



# ASPIRES EVIDENCE BRIEF SERIES: INCOME GENERATING ACTIVITIES AND HIV OUTCOMES

## Introduction

Economic factors are linked to HIV risk behaviors, as well as outcomes, at every stage of the HIV care and treatment cascade. The ASPIRES project conducted an extensive review of the literature on these linkages. This evidence brief series highlights how different household economic strengthening interventions may affect HIV prevention, testing, links to care, retention in care, and antiretroviral therapy (ART) adherence.

This brief focuses on income generating activities (IGAs), small-scale business initiatives that are often found in resource-constrained contexts. IGAs can be implemented either individually or in groups, and generally goes beyond skill training to provide additional support, such as basic business inputs or market linkages.

The studies in this brief all involved highly vulnerable populations, and existing evidence indicates that IGAs may positively impact HIV outcomes particularly with regards to self-reported risk reduction among female adolescents and orphans and vulnerable children (OVC) populations. However, the overall quality of evidence on IGAs is moderate and findings are inconsistent.

## What do we know?

### HIV PREVENTION/RISK REDUCTION

ASPIRES found six studies in our evidence review that evaluated the effects of IGAs on HIV prevention and risk reduction. The studies ranged in quality, with two ranking medium-high, three ranking medium, and one was not assessed.<sup>1</sup> Five of the six studies were conducted in sub-Saharan Africa. They are summarized below from high to low ranking.

#### Briefs in the Series:

Unconditional cash transfers	Conditional cash transfers
Individual savings	Group savings
Financial education	Income generation
Vocational/technical training	Business skills & entrepreneurship
Employment support	

<sup>1</sup> For details, see quality ranking methodology in: Mandy Swann (2018) Economic strengthening for HIV prevention and risk reduction: a review of the evidence, AIDS Care, 30:sup3, 37-84, DOI: 10.1080/09540121.2018.1479029

Sherman et al. (2006) conducted a pre- and post-intervention survey examining the impact of 6 two-hour sessions that teach HIV risk reduction and the making, marketing, and selling of jewelry. The study population was 50 female drug users involved in sex work in Baltimore, Maryland, USA. The goal was to assess whether participation in the intervention changed HIV risk behaviors, such as receiving drugs or money for sex and the number of sex partners per month. After three months, significant reductions in daily drug use and the amount of money spent on drugs were observed. Receiving income from jewelry sales was also associated with significant reductions in the median number of sex trade partners per month (from 9 to 3) and in the proportion receiving drugs or money for sex (100% to 71%).

A longitudinal qualitative study (Zakaras et al. 2016) in Nyanza Region, Kenya, used in-depth interviews to understand the impact of a multisectoral agricultural intervention that included microcredit on gendered power and sexual risk behaviors among 54 people living with HIV/AIDS (PLHIV) (ages 18-49) in ART, participating in the Shamba Maisha randomized controlled trial. The intervention included a down payment and loans to purchase farming equipment and a water pump, as well as agricultural and financial management training. After one year, increased condom use was evident among men and women, while many men reported reducing extramarital sexual partners. Females reported increased ability to refuse sex and/or negotiate condom use.

Another qualitative study in Kenya (Gnauck et al., 2013) investigated how engagement in a basket weaving cooperative was related to experience in HIV risk and AIDS-related stigma among 60 women. Women reported feeling economically empowered by their participation, but the intervention was not found to be protective, largely because it did not address the behavior of male partners.

Goodman et al. (2014) conducted a cross-sectional survey among 707 households headed by orphans and vulnerable children (ages 13-25) in rural Kenya to assess the impact of a three-year intervention that included vocational training, group IGAs, and trainings on business, health, hygiene and agriculture. Participants were separated into cohorts that differed by the length of time they were involved in the intervention, ranging from four months to two years. Males showed no significant difference in the number of sexual partners or condom use, while females in the program for at least one year had fewer partners and greater condom use.

In South Africa, Visser et al. (2015) conducted a post-intervention study among 604 former orphans and vulnerable children (ages 18-25) to assess differences in HIV risk behavior and other outcomes between a control group and former ISIBINDI participants. ISIBINDI is a multi-site community-based intervention that centers around home visits to promote well-being among orphans and vulnerable children, with an optional IGA component. Although the percentage of participants that engaged in IGAs was not reported, HIV risk behavior was more prevalent among the control group than the ex-participants of ISIBINDI (19.7% versus 12.9%).

A cross-sectional survey with focus group discussions conducted in the Republic of Congo (Bazika 2007) sought to understand how involvement in non-agricultural trade and craft apprenticeships was associated with HIV risk. The study population was 372 young people (ages 15-24), a quarter of which were involved in IGAs. Youth involved in the non-agricultural IGAs reported less unsafe sex than those involved in agriculture.

## HIV TESTING (HTS) AND LINKS TO CARE

Only one qualitative study of medium quality (Gnauck et al., 2013, discussed above) investigated involvement in an IGA and HTS uptake. It found that being a member of a basket weaving cooperative likely created barriers to HTS, attributed to the members' perception of greater consequences for HIV disclosure and more concern over HIV-related stigma due to their higher social status. No studies assessed IGAs and linkage to care.

