Background

In South Africa, young women are disproportionately affected by HIV. Over 13% of all females between the ages of 15 and 24 years are HIV-infected, which is more than three times higher than the prevalence of HIV infection among South African men in the same age range (3.9%).1,2 Many factors which increase young women’s risk for HIV infection appear to be socially determined. There is increasing recognition that poverty and gender inequality interact with and exacerbate the spread of HIV. Consequently, there is growing interest in interventions that address the underlying economic drivers of the epidemic such as cash transfer programs. There is need to assess the feasibility of such programs for young men and women in urban, low-resource settings, as previous findings from rural settings may not be generalizable to disadvantaged youth in urban settings. There may be unintended consequences of cash transfers in this context, such as increases in alcohol consumption, tobacco or drug use, or use of money to procure sex.

The goal of this study was to understand the extent to which poverty and income inequality facilitate HIV risk behavior in young people aged 15 to 24 years, and whether economic vulnerabilities act as barriers to access to general health, reproductive health and HIV prevention services for this age group. The specific objectives of the study were to (1) Explore whether economic vulnerabilities influence sexual behavior, HIV risk reduction and use of sexual and reproductive health services among youth living in an urban, low-resource setting such as inner-city Johannesburg, (2) Develop and pilot an intervention using cash incentives to promote risk reduction and use of health services to determine the most appropriate and cost-effective delivery mechanisms by which economic interventions can be delivered and managed in urban settings, and (3) Evaluate the feasibility and acceptability of the piloted cash transfer interventions in this setting and explore program effects on health-seeking behavior, uptake of preventive interventions, sexual risk behavior, and unintended consequences of the program.

Key Findings

Economic vulnerability among inner-city urban youth

The study confirmed evidence of economic vulnerability in this population. In the surveys from Phases I and II, approximately 45% of respondents lived in households where the household income was less than R1,000 (~ US$100) despite high levels of household employment. Economic vulnerability was associated with increased risk behaviors. The pathways by which economic vulnerability operated differed between the older and younger age groups, pointing to differences related to life course and the transition from parental care to independent living in the two age groups. School attendance was an important protective factor across all risk behaviors in the younger age groups.

Higher proportion of clinic visits in clinic conditioned arm

In terms of promoting positive health-seeking behaviors, the clinic condition was most effective. Youth in this intervention arm were twice as likely to have attended a clinic or hospital over the study period than youth in the other arms (64% in the clinic condition compared to 26% in the unconditional cohort and 24% in the school conditioned cohort).

Lack of increase in school attendance in school conditioned arm

Contrary to expectations, the school conditioned arm did not increase school attendance. However, the goal of the study was not 100% attendance but rather cash conditioned on 80% attendance, which a majority of the participants in our school arm fulfilled. Those in the school conditioned intervention arm were most likely to report having missed at least one day of school over the study period (75% of adolescents in the school condition had missed at least one day of school compared to 62% in the unconditional arm and 51% in the clinic condition), and this group had the highest loss to follow-up. This may in part be due to a more honest reporting of school days missed by participants in this arm as they were aware that their self-report would be verified by school attendance reports.

Impact on sexual risk behaviors

There were no significant differences in sexual behavior between participants in the different intervention arms, suggesting that the strategies are equivalent in terms of their effects on sexual behavior. From a cost perspective, this finding favors the clinic condition arm, since it suggests that even with less money it is pos-
possible to achieve the same levels of behavior as cash transfers that are performed monthly. However, the study was intended as a pilot study and therefore the sample size for this component was determined by a pragmatic estimate to provide useful data for future studies rather than by statistical power calculations.

**Expenditure of cash transfers**

More than half of adolescents (58%) reported that they had saved a portion of their cash. Expenditure patterns differed by study arm, with those in the clinic conditioned arm being less likely to spend their money on personal care or hygiene items than the other two arms. However, it is important to note that these differential patterns in spending may in part be driven by lower amounts transferred in the clinic arm where one instead of six payments were done to fulfill the conditions of the study. Most participants receiving monthly payments spent their money on these items, cell phone expenses, or items that their parents did not or could not afford to give them. There was little evidence to support concerns regarding the unintended consequences of cash transfers such as increases in alcohol consumption, tobacco or drug use, or for use of cash transfers to procure sex.

**Feasibility and acceptability of cash transfers in an urban setting**

The pilot study findings demonstrate that it is both feasible and acceptable to deliver cash transfers to young people, without risk of significant unintended harmful consequences. Most participants felt the intervention was practical and feasible. The intervention was viewed as a positive means of encouraging young people to attend school, abstain from sex, reduce the number of sexual partners, increase awareness of the need for HIV prevention and assist young people to learn how to manage their money and reduce their dependence on others for money.

**Recommendations**

- The study results support the need for further research to evaluate the impact of cash transfers on the health and access to education for young people living in urban environments in South Africa. Additional studies similar to this one will contribute to assessing the feasibility and acceptability of cash transfers and what conditioning is most effective in reducing HIV risk. Subsequent post-intervention follow-up assessments are necessary to explore the sustainability of the intervention after cash incentives are withdrawn.

- The findings provide evidence for the benefit of cash incentives to promote uptake of clinic visits. The clinic condition was the most cost-effective because it promoted positive health behaviors—the crossing of the clinic threshold, without having an additional requirement to access any health services. While getting adolescents to cross the threshold is a first step, 25 of the 38 participants in the clinic condition did go on to access the youth-friendly reproductive health services offered by the clinic. Conditioning on clinic attendance is easier and cheaper than conditioning on school attendance. These results support conditioning on clinic attendance in future cash transfer interventions with youth in an urban setting.

**Study Methods & Design**

The study consisted of three phases. In Phase I, a 1,000 participant cross-sectional survey using respondent-driven sampling methods was conducted in a sample of younger (15-19 years) and older (16-24) youth. Participants were in-school and out-of-school living in an urban, low-resource setting of inner-city Johannesburg. Phase II included the design and implementation of a randomized controlled pilot study with 120 young people aged 16-18 years to evaluate the feasibility and acceptability of three different cash transfer strategies. Youth were randomized to receive either (1) an unconditioned monthly cash transfer for six months, (2) a monthly cash transfer conditioned on 80% school attendance over a period of six months, or (3) a single one-time clinic conditioned cash transfer provided as an incentive to encourage clinic attendance for a sexual and reproductive health visit at least once during the six-month period. Participants were asked to return at six months for a follow-up assessment. In Phase III, a sample of study participants (n=12) took part in in-depth interviews to obtain their perspectives on the acceptability, feasibility and the positive and negative consequences of the three cash transfer strategies.

Youth aged 18 years and older provided informed consent, while youth younger than 18 years provided assent and consent was obtained from a parent/caregiver. Permission was obtained from participants to use data routinely collected as part of clinical care for this study.

- The pilot experience revealed that the feasibility of school conditioned cash transfer in an urban setting can be challenging and needs to be further assessed. Tracking of school attendance posed a number of challenges, including a lack of consistency in the kinds of records kept across schools, as well as irregular and incomplete record keeping in the schools. The study experience suggests that future cash transfer interventions should ensure access to complete and regular attendance records kept by schools to overcome such challenges.

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**References**


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