Background

- Among people living with HIV/AIDS (PHAs), evidence increasingly points to a critical relationship between social and structural exposures, antiretroviral therapy (ART) adherence, and HIV-clinical outcomes.
- The International Labour Organization recently identified employment as playing a significant role in HIV treatment outcomes. Additionally, previous research has identified significant barriers to employment among people living with HIV/AIDS, with significant impacts on individual morbidity and mortality.
- However, little is known about the role that illegal or prohibited income generation plays in ART adherence and plasma HIV RNA suppression.
- We therefore undertook the present study to explore this relationship among a cohort of illicit drug users living with HIV/AIDS in Vancouver, Canada.

Methods

- The data was derived from the AIDS Care Cohort to evaluate Exposure to Survival Services (ACCESS), a long-running prospective cohort of community-recruited drug users in Vancouver, Canada, a setting of free and universal access to HIV care.
- Longitudinal cohort data were linked to comprehensive HIV clinical monitoring and ART dispensation records provided by the BC Centre for Excellence in HIV/AIDS.
- First, we first examined the income generation profile of cohort participants to determine involvement in different types of income generating activity over time.
- Second, using generalized linear mixed effects modelling, we examined the relationship between prohibited income generation and virologic suppression (plasma viral load ≤ 50 copies/mL) among ART-exposed individuals.
- Last, we conducted standard mediation analyses to determine the extent to which ART adherence mediates the relationship between prohibited income generation and virologic suppression.

Results

- Between December 2005 and May 2013, of our 687 study participants, 234 (34.1%) self-identified as women and 384 (55.9%) as Caucasian, with 391 (56.9%) reporting prohibited income generation activity at any point during the study period.
- We found a strong negative association between prohibited income generation and virologic suppression in bivariate (odds ratio: 0.56; 95% CI: 0.44-0.73) and multivariate analyses (adjusted odds ratio: 0.68, 95% CI: 0.52-0.88) which were adjusted for hypothesized confounders, including age, homelessness and ART adherence.
- Mediation analyses indicate that ART adherence partially mediates the relationship between prohibited income generation and virologic suppression (Sobel test statistic = 5.59, p<0.001)

Discussion

- The current study findings demonstrate that involvement in prohibited income generation decreases the likelihood of virologic suppression both directly and indirectly through its negative association with ART adherence.
- Readers should be cautious when reviewing our results as the current study may include the potential for unmeasured confounding from factors not considered here; the limited generalizability common to all observational studies; and the potential for social desirability or recall bias due to the self-reported nature of the non-clinical indicators.
- The ongoing socio-economic marginalization of PHAs who use illicit drugs is entrenched through the criminalization of illicit drug use as well as a lack of viable licit employment opportunities that can accommodate health service utilization and episodic absences from the labour market.
- These findings therefore call for programmatic and policy interventions to decrease socio-economic vulnerability and subsequent HIV-related morbidity and mortality among marginalized PHAs.