

# LONGITUDINAL ANALYSIS OF INDIVIDUAL HARM REDUCTION COVERAGE IN AN AUSTRALIAN COHORT OF PEOPLE WHO INJECT DRUGS

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**Background:** 'Coverage' is a measure of needle and syringe program (NSP) effectiveness, often calculated as the amount of clean injecting equipment people who inject drugs (PWID) acquire in relation to their injecting frequency. Previous researchers have called for longitudinal investigation of coverage levels. Consequently, we examined individual coverage variation over time in a PWID cohort in Melbourne, Australia.

**Methods:** The MIX study began in 2009; 757 PWID have been recruited. The questionnaire records injecting frequencies and clean needle/syringe acquisition. These figures were used to derive coverage measures as developed by Bluthenthal et al. (2007): the number of syringes retained in the past two weeks divided by the number of injections, multiplied by 100. Sufficient coverage was defined as having at least one clean needle/syringe for every injection, or  $\geq 100\%$  coverage.

**Results:** 431 participants had necessary data for analysis (at least two interviews for longitudinal analysis, and valid data on injecting frequency and NSP utilisation). Between 36% and 45% of the sample experienced insufficient coverage at each interview wave. Many also experience unstable coverage levels, with 57% transitioning between sufficient and insufficient coverage during the study. Predictors of insufficient coverage and transitioning between states of coverage are currently being explored and will be presented.

**Conclusion:** A substantial proportion of our participants experience insufficient and unstable NSP coverage. The results of this study have useful implications for the targeting of low and unstable coverage sub-groups by harm reduction programs.

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