



# Following Lives Undergoing Change

2014-2017 Surveillance Report

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## Forewords

### **Mohamed A. Hammoud**

*Flux Project Manager & Senior Research Officer  
HIV Epidemiology and Prevention Program  
The Kirby Institute, UNSW Sydney*

Don't believe everything you are told about illicit drug use. In the context of media sensationalism about 'ice epidemics,' 'chemsex', and of 'the war on drugs,' the findings from Flux provide empirical evidence about role of drugs in the lives of gay and bisexual men and highlight the need to shift from the war paradigm to one of evidence-based harm reduction. These results show that the interconnections between drug use and sexual risk behaviour for many gay men require a nuanced approach to drugs research that recognises the importance of pleasure as much as risk.

### **Associate Professor Garrett Prestage**

*Flux Chief Investigator  
HIV Epidemiology and Prevention Program  
The Kirby Institute, UNSW Sydney*

There have been few cohort studies of drug use among gay and bisexual men, and even fewer in Australia, where we follow people over time to identify rates of commencing, or ceasing, drug use, and what factors predict their changes in drug use. Flux is unique. It provides us with much-needed data on what are often sensitive subjects and in relation to a population group where we know that drug use has been represented as being an issue. There are very few equivalent studies anywhere else in the world. What Flux has demonstrated so far is that use of drugs among gay and bisexual men is complex, is sometimes problematic, but often the problems are as much how the use of drugs is perceived as they are the consequences of the drugs themselves. As invaluable as the Flux data have been so far, we still have much to learn, and anticipate even more insight into long-term trends over the next few years. Thanks to all of the men who have joined and continue to participate in Flux. Your contribution of less than an hour of your time every six months has made this into an internationally recognized and ground-breaking study that hopefully will soon lead to similar work in other countries.

**A/Prof Nadine Ezard**

National Centre for Clinical Research on Emerging Drugs  
UNSW Sydney

Behind the voyeuristic media misrepresentation of a dangerous mix of gay men, drugs, and sex, are the lives of thousands of men who party, have fun, and protect their health and wellbeing. The Flux Study paints this picture convincingly, providing important insights from a large longitudinal cohort of Australian gay and bisexual men on their experiences of and attitudes towards the relationship between sex, drugs, and HIV. It is essential reading for anyone who wants to understand how this cohort of people work together to negotiate pleasure, and what issues concern them around drug use. In particular, the findings from the study provide evidence for the community co-production of health promoting interventions relating to drug use.

**Ms Nicky Bath**

*Flux Associate Investigator  
Executive Director  
National LGBTI Health Alliance*

If you want to know what gay and bisexual men are really up to in relation to drug use, sexual health and mental health in Australia, then you need go no further than this unique and important study. The Flux Study is the first and only large-scale longitudinal study in Australia to explore these issues and allows for us to gain great insights without the usual rhetoric that can often envelope them. The study shows us the great capacity that gay and bisexual men have in taking care of themselves as well as reinforcing the need for focused and co designed harm reduction programs, interventions and services that are contextualised in the reality of gay and bisexual men's drug use and sexual behaviours.

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## Executive Summary

This is a report on the findings from the Flux Study, Following Lives Undergoing Change, for the period 2014 to 2017. 3,253 gay and bisexual men completed online behavioural surveys at six-month intervals. There were 753 responses in 2014, 1,900 responses in 2015, 1,158 responses in 2016, and 1,995 responses in 2017. This report will summarise drug use and sexual behaviours and identify any trends throughout the years.

Summary of findings thus far:

- There has been a dramatic increase in the proportion of men taking HIV Pre-Exposure Prophylaxis (PrEP), from less than 1% in 2014 to one third of men in Flux in 2017.
- Between 2014 and 2017, there were approximately 7% fewer men engaged in receptive condomless anal intercourse without the use of PrEP or TasP with casual partners, fuckbuddies, and their boyfriends.
- There has been a reduction in consistent condom use during anal intercourse with casual partners, coinciding with a dramatic increase in the proportion of men using PrEP.
- There has been a reduction in the proportion of men who smoke cigarettes.
- Alcohol consumption has remained stable across years, with approximately 20% of men drinking multiple times per week.
- One third of the men reported recent use of erectile dysfunction medication. The most common reasons were for ease in getting an erection and to counter the effects of drugs.
- Over one third of men have reported use of illicit drugs within the previous six months.
- Partying, sex, and fun were the most frequently reported reasons for using illicit drugs.
- Approximately 5% of men have reported recently injected drugs, primarily crystal methamphetamine.
- Party and Play (PnP), better sex, and sexual arousal were the most common reasons for injecting.
- The proportion of men who have overdosed using crystal methamphetamine has remained stable over the years, at approximately one in 100 men in the study.
- There has been an increase in the proportion of men concerned about their own drug use.

## Introduction

### The continued importance of drug research

The 2016 National Drug Strategy Household Survey reports that gay and bisexual men disproportionately experience high rates of drug-related risk and recent use of illicit drugs. GBM were 5.8 times more likely to use ecstasy and meth/amphetamines than their heterosexual counterparts. Flux not only reports on drug use within the community but is able to follow changes of habits in individuals over time.

Flux (which stands for Following Lives Undergoing Change) is the only study of its kind in the world. It is Australia's first and only large-scale longitudinal study of drug use among gay and bisexual men. The study explores, critical issues in the lives of gay and bisexual men, including sexual health, mental health, and drug use, since 2014.

There were 753 individuals who responded in 2014; 1,900 in 2015; 1,158 in 2016; and 1,995 in 2017. In cases where participants had responded twice in one year, discretion was applied to determine which response would be counted in the analysis. In most cases, the most recent response was used; however, in some cases (such as injecting behaviours), we used any positive value.

## Methods

### Study aims

The aims of the Flux study are to:

1. Identify contextual and individual factors associated with the use, and changes in use, of drugs among gay and bisexual men, and associations with risk behaviours over time;
2. To describe the relationship between social and community norms, and the shared understandings of risk and pleasure, and drug use behaviours and beliefs among gay and bisexual men with differing social connections to other GBM; and
3. To describe the role of particular gay community subcultures, sexual and social networks, in influencing attitudes and beliefs about drug use and in affecting drug-using behaviours.

