

Methamphetamine users in the EPIC-NSW study report high adherence to PrEP

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Introduction

Methamphetamine use is common among gay men and is associated with increased risk of HIV seroconversion. There are concerns that methamphetamine use may negatively impact adherence to PrEP. We assessed adherence to PrEP among methamphetamine users in the EPIC-NSW study, a population-level rapid PrEP roll-out in New South Wales, Australia.

Methods

Between March 2016 and April 2018, 9,709 individuals were enrolled in the EPIC-NSW study. Participants were invited to complete an optional behavioural survey at baseline, then quarterly thereafter. Questions included demographics, methamphetamine use (including injecting), condomless anal intercourse (CLAI), and self-reported number of PrEP pills taken in the last week.

Multivariate multinomial logistic regression with individual-level clustering was used to identify factors associated with methamphetamine use. Results are reported as adjusted relative risk ratios (aRR) with 95% confidence intervals (95%CI).

Results

Among gay-identifying men who completed one or more follow-up surveys (n=4,605), 1,199 (**26%**) reported methamphetamine use, including 351 injection methamphetamine users (8% overall; 29% of methamphetamine users).

Taking seven PrEP pills in the previous week was reported in 82% of survey periods with no methamphetamine use, compared to 85% of periods of non-injection methamphetamine use (p=0.009), and 81% of periods with injection methamphetamine use (p=0.719).

Factors independently associated with non-injection and injection methamphetamine use, compared to no use, are reported in Table 1.

Table 1: Factors independently associated with non-injection and injection methamphetamine use

	Non-injection methamphetamine use versus non-use (aRR, 95%CI)	Injection methamphetamine use versus non-use (aRR, 95%CI)
Took ≥4 PrEP pills per week	1.26 (95%CI 1.00-1.60)	1.06 (95%CI 0.70-1.62)
CLAI with HIV positive partner with detectable viral load	1.71 (95%CI 1.20-2.44)	3.79 (95%CI 2.52-5.71)
>20 male sex partners last 3 months	1.32 (95%CI 1.06-1.63)	2.20 (95%CI 1.60-3.06)
Reside in suburb with >10% gay men	1.44 (95%CI 1.20-1.73)	1.26 (95%CI 0.92-1.72)
Paid for sex by a man in the last 3 months	1.41 (95%CI 0.98-2.04)	2.53 (95%CI 1.56-4.12)

Conclusions

PrEP adherence was high overall, and methamphetamine use did not decrease adherence. This demonstrates methamphetamine use (including injecting) is not a barrier to effective PrEP use among gay men. Harm reduction strategies could utilise gay social networks, particularly among individuals who use methamphetamines, to promote PrEP uptake as a highly effective HIV prevention strategy.