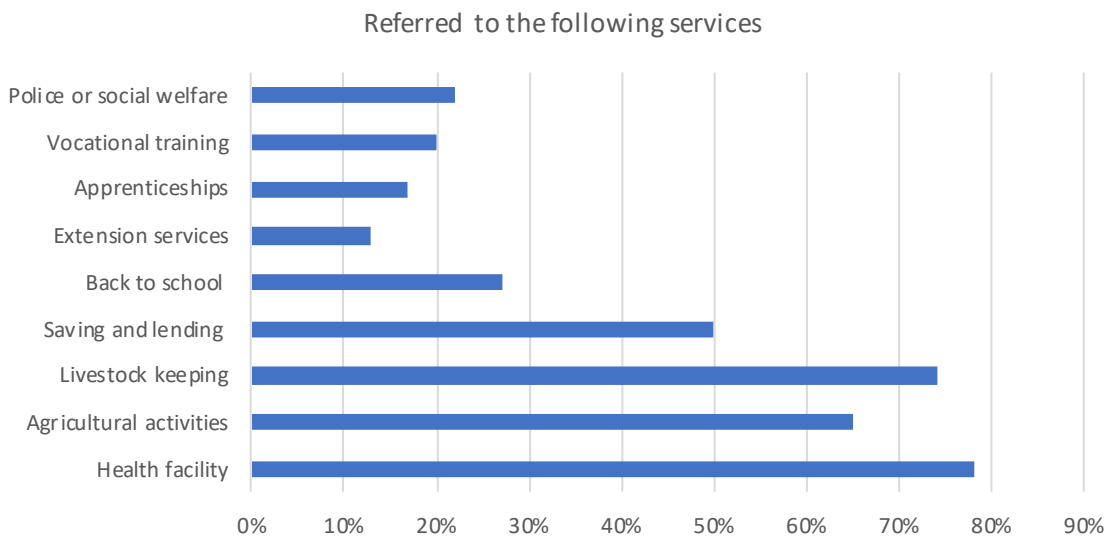
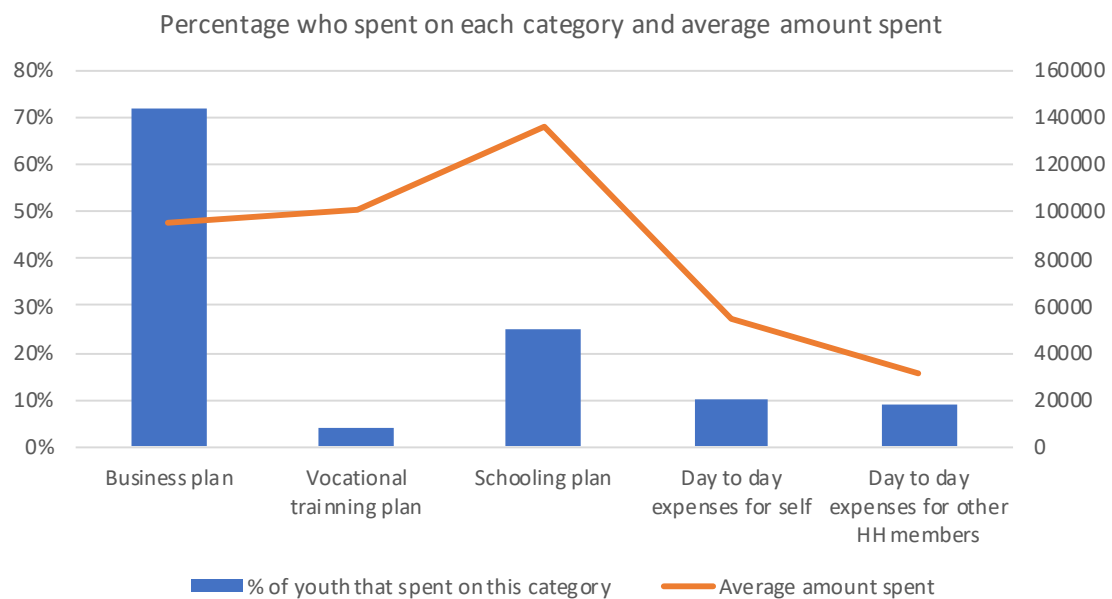


Figure 5.4. Spending of the grant and average amount spent in each category



6. HEALTH FACILITY CHARACTERISTICS AND ADOLESCENT-FRIENDLY SERVICES

Main findings

Facility characteristics and adolescent-friendly services

Approximately half of the facilities have current staff trained in youth-friendly HIV/SRH services. Twenty per cent of the facilities that had staff trained in HIV or family planning, received this training between rounds 4 and 5 of the health facility interviews. There was a notable increase in the percentage of facilities having staff trained in GBV services, increasing from 34 per cent in round 3 to 43 per cent in round 5. By round 5, 59 per cent of facilities had implemented changes in adolescent-friendly services at any point in time.

In terms of community outreach, the percentage of health facilities with staff participating in community meetings increased over time from 37 per cent in round 3 to 51 per cent in round 5. We also observe improvements in other adolescent-friendly characteristics including having a referral system in place for adolescents and having regular supervisory visits related to adolescent-friendly services from the Ministry of Health or similar trainers.

Almost all facilities provided contraceptives for all youth (both married and unmarried) at round 3 (92 per cent), but this percentage increased to 100 per cent by round 5. All facilities offered HIV testing services in rounds 3, 4 and 5.

Services and supplies

The percentage of health facilities offering GBV services increased from 35 per cent in round 3 to 52 per cent in round 5.

The services that experienced an increase in the number of hours opened for adolescents include outpatient consultations, antenatal clinics, HIV treatment, GBV services, post-natal care, and PMTCT.

In terms of drugs and supplies, the availability of male condoms, contraceptive pills, intrauterine device, contraceptive injectables, contraceptive implants and emergency contraceptive pills all increased by round five compared to baseline. However, 29 per cent of facilities experienced a stock out of emergency contraceptive pills in the past three months, about 15 per cent experienced stock-outs in female condoms, contraceptive pills, and contraceptive implants, and 10 per cent experienced stock-outs in male condoms.

Each health facility saw 3.3 male and 10.7 female adolescents, on average, for HIV testing during the month prior to the survey. Overall, many more females accessed primary health facilities than males, with almost all family planning/contraceptive visits by women. On the other hand, males were more likely to go to clinics for condoms.

This chapter describes health facilities' characteristics using data collected from 100 health centres/dispensaries across five rounds. To provide a descriptive analysis of changes in access to health surveys, we conducted frequent surveys (five in total over 29 months) of health facilities in study areas. Enumerators implemented health facility questionnaires to all government-run primary health facilities in the study region. Information was collected on facility characteristics, equipment, adolescent-friendly services, drugs and medical supplies, and personnel.

By collecting data on health facilities, we capture characteristics that can act as important moderators of programme impacts. For example, the programme may have stronger impacts on SRH utilization by adolescents in those locations where facilities have more services or personnel or are more adolescent friendly. Data were collected from government, primary health facilities in 69 villages within the study areas. The health-facility level data analysis in this report is descriptive, and, given the study design, we cannot attribute changes reported here to intervention components such as the health facility strengthening conducted in July 2018. However, based on health utilization reported directly by adolescents and reported in Section 12 of this report it is possible to make conclusions about causal impacts.

6.1 Data collection

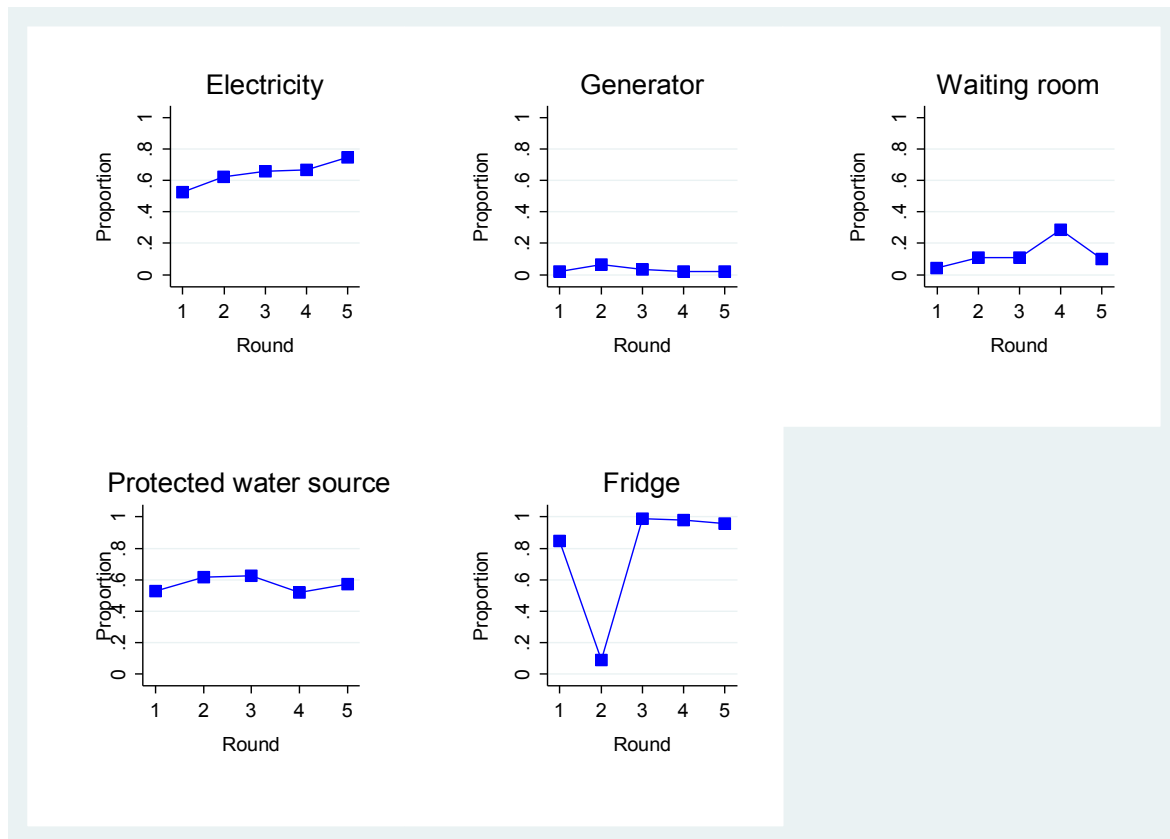
The first round of the health facility survey was conducted together with the baseline data collection for the other survey instruments (household, youth, community and qualitative) between 22 April and 29 May 2018, wherein 102 health facilities were administered a survey. Ninety-one of the 102 health facilities surveyed were deemed to serve villages in the study sample and were included in the baseline report. These same 91 facilities were re-interviewed for round 2 (20 February to 16 March 2018) and round 3 (17 July to 7 August 2018). Prior to round 3 data collection, an additional nine health facilities were identified by UNICEF Tanzania as potentially servicing Cash Plus communities that were not included in previous rounds, thus rounds 3–5 include 100 health facilities. Data collection for rounds 4 and 5 took place from 28 November to 18 December 2018 and from 17 September to 5 October 2019, respectively. Round 4 occurred just after the health facility trainings (July 2018) related to strengthening adolescent-friendly services that were conducted by the Ministry of Health, Community Development, Gender, Elderly and Children, with technical assistance from UNICEF. Thus, we may expect to see improvements related to these outcomes at rounds 4 and 5.

The additional nine health facilities added in rounds 3–5 are excluded from the following analysis where trends are examined (facility characteristics, surgical services, drugs and supplies, and personnel), but are included in indicators where the survey instrument changed, resulting in lack of comparability between rounds (adolescent-friendly environment/staff, services available to adolescents, utilization of services by youth). In the latter case we present findings from rounds 3 to 5 for these outcomes.

6.2 Facility characteristics

The basic characteristics of the health facilities for each round are presented in Figure 6.1. The percentage of facilities reporting having electricity grew over time, from approximately half at round 1 (53 per cent) to 75 per cent at round 5. The percentage of facilities reporting having a protected water source grew in rounds 2 and 3 (from 53 per cent at baseline to 63 per cent at round 3), but this declined slightly in rounds 4 and 5 (57 per cent at round 5). Increases occurred in the percentage of facilities reporting having a refrigerator (85 to 96 per cent) and having a waiting room (4 to 10 per cent), although in the latter there was a sharp increase in round 4 followed by a decline in round 5. An anomaly in how the question on refrigerators was asked at round 2 explains the big decline seen at this round as compared to the other rounds.

Figure 6.1. Basic health facilities' characteristics for each round



In these surveys, we asked about adolescent-friendly services (see Table 6.1). Due to changes in the survey and the way in which questions were asked, we only show results from rounds 3, 4 and 5. About half of the facilities had current staff trained in youth-friendly HIV/SRH services and this percentage holds across the three rounds. This likely reflects that intervention-related trainings in July 2018 reiterated and strengthened knowledge and attitudes related to adolescent-friendly services, but that staff had previous exposure to the concept of adolescent-friendly services. We measured exposure to training but not attitudes or knowledge among staff, which may have increased as a result of the training. Twenty per cent of the facilities that had staff trained in HIV or family planning, received this training between the round 4 and round 5 interviews. There was a notable increase in the percentage of facilities having staff trained in GBV services, increasing from 34 per cent in round 3 to 43 per cent in round 5 (and for 28 per cent of these facilities, the training took place following the round 4 data collection).

Staff at health facilities were also asked whether they had implemented changes to make services more youth friendly since the last survey round. Examples of youth-friendly changes include a separate waiting area for youth, expanded hours, and attitudes training for health care workers with respect to adolescents' access to SRH/HIV services. In round 3, 37 per cent of health facilities reported implementing changes, and this percentage decreased in round 4 (24 per cent) and consecutively in round 5 (20 per cent). This may be a result of health facilities implementing the changes at different points in time. By round 5, 59 per cent of facilities had implemented changes at any point in time. Almost none of the facilities implemented changes regarding the addition of an adolescent-specific

waiting room or area. However, a relatively high percentage reported extending opening hours for adolescents (34 per cent at round 3; 23 at round 4; and 18 at round 5).

We also asked whether health facilities had documents available with policies, guidelines and management procedures with regard to adolescents, or support materials to communicate with parents and other community members about the value of providing health services to adolescents (*see Table 6.1*). There was a decrease in the percentage of facilities having documents with policies and guidelines available (from 57 per cent in round 3 to 43 per cent at round 5), but an increase in support materials (from 39 per cent to 48 per cent by round 5).

To study improvements in communication and awareness, we asked whether staff participated in school meetings to inform parents/guardians and teachers or in meetings with the community to discuss health services available to adolescents and the importance of utilizing these services. None of the health facilities reported having had school meetings; however, the percentage of health facilities with staff participating in community meetings increased over time (37 per cent in round 3, 44 per cent in round 4, and 51 per cent in round 5). We also observe improvements in other adolescent-friendly characteristics including facilities having referral systems in place for adolescents (12 per cent at round 3 to 17 per cent at round 5); regular supervisory visits related to adolescent-friendly services from the Ministry of Health or similar trainers (13 per cent at round 3 to 31 per cent at round 5); and suggestion boxes for adolescents (2 per cent at round 3 to 5 per cent at round 5).

In addition, we asked three questions on inclusion policies to see whether facilities take into account ability to pay when treating adolescents, and whether all adolescents (including single as opposed to just married adolescents) are provided access to contraceptive services and HIV services. Consideration of the ability to pay increased in round 4 to 71 per cent (from 54 per cent in round 3), but declined to 57 per cent in round 5. Almost all facilities provided contraceptives for all youth (both married and unmarried) at round 3 (92 per cent), but this percentage increased to 100 per cent by round 5. All facilities offered HIV testing services in all three rounds.

Table 6.1. Adolescent-friendly characteristics (Rounds 3–5; N=100)

	Round 3	Round 4	Round 5
Adolescent-friendly trained staff			
HIV services	0.52	0.51	0.55
Family planning	0.55	0.51	0.55
GBV services	0.34	0.27	0.43
Adolescent-friendly changes since last round*			
Any	0.37	0.24	0.20
Youth waiting	0.05	0.05	0.07
Hours for youth	0.34	0.23	0.18
Adolescent-friendly documents			
Policies/guidelines/procedures	0.57	0.55	0.43
Materials for community	0.39	0.53	0.48
Communications*			
School meetings	0.00	0.00	0.00
Community meetings	0.37	0.44	0.51
Referral system	0.12	0.13	0.17
Supervisory visits	0.13	0.46	0.31
Suggestion box	0.02	0.03	0.05
Inclusion policies			
Ability to pay	0.54	0.71	0.57
Contraceptives for all youth	0.92	0.99	1.00
HIV testing services for all youth ^a	1.00	1.00	1.00
HIV treatment services for all youth	-	0.40	0.83

*last 12 months for new facilities. Round 3 asked about testing and treatment together in one question, but these were separated at rounds 4 and 5.

6.3 Services and supplies

Table 6.2 shows the types of services offered to adolescents as well as the average number of hours per week each service was available for adolescents. All/nearly all of health facilities offered outpatient consultations, deliveries, well baby clinics, antenatal clinics, family planning, HIV testing/counselling and other STI testing/counselling, post-natal care, and prevention of mother-to-child transmission (PMTCT) of HIV using antiretroviral treatment. Approximately three quarters of facilities had outreach services at round 3, and this percentage increased to 87 per cent at round 5. The percentage of health facilities offering GBV services to adolescents also increased, from 35 per cent in round 3 to 52 per cent in round 5. Nearly none had a mobile clinic. The availability of these services ranges from about an hour a week for outreach services, to almost all day for deliveries. The services that experienced an increase in the number of hours opened for adolescents include outpatient consultations, antenatal clinics, HIV treatment, GBV services, post-natal care and PMTCT.

Table 6.2. Service availability (Rounds 3–5; N=100)

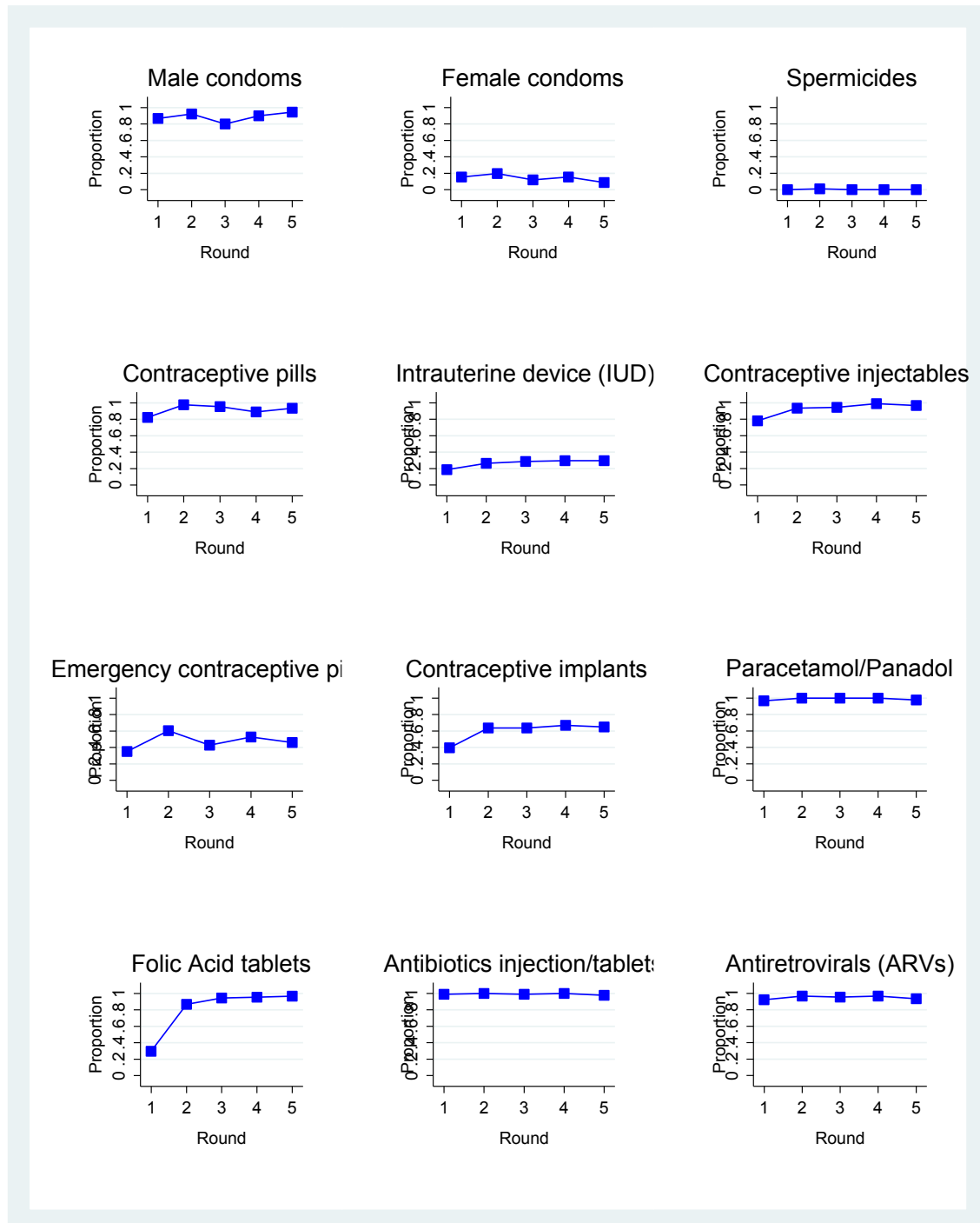
	Round 3		Round 4		Round 5	
	<i>Has service for adolescents</i>	<i>Hours/days</i>	<i>Has service for adolescents</i>	<i>Hours/days</i>	<i>Has service for adolescents</i>	<i>Hours/days</i>
Outpatient consultations	1.00	8.18	1.00	7.17	1.00	13.51
Deliveries	1.00	23.63	1.00	23.63	1.00	20.65
Well baby clinics	0.99	5.50	1.00	5.58	1.00	5.39
Antenatal clinics	1.00	5.88	1.00	5.93	0.99	6.91
Family planning	0.99	6.61	0.99	6.43	1.00	6.80
Mobile clinics	0.03	0.15	0.04	0.09	0.03	0.11
HIV testing/ counselling	0.99	7.48	1.00	6.65	1.00	7.58
Other STI testing/ counselling	1.00	7.17	1.00	6.63	1.00	7.57
HIV treatment	0.37	2.82	0.42	2.24	0.56	3.12
GBV services	0.35	6.85	0.41	6.93	0.52	8.91
Outreach	0.78	1.34	0.86	1.29	0.87	1.61
Post-natal care	1.00	7.38	1.00	7.25	1.00	10.22
PMTCT	0.97	6.33	0.97	6.13	0.99	5.26

Information was also collected on the availability of drugs and supplies. Supervisors collected information on whether the facility normally carries the item, whether the item was in stock at the time of the survey, and whether there were any stock-outs of the item in the past three months. In terms of commonly available modern contraceptives, Figure 6.2 shows that the availability of male condoms, contraceptive pills, intrauterine devices, contraceptive injectables, contraceptive implants and emergency contraceptive pills all increased by round 5 compared to baseline. The only form of contraception which decreased in availability over time was female condoms, which are often less used than the other methods.

Common drugs, such as paracetamol, antibiotics and antiretrovirals (ARVs) to treat HIV were available in nearly all health facilities in all five rounds. The stock of folic acid⁷⁰ tablets increased in round 3 and remained high through rounds 4 and 5. In terms of stock-outs, a relatively high percentage of facilities experienced stock-outs of emergency contraceptive pills (20 per cent), contraceptive implants (16 per cent), contraceptive pills (15 per cent), and contraceptive condoms (15 per cent) in round 3 (*see Table 6.3*).

⁷⁰ Pregnant women are recommended to take folic acid tablets to improve their micronutrient status during pregnancy and to prevent anaemia and spinal cord deformities of the foetus.

Figure 6.2. Stock of drugs and medicines at time of interview, by round



Finally, for items generally stocked, we asked personnel at facilities whether they had experienced a stock-out of these items at any point in the past three months. The percentage of facilities reporting stock-outs ranged from 0 per cent for spermicides to 29 per cent for emergency contraceptive pills (see Table 6.3).

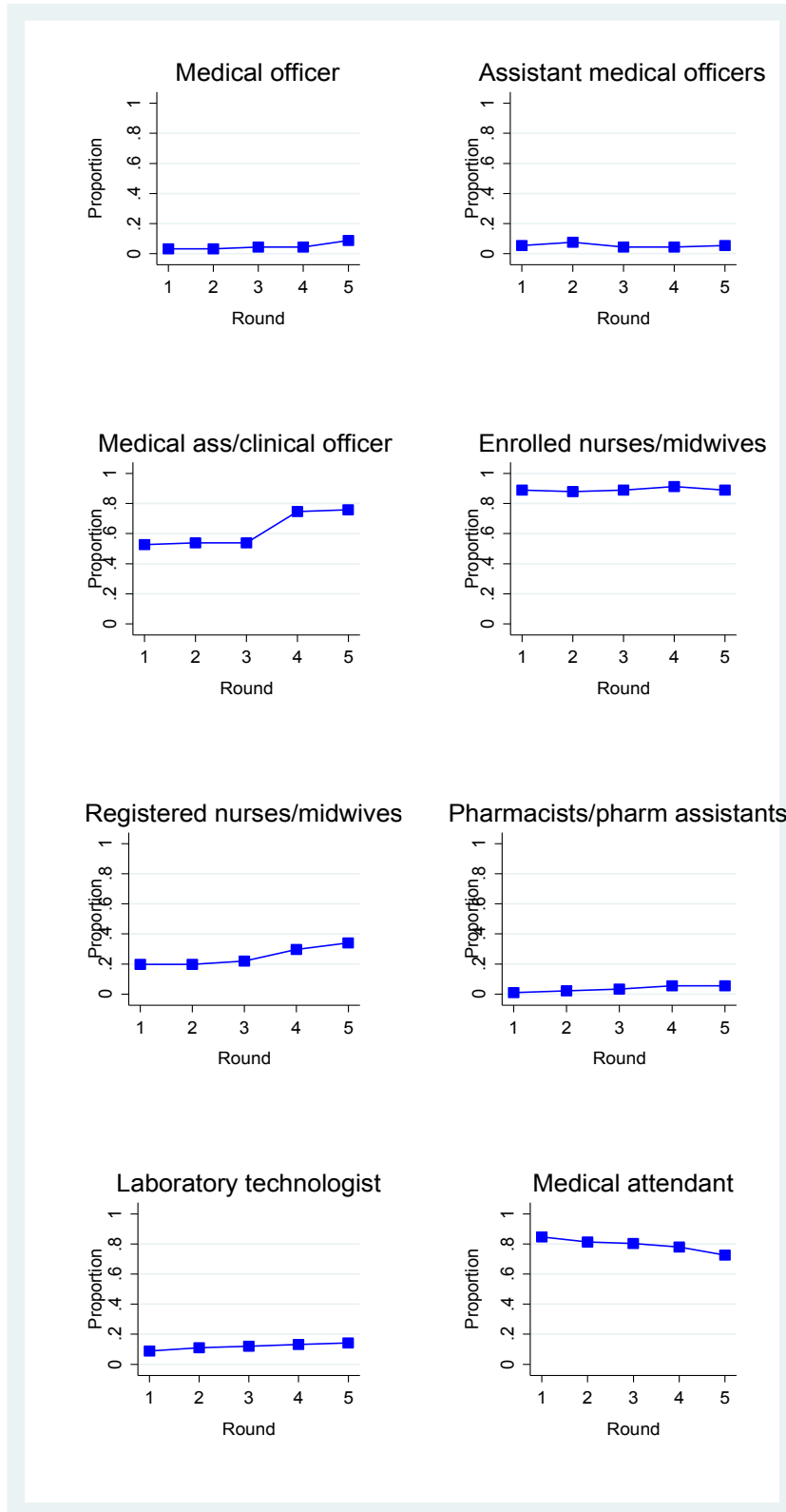
Table 6.3. Stock-out of drugs and medicines, round 5 (n=100)

Item	% facilities experiencing stock-out past three months
Male condoms	10
Female condoms	15
Spermicides	0
Emergency contraceptive pills	29
Contraceptive pills	15
Intrauterine device (IUD)	8
Contraceptive injectables	5
Contraceptive implants	16
Paracetamol/Panadol	3
Folic Acid tablets	6
Antibiotics injection/tablets	2
ARVs	6
STI drugs	4

6.4 Personnel

Figure 6.3 presents summary statistics on the type of personnel employed by health facilities. Information was also collected on staff gender and part-time or full-time employment status. As nearly all staff were employed on a full-time basis, we do not report this information below. More than 80 per cent of facilities employed nurses/midwives throughout the five survey rounds. The same holds for medical attendants, although the percentage decreased from about 80 per cent at baseline, to around 70 per cent at round 5. However, the percentage of medical assistants or clinical officers increased in rounds 4 and 5, up to 76 per cent. We also observe an increase in medical officers (9 per cent in round 5), laboratory technologists (14 per cent), medical officers (9 per cent), and registered nurses/midwives (34 per cent).

Figure 6.3. Availability of personnel



Finally, each facility reported on the number of visits by youth aged 14–19 years by specific service sought during the 30 days prior to the survey. The survey captured the primary reason for the visit, but youth could be counted more than once if they accessed multiple services. As shown in Table 6.4, each health facility received 3.3 males and 10.7 females, on average, for HIV testing during the month prior to the survey. Overall, many more females accessed primary health facilities than males, with almost all family planning/contraceptive visits by women. Interestingly, the number of women visiting facilities for family planning/contraceptive reasons increased significantly in rounds 4 and 5.

More than twice as many females as males visited clinics for STI testing and HIV treatment, although males were more likely to go to clinics for condoms (this number is, however, very small with health facilities receiving less than one adolescent on average for this reason). Overall, most youth visited health centres to access HIV testing, general illness information, family planning and contraceptives, and prenatal care. The least utilized services were sexually transmitted infection (STI) treatment, GBV services, voluntary medical male circumcision (VMMC), PMTCT, and anaemia treatment.

Table 6.4. Average number of total adolescent (ages 14–19 years) visits past 30 days, by gender (Rounds 3–5; N=100)

Round	Males (N)			Female (N)			All (N)		
	3	4	5	3	4	5	3	4	5
Family planning/ contraceptives	0.21	0.26	0.15	3.89	8.23	6.28	4.10	8.41	6.37
HIV testing	3.34	2.51	1.92	10.65	5.71	4.55	13.85	8.22	6.47
STI testing	0.18	0.27	0.33	1.38	1.14	1.77	1.56	1.41	2.10
HIV treatment	1.26	2.34	1.16	2.07	3.50	1.97	1.93	1.87	2.29
STI treatment	0.00	0.03	0.12	0.07	0.05	0.22	0.07	0.08	0.34
Prenatal care	0.00	0.00	0.00	2.48	2.19	2.15	2.48	2.17	2.15
Postnatal care	0.00	0.00	0.00	1.53	1.15	1.30	1.53	1.15	1.30
Anaemia	0.01	0.04	0.08	0.92	1.56	1.65	0.67	0.40	1.07
Condoms	0.98	0.78	0.22	0.02	0.33	0.07	0.53	0.51	0.29
VMMC	0.37	0.50	0.45	0.00	0.00	0.00	0.19	0.06	0.09
GBV services	0.07	0.00	0.02	0.20	0.00	0.23	0.16	0.00	0.14
General illness/info	5.01	4.02	4.40	7.75	6.58	7.89	12.76	10.60	12.29
PMTCT	0.00	0.00	0.00	0.74	0.61	0.80	0.71	0.59	0.80
All services	10.20	8.27	8.14	29.63	26.61	26.76	39.83	34.88	34.90

Note: Not all facilities had data for each service resulting in missing values for some services.

7. SCHOOLING, ECONOMIC PARTICIPATION AND TIME USE

In this section we describe programme impacts on adolescents' schooling, participation and amount of time spent in economic activities and household chores.

Main findings

There were no programme impacts on highest grade of education completed, nor on primary school attendance.

There was an observed decrease in secondary school attendance, driven by dropout from secondary school in the subsample of females.

Some of the youth who were not in school at Round 3 had submitted an educational plan (schooling or vocational training plan). These youth may not have been enrolled yet at the time of the Round 3 survey but may have subsequently enrolled in school or training. As such, their school entry might not have been captured by the Round 3 data collection. Future data collection will allow further assessment of these impacts and the decision-making process.

Youth in Cash Plus villages were significantly more likely to have started a business during the year before the survey, and this is consistent with the business focus of the livelihoods training.

Overall youth participation (and hours) in economic activities during the week before the interview remained unchanged, but the intervention increased youth participation (and hours) in livestock keeping for the household during the same reference period. While this may appear to contradict the above-referenced impact on youth probability of starting a business, there is no real contradiction given that we refer here to businesses that belong to the youth or any other household member, whereas in the above we refer to businesses owned by the youth.

The intervention did not affect youth exposure to work-related hazards, nor did it affect reports of injury or illness. This is a reassuring finding, that increased business ownership and livestock keeping did not lead to an increase in work-related hazards.

Youth engagement in household chores was not affected by the intervention.

7.1 Schooling

Sample youth were, on average, 16 years old at baseline. Approximately 55 per cent of them were attending school, mostly secondary school. At Round 2, we found that the Cash Plus training did not affect youth school attendance for the whole sample and improved school attendance for older females. In fact, the Cash Plus training sessions were held outside school hours, ensuring that youth did not drop out to join the sessions. Other components of the Cash Plus programme may affect youth school attendance. As explained in Section 5, mentorship activities were different for younger and older youth. Moreover, in villages with a higher number of participants, youth were divided into two groups of in-school and out-of-school youth. For older and out-of-school youth, mentorship focused on linkages to local job opportunities and development and execution of the business plan. For younger and in-school youth, mentorship focused on communication skills and aspirations, aimed at supporting youth to continue their education or pursue vocational training. The programme also included a productive grant to start a business (for out-of-school youth) or to cover the costs to continue schooling or

pursue vocational training (for in-school youth). Hence, both the mentoring and the productive grant components aimed at supporting youth school attendance for younger and in-school youth. However, as shown in Section 5, the number of youths who submitted an educational or vocational training plan is rather small, compared to the number of youths who submitted a business plan. At Round three, we again tested whether the Cash Plus programme had any influence on schooling.⁷¹

Table 7.1 shows estimated impacts of the Cash Plus programme on schooling outcomes.⁷² We can see that, as this sample has aged, there has been a natural, expected trend in school transitions and dropout in both the treatment and control groups. From baseline to Round 3, school attendance decreased from about 55.2 per cent to 34.9 and 31.1 per cent in the control and treatment groups, respectively. To better understand schooling impacts, we examined primary and secondary schooling separately. While 22.8 per cent of the sample was attending primary school at baseline, only 2.7 and 3.7 per cent of the control and treatment groups, respectively, were still attending primary school at Round 3. There were no programme impacts on primary school attendance. Secondary school attendance also decreased in both groups, but slightly more so in the treatment group. While 32.5 per cent of the sample was attending secondary school at baseline, only 32.2 per cent of the control group and 27.5 per cent of the treatment group were still attending at Round 3, representing a programme impact of 4.2 percentage points. That is, youth in treatment villages are about 4 percentage points less likely to attend secondary school at the time of Round 3 interview compared to youth in control villages (a statistically significant 13 per cent decrease over the control group average of 32.2 per cent at Round 3).

Overall, as the sample has aged, we expect increases in dropout. In fact, there were no programme impacts on primary school dropout. Turning to secondary school dropout, we see that 12 per cent of the control group dropped out, whereas 17.7 per cent of the treatment group dropped out. That is to say, even without the intervention, it is likely that 12 per cent of the treatment group would have dropped out of secondary school over the course of this study. Impact estimates indicate that, among youth in secondary school at baseline, youth in treatment villages were 5.9 percentage points more likely to drop out compared to youth in control villages (a statistically significant 50 per cent increase over the 12 per cent secondary school dropout rate in control villages). Considering the sample of youth out of school at baseline, we did not find any statistically significant impact on the probability that youth (re-)entered school by the time of Round 3. Finally, these effects on dropout did not translate into reductions in educational attainment, defined by highest grade of education completed by Round 3.

71 A similar analysis is performed, among others, by Bandiera, O., et al., 'The Economic Lives of Young Women in the Time of Ebola. Lessons from an Empowerment Program', Policy Research Working Paper 8760, The World Bank, Washington D.C., 2019; Bandiera, O., et al., 'Women's empowerment in action: Evidence from a randomized control trial in Africa', *American Economic Journal: Applied Economics*, vol. 12, no. 1, 2020, pp. 210-59; Buehren, N., et al., 'Evaluation of an Adolescent Development Program for Girls in Tanzania', Policy Research Working Paper 7961, The World Bank, Washington D.C., 2017. These studies assess the impact of the Empowerment and Livelihood for Adolescents (ELA) programme in Sierra Leone, Uganda and Tanzania, respectively.

72 We consider seven education outcomes: whether the youth currently attends school; whether the youth currently attends primary school; whether the youth currently attends secondary school; whether the youth dropped out of primary school, equal to one if the youth dropped out before completing primary, or zero otherwise (only for youth attending primary school at baseline); whether the youth dropped out of secondary school, equal to one if the youth dropped out before completing Form IV (lower secondary), or zero otherwise (only for youth attending secondary school at baseline); whether the youth entered school between baseline and Round 3 (only for youth out of school at baseline); highest grade of education completed.

Table 7.1: Cash Plus impacts on schooling

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Currently attending school	-0.036* (0.02)	-0.095* (0.05)	0.552	0.349	0.311
Currently attending primary school	0.007 (0.01)	0.017 (0.02)	0.228	0.027	0.037
Currently attending secondary school	-0.042* (0.02)	-0.112* (0.05)	0.325	0.322	0.275
Dropped out of primary school	0.011 (0.02)	0.028 (0.06)		0.032	0.044
Dropped out of secondary school	0.059* (0.03)	0.150* (0.07)		0.120	0.177
Entered school	-0.019 (0.01)	-0.052 (0.03)		0.038	0.019
Highest grade of education completed	-0.048 (0.08)	-0.125 (0.21)	6.820	8.033	7.646
<i>N</i>	2,191	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions for school attendance and highest grade completed control for gender, age and outcome value at baseline, PAA × size fixed effects. Dropout of primary is measured at Round 3, for youth who were attending primary school at baseline (N=499). Dropout of secondary is measured at Round 3, for youth who were attending secondary school at baseline (N=711). School entrance is measured at Round 3, for youth who were out of school (either left school or never attended) at baseline (N=981). Regressions for dropout and school entrance (including re-entry or first time) only control for gender, age at baseline and PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Next, we assess schooling impacts by gender. Figure 7.1 shows Locally Weighted Scatterplot graphs of school attendance by treatment status and age at baseline. For both females and males, school attendance is lower in treatment than in control villages, with a larger difference in the female subsample.

Figure 7.1. Youth school attendance, by treatment status and gender.

