



## Research paper

## Following Lives Undergoing Change (Flux) study: Implementation and baseline prevalence of drug use in an online cohort study of gay and bisexual men in Australia



Mohamed A. Hammoud<sup>a,\*</sup>, Fengyi Jin<sup>a</sup>, Louisa Degenhardt<sup>b</sup>, Toby Lea<sup>c</sup>, Lisa Maher<sup>a</sup>, Jeffrey Grierson<sup>d</sup>, Brent Mackie<sup>e</sup>, Marcus Pastorelli<sup>e</sup>, Colin Batrouney<sup>f</sup>, Nicky Bath<sup>g</sup>, Jack Bradley<sup>a</sup>, Garrett P. Prestage<sup>a</sup>

<sup>a</sup> The Kirby Institute, UNSW Australia, Level 6, Wallace Wurth Building, Kensington, NSW 2052, Australia

<sup>b</sup> National Drug and Alcohol Research Centre, UNSW Australia, Kensington, NSW 2052, Australia

<sup>c</sup> Centre for Social Research in Health, UNSW Australia, Kensington, NSW 2052, Australia

<sup>d</sup> Anglia Ruskin University, Cambridge Campus, Cambridge CB1 1PT, United Kingdom

<sup>e</sup> ACON NSW, 414 Elizabeth St, Surry Hills, NSW 2010, Australia

<sup>f</sup> Victorian AIDS Council, 6 Claremont St, South Yarra, VIC 3141, Australia

<sup>g</sup> NSW Users and AIDS Association, 5, 414 Elizabeth St, Surry Hills, NSW 2010, Australia

## ARTICLE INFO

## Article history:

Received 1 September 2016

Received in revised form 3 November 2016

Accepted 20 November 2016

## Keywords:

Automated online methodology

Cohort

Drug use

Drug prevalence

Gay and bisexual men

Online surveys

## ABSTRACT

**Background:** Drug use among gay and bisexual men (GBM) is higher than most populations. The use of crystal methamphetamine, erectile dysfunction medication (EDM), and amyl nitrite have been associated with sexual risk behaviour and HIV infection among gay and bisexual men (GBM).

**Objective:** This paper describes an online prospective observational study of licit and illicit drug use among GBM and explores baseline prevalence of drug use in this sample. Capturing these data poses challenges as participants are required to disclose potentially illegal behaviours in a geographically dispersed country. To address this issue, an entirely online and study specific methodology was chosen.

**Methods:** Men living in Australia, aged 16.5 years of age or older, who identified as homosexual or bisexual or had sex with at least one man in the preceding 12 months were eligible to enrol.

**Results:** Between September 2014 and July 2015, a total of 2250 participants completed the baseline questionnaire, of whom, 1710 (76.0%) consented to six-monthly follow-up. The majority (65.7%) were recruited through Facebook targeted advertising. At baseline, over half (50.5%) the men reported the use of any illicit drug in the previous six months, and 28.0% had used party drugs. In the six months prior to enrolment, 12.0% had used crystal methamphetamine, 21.8% had used EDM, and 32.1% had used amyl nitrite. Among the 1710 men enrolled into the cohort, 790 men had used none of these drugs.

**Conclusion:** Ease of entry and minimal research burden on participants helped ensure successful recruitment into this online cohort study. Study outcomes will include the initiation and cessation of drug use, associated risk behaviours, and health consequences, over time. Results will provide insights into the role gay community plays in patterns of drug use among GBM.

© 2016 Elsevier B.V. All rights reserved.

## Background

The prevalence of licit and illicit drug use among gay and bisexual men (GBM) is higher than in other population groups (Bolding, Hart, Sherr, & Elford, 2006; Cochran, Ackerman, Mays, &

Ross, 2004; Hickson, Bonell, Weatherburn, & Reid, 2010; Lea et al., 2013b; Newcomb, Ryan, Greene, Garofalo, & Mustanski, 2014; Roxburgh, Lea, De Wit, & Degenhardt, 2015). In Australia, more than half of GBM reported recent (previous six months) illicit drug use (Lea et al., 2013b). One in twenty (5.6%) reported recent injection drug use (Lea et al., 2013a). Few studies have reported on incidence or risk factors for, initiation and cessation of, or changes in, drug use over time, or on the harmful outcomes of such use, among Australian GBM.

\* Corresponding author at: Level 6, Wallace Wurth Building, UNSW Australia, Kensington, Sydney, NSW 2052, Australia.

E-mail address: [mhammoud@kirby.unsw.edu.au](mailto:mhammoud@kirby.unsw.edu.au) (M.A. Hammoud).

### Associations between drug use and sexual risk behaviour among GBM

Condomless anal intercourse (CAI) with casual male partners is the primary risk factor for HIV infection among GBM (Elford, 2006; Jin et al., 2009; Zablotska, Prestage, Middleton, Wilson, & Grulich, 2010). Drug use, particularly when used to enhance sexual pleasures has been associated with CAI with casual partners and with incident HIV infection among GBM (Bolding et al., 2006; Buchacz et al., 2005; DiFranceisco, Ostrow, & Chmiel, 1996; Koblin et al., 2003; McCabe, Hughes, Bostwick, West, & Boyd, 2009; Prestage, 2009; Prestage, Grierson, Bradley, Hurley, & Hudson, 2009a; Rusch, Lampinen, Schilder, & Hogg, 2004; Solomon, Kiang, Halkitis, Moeller, & Pappas, 2010). Specifically, crystal methamphetamine, erectile dysfunction medication (EDM), and amyl nitrite, either used separately or in combination, have been most strongly implicated in sexual risk behaviours and HIV infection (Fisher, Reynolds, & Napper, 2010; Prestage, Jin, Kippax, Zablotska, Imrie, & Grulich, 2009b). Previous research suggests that the use of these drugs increases the possibility of sexual risk behaviours and HIV infection (Fisher et al., 2010; Prestage et al., 2009b).

