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**Acceptability and feasibility of cash transfers for HIV prevention among adolescent South African women**

Catherine L. Mac Phail  
*University of Wollongong*, [cmacphai@uow.edu.au](mailto:cmacphai@uow.edu.au)

Michelle Adato  
*International Food Policy Research Institute*

Kathleen Kahn  
*University of The Witwatersrand*

Amanda Selin  
*University of North Carolina*

Rhian Twine  
*University of The Witwatersrand*

*See next page for additional authors*

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## Acceptability and feasibility of cash transfers for HIV prevention among adolescent South African women

### Abstract

Women are at increased risk of HIV infection in much of sub-Saharan Africa. Longitudinal and cross-sectional studies have found an association between school attendance and reduced HIV risk. We report feasibility and acceptability results from a pilot of a cash transfer intervention conditional on school attendance paid to young women and their families in rural Mpumalanga, South Africa for the prevention of HIV infection. Twenty-nine young women were randomised to intervention or control and a cash payment based on school attendance made over a 2-month period. Quantitative (survey) and qualitative (focus group and interview) data collection was undertaken with young women, parents, teachers and young men in the same school. Qualitative analysis was conducted in Atlas.ti using a framework approach and basic descriptive analysis in Excel was conducted on the quantitative data. Results indicate it was both feasible and acceptable to introduce such an intervention among this population in rural South Africa. There was good understanding of the process of randomisation and the aims of the study, although some rumours developed in the study community. We address some of the changes necessary to ensure acceptability and feasibility of the main trial.

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### Authors

Catherine L. Mac Phail, Michelle Adato, Kathleen Kahn, Amanda Selin, Rhian Twine, Samson Khoza, Molly Rosenberg, Nadia Nguyen, Elizabeth Becker, and Audrey Pettifor



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## Acceptability and Feasibility of Cash Transfers for HIV Prevention among Adolescent South African Women

Catherine MacPhail<sup>1,2</sup>, Michelle Adato<sup>3</sup>, Kathleen Kahn<sup>4</sup>, Amanda Selin<sup>5</sup>, Rhian Twine<sup>4</sup>, Samson Khoza<sup>4</sup>, Molly Rosenberg<sup>5</sup>, Nadia Nguyen<sup>5</sup>, Elizabeth Becker<sup>3</sup>, and Audrey Pettifor<sup>5</sup>

<sup>1</sup>Wits Reproductive Health and HIV Institute (WRHI), School of Clinical Medicine, Faculty of Health Sciences, University of the Witwatersrand, South Africa

<sup>2</sup>Collaborative Research Network (CRN) for Mental Health and Well-being of rural and regional communities, University of New England, Armidale, NSW, Australia

<sup>3</sup>Regional Network on AIDS, Livelihoods, and Food Security (RENEWAL), International Food Policy Research Institute (IFPRI), Washington DC, US

<sup>4</sup>Wits/MRC Rural Public Health and Health Transitions Research Unit (Agincourt), University of the Witwatersrand, South Africa

<sup>5</sup>Gillings School of Public Health, University of North Carolina, Chapel Hill, US

### Abstract

Women are at increased risk of HIV infection in much of sub-Saharan Africa. Longitudinal and cross-sectional studies have found an association between school attendance and reduced HIV risk. We report feasibility and acceptability results from a pilot of a cash transfer intervention conditional on school attendance paid to young women and their families in rural Mpumalanga, South Africa for the prevention of HIV infection. Twenty-nine young women were randomised to intervention or control and a cash payment based on school attendance made over a 2 month period. Quantitative (survey) and qualitative (focus group and interview) data collection was undertaken with young women, parents, teachers and young men in the same school. Qualitative analysis was conducted in Atlas.ti using a framework approach and basic descriptive analysis in Excel was conducted on the quantitative data. Results indicate it was both feasible and acceptable to introduce such an intervention among this population in rural South Africa. There was good understanding of the process of randomisation and the aims of the study, although some rumours developed in the study community. We address some of the changes necessary to ensure acceptability and feasibility of the main trial.

### Keywords

HIV prevention; South Africa; women; cash transfers; school; social relationships

### Background

Throughout sub-Saharan Africa young women are at increased risk of HIV infection when compared to their male counterparts and other age groups. In some countries HIV prevalence among young women is as high as 30 per cent (1, 2). In South Africa young

women are infected at 3–4 times the rate of young men, with women accumulating a 1 in 3 chance of being HIV infected by the time they reach the age of 21 (1). Recent findings from a nationally representative sample indicate that in South Africa education is protective against HIV risk for young women: among those reporting a single lifetime sexual partner, those who report having completed high school are 4 times less likely to be HIV-infected than those who have not completed school (3). Protection was related to school attendance rather than HIV prevention messaging that might have been included in the school curriculum and there was no such association for young men.

Similar findings have emerged from another South African study where each additional year of education was associated with a seven per cent reduced risk of HIV infection (4); and two recent reviews have confirmed the protective effect of education on HIV (5, 6). A number of studies have shown this relationship to be stronger for young women than others (including young men). In Zambia, young women with more education were found to be less likely to be HIV infected than those with less education, and declines in HIV infection rates from 1995–2003 were greatest in young women with the most education (7). Similarly, in Uganda HIV infection rates declined most rapidly over 10 years among young women with a secondary school education, compared to other population groups (8).

There are, however, numerous barriers to school attendance in South Africa. School attendance drops steeply after the final compulsory year of schooling in grade 9 (9) and among 20–24 year old South African women only 40 per cent report having completed school (3). A major factor in failing to complete school is the role of poverty. In South Africa, 65% of young people not in school indicated that poverty was the main factor affecting their ability to remain in school (9).