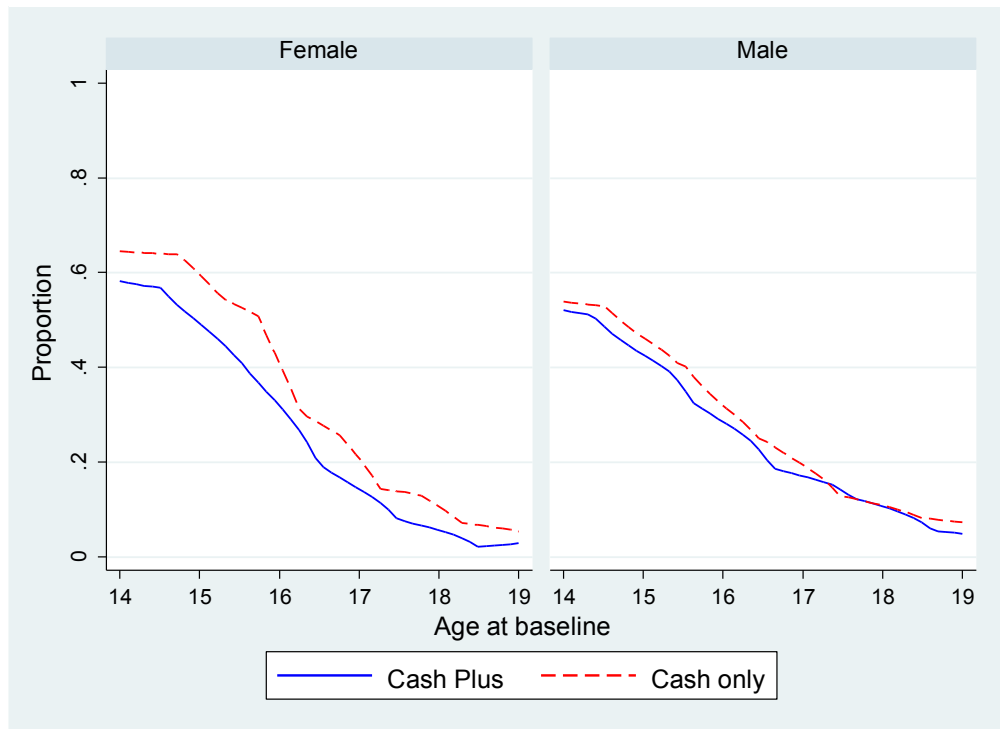


Table F.7.1 in Appendix F shows estimated effects by gender, confirming the pattern shown in Figure 7.1. The first row shows estimated impacts on overall school attendance (primary and secondary combined). We did not find any statistically significant impacts for the separate subsamples of males and females. However, estimated coefficients are negative and of similar magnitude in the two subsamples, suggesting that the programme influenced overall school attendance similarly for males and females.⁷³ Looking specifically at secondary school attendance, Table F.7.1 shows a negative and statistically significant effect on secondary school attendance for females, while impacts on secondary school attendance are not statistically significant for males. Similarly, we found a statistically significant increase in secondary school dropout for females, while the effect is not statistically significant for males. Hence, the negative effect of the Cash Plus programme on secondary school attendance is driven by females. This is also the group showing the highest secondary school attendance rate at baseline, before programme implementation. At baseline, females were 9 percentage points more likely to attend secondary school than males, implying that there was more margin for the intervention to influence the secondary school attendance rate of females than that of males. Moreover, females were more likely than males to have attended the Cash Plus training and also to have attended a higher number of training sessions. Together, these factors may have contributed to the observed impacts on school dropout for the female subsample.⁷⁴ Finally, while school entry (including re-entry) rates were low among both control and treatment groups, for the male subsample we found a negative and statistically significant impact on the probability of entry into school by Round 3. Among males who were out of school at baseline, youth in Cash Plus villages were 2.5 percentage points less likely to have (re-)entered school by Round 3 compared to youth in control villages (a 58 per cent difference compared to the 4 per cent rate of school entrance in control villages). Overall, our results indicate that

⁷³ The fact that the estimates are not statistically significant in the separate male and female subsamples is likely due to insufficient statistical power.

⁷⁴ We also estimated schooling impacts by subsamples of younger and older youth and found that the negative effects of the Cash Plus programme on school attendance are driven by the sample of older youth. For this analysis, the subsample of younger youth includes youth aged 14 to 15 years at baseline (16 to 17 at Round 3), while older youth are aged 16 to 19 years at baseline (18 to 21 at Round 3). Results are available upon request.

the Cash Plus programme reduced school attendance for both males and females, although by the time of the Round 3 interview this did not translate into statistically significant impacts on educational attainment.

As mentioned at the beginning of this section, at Round 2 the Cash Plus programme was found to have protective effects on schooling for older females. Hence, it appears that by Round 3 this effect is reversed, with females' school attendance being significantly lower in Cash Plus villages than in control villages. While the training did not immediately impact negatively on school attendance (as measured by Round 2 findings), other subsequent components of the Cash Plus programme may be related to the schooling impacts observed in Round 3. In Appendix G, we disentangle the effects of the various Cash Plus components, using the decomposition described in Section 3. We first report estimates of the base ITT model (as in Table 7.1 above); next, we show ITT impacts from a model where we add indicators for youth participation in the mentoring component, as well as indicators for youth receiving the business or the education grants. The difference between the two estimated ITT impacts provides an approximation of the overall effect of all programme components. Next, we derive the separate contribution of each component to this difference. For secondary school attendance, we observe that both mentoring and grants significantly contribute to explaining the overall impact. As expected, the results suggest that both the mentoring and the educational grant are positively correlated with secondary school attendance, while the opposite holds for the business grant, which is negatively correlated with school attendance. However, our quantitative data show that most dropouts left school before receiving the first tranche of the grant, suggesting that the decision to abandon school was taken in expectation of the grants and earnings from business. In other words, in Cash Plus villages some youth preferred to receive the business grant and start a business rather than continue their education. This applies mostly for older females who were in secondary school at baseline.

We looked in detail at the characteristics of youth who dropped out from secondary school in Cash Plus villages (N=58). These youth were, on average, 16 years old at baseline (18 years old at Round 3). About half of them had already dropped out by Round 2, while the other half were still attending school at Round 2 and dropped out between Rounds 2-3, prior to having completed Form IV (lower secondary). The most commonly reported reason for not being in school was "failed National Examination", followed by "no money for fees, uniforms", "not interested", "pregnancy", "illness or disability" and "other reasons". Failing the exam may have been partly determined by the decision to start a business and dedicate time to the newly arrived economic opportunity. Analysing data on programme uptake, we note that about one third of these youth had submitted a business plan after attending Cash Plus training; 3.5 per cent submitted an educational plan (either vocational or schooling), while the remaining either did not attend the training or attended without submitting any plan. Considering data on business initiatives, we see that about 40 per cent of youth in this group started a business during the year before the Round 3 interview. Hence, the data suggest that despite the programme being designed to incentivize in-school youth to continue their education through mentorship, schooling plans and educational grants, some of the youth who were in school at baseline opted for a business plan instead of the education plan.

There is no evidence of differential attrition for schooling variables. Both in the panel and in the sample of those lost to follow-up (attriters), baseline education outcomes are not significantly different between treatment and control groups (*see Appendix E, Table E.13*). Additionally, we tested the robustness of our schooling estimates and their interpretation using a different statistical modeling approach, namely Difference-in-Difference (DD) models. This test is especially relevant because schooling outcomes are highly correlated over time, which makes DD a more appropriate estimation

strategy compared to ANCOVA (see Section 3.7.1). The full-sample negative impacts reported in Table 7.1 are not robust to using DD models (see the supplementary online appendix, Table S.7.1). However, when we consider the subsample of female youth who were attending secondary school at baseline, DD models still report statistically significant negative effects on secondary school attendance at Round 3 (p-value = 0.027, estimates not reported).⁷⁵ This confirms that the Cash Plus programme had the unintended effect of increasing school dropout for older females.

Contextual factors help to interpret the above findings and to understand why some youth may have decided to pursue business plans rather than further education when offered the Cash Plus programme. These factors may include, among others, financial barriers to education, lack of vocational training facilities close to their community, and low perceived returns from education. In the studied settings, youth likely struggle to reap the benefits of additional schooling given the limited availability of employment and livelihood opportunities for the more educated.

Qualitative evidence points to schooling costs being a significant barrier to education for students from poor households. It is possible that the educational grant provided by the Cash Plus programme was not enough to overcome this barrier and sustain an education plan. In this circumstance, youth may have chosen to take up a business opportunity that was more immediately available and could possibly result in more certain gains, at least in the short term. Some participants spoke about dropping out of school due to their parents' inability to provide necessities for school. The sentiments of sadness due to difficulties in attending school because of financial reasons were echoed by other participants who, while continuing attending school, describe how they do so in extremely problematic conditions that include not having necessities such as uniforms. Qualifying for secondary school may provide additional financial hardship for families. The Tanzanian government recently mandated that every child must attend school until Form I and parents whose children do not attend secondary school after having passed the entrance exam are sent to court. This may have led some parents who cannot afford to pay for school necessities to discourage their children from doing well in school.

One female who dropped out of school and later conceived, explains that her parents discouraged her to do well in school because they did not want her to pass and continue with secondary school:

Even getting pregnant I didn't want at all, it's just that ... I mean, on one side my parents were saying "Even if you pass, we will not pay for your schooling, you will just put us in jail. You know we have nothing; we don't have even one chicken, we are not able to get uniforms for you even if you pass, and now they (government) will jail us. Therefore, go and write roughly there (during exams) and come here. It's better you just become a farmer." I love school, my other friends who failed like me, went to repeat a class (in another school) and now they passed. I was just crying, and now I'm pregnant. If they (parents) had said they'll educate me maybe I would have continued with school.

Female, 17 years, completed Standard Seven, Rungwe (Treatment)

Qualitative interviews also revealed that there was limited vocational training and specific schooling courses locally, close to where youth live. Hence, youth would need to move to attend vocational training, which would further increase costs. The Cash Plus educational grant was not enough to cover the overall cost of both moving and training fees. A few adolescents who were attending vocational training described how they were funded through other means:

⁷⁵ Negative difference-in-differences impacts on secondary school attendance are marginally statistically significant for the full sample of male and female attending secondary school at baseline (p-value = 0.052); the same holds for the sample of females overall (p-value = 0.064).

I: Other than TASA, who else is important in your life?

R: Even the church has helped me and until I have reached here at the institution I'm studying (Tailoring course), they're paying for me. I started this year in February.

Female, 18 years, completed Standard Seven, Rungwe (Treatment)

Other qualitative interviews show that youth choices regarding schooling and livelihoods are influenced by low perceived returns from schooling, related to low quality of education and lack of job opportunities for more educated youth:

I: And the situation you describe that you see now, you are saying that your economic situation is normal, how long did the difficult (economic) condition last?

R: All the time I was in school, from standard one to seven.

I: It's when the situation was difficult?

R: Yes! Previously she (mother) was the only one who was putting me through school, therefore the fees that she used to pay for my studies until I finished (Std 7), therefore now that money which she was wasting in school now she is using to develop other things.

Female, 18 years, completed Standard Seven, Mufindi (Treatment)

In contrast to other adolescents who had dropped out of school for financial reasons and were emotional when discussing how they were not able to continue with school, this adolescent seems to suggest that her not continuing with secondary school was positive as it freed up funds for her mother.

Others say they are stuck (to continue with school) and others have given up, they say they cannot continue with studies while currently there's no employment.

Female, 17 years old, Form Four, Mafinga (Treatment)

In this context, it is likely that some features of the Cash Plus programme inadvertently led to school dropout for a subsample of participants (namely, older females). The mere fact of providing livelihoods training and information on job opportunities may have given adolescents the idea or aspiration that it is possible to try avenues other than education, leading to their dropping out of school and choosing the business plan rather than investing in further education or vocational training. The expectation of receiving a grant to start the business may have made this choice even more likely. Some adolescents describe the livelihood training as follows:

For example, this training about health and entrepreneurship, I learned business that has a small capital with big profit, for example chicken, nuts and others.

Female, 16 years, Form Two student, Busokelo (Treatment)

From the above description, the adolescent implies that with the small grant, there is a possibility of earning a big profit. Hence, some adolescents may think they would be better off dropping out of school to start a business. The adolescent cited below described the process he went through:

R: But what I am thankful especially now, since last year until this year, Cash Plus gave us that money to buy . . . that money for business plan. Because I chose a business plan. Since then until now, I see few changes at least.

I: Okay! How much shillings did Cash Plus give you?

R: the first time they gave us 102,000 [TZS]

I: how many times have you received until now?

R: Twice. This second time is when they gave us 68,000 [TZS]. Until now I have 10 chickens, I don't have the small ones because now it's a challenge to get the small ones, many people want them. Therefore, I bought the big ones who were ready to lay eggs.

Male, 19 years, Form Two dropout (due to school fees), Mafinga (Treatment)

The adolescent cited above elaborates that he chose a business plan and not an educational grant. The reasons he describes for dropping out of school are financial, and he subsequently chose a business grant. Another female participant below describes that after finishing Form Four she enrolled for the business grant:

I started with a capital that I was given by TASAF, when I started with that capital, they later gave me more. So the capital has grown a little bit. After I finished form 4 it's when I enrolled for business (grant), I passed the training and was given that money. I prepared this business . . . for now the situation is not bad.

Female, 19 years, completed Form Four, food vendor, Mufindi (Treatment)

At the same time, adolescents who started a business reflected on childcare barriers to continuing in school. The adolescent below elaborates:

R: I can cultivate a farm this year, of sunflower, and I would get sunflower, I could sell and open maybe a restaurant . . .

I: So you won't study again?

R: I like studying, but there's no one to put me through school.

I: How can you study when you have a child, where will you leave your baby?

R: When I go to school maybe, I could leave my child with my maternal aunt, it's possible, others (with children) are studying.

I: So you still have a dream to study?

R: Yes, I will go to study far, not here.

I: Far, where?

R: Somewhere else, far, not here (mentions village) studying here is impossible because I was chased away from school (due to pregnancy).

I: Were you going to a government school?

R: Yes.

Female, 16 years, Form Three dropout, Mufindi (Treatment)

While the adolescent above dropped out of school due to pregnancy, she seems to have ideas on different ways she could earn a living. Indeed, there are many reasons why adolescents drop out of school, including but not limited to, pregnancy, inability to cover school fees, the need to contribute to household income, and other factors. Given limited opportunities for employment upon completion of additional years of schooling in some settings, adolescents from poor households may make decisions to forgo more schooling to begin income generating activities earlier. As described in more detail below, the Cash Plus intervention provided income generating opportunities, which may have influenced these decisions.

Finally, we note that the evidence available by Round 3 could underestimate the positive impact of the educational grants. In fact, Round 3 quantitative data show that some youth who had submitted an educational plan were not attending any schooling nor any vocational training, possibly because these youth had not yet enrolled. Thus, it is possible that by the Round 3 interview some of the positive impacts of the Cash Plus programme on sustaining education had not yet materialized. In Round 4, we will further investigate whether those youth who submitted an education plan actually did enrol and complete the desired courses.

7.2 Own business activity

The Cash Plus programme includes multiple elements of economic empowerment. First, the training sessions support youth in identifying viable livelihood opportunities and role models. Second, the mentoring included elements of livelihood support, especially for older youth. Livelihood-related mentorship activities included supporting youth in implementing the business plan developed during the training period and facilitating linkages to extension services for older adolescents focusing mainly on agricultural activities and livestock keeping. Finally, youth who submitted a business or education plan were given a productive grant to support realization of their business or training, with spending patterns being monitored by mentors. As shown in Section 5, in Cash Plus villages, 48 per cent of youth attended the training (N=512). Among trained youths, 54 per cent met with a mentor (N=268) and 68 per cent submitted a plan, either a business or an educational plan (N=350). About 80 per cent of the youth who submitted a plan (both business and for education) received the corresponding productive grant. Youth were much more likely to choose a business plan than an education plan: about 75 per cent of plans (and related grants) pertained to starting a business, while only 25 per cent of plans (and related grants) pertained to schooling or vocational training. These uptake data, combined with the schooling outcomes presented in the previous sections lead us to expect that the Cash Plus programme increased youth engagement in microentrepreneurial activities, consistent with recent findings on the impact of cash or in-kind grants on youth investments and earnings in other settings.⁷⁶

To assess the Cash Plus impacts on youth economic participation, we focus on youth microentrepreneurial activities.⁷⁷ Before discussing Cash Plus impacts, we describe the prevalence and characteristics of new business activities in control villages. In control villages, 13 per cent of youth started a business during the year before the Round 3 interview, and most of these businesses were still in operation at the time of the interview. Only 2 per cent of youth owned any assets used

⁷⁶ For a review, see Blattman, C., Dercon, S., and Franklin, S. 'Impacts of Industrial and Entrepreneurial Jobs on Youth: 5-Year Experimental Evidence on Factory Job Offers and Cash Grants in Ethiopia', NBER Working Paper No. w25788, 2019.

⁷⁷ These include nine outcomes: whether the youth started any new business during the 12 months before the Round 3 interview; whether the business is in operation; whether the youth owns any asset used for the business at Round 3; whether the youth purchased any of these assets during the 12 months before the Round 3 interview; whether the youth purchased any livestock during the 12 months before the interview; total revenues from sales during the last month the business was in operation; total profit or loss during the last operating month; whether the youth sells any products outside the villages; and whether the youth keeps written business records. Most of these outcomes are only measured at Round 3, so estimated impacts are obtained by using a single-difference specification comparing values between youth in treatment and control villages (we do not control for baseline value of the outcome).

for the business, only 1 per cent had purchased any assets in the past 12 months, and only 3 per cent purchased any livestock. Average sales and profits during the last operating month amount to TZS8,028 and TZS2,473 (about US\$3.5 and US\$1), respectively. About 90 per cent of youth sell their products outside the village, while only 3 per cent keep any written business records.

Table 7.2 reports estimated impacts on youth business activities. The first row of the table shows that in villages where the Cash Plus programme was implemented, the probability that youth started a business during the 12 months before the Round 3 interview was more than double than in villages receiving cash only. About 31 per cent of youth in the treatment group started a new microentrepreneurial activity compared to 13 per cent in the control group. Estimates in the second row indicate that most of the new businesses were in operation at the time of the interview. Youth in Cash Plus villages are also twice as likely to own any asset used for the business, compared to youth in villages receiving cash only. Similarly, they are significantly more likely to having purchased any asset during the year before the interview. Impacts on livestock purchases are especially big, with livestock ownership equaling 3 and 15 percentage points in Cash Only and Cash Plus villages, respectively.

Findings are consistent with Round 3 qualitative interviews, in which half of the 32 adolescents interviewed are keeping some type of livestock (pigs, chicken, goats) that actually belong to them, not the family. These livestock were mostly bought with the Cash Plus grant. The female participants below elaborate:

R: We learned for twelve weeks... After that training, another year, which is this year, because we finished the training last year in May. This year is when we were enabled . . . the month of March is when we were given shillings 102,000. I bought nails, timber, a pig, a sack of corn husks, and transport and also to treat the pig, all the money finished. I continued to do small activities at home, if I get money I buy husks (to feed the pig), therefore in this month of July we were enabled again with the rest of the money . . . 68,000 ... and I bought husks, other food for the pig and I treated the pig. The remaining money I bought one tin of onions at a wholesale price (20 kg) and was selling them at the farmers' market, if they're leftover I sell at the bus stand.

Female, 19, completed Form Four, Mufindi (Treatment)

While the youth invested most of the grant in acquiring the pig and facilitating the start of a livestock business, she also has a short-term business of selling onions to supplement her income and enable her to take care of the pig. This also supports her financially until the livestock increases in number and can be sold.

An interesting comment was made by a participant who described that youth in her village had to pay someone who came to teach them about poultry farming:

R: Now a sponsor has come, she is teaching us economy and entrepreneurship. Many youth are there, they've gone for real.

I: They've gone for the training? Who is that?

R: One young woman

I: Enhe, who did that young woman say she was?

R: She came from . . . I don't know where she came from, many young people have come out. It's about poultry farming.

I: How did she find the youth?

R: She had given the opportunity, that you enter when you have 70, you start that training.

I: Ahaa, "70" as in money?

R: Yes! 70 thousand (shillings), you enrol with that training and continue studying.

Female, 20 years, completed Standard Seven, wage labourer, Mufindi (Control)

While the participant cited above is from a control village, this is an interesting case as she is the only participant who reported any form of payment for extra training other than the Cash Plus. It is also interesting because the youth combined schooling and working activities. Adolescents who are in school report that their family members support them by taking care of the livestock while they are in school, as elaborated by one who stays at a hostel:

R: I continued staying at home (after completing Standard Seven) trying to build my life by different means, fighting just like that, until TASAF called us and started entrepreneurship for us. They taught us and gave us projects and that's what we're doing. As I continue, I say after I finish here (vocational training) I will start my tailoring business and continue to fight with life. Now my paternal uncle is helping me in my projects while I'm here studying (she's staying at a student hostel) and my grandmother is also helping my projects to continue well. I have one chicken and one pig which were given to me by TASAF as a project.

Female, 18 years, completed Standard Seven, currently at vocational training, Rungwe (Treatment)

However, for some school-going adolescents, owning livestock is also reported to be a source of concern as elaborated below:

R: At school there in no worry, maybe at home. When you're at school you have anxiety that livestock at home ...they may be stolen from you maybe.

I: Isn't there someone to watch the livestock at home?

R: Most of the time at daytime, they all leave, they go to the farm.

Male, 17 years, Form Four student, Mufindi (Treatment)

The Cash Plus programme did not affect the amount of sales, nor the amount of profit or loss over the last operating month. Youth in Cash Plus villages are significantly less likely to sell any products outside the village compared to youth in villages receiving cash only. The relatively lower propensity to sell outside the village by youth in Cash Plus villages could signal that the programme is inducing 'less entrepreneurial' youth to start a business, or it could be due to the fact that the new business activities started through Cash Plus are relatively smaller and less consolidated, and thus youth running these are less likely to sell longer distance. Following the development of the newly started businesses over time would help to distinguish between the two interpretations. Finally, youth in Cash Plus villages are significantly more likely to keep written records of their business activities, compared to youth in control villages. This reflects the fact that the Cash Plus training included a specific session on record keeping and provided record templates.

Table 7.2: Cash Plus impacts on business (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Started any new business past 12 months	0.181** (0.02)	0.479** (0.05)	0.133	0.313
Business is in operation	0.159** (0.02)	0.419** (0.05)	0.105	0.263
Owns any assets used for the business	0.029** (0.01)	0.076** (0.02)	0.024	0.053
Purchased any assets past 12 months	0.027** (0.01)	0.071** (0.02)	0.011	0.038
Purchased any livestock past 12 months	0.122** (0.01)	0.321** (0.03)	0.027	0.151
Total sales/revenues last operating month (000TZS)	4.517 (2.45)	11.957 (6.64)	8.028	12.259
Total profit or loss last operating month (000 TZS)	1.383 (1.20)	3.655 (3.22)	2.473	3.773
Sells any products outside the village	-0.125** (0.02)	-0.331** (0.04)	0.910	0.785
Keeps written business records	0.077** (0.01)	0.203** (0.03)	0.029	0.106
<i>N</i>	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Next, we assess impacts by gender. Figure 7.2 shows the rate at which youth started a business during the year before the Round 3 survey, by treatment status and gender. Among both males and females, youth in Cash Plus villages were more likely to have started a business activity compared to youth in villages receiving cash only.

Figure 7.2. Started a business during the past 12 months, by treatment status and gender.



Consistent with Figure 7.2, Table F.7.2 in Appendix F shows that the impact of the Cash Plus programme on the probability of starting a business is similar for males and females. The sectors of new businesses started under Cash Plus villages are also similar by gender. The most common sector is 'breeding or selling livestock' (61 and 39 per cent of new microentrepreneurial activities in treatment villages, for males and females respectively), followed by 'farming and selling crops' (16 and 25 per cent of new businesses for males and females), 'petty trading' (11 and 15 per cent of new businesses for males and females), and 'cooking or selling buns or other baked goods' (1 and 8 per cent of new businesses for males and females). The residual businesses are in 'other sectors' (accounting for 11 and 12 per cent of new businesses for males and females, respectively).⁷⁸ We also estimated Cash Plus impacts on youth microentrepreneurial activities by subsamples of youth in school and out of school at Round 3. Among youth who were not in school at Round 3, we also distinguished between youth who had not been in school since baseline, and youth who were in school at baseline but reported having left school in Round 3. We found positive and statistically significant Cash Plus impacts on youth engagement in business activities across all these subsamples. The subsample of youth who reported being in school at baseline but having left school by Round 3 registered the biggest impacts on business engagement, again suggesting that youth may have dropped out in order to pursue their business plans (results not shown).

7.3 Economic participation and time use

In this section, we analyse Cash Plus impacts on youth participation and hours in economic activities during the week before the interview, as well as on participation and hours in household chores during the day before the interview.

⁷⁸ For females, 'other sectors' mostly include tailoring, making and selling shoes, running cafés or selling drinks. For males, 'other sectors' mainly include masonry, making and selling bricks, burning and selling charcoal, riding a taxi motorbike (*boda boda*).

Given the increase in youth business activities, we expect an increase in youth participation and hours in overall economic activities. Impacts on household chores are instead ambiguous a priori. On the one hand, youth engagement in household chores may decrease if youth substitute part of their time in household chores with increased economic activities. On the other hand, youth engagement in household chores may increase for those chores that may contribute to their productive endeavors. For example, if they invest in livestock, youth may subsequently engage more in collecting water if this is also used to rear a higher number of animals on the farm, or they may spend more time cooking if their business involves selling prepared foods.

We considered five types of economic activities and asked whether these were performed in the past seven days and for how many hours (farm work for the household, excluding livestock; livestock herding for the household; fishing for the household; work in the household non-agricultural business; paid work outside the household) and five types of household chores (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). We do not find evidence of differential attrition in the panel sample for these outcomes.⁷⁹

At baseline, 78 per cent of youth participated in any economic activities during the week before the interview, with the most common activities being farm work for the household, excluding livestock (66 per cent participation rate at baseline), and livestock herding for the household (43 per cent). About 15 per cent of youth worked for pay outside the household, while participation rates in the household non-agricultural business is lower, at about 5 per cent. Most youth engaged in household chores at baseline, with the most common activities being taking care of children, cooking or cleaning and collecting water (73 and 66 per cent baseline participation rate, respectively).

We also tested whether the Cash Plus programme influenced youth exposure to hazards while performing economic activities.⁸⁰ To do so, we used an indicator equal to one if the youth was hurt or suffered from illness while working as well as the number of days of main activity missed due to injury or illness. Average values for youth receiving cash only show that 58 per cent of youth were exposed to any work-related hazards during the week before the interview. The most common hazards were exposure to extreme cold, heat or humidity (about 40 per cent), followed by working with dangerous tools (38 per cent), exposure to dust, fumes or gases (35 per cent), carrying heavy loads (19 per cent), and exposure to loud noise or vibrations (11 per cent). Working at water bodies at night or in places of entertainment were relatively less common (6, 7 and 4 per cent, respectively). About 15 per cent of youth were hurt or suffered from any work-related illness during the week before the interview, but injuries were relatively minor in nature as they caused youth to miss about one day of main activity on average.

As mentioned in previous reports, there are significant gender differences in the prevalence of the various types of activities. Males are more likely to engage in economic activities, with the biggest gender differences observed for participation in livestock herding, followed by farm work (excluding livestock) and paid work outside the household. Consequently, males are also more likely to be exposed to work-related hazards, and the biggest gender differences were observed for exposure to

79 We also considered youth participation and hours worked in the TASAF Public Works Programme. We did not find any impact on this outcome (results not reported).

80 We considered the following eight hazards: carrying heavy loads; working with dangerous tools; exposure to dusts, fumes or gases; exposure to extreme cold, heat or humidity; exposure to loud noise or vibrations; working at water bodies, such as lakes or rivers, working at night (8 p.m. – 6 a.m.); working in bars, hotels or places of entertainment). The first five hazards in the list are from an extensively tested UNICEF survey module, as described in Dayoğlu, M., 'How Sensitive Are Estimates of Working Children and Child Labour to Definitions? A Comparative Analysis', MICS Methodological Paper No. 1, Statistics and Monitoring Section, Division of Policy and Strategy, UNICEF, New York, 2012. The remaining three hazardous conditions are included following the classification of hazardous occupations within the Tanzanian legislation.

extreme temperatures, carrying heavy loads and working with dangerous tools. On the other hand, females are more likely to engage in household chores, especially in taking care of children, cooking or cleaning, collecting water, and taking care of the elderly or sick household members.

Figure 7.3 shows youth participation rates in any economic activities during the week before the interview, by interview round and treatment status, separately for males and females. We do not observe marked differences in youth participation in any economic activities for youth in treatment villages compared to control villages at either baseline or at Round 3. However, Round 3 differences in economic participation by treatment status appear slightly bigger for females than males. This result is driven by farm work for the household (excluding livestock) and livestock herding for the household, which appear to increase mostly for females (see Figures 7.4 and 7.5).

Figure 7.3. Participation in any economic activities, by gender and time.

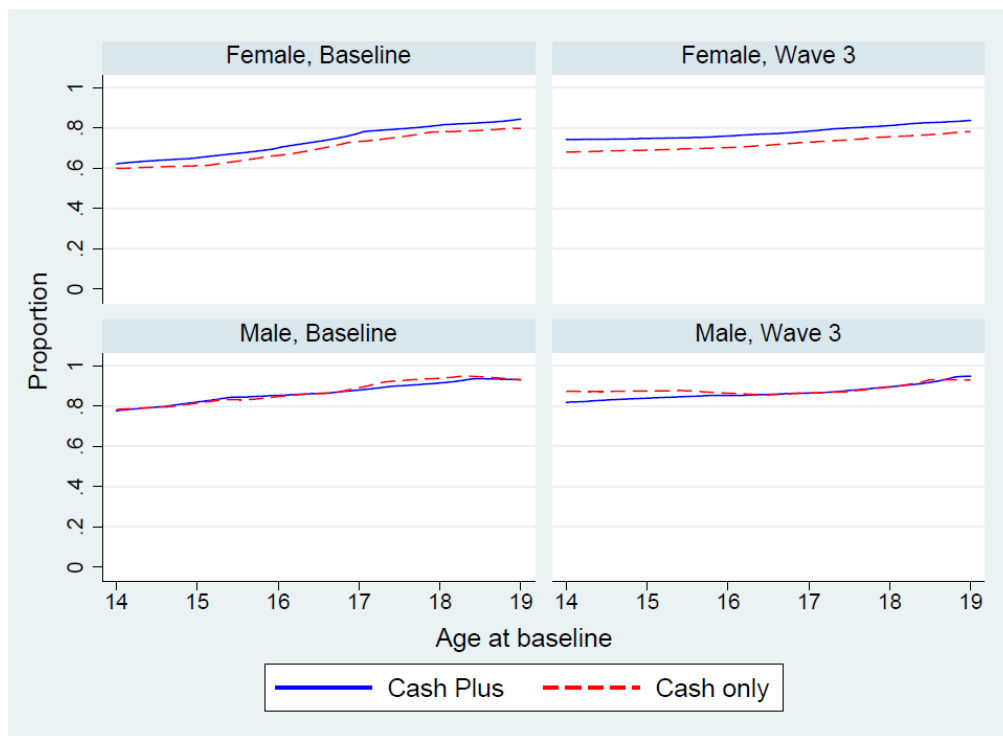


Figure 7.4. Participation in farm work for the household (excluding livestock), by gender and time.

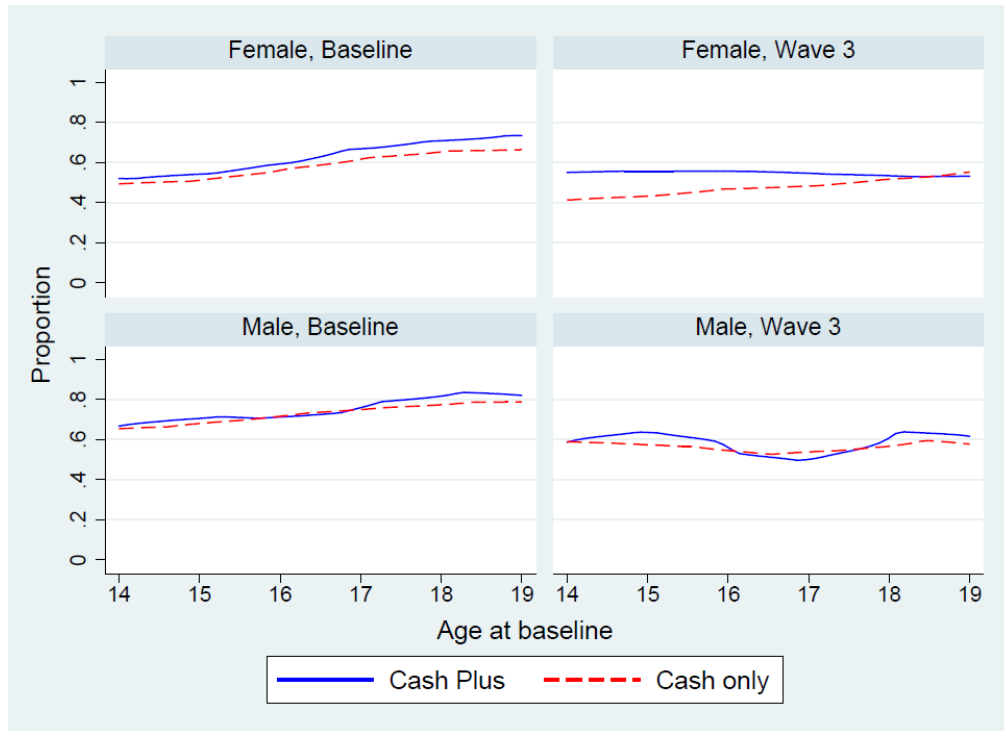
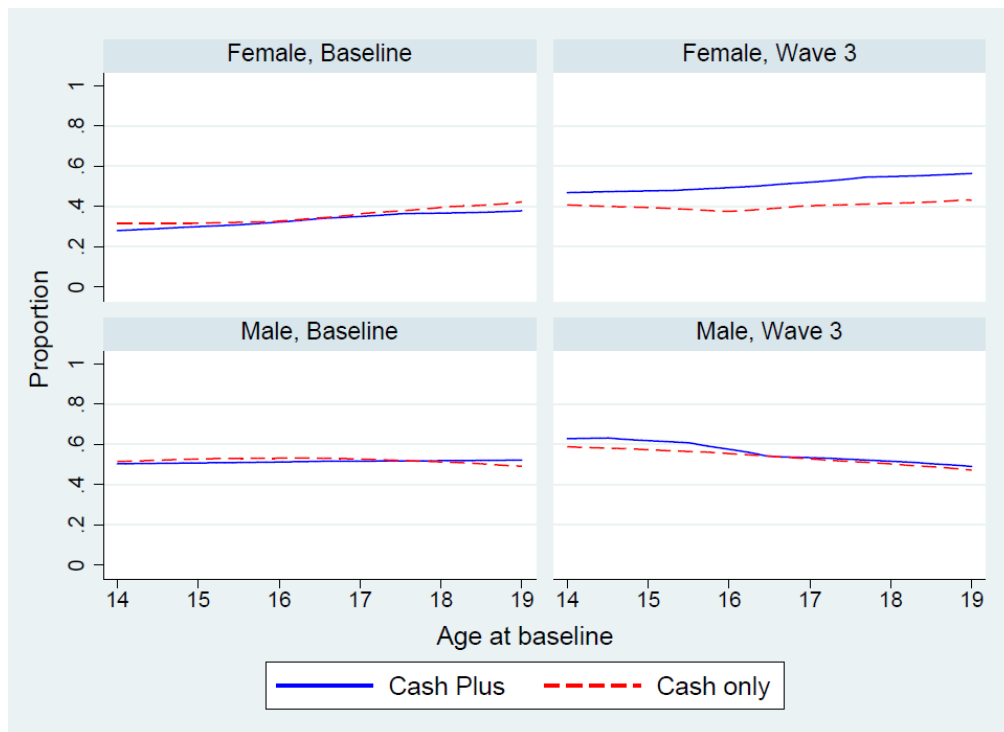


Figure 7.5. Participation in livestock herding for the household, by gender and time.



As shown in Table 7.3, the Cash Plus programme did not significantly influence the participation rate in any economic activities during the week before the interview for the full sample of youth. The estimated Cash Plus impact on youth participation in any economic activities is positive, but not statistically

significant. However, we do observe a statistically significant impact of Cash Plus on youth engagement in livestock herding for the household. Youth in Cash Plus villages were 6 percentage points more likely to have participated in livestock herding for the household compared to youth in villages receiving cash only (a 13 per cent difference over the control group average at Round 3).

Table 7.3. Cash Plus impacts on participation in economic activities (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Any economic activities	0.016 (0.02)	0.041 (0.05)	0.781	0.803	0.821
Farm work for the household, excluding livestock	0.045 (0.03)	0.118 (0.08)	0.661	0.517	0.566
Livestock herding for the household	0.062* (0.02)	0.162* (0.06)	0.432	0.475	0.540
Fishing for the household	0.006 (0.01)	0.016 (0.02)	0.014	0.022	0.030
Household business	0.015 (0.02)	0.039 (0.05)	0.047	0.152	0.165
Paid work outside the household	0.002 (0.02)	0.004 (0.05)	0.154	0.262	0.262
Looking for a job in the past 7 days	0.018 (0.01)	0.048 (0.03)	0.053	0.063	0.081
<i>N</i>	2,191	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.3 in Appendix F reports estimated ITT impacts on participation in economic activities by gender. The first row of Table F.7.3 shows programme impacts on youth participation in any economic activities. Neither the impact coefficient for the female subsample (column 1) nor the impact coefficient for the male subsample (column 5) are statistically significant. Hence, we conclude that the programme did not significantly change overall economic participation (any economic activities).

Considering each type of economic activity separately, Table 7.3 shows that estimated impacts on farm work for the household; livestock herding for the household; and household non-farm business are statistically significant for females only. For farm work (either livestock or non-livestock), estimated impacts are of the same order of magnitude for males and females, meaning that we cannot conclude that the programme did not affect participation in farm work for males. For the household non-farm business, we note a positive (and statistically significant) impact coefficient for females and a negative (although not statistically significant) impact coefficient for males. Given the marked differences in the magnitude of estimated impacts by gender, we conclude that the Cash Plus programme increased participation in the household non-farm business for females but not for males. These conclusions are consistent with the pattern outlined in Figures 7.3–7.5.

This result could seem to contradict the positive and statistically significant impact on youth probability of starting a business, which was documented for both males and females in Section 7.2. However, there is no real contradiction as here we refer to businesses that belong to the youth or any other household member, while in Section 7.2 we referred to businesses owned by the youth. Given that males were more likely than females to help in the household business at baseline, there is less margin for them to increase engagement in business activities overall. It is likely that males (at least partly) shifted from working in the household business towards working in their new own business, while females started working in their own business and were not previously working for the household. Moreover, here we refer to non-farm businesses and the new businesses started by males are mostly in the farm sector.

Table 7.4 reports estimated Cash Plus effects on hours in economic activities during the week before the Round 3 interview. Overall, the programme does not affect the total number of hours spent in any economic activities. When considering the various types of economic activities separately, we see that youth in Cash Plus villages work approximately one hour more in livestock for the household with respect to youth in control villages. These results are consistent with the livestock investments seen in Table 7.2. Cash Plus impacts on hours worked do not differ significantly by gender (*see Appendix F, Table F.7.4*).

Table 7.4. Cash Plus impacts on hours in economic activities and earnings (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Hours in any economic activities	1.775 (1.15)	4.685 (2.99)	13.689	22.061	23.913
Hours in farm work for the household, excluding livestock	0.938 (0.74)	2.477 (1.90)	8.065	8.271	9.288
Hours in livestock herding for the household	1.062** (0.37)	2.801** (0.99)	3.062	3.705	4.848
Hours in fishing for the household	0.011 (0.04)	0.030 (0.10)	0.067	0.086	0.103
Hours in paid work outside the household	-0.123 (0.81)	-0.324 (2.14)	1.751	6.879	6.702
Hours in household business	-0.324 (0.40)	-0.856 (1.07)	0.633	3.015	2.641
N	2,191	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

As shown in Table 7.5, the programme did not impact youth exposure to work-related hazards. However, we found an increased exposure to extreme temperatures for females (*see Appendix F, Table F.7.5*). This may be related to girls' increased work in the farm following the Cash Plus programme.

Table 7.5. Cash Plus impacts on work-related hazards (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Exposed to any work-related hazards	0.023 (0.02)	0.061 (0.06)	0.578	0.599
Carrying heavy loads	0.020 (0.02)	0.053 (0.05)	0.191	0.212
Working with dangerous tools	-0.015 (0.02)	-0.041 (0.06)	0.375	0.358
Exposure to dusts, fumes or gases	0.017 (0.02)	0.045 (0.06)	0.348	0.360
Exposed to extreme cold, heat or humidity	-0.005 (0.02)	-0.013 (0.07)	0.396	0.390
Exposed to loud noise or vibrations	0.005 (0.01)	0.014 (0.04)	0.110	0.114
Working at water bodies (sea, lakes, rivers)	0.007 (0.01)	0.019 (0.03)	0.064	0.071
Working at night (8 p.m. – 5:59 a.m.)	0.001 (0.01)	0.003 (0.04)	0.074	0.073
Working in bars, hotels or places of entertainment	0.000 (0.01)	0.000 (0.03)	0.037	0.037
Ever been hurt or suffered from illness	0.004 (0.02)	0.011 (0.05)	0.147	0.152
Number of days of main activity missed due to injury	0.380 (0.32)	1.003 (0.83)	1.127	1.517
<i>N</i>	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Participation and hours in household chores are also unaffected. While impacts on participation in household chores do not differ by gender, impacts on hours in household chores show that for females, the Cash Plus programme increases the number of hours spent in collecting water, while for males the reverse was found (see Appendix F, Tables F.7.6 and F.7.7).