### Outcomes

The Flux Study is working towards:

- New knowledge of the incidence of drug-using behaviours and associated harms among gay and bisexual men;
- Better knowledge of how social norms, particularly those regarding shared understandings of risk and pleasure, explain drug-using and other risk behaviours of gay and bisexual men;
- Research-based evidence on the differences between distinct networks of gay and bisexual men in Australia;
- Practical recommendations for health promotion, alcohol and other drugs, HIV and hepatitis-C prevention agencies and policy makers to improve the targeting of prevention messages to local gay communities, and to promote sustainable behaviour change;
- Publications in relevant peer-reviewed academic journals;

- Presentations of findings at relevant peer-reviewed national and
- Newly generated data to further advance social research concerning the interconnections between drug use and sexual behaviour, sexual mixing, and modelling HIV and hepatitis in Australia;
- international conferences;
- Tailored dissemination outputs for relevant alcohol and other drugs and HIV and hepatitis-C sector organisation.

### **Eligibility**

To be eligible to participate in this study, participants had to:

- Be male, above the age of 16 years and 6 months;
- Have had sex with another man in the preceding 12 months OR identified as gay or bisexual;
- Be willing to consent to the study requirements.

### **Recruitment and enrolment**

Participants were identified through Facebook targeted advertising, popular online hook-up websites and smart phone applications. Participants were also encouraged to refer other men into the study. In 2017, men who were enrolled in EPIC-NSW, the HIV Pre-Exposure Prophylaxis clinical trial coordinated by the Kirby Institute, UNSW Sydney, were invited to enrol. Men were invited to enrol at gay events including the Gay and Lesbian Mardi Gras Fair Day, in Sydney. Those who consented to follow-up were asked to complete a follow-up questionnaire at six monthly intervals.

### **Data Linkage**

We sought optional consents from participants to link their responses with two available databases: The National HIV Registry and hospital admissions. We will also match for hepatitis C notifications with state health departments. This was an additional optional consent and not a requirement for participation. Linkage to the HIV registry allows us to identify baseline and incident HIV infections within the cohort and link them with relevant risk behaviours, including drug use. A similar process can be achieved for hepatitis C infections through hepatitis C notifications to state health departments. Linkage with hospital admissions will allow us to identify significant adverse events related to drug use within the cohort and to determine risk factors including drug using behaviour and other risk indicators. Data linkages will be completed at the end of the study period.

## **Protecting confidentiality**

Confidentiality of all data is strictly maintained at all times. Participants were assigned a unique study identifier which is used to identify all data sources. The questionnaires are electronically coded and stored in a secure database. Questionnaires do not contain individuals' identifying details. Access to any data or identifying information is protected by secure barriers at each level of access. The data are only accessible to the research team directly involved with managing or analysing the data.

## **How we Flux**

### **Follow-up Automated Management eSystem – FAME**

Survey data collection provides contextual and explanatory information to existing health surveillance systems about psycho-social factors associated with behavioural prevention of infectious diseases but is usually not easily integrated with those systems. Such behavioural research, especially cohort studies, are viewed as optional, expensive add-ons. For behavioural researchers, online survey data collection platforms offer the potential for efficient, integrated data collection and management.

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 Follow-up Automatic Management eSystem (FAME). It was designed to be specific to this study but can be adapted to other research projects.

FAME enable maximum digital management of the study and to ensure a simple, straightforward experience for participants, which protects participant confidentiality and ensures data integrity. Each participant is digitally assigned a unique study identifier (USID) through the survey platform upon entry to the consent form. The USID is used to link to their unique records on all study data sources. It will remain the participants' unique identifier throughout the study and is central to the implementation of FAME. This ensures participant confidentiality. All communications with participants were automatically generated using their USID to automatically link to their own records. Individual participants' records from the consent form, baseline questionnaire, and all follow-up rounds were, and will continue to be matched through the USID. Access to any data or identifying information has been protected by secure barriers at each level of access.

# Results

## Overview

A total of 3,253 participants responded to at least one round of the study questionnaires between 2014 and 2017. Participants completed a baseline survey then responded to one, two, three, or four separate follow-up surveys, at approximately six-month intervals.

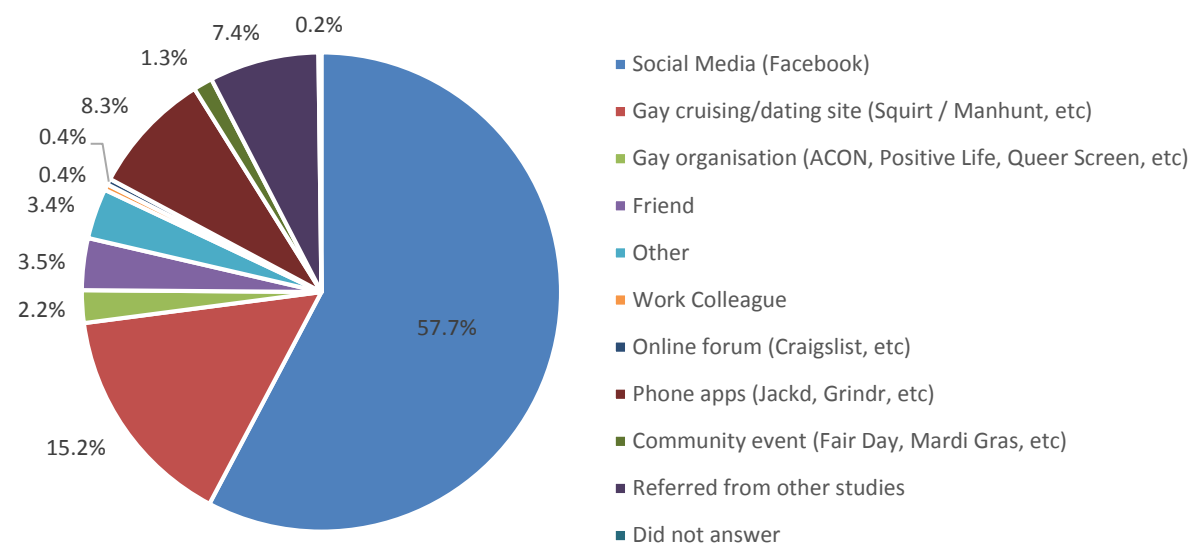
## Recruitment

Over half of the participants were recruited through Facebook targeted advertising. About one sixth were recruited through gay cruising and dating websites, such as Squirt and Manhunt. Phone apps such as Jack'd and Grindr were the source of recruitment for one in eight participants. In 2017, 240 participants enrolled into the study after learning about it through the EPIC-NSW HIV Pre-Exposure Prophylaxis (PrEP) cohort study.