Reducing economic barriers to education increases school attendance and may reduce young women's HIV risk. Cash transfers have been used in developing countries as a mechanism for keeping children (particularly girls) in school and for increasing uptake of basic health services such as vaccinations (10). More recently, there is a developing interest in the use of cash transfers for the reduction of HIV risk, with interventions completed or underway in Malawi (11), Zimbabwe (12), Kenya (13) and South Africa (14). In preparation for a Randomised Controlled Trial (RCT) of a cash transfer conditional on school attendance for HIV prevention among rural South African adolescent women, a pilot study was conducted to assess both intervention acceptability and feasibility. The pilot and planned intervention were limited to women only: this was for three major reasons (i) the association between education and reduced risk of HIV infection has been demonstrated for women and not men in previous research; (ii) in the context of the planned RCT, HIV incidence is not high enough among young men to measure success over a three year intervention; and (iii) given that HIV prevalence among young women is significantly higher than among young men, women require additional targeting for HIV prevention activities.

Specifically, the study aimed to assess acceptability of the planned intervention in a community with no clinical trial exposure in which there were concerns that cultural attitudes towards open discussion of sexuality and HIV may impact on study participation, and where young men would be specifically excluded. Additionally, we aimed to establish whether there were obvious negative consequences of providing young women with cash, such as changing social relationships or increases in risk behaviours (such as partner/family violence and drug/alcohol consumption). In terms of feasibility, we aimed to assess the potential for accurately monitoring school attendance and making electronic payments in an underdeveloped and poorly resourced rural community.

## Methods

We aimed to recruit and enrol a total of 40 young women (YW) and their households into the pilot study over a 2 week period. During and after the pilot intervention, data collection was conducted with YW, their households and other community members (young men and teachers). The pilot study was conducted from February to May of 2010.

### Study site

The Agincourt sub-district of Bushbuckridge in rural Mpumalanga, South Africa is a Demographic Surveillance Site (DSS) of 14,000 households with a population of approximately 84,000 people. Census data is collected annually from all household heads on household composition, household goods ownership, in- and out-migration, births and deaths. An education module is periodically added to the census and provides additional information on school attendance and grade. The population is resident in 24 villages located about 500km northeast of Johannesburg. The area is poorly developed, dry and heavily populated with household plots too small to support subsistence agriculture and few other options for income generation. Agincourt is characterised by high levels of unemployment and a strong dependency on state pensions and child support grants (15); with many families living in poverty (16). As in other parts of South Africa, there are very high levels of school attendance, although progression through school is often delayed (17). There is limited information on HIV prevalence available for the area but 2006 ANC (Antenatal Clinic) data was 8% for 15–19 year olds, 21% in 20–24 year olds and 40% among those aged 25–34 years (18, 19).

### Sampling Strategy

A random sample of 60 households with a YW aged 14–17 years of age, in grade 10 at a single school in the Agincourt study site was drawn from the DSS database. Additionally, only households classified as vulnerable through meeting at least one of three possible criteria: household falls into bottom two wealth quintiles; YW lost at least one parent; or household reports food insecurity, were included in the sample. After sampling, eligibility also required both YW and parents to have documentation to open a post office account for payment of the cash transfer, Parents/Guardians were required to consent and adolescent were required to assent.

Young men were recruited from the grade 10 classes of the high school by randomly selecting participants from class lists and approaching them to volunteer participation. Parents were contacted for consent and the young men provided assent. Young men were included in the data collection both as the potential sexual partners of participants and in order to explore whether making cash payments to girls only would create gender conflicts. Teachers involved specifically with grade 10 learners were recruited with assistance from the school principle.

### Intervention Activities for the Main Trial

Young women and their households were approached to participate and were consented/assented at their homes during the week. Parents/Guardians completed baseline assessments of household structure, income and expenditure using CAPI (Computer Assisted Personal Interview) and YW were provided with an appointment for a weekend visit at their school. At this visit they completed a baseline assessment of sexual behaviour and various psychometric measures of depression, motivation and self-efficacy using CAPI and ACASI (Audio Computer Assisted Self-Interview) and completed HIV pre- and post-test counselling. HIV testing was conducted using Abbott Determine<sup>®</sup> rapid test kits with confirmation of positives using SD Bioline HIV-1/2 3.0 (Standard Diagnostics Inc.,

Kyonggi-do, South Korea) rapid test kits. A venous blood sample was taken for HSV-2 testing (Kalon) and girls were told how to use the Abbott self-administered vaginal swab for gonorrhoea and chlamydia testing using the Genprobe Aptima Combo 2 Assay. HIV test results were made available immediately, while the sexually transmitted infection samples were sent away to a local laboratory and results were returned to participants in person at the end of the pilot. HIV positive women were referred to a local specialised TB/HIV treatment clinic for CD4 tests and initiation of HIV treatment, if they met cut-offs for national treatment guidelines. The data collected at baseline and results of the biological tests are not further discussed in this paper.

After baseline data collection, YW were randomised to either intervention or control arm and followed for 2 months. During this time their school attendance was monitored monthly and cash transfers were paid to women in the intervention arm who attended 80 per cent or more of school days. School attendance was monitored using three different methods: standard school attendance registers, study-specific attendance registers and biometric finger-print readings. The total payment to the household was ZAR300 monthly (approximately USD35), with two-thirds going to the household and the remaining ZAR100 to the YW. The cash transfer amount chosen was comparable to the South African Child Support Grant: a means based social welfare grant of ZAR260 paid monthly to millions of South Africans. Payment is made to the primary caregiver of children less than 17 years of age. A range of data collection methods were used to assess the acceptability and feasibility of the proposed main RCT.

### Data collection

Data collection on feasibility and acceptability was conducted at two time points: after the initial payment (month 1) and at the end of the pilot (month 2). At each time point focus group discussions (FGDs) were conducted with YW stratified by study arm as well as a single group containing both intervention and control participants. At month 2 a semi-structured exit survey was conducted with all YW and parents to further assess participants' experience with the study. A sub-sample of 20 young women and 20 parents completed a qualitative in-depth interview at month 2. FGD data was collected from teachers at months 1 and 2 and from young men at month 2.

All data collection was conducted in the dominant local language (Shangaan) by fieldworkers recruited from the area, except for teacher interviews, which were conducted in English. Survey instruments, topic guides and consents were translated and back translated to ensure accurate use of language and meaning. The interviews and focus group discussion topic guides made use of open-ended probes to establish attitudes towards the cash transfers and the data collection processes used in the pilot, changes in social relationships as a result of the study, perceived fairness of the study with regard to randomisation and focus on young women, challenges to study participation and spending of the cash transfer. FGDs were up to two hours duration and IDIs up to 90 minutes.