Table 7.6. Cash Plus impacts on participation in household chores (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Collecting water	-0.000 (0.02)	-0.001 (0.06)	0.655	0.713	0.713
Collecting firewood	0.042 (0.03)	0.111 (0.07)	0.352	0.266	0.312
Collecting nuts	0.023 (0.01)	0.060 (0.04)	0.105	0.058	0.081
Taking care of children, cooking or cleaning	0.012 (0.02)	0.033 (0.06)	0.725	0.702	0.704
Taking care of elderly or sick	0.006 (0.02)	0.015 (0.04)	0.222	0.165	0.172
Any chores	-0.001 (0.01)	-0.002 (0.04)	0.890	0.887	0.881
Participated in work or chores last week	-0.007 (0.01)	-0.019 (0.02)	0.966	0.974	0.965
N	2,191	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

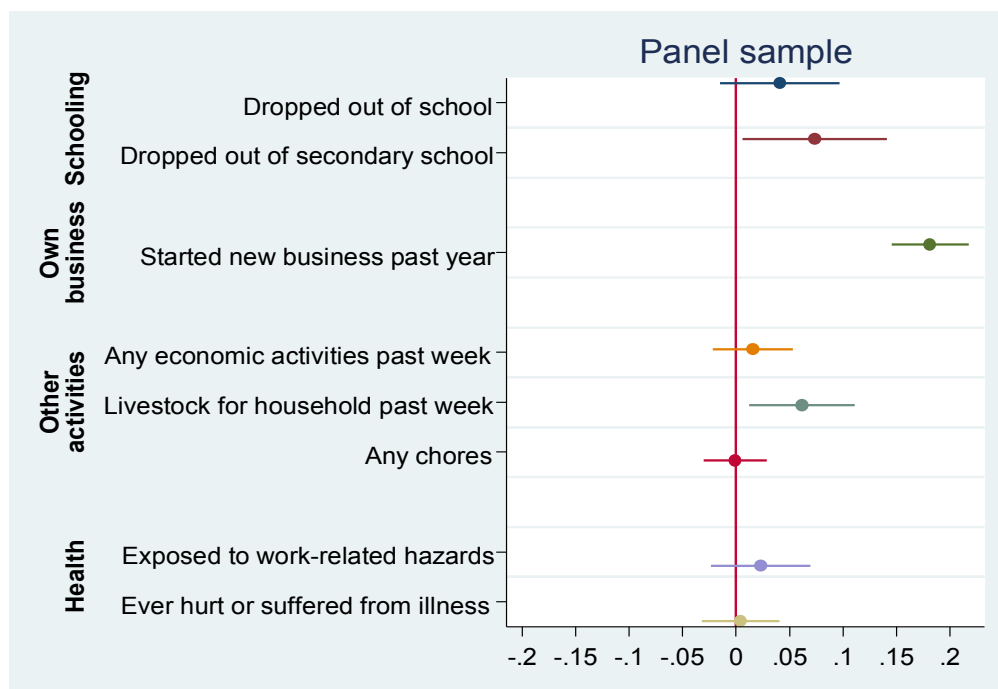
Table 7.7. Cash Plus impacts on hours in household chores (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Hours in collecting water	0.018 (0.04)	0.046 (0.11)	0.739	0.656	0.667
Hours in collecting firewood	0.049 (0.04)	0.131 (0.10)	0.505	0.322	0.372
Hours in collecting nuts	0.005 (0.03)	0.013 (0.07)	0.139	0.099	0.106
Hours in taking care of children, cooking or cleaning	-0.021 (0.08)	-0.056 (0.22)	1.304	1.500	1.426
Hours in taking care of elderly or sick	-0.018 (0.03)	-0.047 (0.09)	0.370	0.248	0.239
Hours in any chores	0.026 (0.14)	0.070 (0.38)	3.057	2.824	2.810
Total hours of work and chores in the past week	1.904 (1.57)	5.041 (4.13)	35.088	41.831	43.579
N	2,191	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

In summary, the Cash Plus programme had substantial impacts on the probability that youth started a business. The programme also increased youth participation in livestock herding for the household, while it did not significantly change youth engagement in household chores. Changes in youth economic activities did not translate into changes in exposure to work-related hazards or labour-related illnesses or injury. However, we observe an increase in school dropout resulting from the Cash Plus intervention among those who were attending secondary school at baseline (see Figure 7.6). It is recognized that there are multiple factors contributing to school dropout in the adolescent population, including school fees, adolescent pregnancy, and the need to support household income generation. Nevertheless, these contextual factors are similar in intervention and control villages, given that villages were *randomly* assigned to intervention or control. So, differences in youth outcomes between treatment and control villages can be attributed to the Cash Plus intervention. Therefore, by comparing schooling outcomes in the treatment and comparison group, we conclude that the Cash Plus intervention did contribute to some of the dropout observed.

Figure 7.6. Impacts on schooling and economic participation



8. MENTAL HEALTH

Main findings

The Cash Plus programme improved mental health among adolescents. It reduced the likelihood of experiencing depressive symptoms among both males and females.

The programme had no impact on self-perceived stress.

This chapter discusses the impacts of the Cash Plus programme on mental health. Although we did not see impacts at Round 2, mental health is considered a longer term or secondary outcome. With longer exposure to the programme and the additional components, we did find a decrease in depressive symptoms at Round 3 but no significant changes for self-perceived stress.

Poor mental health can contribute to a host of detrimental social and health outcomes for young people, including increased substance abuse, adolescent pregnancy and dropping out of school, which also perpetuate the cycle of poverty. Adolescents are particularly at risk as depression causes the largest burden of disease among young people.⁸¹ Increasing recognition of these issues has led to increased demand for interventions and policies that can mitigate the adverse impacts of poor mental health. Researchers and advocates are beginning to examine whether social protection programmes may help improve poverty-induced mental health problems.⁸²

Three studies, two in Malawi and one in Kenya, have demonstrated the ability of cash transfer programmes to improve mental health outcomes among youth. In one study from Zomba, Malawi, a non-governmental cash transfer programme improved mental health among females (males were not part of the study).⁸³ However, the impacts disappeared once the transfers were no longer provided. A study of the governmental Social Cash Transfer Programme in Malawi also found improvements in mental health, particularly among females.⁸⁴ Finally, the Cash Transfer for Orphans and Vulnerable Children Programme in Kenya improved mental health among males, but not females.⁸⁵ Thus, there is potential for social protection programmes to improve poverty-induced mental health problems, but impacts may vary by gender or other characteristics.

8.1 Symptoms of depression

We measured mental health at all rounds of data collection using a shortened version of the Centre for Epidemiological Studies–Depression Scale (CES-D).⁸⁶ Higher scores reflect more depressive symptoms. To define the presence of depressive symptoms, a binary indicator was then created to assess whether

81 World Health Organization, 'Adolescents and Mental Health', WHO, Geneva. Available at: www.who.int/maternal_child_adolescent/topics/adolescence/mental_health/en (accessed December 2020).

82 Attah, Ramlatu, et al., 'Can Social Protection Affect Psychosocial Wellbeing and Why Does This Matter? Lessons from cash transfers in sub-Saharan Africa', *Journal of Development Studies*, vol. 52, no. 8, 2016, pp. 1115–1131.

83 Baird, Sarah Jane, Jacobus de Hoop, and Berk Özler, 'Income Shocks and Adolescent Mental Health', *Journal of Human Resources*, vol. 48, no. 2, 2013, pp. 370–403.

84 Angeles, G., et al., 'Government of Malawi's Unconditional Cash Transfer Improves Youth Mental Health', *Social Science & Medicine*, vol. 225, 2019, pp. 108–119.

85 Kilburn, Kelly, et al., 'Effects of a Large-Scale Unconditional Cash Transfer Programme on Mental Health Outcomes of Young People in Kenya', *Journal of Adolescent Health*, vol. 58, no. 2, 2016, pp. 223–229.

86 The internationally validated, 10-item short-form of the CES-D (CES-D10) includes 10 questions on the feelings and behaviours of respondents during the previous seven days, such as "How often did you feel that everything you did was an effort?" and "How often were you bothered by things that don't usually bother you?" The frequency of responses to each question is gauged according to a four-point scale. To calculate the CES-D10, scores are summed for all 10 questions, ranging from 0 to 30.

youth scored greater than or equal to 10 on the CES-D10.⁸⁷ Cronbach's alpha, a measure of inter-item reliability, estimated in the overall sample produces a value of 0.79 at baseline, 0.74 at Round 2 and 0.78 at Round 3, indicating good consistency across indicators.⁸⁸

Despite lack of impacts immediately post training, with additional time and added mentoring and grant disbursement components, the Cash Plus programme was able to reduce the likelihood that youth reported depressive symptoms (*see Table 8.1*). At baseline, the number of depressive symptoms reported by 29 per cent of the youth was above the cut-off, meaning nearly a third of all youth experienced the number of depressive symptoms correlating with a diagnosis of depression. By Round 3, 27 per cent of control youth and 20 per cent of treatment youth reported having depressive symptoms. The intervention reduced the probability of youth exhibiting depressive symptoms by 6.5 percentage points. The ATT shows an amplification of this impact by nearly three times, indicating that among eligible youth who attended trainings, there were even larger reductions in depressive symptoms. As shown in Appendix F, Table F8.1, these impacts did not differ by gender, with a decrease of seven percentage points for females, and six per cent for males, attributable to the intervention. Figure 8.1 shows the decrease in depressive symptoms for Cash Plus youth at Round 3 by gender, according to age at baseline. Furthermore, mediation analyses highlight that the training and education grant may have contributed positively to these reductions in depressive symptoms.

Table 8.1. Cash plus impacts on mental health indicators (ANCOVA)

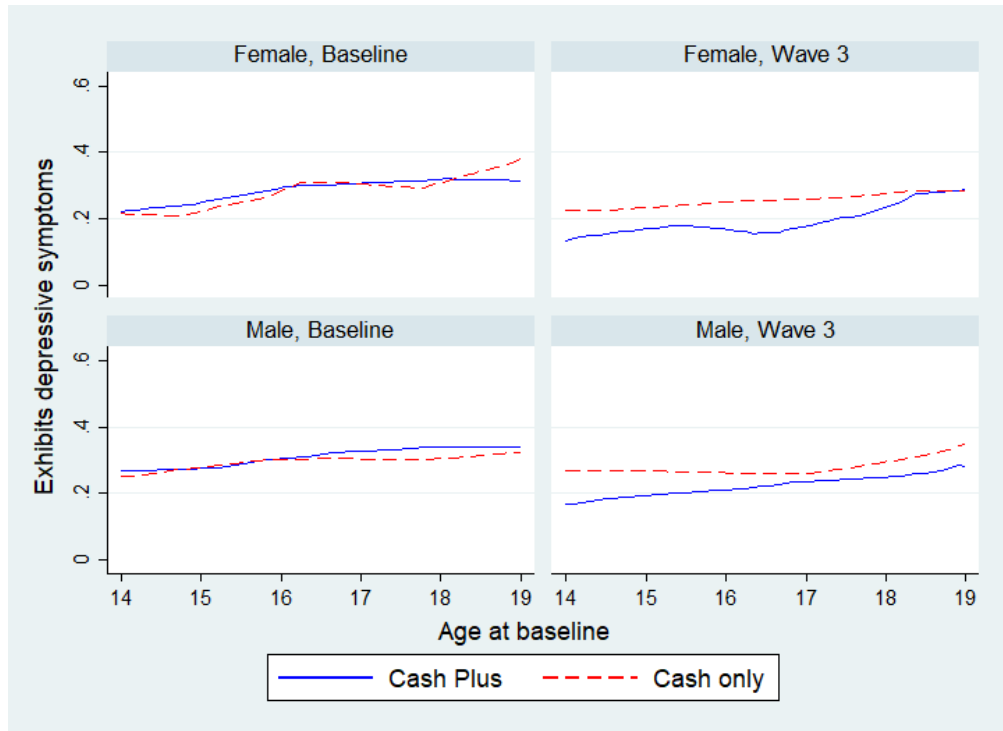
	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Reports depressive symptoms (CES-D10 \geq 10)	-0.065**	-0.172**	0.286	0.265	0.199
	(0.02)	(0.05)			
Self-perceived stress ELDI (0-39)	-0.207	-0.546	3.507	4.104	3.822
	(0.26)	(0.67)			
Well-being subscale	-0.172	-0.452	2.911	3.303	3.055
	(0.18)	(0.48)			
Risk subscale	-0.025	-0.067	0.265	0.381	0.354
	(0.06)	(0.15)			
Relations subscale	0.000	0.000	0.331	0.419	0.414
	(0.07)	(0.19)			
<i>N</i>	2,191	2,191	2,191	1,128	1,063

Note: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA \times size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. ELDI = enhanced life distress index. ELDI differs slightly from previous reports due to miscoding of indicator formerly. * $p < .05$ ** $p < .01$

87 This cut-off has been used in previous studies implemented in Africa. See for example, Onuoha, Francis N., et al., 'Negative Mental Health Factors in Children Orphaned by AIDS: Natural mentoring as a palliative care', *AIDS and Behavior*, vol. 13, no. 5, 2009, pp. 980–988.

88 A score greater than 0.70 is generally considered acceptable (Nunnally et al., 1994). Nunnally, Jum C., and Ira H. Bernstein, *Psychometric Theory*, 3rd ed., McGraw-Hill, New York, 1994.

Figure 8.1. Depressive symptoms (CES-D10 > 10) among youth, baseline and Round 3, by gender and age



8.2 Stress

Poverty-induced stress can lead to poor mental health outcomes. Our qualitative findings show that most adolescents who expressed having feelings of sadness, sometimes leading to incidents of crying during interviews, were discussing stressors or incidents driven by poverty-related chronic stressors and related stigma. The following female adolescent elaborates after being asked what she thinks of her life:

R: I can't say it's too difficult, but at grandmother's, it (life) has become difficult.

I: At (your) grandmother's where you are currently living?

R: Yes.

I: How is her situation now, I mean how is her economic situation to cause you to say it's difficult?

R: Because when I live with her, she can't walk, therefore the economy is very small.

I: She can't walk because of age?

R: Yes.

I: Ahaa, and where is the difficulty, is it food or what? Please elaborate those things.

R: For example she can't cultivate, she can't weed, she can't look for vegetables, so we have to look that ourselves.

I: Aha okay. And how do you get food?

R: We look for it (vegetables) me and sister

I: How do you look for it?

R: If it's money for cooking oil, then we ask from uncle and he gives us, then we go and look for vegetables. Uncle helps us with farming.

I: Okay. And what else makes you see life as difficult?

R: (Crying- the interview is stopped for a while)

Female, 16 years, Form Two student, Busokelo (Treatment)

Not only is the 16-year-old participant concerned about demands that come with being a student, she also has to take care of her grandmother who is incapable of taking care of herself.

R: I am in form two, but my performance is very low . . . I mean, when I am in class, I understand what the teacher is teaching, but I don't understand in depth.

I: Why?

R: Because I have thoughts, the clothes I wear to school are not the same as what my peers wear. It's clothes that are torn. Also, the life we are living is not good. We sleep on the floor (He starts crying).

The participant cited above also suggests that his school performance is affected since he cannot concentrate in class. However, even with the difficult situation, the participant suggests that he will not give up but will persevere and will not drop out of school unless he fails after form four:

[Crying]... I will persevere until I reach form four. If I find out I have failed, then I will do other things. I will do other things to help grandmother. I will help her to farm, to fetch water, and other chores.

Male, 16 years, Form Two student, Mufindi (Treatment)

Another participant, on being asked what made him anxious about his life, suggested that the financial situation at his home made him worried because he wonders whether his life will always be like that:

R: It's just our economic situation there at home.

I: What concerns does it give you?

R: I mean I have no peace that I will have a good life. I mean, let's say, we will have this same lifestyle ahead, I have no peace I mean.

The participant was almost in tears when he described how he dropped out of school due to his father's inability to provide necessities for school. The participant's mother died when the participant was a toddler:

I: What is the main reason for you to stop school at form two?

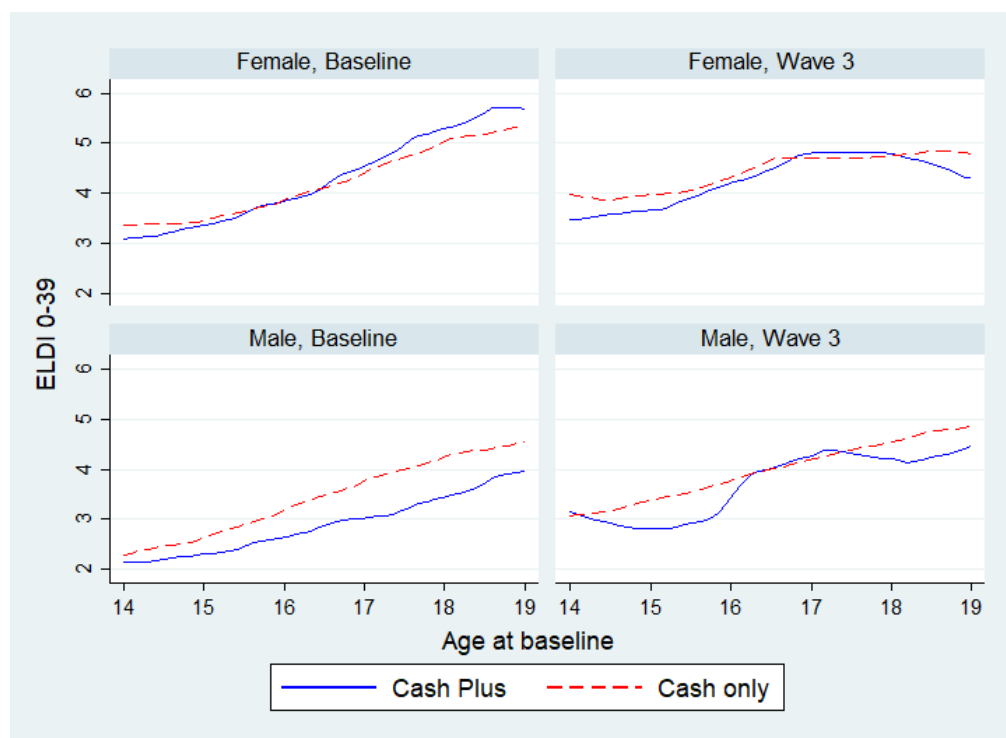
R: The main thing is communication between my father and I. My mother died while I was small, I was in class two. So I was staying with my maternal grandmother. But when I would tell father "This fee is needed"; he used to tell me "I will bring it later"; it became a nuisance because I would be sent away from school. I mean, I was going in and out of class, going in and out of class (he gets teary eyed).

Male, 17, Form Two dropout, Mufindi (Treatment)

Self-perceived stress levels were measured using the enhanced life distress inventory (ELDI).^{89, 90} Additionally, three subscales of the ELDI were analysed: 1) economic and health-related well-being (financial situation; failure of business or farm; employment; education; food and water; health); 2) risk/security (substance use, violence, theft); and 3) relationships (partner, family, friends, pregnancy). Cronbach's alpha for this index is 0.75 at baseline and 0.79 at Round 3, suggesting that the index shows good reliability for both rounds.

No significant programme impacts were found on the ELDI full scale, nor on the subscales (see Table 8.1). These null results are consistent by gender (see Appendix F, Table F8.1). As reported at Round 2, the ELDI was already quite low at baseline, where the mean score was 3.5 for the pooled sample. These levels increased slightly for control (4.1) and slightly less for treatment (3.8), leading to a negative (but not statistically significant) coefficient for this indicator (-0.2) (see also Figure 8.2). Figure 8.3 further illustrates how the overall scale and two of three subscales have negative coefficients, with a lack of statistical significance. There is no evidence of attrition issues in mental health measures during the survey (see Appendix E, Table E.18).

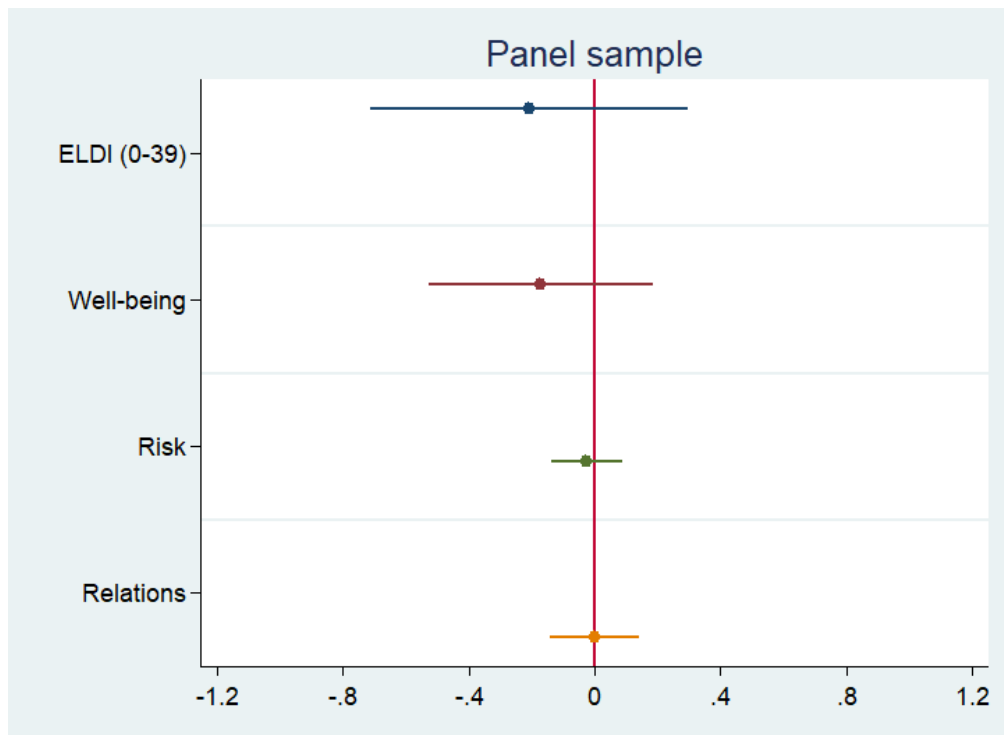
Figure 8.2. Average ELDI, baseline and Round 3, by gender and age



89 Palermo T, Cirillo C, Hall B, on behalf of the LEAP 1000 Evaluation Team, the PSSN Youth Study Evaluation Team, and the Tanzania Adolescent Cash Plus Evaluation Team, 'Enhanced Life Distress Inventory: development and validation in two African countries, *British Journal of Health Psychology*, 2020. Available at: <https://onlinelibrary.wiley.com/doi/full/10.1111/bjhp.12448> (accessed December 2020).

90 To calculate the ELDI, the enumerators or interviewers ask respondents if they have worried about any of 13 items over the previous seven days. These items include economic stressors (such as employment, education and lack of access to food), relationship stressors in the household or with romantic partners, and other stressors (such as risk of theft or pregnancy). For each item eliciting an affirmative answer, respondents were then asked how distressed they were. Each stressor is ranked on a 1–3 scale, with higher numbers indicating greater distress. A score of zero was assigned to items about which a respondent feels no stress. The resulting scores on the index when we summed all 13 items have a potential range of 0 to 39.

Figure 8.3. Impacts on ELDI



9. ASPIRATIONS, EXPECTATIONS AND ATTITUDES

Main findings

The Cash Plus programme improved the self-esteem and entrepreneurial attitudes of adolescent participants. These effects were not observed at Round 2. These positive impacts are driven by the female sample.

The programme did not change aspirations or migration intentions. However, it increased the likelihood of adolescents expecting to run a business in one and in three years.

The programme did not have an effect on subjective well-being or social support.

Chapter 9 describes adolescents' aspirations and expectations, their self-esteem and self-efficacy beliefs (locus of control), perceptions of the quality of life, their entrepreneurial attitudes, and the level of social support they receive. Aspirations reflect what individuals hope or would like to achieve in the future, while expectations express what individuals expect to achieve taking into account constraints and opportunities that they face.^{91,92} Self-esteem is defined as the confidence in one's own worth or abilities, while locus of control indicators measure the degree to which adolescents believe that they have control over the outcomes of events in their lives, as opposed to external forces governing their decisions. Social support refers to the degree of support adolescents receive from their peers, family, etc.

Many of the Cash Plus components directly relate to aspirations and expectations. During the face-to-face component of Cash Plus, there were discussions about dreams, livelihood skills, business plans and ideas, responsibilities of an entrepreneur, long-term life plans, etc. In the second phase, mentors guided adolescents on livelihood options by encouraging them to set their own goals and by subsequently providing guidance in progressing towards achieving those goals. Other objectives of the mentorship phase were to strengthen positive peer relationships, improve sense of positive self-worth and belief in the future, and enhance confidence and connectedness with the community. One would expect these components of the intervention to positively affect the outcomes studied in this chapter. One would also expect the business and schooling grant to improve occupational and educational aspirations and expectations, respectively.

Table 9.1 shows the results of the regressions on educational and occupational aspirations, in terms of the level of education (none, some primary, some secondary, vocational and tertiary) and the ideal occupation adolescents would like to engage in (responses included teacher, doctor or health care professional, government or parastatal, and business owner, among others). Neither of the educational outcomes changed as a result of the intervention. At baseline, 64.1 per cent of adolescents aspired to complete tertiary education, and this percentage increased at Round 3 for both control and treated individuals. This increase was accompanied by a decrease in the percentage of both treated and control youth choosing 'some secondary' as an ideal level of education.

Youth were also asked about their occupational aspirations. At baseline, the majority aspired to become a teacher (41 per cent) or a doctor or health care professional (23 per cent). Approximately 5 per cent of the youth wanted to work for the government. The category 'other' includes all other jobs chosen by less than 4 per cent of the youth. Our main estimates show that occupational aspirations did not change significantly by Round 3 except for the occupation 'Government/parastatal', where we observe a significant decrease in the percentage of youth with aspirations of engaging in this occupation. This may be because a higher percentage of adolescents chose occupations included in the category 'other'

91 Boxer, P., et al., 'Educational aspiration–expectation discrepancies: Relation to socioeconomic and academic risk-related factors', *Journal of adolescence*, vol. 34, no. 4, 2011, pp. 609-617

92 Leavy, J. and Smith, S. 'Future farmers? Exploring youth aspirations for African agriculture', Discussion paper 013, Future Agriculture, 2010.

(27 per cent at baseline and 40 per cent at Round 3). One explanation for this change could be that adolescents' knowledge of the types of occupations available has expanded, translating into a move from a few occupations chosen by most of the youth at baseline, to a wide range of occupations chosen at Round 3. Moreover, we observe an overall increase in the percentage of youth who aspired to be a business owner. As this increase was similar among treatment and control groups, we do not see significant effects of the intervention on this outcome. There is no evidence of baseline imbalances in these outcomes and we do not observe differences by gender.

Table 9.1. Cash Plus impacts on aspirations (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Educational aspirations					
Ideal level of education: None	-0.001 (0.00)	-0.002 (0.01)	0.027	0.010	0.010
Ideal level of education: Some primary or primary	0.020 (0.01)	0.052 (0.03)	0.034	0.037	0.058
Ideal level of education: Some secondary	0.006 (0.02)	0.017 (0.05)	0.284	0.201	0.207
Ideal level of education: Some tertiary	-0.032 (0.02)	-0.084 (0.06)	0.641	0.740	0.705
Ideal level of education: Vocational	0.008 (0.01)	0.020 (0.01)	0.014	0.013	0.020
N	2,164	2,164	2,164	1,120	1,044
Occupational aspirations					
Ideal occupation: Teacher	0.020 (0.02)	0.052 (0.06)	0.407	0.298	0.321
Ideal occupation: Doctor/health care professional	-0.007 (0.02)	-0.018 (0.05)	0.234	0.198	0.192
Ideal occupation: Government/parastatal	-0.008* (0.00)	-0.020* (0.01)	0.052	0.012	0.005
Ideal occupation: Business owner	0.021 (0.01)	0.054 (0.03)	0.038	0.094	0.113
Ideal occupation: Other	-0.030 (0.02)	-0.079 (0.06)	0.269	0.398	0.370
N	2,191	2,191	2,191	1,128	1,063

Notes: The outcomes capture the education level and type of occupation that youth would hope to achieve, not necessarily considering the actual constraints they face. Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Tables 9.2 and 9.3 show the impacts on educational and occupational expectations, respectively. These questions were added in the Round 3 questionnaire to differentiate between youths' aspirations – which may be unconstrained – and expectations, which consider youths' circumstances and barriers to achieving their aspirations. We may expect the intervention to have a larger impact on expectations as compared to aspirations. Because we do not have baseline values for these indicators, we cannot

compare baseline values with current ones and therefore provide estimates based on 'single difference' equations. As mentioned above, expectations represent a more realistic approach to what adolescents intend to or will achieve in the future, as these may take into account the structural constraints they face. We asked both in-school and out-of-school youth the level of education they expected to complete and analysed these two groups separately. In terms of occupational expectations, we asked the type of occupation they expected to be engaged in in one year and in three years' time.

We do not observe a significant change in educational expectations as a result of the intervention. In terms of occupational expectations, however, we do see some programme impacts. There was an increase in the percentage of adolescents who expected to be working as a business owner in one year as well as in three years as a result of the Cash Plus intervention, and the impacts are driven by the male sample. The mediation analysis (*see Appendix G*) suggests the positive effect is a result of a combination between the training and the business grant. There was also a slight decrease in the percentage of youth who expected to be working as an electrician.

These findings are consistent with those described in Chapter 7. It seems the intervention made participants more likely to start their own business. This can be the result of a strong focus of the programme on business topics, as well as a lack of employment opportunities for educated youth in study communities, combined with the perception among a high percentage of them (nearly 48 per cent) that a high level of education is not necessary to get a good job in Tanzania.

Qualitative findings are also consistent with these results, indicating that youth had begun to think about what they would like to do with their future and the path needed to reach their goals. Some, like the female cited below, did not seem to have had any detailed plans prior to the programme:

I continued staying at home (after completing std 7) trying to find my life by different means, hustling just like that, until TASAF called us and started entrepreneurship training for us. They taught us and gave us projects and that's what we're doing. As I continue, I say after I finish here (vocational training) I will start my tailoring business and continue to hustle with life.

Female, 19, completed Form Four, Mufindi (Treatment)

For the female adolescent above, her life seems to have taken a hopeful turn after the introduction of the Cash Plus training. For other youth, their focus was more on farming and livestock as elaborated below:

I am thinking livestock keeping. My plans are to keep livestock and then become a farmer.

Male, 17 years, Std 7, Mpombo, Rungwe (Treatment)

R: In the next year I plan to buy myself a farm and then continue with my hustle. But if God helps me.

I: And how will you accomplish those plans?

R: For example, I'm saving this money. At home I have raised two pigs and I'm continuing to accumulate, if I get even a little farm somewhere to build a house, it's enough.

16 years, Male, Replacement, Rungwe (Treatment)

Given that cash transfers and cash plus programmes can also affect aspirations to migrate, we also asked adolescents whether they would like to migrate and where. The relationship between social protection programmes and migration aspirations/intentions/decisions has recently been receiving more attention among academics and policymakers. Findings are mixed, with some studies finding a positive effect of cash transfers on the intention or decision to migrate, others a negative effect, and

others no effect (for a review of studies, see Hagen-Zanker and Himmelstine (2013) and Adhikari and Gentilini (2018)).^{93,94}

We do not observe any impacts of the programme on migration aspirations (see Table 9.4). Despite a lack of programme impacts on this outcome, it is notable that more than 40 per cent of the youth would like to migrate. Nearly one in five would like to migrate to another region. Reasons youth may want to migrate may include the desire to move to cities for improved quality of life such as better employment opportunities, hospitals, roads, etc.

To examine whether the programme had an impact on where adolescents want to migrate, we classified the options into two categories: same region (which includes another village in the district, a rural village in another district or a city in the same region); and another region (including a city in another region, the capital Dar es Salaam, or another country). We analysed these two categories separately (with the category 'does not want to migrate' as the reference category in each equation) but we do not find effects of the programme on either.

Table 9.2. Cash Plus impacts on educational expectations (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Out-of-school youth				
None	0.023 (0.02)	0.063 (0.05)	0.106	0.129
Primary or some secondary	0.002 (0.02)	0.006 (0.06)	0.751	0.754
Secondary	0.001 (0.01)	0.003 (0.03)	0.034	0.034
Vocational	-0.016 (0.01)	-0.043 (0.03)	0.042	0.026
University	-0.011 (0.01)	-0.029 (0.04)	0.067	0.057
N	1,415	1,415	716	699
In-school youth				
Primary or some secondary	0.048 (0.04)	0.126 (0.10)	0.380	0.438
Secondary	0.004 (0.03)	0.010 (0.08)	0.170	0.168
University	-0.050 (0.04)	-0.131 (0.11)	0.436	0.382
Other (none/primary/vocational)	-0.002 (0.01)	-0.006 (0.02)	0.013	0.012
N	698	698	376	322

Notes: The outcomes capture the education level that youth expect to achieve, based on the actual constraints and opportunities they face. Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

93 Hagen-Zanker, J. and Leon-Himmelstine, C., 'What do we know about the impact of social protection programmes on the decision to migrate?', *Migration and Development*, vol. 2, no. 1, 2013, p. 117.

94 Adhikari, S., and Gentilini, U., *Should I stay or should I go: do cash transfers affect migration?*, Policy Research Working Paper 8525, The World Bank, Washington DC, 2018.

Table 9.3. Cash Plus impacts on occupational expectations (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
<i>1 year</i>				
Agriculture	-0.015 (0.02)	-0.040 (0.04)	0.117	0.104
School	-0.026 (0.02)	-0.068 (0.06)	0.288	0.269
Taxi (boda boda)	0.003 (0.01)	0.008 (0.02)	0.025	0.028
Tailor	0.010 (0.01)	0.026 (0.02)	0.038	0.045
Construction	-0.002 (0.00)	-0.007 (0.01)	0.019	0.017
Business	0.063** (0.02)	0.166** (0.06)	0.241	0.296
Electrician	-0.014** (0.00)	-0.037** (0.01)	0.017	0.003
Teacher	0.002 (0.00)	0.006 (0.01)	0.010	0.012
Other	-0.020 (0.02)	-0.054 (0.05)	0.246	0.225
<i>3 years</i>				
Agriculture	-0.004 (0.02)	-0.011 (0.05)	0.144	0.142
School	-0.027 (0.02)	-0.072 (0.05)	0.239	0.217
Taxi (boda boda)	0.005 (0.01)	0.012 (0.02)	0.022	0.027
Tailor	0.015 (0.01)	0.041 (0.02)	0.037	0.050
Construction	-0.005 (0.00)	-0.014 (0.01)	0.013	0.008
Business	0.062** (0.02)	0.163** (0.06)	0.266	0.321
Electrician	-0.014* (0.01)	-0.037* (0.01)	0.021	0.008
Teacher	-0.002 (0.00)	-0.006 (0.01)	0.013	0.011
Other	-0.029 (0.02)	-0.076 (0.05)	0.244	0.215
N	2,191	2,191	1,128	1,063

Notes: The outcomes capture the occupation that youth expect to achieve, based on the actual constraints and opportunities they face. Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table 9.4. Cash Plus impacts on migration (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Wants to migrate	-0.025 (0.02)	-0.067 (0.06)	0.449	0.421
Wants to migrate to the same region	0.004 (0.02)	0.011 (0.06)	0.245	0.246
Wants to migrate to another region	-0.029 (0.02)	-0.078 (0.05)	0.204	0.174
<i>N</i>	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

The remainder of this chapter explores adolescents' attitudes, including outcomes on subjective well-being, self-esteem and self-efficacy beliefs, entrepreneurial attitudes, and social support. Improvements in subjective well-being have been linked to better educational and health outcomes, increases in productivity and consumption, and improved social relationships.⁹⁵ Many studies analysing the relationship between social protection transfers and subjective well-being are from sub-Saharan Africa and have found a positive effect of social protection programmes on this well-being indicator.^{96,97,98,99}

Subjective well-being, or perceived quality of life, is measured 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?" The first row in Table 9.5 indicates that there were no significant changes due to the intervention, as the perceived quality of life increased for both the treated group and the control group at a similar rate over the period of study.

Next, we analysed the self-esteem index and the locus of control index, measuring 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.¹⁰⁰ Results are shown in Table 9.5. The indices of locus of control and self-esteem range from one to five. Adolescents reported rather high values of self-esteem (close to four at baseline). At Round 3, the index decreased for both participants and non-participants, but more so among non-participants, which means that the programme helped to mitigate the decrease in self-

95 Attah, R., et al., 'Can social protection affect psychosocial wellbeing and why does this matter? Lessons from cash transfers in sub-Saharan Africa', *The Journal of Development Studies*, vol. 52, no. 8, 2016, pp. 1115-1131.

96 Haushofer, J., and Shapiro, J., 'The short-term impact of unconditional cash transfers to the poor: experimental evidence from Kenya', *The Quarterly Journal of Economics*, vol. 131, no. 4, 2016, pp. 1973-2042.

97 Kilburn, K., et al., 'Paying for Happiness: Experimental Results from a Large Cash Transfer Program in Malawi', *Journal of Policy Analysis and Management*, vol. 37, no. 2, 2018, pp. 331-356.

98 Daidone, S., et al., 'Social Networks and Risk Management in Ghana's Livelihood Empowerment Against Poverty Programme', Innocenti Working Papers no. 2015-06, 2015.

99 Natali, L., et al., 'Does money buy happiness? Evidence from an unconditional cash transfer in Zambia', *SSM-population health*, vol. 4, 2018, pp. 225-235.

100 Adolescents were asked to report the degree to which they agreed with a set of statements, with the responses ranging from one ('Strongly agree') to five ('Strongly disagree'). The self-esteem index includes statements such as 'You feel that you have many good qualities', whereas the locus of control index includes statements such as 'Your life is determined by your own actions' or 'Getting what you want requires pleasing influential people'. We rescaled the response values so that a higher value indicates a higher level of self-esteem and locus of control and created an index of self-esteem and an index of locus of control, which range from one (minimum self-esteem or locus of control) to five (maximum). The following indicator was analysed separately, where adolescents had to respond whether they agreed or not with the following statement: "Each person is primarily responsible for his/her own success or failure in life". Given that this variable has a different scale than the others, we did not include it in the locus of control index.

esteem that adolescents experienced (most likely driven by increasing age). The treatment coefficient is statistically significant, which means the intervention had a positive impact on self-esteem. The results by gender (see Table F.9.5 and Figure 9.1) show that the increase in self-esteem is driven by the female sample. Moreover, mediation analysis highlights the important contribution that the mentoring had on this improvement (see Appendix G). The 'locus of control' index is relatively lower, averaging about 3.3, indicating that respondents believe that external forces play a large role in determining their life outcomes. The programme did not improve levels of self-efficacy among participants, although these increased for both groups by Round 3. Moreover, looking at the results by gender, we see a positive effect of the programme in relation to one of the questions ("*When you get what you want, it is usually the result of your own actions*") among females, even if this impact is not reflected in impacts on the aggregate index.

To collect information on entrepreneurial attitudes, enumerators presented adolescents with four statements describing their (potential) entrepreneurial drive.^{101,102} From Table 9.5 we can see that, in addition to improving adolescents' self-esteem, the intervention increased the entrepreneurial attitude index (which ranges from zero to one) by 0.02 and 0.052 points (ITT and ATT estimates, respectively). Gender-specific analysis shows the female sample is driving these impacts (see Table F.9.5 in Appendix F). Moreover, there is no difference in terms of the contribution of each programme component (which means all of them together have contributed to the positive effect of the intervention on entrepreneurial drive).

Finally, we asked about the extent of social support adolescents receive, for example, when they take decisions or need to share emotions.¹⁰³ Results are shown at the end of Table 9.5. Adolescents have, in general, high levels of social support. The intervention did not seem to affect social support levels. This is not surprising, however, as the more likely role of social support in relation to cash transfer programmes is, as described in the conceptual framework, as a moderator of programme impacts and therefore supporting the translation of the intervention into positive outcomes for the youth.

No evidence of baseline imbalances or selective attrition was found with respect to the variables analysed in Table 9.5.

101 Examples of questions include "I am persisting until my plans are fulfilled" or "I am always coming up with new ideas/solutions to problems." Youth reported whether these were 'true' or 'false' in reference to their personal attitude.

102 Valdivia, M., 'Business training plus for female entrepreneurship? Short- and medium-term experimental evidence from Peru', *Journal of Development Economics*, vol. 113, 2015, pp. 33-51.