**Table 1. Recruitment source**

	N=3,253
Social Media (Facebook)	57.8%
Gay cruising/dating site (Squirt / Manhunt, etc)	15.2%
Gay organisation (ACON, Positive Life, Queer Screen, etc)	2.2%
Friend	3.5%
Other	3.4%
Work Colleague	0.4%
Online forum (Craigslist, etc)	0.4%
Phone apps (Jackd, Grindr, etc)	8.3%
Community event (Fair Day, Mardi Gras, etc)	1.3%
Referred from other studies	7.4%
Did not answer	0.2%

**Figure 1. Recruitment source**



## Demographics

### Gender

Nearly all participants identified as male. There were 32 transgender men and four participants who identified as intersex. One participant’s gender was unstated.

**Table 2. Gender**

	N=3,252
Male	98.9%
Transgender Male	1.0%
Intersex	0.1%

### Age

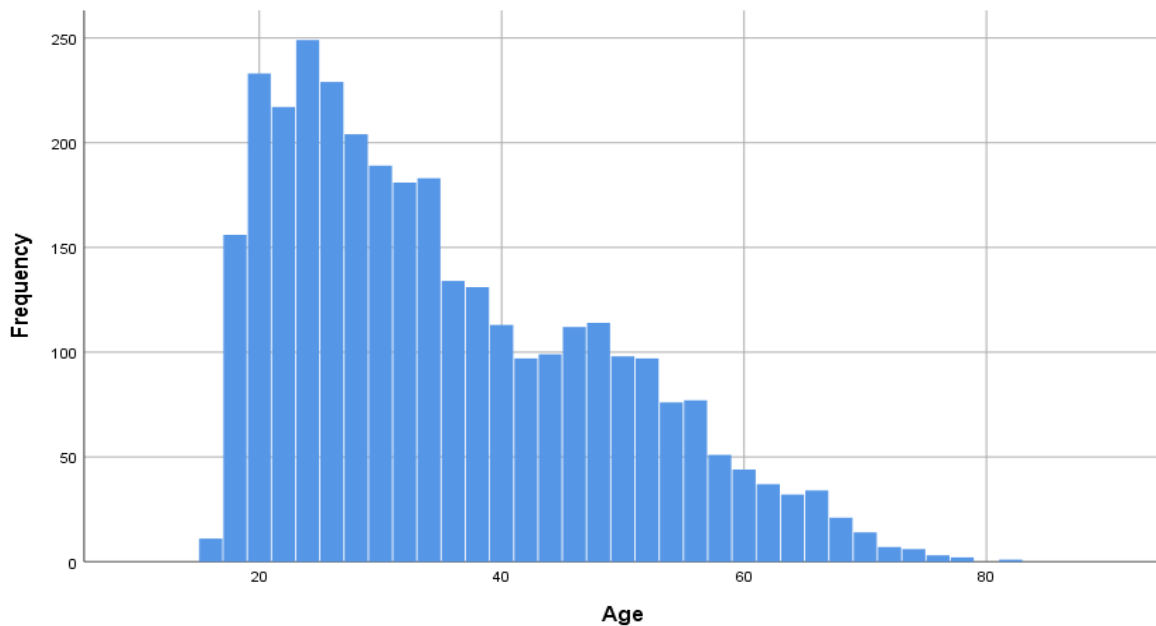
Ages ranged from 16 years to 81 years. The mean age was 35 years (SD 13.2). Participants’ most frequent age was 23 years and the median age was 32 years (IQR = 24-45). One participant’s age was unstated.

**Table 3. Age of participants**

	N=3,252
Less than 18 years	2.2%
18 to 25 years	28.3%
26 to 35 years	28.6%
36 to 45 years	17.5%
Over 45 years	23.4%

The age distribution as presented in Figure 2 demonstrates a preponderance of younger men in the sample.

**Figure 2. Distribution of age of participants**



## Sexual Identity

The sample was mostly comprised of gay and bisexual men, with most participants identifying as gay or homosexual. One in eleven participants identified as bisexual, and there were seven men who identified as heterosexual (but who had also had sex with other men). Other terms men used to describe their sexual identities included: pansexual, asexual, homoromantic, bicurious, fluid, queer, human, and post-gay.

**Table 4. Sexual identity**

	N=3,253
Gay	88.4%
Bisexual	9.1%
Heterosexual	0.2%
Other	2.3%

## Aboriginal or Torres Strait Islander Status

Just 2.3% of the sample indicated they were of Aboriginal or Torres Strait Islander descent.

**Table 5. Aboriginal and Torres Strait Islander Status**

	N=3,253
Aboriginal	2.0%
Torres Strait Islander	0.2%
Both Aboriginal and Torres Strait Islander	0.1%
Non Indigenous	97.7%

## Education

Over half of the sample were university educated (54.5%). Approximately one in seven were trade certified, and one in three did not complete any further education after high school, including one in eleven participants who had not completed year 12.

**Table 6. Education**

	N=3,253
Less than year 12 high school	9.3%
Completed high school (year 12)	21.6%
Trade certificate	14.4%
Undergraduate degree	30.8%
Postgraduate degree	23.7%
Did not answer	0.2%

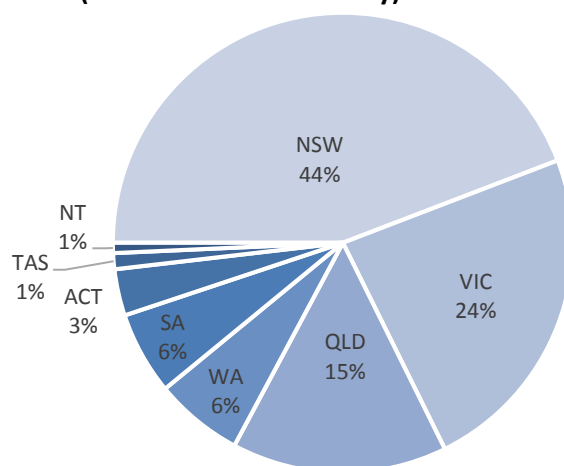
### Residence

Two in five participants were resident in NSW. Nearly one quarter lived in Victoria, and almost one in seven lived in Queensland. Nine participants resided overseas but were Australian citizens.

**Table 7. State of Residence**

	N=3,253
New South Wales (NSW)	43.2%
Victoria (VIC)	23.0%
Queensland (QLD)	14.8%
Northern Territory (NT)	0.7%
Western Australia (WA)	6.1%
South Australia (SA)	5.7%
Australian Capital Territory (ACT)	3.2%
Tasmania (TAS)	1.1%
Overseas	0.3%
Did not answer	1.8%

**Figure 3. State of residence (Australian residents only)**



### Place of birth

Over three quarters of the men in Flux were born in Australia. There were 102 men born in New Zealand and 159 born in continental Asia. Over one in twenty men born in the United Kingdom and Ireland.