Paper-based exit surveys were conducted with parents/guardians and YW. Separate surveys were used for control and intervention YW as the survey explored transfer spending and allocation with intervention YW. The survey investigated YW and parent knowledge of the study, decisions about spending the money, items that money was used for, fairness of allocation of money and fairness in school attendance monitoring. The survey also included some basic questions about acceptability of control group participation in the longer proposed main study.

## Data analysis

Focus group discussions and interviews were digitally recorded and then translated and transcribed into English. They were imported into Nvivo 8 for coding and identification of dominant themes. Using a frame work analysis approach (20), codes were allocated to major themes such as general study impressions, relationship dynamics, school monitoring and attendance, monetary receipt, knowledge of study, impressions of absenteeism, and future thoughts. Coding was conducted by 3 members of the field team (NN, MR and EB). Reliability of coding was facilitated through on-going discussion between coders and revision of codes where necessary. Quantitative data from the exit surveys was entered in Access and analysed in Excel. Descriptive statistics were used given the small sample size and relatively basic requirements of the analysis.

Ethics approval for the study was obtained from the University of the Witwatersrand Human Subjects Ethics Committee, the University of North Carolina IRB and the Mpumalanga Departments of Health and Education.

## Results

Over the two week recruitment period 59 selected households were approached by the study team. At the end of the limited recruitment period a total of only 29 young women and their households had been recruited into the study (see Figure 1), largely due to the large number of ineligible young women (n=24) that the DSS database had drawn as potential participants. Ineligibility was largely due to incorrect information on school grade. There were 2 refusals by young women.

### Acceptability of the Intervention

**General perceptions of the intervention**—A primary purpose of the pilot study was to learn about how people respond to a conditional cash transfer program, and the parameters of the randomised controlled trial to come. We found nearly all positive responses to the CCT intervention, among both intervention and control YW. According to the survey results, all but one YW thought that a CCT programme to keep girls in school would benefit their community. In interviews and FGDs at the end of the pilot, the main perceived benefit of the study was the cash transfer; but YW also liked knowing their HIV status, and learning more about HIV and STIs. Only two YW mentioned that they disliked the HIV testing component of the study. Some in the intervention group reported increased motivation to attend school and improved quality of life at home through participation in the study. The principle complaint, particularly among those in the intervention group, was that everyone did not receive the grant. Their stated preference was for all study participants to receive it, particularly because they felt that control YW were affected by the same issues as themselves and they were concerned about the potential for changes in social relationships that might be caused by some participants receiving the money and others not. For the same reasons YW advocated for the CCTs to be extended to young men; a feeling that was supported by teachers during month 2 interviews at the conclusion of the study.

Most YW in the control group said that their families were supportive of their participation in the programme, even though they did not receive the grants. Their families were pleased to learn the (negative) HIV status of their daughters. Many consoled the young women by telling them that they might be chosen for the intervention arm in the main study. However, an YW in a control FGD said that her family was disappointed: *“I can say my family members are not okay because they were having high expectation on that money.”*



During the month 2 interviews, caregivers of the YW in the both study groups all had positive opinions of the intervention, as did teachers. Caregivers liked that their daughters learned their HIV status, learned how to budget (although this was not actually included in the intervention), and most importantly, had money to spend on food and other basic necessities for the household. Caregivers in both study groups said that the grant motivated young women to attend school, through the attendance requirement and because the grant covered expenses needed for school attendance (e.g. food and sanitary napkins). One caregiver in the control group believed that the cash will discourage young women from having relationships with young men for money: *“I think the study helped a lot of our young woman because they were moving up and down in need of money but since they are in the study they knew how to look after themselves. They were having some relationship with boys searching for the money. In some family they are eating well because of the money.”* One caregiver objected to the conditionality based on the belief that the YW would not receive the grant if ill. It was not clear whether she understood that 20 per cent of school days absent without reason were permitted and that a doctor’s note could be provided for illness of longer duration. In the exit surveys with YW and parents acceptability was assessed using a Likert scale that asked about the potential for participating in the future main trial as a *control* participant. Both YW and parents in both control and intervention arms of the pilot were willing to participate again in the future: 11/14 intervention YW and 11/12 intervention parents, while 11/14 and 12/15 of control YW and parents respectively would ‘very much’ like to participate again.

Young men were the group that expressed the most mixed opinions about the intervention; largely because they wanted to be included based on their own experience of poverty and perceived vulnerability to HIV. This will be discussed further in a later section.

**Randomisation acceptability**—The main area in which acceptability of the study was poor was in the manner in which randomisation to study arm was conducted, with YW believing that the selection process was not fair. During the exit survey, eight out of 14 control YW thought the selection process was unfair, although only two indicated that there was “favouritism.” The main source of the perceived lack of fairness was the fact that participants were asked to select randomisation envelopes from the front of the box, rather than drawing the envelopes from any location. A rumour developed that the researchers had pre-selected the YW for each group and therefore handed them the corresponding envelope. One intervention YW said in her interview that *“they say that you [researchers] look at who is coming to the randomisation and said that if we come you take the intervention envelop in front so that we can take it and [others are] given the control envelopes”*. Interestingly, despite some complaints, 12 out of 15 caregivers in the control group said that they thought the selection process was fair, possibly because they were not present at the point of randomisation. This was an issue that clearly needed to be addressed in the main trial.

**Impact of the intervention on social relationships**—One of the questions in the pilot study concerned the impact that the study might have on social relationships in schools and communities: would random selection into grant recipients and non-recipients have any negative impacts on social status, friendships or other social dynamics among young women in the study? Would it create tensions in communities?

**Relationships between young women:** Overall, relationships between YW were assessed through the exit survey as having remained the same over the period of the pilot study, with only 2 intervention and 1 control YW noting that relationships had worsened. A further 2 YW across both arms of the study stated that relationships had improved. YW did, however, speak more about changed peer relationships in qualitative interviews.



