

# Hazardous Alcohol Use and Concomitant Blood-borne Virus Infection in a Local Urban Population of People Who Inject Drugs: Implications for Approaches to Harm Reduction

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## Background

- Heavy alcohol use is a significant risk factor for chronic liver disease, liver failure and hepatocellular carcinoma.
- People who inject drugs (PWID) in Australia frequently report higher levels of alcohol use than the general population.
- PWID also have significantly higher rates of blood-borne virus (BBV) infection, which, with the co-occurrence of hazardous drinking has been found to have a compounded effect on disease progression.
- We aimed to assess the prevalence of hazardous levels of alcohol consumption and co-occurrence with BBVs in a population of PWID based around one of Melbourne's busiest street drug markets and needle syringe programs (NSP).

## Methods

### Study design

- Cross-sectional bio-behavioural survey of 128 PWID regular users of the NSP.
- Recruitment through the fixed-site and via outreach methods over four days in August-September 2014.
- Required to be >18 years of age, residing in Victoria and reporting injecting at least once per month during the previous six months.

## Study definitions

- Self-reported information on frequency and quantity of alcohol use, BBV risk behaviours and indicators of healthcare and harm reduction service access was obtained from study questionnaire.
- Hazardous drinking was defined as an AUDIT-C score  $\geq 4$  or reporting consumption of  $\geq 6$  drinks on at least one occasion in the past month.

## Results

- Forty-eight participants (38%) participants had abstained from alcohol in the previous month.
- Fifty-nine participants (46%) had used alcohol at hazardous levels, and of these 92% had serological evidence of at least one BBV (hepatitis C; 91%, hepatitis B; 53%, HIV; 8%).
- Eighteen participants (31%) who reported using alcohol at hazardous levels also reported receptive sharing of needles/ injecting equipment in the previous three months, and 17 (29%) reported currently receiving opioid substitution therapy (OST).
- PWID drinking at hazardous levels were less likely to report receiving OST, after adjusting for socio-demographic factors (AOR=0.40;  $p=0.018$ ).

## Results

### Limitations

- Small sample size was likely a factor limiting detection of some important differences on multivariate analyses.
- Although the sampling frame was not random, given that participants were recruited at the time of NSP visits and via active outreach by community health workers known to the target population, we believe that the study sample is likely to be representative of local NSP users.

## Conclusions

### Implications for policy and practice

- A significant proportion of participants reported abstaining from alcohol in the previous month.
- However, of those who reported using alcohol in the previous month, high levels of hazardous alcohol use and concomitant BBV infection and injecting risk behaviours were evident.
- Our results suggests a comprehensive, rather than disease or substance specific approach is required to prevent health risks related to BBV transmission and alcohol use in this population.