**Table 8. Birthplace**

	N=3,253
Australia	78.5%
New Zealand	3.1%
Other Oceania countries	0.1%
Asia	4.9%
North America	1.7%
Central / South America	1.0%
United Kingdom / Ireland	5.9%
Other European countries	1.7%
Middle East	0.5%
South Africa	0.5%
Other African countries	0.1%
Did not answer	2.0%



## Employment and Occupation

Over half of the participants were employed full time and one in eight were working part time. Few participants were unemployed or on a pension. Just under one-fifth were students, most likely reflecting the relatively young age profile of the sample.

**Table 9. Employment status**

	N=3,253
Full-time	56.4%
Part-time	13.4%
On pension / social security	4.8%
Student	18.3%
Unemployed	6.0%
Did not answer	1.2%

Two thirds of the participants who reported full time or part time employment worked in managerial or professional positions (67.6%). One in five participants worked in other white collar positions, leaving less than one in ten who were employed in blue collar occupations.

**Table 10. Occupation**

	N=2,257
Professional	41.90
Manager or self-employed	25.70
Retail / Customer Service	13.50
Clerical / Administration / Governance	7.70
Skilled labour / Creative	3.90
Para-professional	3.20
Tradesman	3.10
Unskilled labour	1.00

*Note: Includes only those men in full time or part-time employment.*

## HIV Testing, HIV Status, and PrEP

Men were asked to explain in their own words what they try to do to avoid the possibility of either getting HIV or passing it on to their sex partners.

PrEP has taken away my anxiety about HIV. I know I'm neither acquiring nor transmitting the virus. I no longer think about HIV when having sex, but I love talking about it, current news, issues, and about ending stigma with my friends, especially my friends living with HIV. And also, U=U is even more significant than PrEP.

I use PrEP as a preventative. I always try to use protection where I can, but sometimes it's not available in the heat of the moment.

Take PrEP every day. Fuck casuals with a condom if they don't know their status and/or viral load. Go without condoms with other PrEP takers. As I mostly top, I ask for condoms from casuals mostly. With regular partners I usually know their PrEP or HIV/viral load status and go without condoms.

I'm happy I can take PrEP. I don't worry about becoming HIV positive like I use to. Moreover, I was having risky sex when I wasn't on PrEP. I think I would have become HIV+ if PrEP wasn't an option.

## HIV and Antiretroviral Treatments

Most participants had been tested for HIV and knew their HIV status. Approximately 10% of men had tested positive for HIV, and about 70% had recently (within 6 months) tested negative for HIV. In 2014, about one in seven men reported no recent HIV test (status unknown) in the 6 months prior to completing the survey. In 2017, the proportion of men with no recent HIV test reduced to one in ten. The increase in recent testing is likely due to the increase in men taking Pre-exposure prophylaxis (PrEP).

HIV antiretroviral treatments effectively prevent HIV transmission. Among HIV-positive individuals, when HIV treatments suppress viral load to undetectable levels they cannot transmit the HIV virus to their sexual partners. This is known as Treatment as Prevention (TasP) or as U=U (undetectable equals uninfected).

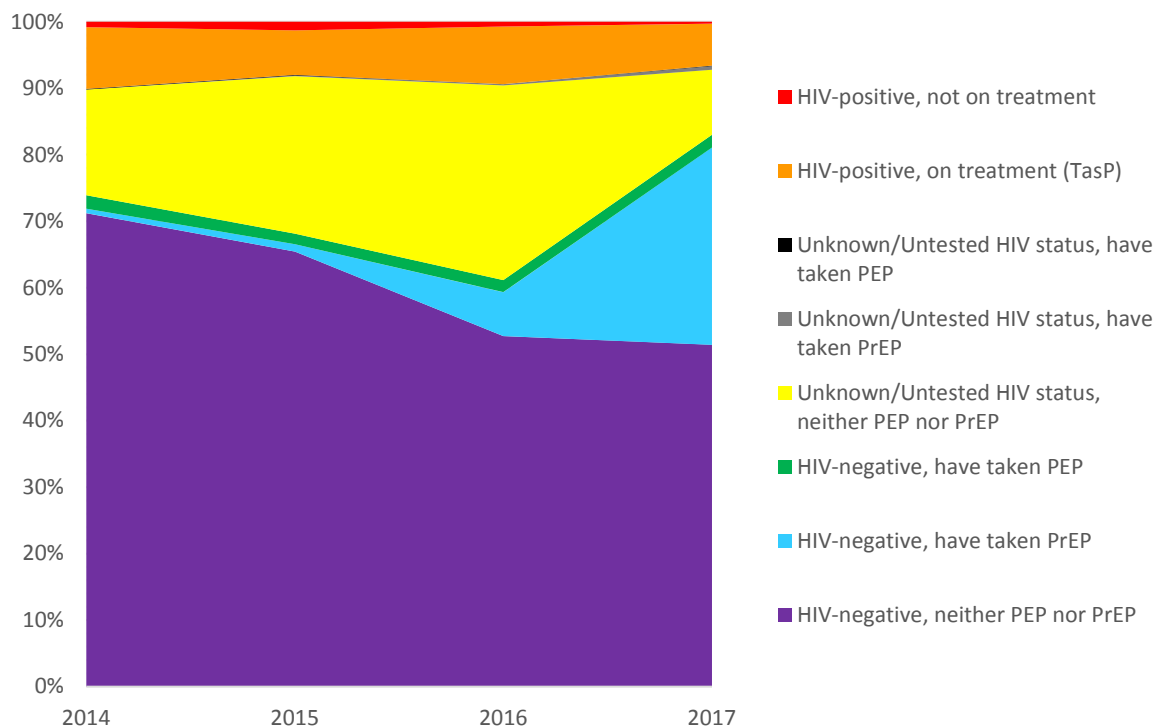
Among individuals without HIV infection, PrEP involves someone who has tested HIV negative taking antiretroviral drugs on an ongoing basis *before* potential HIV exposures to prevent HIV infection. Post-exposure prophylaxis (PEP) involves taking antiretroviral drugs *after* a potential exposure to HIV.