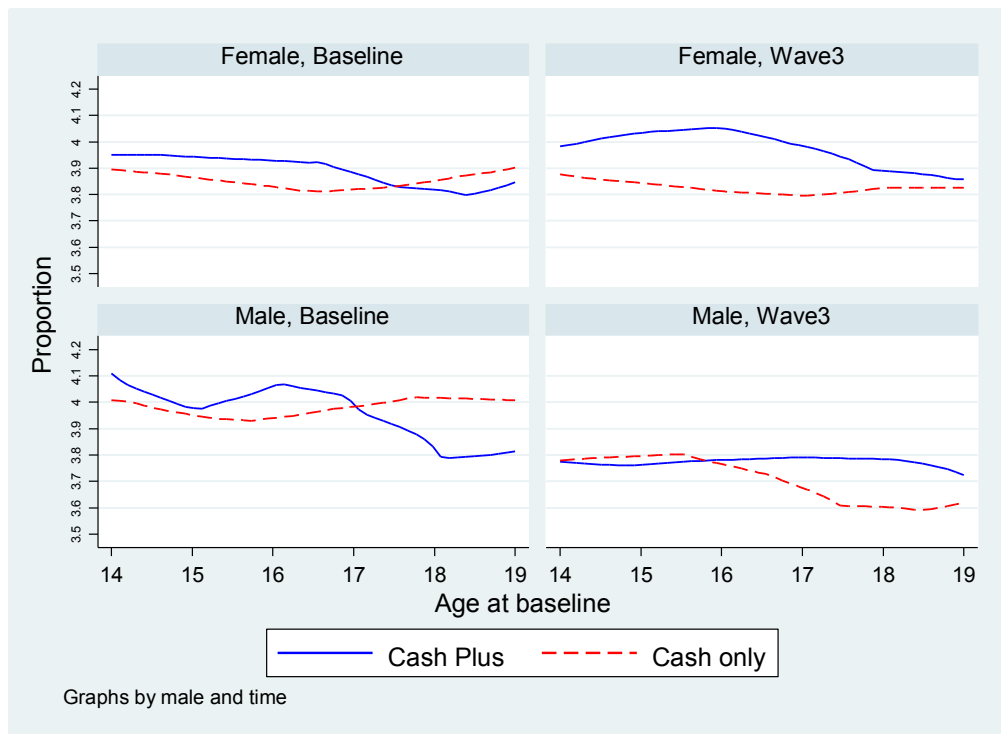
103 Adolescents were asked to report the degree to which they agree with a set of four statements on different kinds of support (e.g. from friends or family). As with the case of self-esteem and locus of control, possible responses range from one 'Strongly agree' to five 'Strongly disagree', and we construct an index in the same way as with the other indicators.

Table 9.5. Cash Plus impacts on attitudes (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Quality of life ladder: 1 (Worst) to 10 (Best)	0.008 (0.11)	0.022 (0.28)	3.796	4.809	4.822
Each person is primarily responsible for his/her own success or failure in life	-0.025 (0.02)	-0.065 (0.06)	0.635	0.600	0.576
Locus of control index (1–5)	0.008 (0.02)	0.022 (0.05)	3.199	3.288	3.294
Self-esteem index (1–5)	0.090* (0.04)	0.237* (0.10)	3.941	3.772	3.864
Entrepreneurial attitude index (0–1)	0.020* (0.01)	0.052* (0.02)	-	0.806	0.825
Social support index	0.040 (0.03)	0.104 (0.08)	3.998	3.898	3.941
N	2,190	2,190	2,190	1,127	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects (except for the entrepreneurial attitude index, where the regression only controls for gender, age at baseline and PAA × size fixed effects). Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Figure 9.1. Self-esteem index, by time and gender



Figures 9.2 to 9.4 summarize the ITT coefficients of key indicators analysed in this chapter.

Figure 9.2. Boxplot summary of ITT impacts on aspirations

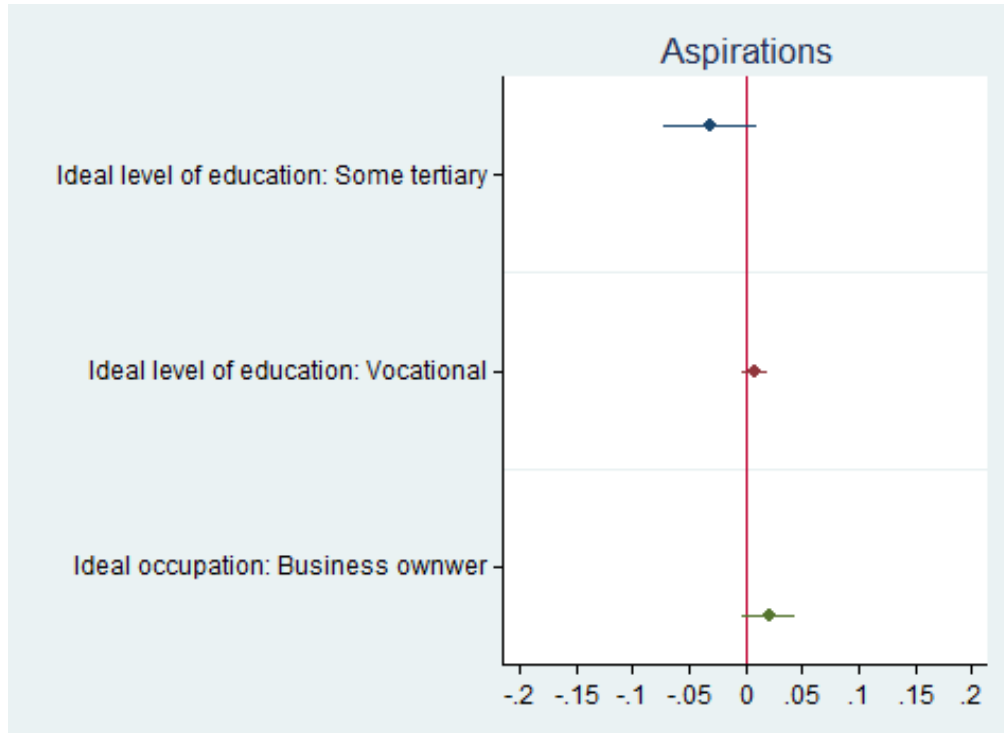


Figure 9.3. Boxplot summary of ITT impacts on expectations

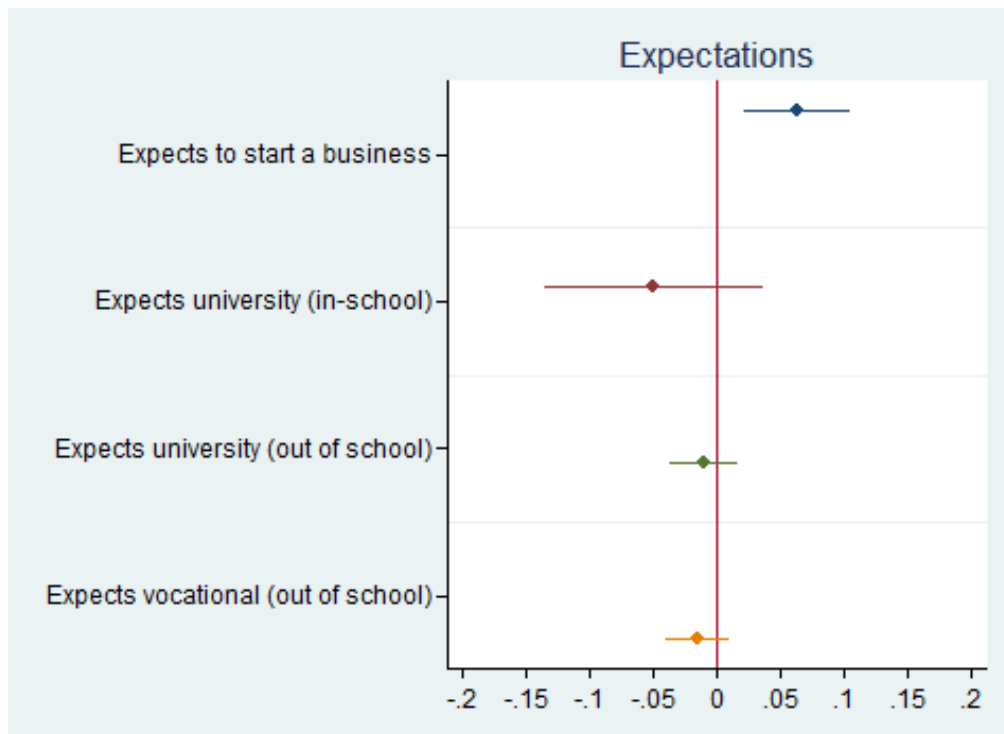
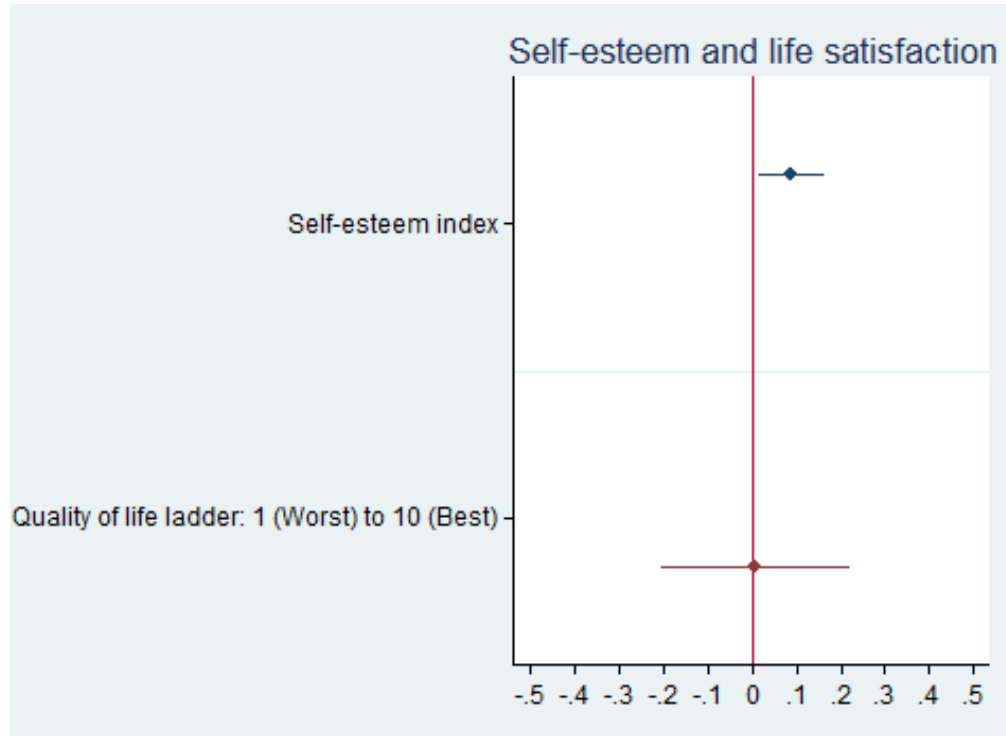


Figure 9.4. Boxplot summary of ITT impacts on self-esteem and life satisfaction



10. ATTITUDES ON GENDER

Main findings

The Cash Plus programme increased gender-equitable attitudes as they relate to domestic chores and daily life in the full sample, and further increased gender-equitable attitudes related to violence and domestic chores and daily activities among males.

We assessed impact of the intervention on gender attitudes using a 24-item short version of the Gender-Equitable Men (GEM) scale, which has been used previously in Eastern Africa.¹⁰⁴ We found that the Cash Plus intervention increased gender-equitable attitudes among the domestic chores and daily life dimension in the full sample, and increased gender-equitable attitudes related to violence and domestic chores and daily activities among males.

Gender socialization intensifies during adolescence,¹⁰⁵ and attitudes regarding gender roles may constrain an individual's life opportunities. Together, these have implications for long-term health and well-being. While gender norms are defined societal expectations for men's and women's roles, rights and responsibilities,¹⁰⁶ gender socialization is defined as the process in which "individuals develop, refine and learn to 'do' gender through internalizing gender norms and roles as they interact with key agents of socialization, such as their family, social networks and other social institutions."¹⁰⁷ Inequitable gender attitudes are associated with increased risk of IPV,¹⁰⁸ early sexual debut, risky sexual behaviours,¹⁰⁹ and HIV and other STIs.¹¹⁰ The 12-week training in the first phase of the Cash Plus intervention included face-to-face training on the following topics related to gender attitudes and roles:

- Differences between gender and sex
- Gender stereotypes and roles and how they affect boys and girls
- Relationships with family and community
- Community expectations of boys and girls in community, as well as relationships
- Gender-based violence

These topics covered in the training could potentially influence gender attitudes as an intermediary outcome along the pathway related to other outcomes in the conceptual framework such as violence and ability to seek appropriate SRH/HIV and violence response services.

104 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.

105 John, N., et al., Gender Socialization During Adolescence in Low- and Middle-Income Countries: Conceptualization, Influences and Outcomes, Innocenti Discussion Paper 2017-01, UNICEF Office of Research - Innocenti, Florence, Italy, 2017.

106 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, S15-S21.

107 John, N., et al., Gender Socialization During Adolescence in Low- and Middle-Income Countries: Conceptualization, Influences and Outcomes, Innocenti Discussion Paper 2017-01, UNICEF Office of Research - Innocenti, Florence, Italy, 2017.

108 Conroy, Amy A., 'Gender, power, and intimate partner violence: a study on couples from rural Malawi', *Journal of interpersonal violence*, vol. 29, no. 5, 2014, pp. 866-888.

109 Varga, Christine A., 'How gender roles influence sexual and reproductive health among South African adolescents', *Studies in family planning*, vol. 34, no. 3, 2003, pp. 160-172.

110 Jewkes, Rachel K., et al., 'Gender inequalities, intimate partner violence and HIV preventive practices: findings of a South African cross-sectional study', *Social science & medicine*, vol. 56, no. 1, 2003, pp. 125-134.

While we use a previously validated short form of the GEM, the full GEM scale has been used and validated in African settings,^{111,112,113} including among adolescents.¹¹⁴ In the GEM scale, items address attitudes related to four dimensions, including violence, reproductive health and disease prevention, sexual relationships, and domestic chores.¹¹⁵ Higher scores indicate more equitable attitudes. Those responding “don’t know” to some of these items might lack experience on the topics discussed, given the young age of some of the respondents. Thus, those with missing values were dropped from the overall scale or subscale, as applicable. Cronbach’s alpha for the subscale was 0.87, showing good internal validity. Subscales were created for the following dimensions: violence, reproductive health and disease prevention, sexual relationship, and domestic chores.¹¹⁶

In Table 10.1, we see that while there were no impacts on the overall GEM scale, the Cash Plus intervention did increase gender-equitable attitudes along the domestic chores and daily life dimension (by approximately one fifth of a point on a 5-point scale). As expected, ATT impacts are larger than ITT impacts (0.557 v. 0.210). The average scores on the GEM scale (potential range from 0 to 24) were 12.9 and 13.4 among the control and treatment groups, respectively, and these show a slight increase over baseline (12.6). The lack of programme impacts on the overall GEM scale is illustrated in Figure 10.1. The averages for the decision-making subscale are 1.7 and 1.9 among the control and treatment groups, respectively (potential range of zero to five). Figure 10.2 illustrates the programme impacts on this dimension, as the Cash Plus group has more equitable attitudes at Round 3. Figure 10.3 further illustrates ITT impacts with a boxplot, where we see positive impacts on domestic chores and daily life and impact estimates are approaching statistical significance for the overall GEM and violence subscale. Mediation analyses do not show contributions of any specific treatment components over others on this improvement in gender-equitable attitudes. All of these indicators were balanced at baseline among the panel sample.

111 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)*, 2015.

112 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, S15-S21.

113 Levtov, R., et al., Momentum Toward Equality: Results from the International Men and Gender Equality Survey (IMAGES) in Tanzania, Promundo-US, Uzazi na Malezi Bora Tanzania, and Tanzania Commission for AIDS, Washington, DC, 2018.

114 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, S15-S21

115 Response options to each item include 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.

116 The violence subscale (five items in total) includes items such as “there are times when a woman deserves to be beaten”, “a woman should tolerate violence in order to keep her family together” and “a man using violence against his wife is a private matter that should not be discussed outside the couple”. The reproductive health and disease prevention subscale includes questions such as, “It is a woman’s responsibility to avoid getting pregnant”, “A man should be angered/shocked if his wife asks him to use a condom” and “a real man produces a male child”. Questions such as “a woman should not initiate sex”, “you do not talk about sex, you just do it” and “men need sex more than women do”, are included in the sexual relationship subscale. Finally, the domestic chores includes items such as, “Giving the kids a bath and feeding the kids are the mother’s responsibility”, “a man should have the final word on decisions in his home” and “a woman should obey her husband in all things”.

Table 10.1. Cash Plus impacts on attitudes on gender indicators (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
GEM scale (0–24)	0.432 (0.33)	1.176 (0.90)	12.626	12.916	13.449
<i>N</i>	1,402	1,402	1,402	752	650
Violence subscale (0–6)	0.117 (0.09)	0.307 (0.23)	3.729	3.548	3.674
<i>N</i>	1,999	1,999	1,999	1,040	959
Reproductive health subscale (0–5)	-0.014 (0.08)	-0.036 (0.21)	2.768	2.836	2.851
<i>N</i>	1,722	1,722	1,722	909	813
Sexual relationships subscale (0–8)	0.052 (0.12)	0.142 (0.32)	4.351	4.812	4.901
<i>N</i>	1,629	1,629	1,629	868	761
Domestic chores and daily life subscale (0–5)	0.210** (0.07)	0.557** (0.19)	1.714	1.658	1.878
<i>N</i>	2,120	2,120	2,120	1,098	1,022

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Figure 10.1. GEM scale, by time



Figure 10.2. GEM domestic chores and daily life, by time

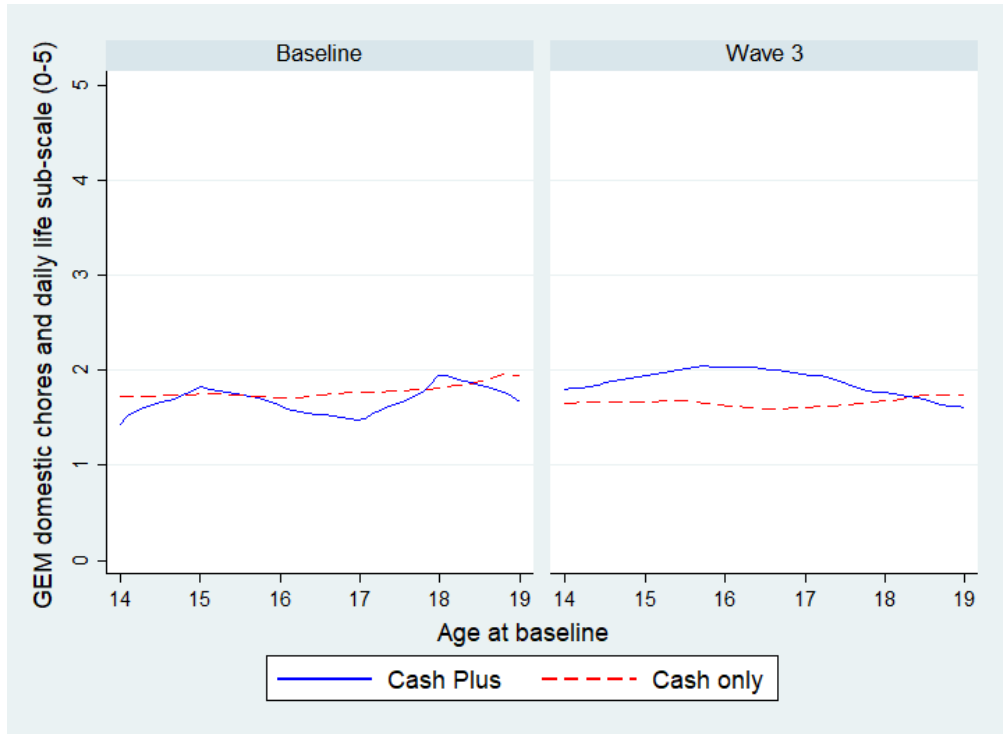
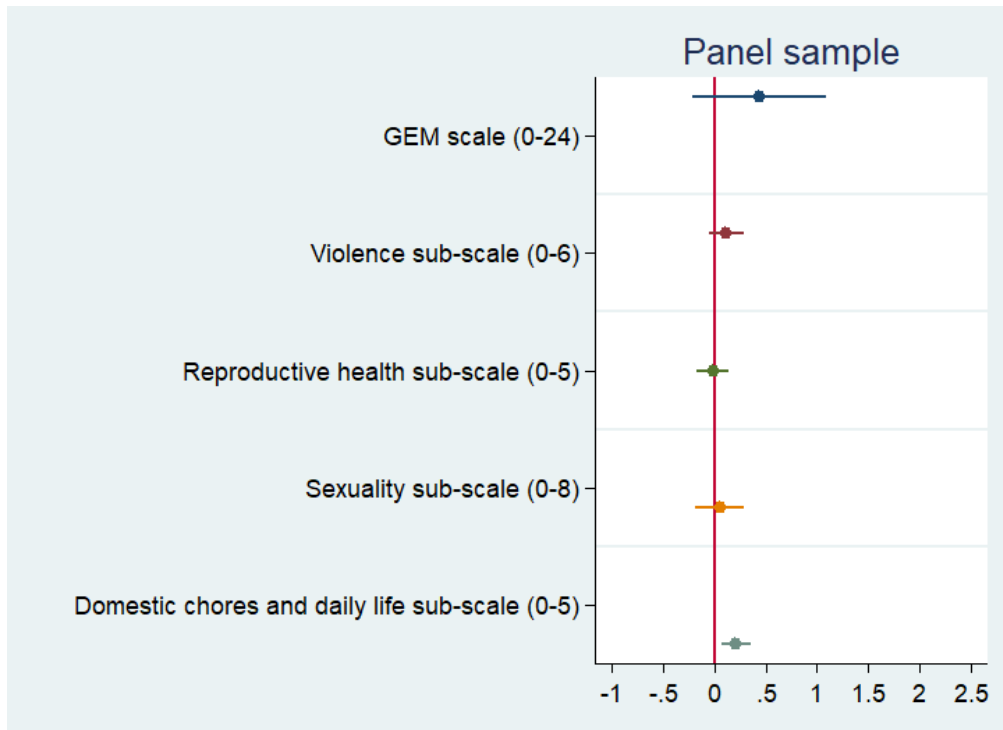


Figure 10.3. Boxplot summary of ITT impacts, males and females



When examining separately by gender, we see that across all subscales, males, on average, have more gender-equitable attitudes than females [12.3 (12.2) among females v. 14.3 (13.5) among males in the treatment (control) sample on the overall GEM scale]. Moreover, improvements in the decision-making subscale were driven by the male sample, and the intervention increased gender-equitable attitudes in the violence subscale among males (see Appendix F, Table F.10.1). Indeed, the boxplots in Figures 10.4 and 10.5 show that among males, impacts on the overall GEM scale are approaching statistical significance, and the violence and domestic chores and daily life subscales show positive programme impacts. This is consistent with findings related to reductions in perpetration of violence among males as a result of the Cash Plus intervention, described in more detail in Section 13. However, among females, none of the impacts were statistically significant. It is possible that a lack of significant impacts related to sexuality and reproductive health subscales might reflect more entrenched gender norms on these topics. Thus, more intensive or different types of interventions are needed to shift attitudes around these norms. All indicators were balanced at baseline by gender.

Figure 10.4. Boxplot summary of ITT impacts, males

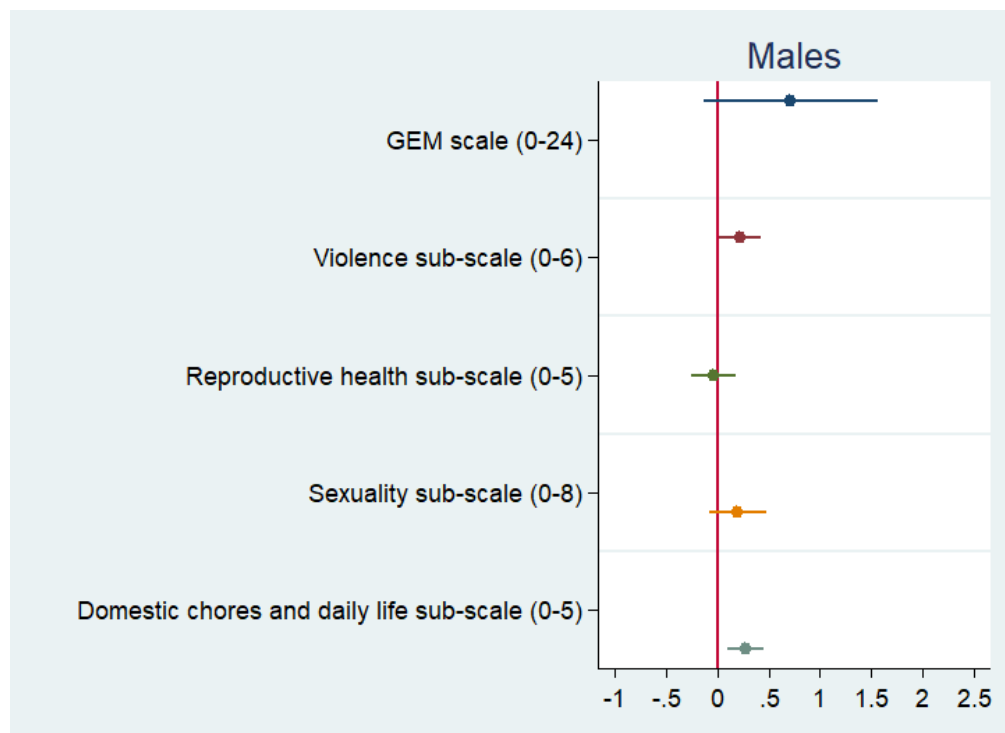
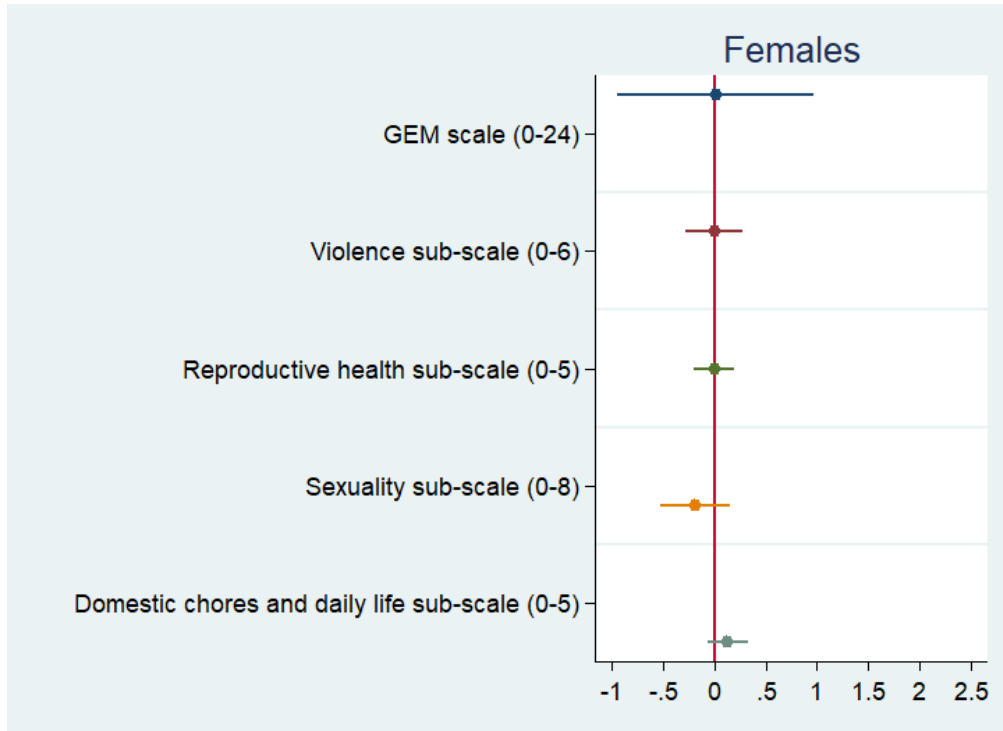


Figure 10.5. Boxplot summary of ITT impacts, females



When turning to the illustrative graphs by time and gender (*see Figures 10.6–10.8*), we see that the impacts among males on the violence subscale appear to be driven by those aged 16 to 18 years at baseline. Further, we see that in the domestic chores and daily life subscale (*see Figure 10.8*), both males and females in the treatment group appear to have more gender-equitable attitudes, as found in the overall impacts summarized above.

Figure 10.6. GEM scale, by gender and time

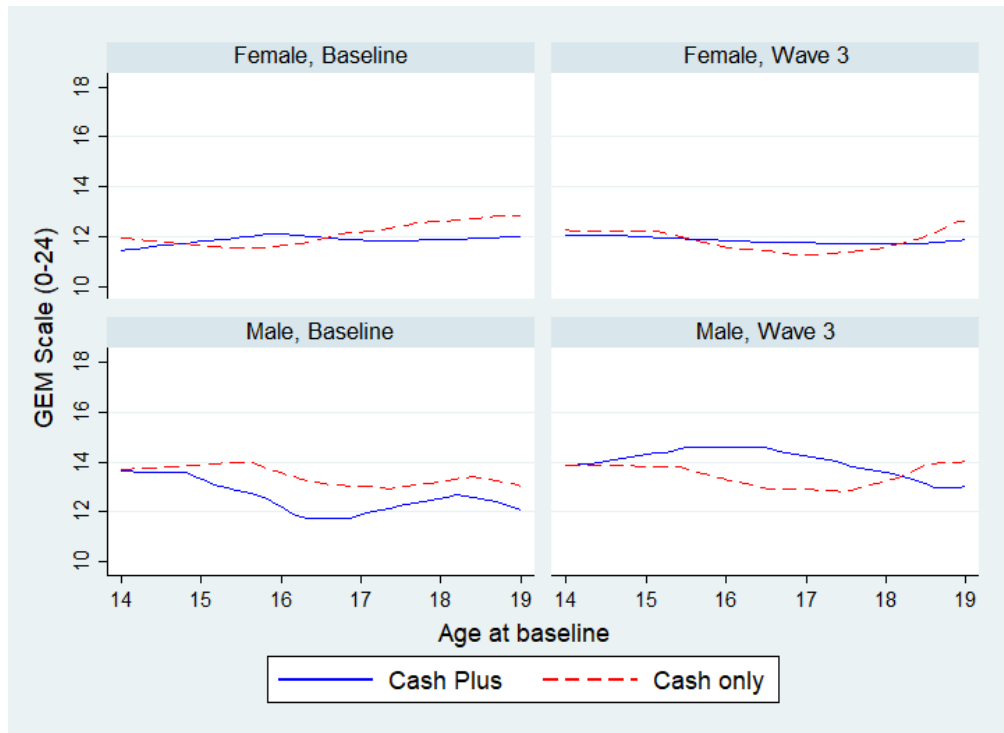


Figure 10.7. GEM violence subscale, by gender and time

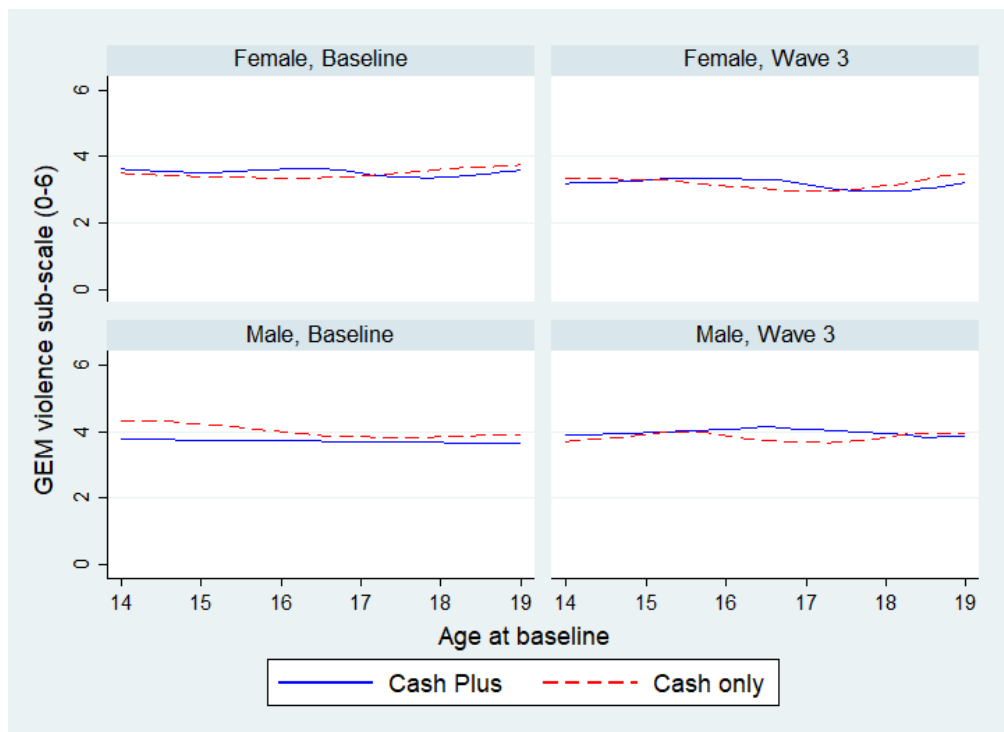


Figure 10.8. GEM domestic chores and daily life subscale, by gender and time



Gender norms around relationships and conflict resolution are discussed in the context of wives or female partners being perceived as having ‘misbehaved’ by some participants detailed below.

R: Violence happens for those who are engaging in relationships, you find most of the times they are beaten.

I: Why are they beaten? Who beats them?

R: I don’t know their problems, but they are beaten by their partners. It’s not right, but when you misbehave, you are beaten.

The female participant acknowledges that physical violence is not right, but suggests that it is considered the norm that, when a female partner ‘misbehaves’, she is beaten.

Female, 19 years, completed Form Four, Mufindi

The qualitative interviews also revealed how domestic chores are viewed as gendered by the study sample. Some chores, such as collecting firewood, are reported being considered as mostly for females.

11. PARTNERSHIPS, SEXUAL BEHAVIOUR AND HIV KNOWLEDGE

Main findings

The Cash Plus programme increased HIV-related knowledge by 5.2 percentage points.

The programme increased the probability of HIV testing in the previous 12 months by 6.2 percentage points.

The programme increased knowledge about modern contraceptives by 4 percentage points. However, the intervention did not increase use of these methods.

In gender-stratified analyses, we see that the programme delayed sexual debut among females by approximately four months.

There were no impacts on marriage/cohabitation, pregnancy, forced first sex, the likelihood that adolescents had a girlfriend or boyfriend at the time of interview, age-disparate relationships, transactional sex, or perceived HIV risk.

This section examines programme impacts on sexual debut, relationship formation, risky sexual behaviours, HIV knowledge and testing, contraceptive knowledge and use, and exploitation (transactional sex and age-disparate relationships). We find that the intervention increased HIV and contraceptive knowledge, but not use of the latter. The intervention also increased HIV testing and delayed sexual debut among females. There were no programme impacts on marriage/cohabitation, pregnancy, forced first sex, the likelihood that adolescents had a girlfriend or boyfriend at the time of interview, age-disparate relationships, transactional sex, or perceived HIV risk.

Early pregnancy and child marriage are common in the United Republic of Tanzania, and these early transitions restrict adolescents' (particularly girls') educational attainment and future economic opportunities, perpetuating the intergenerational cycle of poverty. Moreover, one girl in three (31–37 per cent) is married before age 18, and 43 per cent of females ages 20–24 gave birth before age 18.¹¹⁷ Progress in reducing child marriage rates in the United Republic of Tanzania has remained stagnant over the past 10 years, while other countries in the region have achieved advances.¹¹⁸ While cash transfers have been posited as a way to mitigate against early pregnancy and marriage, there has been mixed evidence to date as to the impacts of cash transfers on these outcomes. A recent evaluation of the PSSN found no effects on adolescent pregnancy or marriage.¹¹⁹ Similarly, evidence from government cash transfers in Malawi and Zambia found no impacts on pregnancy or marriage.¹²⁰ Nevertheless, in Kenya, Malawi and South Africa, government cash transfer programmes were found to delay adolescent pregnancy.¹²¹ Moreover, a non-governmental cash transfer in Malawi was found

117 Population Council, et al., *The Adolescent Experience In-Depth: Using data to identify and reach the most vulnerable young people, Tanzania 2009–2012*, Population Council, New York, 2015.

118 Koski, Alissa, Shelley Clark, and Arijit Nandi, '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.

119 Tanzania PSSN Youth Evaluation Team, *Tanzania Youth Study of the Productive Social Safety Net (PSSN) Impact Evaluation: Endline Report*, UNICEF Office of Research – Innocenti, Florence, Italy, 2018.

120 Dake, F., et al. 'Income transfers, early marriage and fertility in Malawi and Zambia', *Studies in family planning*, vol. 49, no. 4, 2018, pp. 295–317.

121 Baird, Sarah Jane, Craig T. McIntosh and Berk Özler, 'Cash or Condition? Evidence from a cash transfer experiment', *Quarterly Journal of Economics*, vol. 126, no. 4, 2011, pp. 1709–1753; Handa, Sudhanshu, et al., 'Impact of the Kenya Cash Transfer for Orphans and Vulnerable Children on Early Pregnancy and Marriage of Adolescent Girls', *Social Science and Medicine*, vol. 141, 2015, pp. 36–45; Heinrich, Carolyn J., John F. Hodinott and Michael Samson, '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.

to delay marriage,¹²² as did a government social protection programme in Ethiopia.¹²³ Thus, context matters in understanding the potential for cash transfers and related programming to protect against early marriage and pregnancy.

Similarly, because exploitation, including transactional sex, is often driven by economic insecurity and a need to secure resources for school-related costs or other basic needs,^{124,125,126} it is posited that economic strengthening interventions can reduce the risk of exploitation. One type of economic strengthening programme, cash transfers, was associated with delays in sexual debut in Kenya, Malawi and South Africa.¹²⁷ Moreover, in South Africa, the Child Support Grant to households was associated with reduced transactional and age-disparate sex among adolescent girls,¹²⁸ while another non-governmental cash transfer delivered to adolescent girls in the same country was protective against having had a sexual partner in the past year and having had unprotected sex in the past year.¹²⁹ Among three cash transfer programmes (all NGO implemented) that directly tested for impacts on HIV infection, only one (in Malawi) found reductions in HIV incidence, while two in South Africa found no effects.^{130,131,132} We are not currently aware of any cash plus evaluations that have directly tested for impacts on HIV incidence.

Taken together, the evidence above suggests that cash transfers and complementary programming may play a role in delaying partnership formation, pregnancy and marriage as well as in preventing exploitation and risky behaviours, subsequently facilitating safe, healthy and productive transitions to adulthood. Nevertheless, the mechanisms are complex, as early marriage, pregnancy and exploitation are only partially driven by economic insecurity, and other drivers include social norms. Therefore, programming that addresses economic insecurity may influence these outcomes but may also be insufficient to overcome drivers related to social norms.

Recognizing these links between economic insecurity and risky behaviours, which in turn increase the risk of HIV, several economic strengthening initiatives have been implemented in Tanzania, including the Cash Plus programme being summarized in this report. Similarly, the DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) partnership was developed to reduce rates of HIV among adolescent girls and young women in the highest HIV burden countries, including Tanzania, by

-
- 122 Baird, S., et al., 'What Happens Once the Intervention Ends? The Five-Year Impacts of a Cash Transfer Experiment in Malawi', *Impact Evaluation Report* 27, 2015.
- 123 Hoddinott, J.F., Mekasha, T.J., *Social protection, household size and its determinants: Evidence from Ethiopia*, International Food Policy Research Institute (IFPRI), 2017.
- 124 Dunkle, K.L., et al., 'Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa', *The Lancet*, vol. 363, no. 9419, 2004, pp. 1415-1421.
- 125 Maganja, R.K., et al., 'Skinning the goat and pulling the load: transactional sex among youth in Dar es Salaam, Tanzania', *AIDS care*, vol. 19, no.8, 2007, pp. 974-981.
- 126 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.
- 127 Baird, Sarah Jane, et al., 'The Short Term Impacts of a Schooling Conditional Cash Transfer Program on the Sexual Behavior of Young Women', *Health Economics*, vol. 19, no. S1, 2010, pp. 55-68; Handa, Sudhanshu, et al., 'The Government of Kenya's Cash Transfer Programme Reduces the Risk of Sexual Debut among Young People Age 15-25', *PLoS One*, vol. 9, no. 1, 2014, p. e85473; Heinrich, Carolyn J., John F. Hoddinott, and Michael Samson, '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.
- 128 Cluver, L., 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, 2013, e362-e370.
- 129 Pettifor, A., et al., 'The effect of a conditional cash transfer on HIV incidence in young women in rural South Africa (HPTN 068): a phase 3, randomised controlled trial', *The Lancet Global Health*, vol. 4, no. 12, e978-e988.
- 130 Pettifor, A., et al., 'The effect of a conditional cash transfer on HIV incidence in young women in rural South Africa (HPTN 068): a phase 3, randomised controlled trial', *The Lancet Global Health*, vol. 4, no. 12, 2016, e978-e988.
- 131 Baird, S. J., et al., '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.
- 132 Humphries, H., et al., 'The impact of conditional cash transfers in reducing HIV in adolescent girls and boys (RHIVA): the CAPRISA 007 matched pair, cluster randomised controlled trial', In *The CAPRISA Clinical Trials: HIV Treatment and Prevention*, Springer, Cham, 2017, pp. 77-89.

addressing structural drivers such as economic insecurity.¹³³ The partnership is led by PEPFAR and other key partners include Bill and Melinda Gates Foundation, Girl Effect, and others. Under the DREAMS umbrella of activities in Tanzania, DREAMS SAUTI/WORTH++ implemented a cash plus intervention that provided cash combined with financial education to out-of-school adolescent girls and young women. While the intervention did not include a quantitative evaluation, qualitative evidence suggested that the intervention reduced dependence on male sex partners for basic needs.¹³⁴ This finding supports the hypothesized links in our intervention's conceptual framework.