## RETENTION IN HIV CARE AND ADHERENCE TO ART

ASPIRES found eight studies that examined IGAs support for retention in HIV care and adherence to ART. The quality of the studies varied, with two ranking medium-high, five medium, and one low. They are summarized below from high to low ranking.

Weiser et al. (2015) conducted an experimental study of an IGA and microcredit intervention (Shamba Maisha, discussed above) in Kenya among 140 food-insecure PLHIV (ages 18-49) in an ART care and treatment program. The study found positive associations between the intervention, which included down payments and loans for farming equipment, and CD4 counts and viral suppression.

A second study looking at the Shamba Maisha intervention using qualitative methods was conducted by Weiser et al. (2017) with 54 PLHIV in ART care. ART adherence was found to be improved by reducing food insecurity, improving financial stability including access to transport, and other mechanisms such as improving productivity and social support.

In Cambodia, Daigle et al. (2015) used retrospective data collection and client interviews to examine the association between earning income from an IGA and ART appointment adherence. Among the 287 adult PLHIV on ART, no statistically significant association was found.

A study on integrated health and household economic strengthening (HES) support, including IGAs, conducted by Masa (2016) evaluated the effects of the Health and Wealth Program on food security and ART adherence among 101 poor, HIV positive adults on ART. The intervention included IGA support, access to individual savings, financial education, and adherence counseling. Although intervention participants were more likely to report optimal adherence compared to controls, the result was not statistically significant.

Like the study by Masa (2016), a study by Okello et al. (2013) evaluated the effectiveness of an HES intervention that combined training in income generating activities with savings and loan groups and health intervention. This study, conducted in four regions of Ethiopia among 2,168 adult PLHIV, found negative associations between participation in the intervention and self-reported ART adherence and opportunistic infections. The study did observe, however, an improvement in the annual mortality rate among participants over 4 years (10% to 0.7%).

A feasibility study by Pandit et al. (2010) of the same intervention studied by Weiser et al. (2015 and 2017) in Kisumu, Kenya among 29 HIV+ farmers in an HIV care and treatment program showed an increasing trend in CD4 counts from baseline to end line, although changes were not significant.

A qualitative study by Sanjobo et al. (2008) among 60 ART patients in Zambia explored how being in a support group with IGAs affected the perceived barriers and facilitators to ART adherence. The study found that patients and their health care providers both indicated that IGAs were a motivating factor for ART adherence.

The findings of a study by Abimanyi-Ochom et al. (2013) were similar to that of Masa (2016), with no significant association being found between participation in an integrated health and HES support intervention that included IGAs, and ART adherence. This cross-sectional survey, among 450 PLHIV households in Uganda, compared the difference in self-reported occurrence of chronic or acute disease between PLHIV in households served by the Ministry of Health that only received ART, and PLHIV in households receiving ART plus social support, including IGAs.

## NEW EVIDENCE FROM ASPIRES

New research conducted by ASPIRES since the literature review adds to the evidence base for IGAs. ASPIRES conducted a longitudinal evaluation (Burke et al., 2019) and secondary data analysis (Lenzi et al., 2018) of a combined economic and social empowerment intervention called Women First, in rural Mozambique, that sought to reduce girls' (particularly orphaned and vulnerable girls) risk of HIV and gender-based violence and improve their school attendance.

For the empowerment component, girls participated in a facilitator-led group education curriculum that addressed topics such as harmful gender norms, pregnancy and HIV prevention, how to communicate with adults and partners, and planning goals. For the economic component, girls received business education and were trained to sell products such as cooking oil, soap, and cakes. Girls in some communities were also given access to savings accounts and/or loans.

According to respondents, the primary benefit of the intervention was that it reduced the need for intergenerational and transactional sex, as well as early marriage, because the girls had money to attend school and buy necessities. These benefits seemed to be sustainable as long as the girls were generating income. Some girls, however, failed to realize a steady profit. Reasons for failed business included the amount of money girls had to repay to the intervention for products was too high, and girls were selling similar or the same products within communities, which drove profits down. Some girls whose businesses were not successful reengaged in risky sex or resorted to marriage out of financial need. In future interventions like Women First, it will be important to diversify the products sold so that girls are not competing with each other and develop ways to mitigate the impact of failed business ventures and improve resilience.

## What does this Mean?

The evidence base on IGAs and HIV outcomes is characterized by limited detail on interventions and variation among outcomes measured. These factors and the prevalence of weak study designs likely contribute to why findings are so inconsistent and highly contextual. IGAs frequently appear in the evidence base as part of a package of related economic strengthening interventions that are not independently assessed, and therefore it can be challenging to determine their effects with precision. Studies also do not necessarily assess the economic success of the interventions.

Despite the moderate to weak evidence base, positive results and trends have been observed in prevention and retention and adherence outcomes. This fact, coupled with the broad application of IGAs in vulnerable, HIV-affected populations, suggests that they would benefit from further exploration of their potential to affect HIV outcomes and strengthen communities overall. Further and more rigorous evaluation of IGA projects to better understand their effects would greatly improve the evidence base and help build more effective IGA interventions.

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