Throughout the study, the proportions of HIV-positive men on treatment remained stable (although the overall proportion of HIV-positive men was somewhat lower in 2017), as did the proportion of men who had used PEP. Use of PrEP increased substantially over time, particularly in 2017. However, it should be noted that some of this increase was likely due to 12% of the sample in that year being men who enrolled into the cohort after learning about it via their participation in the EPIC trial of PrEP implementation in NSW. The small number of untested men who had taken PrEP or PEP may have accessed it through informal connections.

**Table 11. HIV Status and the use of antiretroviral treatments for TasP, PrEP and PEP**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
HIV-positive				
Not on treatment	0.8%	1.3%	0.7%	0.3%
On treatment	9.3%	6.7%	8.7%	6.3%
HIV-negative				
Neither PEP nor PrEP	71.2%	65.5%	52.8%	51.4%
Have taken PEP	2.0%	1.6%	1.8%	1.9%
Currently taking PrEP	0.7%	1.1%	6.6%	29.7%
Unknown HIV status / no HIV test within 6 months				
Neither PEP nor PrEP	15.9%	23.7%	29.3%	9.8%
Have taken PEP	0.1%	0.1%	0.0%	0.1%
Have taken PrEP	0.0%	0.1%	0.2%	0.5%
Data not available		0.1%		0.1%

**Figure 4. Proportion of men taking antiretroviral medication (for treatment or prophylaxis)**



### Sexual Health Checks (2017)

In 2017, over half of the study respondents had a recent sexual health check (within 6 months) prior to completing the survey. One in twelve participants had never been tested for a sexually transmissible infection.

**Table 12. Length of time since last sexual health check (2017)**

	N=1,995
Less than a week prior to completing survey	5.1%
1 – 4 weeks prior	20.8%
1 – 6 months prior	38.0%
7 – 12 months prior	9.4%
1 – 2 years prior	7.6%
2 – 5 years prior	6.4%
More than 5 years prior	4.3%
Never been tested for a sexually transmissible infection	8.5%

One in eight men reported that they had recently had a diagnosis of gonorrhoea and a similar proportion reported a recent diagnosis of chlamydia.

**Table 13. Recent (self-reported) diagnosis of a sexually transmissible infection (2017)**

	N=1,995
Self-reported chlamydia diagnosis	12.7%
Self-reported gonorrhoea diagnosis	12.0%
Self-reported syphilis diagnosis	2.7%

## Sexual Behaviours

Men were asked to explain how they chose to reduce the possibility of getting sexually transmissible infections.

I always talk to sex partners openly and honestly about sexual history

I don't do much. I assume I'm safe if they don't tell me they have something. Sometimes ask, I try to wear a condom if me or my partner bottom.

I just get tested often and deal with it.

When I have sex with someone other than my partner a condom would definitely be used.

I tend to fuck people I already know. If they get an STI they tell me, and I go in and get tested. If I get an STI, I make sure to notify partners, abstain from sex during treatment and follow up with a test to confirm treatment worked.

### Relationship Status and Sexual Behaviours

Over one third of men reported being in a relationship at the time of completing each round of the survey. There was little change over time. Excluding the men without a main partner (boyfriend), the proportion who did not engage in anal intercourse remained stable at around 7% (3.5% of the total sample). Condom use among men in a relationship was slightly lower in 2017.

In 2014 through 2016, excluding the men without a main partner (boyfriend), approximately 60% of men engaged in receptive (bottom) anal intercourse without the use of condoms or PrEP, but this proportion fell to about 40% in 2017. It should be noted that many of the men engaging in unprotected condomless anal intercourse were probably doing so with a seroconcordant partner, often as part of a negotiated safety arrangement.

The proportion of men using PrEP or TasP increased from about 10% of men in relationships (5% of the entire study) in 2014, to approximately 40% of men in relationships (15% of the entire study) in 2017. Some of this increase was likely due to 12% of the sample in that year being men who enrolled into the cohort after learning about it via their participation in the EPIC trial of PrEP implementation in NSW.

It is important to note that these figures do not take into consideration the PrEP or TasP status of the participant's boyfriend.

**Table 14. Sexual behaviour with main partner (boyfriend)**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No main partner (boyfriend)	58.6%	65.3%	59.5%	57.7%
No anal intercourse	2.5%	2.5%	3.3%	3.5%
Consistent condom use	3.5%	2.3%	2.3%	2.4%
PrEP condomless	0.8%	1.4%	3.9%	11.9%
TasP condomless	3.5%	1.6%	2.4%	1.9%
Insertive only unprotected sex	3.3%	2.9%	2.9%	3.2%
Any receptive unprotected sex	21.9%	19.6%	22.9%	15.1%
No data	6.0%	4.4%	2.8%	4.4%