Many questions about relationships with friends elicited responses from both intervention and control groups that “*we are fine like always.*” A few responses suggest that those in the control group were happy for their friends’ good luck: “*When I told them [that I was receiving the grant] the response was good because when we look back from the past year I didn’t have the money to carry to school but now I do*” (FGD YW Intervention). There was no evidence of conflict, bullying, or threats. All but one YW said that they did not feel unsafe or harassed because of the money they received. There was some jealousy, however. One intervention YW said that those in the control group “*don’t understand those who are in the intervention group.*” In one of the more strongly expressed cases, another intervention YW explained that:

My friend, she is in the control, she is no longer talking to me. She used to say that I [think] too much of myself. She said to other student she no longer loves me because since I [have been] getting the money I try to make myself smarter than other people. There is ...Like on Friday we have been asked by one of the staff of CCT [whether] I did get the money in my bank so I said yes, from there some of [the control group] got angry with me, saying...they are tired of me

These outcomes are to some extent inevitable: it would be impossible to give money to one set of girls and not to another without eliciting envy, though there was variation in the extent to which YW in the control group resented their classmates or simply saw themselves as the recipient of bad luck. The behaviour of the intervention YW seemed to matter, i.e. whether they flaunted their luck or how they treated others; one control YW said “*they always laugh at us saying that we are getting the money and you are not.*” There was some indication of at least a temporary realignment of friendships, whereby intervention YW were starting to spend more time together. According to a control YW, “*since they are getting the money they started isolating themselves from others.*” Given the short duration of the pilot study it was difficult to assess whether the increased time that intervention YW spent together was through choice or part of the requirements of the study, such as meeting to provide researchers with bank account details.

The perception of pre-selection discussed previously, as well as envy over the cash received, help to explain theories that emerged at school about the study. Various theories about the selection process were used to rationalize the selection and ease disappointment about control arm allocation, such as one hypothesizing that the intervention YW were poorer: “*They [the control YW] were saying they don’t want that money at all, we have been given that money because we are having nothing at home to eat*”. Another was related to HIV—logical given that HIV testing took place at the start of the study. Two different explanations emerged: one that the control group was HIV positive and thus were not rewarded with the grant; the other that the intervention group was HIV positive. In the words of one YW: “*They said the people who are getting the money are HIV [positive], and they were jealous because they ask why we are getting the money and we told them that we are not HIV [positive], it’s because we were lucky to get the papers that were written intervention*” (FGD YW Intervention). An explanation offered a number of times for the HIV hypothesis was that HIV-positive girls were given the money so that they could afford food needed for good nutrition. In an Intervention focus group, one YW said “*the response was not good: they [other students] said I am HIV positive that’s why they give me the money to buy fruits so I will be healthy.*” In an interview, another intervention YW said that “*they were saying that our parents asked permission for us to be involved in the study so that we can get the grant in order for us to buy fruits because we are HIV positive.*”

**Relationships with young men:** The main study hypothesizes a positive impact on young women’s relationships with men, with the cash transfer potentially reducing the likelihood of their engaging in sexual relationships for material benefit, or empowering the young

women to some degree vis-à-vis their male partners. We explored this issue in the pilot but did not find impact; in part because most young women said that they had no boyfriends, and likely due to the short duration of the pilot. We were, however, able to assess the impact of the pilot on relationships with young men in the study community attending the same school through FGDs with young men at month 2 and interviews/FGDs with YW. One complaint from young men was that the YW no longer wanted to go out with them, because now that the YW knew their HIV (negative) status, they wanted to stay safe: *“when the girls are included in the study it is not good in our side, since they have tested for HIV/AIDS they are refusing to make relationships with us”* (FGD Men). This is an interesting finding suggesting possible unanticipated impacts of the study, although should be viewed in the light of the fact that most YW participating in the pilot reported not having ever been sexually active.

Young men complained a great deal about their exclusion from the study, because they also need the money. According to a teacher: *“they were complaining, the boys they say why is this study especially for the girls, why can't they come and research us, why girls? We need this study also... we need R100 also”* (Interview Teacher). This in contrast to some comments from young men: *“Most of the boys are saying that they won't participate in the study because you are testing for the HIV/AIDS. Other boys refuse to take part [in FGDs] with us, saying that we are selected to participate because we are HIV positive”* (FGD Men).

In interviews and FGDs most YW said the study had no effect on their general relationships with young men. One YW noted that young men were attempting to become friends with intervention YW so that they would share their cash transfer with them when it came time to buy snacks and other food at school. In other cases, however, the YW said that young men were spreading rumours about the study. These included claims that the girls receiving the grant were HIV positive, prostitutes, or pregnant, or that study staff intended to infect the intervention girls with AIDS, or teach them to be prostitutes. As above, these stories may have been driven more by young men's envy over being excluded from the cash grant, rather than by a real belief in their veracity. Additionally, the stories represent some the issues that were being discussed in the popular media at the time. South Africa was in the process of hosting the Soccer World Cup and there was substantial discussion of the impact that this might have on sex work and sex trafficking.

**Relationships within communities:** During interviews and FGDs most caregivers and YW said that nothing had changed in community relationships as a result of the program. One reason was that it was rarely discussed; another was that so few people within the community were chosen to participate. However, one intervention YW said that relationships were affected as families sought to understand why they were or were not chosen for the study. A handful of examples were reported that echoed perceptions within the school. For example, one YW reported that her neighbour thought that the money was being received because she is HIV positive, and a few control YW reported tensions over the resources: *“It [relations in the community] was good but when they came to us to show off that they are getting the money it changed a little bit.”* The strength of the impacts can be gauged to some extent by the survey results: Ten out of 12 intervention caregivers indicated their community relationships stayed the same during the study, and two indicated that they improved. Fourteen of 15 control caregivers indicated their community relationships stayed the same during the study, and one indicated that they worsened.