Our conceptual framework outlines how increased economic and health capacities and social capital gained from the intervention can lead to intermediate outcomes, which may be protective against early transitions, risky sexual behaviours and exploitation. Improved capacities lead to increased economic security, which reduces the risk of exploitation and risky sex. This is because economic security means less food insecurity and lack of money for basic needs, which in turn often drives girls to engage in age-disparate relationships or other forms of transactional sex. Moreover, increased capacities resulting from the intervention can lead to improved knowledge, self-esteem and access to services, which may translate into enhanced livelihoods skills, social support networks, increased ability to take informed decisions around SRH, HIV and GBV prevention, and increased ability and motivation to seek appropriate SRH/HIV and violence response services. In turn, in the longer term, the aforementioned intermediate outcomes may lead to delayed sexual debut, marriage and pregnancy; reduced levels of sexual exploitative behaviours and violence victimization; and reduced HIV/STI risk.

Topics covered in the Cash Plus training are specified in more detail in the subsections below, and they include those related to pregnancy, family planning, HIV knowledge and testing, and risky sexual behaviours (concurrent partners, condom use, rape and exchanging sex for money).

11.1 Partnerships

Table 11.1 shows that while only 1.1 per cent of the sample had ever been married or cohabiting at baseline, 7.3 and 8.4 per cent of the control and treatment groups, respectively, were married two years later at Round 3. Furthermore, over one third of the sample had a boyfriend or girlfriend at Round 3 (35.7 and 34.4 per cent of the control and treatment groups, respectively). In our baseline report for this study, we posited that the low marriage rates at baseline compared to national rates for the age group (26.3 per cent of those aged 15–19 from the poorest wealth quintile have ever been married according to the Tanzania Demographic and Health Survey (DHS) from 2015–16)¹³⁵ were driven by the selection criteria for this study, namely those living in the household with the PSSN beneficiary at the time of interview. Thus, youth who may have lived in PSSN households prior to baseline but subsequently moved out to start their own households through marriage and cohabitation were excluded from our sample. This is because there had been no retargeting and new enrolment into the PSSN between its roll-out in 2015 and our baseline in 2017. As such, any new households formed by marriage of PSSN adolescents were subsequently not likely to be part of PSSN, thus explaining the low rates of marriage and cohabitation among adolescents in our sample.

133 Saul, J., et al., 'The DREAMS core package of interventions: A comprehensive approach to preventing HIV among adolescent girls and young women', *PLoS ONE*, vol. 13, no. 12, 2018, e0208167.

134 Pettifor, A., et al., 'Cash plus: exploring the mechanisms through which a cash transfer plus financial education programme in Tanzania reduced HIV risk for adolescent girls and young women', *Journal of the International AIDS Society*, vol. 22, 2019, e25316.

135 Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) [Tanzania Mainland], et al., Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) 2015-16, MoHCDGEC, MoH, NBS, OCGS, and ICF, Dar es Salaam, Tanzania, and Rockville, Maryland, USA, 2016.

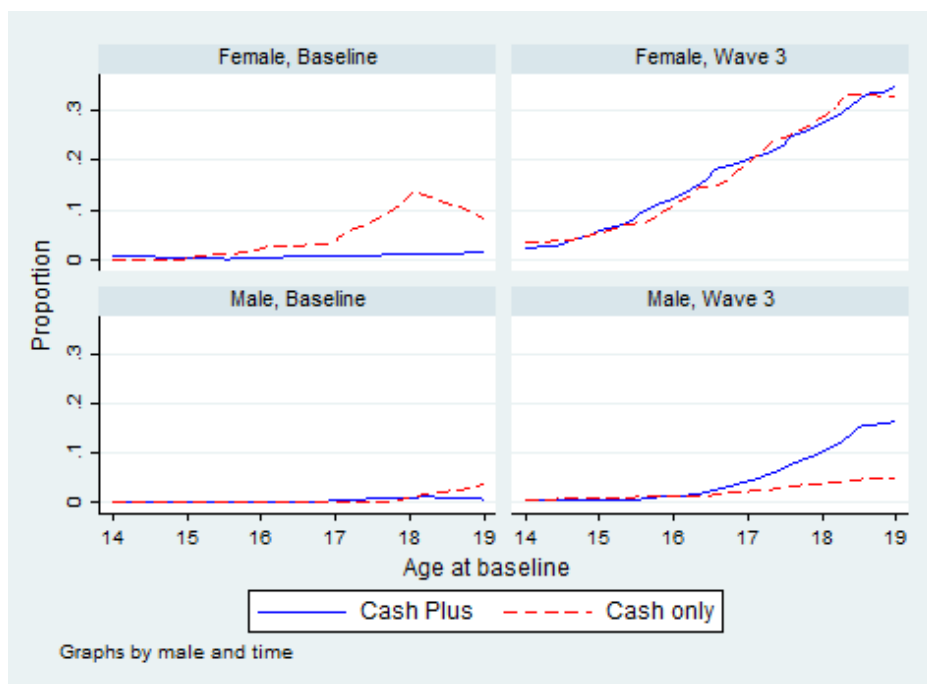
The intervention had no effects on marriage/cohabitation; single marital status; or on currently having a girlfriend or boyfriend (see Table 11.1). When examined by gender, we see that 13.4 and 13.7 per cent of control and treatment females, respectively, had been married or cohabiting (see Appendix F; Table F.11.1). There were no impacts among females. Among males, the percentages are 1.8 and 4.1 per cent, respectively, among control and treatment groups, and estimates show that the intervention increased the likelihood that males were married by 2.7 percentage points. However, treatment youth in the panel sample were less likely to have been married at baseline than those in the control group ($p < .01$), thus the married/cohabiting and single/never married outcomes are not balanced at baseline. Furthermore, there is evidence of selective attrition and baseline imbalances among males for the marriage/cohabiting indicator, and thus impact estimates on this outcome suffer from threats to validity and should not be over-interpreted.

Table 11.1. Cash Plus impacts on partner/relationship indicators ANCOVA

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Ever had spouse/cohabiting partner	0.023 (0.01)	0.060 (0.04)	0.011	0.073	0.084
Single/never married	-0.023 (0.01)	-0.060 (0.04)	0.989	0.927	0.916
Has a girlfriend or boyfriend	-0.010 (0.02)	-0.027 (0.06)	0.171	0.357	0.344
<i>N</i>	2,191	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. * $p < 0.05$, ** $p < 0.01$.

Figure 11.1. Marriage/cohabitation, by gender and time



Rates of marriage increase dramatically over the age range, and by Round 3 more than one in three females aged 18–19 years at baseline are married (see Figure 11.1). Increases in marriage rates as a result of the intervention for males appears to be driven by those aged 17–19 years at baseline (and thus 19–21 years at Round 3). However, as mentioned above, baseline imbalances in this outcome among males threaten the internal validity of our impact estimates and these should be interpreted with caution.

11.2 Sexual debut and characteristics of first sex

Turning to sexual debut, we examined this outcome among those who had not sexually debuted at baseline, to be able to understand programme impacts on this outcome. Among this subsample (n=1,826), we see that 26.3 and 25.3 per cent of the control and treatment groups, respectively, had had sexual intercourse by Round 3 (see Table 11.2). Average age of sexual debut was 17.2 and 17.1 years among control and treatment groups, respectively. Among those who had sexually debuted, 14.3 and 11.5 per cent of control and treatment groups, respectively, reported that their first sex was forced, pressured or tricked. There were no programme impacts on these outcomes among the whole sample, and the outcomes were balanced at baseline among the panel sample.

Other sexual violence indicators are examined in more detail in Section 13. When examining these outcomes by gender (see Appendix F, Table F.11.2), however, we see that the programme delayed sexual debut among females by approximately four months ($\hat{\beta} = -0.356$), on average. There were no impacts on overall sexual debut or forced first sex among females, nor on any of the three outcomes among males. These outcomes were balanced at baseline by gender among the panel sample.

Table 11.2. Cash Plus impacts on first sex indicators (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Ever had sex	-0.006 (0.02)	-0.016 (0.05)	0.263	0.253
<i>N</i>	1,826	1,826	933	893
Age at first sexual intercourse	-0.123 (0.10)	-0.315 (0.26)	17.246	17.115
<i>N</i>	470	470	244	226
First sex forced/pressured/tricked - among sexually debuted	-0.028 (0.03)	-0.072 (0.09)	0.143	0.115
<i>N</i>	471	471	245	226

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported sexual debut at baseline were excluded from the analysis.

Figure 11.2. Sexual debut, by gender and time

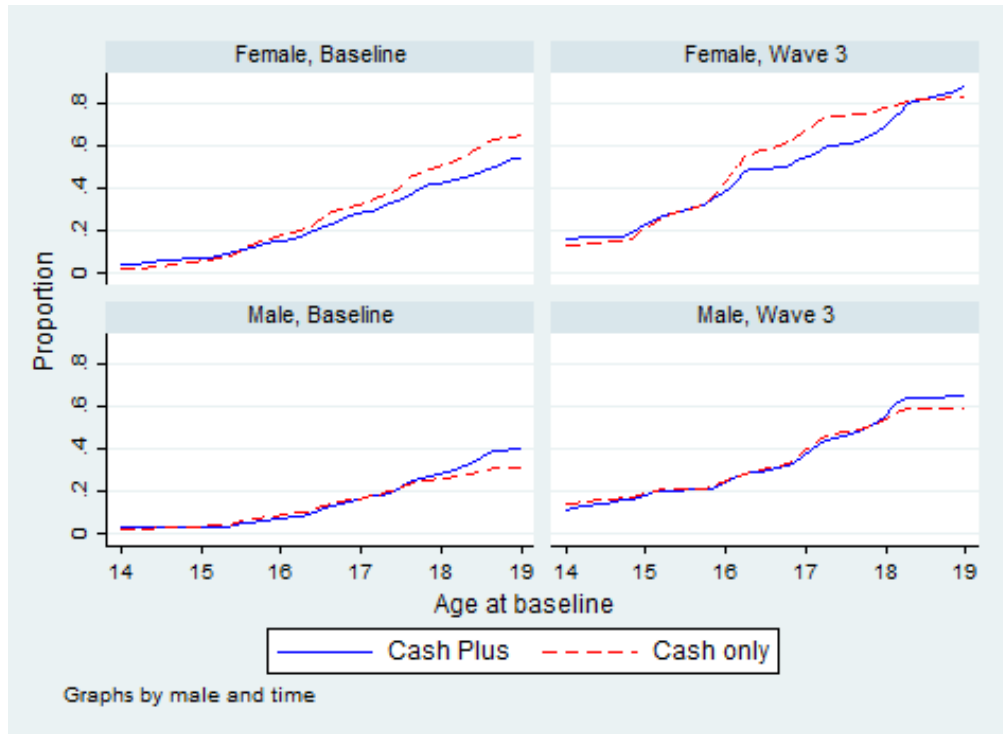


Figure 11.2 illustrates that sexual debut increases dramatically over the age range, particularly among females, where over 80 per cent of those aged 18–19 years at baseline had had sex by Round 3, as compared to just under 20 per cent among those aged 14 years at baseline. Among males, the percentages are approximately 60 per cent and under 20 per cent for 19- and 14-year-olds (age at baseline), respectively.

11.3 Fertility

We examined programme impacts on pregnancy, a fertility-related outcome. It was posited that increased health capacities gained through the intervention might delay pregnancy; however, existing evidence on this topic is mixed, as described in the introduction to this chapter. Topics covered in the Cash Plus curriculum related to fertility included:

- Explaining what needs to be done if they are pregnant/their partners are pregnant, including medical steps to take and the responsibilities of both partners
- Articulating ways of advocating with the community to ensure optimum care before, during and after giving birth
- Explaining the risks of unsafe abortions

Among females, we asked whether they were currently pregnant or had ever been pregnant. To examine programme effects at Round 3, we excluded females and males who had reported ever being pregnant or impregnating someone at baseline. Among the treatment group, individuals lost to follow-up were more likely to have sexually debuted at baseline (with the exception of control females), and there was evidence of selective attrition on this outcome.

By Round 3, we see that 21 and 23 per cent of control and treatment females, respectively, have been pregnant. Approximately 4–5 per cent were currently pregnant at the time of the Round 3 survey (see Table 11.3). These rates are in line with regional rates of teenage childbearing, as 22 per cent and 20 per cent of females aged 15–19 years have been pregnant in Mbeya and Iringa regions, respectively.¹³⁶ Among males, only 3.5 and 3.9 per cent of the control and treatment groups, respectively, report having ever made a female pregnant. There were no impacts on any of these outcomes.

Table 11.3. Cash Plus impacts on fertility indicators (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Ever pregnant	0.009 (0.03)	0.020 (0.06)	0.211	0.231
<i>N</i>	889	889	465	424
Currently pregnant	-0.006 (0.01)	-0.013 (0.03)	0.048	0.043
<i>N</i>	869	869	454	415
Males: ever got female pregnant	0.008 (0.01)	0.024 (0.03)	0.035	0.039
<i>N</i>	1,184	1,184	596	588
Mistime last or current pregnancy	-0.000 (0.06)	-0.001 (0.14)	0.589	0.594
<i>N</i>	301	301	158	143

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported fertility at baseline were excluded from the analysis.

11.4 Contraceptive knowledge and use

It was posited that increased health capacities gained through the intervention would improve knowledge and use of modern contraceptives. The Cash Plus programme curriculum covered family planning topics, including:

- Explaining the most common forms of family planning available, their advantages and disadvantages
- Choosing the best method for themselves and accessing available family planning services
- Explaining double protection of condoms and negotiating condom use with partner

We examined impacts on contraception-related knowledge and use.¹³⁷ We analysed indicators for knowledge and use differently. For knowledge we used longitudinal data and examined changes over time using the ANCOVA model. However, since adolescents were sexually debuting during the year between Rounds 2 and 3, and we wanted to capture impacts on any individual who had sexually

¹³⁶ Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) [Tanzania Mainland], et al., Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) 2015-16, MoHCDGEC, MoH, NBS, OCGS, and ICF, Dar es Salaam, Tanzania, and Rockville, Maryland, USA, 2016.

¹³⁷ For the purposes of our analyses, modern methods were defined as male or female sterilization, injectables, implants, intrauterine devices, pills, condoms (male or female), diaphragms, foam or jelly, lactational amenorrhoea method or emergency contraceptive pills. In contrast, non-modern methods, which have lower efficacy rates, include withdrawal or rhythm method.

debuted by Round 2, we used a single difference approach to identify programme impacts for use of modern contraceptive methods, including condoms, which were evaluated separately and in the combined indicator.

Table 11.4 shows knowledge of contraceptive methods was generally high at Round 3, increasing over baseline for both treatment and control groups (from 73 per cent at baseline to 90.1 per cent and 93.6 per cent, for control and treatment groups, respectively). We see that the intervention increased knowledge about contraceptives (traditional and modern combined) by 3.3 percentage points (8.6 percentage points, ATT estimates). Moreover, the intervention increased knowledge of modern contraceptive methods by 4 percentage points (10.5 percentage points, ATT estimates). The effects in the overall sample appear to be driven by females, whose knowledge of modern methods increased by 4.8 percentage points, while impacts among males were not statistically significant (see Appendix F; Table F.11.4).

Table 11.4. Cash Plus impacts on contraceptive knowledge (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Has knowledge about contraceptives	0.033** (0.01)	0.086* (0.03)	0.771	0.920	0.946
Has knowledge about modern contraceptives	0.040** (0.01)	0.105** (0.04)	0.729	0.901	0.936
<i>N</i>	2,157	2,157	2,157	1,114	1,043

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Figure 11.3. Knowledge of modern contraception, by gender and time

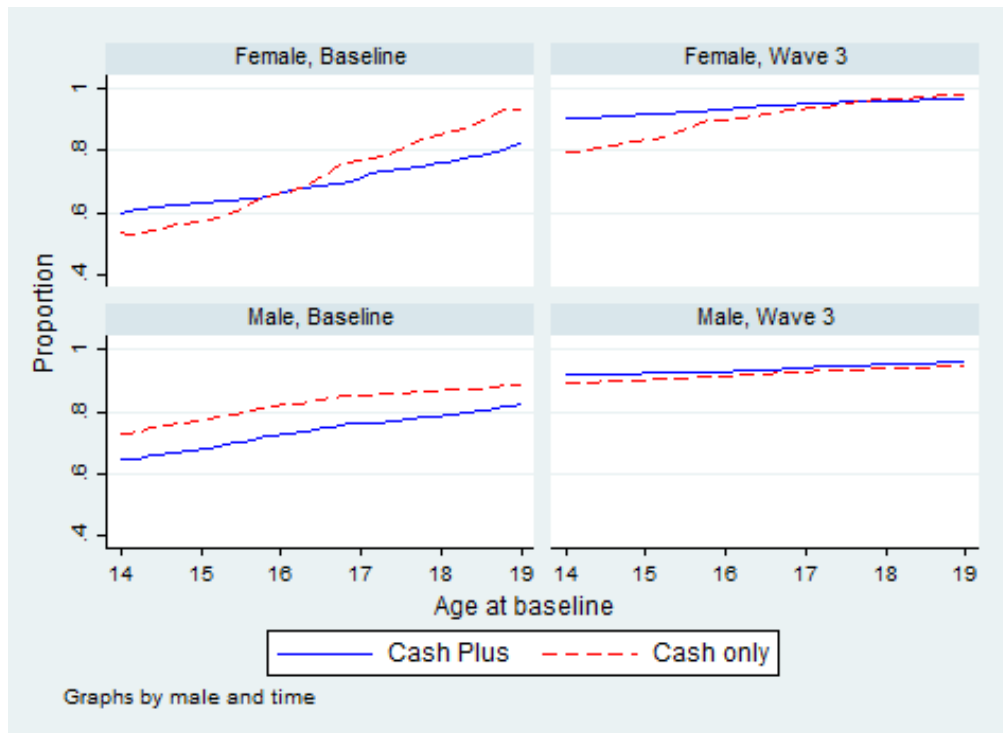


Figure 11.3 indicates that at the lower age range, at both baseline and Round 3, males have higher knowledge of modern contraceptive methods. However, at Round 3, rates are similar among males and females at the higher end of the age range (ages 18–19 years).

While the intervention increased knowledge of contraceptive methods, by Round 3 we did not see any increases in use of these methods resulting from the intervention (*see Table 11.5*). Among adolescents who had sexually debuted, we see that 47–50 per cent used a condom at last sex, and 62–63 per cent were using any contraceptive method (61 per cent were using a modern method). These rates are much higher than national modern contraceptive usage rates (estimated among married and sexually active, unmarried women) among females aged 15–19 years (8.6 per cent) and 20–24 years (28.9 per cent). Among all women aged 15–49, modern contraceptive use rates are 32.1 per cent in Iringa and 45 per cent in Mbeya, according to the most recent DHS.¹³⁸ Further, Figure 11.4 shows that rates of condom use at last sex between treatment and control groups are similar (47–50 per cent).

¹³⁸ Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) [Tanzania Mainland], et al., Tanzania Demographic and Health Survey and Malaria Indicator Survey (TDHS-MIS) 2015-16, MoHCDGEC, MoH, NBS, OCGS, and ICF, Dar es Salaam, Tanzania, and Rockville, Maryland, USA, 2016.

Table 11.5. Cash Plus impacts on contraceptive use (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Last sex: used condom	-0.031 (0.05)	-0.080 (0.12)	0.496	0.472
<i>N</i>	792	792	419	373
Currently using contraceptive - among sexually debuted	0.001 (0.04)	0.003 (0.11)	0.623	0.627
<i>N</i>	792	792	419	373
Currently using modern contraceptive - among sexually debuted	-0.005 (0.05)	-0.012 (0.12)	0.609	0.609
<i>N</i>	792	792	419	373

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Figure 11.4. Condom use at last sex, by time

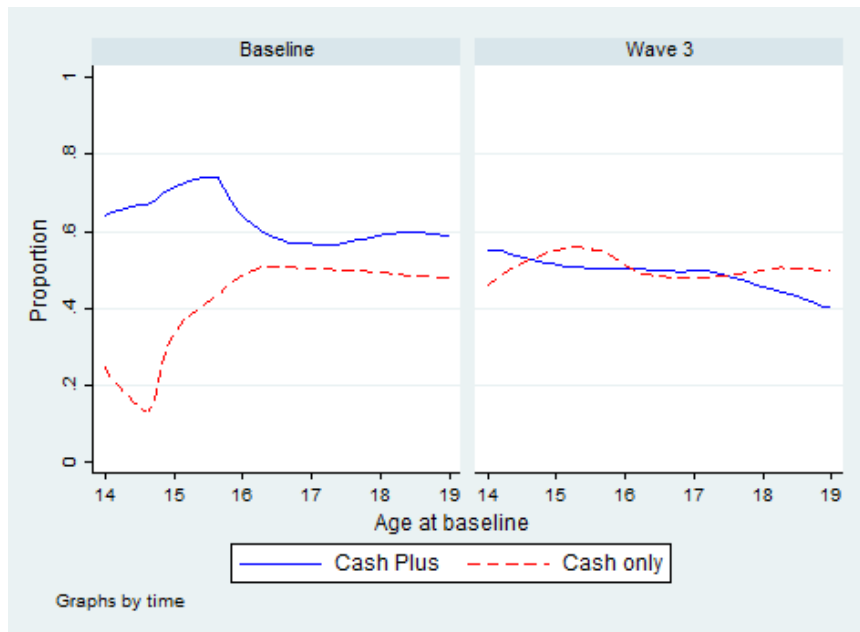


Figure 11.5. Condom use at last sex, by time and gender

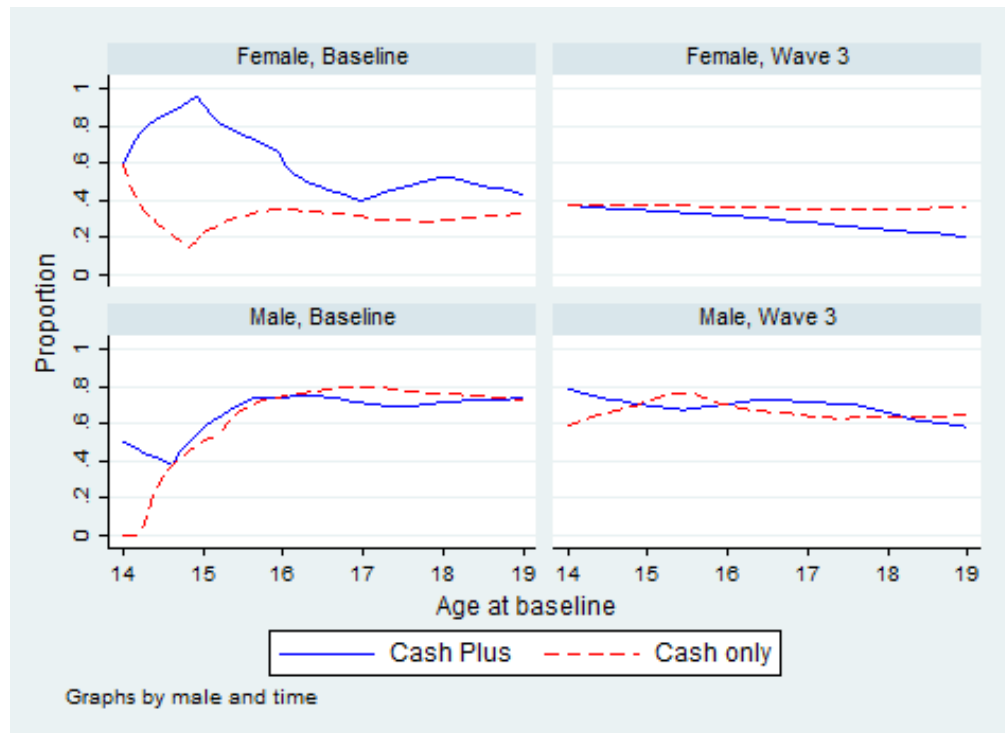


Figure 11.5 shows condom use at last sex by gender, and we see that females report much lower rates of condom use than males. This is likely driven by higher rates of marriage among females than males in our sample and lower rates of condom use within marriage.

11.5 Sexual behaviours and HIV risk

Certain risky sexual behaviours, such as concurrent partnerships, increasing number of partners, age disparate relationships, failure to use a condom, and early sexual debut, can increase HIV risk. As such behaviours are often driven by economic insecurity, our conceptual framework posited that increased economic security and increased health capacities would decrease incentives to engage in them.

The following topics and how they relate to HIV risk were covered in the training:

- Having more than one concurrent sexual partner
- Changing sexual partners frequently
- Having sexual contact without a condom and/or without testing
- 'Trusting' your partner has no STI or HIV without testing
- Having a sexual partner who is much older
- Using unreliable methods of birth control or using birth control inconsistently
- Exchanging sex for money/favours/presents/job
- Forcing sex or raping

Community norms and practices, such as the idea that girls are often expected to have sex with older men who are more sexually experienced, were also discussed in the training. Also discussed was how the community has a responsibility to 1) ensure that girls are protected from sexual harassment and abuse by men in the community and 2) ensure girls are not put in a position where they are tempted to have sex for material reasons (e.g., hunger, having to feed younger siblings etc.). The training also provided information on girls' increased biological and social vulnerability to contracting HIV and the need, among those who are sexually active, for physical protection (condoms) and negotiation skills.

To assess programme impacts on HIV risk behaviours, we asked questions about sexual behaviours in the past 12 months, including number of partners, concurrent relationships, condom use, and disparate age of partner at last sex among adolescents who had ever had sex. These sexual behaviour questions were asked only to those adolescents who had sexually debuted. For those who debuted between survey rounds, we recoded baseline values from missing to zero for longitudinal analyses. Attrition analyses for these outcomes refer to only those with data reported at baseline.

Table 11.6 indicates that between baseline and Round 3, the average number of sexual partners in the last 12 months has increased to 1.4 partners from 0.47 at baseline, among those who had sexually debuted by Round 3 (n=738). This is to be expected, as the sample has aged. Among this sample of those who sexually debuted, between 7 and 8 per cent report concurrent sexual relationships over the previous 12 months. Moreover, 21 and 18 per cent of the control and treatment groups, respectively, report having a partner five or more years older. Only 3 and 2 per cent of control and treatment groups, respectively, report having a partner ten or more years older. There were no programme impacts on these indicators, and all indicators with the exception of an age difference with partner of five or more years, were balanced at baseline among the panel sample.

Table 11.6. Impacts on recent sex indicators (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Number of sexual partners in last 12 months	0.009 (0.09)	0.023 (0.24)	0.471	1.346	1.362
<i>N</i>	792	792	792	419	373
Among ever had sex: has had concurrent sexual relationships in last 12 months	0.003 (0.02)	0.008 (0.05)	0.019	0.074	0.080
<i>N</i>	792	792	792	419	373
Last sex: partner 5 or more years older	-0.006 (0.02)	-0.016 (0.06)	0.065	0.209	0.183
<i>N</i>	738	738	738	388	350
Last sex: partner 10 or more years older	-0.010 (0.01)	-0.027 (0.03)	0.008	0.034	0.023
<i>N</i>	738	738	738	388	350

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Missing values at baseline were replaced with zero.

11.6 Transactional sex

Transactional sex is an adverse outcome under the umbrella of exploitation and abuse. The 12-week training curriculum covered awareness of economic incentives for sex, or having sex for material reasons (e.g., hunger, having to feed younger siblings etc.). Recognizing that poverty often drives incentives for transactional sex as a way to meet basic needs as well as obtain material wants,¹³⁹ and because of the subsequent risks, including HIV risk, abuse and violence, low sexual relationship power, alcohol use, multiple partners, and non-use of condoms¹⁴⁰ we assessed transactional sex indicators among unmarried youth in our study.

To collect information on transactional sex, we used an innovative new tool¹⁴¹ developed by Wamoyi et al.^{142,143,144} In line with the definition provided by Wamoyi et al., we analysed these questions among the sub-set of unmarried individuals at Round 3. While transactional sex definitions may still refer to extra-marital relationships among married individuals, we did not have the information to distinguish reporting on marital and extra-marital relationships in our data, and thus we exclude those who are married. Among females, we provide impact estimates on an additive scale including all indicators except “provided money, favours or gifts for sex.” Among males, we provide impact estimates on the item “provided money, favours or gifts for sex.” Our use of the additive scale was based on input from one of the study authors of the Wamoyi et al. article.

Table 11.7. Cash Plus impacts on transactional sex indicators, unmarried adolescents who have sexually debuted (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Provided money, favours, or gifts for sex last 12 months, males only	0.040	0.138	0.032	0.157	0.197
	(0.04)	(0.15)			
<i>N</i>	342	342	342	185	157
Index (additive; range 0–3), females only	0.185	0.350	0.414	1.111	1.296
	(0.09)	(0.18)			
<i>N</i>	297	297	297	162	135

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Missing values at baseline were replaced with zero.

139 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.

140 Wamoyi, J., et al., ‘Improving the measurement of transactional sex in Sub-Saharan Africa: a critical review’, *Journal of acquired immune deficiency syndromes*, vol. 80, no. 4, 2019, p. 367.

141 While this tool was published in 2019, study co-author Meghna Ranganathan provided us with the questionnaire items in 2017, prior to our baseline, and so we have implemented these measures at all rounds. Analyses in the current report include only unmarried youth in line with this definition; however, previous rounds (baseline and Round 2) included all youth and are therefore not directly comparable.

142 Wamoyi, J., et al., ‘Improving the measurement of transactional sex in Sub-Saharan Africa: a critical review’, *Journal of acquired immune deficiency syndromes*, vol. 80, no. 4, 2019, p. 367.

143 The authors of this new measure highlighted widespread misunderstanding of both transactional sex and its measurement, including how it is often confused with sex work. They stressed that transactional sex is informal sexual exchange relationships, different from sex work, and define transactional sex formally as, “Noncommercial, nonmarital sexual relationships motivated by an implicit assumption that sex will be exchanged for material support or other benefits.” They tested the newly developed measures in Tanzania and Uganda. In testing in Tanzania, the question about financial motivations for ‘leaving’ a relationship was somewhat problematic, and thus effects on this indicator should be interpreted with caution.

144 In the questionnaire, 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. Then we asked if they were given money by their current or most recent partner; whether they would leave the relationship if the partner did not financially support him/her; and whether they had provided money, favours, or gifts for sex in the last 12 months.

We report findings among unmarried adolescents who had sexually debuted by Round 3 (n=639) (see Table 11.7). Among males, 15.7 per cent and 19.7 per cent of the control and treatment groups, respectively, reported that they provided money, favours or gifts for sex in the last 12 months. Among females, the average scores of the index were 1.1 and 1.3 among control and treatment groups, respectively. These indicators were balanced at baseline among the panel sample and there was no evidence of selective attrition. There were no programme impacts found on these indicators.

Financial motives or motives of a transactional nature are described by a number of adolescents in the qualitative interviews as reasons for starting a sexual relationship. These motives include being given money, promises of a 'better' life or even marriage for some. The following examples elaborate:

He promised that he will marry me and there I will do business, I knew I would be at a better place rather than just sitting idle. "I will set a business for you can sell even soda, I will set a small shop, even if you don't want soda, you can cook like a restaurant" I said okay, that will be better. But it's just like that, my dream wasn't realized, he conned me.

Female, 17 years, completed Standard Seven, Rungwe (Treatment)

I got into a relationship because that woman was giving me money a lot, and then her family has some money. She was giving me money, so I thought she was helping me. She was forcing me until I entered into a relationship.

Male, 18 years, completed Standard Seven, Rungwe (Treatment)

R: Because he was giving me money to spend, like 5,000, sometimes 3,000, like that.

I: Were you asking for it or was he just giving you himself?

R: He was giving me, I wasn't asking.

I: Do you still have a relationship with that young man?

R: No.

I: Did he refuse the pregnancy?

R: No, he accepted.

Female, 16 years, Form Three dropout due to pregnancy, Mufindi (Treatment)

Among females who entered relationships of a transactional nature as reported in qualitative interviews, all those who became pregnant ended up raising the children alone while the men stopped communicating with them or moved away. Therefore, the vicious cycle of poverty for these girls was exacerbated, as they now have to take care of the children.

11.7 HIV knowledge

Much of the health-related life skills training was on HIV knowledge, related to prevention, testing and treatment. We assessed whether adolescents had heard about HIV, from what source, and whether they knew HIV-related facts. Two sets of analyses were run on these indicators: 1) single difference analysis for indicators not collected at baseline (knows sex with one uninfected monogamous partner can reduce risk of HIV; thinks mosquitos can transfer HIV; and knows regular condom use reduces HIV) and 2) ANCOVA models for items asked at all rounds. The intervention increased HIV-related knowledge by

5.2 percentage points (13.7; ATT estimates) with respect to knowing that regular condom use reduces HIV risk (see Table 11.8). The percentages of the sample having accurate knowledge on this item were 69.4 and 74.5 per cent among control and treatment groups, respectively. Further, 62.7 and 66.7 per cent of control and treatment groups, respectively, knew that sex with one uninfected monogamous partner reduces HIV risk. While impacts on this outcome were significant at Round 2, and knowledge rates were still higher among the treatment group, this impact was no longer statistically significant at Round 3. Knowledge that HIV cannot be transmitted via food and mosquitos was also generally high.

Table 11.8. Cash Plus impacts on HIV knowledge, (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Knows that sex with one uninfected monogamous partner can reduce risk of HIV	0.041 (0.03)	0.108 (0.07)	0.627	0.666
Knows mosquitos do not transfer HIV	-0.014 (0.02)	-0.036 (0.04)	0.872	0.857
Knows regular condom use reduces HIV risk	0.052* (0.02)	0.137* (0.06)	0.694	0.745
Knows HIV is not transferred through food	-0.007 (0.01)	-0.018 (0.03)	0.936	0.929
<i>N</i>	2,176	2,176	1,121	1,055

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table 11.9. Cash Plus impacts on HIV knowledge (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Knows that a good-looking person can have HIV	0.034 (0.02)	0.089 (0.05)	0.816	0.759	0.791
Knows that a mother can transmit HIV to her child	-0.002 (0.02)	-0.006 (0.05)	0.691	0.675	0.667
Knows there are medicines that help an HIV positive person to live longer	0.002 (0.01)	0.004 (0.04)	0.885	0.910	0.912
<i>N</i>	2,122	2,122	2,122	1,093	1,029

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Turning to HIV knowledge indicators measured at all rounds (see Table 11.9), we find no programme impacts on these indicators. We see that 75.9 and 79.1 per cent of control and treatment groups, respectively, know that a good-looking person can have HIV. Further, 67.5 and 66.7 per cent of control

and treatment groups, respectively, know that a mother can transmit HIV to her child. Finally, 91 per cent of the sample knows there are medicines that help an HIV-positive person to live longer. These indicators were balanced at baseline with no indication of selective attrition.

When examining HIV knowledge separately by gender, we see that the impact on increased knowledge related to condom use reducing HIV risk appears to be driven by males (7.8 percentage points; *see Appendix F, Table F.11.7*). Females had higher rates of accurate HIV knowledge on three out of four of the indicators asked only at Rounds 2 and 3 as compared to males (rates were similar for knowledge that sex with one uninfected monogamous partner can reduce HIV risk). With respect to the three indicators measured at all rounds, females had higher rates of knowledge on two indicators (knows that a mother can transmit HIV to her child; knows there are medicines that can help an HIV-positive person to live longer) and lower rates of knowledge with respect to knowledge that a good-looking person can have HIV (*see Appendix F, Table F.11.8*).

11.8 Perceived HIV risk and testing

Next, we examined adolescents' perceived HIV risk and testing history. We asked youth about their self-perceived risk of contracting HIV, and then asked about whether they had 1) been tested (lifetime or 12 months) for HIV and 2) whether they had received their results. We did not ask adolescents to report the outcome of the test and do not directly ask adolescents their HIV status. Most adolescents believed their HIV risk to be none (65.7 and 68.4 per cent of control and treatment groups, respectively; *see Table 11.10*). This was down from 84.3 per cent at baseline, indicating that perceived HIV risk has increased over the previous two years among this sample. The percentages believing their risk was moderate or high were only 7.7 and 8.4 of control and treatment groups, respectively. Approximately one in four (26.6 and 23.2 among control and treatment groups, respectively) believed their risk to be low. There were no programme impacts on perceived HIV risk.

Table 11.10. Cash Plus impacts on HIV risk indicators (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Perceived HIV risk: moderate/high	0.011 (0.01)	0.029 (0.03)	0.028	0.077	0.084
<i>N</i>	2,124	2,124	2,124	1,093	1,031
Perceived HIV risk: low	-0.035 (0.03)	-0.093 (0.07)	0.129	0.266	0.232
<i>N</i>	2,124	2,124	2,124	1,093	1,031
Perceived HIV risk: none	0.025 (0.03)	0.065 (0.07)	0.843	0.657	0.684
<i>N</i>	2,124	2,124	2,124	1,093	1,031
Tested for HIV: Lifetime	0.045 (0.02)	0.119 (0.06)	0.440	0.618	0.665
<i>N</i>	2,172	2,172	2,172	1,119	1,053
Tested for HIV: 12 months	0.062* (0.02)	0.164* (0.06)	0.294	0.429	0.488
<i>N</i>	2,191	2,191	2,191	1,128	1,063
Received HIV test results: 12 months	0.047 (0.03)	0.125 (0.08)	0.658	0.709	0.743
<i>N</i>	802	802	802	402	400

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

The programme increased HIV testing in the previous 12 months by 6.2 percentage points (16.4 percentage points; ATT estimates). Increasing from 29.4 per cent at baseline, 42.9 and 48.8 of control and treatment groups, respectively, were tested for HIV in the previous 12 months. There were no impacts on receiving their results, which was reported by 70.9 and 74.3 per cent of control and treatment groups, respectively, among those who were tested (n=802). As expected, rates of lifetime testing were higher at 61.8 and 66.5 per cent among control and treatment groups, respectively. These indicators were balanced at baseline and there was no indication of selective attrition.

When we examine perceptions and testing by gender, we see that perceived risk has increased over time within the sample (see Figure 11.6). Rates of perceived high risk among females are 9 per cent and, among males, are 6.6 and 8.2 per cent among control and treatment groups, respectively (see Appendix F, Table F.11.6). Further, we see that among females, the intervention reduced the perception of low HIV risk by 7.1 percentage points and increased their lifetime testing rates by 6.8 percentage points. Among males, we see increased 12-month testing rates (8.6 percentage points) and receiving results among those tested (11.3 percentage points). These were not significant among females, which means the positive effects found on testing among the overall sample was driven by males. This is a promising finding, given that adolescent males have been found to be difficult to reach with HIV testing in other studies.