**Figure 5a. Sexual behaviours with main partner (boyfriend) – entire cohort**

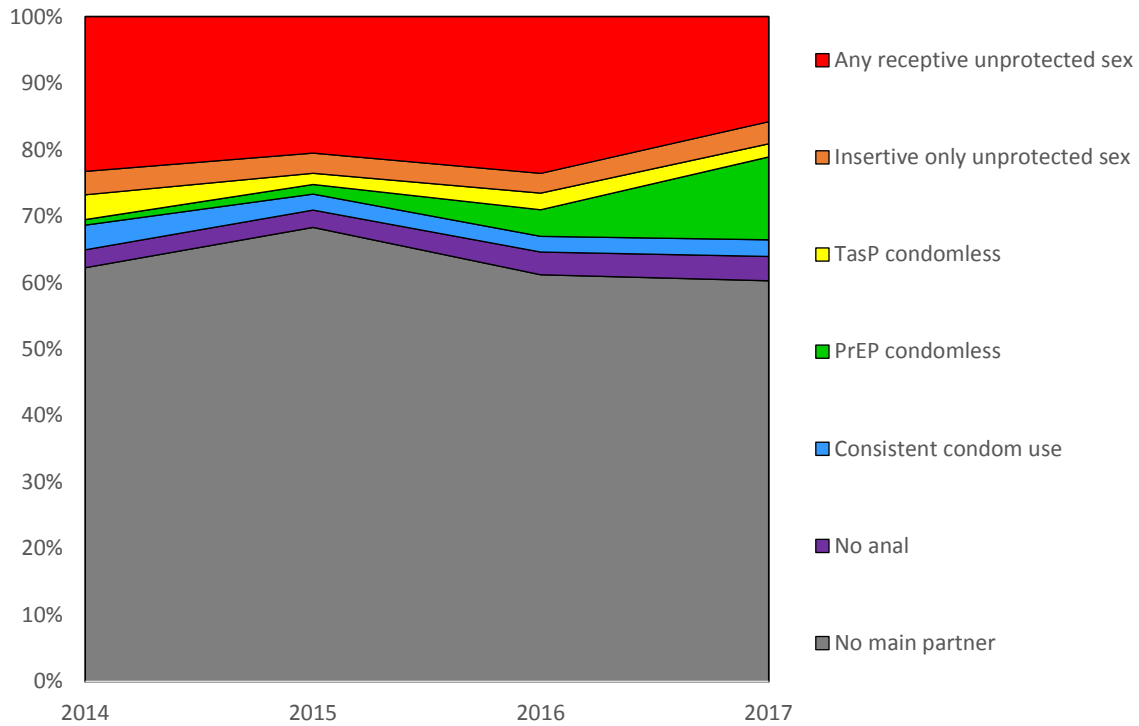
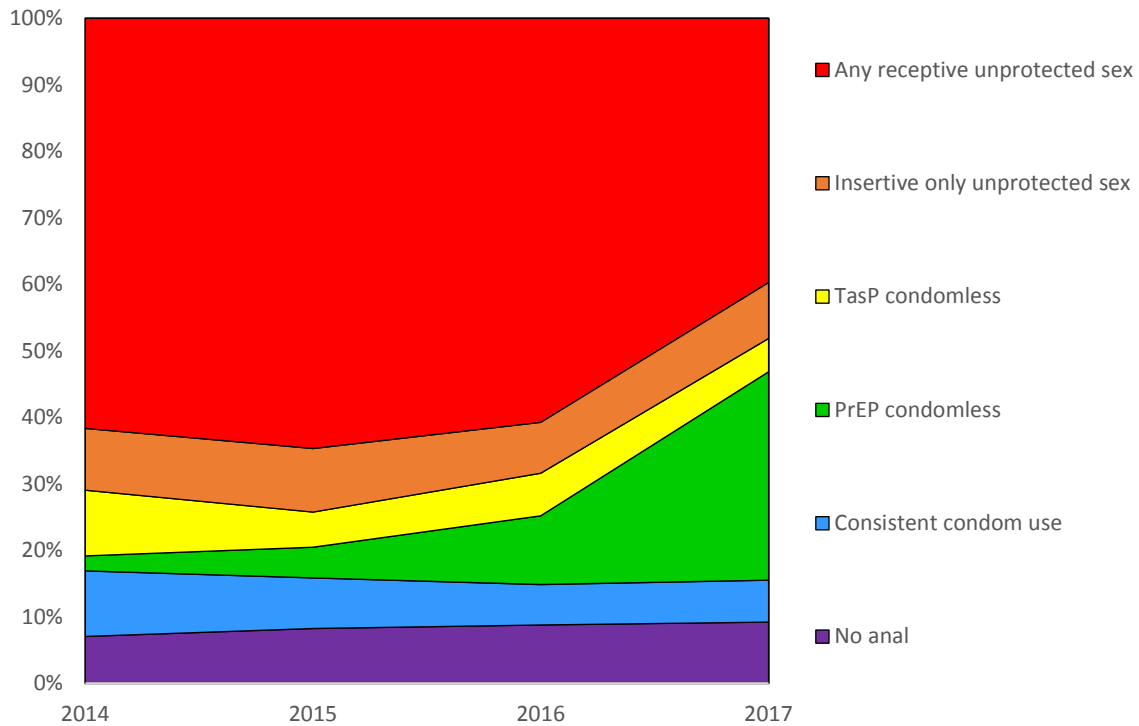


Figure 5b clearly illustrates the reduction in 2017 particularly in any receptive (bottom) anal intercourse without the protection of condoms, PrEP or TasP among men in a relationship.

**Figure 5b. Sexual behaviours with main partner (boyfriend) – excluding men with no partner**



**Sexual behaviours with regular partners who are not boyfriends (fuckbuddies)**

Half of the men in Flux have reported having regular sexual partners who they did not consider to be their boyfriend (also known as a “fuckbuddy”). Of those with fuckbuddies, just under one third do not engage in penetrative anal intercourse. The proportion of men with fuckbuddies who consistently reported condom use was one in five in 2014, decreasing to one in ten in 2017.

Focusing specifically on men who reported sex with fuckbuddies, between 2014 and 2017, there was a dramatic increase in the proportion of men who engaged in condomless anal intercourse with the use of PrEP, increasing from less than 5% up to nearly one-third. This is excluding the men who did not report having sex with fuckbuddies.

There was little change in the proportion of men who used TasP with fuckbuddies, or who engaged in insertive only (top) unprotected anal intercourse. Between 2014 and 2017, there was a reduction in the proportion of men who engaged in any receptive (bottom) unprotected anal intercourse of nearly 10%.

**Table 15. Sexual behaviour with fuckbuddies**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No fuckbuddies	50.7%	56.1%	67.6%	45.5%
No anal intercourse	14.2%	12.2%	4.2%	16.1%
Consistent condom use	12.5%	9.1%	6.2%	6.6%
PrEP condomless	1.2%	3.8%	6.2%	17.3%
TasP condomless	3.3%	2.5%	2.8%	2.3%
Insertive only unprotected sex	4.4%	5.1%	3.8%	3.5%
Any receptive unprotected sex	13.7%	11.3%	9.1%	8.7%