**Acceptability of the cash transfer division between young women and caregiver**—A feature that differentiates our study design from most CCT programs globally is the designation of one-third of the grant directly to the YW. While most CCTs go in full to the caregiver, the logic of giving a portion to the YW is that this age group is likely

to play a large role in decisions about their own school attendance (most CCT programs are for younger children). Additionally, HIV risk in this age group in sub-Saharan Africa has been hypothesized to be associated with transactional sex and YW require access to their own money if this is to be overcome. We were thus interested in learning how study participants felt about the apportionment of the grant, and its impact within households. All young women approved of sharing at least some of the grant with their caregivers, since caregivers know what is needed in the household and will use their portion of the money responsibly. Interestingly some YW believe that others their age may misspend their money and thus should not be given the entire grant. However, most YW believed that they should either receive the same amount of money as the primary caregiver or a larger proportion of the grant, since they are the ones that must comply with the schooling requirement: *“I am not happy about the arrangement, they should have given my parent R100 and R200 for myself, because there is more that I’m in need like buying uniform”* (FGD YW Intervention). All caregivers felt that the current split was the correct one, allowing young women to spend some money on themselves, while also providing for the family’s basic needs. According to one intervention parent: *“if [all] the money was given to her she will misuse it. Just the way they have done it is good, and if they take all the money and given to me she will not feel happy.”* Caregivers explained that the two parts of the grant should be used for different purposes: R100 for the young women to spend on school necessities or for pocket money, and the R200 on family necessities, such as food or uniforms for other children in the household. According to one young woman in the intervention group, *“My mother told me to use it in a way I like to use it because it is mine and that one she has received she decides on her own.”* Interestingly, several caregivers in the control group said that the entire grant should go to the parents, since young women might misuse the funds. This may reflect familiarity with the convention of the CSG, absent of the opportunity to observe the spending decisions of the YW receiving a grant. In reality most YW reported spending their portion of the grant on ‘responsible’ items such as clothing, school uniforms, toiletries and household items.

A further interest of the pilot study was to determine whether the young women were controlling their own portion of the grant. Related to this is the question of giving young women their own resources—whether it might introduce new strains on family relations—jealousies among siblings, or pressure on the YW to turn any of their money over to other family members. One YW said that her portion of the grant was spent entirely on household needs. In the exit survey ten of the 14 YW said that they decided on their own how to spend their grant, three discussed it with other household members, and one said another member decided for her. None said that a boyfriend influenced their spending decisions (though they may have answered this way because none said they had boyfriends). Caregivers’ replies were slightly different: four said that the YW spent some of their money on household needs. In the qualitative interviews, two YW reported pressure from family members over the money. With respect to the caregivers’ portion of the grant, nine of the 13 caregivers said that they spent it on their own, while four said it was spent by others (father, grandmother, older sister).

There is some evidence that giving YW some of their own money may have improved household relationships. Some YW explained how with the grant they no longer had to ask their caregivers for money. One mother said:

I feel good, and even my daughter I am sure that she is happy because that money helped us. When my daughter first received the money she told me that I must buy relish and put it on the fridge, we were hungry and it was not easy and she did that... Yes it is what she wanted, no one forced her, it was her decision, and I saw that it was good because if this child gets the money she will continue to help me or

help herself. The ... money I think it helped me and I am happy that she got it because she can see that the situation on her family is bad

Caregivers said that the grant had helped the household as a whole by improving food security (most frequently cited), enabling payment for child care, and fostering improved relationships between caregivers and young women. Few negative impacts were reported by the YW in the household, except one by a young woman who noted increased sibling jealousy: “*my brother is now complaining to my mother saying that my mother loves me a lot*”.

### **Feasibility of the CCT intervention: the nexus between cash, conditioning and school attendance**

**Monitoring attendance for the intervention**—School attendance during the pilot study was collected using three different methods in order to compare their reliability and accuracy and assist in making a decision for the method to be used in the main study. We provided the school with a laptop and biometric finger print reader that was housed in the reception block of the school. YW in both arms of the study were asked to swipe their fingers morning and afternoon of each school day. Collecting attendance data using fingerprints was challenging for study staff, YW and the school. Despite on-going assistance from study staff, the biometric remained unable to read some YW’s fingerprints:

*Most of the time when the girls clock in, the machine says access denied. If they clock out the machine says in. So because we know that the girls must do the finger print once we don’t give her a chance to do it again in the same time. Sometimes the machine is not ready to clock at all for the whole day. So I don’t know how is this problem happened, is it a technical problem or a problem from you. And that’s the problem we have as an administrators monitoring attendance for 29 girls (FGD Teachers)*

Fingerprint scanning disrupted schooling and security concerns around the laptop limited the time that it was available for YW to complete their daily scans. YW reported that attempting to log their daily fingerprints irritated school staff and was negatively perceived by control YW who didn’t feel they should have to make the additional effort if they were not receiving money. The use of fingerprint monitoring was a significant burden on school administrators, YW and study staff and was discontinued during the second month of the pilot.

We also collected standard attendance registers from the school and asked teachers to complete a separate register specific to the study. Overall, the majority of respondents in both the control and intervention focus groups and individual interviews reported that this attendance monitoring was accurate and fair, and teachers reported no cases of marking students present when they were absent (i.e. sympathy marking): “*on my side I was marking the correct thing. If the learner is absent I will mark absent. If she is present she is present whether illness or what. I think the result the attendance should be authentic because I don’t think it is good to sympathize*”. However, many respondents reported that attendance was not taken daily and/or was not recorded using the register provided by the study. Specifically, in focus groups and individual interviews, the majority of teachers and young women in the control group reported that attendance was not taken on a daily basis. Survey results indicated some differences in perceived accuracy of the attendance monitoring by study arm, with all YW in the intervention noting that the teachers collected attendance ‘very accurately’ or ‘somewhat accurately’, compared to YW in the control group feeling that the teachers collected attendance very accurately less often, and five out of 14 feeling they did not collect it accurately at all. When assessing whether attendance monitoring was

fair, as expected, study participants were more likely to report that the attendance procedures were accurate and fair if they reported that attendance was taken daily.