Figure 11.6. Perceived HIV risk moderate/high, by gender and time

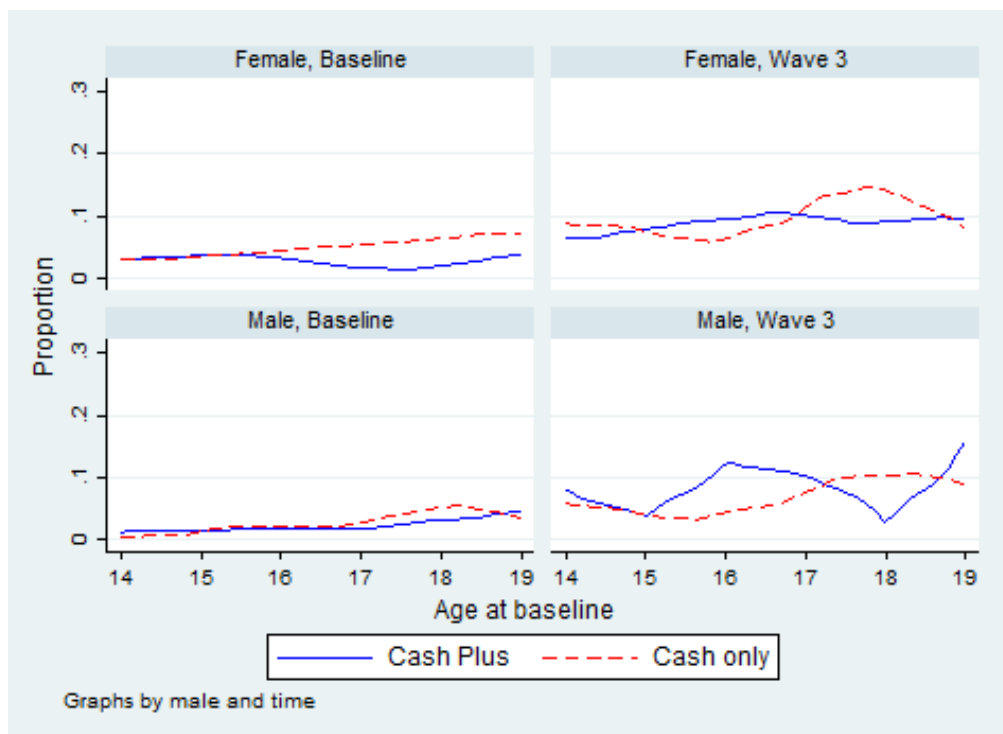


Figure 11.7. Boxplot summary of ITT impacts on sexual behavior, single difference estimates

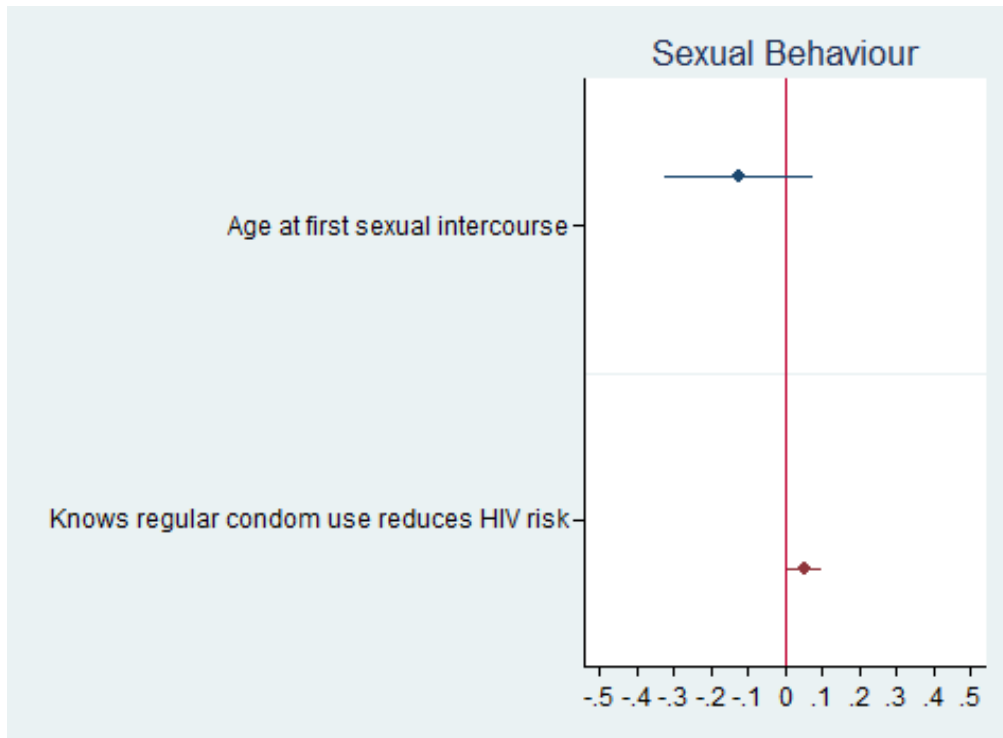
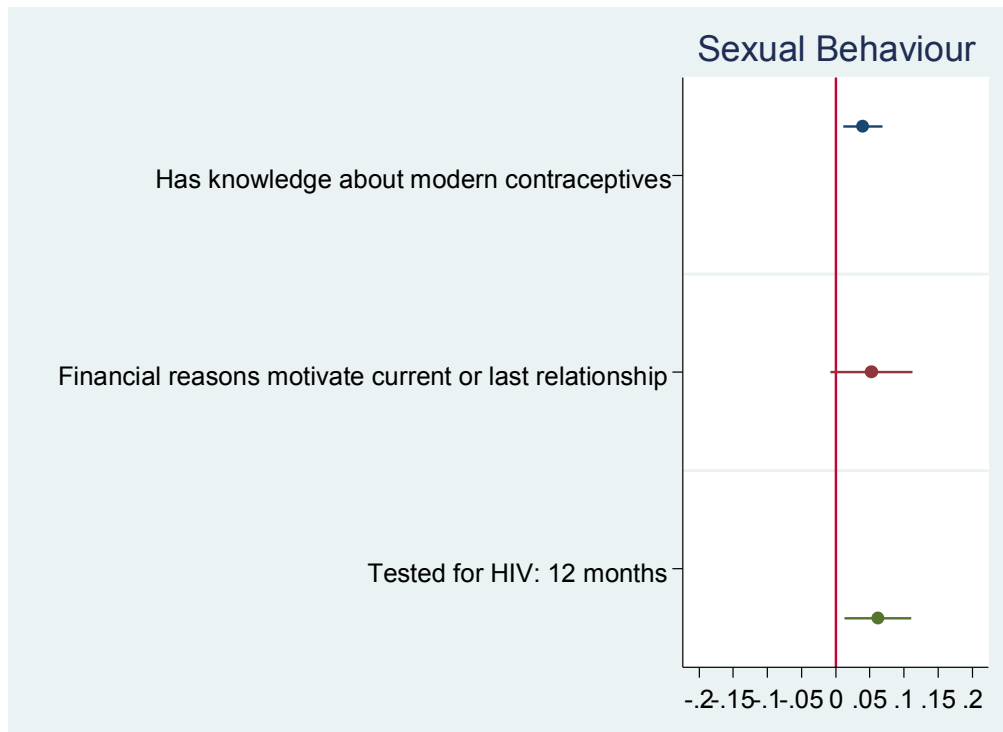


Figure 11.8. Boxplot summary of ITT impacts on sexual behavior, ANCOVA estimates



12. ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH SERVICES

Main findings

The Cash Plus programme led to a 5 percentage point increase in the probability of visiting a health facility among boys.

The programme led to a 17 percentage point increase in the likelihood that adolescents reported staff discussed contraception with them at a health facility.

The intervention also led to greater knowledge among adolescents on where to get contraception and condoms. The effects are larger than those found at Round 2.

Health facilities have become more adolescent friendly over time, compared to both baseline and Round 2.

This chapter discusses access to and knowledge about SRH services, defined as services related to contraception, pregnancy and STIs, including HIV testing and treatment. It also looks at how the Cash Plus intervention affected the experiences of adolescents seeking HIV and SRH services. Improving access to these services is one of the main objectives of the Cash Plus intervention. As discussed in the Round 2 report, the training curriculum included information on prevention and treatment of HIV and other STIs, and information on family planning and contraception. The second phase of the programme focused further on promoting uptake of adolescent-responsive SRH and HIV services through the work of the mentors and peer educators, both by strengthening adolescents' knowledge related to decisions affecting their health and through referrals to health services. This was accompanied by a strengthening of health services (supply-side). Together, these intervention components are expected to lead to both an increase in visits to health facilities as well as an improvement in the experiences of adolescents who seek HIV and SRH services.

Lagarde et al. (2019) have summarized the impacts of cash transfer programmes (conditional and unconditional) on health-seeking behaviour and uptake of health care services. They conclude that, generally, these programmes have had a positive effect on the uptake of health care services. However, most of them look at the impact on children and their caregivers (usually the recipients of these transfers).¹⁴⁵ The literature regarding adolescents is more scarce, given that social protection interventions rarely target only adolescents, or generally do not give the cash directly to adolescents.¹⁴⁶ However, adolescents often have limited access to adolescent-friendly SRH services in poor settings.¹⁴⁷ It is expected, therefore, that adolescents will benefit from interventions such as Cash Plus, which relax financial constraints and simultaneously facilitate access to SRH services, including through improving the quality and provision of adolescent-friendly services.

The types of facilities adolescents visit include dispensaries, clinics, health care centres, hospitals or doctors, or government facilities. Table 12.1 shows that the Cash Plus intervention did not lead to an increase in the proportion of adolescents who had ever visited a health facility or who had visited a

145 Lagarde M, Haines A, Palmer N., 'The impact of conditional cash transfers on health outcomes and use of health services in low and middle income countries', *Cochrane Library*, vol. 4, no. 4, 2009, pp. 1-50.

146 Khoza, N., et al., 'Cash transfer interventions for sexual health: meanings and experiences of adolescent males and females in inner-city Johannesburg', *BMC public health*, vol. 18, no. 1, 2018, p. 120.

147 Odo, A. N., et al., 'Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: a mixed methods approach', *BMC health services research*, vol. 18, no. 1, 2018, p. 92.

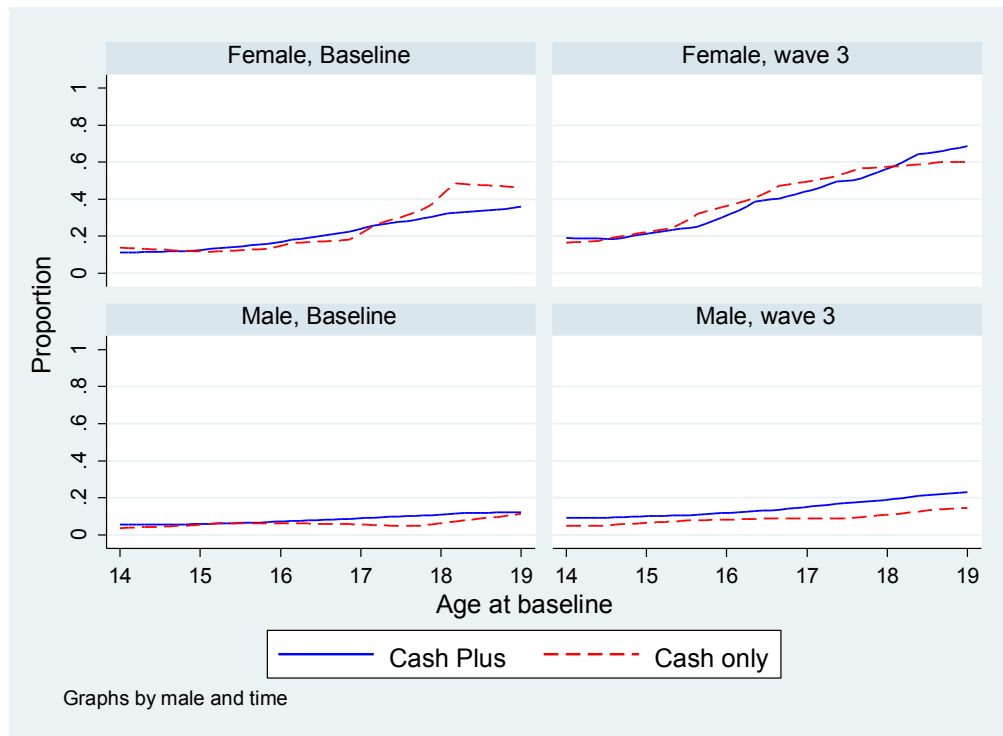
facility in the past 12 months. Among those adolescents who had visited a health facility in the past 12 months, there is no effect of the programme on the type of health facility visited. However, if we look separately at the impacts for males and females (see Table F12.1 in Appendix F and Figure 12.1), we see that the intervention increased the likelihood that males visited a health facility in the last 12 months by 5.6 percentage points. In terms of the type of health facility that males and females visited, the programme increased visits to dispensaries and decreased visits to clinics, health centres and hospitals among males, and increased visits to government facilities among females.

Table 12.1. Cash Plus impacts on visits

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Visited health facility for SRH services - lifetime	0.019 (0.02)	0.050 (0.05)	0.259	0.267
<i>N</i>	2,191	2,191	1,128	1,063
Visited health facility for SRH services - past 12 months	0.030 (0.02)	0.078 (0.05)	0.212	0.232
<i>N</i>	2,191	2,191	1,128	1,063
Last SRH visit at dispensary - past 12 months	0.046 (0.05)	0.098 (0.11)	0.512	0.538
<i>N</i>	487	487	240	247
Last SRH visit at clinic, health care centre, hospital, doctor - past 12 months	-0.038 (0.05)	-0.082 (0.11)	0.479	0.462
<i>N</i>	487	487	240	247
Last SRH visit at government facility - past 12 months	0.051 (0.03)	0.108 (0.06)	0.896	0.947
<i>N</i>	487	487	240	247

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects (regressions for the first two outcomes also control for outcome value at baseline). Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Figure 12.1. Visited a health facility past 12 months, by time and gender



In Table 12.2 we examine reasons for visiting a health facility among those adolescents who have sought SRH services in the past 12 months ($n=486$). The most often stated reason to visit a facility is contraception or condoms (57.9 per cent among Cash Plus participants and 54 per cent among non-participants). The impact coefficient is not statistically significant though, which means the programme did not increase the number of participants visiting a health facility for this reason. The second most often stated reason is pregnancy, maternity, gynecological exam (31.4 per cent among the control group and 25.9 per cent among treated participants), followed by STI testing/treatment (between 12 and 13 per cent). Again, differences are not significant between the two groups, indicating no programme impacts.

Next, we asked adolescents about topics discussed by health facility staff during their last visit, regardless of the reason for this visit, as well as the perceived quality of services provided. In terms of topics discussed, the programme led to a higher likelihood of staff discussing contraception, probably as a result of the health services strengthening component of the programme (see Table 12.3). The programme led to a 17.3 percentage point increased likelihood of staff discussing contraception (37 percentage points; ATT estimates). This positive effect applies to both males and females (see Table F.12.3 in Appendix F).

We do not observe significant impacts of the programme on perceived quality of services provided. This is most likely because both treated and control adolescents already had high perceptions of the quality of services/staff at baseline, which left little room for improvement through the programme. Moreover, services are becoming more adolescent friendly over time. Looking at the whole sample, 86 per cent of the youth reported at Round 3 that they felt comfortable asking SRH questions as compared to 82 per cent at Round 2 and 78 per cent at baseline. Further, 92 per cent said that SRH services were adequately confidential (as compared to 80 per cent at baseline). The proportion of adolescents reporting that SRH staff were friendly and that staff answered SRH questions adequately was higher than 95 per cent.

Table 12.2. Cash Plus impacts on reasons for visits (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Last SRH visit reason: contraception, condoms	0.040 (0.05)	0.085 (0.11)	0.540	0.579
Last SRH visit reason: STI testing/treatment	-0.023 (0.03)	-0.049 (0.07)	0.121	0.130
Last SRH visit reason: pregnancy, maternity, gynecological exam	-0.022 (0.04)	-0.047 (0.09)	0.314	0.259
<i>N</i>	486	486	239	247

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table 12.3. Cash Plus impacts on quality of staff (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
At last SRH visit, staff discussed contraception	0.173** (0.05)	0.370** (0.11)	0.444	0.607
<i>N</i>	486	486	239	247
At last SRH visit, staff discussed STI testing/treatment	0.027 (0.05)	0.057 (0.11)	0.444	0.518
<i>N</i>	486	486	239	247
At last SRH visit, staff discussed pregnancy	0.046 (0.05)	0.099 (0.10)	0.381	0.421
<i>N</i>	486	486	239	247
At last SRH visit, staff did not discuss contraception, STIs, pregnancy	-0.031 (0.03)	-0.066 (0.06)	0.113	0.073
Adolescent felt comfortable asking SRH staff questions	0.012 (0.04)	0.026 (0.08)	0.849	0.870
<i>N</i>	486	486	239	247
Staff answered SRH questions adequately	0.007 (0.02)	0.015 (0.03)	0.966	0.977
<i>N</i>	419	419	204	215
At last SRH visit, staff was friendly	0.008 (0.01)	0.018 (0.02)	0.983	0.988
<i>N</i>	486	486	239	247
SRH services were adequately confidential	0.004 (0.02)	0.008 (0.05)	0.921	0.923
<i>N</i>	486	486	239	247

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Finally, we assessed adolescents' knowledge of places where they can obtain contraceptives or get tested for HIV or other sexually transmitted diseases. Knowledge on where to get contraception and condoms increased as a result of the intervention (*see Table 12.4*). Adolescent participants were 2.8 and 2.5 percentage points (7.3 and 6.7 according to ATT estimates, respectively) more likely to know that they could get contraception at a clinic and at a kiosk, respectively. Participants were also 4.8 and 5.7 percentage points (12.7 and 15 percentage points; ATT estimates) more likely to know they could get condoms in those same places. They were also less likely to report that they did not know where to get condoms. The positive findings seem to be driven by all the components together, except for knowledge that condoms can be obtained at the clinic, where the training plus the grants seem to be driving the impacts (as compared to training plus mentorship (*see mediation analysis, Appendix G*)).

Table 12.4. Cash Plus impacts on knowledge on where to get contraceptives and condoms, and where to get tested (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Contraception at clinic	0.028* (0.01)	0.073* (0.03)	0.895	0.921
Contraception at kiosk/shop	0.025* (0.01)	0.067* (0.03)	0.057	0.085
Contraception at pharmacy	0.038 (0.03)	0.099 (0.07)	0.262	0.298
Contraception at free dispenser	-0.020 (0.01)	-0.052 (0.03)	0.046	0.027
Contraception do not know	-0.017 (0.01)	-0.045 (0.02)	0.063	0.047
Condom at clinic	0.048* (0.02)	0.127* (0.06)	0.668	0.718
Condom at kiosk/shop	0.057* (0.02)	0.150* (0.06)	0.465	0.523
Condom at pharmacy	0.025 (0.04)	0.066 (0.09)	0.508	0.532
Condom at free dispenser	-0.011 (0.01)	-0.030 (0.03)	0.047	0.037
Condom do not know	-0.024* (0.01)	-0.062* (0.03)	0.066	0.041
Test at clinic	0.007 (0.01)	0.020 (0.02)	0.980	0.987
Test at kiosk/shop	0.010 (0.01)	0.026 (0.03)	0.018	0.029
Test at pharmacy	0.016 (0.01)	0.042 (0.04)	0.065	0.082
Test at free dispenser	-0.010 (0.01)	-0.027 (0.03)	0.037	0.028
Test do not know	-0.003 (0.00)	-0.008 (0.01)	0.012	0.008
N	2,191	2,191	1,128	1,063

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

These findings confirm those from Round 2 where we also found an increase in knowledge on where to obtain contraception. However, this time the positive effects seem to be coming from the male sample, as the gender analysis (*see Appendix F, Table F.12.5*) shows an increase in knowledge only among adolescent boys. The reason for this could be that girls' knowledge increased at Round 3 among both the treated and control groups. For instance, 96 per cent of female non-participants and 95 per cent of female participants knew they could get contraception at a clinic.

Adolescent's knowledge of places to obtain contraceptives or get tested for HIV or STIs was also confirmed in qualitative findings, where almost all participants mentioned where they could access these. Accessing condoms at health facilities is reported almost exclusively among males. Participants also report that youth access condoms at places other than health facilities. The participant below elaborates:

I: and what about condoms, I mean for youth, where do they go to get these services?

R: Like in kiosks and in shops.

I: And there are the dispensary, they don't go to take?

R: No. Because some of them the way I know, they go to take in kiosks or shops, like there in Ilolo, that's where they mostly go.

I: Maybe why do you think they go there and the facility is here nearby?

R: They go there because there's a guest house there I hear.

Female, 18 years, Completed Standard Seven, Rungwe (Treatment)

Some participants report myths associated with family planning methods. Given the high number of pregnancies reported by females in the qualitative interviews, myths could be contributing to reluctance among some adolescents to utilize family planning services, as elaborated below:

They say, I don't know, that if you put implants they stay for three years and then you get pregnant. Then if you go to put implants while you have not given birth, you can be spoilt and may not give birth to even one child.

Female, 16 years, Form Two student, Busokelo (Treatment)

They are worried, they say these things (family planning methods) have side effects. I mean, when she told injections, I don't know . . . pills, she thinks you are misleading her.

Male, 19 years, Form Two dropout, Mafinga (Treatment)

Another female youth explains how her best friend told her not to use family planning:

R: She said "Ok, but I had told you not to put, because they have side effects," and I said not really.

I: Ahaa, and when you went to the hospital, what did they tell you?

R: I asked, and they said they don't have any problems, maybe when you are starting, they can be irritating a little bit.

I: And did you get the irritability?

R: Other than a troubling stomach, nothing. But now I'm fine.

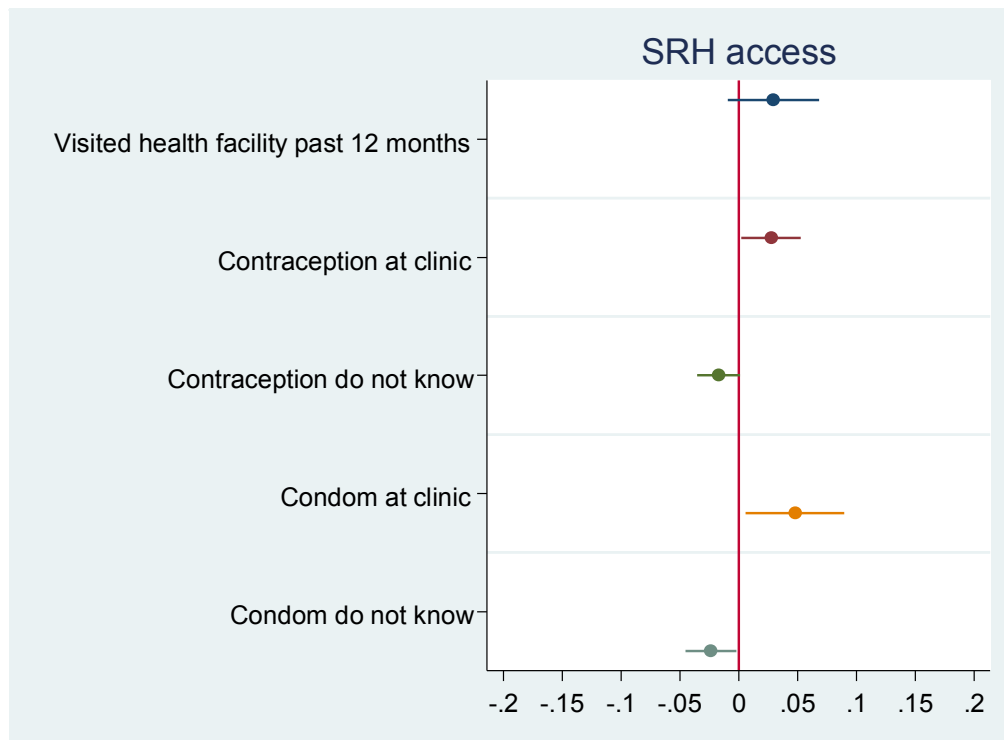
Female, 20 years, completed Standard Seven, Mufindi (Control)

For this youth, a family planning method was necessary because she already has two children from different men who are not supporting her in raising the children. As such, she felt that she did not want to have another unplanned pregnancy.

The intervention had no effect on knowledge about where to get tested for HIV and STIs. The reason for the lack of impacts is likely because knowledge is already very high, as 98 per cent of the youth knew at Round 3 that they could get tested at a clinic.

Figure 12.2 summarizes the ITT impacts on the key variables of this chapter.

Figure 12.2. Boxplot summary of ITT impacts on SRH access



13. VIOLENCE

Main findings

There were no programme impacts on experiences of emotional or physical violence.

The Cash Plus intervention reduced experience of sexual violence in the previous 12 months by 3.7 percentage points.

There were no programme impacts on any of the violence-related reporting (help-seeking) indicators.

The Cash Plus intervention reduced the perpetration of physical violence by 3.3 percentage points (representing a 47.8 per cent reduction in violence perpetration), and this impact was driven by males.

13.1 Experiences of emotional, physical and sexual violence

This section examines Round 3 impacts on experiences and perpetration of violence. Violence experienced in adolescence has long-term impacts on health and well-being. Moreover, many individuals form romantic relationships for the first time during adolescence, and research indicates that intimate partner violence (IPV) begins early (often in adolescence),¹⁴⁸ thus prevention efforts should be prioritized during this period of the lifecycle. By adulthood, one in three women globally have experienced IPV in their lifetime.¹⁴⁹

A national study on violence against children in Tanzania from 2009 indicated 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 18.¹⁵⁰ In that study, among those who experienced childhood sexual violence, few told someone about the abuse or sought help following an incident. In addition, not all those who sought services actually received them (59.4 per cent of females and about one in three males). Furthermore, the study revealed that for 30 per cent of females and 20 per cent of males, their sexual debut was forced. Moreover, half of married females aged 15 to 24 had a partner ten or more years older, which increases risk of IPV and HIV.

In the current study, we examine experiences of emotional, physical and sexual violence. Perpetrators of these various forms of violence may be intimate partners (spouses, boyfriends/girlfriends), family members, authority figures, peers, strangers or others. At Round 2, we found no impacts on experiences of emotional, physical or sexual violence. We used validated survey items from the Violence Against Children Survey and DHS previously implemented in Tanzania to assess programme

148 Peterman, A., Bleck, J., and 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.

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

150 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 violence, and health and behavioural consequences of violence experienced in childhood, United Nations Children's Fund Tanzania, Dar es Salaam, Tanzania, 2011.

impacts on experience of violence.^{151, 152, 153} As previously discussed, a split sample approach was used for administering modules on violence victimization. Thus, the sample size analysed in this section is half the overall sample. At Round 2, we did not see any impacts on violence outcomes. However, we did see improvements among males on the gender-equitable attitudes subscale related to violence. Thus, we had posited that we could see longer-term changes in violence experiences. We added questions on violence perpetration at Round 3.¹⁵⁴

In Table 13.1 we see that approximately one third of respondents had experienced emotional violence in the previous 12 months (35.6 and 30 per cent of control and treatment groups, respectively). This is down slightly from baseline (36.2 per cent), and the drop was larger for the treatment group. Nevertheless, this difference is not statistically significant and there were no programme impacts on emotional violence. Similarly, there were no programme impacts on physical violence experiences. We see an even larger drop in physical violence experiences at Round 3 (11.1 and 12.5 per cent of treatment and control groups, respectively) as compared to baseline, where 26.7 per cent of the sample experienced physical violence. The sample was balanced on these outcomes at baseline.

Table 13.1. Impacts on experiences of violence past 12 months (ANCOVA)

	ITT Impact	ATT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)
Experienced emotional abuse	-0.047 (0.03)	-0.114 (0.08)	0.362	0.356	0.300
Experienced physical violence	-0.012 (0.02)	-0.028 (0.05)	0.267	0.125	0.111
<i>N</i>	1,033	1,033	1,033	536	497

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Turning to sexual violence (*see Table 13.2*), we see that the Cash Plus intervention reduced experience of sexual violence in the previous 12 months by 3.7 percentage points. Among adolescents in the treatment sample, only 2.2 per cent reported experiencing sexual violence as compared to 6 per cent of the control group in the previous 12 months, thus this treatment impact represents a 61.7 per cent reduction in sexual violence resulting from the Cash Plus intervention. When examining by gender, we see that reductions in sexual violence are driven by the female sample, which experienced a 5.3 percentage point reduction in sexual violence as a result of the intervention (*see Appendix F, Table F.13.3*).

151 Emotional violence in the previous 12 months was assessed with the following items: whether someone had insulted or made them feel bad about themselves; or whether someone had belittled them, called them names or humiliated them in front of other people.

152 Physical violence experience was assessed through questions asking whether anyone had ever done the following in the previous 12 months: (a) slapped or pushed him/her; (b) hit him/her with a fist, (c) kicked him/her or beat her up; (d) tried to choke him/her or burn him/her on purpose; (e) threatened or attacked him/her with a knife, gun or any other weapon.

153 Sexual violence during the previous 12 months was assessed by asking youth whether anyone had ever (a) touched them in a sexual way without their permission, (b) physically forced them to have sexual intercourse or (c) forced them to perform other sexual acts that they did not wish to perform. We assessed lifetime sexual violence with the following items: (a) ever physically forced to have sexual intercourse; (b) ever forced to perform other sexual acts that they did not wish to perform; or (c) sexual debut was forced, pressured, or the result of being tricked.

154 We asked whether adolescents perpetrated emotional violence with the following items: whether they had (a) insulted someone or made someone feel bad about themselves; or (b) belittled someone, called someone names, or humiliated someone in front of others. Next we asked about perpetration of physical violence with the following items: (a) slapped or pushed someone; (b) hit someone with a fist, kicked someone, or beat someone up; (c) tried to choke someone or burn someone on purpose; and (d) threatened to use or actually used a gun, knife or other weapon against someone.

When we look at the composite indicator of emotional, physical and sexual violence (see Table 13.2), we again see that the treatment group experienced lower rates of violence overall (34.6 per cent of treatment v. 40.0 per cent of control group); however, these differences are not statistically significant and there are no programme impacts on the overall violence indicator. When examining separately by gender, we see a reduction in experiences of the composite violence indicator among males (11.9 percentage points), but not among females (see Appendix F, Table F13.3). Nevertheless, these impacts on the composite indicator among males should be interpreted with caution, as one of the indicators (physical violence) is not balanced among males at baseline, and therefore internal validity is threatened.

Table 13.2. Impacts on experiences of violence past 12 months (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Experienced sexual violence	-0.037** (0.01)	-0.091* (0.04)	0.060	0.022
Experienced emotional/physical/sexual violence	-0.062 (0.03)	-0.152 (0.09)	0.409	0.346
N	1,033	1,033	536	497

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Several incidents of rape were described by participants, including multiple incidents occurring on the way home from school or in the woods while collecting firewood:

A student, secondary school. She was coming from school. So she came back late and near her house there are trees. As she was walking she met a certain guy who called out to her “You, stop!” she said, “I stop I can do what?” and she started running. She was chased, caught, her mouth was covered, and she was raped.

Female, 16 years, Form Two student, Busokelo (Treatment)

There is a girl, she was going to fetch firewood, it’s when she was raped there. Nowadays when we go to fetch firewood, I mean like if children are going, they have to go with an adult.

Female, 17 years, Form Four student, Mafinga (Treatment)

Another participant describes a rape that happened to her and resulted in pregnancy:

I: *So, you said that you got the baby by accident, were you forced?*

R: *Yes . . . I was forced.*

I: *What happened?*

R: *I mean it was like this, I went to my uncles there. My uncle was in Tabora (another region), he had left because he’s a military man and he had left to go to Sudan and I stayed there with his wife. When I stayed with her, she was mistreating me. Actions that are not good to do to another human being. So, I said “Let me go home”, she said “What are you going home for? You can’t leave.” So, I was looking for*

a way to leave, and there's no way to leave . . . that's how you find you have put yourself in a situation that you did not expect.

I: So, what did you do?

R: I went to my uncle's friend, and I was asking for advice from his wife. So, there's a day I went there, and she wasn't there, and there was his male cousin . . . eh, he forced me . . . I mean he used his power . . . and it was a bad day for me (she was ovulating), I got pregnant.

I: I'm so sorry.

R: Thank you.

I: What steps did you take?

R: After that, my aunt found out, she told my uncle and uncle said "Because he has done that to you, let me talk to some people so they catch that young man and take him to the police." That young man ran away.

Female, 19 years, completed Form Four, Rungwe, (Replacement, Makandana, Rungwe)

Incidents such as the one described above may cause not only physical harm in the form of injury, pregnancy or HIV/STI risk, but also stress and emotional harm to youth. The aftermath of this described incident illustrates remaining gaps in GBV response in communities. After the rape, the youth does not seem to have acquired treatment to prevent HIV infection or pregnancy. Neither does she describe any psychological support to help her cope emotionally with the rape.

In the case of emotional and physical violence, our qualitative findings elaborate reported incidents of bullying that happened when a girl refused sexual advances:

I: You've also said that at school, boys are naughty, maybe what problems do they cause or what irritability do they cause?

R: It's like this, for one hundred per cent I mean, if a man is rough, and he had propositioned you and you said no, that is when he starts responding to you roughly.

I: Can you give me an example of something like that? I mean elaborate to me how it happened?

R: Yes. There is someone who had sought me out and I said no.

I: Are you studying with him in class?

R: No, he's in level two. After I said not, and he was a leader, he started giving me big punishments, telling me "You work there! Since you pretend to be controversial."

I: Did you ever seek help for something like that?

R: Yes. There is a certain sister of mine (an older girl, not necessarily a relation), she's called "Youth 2," she's my namesake, I told her. And she told me "My young sister, that is how life is here, you are supposed to fight just like that. Even if someone insults you, pretend like you can't see them, just pass by. But still respect them even as they continue disrespecting you."

Female, 18 years, student at vocational centre, Rungwe (Treatment)

13.2 Help-seeking and reporting among adolescents experiencing violence

In Table 13.3 we report help-seeking among respondents who reported experiencing emotional, physical or sexual violence in the previous 12 months (n=391). These respondents experiencing violence were asked whether they had ever tried to seek help or tell anyone about the violence. Help-seeking behaviour was then classified into two types. The first type was labelled formal.¹⁵⁵ The second type was labelled informal.¹⁵⁶ An indicator of impacts on help seeking was calculated based on dialogue among adolescents reporting any emotional, physical or sexual violence because the sample sizes were too small to estimate impacts separately according to different categories of violence. Similar rates of help seeking were seen in both study arms (42.9 and 41.9 per cent of control and treatment groups, respectively). Most of this was from informal sources (36.5 and 37.2 per cent of control and treatment groups, respectively), and only 5.9 and 7 per cent of those experiencing violence sought help from formal sources in the control and treatment groups, respectively. There were no programme impacts on any of these reporting indicators.

Table 13.3. Impacts on help seeking for violence (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Sought help for emotional/physical/sexual violence	-0.023 (0.05)	-0.057 (0.13)	0.429	0.419
Sought help from formal source for emotional/physical/sexual violence	0.014 (0.02)	0.036 (0.06)	0.059	0.070
Sought help from informal source for emotional/physical/sexual violence	-0.006 (0.05)	-0.016 (0.13)	0.365	0.372
N	391	391	219	172

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Qualitative findings give an indication of what may happen in cases where there is physical violence:

I: And for that woman who was beaten, what help did she get?

R: for that one they took legal steps.

I: Where did they go for legal aid?

R: There are our offices for local government.

I: Okay, and while that was happening, how did the people who could hear help her?

R: Usually people come out if you are crying after being beaten, they hear a voice and they go out to help.

Female, 18 years, completed Standard Seven, Mufindi (Treatment)

From the above description, it appears that the local government office is considered as the starting point, as well as bystander intervention when neighbours go to help the survivor.

¹⁵⁵ Formal help seeking included seeking the help of police, doctors or health workers, priests or other religious leaders, counsellors, non-governmental organizations or women's organizations, or local leaders.

¹⁵⁶ Informal help seeking included seeking the help of friends, family, the family of the spouse or partner, and neighbours.

13.3 Violence perpetration

When examining perpetration of emotional and physical violence, we found that 6.9 and 5 per cent of control and treatment groups, respectively, reported perpetrating emotional violence in the previous 12 months (see Table 13.4). The corresponding rates for perpetration of physical violence were 6.9 and 3.6 per cent among control and treatment groups, respectively. The Cash Plus intervention reduced the perpetration of physical violence by 3.3 percentage points (representing a 47.8 per cent reduction in violence perpetration), and this decrease was driven by males (see Appendix F, Table F.13.2). Among males, the programme reduced violence perpetration by 6.3 percentage points, while there were no significant impacts among females. This is consistent with impacts on the gender-equitable attitudes violence subscale, which was also driven by males at Round 2.

Table 13.4. Impacts on experiences of perpetration past 12 months (single difference)

	ITT Impact	ATT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)
Perpetrated emotional abuse	-0.019 (0.02)	-0.047 (0.04)	0.069	0.050
Perpetrated physical violence	-0.033* (0.01)	-0.081* (0.04)	0.069	0.036
<i>N</i>	1,033	1,033	536	497

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Figure 13.1. Boxplot summary of ITT impacts on violence, single difference estimates

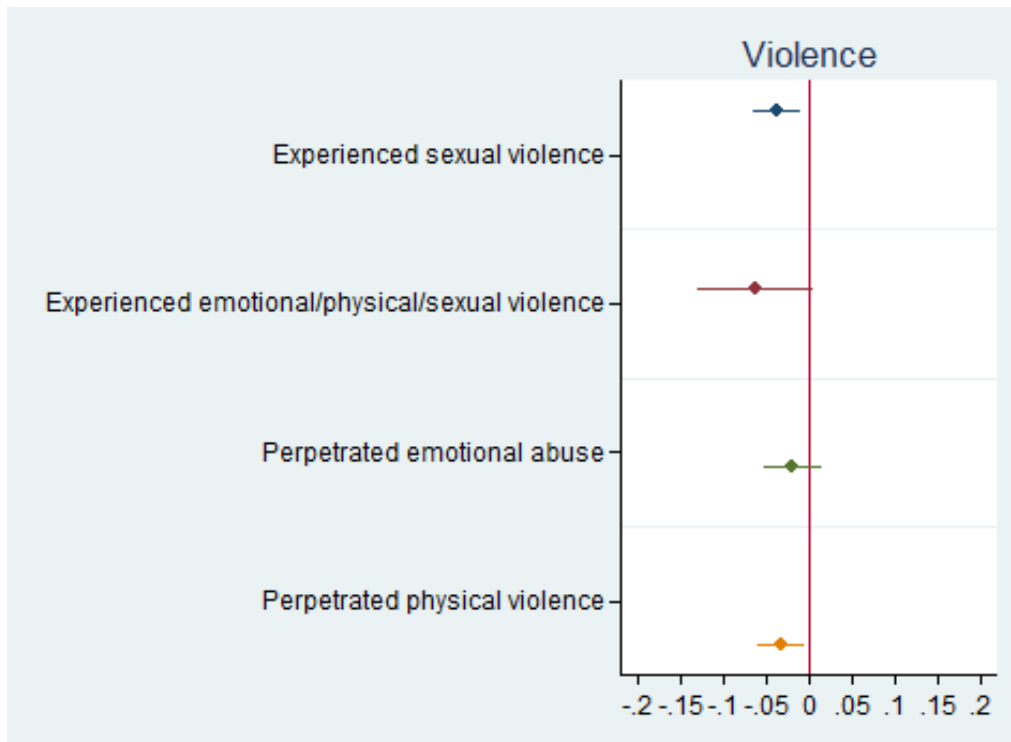
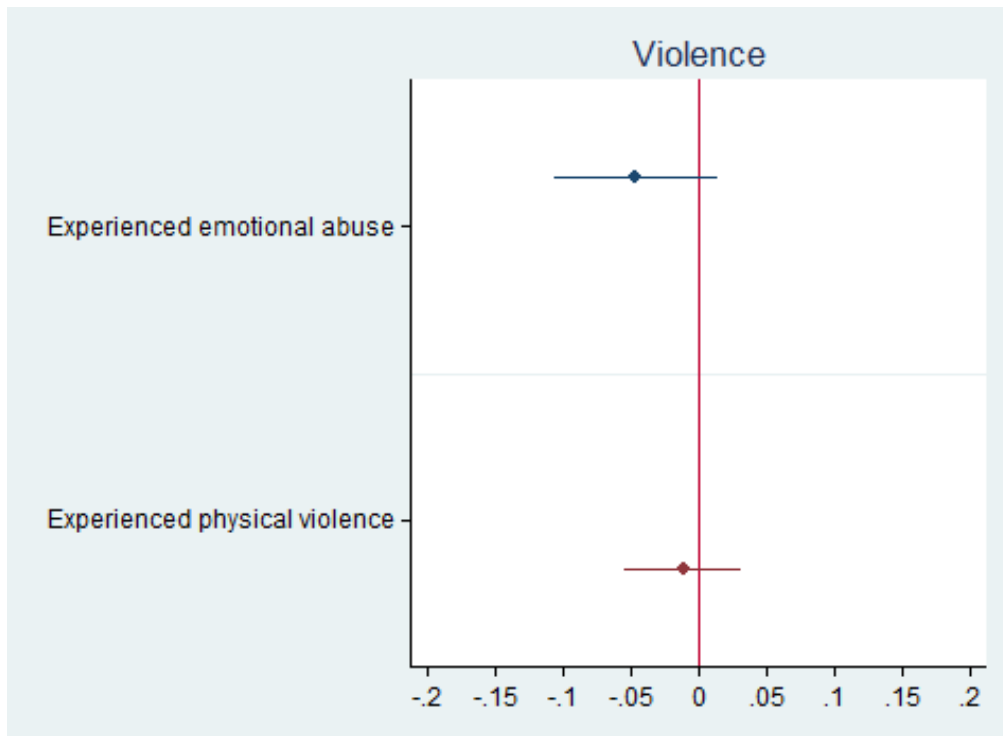


Figure 13.2. Boxplot summary of ITT impacts on violence, ancova estimates



14. CONCLUSION

This report summarizes findings from the Round 3 data collection of the longitudinal, mixed methods impact evaluation (2017–2019) of the Ujana Salama 'Cash Plus' Model on Youth Well-Being and Safe, Healthy and Productive Transitions to Adulthood. The pilot being evaluated is a unique, multi-sectoral, government-implemented intervention targeted to vulnerable adolescents in impoverished households.

Our baseline report indicated that despite living in households benefiting from the PSSN social protection programme, adolescents still face myriad challenges to a safe and productive transition to adulthood. Therefore, it was hoped that Cash Plus could fill some of the gaps and help adolescents further leverage benefits from the PSSN programme for safe, healthy and productive transitions to adulthood. The baseline report showed that, in this cRCT study design, the implementation of randomization was highly successful, and the baseline equivalence of treatment (PSSN plus) and control (PSSN only) groups was confirmed over a large number of indicators across domains as diverse as education, livelihoods, HIV knowledge and testing, contraceptive use, HIV-SRH access, violence and mental health.