**Figure 6a. Sexual behaviour with fuckbuddies – entire cohort**

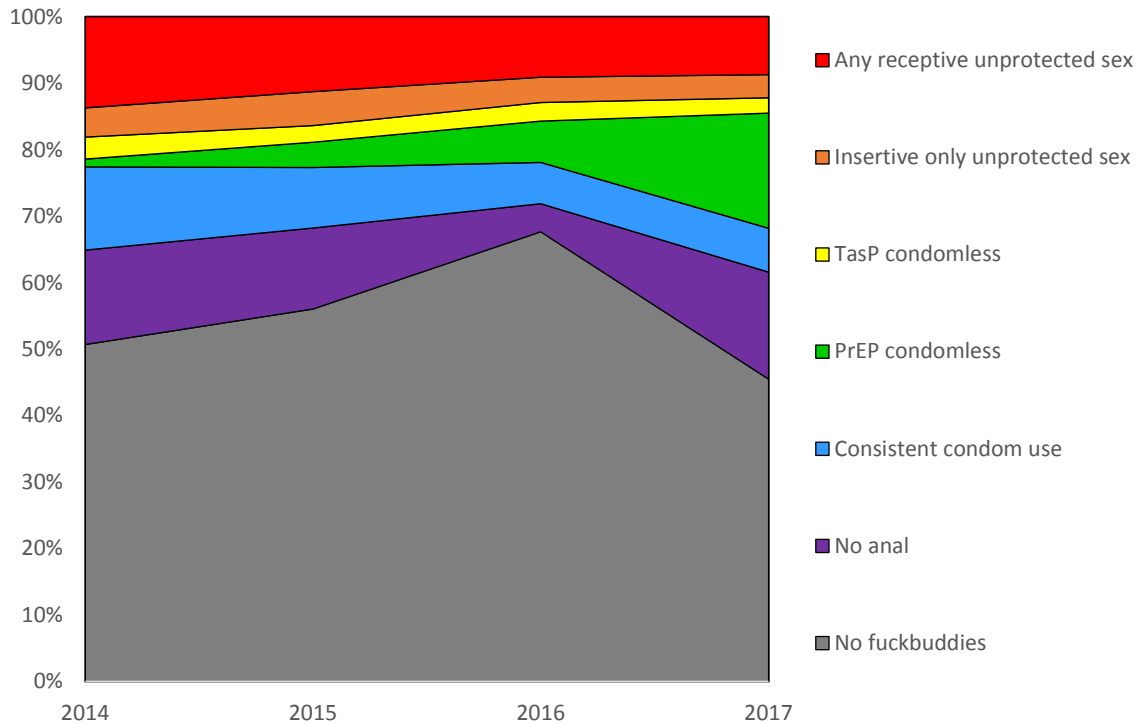
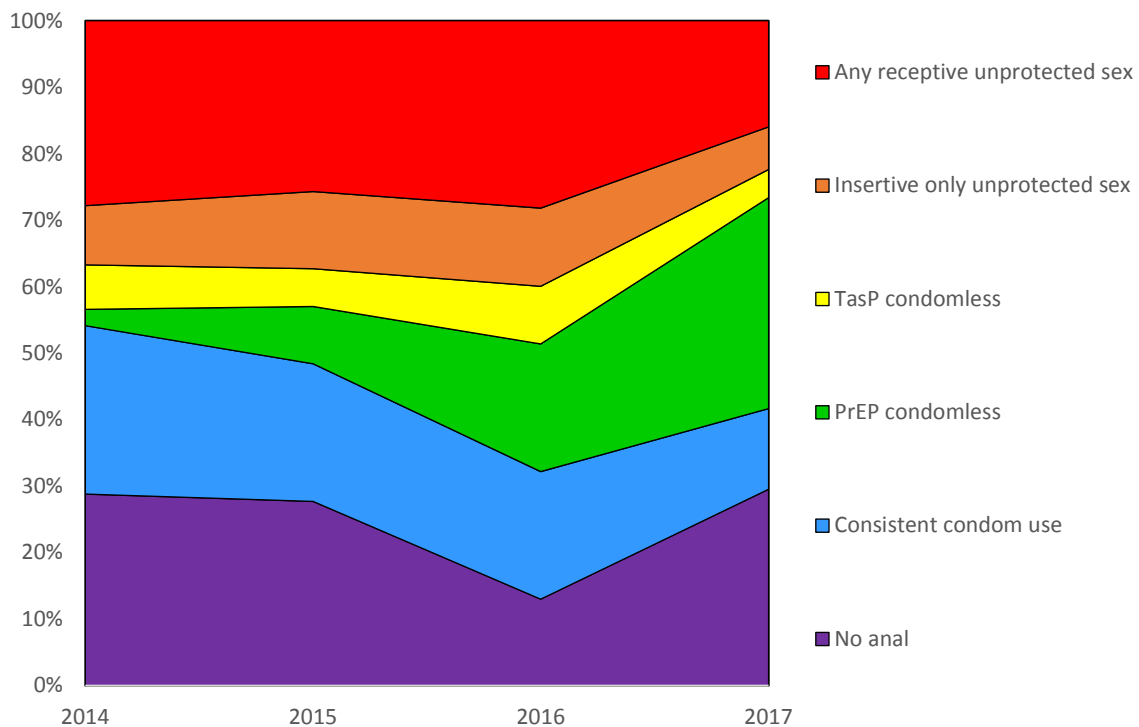


Figure 6b illustrates the increase over time in the proportion of men using PrEP when having condomless anal intercourse with their regular partners whom they do not consider their boyfriend, and, consequently, a decline in 2017 in the proportion of men reporting any receptive (bottom) anal intercourse without the protection of PrEP, TasP or condoms.

**Figure 6b. Sexual behaviour with fuckbuddies – excluding men with no regular partners**



### Sexual Behaviours with Casual Partners

Over two-thirds of the men in Flux reported sexual contact with casual partners. This remained stable across years.

When excluding the men who did not have a casual partner, of the men with casual sexual partners, one in five did not engage in penetrative anal intercourse. There was a reduction in the men who consistently used condoms with casual partners, decreasing from one in three in 2014 to one in five in 2017. This coincided with a dramatic increase in the proportion of men having condomless anal intercourse with the use of PrEP, increasing to nearly one third of men with casual partners.

The proportion of men who engaged in condomless receptive (bottom) anal intercourse without the use of PrEP or TasP decreased by 40% between 2014 and 2017. Insertive (top) only and men who used TasP remained stable over the years.

**Table 16. Sexual behaviours with casual partners**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No casual partners	31.3%	29.5%	24.4%	26.2%
No anal intercourse	13.8%	12.3%	11.3%	16.0%
Consistent condom use	24.4%	22.9%	23.3%	14.2%
PrEP condomless	1.6%	5.3%	10.5%	24.7%
TasP condomless	5.6%	4.7%	6.5%	3.9%
Insertive only unprotected sex	6.0%	8.5%	8.8%	5.1%
Any receptive unprotected sex	17.3%	16.8%	15.2%	10.0%
No data	0.0%	0.0%	0.0%	0.0%