Teachers reported that laziness, lack of time, or simply not using the allotted time to take attendance were common reasons for not recording attendance daily. One young woman reported that her teacher takes attendance only on Fridays. Some YW noted that before the pilot study, class representatives were responsible for taking attendance; one YW noted that this had changed after the pilot study started. Discussions with teachers indicated that:

*On the side of educators we also have challenge with educators not marking the register the way they were supposed to mark, because according to the policy of the department a register must be marked every day in class. Then some are very much reluctant in doing it in class. That is why when we requested to do the study register in class they were little bit reluctant, it was caused precisely because they never wanted to mark a register in class but I don't think is difficult marking the register in class. I don't think so (Teacher Interview)*

A YW however, reported that her teacher took attendance for the study participants, while the class representative took attendance for the rest of the class. Overall, recording of attendance varied between classes and by teacher.

**Beliefs about the impact of the intervention on attendance**—The pilot study was not intended to objectively measure school attendance; study duration was too short and the sample too small for statistical analysis. We did, however, collect data examining participants' beliefs about study impact on their school attendance and we monitored school attendance for payment processing. A senior teacher at the school where the pilot was conducted noted in an interview that *"generally the attendance of our learners is not bad."* Over the 2 month pilot all intervention YW attended sufficient school to receive their monthly payment; however, the study coincided with an exam period over which attendance would have been high even without the intervention. Accordingly, many YW felt that participation in the study did not affect their attendance. In the exit survey, thirteen of 14 intervention YW noted that they would have attended school in the same manner, even if they had been assigned to the control group. This was echoed by their caregivers; all intervention caregivers believed that the study did not change attendance. Conversely, allocation to the control group did not appear to act as a disincentive to YW; 11 out of 14 of the young women in the control group reported that their group allocation did not change their motivation to attend school, as did 12 of the 14 control caregivers. Teachers also reported that they had not noticed changes in school attendance over the study period. However, the main reason young women gave to explain the lack of change in attendance was their previous good attendance habits, as illustrated by a YW who explained that *"... even if there is no money I won't miss days of school because I know what I like in future. Money or without money I will go to school"* (Interview Intervention YW).

Despite believing that their school attendance was an ingrained habit, the majority of participants noted that receipt of a CCT encourages young women to put more effort into attending school. The reasons were twofold: one, it acts as a reward for those who attend school regularly, and two, it can be used to purchase basic school supplies without which the young women may be disinclined to attend. The latter is illustrated by an intervention young woman who affirms that having more money helps her to stay in school because *"I will be having enough uniform so I won't be jealous of other students ..."* Specifically, 5 out of 14 of the young women in the intervention group reported that receiving the CCT changed their motivation to attend school, and 11 out of 13 of their primary caregivers thought that the CCT made it easier for the young women to attend school. Several YW reported attending school when they might not have prior to the intervention, such as when experiencing minor



illness. This was true even of control participants; one control young woman stated, “*Always I wake in the morning with the courage of going to school even if I’m not feeling well. I come with the purpose of reporting that I’m in. To speak the truth, previously [we] were not coming to school every day. But since we were part of the study, our attendance is better.*” The perceived obligation of reporting attendance by the control group seems to be influencing attendance in a similar way as the CCT. If this is the case in the main study, CCT impacts may be measured as smaller than they otherwise would. Notably, no participants from either arm of the study reported decreased attendance motivations as a result of the intervention.

**Implementing distribution of the transfer**—Payments were successfully made to all intervention YW and their caregivers over the two months of the project. Participants in the intervention group understood the steps that were necessary for receiving the CCT and were able to successfully execute those steps. At the start of the pilot study none of the intervention YW had pre-existing bank accounts and only two of caregivers did. YW and their caregivers were able to successfully open post office savings accounts and receive their CCT payments electronically. No payments were wrongly stopped due to absences or systematic errors.

**Use of CCT payments**—The CCT payments made during the pilot allowed YW and their households to make purchases that they otherwise may not have been able to make. The YW surveyed most commonly reported using the grant to purchase clothes and shoes (8/14 YW), school uniforms (7/14), toiletries and soap (3/14), and food for the household (2/14). Despite concerns that the cash transfer may act as an incentive to increasing risk behaviours, it was notable that none of the YW reported using the grant to make potentially harmful purchases, such as alcohol or cigarettes. Discussions with intervention YW supported the quantitative reports that many young women were using the grant to purchase items for school, such as uniforms, socks, calculators, and field trip fees. One intervention YW noted that “*I just know that I want to prosper in school one of the coming days that [is] the main reason I have decided to buy school things.*” The motivations behind making school related purchases seem to be associated with the desire to perform well in school and to avoid the shame of having old, ill-fitting, or otherwise inappropriate clothing, as illustrated by a participant when she mentioned: “*I choose to buy uniform because [I] want to wear nicely when I go to school because [when] we don’t wear uniform they chase us [deny them entry to school].*” Focusing on school related purchases may also have been due to conditioning the payment on school attendance, thereby creating the impression in participants’ minds that the money had to be spent on school-related items. This was not however directly reported by YW or their caregivers.

The primary caregivers most commonly reported using the grant to pay for household food (10/13 surveyed), clothes and shoes (4/13), other household items (3/13), and rent (2/13). One caregiver explained: “*The money I got. It finds my child without having uniform. She got R100 and then I gave her another R100 so that she can [be] able to buy a skirt and socks, and the following month I bought her shoes.*” As was the case with YW, no caregiver reported purchasing alcohol or cigarettes with the grant. Indeed, many caregivers spoke of feeling the need to spend the money ‘responsibly’, with care and respect. One caregiver saw the money “*as a blessing that I will not misuse.*”

## Discussion and Conclusions

We conducted a 2-month pilot of an intervention to pay young women and their caregivers a cash transfer conditional on school attendance. Our findings here show that it is both acceptable and feasible to introduce such an intervention among this population in rural



South Africa. Findings were generally similar across all groups sampled for data collection. This community is characterised by severe poverty (21) and as such, an intervention that provides cash to poor families was welcomed. Young women spoke about a number of barriers to school attendance in their community, particularly lack of appropriate school uniform and food. These appeared to be social rather than physical barriers to schooling as participants said that they would be stigmatised or gossiped about if they lacked uniforms and food. Schools in the area are aware of the economic challenges facing their students and provide a free school lunch, although this doesn't appear to compensate for not having 'pocket money' to spend on snacks at school. Rules about school uniforms are stringently enforced and this may pose a significant barrier for poorer YW's school attendance. The duration of the pilot was insufficient (and not intended) to measure impact of the cash transfer on school attendance or to explore longer term effects of a cash transfer program.