When we went back to see how adolescents were doing at Round 2 in 2018, just after they received the 12 weeks of face-to-face training, we found that the intervention had positive impacts on knowledge about some aspects of HIV prevention and contraceptive use, gender-equitable attitudes, and participation in economic activities (livestock-rearing). At Round 2, approximately three months after exposure to training, knowledge and attitudes were expected to change whereas behavioural changes were expected to take more time. Thus, we hypothesized that we would see more changes in economic activity, violence, relationship dynamics, marriage, pregnancy and other behaviours later, including in the current report (Round 3) and beyond.

Data analysed in the current report were collected 26–28 months after baseline, one year after face-to-face training on livelihoods and life skills, and 1–2 months post productive grant transfers. Between Rounds 2 and 3, mentoring and strengthening of adolescent-friendly aspects of health services provisions in study communities was ongoing. Our findings highlight that after a year and a half of exposure, the intervention led to increases in: aspirations to own a business; participation in economic activities; mental health; self-esteem; entrepreneurial attitudes; gender-equitable attitudes; contraceptive and HIV prevention knowledge; HIV testing; and visits to health facilities. The programme also had protective effects with respect to sexual violence, delays in sexual debut and decreases in perpetration of violence. We found an unintended, negative impact of the programme on schooling, namely an increase in secondary school dropout among older female adolescents. We did not find any changes in the following outcomes attributable to the programme: subjective well-being, social support, migration intentions, marriage/cohabitation, sexual debut, contraceptive use, age-disparate sexual relationships, perceived HIV risk, condom use, transactional sex, pregnancy, experiences of emotional or physical violence, or reporting (help-seeking) related to violence experiences. On a positive note, we also did not find any increases in work-related hazards, engagement in household chores, or self-perceived stress.

These findings across domains are consistent, whereby a livelihood strengthening training led to increases in entrepreneurial attitudes, self-esteem and business ownership, which go hand-in-hand. In this setting, productive opportunities are scarce beyond subsistence farming, small-scale entrepreneurship, or working as hired labour for plantations growing cash crops (tea, cocoa, coffee, etc.). The latter often requires youth to move away from their households and families, at least seasonally. Thus, returns to schooling may be perceived to be low in the study regions, and this may

have factored into decisions related to continuing or leaving school among youth provided with an alternative livelihoods option via the Cash Plus intervention.

At the same time, health capacities were improved. Findings revealed improvements in knowledge related to HIV prevention and contraceptives, HIV testing, and increased visits to health facilities. It is possible that these may translate in the future into reductions in HIV risk and delayed childbearing, which in turn have implications for future health, productivity and earnings, among both the adolescents in the study and their future children.

The intervention also had protective effects on attitudes surrounding violence as well as experiencing and perpetrating violence. Females who received the intervention experienced reduced risk of sexual violence, while males had more gender-equitable attitudes and were less likely as a result of the intervention to perpetrate physical violence. Because adolescence is a period in which gender socialization increases, and when romantic relationships and partnerships are often formed for the first time, the implications of these findings are far-reaching. This intervention may contribute to breaking the inter-generational cycle of violence, whereby norms are reinforced in adolescence and attitudes are solidified, and children who witness violence in their households are more likely to perpetrate and experience IPV as adults. Moreover, the findings related to sexual violence confirm our hypothesis that an economic-strengthening intervention would reduce adolescents' risk of sexual violence and exploitation.

There are several innovations and strengths of this pilot and evaluation. This study reports the first ever findings from a cash plus intervention targeted to adolescents implemented by an African government. The study meets high academic standards for impact evaluation, with a cRCT and mixed-method data collection on over 2,000 adolescents and youth followed over three rounds, triangulated with detailed information collected from households, communities and health facilities. Attrition rates were within normal ranges expected for this population. Further, the ITT estimates reflect the kinds of impacts we might expect were the programme to be scaled up among PSSN households in other areas. Results from this study have a high level of generalizability as our sample is population-based from four districts and the programme in which Cash Plus was situated, the PSSN, is implemented nationally among similar populations as those examined in this study. In terms of topics, this study covers a unique combination of economic and health-related indicators of well-being. Finally, because the intervention was implemented by government within the structures of a large, national social protection programme, the intervention has high potential for scalability and sustainability.

This study also has some limitations. One of these is that behaviours and attitudes are self-reported and therefore responses may suffer from biases, including social desirability bias or underreporting of sensitive experiences such as sexual violence. However, we do not expect underreporting to vary systematically between treatment and control groups, and therefore this should not affect the internal validity of the study. Another limitation is that given aspects of the programme roll-out beyond control of the research team, the study design was only able to detect impacts of the 'plus' component, and not impacts of the combination of cash and the plus components. We also cannot detect synergies resulting from this combination. This is largely because the cash component of the PSSN was rolled out in 2015, whereas the Cash Plus intervention started in 2017 and was rolled out to youth in 2018. Because cash receipt started before the plus components, it could not be randomized in combination with the plus component to create multiple treatment arms to allow us to understand these additional impacts.

It will be interesting to understand whether the impacts found at Round 3 are sustained after the programme ends, and with more time for investments in business, training and education to

materialize into improved livelihoods. Moreover, improved knowledge and access to HIV and SRH services may lead to longer term benefits in delayed pregnancy, better birth spacing, and reductions in HIV and STIs. At the same time, the adverse impacts we found on girls' school dropout may lead to subsequent adverse outcomes, or there may be little impact if returns to schooling are low in this context. Future plans for continued data collection are uncertain at the time of drafting this report but would help to understand these longer-term impacts.

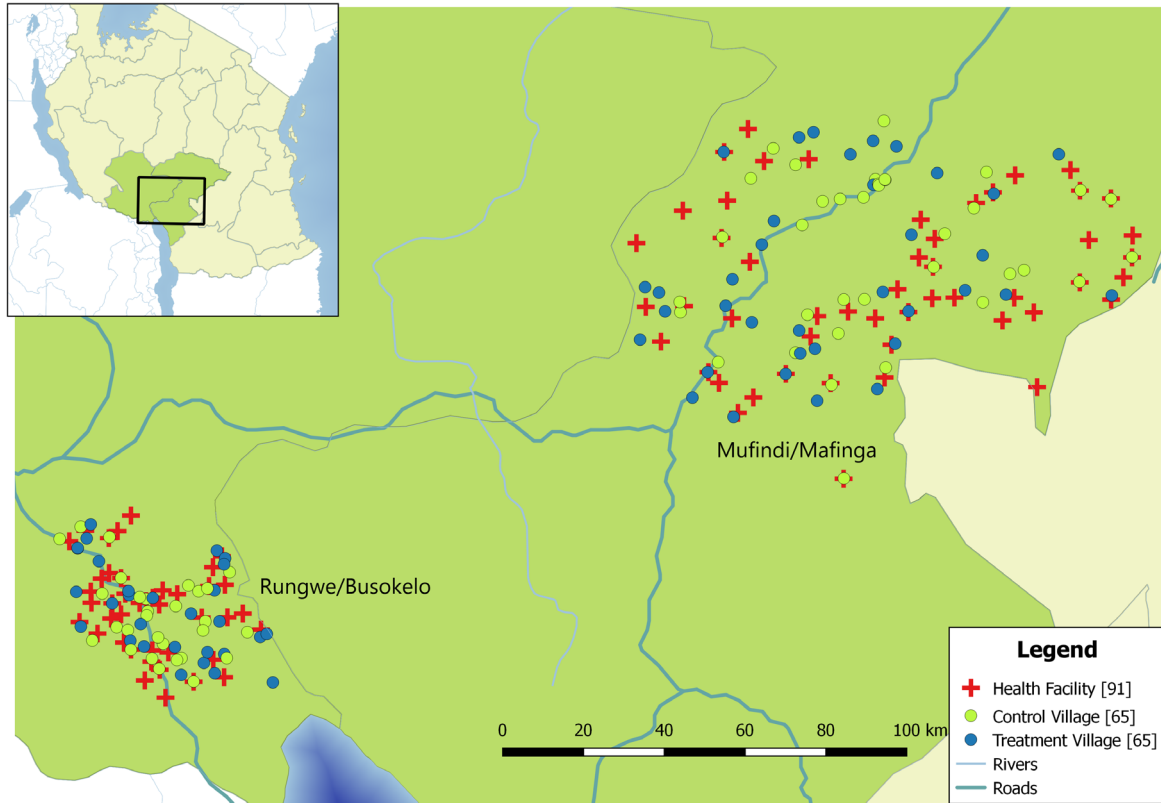
The world is currently experiencing its largest ever adolescent population, a cohort that will face both serious challenges and opportunities in adulthood. Therefore, it is of utmost importance to understand what combinations of support and investments in this population can lead to positive transitions to adulthood, for a better future for themselves and their own children. Specifically, social protection has been widely recognized as an important form of investment in adolescents and youth. This cash plus pilot is one example of social protection programming, and results from this study can be used to further adapt the programme prior to additional scale-up. Findings can also be used to motivate adaptations in other contexts for programming that aims to empower adolescents and facilitate their safe transitions to a healthy and productive adulthood.

Programmatic and research recommendations:

1. Prior to further scale-up, aspects of the **curriculum should be revised**, including de-emphasizing the focus on starting a business, especially when targeted to adolescents still in school. More attention could be paid to the importance of school or vocational and apprenticeship opportunities. Business grants could be targeted only to adolescents beyond a certain minimum age so that these do not encourage school dropout.
2. **Linkages to HIV and SRH services should continue to be strengthened.** The training led to increases in knowledge and the combined intervention led to some improvements in behaviours (HIV testing, use of services). Nevertheless, other behavioural outcomes such as use of contraceptives did not increase, indicating that additional efforts are needed.
3. **Additional follow-up with study participants** is needed to understand impacts of the full productive grant as well as if intervention impacts are sustainable beyond the intervention implementation period.

APPENDIX A. STUDY MAP

Map A.1. The Cash Plus Programme study areas



APPENDIX B. CURRICULUM OVERVIEW, BY WEEK

Table B.1. Cash Plus intensive phase training: Integrated curriculum and training overview

a. Opening week

<i>Session</i>	<i>Subject matter and components</i>
Session 1: Opening (joint TASAF and SRH)	Opening Explanation of programme, objectives, administration Personal introductions and expectations Group ground rules Energizers and team-building games Pretest
Session 2: Our community (joint livelihoods and SRH)	Drawing the village map Opportunities and obstacles related to SRH: how boys and girls are affected differently, gender roles and stereotypes, relationships with family and community, and family and community expectations for adolescents Opportunities and obstacles to development in livelihoods: economic advancement, education and career social capital, networking
Session 3: Personal awareness and transformation	Concepts of transformation: butterfly and eagle stories Stages of transformation, stages of human transformation
Day 2, session 1a: Our Health (SRH)	Introduction and importance of health and SRH Threats to health Effects of puberty, physical and emotional changes Understanding the menstrual cycle
Day 2, session 1b: Introduction to livelihood skills	Business ideas development and simple business plans
Session 2: Planning of weekly sessions and activities	Develop 10-week programme

b. 10-week training sessions

Session	Livelihood skills	Reproductive health
Homework	Identify opportunities and obstacles to livelihood activities among adolescents in my environment	Opportunities and obstacles related to SRH: how boys and girls are affected differently, gender roles and stereotypes, relationships with family and community, and family and community expectations for adolescents
Week 1	<i>Transformation</i> A concept of transformation Five stages of human transformation	<i>Coping with puberty</i> Menstruation Wet dreams Coping with community expectations at and after puberty
Homework	Fill out the self-management chart	Discuss with your parents how girls and boys were treated when they were young and why
Week 2	<i>Dream</i> Living well with the surrounding community Five types of personalities in the community	<i>Relationships</i> What makes a good friend: boyfriends, girlfriends Love, sex and consent; risk perception with regard to SRH Decision-making Assertiveness, negotiating skills and body language
Homework	Write about your dream	Describe two examples of difficult decisions that adolescents and young people have to make in their communities (separate from the decisions practiced in the session) and use the 3C model to consider what the adolescent should do in that situation ^a
Week 3	<i>Business concepts</i> Developing business ideas, self-evaluation Success factors in personal economic development	<i>HIV and AIDS</i> Prevention and protection What do I know about HIV: the HIV wall, Q and A Condoms are forever
Homework	Fill out the self-assessment form	Discuss with peers how they can make their community safer from HIV
Week 4	<i>Generate your business idea</i> Types of people in the community, learning from role models in the community	<i>Sexual risk-taking and protection</i> Risk-taking Major sexual risks; why they are risks
Homework	Visit and interview your selected role model	Visit local leaders and develop a joint plan to improve the protections of adolescents in the community
Week 5	<i>SWOT analysis</i> Ranking and prioritization	<i>Violence and gender-based violence</i> What is it? How to address it
Homework	Analyse your business idea using SWOT analysis	Visit the health centre and other places to find out where you can go in case of gender-based violence
Week 6	<i>Developing a simple business plan</i> Fill out the simple business plan forms	<i>Consequences of risk-taking: pregnancy</i> What to do if you or your partner is pregnant Protecting the baby: ex ante and postnatal care Abortion, the law, unsafe abortion
Homework	<i>Role of the family and community in helping adolescents</i> Advance economically Excel in studies and professional development	Discuss with your mothers how they coped with pregnancy and childbirth

<i>Week 7</i>	<i>Record-keeping</i> Understanding simple business record-keeping	<i>Family planning</i> Most common methods used; the advantages and disadvantages: accessing family planning services in and around the community Why condoms: double protection
Homework	Prepare record templates	Ask participants to go to a health facility to obtain up-to-date information on pregnancy and family planning; say that they will give feedback in the next session
<i>Week 8</i>	<i>Saving for business</i> Establishing small savings and loan groups	<i>Sexually transmitted infections (STIs)</i> Consequences of risk-taking: STIs The most common STIs, symptoms and treatment; relationship between STIs and HIV Stigma, fear, and morality
Homework	Forming savings and Income-generating groups	Visit health facility to learn about STI and HIV treatment
<i>Week 9</i>	<i>Responsibilities of an entrepreneur</i> Legal aspects of business, insurance, and licenses	<i>Living with HIV</i> Testing for HIV and disclosure Living with HIV: antiretroviral therapy, nutrition, avoiding reinfection, having children and proxy-means test, cash transfer AIDS and opportunistic infections, especially tuberculosis
Homework	Visit entrepreneurs and licensing authorities	Participants request permission from community leaders to put up their posters in different places around the community
<i>Week 10</i>	<i>Long-term life and business plans</i> Setting career goals and long-term business plans; identify links and referral pathways	<i>Alcohol and drug abuse</i> Prevalence of alcohol and drugs among adolescents; why? The impact of alcohol and drugs Resisting peer and partner pressure

a. The three Cs of decision-making are as follows: (1) clarify the problem or the decision to be made; (2) consider the possible alternatives and the consequences of choosing each alternative; collect any additional information needed; and (3) choose the best alternative and take the necessary action.

c. Closing week

<i>Day 1</i>	
Healthy living (SRH and livelihoods)	<ul style="list-style-type: none"> ■ Revisit personal strengths ■ Ground rules for a healthy future, including sexual responsibility ■ Coping with adverse life events ■ Identify and celebrate growth
Goals and vision	<ul style="list-style-type: none"> ■ Focus group discussion: the journey ■ Articulate vision for the future ■ Reflect on goals ■ Set new six-month goal
Revisions	<ul style="list-style-type: none"> ■ Articulate what we have learned ■ Review presentations to share with the community during the day two celebration: visuals, posters, poems, songs, dance, timetable, and so on ■ Post test
<i>Day 2</i>	
Send-off ceremony in the presence of families and local leaders (TASAF)	<ul style="list-style-type: none"> ■ Participant learning presentations ■ Keynote speaker, community or government leader ■ Participant testimonial ■ Parent testimonial ■ Ceremony: certificates

APPENDIX C. MENTORING ACTIVITIES

The mentorship activities included:

1. General support
 - Continue content-specific trainings on group or one-on-one basis;
 - Clarify any topic that was addressed during the 12-week training;
 - Conduct community sensitization and mobilization to get support and buy-in from parents and guardians for adolescents participating in Cash Plus activities;
 - Conduct regular 'check in' with adolescents and their guardians with the purpose of bonding and facilitating discussions on various livelihood, health or life issues.
2. Livelihood support:
 - Support adolescents to implement business plan developed during the intensive 12-week training period. These business plans were developed to rely on resources and opportunities available in their local context based on an initial resource mapping exercise conducted by UNICEF and TASAF.
 - Facilitate linkages to existing vocational training and apprenticeship activities for younger adolescents (14–17 years);
 - Facilitate linkages to existing extension services for older adolescents (18–19 years) focusing mainly on agricultural activities, livestock keeping (poultry, piggery, goat and cattle) and saving and lending groups;
 - Support eligible adolescents with productive grants and monitor how they utilize these to fund their long-term plans (business ventures, vocational skills trainings, talent development etc.);
 - Be responsible for monitoring and reporting.
3. Sexual and reproductive health support:
 - Provide continued health education, health talks and encourage access to health services;
 - Facilitate linkages to adolescent-responsive sexual and reproductive health, HIV prevention and treatment, and violence response services in nearby health facilities;
 - Meet as and when required with health workers for particular advice.

The overall role of peer educators in the Cash Plus initiative is to:

1. Coordinate training and mentoring activities taking place within their respective villages and support groups;
2. Mobilize and follow up with adolescent participants, e.g. through door-to-door household visits;
3. Facilitate and accompany referrals of adolescents to health facilities;
4. Support group formation, record keeping, data collection and monthly progress reporting, and management of non-sensitive information with participating adolescents.

APPENDIX D. BUSINESS PLAN TEMPLATE FOR PRODUCTIVE GRANT



My business plan summary

Name of the Business:

Address: Phone number:

Name of the applicant: Mentor:

Type of business

- Manufacturer of the following goods:
- Services provider to provide the following services:
- Retailer of the following goods:
- Wholesaler of the following goods:
- Other (specify):

Customers:

Startup capital needed: TZS:

Sources of startup capital: Amount (TZS):

Personal savings:

Grant from TASAF:

Other source:

Business idea

Name of business:

Type of business

- Manufacturer
- Service provider
- Retailer
- Wholesaler
- Other

The customers will be

.....
.....

The business will sell in the following ways

.....
.....

The business will satisfy the following needs of the customers

.....

My personal motivation to retain this business idea

.....

1. Market research for the product/service

Product	Customers	Needs and preferences of the customers	Competitors	Gaps (unfulfilled needs)

2. Place

Location:

This location is chosen for the following reasons:

.....

The monthly cost for this location is:

This cost includes:

Method of distribution:

The business will sell to:

- Consumers directly
- Retailers
- Wholesalers
- Others (Please specify):

This method of distribution is chosen for the following reasons:

.....

3. Cost

i. Direct cost

Raw material	Cost (TZS)
Total	

ii. Indirect cost

Raw material	Cost (TZS)
Total	

4. Price

Services or range of products

Details	Product	Services
Cost		
Price that customers are willing to pay		
Competitors price		
My price		
Reason for setting this price		

5. Business promotion

Means of promotion	Details	Cost

Start up capital

Investments	Amount (TZS)
Business premises	
Rehabilitation of business premises	
Equipment (assets)	
Working capital	
Total	

Sources of Start up Capital

Investment	Amount (TZS)
Required start-up capital	
Sources:	
Personal savings	
TASAF grant	
Loan from IGA group (e.g. VICOBA)	
Others (mention)	
Total (should be the same amount as required startup capital)	

Name of the applicant and signature.....

Name of the parent/guardian and signature.....

This plan has been reviewed and approved by adolescent's mentor

Name of mentor Signature.....

Date.....

APPENDIX E. ATTRITION

Table E.1. Differential attrition

Dependent Variable:	Lost to follow up
Treatment	-0.011
	(0.01)
N	2,458
Average in the control group	0.11

Notes: The regression includes PAA × size fixed effects. Standard errors in parentheses, clustered at the community level.

Table E.2. Baseline balance of household structure indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Household size	4.20	4.55	0.26	4.69	4.80	0.29	-0.49	0.01	-0.25	0.31
Dependency ratio	0.89	1.22	0.02	1.09	1.12	0.65	-0.21	0.14	0.10	0.36
At least one biological parent of youth in the household	0.66	0.60	0.43	0.65	0.66	0.70	0.01	0.71	-0.06	0.34
At least one grandparent of youth in the household (absent parents)	0.31	0.36	0.61	0.30	0.30	0.61	0.01	0.49	0.06	0.33
Parents and grandparents of youth are absent (youth live with other relatives)	0.03	0.05	0.37	0.04	0.04	0.79	-0.02	0.42	0.00	0.87
At least one orphan youth in the household	0.13	0.21	0.16	0.14	0.14	1.00	-0.01	0.73	0.07	0.18
Head female	0.70	0.63	0.25	0.67	0.65	0.24	0.03	0.43	-0.02	0.91
Head age	58.51	61.31	0.28	58.61	58.75	0.99	-0.10	0.72	2.56	0.25
Adult highest grade of education: none	0.23	0.28	0.52	0.22	0.23	0.86	0.00	0.74	0.05	0.41
Adult highest grade of education: some primary	0.13	0.17	0.32	0.11	0.12	0.40	0.02	0.53	0.05	0.18
Adult highest grade of education: primary	0.45	0.33	0.06	0.42	0.42	0.71	0.03	0.46	-0.09	0.08
Adult highest grade of education: some secondary	0.20	0.22	0.64	0.25	0.22	0.32	-0.05	0.07	-0.01	0.88
N	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.3. Baseline balance of household dwelling indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Number of rooms	3.96	3.68	0.62	3.93	3.74	0.11	0.04	0.40	-0.06	0.35
Improved outer walls (mud/burnt bricks, cement)	0.61	0.70	0.30	0.67	0.67	0.91	-0.06	0.54	0.03	0.25
Improved roof (iron/plastic sheets, wood)	0.78	0.77	0.81	0.82	0.78	0.29	-0.05	0.72	-0.01	0.77
Improved floor (Concrete/flag stone/cement, tile, wood)	0.14	0.11	0.65	0.21	0.13	0.02	-0.07	0.04	-0.02	0.62
Water treatment	0.38	0.34	0.99	0.36	0.27	0.00	0.02	0.08	0.08	0.35
Improved toilet	0.03	0.01	0.65	0.04	0.01	0.03	-0.01	0.48	0.00	0.94
Household main source of fuel/energy for cooking: Firewood	0.99	0.98	0.77	0.99	0.99	0.76	0.00	1.00	-0.01	0.42
Do you have electricity working in this dwelling?	0.17	0.17	0.82	0.18	0.14	0.07	-0.01	0.20	0.03	0.78
Dwelling's main lighting source: Torch (Battery powered/Rechargeable/Solar)	0.65	0.56	0.22	0.46	0.55	0.03	0.19	0.00	0.01	0.94
Dwelling's main lighting source: Lanterns/candles/paraffin	0.19	0.24	0.48	0.34	0.30	0.26	-0.15	0.05	-0.05	0.58
Dwelling's main lighting source: Solar panel	0.10	0.13	0.51	0.12	0.08	0.07	-0.02	0.14	0.04	0.49
Dwelling's main lighting source: Electricity via national grid	0.03	0.03	0.63	0.05	0.03	0.18	-0.03	0.11	0.00	0.88
Dwelling's main lighting source: Fire lit sticks, grass or pit	0.04	0.03	1.00	0.03	0.04	0.72	0.00	0.98	-0.00	0.81
Walking distance to the nearest primary school (n. of minutes)	30.82	34.90	0.20	32.75	32.55	0.96	-1.93	0.72	2.36	0.63
Walking distance to the nearest secondary school (n. of minutes)	87.73	78.33	0.88	77.75	81.04	0.51	9.97	0.45	-2.70	0.39
Walking distance to the nearest vocational school (n. of minutes)	102.65	114.04	0.85	82.02	100.43	0.12	20.63	0.30	13.61	0.67
N	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.4. Baseline balance of household economic indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Owned/cultivated any land (last rainy season)	0.97	0.97	0.64	0.96	0.98	0.14	0.01	0.48	-0.02	0.39
Planted any crop (last rainy season)	0.97	1.00	0.14	0.99	0.99	0.90	-0.01	0.56	0.01	0.01
Owned any livestock (last 12 months)	0.90	0.90	0.84	0.91	0.92	0.76	-0.01	0.85	-0.02	0.48
Chicken	0.83	0.92	0.05	0.90	0.92	0.18	-0.06	0.21	0.00	0.87
Pig	0.49	0.32	0.05	0.41	0.36	0.28	0.08	0.19	-0.04	0.42
Cattle	0.14	0.14	0.44	0.21	0.20	0.77	-0.07	0.99	-0.06	0.38
Goat/sheep	0.10	0.13	0.61	0.14	0.12	0.53	-0.04	0.32	0.01	0.66
Guinea pig	0.15	0.17	0.46	0.12	0.12	0.83	0.03	0.68	0.05	0.51
Rabbit	0.00	0.03	0.16	0.03	0.03	0.32	-0.03	0.00	-0.00	0.98
Duck	0.01	0.01	0.97	0.02	0.01	0.32	-0.01	0.76	-0.00	0.88
Is_other_a	0.15	0.19	0.23	0.16	0.14	0.49	-0.01	0.26	0.05	0.44
Total number of livestock	5.88	7.43	0.10	6.77	7.53	0.09	-0.89	0.10	-0.10	0.75
Operated any non-farm income-generating enterprise	0.16	0.23	0.36	0.25	0.23	0.64	-0.08	0.08	-0.00	0.96
<i>N</i>	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.5. Baseline balance of household wealth indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)- Col(4)	P-value	Col(2)- Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Mortar/pestle	0.65	0.72	0.25	0.66	0.66	0.82	-0.01	0.77	0.07	0.32
Bed	0.90	0.76	0.01	0.83	0.79	0.19	0.07	0.25	-0.04	0.30
Table	0.72	0.72	0.94	0.80	0.75	0.06	-0.07	0.07	-0.02	0.48
Chair	0.96	0.89	0.05	0.94	0.91	0.13	0.03	0.38	-0.03	0.49
Radio (wireless)	0.25	0.23	0.73	0.28	0.24	0.13	-0.03	0.38	-0.01	0.83
Bicycle	0.13	0.16	0.47	0.16	0.17	0.49	-0.04	0.10	-0.01	0.55
Lantern (kerosene)	0.20	0.22	0.89	0.29	0.26	0.30	-0.09	0.36	-0.04	0.77
Solar panel	0.09	0.11	0.47	0.12	0.09	0.08	-0.03	0.05	0.03	0.69
Lamp (battery)	0.47	0.40	0.26	0.43	0.49	0.09	0.05	0.35	-0.09	0.08
Mosquito net	0.76	0.67	0.16	0.79	0.80	0.63	-0.03	0.67	-0.13	0.02
Regular mobile phone	0.51	0.49	0.77	0.63	0.56	0.06	-0.11	0.09	-0.07	0.29
Smart phone	0.01	0.00	0.28	0.02	0.02	0.88	-0.00	0.95	-0.02	0.00
Wealth Index	-0.01	-0.04	0.90	0.12	-0.12	0.01	-0.12	0.02	0.08	0.81
Lowest tertile	0.34	0.40	0.63	0.28	0.39	0.01	0.06	0.08	0.02	0.52
Middle tertile	0.30	0.28	0.77	0.34	0.34	1.00	-0.04	0.72	-0.06	0.27
Highest tertile	0.36	0.32	0.84	0.39	0.28	0.01	-0.02	0.15	0.05	0.64
<i>N</i>	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.6. Baseline balance of household saving and loan indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Any monetary savings	0.23	0.28	0.47	0.25	0.25	0.98	-0.02	0.66	0.03	0.54
How much does your household have in savings (TZS)	74,000.00	77,250.00	0.87	47,655.31	56,750.23	0.36	26,344.69	0.36	20,499.77	0.32
Applied for a loan, last 12 months	0.06	0.07	0.80	0.11	0.13	0.38	-0.05	0.16	-0.06	0.12
Obtained the loan	1.00	1.00		0.95	0.98	0.36	0.05	0.10	0.02	0.25
If needed, could obtained a loan of 100,000TZS within the next month	0.23	0.17	0.44	0.24	0.24	0.99	-0.01	0.71	-0.07	0.08
<i>N</i>	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.7. Baseline balance of household safety net indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PSSN livelihood grant	0.01	0.05	0.33	0.03	0.04	0.62	-0.02	0.80	0.01	0.38
Cash transfers other than PSSN	0.00	0.00		0.01	0.00	0.24	-0.01	0.00	-0.00	0.05
Other transfers from households or individuals	0.10	0.02	0.04	0.07	0.07	0.70	0.03	0.32	-0.04	0.02
PSSN cash transfer (including payment for public works)	241,033.75	247,245.98	0.48	263,456.19	262,498.66	0.88	-22,422.45	0.01	-15,252.69	0.04
PSSN livelihood grant	90,000.00	89,125.00	0.81	107,807.69	82,110.34	0.03	-17,807.69	0.99	7,014.66	0.67
Other transfers from households or individuals	36,875.00	75,000.00	0.00	76,246.15	65,370.69	0.45	-39,371.15	0.01	9,629.31	0.83
<i>N</i>	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.8: Baseline balance of household shock indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Affected by any shock past 12 months	0.76	0.76	0.82	0.79	0.79	0.91	-0.03	0.72	-0.03	0.63
Unusually high prices for food	0.25	0.35	0.18	0.30	0.24	0.02	-0.06	0.23	0.11	0.10
Serious illness or accident of household member(s)	0.21	0.15	0.28	0.20	0.23	0.29	0.01	0.89	-0.08	0.12
Drought/irregular rains	0.20	0.15	0.69	0.18	0.22	0.13	0.01	0.65	-0.07	0.12
Unusually high level of livestock disease	0.11	0.08	0.26	0.09	0.11	0.40	0.02	0.63	-0.03	0.37
Unusually high level of crop pests or disease	0.10	0.03	0.08	0.07	0.06	0.70	0.03	0.35	-0.03	0.19
Death of other household member(s)	0.00	0.06	0.03	0.03	0.03	0.84	-0.03	0.00	0.03	0.34
Death of income earner(s)	0.05	0.02	0.39	0.03	0.03	0.91	0.02	0.46	-0.01	0.48
Floods/landslides	0.00	0.05	0.06	0.01	0.02	0.64	-0.01	0.01	0.03	0.22
Unusually high costs of agricultural inputs	0.02	0.03	0.58	0.02	0.01	0.04	-0.01	0.82	0.02	0.29
Unusually low prices for agricultural output	0.00	0.05	0.08	0.02	0.01	0.47	-0.02	0.01	0.03	0.17
Theft of money/valuables/assets/agricultural output	0.02	0.00	0.30	0.01	0.01	0.31	0.01	0.64	-0.01	0.00
Birth in the household	0.02	0.00	0.27	0.01	0.01	0.78	0.01	0.55	-0.01	0.05
Break-up of household	0.03	0.03	0.76	0.01	0.00	0.08	0.03	0.24	0.03	0.17
Conflict/violence	0.00	0.00		0.01	0.01	0.60	-0.01	0.03	-0.01	0.05
<i>N</i>	80	87		909	870					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.9: Baseline balance of youth demographics, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	0.56	0.46	0.10	0.47	0.45	0.35	0.09	0.03	0.01	0.85
Age	16.15	16.41	0.21	16.12	16.06	0.32	0.03	0.87	0.35	0.02
Child/adopted child	0.54	0.49	0.48	0.53	0.55	0.33	0.02	0.93	-0.07	0.26
Grandchild	0.42	0.45	0.73	0.41	0.37	0.20	0.01	0.53	0.08	0.20
Other	0.04	0.07	0.36	0.06	0.06	0.60	-0.02	0.33	0.00	0.92
Head of household or wife/husband	0.00	0.00		0.01	0.01	0.52	-0.01	0.01	-0.01	0.00
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.10: Baseline balance of youth health, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Can walk for 5 km easily	0.89	0.94	0.14	0.94	0.95	0.20	-0.05	0.09	-0.01	0.61
Can sweep the dwelling floor easily	0.97	0.97	0.84	0.98	0.98	0.83	-0.02	0.34	-0.01	0.26
Self-rated health: very good	0.39	0.41	0.77	0.35	0.39	0.24	0.04	0.61	0.02	0.94
Self-rated health: good	0.52	0.54	0.83	0.57	0.55	0.52	-0.05	0.45	-0.01	0.95
Self-rated health: neutral	0.06	0.06	0.85	0.07	0.05	0.25	-0.00	1.00	0.00	0.98
Self-rated health: bad or very bad	0.03	0.00	0.05	0.02	0.01	0.29	0.01	0.29	-0.01	0.00
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.11: Baseline balance of youth purchases indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Owns a mobile phone	0.23	0.21	0.72	0.23	0.18	0.02	0.00	0.94	0.03	0.56
Regular phone	0.91	0.92	0.84	0.92	0.89	0.33	-0.01	0.75	0.03	0.67
Smart phone	0.09	0.08	0.84	0.08	0.11	0.33	0.01	0.75	-0.03	0.67
<i>Purchasing, past four weeks</i>										
Clothing or shoes	0.28	0.37	0.20	0.28	0.27	0.91	0.01	0.84	0.09	0.02
Communication time (airtime/data/charging)	0.20	0.19	0.77	0.19	0.17	0.14	0.01	0.84	0.02	0.59
Personal goods/hygiene items	0.38	0.42	0.52	0.39	0.33	0.04	-0.00	0.98	0.09	0.03
Transportation (boda boda/bus/bike repair)	0.11	0.15	0.31	0.12	0.11	0.67	-0.00	1.00	0.04	0.18
Entertainment (sports/shows/going out for food)	0.06	0.05	0.90	0.07	0.06	0.74	-0.01	0.40	-0.01	0.50
Any of the above items	0.50	0.59	0.20	0.51	0.47	0.13	-0.01	0.93	0.13	0.00
Total amount spent (TZS)	15,791.67	18,598.63	0.38	14,969.58	15,072.97	0.96	822.09	0.82	3,525.66	0.14
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.12: Baseline balance of youth risk aversion and patience, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Game 1: 2,500TZS if head, 2,500TZS if tail	0.18	0.10	0.05	0.21	0.17	0.07	-0.03	0.26	-0.08	0.03
Game 2: 2,000TZS if head, 4,000TZS if tail	0.17	0.26	0.13	0.18	0.20	0.39	-0.01	0.69	0.06	0.22
Game 3: 1,500TZS if head, 5,500TZS if tail	0.24	0.22	0.75	0.22	0.20	0.38	0.02	0.65	0.02	0.67
Game 4: 1,000TZS if head, 7,000TZS if tail	0.13	0.12	0.94	0.16	0.18	0.14	-0.03	0.37	-0.06	0.04
Game 5: 0TZS if head, 10,000TZS if tail	0.28	0.30	0.75	0.24	0.25	0.53	0.05	0.17	0.05	0.12
Patience index	3.60	3.71	0.98	3.97	4.04	0.64	-0.37	0.56	-0.33	0.32
Index = 1	0.40	0.37	0.93	0.33	0.29	0.34	0.07	0.58	0.08	0.28
Index = 2	0.05	0.03	0.50	0.04	0.04	0.84	0.01	0.43	-0.00	0.98
Index = 3	0.04	0.04	0.98	0.04	0.04	0.69	0.01	0.67	0.00	0.89
Index = 4	0.09	0.09	0.93	0.11	0.13	0.13	-0.02	0.52	-0.04	0.16
Index = 5	0.09	0.14	0.24	0.13	0.14	0.58	-0.04	0.18	0.00	0.99
Index = 6	0.13	0.15	0.85	0.14	0.17	0.13	-0.01	0.99	-0.02	0.72
Index = 7	0.20	0.16	0.52	0.22	0.18	0.18	-0.02	0.92	-0.02	0.69
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.13: Baseline balance of youth education, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)- Col(4)	P-value	Col(2)- Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Currently attending school	0.52	0.42	0.10	0.56	0.55	0.67	-0.04	0.50	-0.12	0.00
Attends primary school	0.26	0.20	0.24	0.22	0.24	0.41	0.04	0.35	-0.04	0.17
Attends secondary school	0.26	0.23	0.44	0.34	0.31	0.30	-0.08	0.08	-0.08	0.01
Highest grade completed: some primary	0.41	0.41	0.95	0.32	0.37	0.08	0.09	0.04	0.04	0.43
Highest grade completed: Primary or higher	0.59	0.59	0.95	0.68	0.63	0.08	-0.09	0.04	-0.04	0.43
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.14: Baseline balance of youth participation in economic activities, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)- Col(4)	P-value	Col(2)- Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Any economic activities	0.76	0.75	0.76	0.77	0.79	0.50	-0.02	0.76	-0.04	0.42
Farm work for the household, excluding livestock	0.63	0.59	0.44	0.65	0.68	0.31	-0.02	0.70	-0.09	0.08
Livestock herding for the household	0.41	0.40	0.80	0.44	0.43	0.75	-0.03	0.77	-0.03	0.55
Fishing for the household	0.01	0.01	0.92	0.01	0.02	0.82	-0.01	0.42	-0.01	0.37
Household business	0.08	0.07	0.49	0.05	0.04	0.43	0.03	0.13	0.02	0.15
Primary business owner/decision-maker	0.04	0.01	0.05	0.02	0.02	0.82	0.02	0.18	-0.01	0.36
Paid work outside the household	0.18	0.17	0.86	0.16	0.14	0.42	0.02	0.66	0.03	0.33
Daily amount received for last payment in paid job (000TZS)	2.23	2.34	0.88	1.82	1.27	0.11	0.41	0.72	1.08	0.10
Were you looking for a job in the past 7 days?	0.10	0.05	0.21	0.06	0.05	0.42	0.04	0.25	-0.00	0.94
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on 'treatment' from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA x size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.15: Baseline balance of youth hours in economic activities, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Hours in any economic activities	13.27	13.98	0.76	13.69	13.69	0.98	-0.42	0.97	0.30	0.64
Hours in farm work for the household, excluding livestock	7.51	8.22	0.63	7.98	8.16	0.79	-0.47	0.71	0.06	0.88
Hours in livestock herding for the household	2.30	2.11	0.66	3.10	3.02	0.80	-0.81	0.37	-0.91	0.03
Hours in fishing for the household	0.01	0.04	0.53	0.05	0.09	0.42	-0.03	0.17	-0.05	0.34
Hours in household business	1.43	0.84	0.44	0.67	0.60	0.78	0.76	0.22	0.24	0.47
Business sales past 4 weeks (000TZS)	1.98	0.09	0.06	1.14	2.20	0.28	0.84	0.47	-2.11	0.01
Business profit or loss past 4 weeks (000TZS)	0.75	0.05	0.06	0.34	0.31	0.90	0.41	0.34	-0.26	0.18
Hours in paid work outside the household	1.98	2.60	0.50	1.85	1.64	0.58	0.13	0.77	0.96	0.17
Daily amount received for last payment in paid job (000TZS)	2.23	2.34	0.88	1.82	1.27	0.11	0.41	0.72	1.08	0.10
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.16: Baseline balance of youth time use/participation in household chores, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Any chores	0.90	0.88	0.58	0.90	0.88	0.15	0.00	0.79	0.00	0.94
Collecting water	0.71	0.61	0.07	0.65	0.66	0.66	0.06	0.23	-0.05	0.23
Collecting firewood	0.35	0.40	0.41	0.33	0.37	0.14	0.02	0.81	0.02	0.59
Collecting nuts	0.10	0.10	0.94	0.09	0.12	0.16	0.00	0.79	-0.02	0.54
Taking care of children, cooking or cleaning	0.74	0.65	0.14	0.74	0.70	0.09	-0.00	0.87	-0.05	0.25
Taking care of elderly or sick	0.26	0.29	0.57	0.22	0.22	0.78	0.03	0.46	0.07	0.14
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.17: Baseline balance of youth time use/hours in household chores, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Hours in any chores	3.19	2.82	0.29	3.02	3.10	0.60	0.17	0.42	-0.28	0.23
Hours in collecting water	0.77	0.53	0.00	0.76	0.72	0.51	0.01	0.87	-0.19	0.00
Hours in collecting firewood	0.53	0.48	0.61	0.48	0.53	0.27	0.05	0.60	-0.05	0.36
Hours in collecting nuts	0.11	0.13	0.66	0.12	0.16	0.14	-0.01	0.80	-0.02	0.56
Hours in taking care of children, cooking or cleaning	1.40	1.20	0.28	1.33	1.28	0.44	0.07	0.48	-0.08	0.65
Hours in taking care of elderly or sick	0.39	0.48	0.49	0.33	0.41	0.12	0.06	0.46	0.07	0.52
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

Table E.18: Baseline balance of youth mental health indicators, by panel and attritor status

	Attrited			Panel			Difference		Difference	
	Cash Only	Cash Plus	P-value	Cash Only	Cash Plus	P-value	Col(1)-Col(4)	P-value	Col(2)-Col(5)	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Reports depressive symptoms (CES-D10≥10)	0.28	0.35	0.30	0.28	0.29	0.80	-0.01	0.60	0.06	0.39
ELDI (0-39)	3.46	4.06	0.35	3.67	3.33	0.18	-0.22	0.92	0.73	0.08
Well-being	2.97	3.38	0.38	3.08	2.73	0.07	-0.12	0.98	0.65	0.04
Risk	0.24	0.27	0.85	0.27	0.26	0.95	-0.03	0.81	0.00	0.86
Relations	0.26	0.41	0.31	0.33	0.34	0.84	-0.07	0.72	0.07	0.50
<i>N</i>	144	123		1,128	1,063					

Notes: Mean values represent unadjusted statistics, while p-values in column 3 are from the coefficient on ‘treatment’ from a regression predicting each characteristic listed in the table among the group of attritors, while column 6 is the same among the panel sample. All regressions control for PAA × size fixed effects and standard errors are clustered at the community level. N may differ by indicator.