Most studies to date have focused on drug use and HIV risk behaviours among GBM as a simple one-way association, often implying direct causality but lacking clear evidence. Far less is known about the role of social, community, and interpersonal factors in predicting uptake, cessation, and harmful drug use.

Research into motivations for drug use among GBM has typically focused on individual psychological factors including the effects of homophobia, social isolation, and sexual abuse (Hatzenbuehler, 2009; Stall et al., 2001). Participation in aspects of gay community has been associated with increased levels of drug use (Lea, Reynolds, & De Wit, 2013c). Specifically, sexually adventurous GBM participating in intensive sex partying is a key factor in sexual risk behaviour and HIV infection (Halkitis & Palamar, 2008; Halkitis, Palamar, & Mukherjee, 2007; Hurley & Prestage, 2009; Mansergh et al., 2001; Prestage et al., 2009a; Prestage et al., 2009b; Semple, Zians, Strathdee, & Patterson, 2009; Solomon et al., 2010). This suggests that relationships between sexual risk behaviour, HIV acquisition, and drug use among GBM are mediated by subcultural affiliations.

### Other drug-related harms and consequences

Although less often explored, the prevalence of drug-related harms such as dependence and overdose is high (Bolding et al., 2006; Prestage et al., 2009b; Semple et al., 2009; Stall et al., 2001; Zablotska et al., 2010). Social support provided through aspects of gay community can mediate individuals' drug use to prevent associated harms (Bauermeister, 2008). Further insights into specific behavioural practices and social norms within different segments of the gay community may identify barriers to the adoption of harm reduction messages and inform better targeting of harm reduction programmes.

### Attitudes and beliefs about drug use in gay communities

Sexual practices among GBM are influenced by shared understandings of HIV risk and gay community norms, particularly those regarding 'safe sex' (Kippax, 1993). This may also be true of drug-using behaviours and attitudes toward harm reduction. Further research is required about the role of participation in aspects of gay community sexual and social life, and how engagement in these influences the initiation and cessation of drug use and other changes in drug use over time.

The shared understandings of risk and pleasure in relation to drug use and sex among GBM are likely to be key factors in their drug using behaviour. Broad attitudes toward drug use among GBM

have been explored elsewhere (Halkitis, Fischgrund, & Parsons, 2005; Jerome, Halkitis, & Siconolfi, 2009; Palamar & Halkitis, 2006) but normative beliefs about drug use within Australian gay community networks have not been previously investigated.

### Study aims

In this paper, we describe the methodology and report baseline prevalence of licit and illicit drug use among men enrolled in the Following Lives Undergoing Change (Flux) study.

Flux was established to:

1. Identify individual and contextual factors associated with initiation and cessation of drug use and changes over time in patterns of sexual and drug use behaviours among GBM men.
2. Describe the relationship between social and community norms and drug use behaviours and beliefs among GBM.
3. To describe the role of particular aspects of gay community sexual and social life, and participation in these, in relation to attitudes and beliefs about drug use and drug-use behaviours.

We developed sophisticated and automated procedures specific to this study. This paper will demonstrate the novel application of this methodology to address the study aims and provide details of the characteristics of the cohort and their drug user profile.

### Methods

The Flux study is being conducted nationally in Australia using online survey techniques. We systematically enrol and follow-up individual GBM to collect information about drug use, risk behaviour and associated harms, and gay community engagement. We obtained additional optional consent at enrolment for linkage to hospitalisation datasets to identify drug-related presentations and to the national HIV registry to confirm prevalent and incident HIV infections. The Flux protocol and all supporting documentation have been approved by Human Research Ethics Committee of the University of New South Wales.

### Study design

We enrolled a broad sample of GBM including both current users and non-users of illicit drugs at baseline. The study will monitor changes in drug use and associated harms, beliefs and attitudes, and engagement with gay community networks over time through self-completion of online questionnaires at six-monthly intervals.

A unique integrated system of digitally linking individually tailored questionnaires, study databases, and communications with participants, was developed for this study and was named the Flux Automatic Management eSystem (FAME). It was designed to be specific to this study but can be adapted to other research projects.

### Power calculation and sample size

The event-driven approach was used for sample size calculations in order to compare the incidence of drug initiation between men who reported CAI with casual partners in the last 6 months and those who did not. To enable an 80% statistical power to detect a two-fold increase in the incidence of drug initiation of crystal methamphetamine, EDM, and amyl nitrite, or a minimum of 67 cases of initiation use of these drugs are required over a total of 540 person-years of follow-up. Based on our previous studies, we assumed an incidence of 10 per 100 person-years of initiation of these drugs (Prestage et al., 2009b) and a prevalence of 25% in men reporting CAI with casual partners in the Gay Community Periodic

Download English Version:

<https://daneshyari.com/en/article/5120727>

Download Persian Version:

<https://daneshyari.com/article/5120727>

[Daneshyari.com](https://daneshyari.com)