While negative comments about the ability of YW to sensibly manage access to cash were made by some adult participants in the study, YW tended to spend their portion of the cash transfer on food or school requirements. Few cash transfer programmes have divided payments between adult caregivers and adolescents. A CCT programme in Turkey paid the CCT in full to parents but some of its ineffectiveness was attributed to the fact that older children played a far larger role on their schooling decisions than was accounted for in programme design (22). In a cash transfer programme in Malawi with a similar objective to ours, the grant was also shared between YW and their carers (11). While the Malawian intervention appears to have been successful in changing sexual risk behaviours and thereby reducing HIV prevalence, improvement in mental health was greater among YW who received the grant unconditionally compared to YW who received the grant conditional on school attendance, and researchers noted mental health stresses on girl recipients of the conditional payments (23). Impact of the intervention on the mental health of YW enrolled in the main South African trial will be monitored to assess whether this is positive or negative.

Generally acceptability of the intervention was good among YW themselves, their caregivers and teachers at their school. Young men were less likely to find the intervention acceptable, given that they were ineligible for participation. There were some reports of jealousy and tension between YW who were grant recipients and those who were not. During the short time that the pilot study operated in the community, a range of rumours about the intentions of the researchers, characteristics of participants and reasons for participant selection developed. Given that this was a short pilot, no large-scale community entry process was undertaken; the intervention was explained only to community representatives, the school and households selected for participation. Interventions such as this one, especially when they involve some degree of jealousy over scarce resources, often generate negative dynamics. In part they are a mechanism for young men and young women ineligible for inclusion in the study to manage their jealousy over being explicitly excluded from participation through resistance (24), but also represent an attempt by rural youth to engage with discourses about HIV and to shape social relations (25). We expect that such rumours will persist to some degree as the main trial progresses. As such, they need to be acknowledged and understood. However, in the main trial a much more intensive information campaign in the schools and general community, combined with a longer study duration during which the intervention will become better understood, is likely to ameliorate rumours generated by lack of knowledge. Additionally, during the main trial we will have multiple opportunities to get feedback from participants about negative consequences through repeat study visits and in-depth interviews with case study YW and their households. The study team has also established mechanisms for mandatory reporting of social harms as a consequence of study participation. Investigations into negative events will

be conducted with every YW at each study contact and provision made for YW to approach the study team between visits with study related problems that may result in social harms.

Although participants had a good understanding of the study and the concepts of randomisation, there was some dissatisfaction with the process of study arm allocation. Research on conditional cash transfer programs in Mexico and Nicaragua(26) has found some negative impacts on social relationships under household targeting systems that selected households to receive or not receive the grant based on a means test. People did not understand or agree with the poverty distinctions of the system, seeing themselves as “all poor” and thus all deserving, and misunderstandings and rumours developed around the targeting. However, many also reported that people did not blame each other and thus social relations remained unaffected. Much the same was found in this community where concerns about lack of access to the grant were voiced by both the intervention and control participants. Significant changes to the randomisation process were made for the main trial; rather than asking participants to select the first envelope in the box, participants will be presented with a limited number of envelopes (equal number of control and intervention to ensure balance in study arm allocation) and will be asked to select the envelope of their choice. Fortunately the HIV test was seen as an incentive for all participants and, as in the Latin American examples, the control group was able to view enrolment of others into the intervention arm as an example of “good luck”. Given the relatively large sample size required by the main trial (n=2660 HIV negative YW) to be drawn from a limited pool of YW in the community, the poverty eligibility criteria used in the pilot will not be used. The nature of the understandings, misunderstandings and responses underscore the importance of adequate communications about the selection criteria, using a system for randomisation perceived as fair and on-going attentiveness to any problems that may arise, especially over the long period of a three year intervention.

This preliminary engagement with the community through the payment of cash transfers has shown that some impacts on social relationships at school, between recipients and non-recipients, within families and the community more generally are to be expected, though they may be temporary as people adjust to the programme. Evidence from the CCT programmes in Mexico and Nicaragua found that these impacts were strongest in the early stages of the programmes, dissipating as people came to understand the programmes better (and as more people were incorporated) (26). Although the quantitative data did not document negative changes in relationships, qualitative data did indicate some negative impacts. It is nearly certain that in the main trial it will not be possible to keep receipt of the intervention secret and that there will be some impacts on social relationships, most likely among students, though these may not endure. It is also hypothesised that the intervention will have positive impacts on the social relationships between young women and men, by providing young women with greater financial independence. Qualitative data analysis during the main study will be geared specifically to documenting such changes between YW but also within households and sexual relationships. There were no social harms as a result of relationship changes reported in the pilot but this will be a particular focus area for the main study.

Overall the implementation of the cash transfer worked. Participants were accepting of the process involved in opening post office accounts and were able to do so. In order to increase the available eligible YW in the main study, less rigorous criteria for caregiver payments will be developed; specifically, allowing families to nominate a caregiver ‘proxy’ to receive the payments in families where the main caregiver does not have the necessary documentation for opening a post office account. Management of 30 monthly payments was not challenging for study staff but sound systems and accountability will be required when close to 3,000 monthly payments are being made. To this end, staff have been specifically

assigned to this aspect of the study to act as a link with YW in terms of managing account information and liaising over school attendance.

School attendance monitoring proved to be more challenging than anticipated and the particular biometric finger print system we piloted appeared not to be feasible or acceptable in this community, although similar methods have been used elsewhere (11, 27). The pilot was conducted with YW at a single school, while the main study will cover 21 different high schools in the area; the level of support required for biometric monitoring is not feasible across this many schools. In the main trial we chose not to use either the biometric or study specific registers. Standard classroom attendance monitoring will be used with school rosters collected from the schools monthly. Inaccuracies in standard attendance monitoring will be addressed through intensive additional training of school teachers and ensuring buy-in from school authorities. It is hoped that reducing teacher burden in this way will encourage greater participation from schools.