APPENDIX F. CASH PLUS IMPACTS BY GENDER

Chapter 7

Table F.7.1: Cash Plus impacts on schooling, by gender

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Currently attending school	-0.049 (0.02)	0.608	0.403	0.334	-0.023 (0.02)	0.505	0.302	0.293
Attends primary school	0.008 (0.01)	0.235	0.030	0.032	0.005 (0.01)	0.222	0.025	0.041
Attends secondary school	-0.070* (0.03)	0.374	0.373	0.302	-0.015 (0.02)	0.283	0.277	0.253
Dropped out from primary	0.027 (0.03)		0.015	0.040	-0.007 (0.03)		0.054 0.156	0.046 0.199
Dropped out from secondary	0.071* (0.03)		0.086	0.158	0.042 (0.05)			
Entered school	-0.008 (0.02)		0.031	0.020	-0.025* (0.01)		0.043	0.017
Highest grade completed	-0.047 (0.09)	7.104	8.354	8.070	-0.043 (0.11)	6.581	7.750	7.307
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3, separately for male and female. Regressions for school attendance and highest grade completed control for gender, age and outcome value at baseline, PAA × size fixed effects. Dropout of primary is measured at Round 3, for youth who were attending primary school at baseline (N female=235; N male=264). Dropout of secondary is measured at Round 3, for youth who were attending secondary school at baseline (N female=374; N male=337). School entrance is measured at Round 3, for youth who were out of school at baseline (N female=392; N male=589). Regressions for dropout and school entrance (including re-entry or first time) only control for gender, age at baseline and PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.2: Cash Plus impacts on business, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Started any new business past 12 months	0.172** (0.02)	0.117	0.290	0.185** (0.03)	0.147	0.332
Business is in operation	0.136** (0.02)	0.085	0.220	0.176** (0.03)	0.122	0.298
Owns any assets used for the business	0.012 (0.01)	0.013	0.025	0.044** (0.01)	0.033	0.075
Purchased any assets past 12 months	0.013 (0.01)	0.009	0.023	0.039** (0.01)	0.012	0.049
Purchased any livestock past 12 months	0.095** (0.01)	0.006	0.101	0.143** (0.02)	0.047	0.192
Total sales/revenues last operating month (000TZS)	5.173** (1.87)	4.126	9.106	3.827 (4.25)	11.463	14.786
Total profit or loss last operating month (000TZS)	1.194 (0.62)	1.298	2.475	1.534 (2.14)	3.507	4.818
Sells any products outside the village	-0.132** (0.02)	0.905	0.774	-0.118** (0.02)	0.913	0.793
Keeps written business records	0.065** (0.02)	0.025	0.091	0.086** (0.02)	0.033	0.119
<i>N</i>	1,001	528	473	1,190	600	590

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.3: Cash Plus impacts on participation in economic activities, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Any economic activities	0.050 (0.03)	0.692	0.716	0.772	-0.017 (0.02)	0.855	0.880	0.861
Farm work for the household, excluding livestock	0.076* (0.04)	0.583	0.464	0.548	0.015 (0.03)	0.727	0.563	0.581
Livestock herding for the household	0.098** (0.03)	0.335	0.403	0.503	0.026 (0.03)	0.513	0.538	0.569
Fishing for the household	-0.002 (0.00)	0.008	0.006	0.004	0.013 (0.02)	0.019	0.037	0.051
Household business	0.054* (0.03)	0.045	0.116	0.167	-0.019 (0.03)	0.049	0.183	0.163
Paid work outside the household	-0.023 (0.03)	0.079	0.189	0.175	0.019 (0.03)	0.218	0.327	0.331
Were you looking for a job in the past 7 days?	0.024 (0.02)	0.038	0.063	0.087	0.015 (0.01)	0.066	0.063	0.076
<i>N</i>	1,001	1,001	528	473	1,189	1,189	600	589

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.4: Cash Plus impacts on hours in economic activities, by gender

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Hours in any economic activities	2.575 (1.40)	9.638	14.640	17.520	1.006 (1.45)	17.096	28.592	29.037
Hours in farm work for the household, excluding livestock	1.665* (0.82)	6.927	6.303	8.127	0.284 (0.98)	9.022	10.003	10.219
Hours in livestock herding for the household	0.951** (0.29)	1.252	1.907	2.920	1.133 (0.61)	4.585	5.287	6.393
Hours in fishing for the household	0.007 (0.02)	0.069	0.011	0.017	0.014 (0.06)	0.065	0.152	0.173
Hours in household business	0.019 (0.45)	0.508	1.871	1.839	-0.611 (0.73)	0.737	4.022	3.283
Hours in paid work outside the household	-0.128 (0.98)	0.792	4.489	4.478	-0.119 (1.15)	2.558	8.983	8.485
Daily amount received for last payment in paid job (000 TZS)	-0.677 (0.75)	0.652	2.154	1.428	0.566 (0.74)	2.304	4.184	4.483
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.5: Cash Plus impacts on work-related hazards, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Exposed to any work-related hazards	0.057 (0.03)	0.473	0.531	-0.008 (0.03)	0.670	0.654
Carrying heavy loads	0.040 (0.02)	0.104	0.146	0.007 (0.03)	0.267	0.264
Working with dangerous tools	-0.010 (0.03)	0.299	0.288	-0.021 (0.04)	0.442	0.415
Exposure to dusts, fumes or gases	0.054 (0.03)	0.322	0.376	-0.014 (0.03)	0.370	0.347
Exposed to extreme cold, heat or humidity	0.039 (0.03)	0.303	0.342	-0.045 (0.04)	0.478	0.429
Exposed to loud noise or vibrations	0.024 (0.02)	0.063	0.087	-0.009 (0.02)	0.152	0.136
Working at water bodies (sea, lakes, rivers)	0.015 (0.02)	0.061	0.074	0.000 (0.02)	0.067	0.068
Working at night (8pm-5:59am)	0.011 (0.02)	0.080	0.089	-0.005 (0.01)	0.068	0.061
Working in bars, hotels or places of entertainment	0.007 (0.01)	0.032	0.038	-0.006 (0.01)	0.042	0.036
Ever been hurt or suffered from illness	-0.017 (0.02)	0.102	0.089	0.021 (0.03)	0.187	0.203
Number of days of main activity missed due to injury	0.204 (0.25)	0.672	0.911	0.498 (0.53)	1.527	2.003
N	1,001	528	473	1,190	600	590

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.6: Cash Plus impacts on participation in household chores, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Collecting water	0.041 (0.03)	0.723	0.756	0.801	-0.036 (0.03)	0.597	0.675	0.642
Collecting firewood	0.037 (0.04)	0.375	0.294	0.340	0.043 (0.03)	0.334	0.242	0.290
Collecting nuts	0.038* (0.02)	0.127	0.042	0.080	0.008 (0.02)	0.086	0.072	0.081
Taking care of children, cooking or cleaning	0.003 (0.02)	0.898	0.907	0.911	0.018 (0.04)	0.580	0.522	0.537
Taking care of elderly or sick	-0.027 (0.03)	0.265	0.201	0.182	0.027 (0.02)	0.187	0.133	0.164
Any chores	-0.008 (0.01)	0.967	0.966	0.958	0.005 (0.03)	0.825	0.817	0.819
Participated in work or chores last week	-0.010 (0.01)	0.975	0.979	0.968	-0.005 (0.01)	0.958	0.970	0.963
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.7.7: Cash Plus impacts on hours in household chores, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Hours in collecting water	0.184** (0.06)	0.791	0.709	0.895	-0.125* (0.06)	0.695	0.609	0.484
Hours in collecting firewood	0.077 (0.06)	0.550	0.372	0.456	0.022 (0.04)	0.466	0.278	0.305
Hours in collecting nuts	0.030 (0.02)	0.155	0.063	0.094	-0.019 (0.04)	0.126	0.131	0.115
Hours in taking care of children, cooking or cleaning	-0.064 (0.16)	1.855	2.521	2.463	-0.005 (0.06)	0.841	0.601	0.594
Hours in taking care of elderly or sick	-0.049 (0.05)	0.442	0.291	0.261	0.008 (0.04)	0.309	0.209	0.222
Hours in any chores	0.173 (0.22)	3.793	3.957	4.168	-0.119 (0.15)	2.438	1.828	1.720
Total hours of work and chores in the past week	3.709 (2.37)	36.189	42.337	46.697	0.113 (1.64)	34.163	41.385	41.079
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Chapter 8

Table F8.1: Cash Plus impacts on mental health indicators, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Reports depressive symptoms (CES-D10 \geq 10)	-0.071* (0.03)	0.271	0.248	0.180	-0.061* (0.03)	0.299	0.280	0.215
ELDI (0-39)	-0.288 (0.44)	4.028	4.345	4.074	-0.159 (0.29)	3.068	3.892	3.620
Well-being	-0.170 (0.27)	3.196	3.311	3.148	-0.202 (0.24)	2.671	3.297	2.980
Risk	-0.045 (0.10)	0.363	0.453	0.410	-0.010 (0.06)	0.183	0.318	0.308
Relations	-0.074 (0.13)	0.470	0.581	0.516	0.061 (0.06)	0.214	0.277	0.332
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA \times size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. * $p < 0.05$, ** $p < 0.01$.

Chapter 9

Table F9.1: Cash Plus impacts on aspirations, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Ideal level of education</i>								
None	0.001 (0.00)	0.010	0.002	0.002	-0.001 (0.01)	0.041	0.017	0.016
Some primary or primary	0.023 (0.01)	0.022	0.032	0.055	0.017 (0.01)	0.045	0.040	0.061
Some secondary	-0.000 (0.02)	0.320	0.202	0.202	0.011 (0.02)	0.253	0.200	0.211
Some tertiary	-0.034 (0.03)	0.635	0.755	0.715	-0.027 (0.03)	0.646	0.727	0.696
Vocational	0.014 (0.01)	0.013	0.010	0.025	0.001 (0.01)	0.015	0.015	0.016
N	997	997	526	471	1,167	1,167	594	573
<i>Ideal occupation</i>								
Teacher	0.022 (0.03)	0.439	0.326	0.345	0.023 (0.03)	0.380	0.273	0.302
Doctor/health care professional	-0.032 (0.03)	0.325	0.277	0.247	0.015 (0.02)	0.158	0.128	0.147
Government/parastatal	-0.003 (0.00)	0.023	0.008	0.004	-0.011 (0.01)	0.076	0.017	0.005
Business owner	0.021 (0.02)	0.033	0.098	0.118	0.021 (0.02)	0.043	0.090	0.108
Other	-0.009 (0.03)	0.181	0.292	0.285	-0.053 (0.03)	0.344	0.492	0.437
N	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F9.2: Cash Plus impacts on educational expectations by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Out of school youth</i>						
None	0.030 (0.02)	0.064	0.088	0.019 (0.03)	0.139	0.161
Vocational	0.007 (0.01)	0.013	0.023	-0.037 (0.02)	0.064	0.028
University	-0.021 (0.02)	0.074	0.055	-0.003 (0.02)	0.062	0.059
Secondary	-0.004 (0.02)	0.042	0.039	0.005 (0.01)	0.027	0.031
Primary or some secondary	-0.012 (0.03)	0.808	0.795	0.016 (0.04)	0.708	0.721
<i>N</i>	620	312	308	795	404	391
<i>In school youth</i>						
Other	-0.015 (0.01)	0.015	0.000	0.011 (0.01)	0.011	0.024
University	-0.059 (0.05)	0.436	0.385	-0.039 (0.06)	0.437	0.380
Secondary	0.033 (0.04)	0.193	0.224	-0.030 (0.04)	0.144	0.114
Primary or some secondary	0.041 (0.04)	0.356	0.391	0.058 (0.07)	0.408	0.482
<i>N</i>	358	202	156	340	174	166

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F9.3: Cash Plus impacts on job expectations, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
3 years						
Other	-0.024 (0.03)	0.188	0.165	-0.036 (0.03)	0.293	0.256
Agriculture	0.004 (0.02)	0.083	0.091	-0.013 (0.03)	0.197	0.183
Still in school	-0.043 (0.03)	0.294	0.252	-0.012 (0.03)	0.192	0.190
Taxi (boda boda)	0.000** (0.00)	0.000	0.000	0.010 (0.01)	0.042	0.049
Tailor	0.036 (0.02)	0.076	0.110	-0.002 (0.00)	0.003	0.002
Construction	-0.002 (0.00)	0.002	0.000	-0.008 (0.01)	0.023	0.015
Business	0.032 (0.03)	0.341	0.370	0.087** (0.03)	0.200	0.281
Electrician	-0.004 (0.00)	0.004	0.000	-0.023* (0.01)	0.037	0.014
Teacher	0.000 (0.01)	0.013	0.013	-0.004 (0.01)	0.013	0.010
1 year						
Other	-0.031 (0.03)	0.195	0.167	-0.014 (0.03)	0.290	0.271

Agriculture	0.023 (0.02)	0.053	0.080	-0.050* (0.02)	0.173	0.124
Still in school	-0.036 (0.03)	0.339	0.302	-0.014 (0.03)	0.243	0.242
Taxi (boda boda)	0.000** (0.00)	0.000	0.000	0.006 (0.01)	0.047	0.051
Tailor	0.025 (0.02)	0.078	0.101	-0.003 (0.00)	0.003	0.000
Construction	-0.002 (0.00)	0.002	0.000	-0.001 (0.01)	0.033	0.031
Business	0.024 (0.03)	0.324	0.342	0.096** (0.03)	0.168	0.259
Electrician	-0.004 (0.00)	0.004	0.000	-0.022** (0.01)	0.028	0.005
Teacher	0.001 (0.00)	0.006	0.006	0.003 (0.01)	0.013	0.017
N	1,001	528	473	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.9.4: Cash Plus impacts on migration, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Migrate	-0.028 (0.03)	0.492	0.465	-0.023 (0.03)	0.410	0.385
Migrate, same region	-0.002 (0.03)	0.265	0.264	0.009 (0.03)	0.227	0.232
Migrate, other region	-0.026 (0.03)	0.227	0.201	-0.031 (0.02)	0.183	0.153
<i>N</i>	1,001	528	473	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F9.5: Cash Plus impacts on attitudes, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Each person is primarily responsible for his/her own success or failure in life	-0.024 (0.03)	0.602	0.577	0.558	-0.029 (0.03)	0.662	0.620	0.590
Locus of control index	0.029 (0.03)	3.183	3.294	3.326	-0.012 (0.03)	3.212	3.282	3.268
Social support index	0.005 (0.04)	3.867	3.898	3.903	0.073 (0.04)	4.108	3.898	3.972
Quality of life ladder: 1 (Worst) to 10 (Best)	0.079 (0.16)	3.465	4.915	5.002	-0.047 (0.14)	4.076	4.717	4.678
Self-esteem index	0.135** (0.05)	3.888	3.835	3.980	0.052 (0.05)	3.985	3.717	3.771
Entrepreneurial attitudes index	0.040 ** (0.01)	-	0.793	0.832	0.003 (0.01)	-	0.818	0.820
<i>N</i>	1,000	1,000	527	473	1,190	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, baseline outcome, PAA x size fixed effects (except for the entrepreneurial attitude index, where the regression only controls for gender, age at baseline and PAA x size fixed effects). Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Chapter 10

Table F.10.1: Cash Plus impacts on attitudes on gender indicators, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GEM scale (0–24)	0.015 (0.48)	11.981	12.222	12.318	0.716 (0.43)	13.141	13.499	14.305
<i>N</i>	623	623	343	280	779	779	409	370
Violence subscale (0–6)	-0.002 (0.14)	3.512	3.234	3.241	0.221* (0.10)	3.908	3.820	4.009
<i>N</i>	902	902	483	419	1,097	1,097	557	540
Reproductive health subscale (0–5)	-0.000 (0.10)	2.707	2.565	2.592	-0.034 (0.11)	2.816	3.070	3.045
<i>N</i>	769	769	421	348	953	953	488	465
Sexuality subscale (0–8)	-0.190 (0.17)	4.248	4.632	4.524	0.198 (0.14)	4.432	4.960	5.190
<i>N</i>	721	721	391	330	908	908	477	431
Decision making subscale (0–5)	0.132 (0.10)	1.443	1.496	1.621	0.276** (0.09)	1.945	1.802	2.085
<i>N</i>	975	975	518	457	1,145	1,145	580	565

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Chapter 11

Table F.11.1: Impacts on partner/relationship indicators, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ever had spouse/cohabiting partner	0.012 (0.02)	0.020	0.134	0.137	0.027* (0.01)	0.003	0.018	0.041
Single/never married	-0.012 (0.02)	0.980	0.866	0.863	-0.027* (0.01)	0.997	0.982	0.959
Has a girlfriend or boyfriend	0.005 (0.03)	0.257	0.299	0.309	-0.027 (0.03)	0.098	0.408	0.373
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.11.2: Cash Plus impacts on first sex indicators, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Ever had sex	-0.030 (0.03)	0.280	0.273	0.002 (0.02)	0.249	0.238
<i>N</i>	792	411	381	1,034	522	512
Age at first sexual intercourse	-0.356** (0.13)	17.487	17.269	0.056 (0.17)	17.031	16.984
<i>N</i>	219	115	104	251	129	122
First sex forced/pressured/tricked - among sexually debuted	-0.040 (0.07)	0.261	0.221	-0.018 (0.02)	0.038	0.025
<i>N</i>	219	115	104	252	130	122

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported sexual debut at baseline were excluded from the analysis.

Table F.11.3: Impacts on recent sex indicators, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Number of sexual partners in last 12 months	0.049 (0.05)	0.518	1.031	1.083	-0.037 (0.17)	0.419	1.711	1.657
<i>N</i>	417	417	225	192	375	375	194	181
Among ever had sex: has had concurrent sexual relationships in last 12 months	0.013 (0.01)	0.007	0.013	0.031	-0.014 (0.04)	0.032	0.144	0.133
<i>N</i>	417	417	225	192	375	375	194	181
Last sex: partner 5 or more years older	-0.019 (0.05)	0.122	0.384	0.341	0.013 (0.01)	0.000	0.000	0.012
<i>N</i>	393	393	211	182	345	345	177	168
Last sex: partner 10 or more years older	-0.019 (0.02)	0.015	0.062	0.044	0.000** (0.00)	0.000	0.000	0.000
<i>N</i>	393	393	211	182	345	345	177	168

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Missing values at baseline were replaced with zero.

Table F.11.4: Cash Plus impacts on contraceptive knowledge, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Has knowledge about contraceptives	0.041* (0.02)	0.736	0.912	0.954	0.021 (0.02)	0.800	0.927	0.940
Has knowledge about modern contraceptives	0.048* (0.02)	0.679	0.881	0.933	0.027 (0.02)	0.772	0.919	0.938
<i>N</i>	983	983	522	461	1,174	1,174	592	582

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.11.5: Cash Plus impacts on contraceptive use, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Last sex: used condom	-0.080 (0.05)	0.360	0.276	0.025 (0.06)	0.655	0.680
<i>N</i>	417	225	192	375	194	181
Currently using contraceptive - among sexually debuted	0.012 (0.06)	0.533	0.542	-0.005 (0.05)	0.727	0.718
<i>N</i>	417	225	192	375	194	181
Currently using modern contraceptive - among sexually debuted	0.005 (0.06)	0.511	0.516	-0.011 (0.06)	0.722	0.707
<i>N</i>	417	225	192	375	194	181

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.11.6 Cash Plus impacts on HIV risk indicators, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Perceived HIV risk: moderate/high	0.000 (0.02)	0.037	0.090	0.087	0.019 (0.02)	0.020	0.066	0.082
<i>N</i>	973	973	513	460	1,151	1,151	580	571
Perceived HIV risk: low	-0.071* (0.03)	0.086	0.271	0.207	-0.007 (0.03)	0.165	0.262	0.252
<i>N</i>	973	973	513	460	1,151	1,151	580	571
Perceived HIV risk: none	0.071 (0.04)	0.877	0.639	0.707	-0.011 (0.04)	0.815	0.672	0.665
<i>N</i>	973	973	513	460	1,151	1,151	580	571
Tested for HIV: Lifetime	0.068* (0.03)	0.454	0.688	0.758	0.024 (0.03)	0.428	0.556	0.589
<i>N</i>	997	997	526	471	1,175	1,175	593	582
Tested for HIV: 12 months	0.030 (0.03)	0.334	0.542	0.581	0.086** (0.03)	0.261	0.330	0.414
<i>N</i>	1,001	1,001	528	473	1,190	1,190	600	590
Received HIV test results: 12 months	-0.009 (0.04)	0.724	0.806	0.787	0.113* (0.05)	0.589	0.597	0.700
<i>N</i>	413	413	216	197	389	389	186	203

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA x size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.11.7: Cash Plus impacts on HIV knowledge, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Knows that sex with one uninfected monogamous partner can reduce risk of HIV	0.071 (0.04)	0.612	0.682	0.015 (0.03)	0.640	0.654
Knows mosquitos do not transfer HIV	-0.030 (0.02)	0.919	0.888	-0.003 (0.02)	0.831	0.832
Knows regular condom use reduces HIV risk	0.026 (0.03)	0.716	0.740	0.078* (0.03)	0.674	0.749
Knows HIV is not transferred through food	-0.015 (0.01)	0.962	0.949	-0.000 (0.02)	0.913	0.912
<i>N</i>	999	526	473	1,177	595	582

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.11.8: Cash Plus impacts on HIV knowledge, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Knows that a good-looking person can have HIV	0.042 (0.03)	0.794	0.735	0.776	0.025 (0.02)	0.834	0.780	0.803
Knows that a mother can transmit HIV to her child	0.004 (0.03)	0.735	0.743	0.743	-0.007 (0.03)	0.655	0.617	0.606
Knows there are medicines that help an HIV-positive person to live longer	-0.021 (0.02)	0.878	0.951	0.932	0.019 (0.02)	0.891	0.876	0.895
<i>N</i>	961	961	506	455	1,161	1,161	587	574

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Chapter 12

Table F.12.1: Cash Plus impacts on visits by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Visited health facility for SRH services - lifetime	-0.011 (0.03)	0.411	0.408	0.034 (0.02)	0.125	0.154
<i>N</i>	1,001	528	473	1,190	600	590
Visited health facility for SRH services - past 12 months	-0.013 (0.03)	0.354	0.349	0.056** (0.02)	0.087	0.139
<i>N</i>	1,001	528	473	1,190	600	590
Last SRH visit at dispensary - past 12 months	0.004 (0.06)	0.564	0.564	0.164* (0.08)	0.327	0.488
<i>N</i>	353	188	165	134	52	82
Last SRH visit at clinic, health care centre, hospital, doctor - past 12 months	0.006 (0.06)	0.426	0.436	-0.164* (0.08)	0.673	0.512
<i>N</i>	353	188	165	134	52	82
Last SRH visit at government facility - past 12 months	0.079* (0.03)	0.883	0.964	-0.028 (0.04)	0.942	0.915
<i>N</i>	353	188	165	134	52	82

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 2. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.12.2: Cash Plus impacts on reasons for last SRH visit, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Last SRH visit reason: contraception, condoms	0.072 (0.06)	0.524	0.594	-0.037 (0.10)	0.596	0.549
Last SRH visit reason: STI testing/treatment	-0.031 (0.02)	0.070	0.042	-0.007 (0.09)	0.308	0.305
Last SRH visit reason: pregnancy, maternity, gynecological exam	-0.034 (0.05)	0.380	0.345	0.002 (0.04)	0.077	0.085
<i>N</i>	352	187	165	134	52	82

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.12.3: Cash Plus impacts on topics discussed at last SRH visit, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
At last SRH visit, staff discussed contraception	0.158** (0.05)	0.481	0.655	0.194* (0.08)	0.308	0.512
At last SRH visit, staff discussed STI testing/treatment	0.023 (0.06)	0.380	0.424	0.033 (0.08)	0.673	0.707
At last SRH visit, staff discussed pregnancy	0.024 (0.06)	0.417	0.461	0.095 (0.08)	0.250	0.341
At last SRH visit, staff did not discuss contraception, STIs, pregnancy	-0.053 (0.03)	0.134	0.073	0.032 (0.04)	0.038	0.073
<i>N</i>	352	187	165	134	52	82

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.12.4: Cash Plus impacts on quality of staff, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Adolescent felt comfortable asking staff SRH questions	0.010 (0.04)	0.834	0.842	0.020 (0.05)	0.904	0.927
<i>N</i>	352	187	165	134	52	82
Staff answered SRH questions adequately	0.007 (0.02)	0.962	0.971	0.007 (0.02)	0.979	0.987
<i>N</i>	296	157	139	123	47	76
At last SRH visit, staff was friendly	0.000 (0.01)	0.995	0.994	0.032 (0.03)	0.942	0.976
<i>N</i>	352	187	165	134	52	82
SRH services were adequately confidential	0.017 (0.03)	0.914	0.927	-0.022 (0.05)	0.942	0.915
<i>N</i>	352	187	165	134	52	82

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Table F.12.5: Cash Plus impacts on knowledge on where to get contraceptives, condoms and get tested, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Contraception at clinic	-0.004 (0.01)	0.956	0.953	0.054* (0.02)	0.842	0.895
Contraception at kiosk/shop	0.013 (0.01)	0.019	0.032	0.038 (0.02)	0.090	0.127
Contraception at pharmacy	0.049 (0.04)	0.242	0.288	0.029 (0.03)	0.278	0.307
Contraception at free dispenser	-0.007* (0.00)	0.008	0.000	-0.031 (0.02)	0.080	0.049
Contraception do not know	0.005 (0.01)	0.034	0.038	-0.036* (0.01)	0.088	0.054
Condom at clinic	0.008 (0.03)	0.659	0.672	0.082** (0.03)	0.675	0.754
Condom at kiosk/shop	0.054 (0.03)	0.422	0.476	0.058 (0.04)	0.503	0.561
Condom at pharmacy	0.051 (0.04)	0.473	0.524	0.003 (0.04)	0.538	0.539
Condom at free dispenser	0.007 (0.01)	0.006	0.013	-0.027 (0.02)	0.083	0.056
Condom do not know	-0.036 (0.02)	0.097	0.059	-0.013 (0.01)	0.038	0.027
Test at clinic	0.001 (0.01)	0.983	0.983	0.014 (0.01)	0.977	0.990
Test at kiosk/shop	-0.004 (0.00)	0.004	0.000	0.022 (0.02)	0.030	0.053
Test at pharmacy	0.009 (0.02)	0.053	0.061	0.023 (0.02)	0.075	0.098
Test at free dispenser	0.005 (0.01)	0.004	0.008	-0.023 (0.02)	0.067	0.044
Test do not know	-0.003 (0.01)	0.015	0.013	-0.004 (0.00)	0.008	0.005
N	1,001	528	473	1,190	600	590

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01.

Chapter 13

Table F.13.1: Cash Plus impacts on experiences of violence past 12 months, by gender (ANCOVA)

	Females				Males			
	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Baseline Mean	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Experienced emotional abuse	0.002 (0.04)	0.399	0.369	0.361	-0.088* (0.04)	0.327	0.344	0.242
Experienced physical violence	-0.011 (0.03)	0.242	0.125	0.120	-0.007 (0.03)	0.291	0.125	0.102
<i>N</i>	504	504	263	241	529	529	273	256

Notes: Linear models were estimated on the panel of youth interviewed both at baseline and Round 3. Regressions control for gender, age at and outcome value at baseline, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported sexual debut at baseline were excluded from the analysis.

Table F.13.2: Impacts on experiences of perpetration past 12 months, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Perpetrated emotional abuse	-0.011 (0.03)	0.068	0.058	-0.025 (0.02)	0.070	0.043
Perpetrated physical violence	0.002 (0.02)	0.049	0.050	-0.063** (0.02)	0.088	0.023
<i>N</i>	504	263	241	529	273	256

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported sexual debut at baseline were excluded from the analysis.

Table F.13.3: Impacts on experiences of violence past 12 months, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Experienced sexual violence	-0.053*	0.072	0.025	-0.030	0.048	0.020
	(0.02)			(0.02)		
Experienced emotional/physical/sexual violence	0.005	0.422	0.427	-0.119**	0.396	0.270
	(0.05)			(0.04)		
<i>N</i>	504	263	241	529	273	256

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported sexual debut at baseline were excluded from the analysis.

Table F.13.4: Impacts on help seeking for violence, by gender (single difference)

	Females			Males		
	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean	ITT Impact	Round 3 Cash Only Mean	Round 3 Cash Plus Mean
	(1)	(2)	(3)	(4)	(5)	(6)
Sought help for emotional/physical/sexual violence	-0.083	0.486	0.437	0.019	0.370	0.391
	(0.07)			(0.08)		
Sought help from formal source for emotional/physical/sexual violence	0.005	0.054	0.058	0.016	0.065	0.087
	(0.03)			(0.04)		
Sought help from informal source for emotional/physical/sexual violence	-0.071	0.432	0.388	0.060	0.296	0.348
	(0.07)			(0.07)		
<i>N</i>	214	111	103	177	108	69

Notes: Linear models were estimated on the separate subsamples of female and male youth interviewed both at baseline and Round 3. Regressions control for gender, age, PAA × size fixed effects. Standard errors adjusted for clustering at the community level are reported in parentheses. *p<0.05, **p<0.01. Youth who reported sexual debut at baseline were excluded from the analysis.

APPENDIX G. PROGRAMME COMPONENTS ANALYSIS

		Impact
Currently attending secondary school	(1) ITT impact	-0.050* (0.02)
	(2) ITT impact, controlling for programme components	-0.049* (0.02)
	Difference (1) - (2)	-0.001 (0.01)
	Training and mentoring	0.023** (0.01)
	Training and business grant	-0.036** (0.01)
	Training and education grant	0.012* (0.01)
Started a business, past 12 months	(1) ITT impact	0.180** (0.02)
	(2) ITT impact, controlling for programme components	0.058** (0.02)
	Difference (1) - (2)	0.122** (0.01)
	Training and mentoring	0.021* (0.01)
	Training and business grant	0.099** (0.01)
	Training and education grant	0.003 (0.00)
Reports depressive symptoms (CES-D10 \geq 10)	(1) ITT impact	-0.065** (0.01)
	(2) ITT impact, controlling for programme components	-0.053* (0.02)
	Difference (1) - (2)	-0.012 (0.01)
	Training and mentoring	-0.001 (0.01)
	Training and business grant	-0.005 (0.01)
	Training and education grant	0.006* (0.01)
Self-esteem	(1) ITT impact	0.090* (0.04)
	(2) ITT impact, controlling for programme components	0.048 (0.04)
	Difference (1) - (2)	0.042* (0.02)
	Training and mentoring	0.053** (0.02)
	Training and business grant	-0.008 (0.01)
	Training and education grant	-0.002 (0.01)

		Impact
Entrepreneurial attitude	(1) ITT impact	0.019* (0.01)
	(2) ITT impact, controlling for programme components	0.014 (0.01)
	Difference (1) - (2)	0.005 (0.00)
	Training and mentoring	0.004 (0.00)
	Training and business grant	-0.001 (0.00)
	Training and education grant	0.001 (0.00)
Life satisfaction	(1) ITT impact	0.007 (0.11)
	(2) ITT impact, controlling for programme components	-0.198 (0.11)
	Difference (1) - (2)	0.20** (0.05)
	Training and mentoring	0.053 (0.04)
	Training and business grant	0.110** (0.04)
	Training and education grant	0.042* (0.02)
Ideal education: some tertiary	(1) ITT impact	-0.031 (0.02)
	(2) ITT impact, controlling for programme components	-0.035 (0.03)
	Difference (1) - (2)	0.003 (0.01)
	Training and mentoring	0.007 (0.01)
	Training and business grant	-0.010 (0.01)
	Training and education grant	0.006* (0.03)
Ideal education: vocational	(1) ITT impact	0.008 (0.01)
	(2) ITT impact, controlling for programme components	0.004 (0.01)
	Difference (1) - (2)	0.003 (0.00)
	Training and mentoring	0.003 (0.00)
	Training and business grant	0.001 (0.00)
	Training and education grant	-0.000 (0.00)

		Impact
Ideal occupation: business owner	(1) ITT impact	0.020 (0.01)
	(2) ITT impact, controlling for programme components	0.026 (0.01)
	Difference (1) - (2)	-0.007 (0.01)
	Training and mentoring	-0.004 (0.01)
	Training and business grant	-0.001 (0.01)
	Training and education grant	-0.001 (0.00)
Expects to complete university (in-school)	(1) ITT impact	-0.045 (0.04)
	(2) ITT impact, controlling for programme components	-0.031 (0.05)
	Difference (1) - (2)	-0.014 (0.02)
	Training and mentoring	0.008 (0.02)
	Training and business grant	-0.011 (0.01)
	Training and education grant	-0.011 (0.03)
Expects to complete university (out-of-school)	(1) ITT impact	-0.013 (0.01)
	(2) ITT impact, controlling for programme components	-0.007 (0.01)
	Difference (1) - (2)	-0.006 (0.01)
	Training and mentoring	-0.004 (0.01)
	Training and business grant	-0.004 (0.01)
	Training and education grant	0.002 (0.00)
Expects to complete vocational (out-of- school)	(1) ITT impact	-0.015 (0.01)
	(2) ITT impact, controlling for programme components	-0.019 (0.01)
	Difference (1) - (2)	0.005 (0.00)
	Training and mentoring	0.001 (0.00)
	Training and business grant	0.004 (0.01)
	Training and education grant	-0.000 (0.00)

		Impact
Expects to have a business	(1) ITT impact	0.061** (0.02)
	(2) ITT impact, controlling for programme components	0.059** (0.02)
	Difference (1) - (2)	0.002 (0.01)
	Training and mentoring	-0.011 (0.01)
	Training and business grant	0.027** (0.01)
	Training and education grant	-0.013** (0.00)
GEM scale (0–24)	(1) ITT impact	0.432 (0.33)
	(2) ITT impact, controlling for programme components	-0.463 (0.37)
	Difference (1) - (2)	-0.031 (0.13)
	Training and mentoring	0.100 (0.14)
	Training and business grant	-0.159 (0.12)
	Training and education grant	0.028 (0.13)
Domestic chores and daily life subscale (0–5)	(1) ITT impact	0.210** (0.07)
	(2) ITT impact, controlling for programme components	0.195* (0.08)
	Difference (1) - (2)	0.015 (0.03)
	Training and mentoring	-0.006 (0.03)
	Training and business grant	0.022 (0.03)
	Training and education grant	-0.001 (0.01)
Age at first sex	(1) ITT impact	-0.112 (0.10)
	(2) ITT impact, controlling for programme components	-0.054 (0.11)
	Difference (1) - (2)	-0.057 (0.05)
	Training and mentoring	0.051 (0.05)
	Training and business grant	-0.102 (0.07)
	Training and education grant	-0.007 (0.05)

		Impact
Knows condom use reduces HIV risk	(1) ITT impact	0.055* (0.02)
	(2) ITT impact, controlling for programme components	0.045 (0.03)
	Difference (1) - (2)	0.011 (0.01)
	Training and mentoring	0.012 (0.01)
	Training and business grant	-0.004 (0.01)
	Training and education grant	0.002 (0.00)
Knows modern contraception methods	(1) ITT impact	0.033* (0.02)
	(2) ITT impact, controlling for programme components	0.017 (0.02)
	Difference (1) - (2)	0.017** (0.01)
	Training and mentoring	0.013** (0.00)
	Training and business grant	0.001 (0.00)
	Training and education grant	0.003 (0.00)
HIV testing past 12 months	(1) ITT impact	0.068** (0.03)
	(2) ITT impact, controlling for programme components	0.020 (0.03)
	Difference (1) - (2)	0.048** (0.01)
	Training and mentoring	0.036** (0.01)
	Training and business grant	0.015 (0.01)
	Training and education grant	-0.003 (0.01)
Visit health facility past 12 months	(1) ITT impact	0.031 (0.02)
	(2) ITT impact, controlling for program components	0.000 (0.02)
	Difference (1) - (2)	0.031** (0.01)
	Training and mentoring	0.025** (0.01)
	Training and business grant	0.010 (0.01)
	Training and education grant	-0.004 (0.00)

		Impact
Contraception at a clinic	(1) ITT impact	0.029* (0.01)
	(2) ITT impact, controlling for programme components	0.022 (0.02)
	Difference (1) - (2)	0.006 (0.01)
	Training and mentoring	-0.004 (0.01)
	Training and business grant	0.008 (0.01)
	Training and education grant	0.002 (0.00)
Contraception do not know	(1) ITT impact	-0.018 (0.01)
	(2) ITT impact, controlling for programme components	-0.011 (0.00)
	Difference (1) - (2)	-0.007* (0.01)
	Training and mentoring	-0.000 (0.00)
	Training and business grant	-0.004 (0.00)
	Training and education grant	-0.002* (0.00)
Condom at a clinic	(1) ITT impact	0.048* (0.02)
	(2) ITT impact, controlling for programme components	0.019 (0.02)
	Difference (1) - (2)	0.029** (0.01)
	Training and mentoring	0.005 (0.01)
	Training and business grant	0.016* (0.01)
	Training and education grant	0.009** (0.00)
Condom do not know	(1) ITT impact	-0.025* (0.01)
	(2) ITT impact, controlling for programme components	-0.018 (0.01)
	Difference (1) - (2)	-0.007* (0.00)
	Training and mentoring	-0.002 (0.00)
	Training and business grant	-0.003 (0.00)
	Training and education grant	-0.002 (0.00)

		Impact
Sexual violence	(1) ITT impact	-0.036** (0.01)
	(2) ITT impact, controlling for programme components	-0.033* (0.01)
	Difference (1) - (2)	-0.003 (0.01)
	Contribution of mentoring	-0.003 (0.01)
	Contribution of business grant	0.001 (0.01)
	Contribution of education grant	-0.000 (0.00)
Emotional violence	(1) ITT impact	-0.056 (0.03)
	(2) ITT impact, controlling for programme components	-0.037 (0.04)
	Difference (1) - (2)	-0.019 (0.01)
	Contribution of mentoring	0.007 (0.01)
	Contribution of business grant	-0.021 (0.01)
	Contribution of education grant	-0.004 (0.01)
Physical violence	(1) ITT impact	-0.011 (0.02)
	(2) ITT impact, controlling for programme components	-0.027 (0.02)
	Difference (1) - (2)	0.015 (0.01)
	Contribution of mentoring	0.023 (0.01)
	Contribution of business grant	-0.008 (0.01)
	Contribution of education grant	-0.001 (0.00)
Any form of violence	(1) ITT impact	-0.061 (0.03)
	(2) ITT impact, controlling for programme components	-0.044 (0.04)
	Difference (1) - (2)	-0.017 (0.02)
	Contribution of mentoring	0.021 (0.02)
	Contribution of business grant	-0.031* (0.01)
	Contribution of education grant	-0.006 (0.01)

		Impact
Perpetrated physical violence	(1) ITT impact	-0.033* (0.01)
	(2) ITT impact, controlling for programme components	-0.038* (0.02)
	Difference (1) - (2)	0.000 (0.01)
	Contribution of mentoring	0.011 (0.01)
	Contribution of business grant	-0.005 (0.01)
	Contribution of education grant	-0.002 (0.00)
Perpetrated emotional violence	(1) ITT impact	-0.019 (0.02)
	(2) ITT impact, controlling for programme components	-0.011 (0.02)
	Difference (1) - (2)	-0.008 (0.01)
	Contribution of mentoring	-0.004 (0.01)
	Contribution of business grant	-0.003 (0.01)
	Contribution of education grant	-0.001 (0.00)

Notes: ITT estimates in these appendix tables may differ slightly from the ITT estimates reported in the main report due to missing values for some of the treatment components, and therefore the appendix ITT estimates may be estimated on a slightly smaller sample size.