

Long Term Labour Market Attachment Predicts Key Antiretroviral Therapy Outcomes among People Who Use Illicit Drugs in a Setting Of Universal HIV Health Care Coverage

L Richardson^{1,2}, T Kerr^{1,3}, J Montaner^{1,3}, E Wood^{1,3}, M-J Milloy^{1,3}

1. BC Centre for Excellence in HIV/AIDS, St. Paul's Hospital, Vancouver, Canada; 2. Department of Sociology, University of British Columbia, Vancouver, Canada; 3. Department of Medicine, University of British Columbia, Vancouver, Canada

Background

- A growing body of literature identifies a critical role for socio-economic well-being, including employment, in key antiretroviral therapy (ART) outcomes for people living with HIV (PLWH).
- This is particularly the case for PLWH who use illicit injection and non-injection drugs (PWUD), who often contend with complex configurations of socio-economic marginalization and comorbid substance use disorders.
- Studies generally examine employment or socio-economic well being at a single point in time, or successive time points in longitudinal analyses.
- As a result, little is known about long term labour market attachment as a way of understanding work as a social determinant of health.
- We therefore undertook the current study to explore the relationship between different levels of labour market attachment and key ART outcomes among a cohort of PWUD living with HIV in Vancouver, Canada.

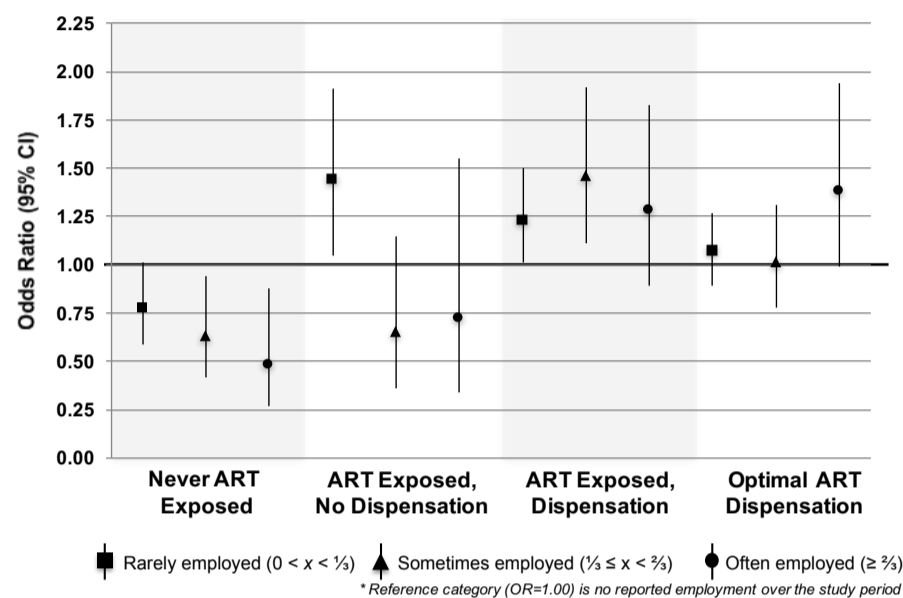
Methods

- Data were 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 and other essential health services.
- Longitudinal cohort data were linked to comprehensive HIV clinical monitoring and ART dispensation records from the BC Centre for Excellence in HIV/AIDS.
- We categorized labour market attachment (LMA) as the proportion of all observations individuals report regular, temporary or self-employment, ranging from no employment (no obs.), rarely employed (0–1/3 obs.), sometimes employed (1/3–2/3 obs.), and often employed (>2/3 obs.).
- Using multivariate generalized estimating equations, we predicted associations between labour market attachment and ART outcomes in the six months prior to interview, controlling for relevant confounders.
- Models examined, as primary outcomes: (1) No ART exposure to date; (2) ART exposure with no dispensation; (3) ART exposure with suboptimal dispensation (<95%); and (4) ART exposure with optimal dispensation (>95%) all in the six months prior to interview.

Results

- Between May 1996 and May 2015, of 1,049 participants providing 11,638 observations, 371 (35.4%) were women and 591 (56.3%) as Caucasian, with 363 (34.6%) initiating ART for the first time during the study.
- A total of 541 (51.6%) participants reported no labour market involvement over the study period, 308 (29.4%) were rarely employed, 138 (12.3%) were sometimes employed and 74 (6.7%) were often employed.
- In final multivariate models controlling for gender, ethnicity and baseline CD4 Count (Figure 1), individuals in the sometimes (AOR: 0.63; 95% CI: 0.42-0.94) and often (AOR: 0.48; 95% CI: 0.27-0.88) employed groups were less likely to be ART naïve than those reporting no employment.
- Rarely (AOR: 1.23; 95% CI: 1.01-1.50) and sometimes (AOR: 1.46; 95% CI: 1.11-1.92) employed individuals were more likely to have some ART dispensation in the past six months than those with no employment.
- Being often employed neared statistical significance for being more likely than those reporting no employment to have optimal ART dispensation in the past six months (AOR: 1.38; 95% CI: 0.99-1.94).

FIGURE 1. Antiretroviral therapy (ART) exposure across levels of labour market attachment among HIV seropositive people who use illicit drugs in Vancouver, Canada, 1996-2015 (n=1,049)



Discussion

- The current study documents low levels of long term labour market attachment among PLWH who use illicit drugs, with over half the sample reporting no employment during the 1996-2015 study period.
- Findings identify long term labour market attachment as a relevant differentiator between ART outcomes, with significant differences between individuals reporting different levels of employment.
- These results indicate that importance of long term understandings of socio-economic well being for PLWH. Where possible, future research should consider institutional relationships over time rather than at a single point in time.
- Readers should be cautious when reviewing 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; the potential for social desirability or recall bias due to the self-reported nature of non-clinical indicators; and limitations to causal inference.
- These results nevertheless point to the need for long term strategies to support employment initiation and retention for all PLWH in general, and for socio-economically marginalized PLWH and key affected populations in particular.
- Such strategies should include a balance of vocational training; efforts to reduce labour market precarity among PLWH; and the creation of tailored low-threshold opportunities compatible with ongoing drug use and retention in care.

Acknowledgements

We wish to thank the study participants for their contribution to the research, as well as current and past researchers and staff. The study was supported by the US National Institutes of Health (R01DA021525). Lindsey Richardson and M-J Milloy are supported by Scholar Awards from the Michael Smith Foundation for Health Research. Lindsey Richardson is additionally supported by a New Investigator Award from the Canadian Institutes of Health Research. We have no conflicts of interest to declare.