There are currently few behavioural interventions that have successfully mitigated HIV infection in adolescents. Interventions addressing structural factors implicated in HIV risk, such as education and poverty, are vital for stemming increases in HIV prevalence among young South Africans. The results of this pilot indicate that with some changes and additional thought about challenges experienced during the study, a trial of cash transfers conditional on school attendance for HIV prevention among adolescent women is both feasible and generally acceptable to participants and the community. The results indicate the value in piloting complicated interventions and evaluations in communities before trials go to scale. The current pilot study went ahead with restricted community consultation, given that we were unsure of the community's reception to a study that asked young women to be tested for HIV and STIs and discuss their sexual behaviour in detail. The rumours that subsequently emerged during the pilot study highlight the value of engaging with communities more broadly over research procedures, meanings and consequences. This is obviously a priority for the main trial and strategies have been developed with local research and community groups to ensure that information about the trial is more widely distributed and that misinformation can be accurately addressed. Results from the main trial, funded through the HIV Prevention Trials Network (HPTN), are expected in early 2015.

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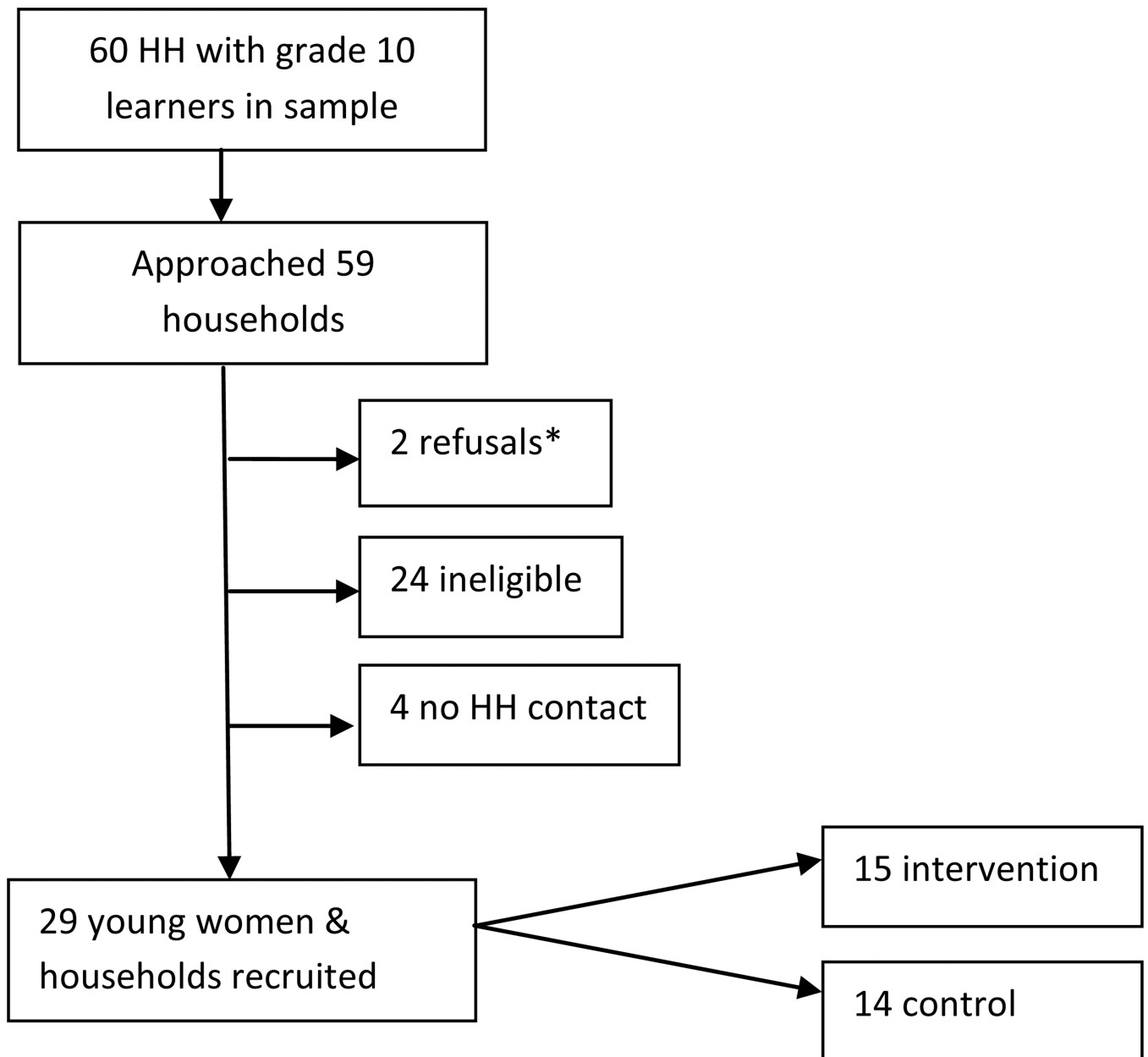
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**Figure 1.**  
Schematic of recruitment and enrolment process for pilot study  
\*Both refusals from young women: 1 not interested; 1 unwilling to have HIV test



**Table 1**

Data collection time points and methods

	Young Women	Parent/Guardian	Young Men	Teachers
Month 1	FGD (n=3) Intervention participants 10 Control participants 10 Intervention/control participants 9			FGD (n=1) Participants 5
Month 2	FGD (n=3) Intervention participants 10 Control participants 8 Intervention/control participants 7 IDI (n=20) Exit survey (n=28)*	FGD (n=1) Participants 7 IDI (n=20) Exit survey (n=28)	FGD (n=1) Participants 5	IDI (n=4)

FGD =Focus Group Discussion; IDI = In-Depth Interview (qualitative); Exit survey = semi-structured quantitative questionnaire; bracketed number refers to number of data collection activities

\* One Young Woman's survey was never completed and one Parent/Guardian survey was lost