**Figure 7a. Sexual behaviours with casual partners – entire cohort**

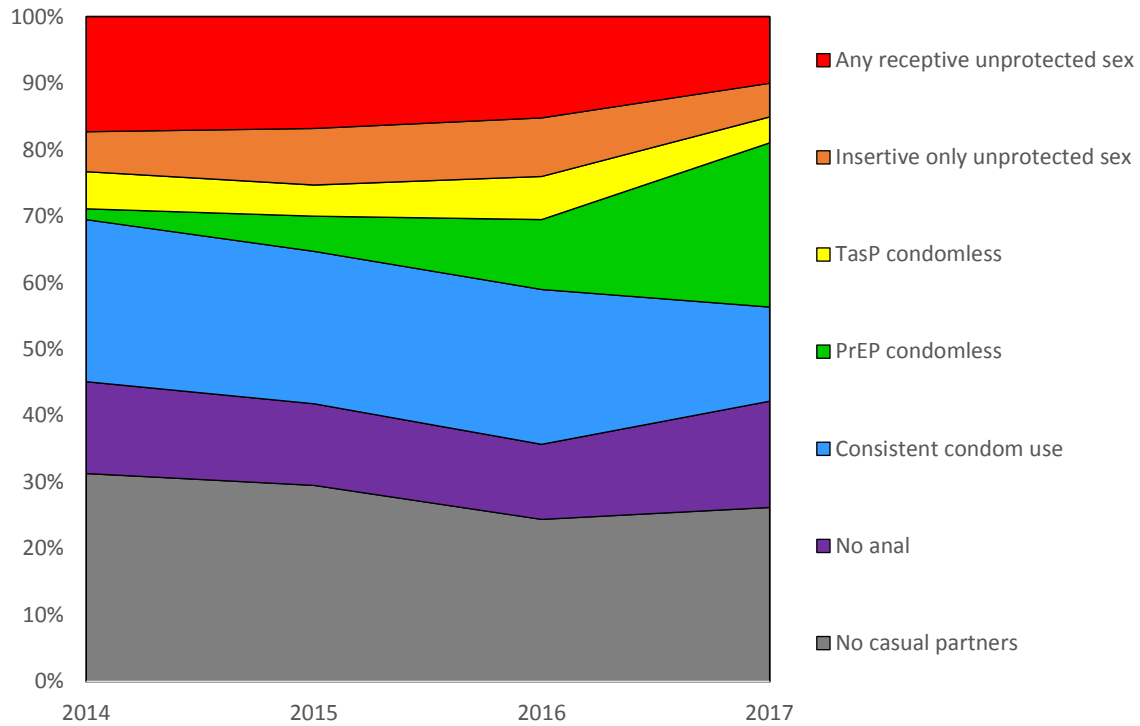
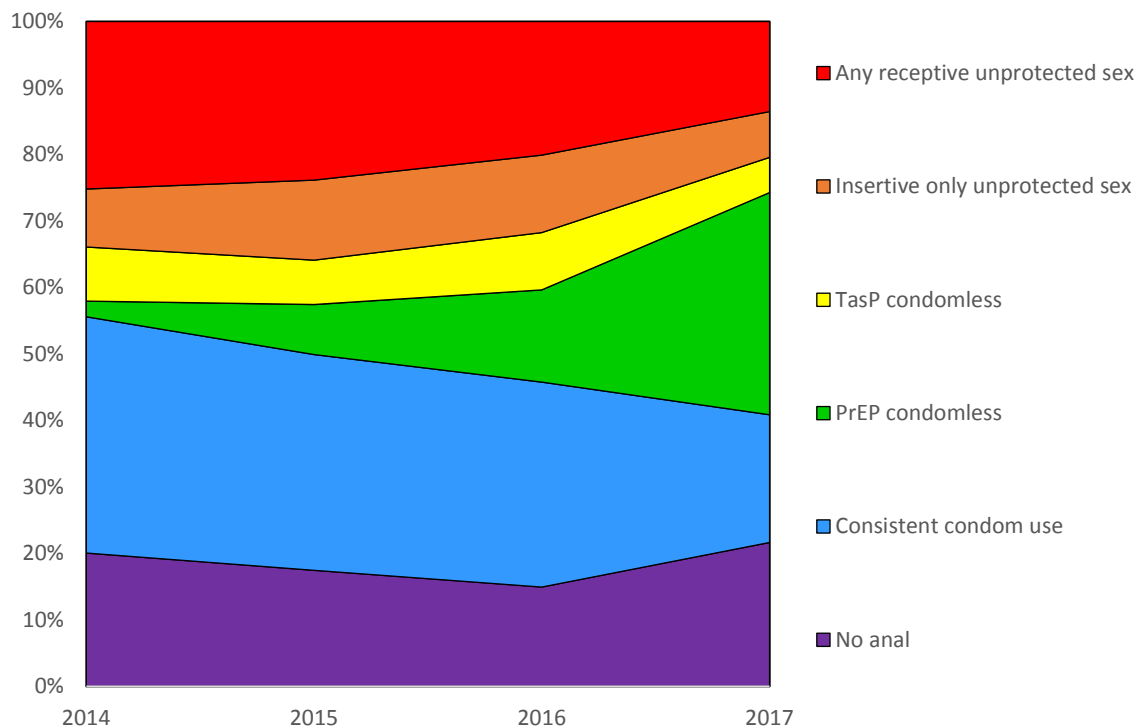


Figure 7b illustrates the increase over time in the proportion of men using PrEP when having sex with their casual partners and a reduction in the proportion reporting any receptive anal intercourse without the use of PrEP, TasP, or condoms.

**Figure 7b. Sexual behaviours with casual partners – excluding men with no casual partners**



## Gay Social Engagement

For the majority of participants, some or most of their friends were gay or homosexual men. Few reported either having no gay friends or that all of their friends were gay. There was little change over time. This is indicated in table 17, below.

**Table 17. Proportion of friends who are gay or homosexual men**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
None	3.5%	3.8%	2.2%	3.2%
A few	31.5%	34.4%	28.4%	28.9%
Some	36.4%	33.3%	35.8%	31.9%
Most	27.4%	27.4%	32.9%	34.6%
All	1.3%	1.0%	0.7%	1.5%

Over half of the participants spent at least some of their free time with gay male friends. Less than one in ten spent no time with gay friends. The amount of free time men spent with gay friends changed little over time. This is indicated in table 18, below.

**Table 18. Proportion of free time spent with gay male friends**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
None	8.9%	8.7%	4.7%	8.5%
A little	33.6%	35.4%	34.6%	36.5%
Some	37.3%	37.2%	38.4%	33.2%
A lot	20.2%	18.8%	22.2%	21.8%

Nearly half of the men in Flux believed that ‘a few’ of their gay friends used drugs, and over a quarter believed that half or more of their friends used drugs. About one in five believed that none of their gay friends used drugs. There was little change in these proportions over time. This is indicated in table 19, below.

**Table 19. Proportion of gay friends believed to use drugs**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
None	22.2%	26.4%	23.4%	18.9%
A few	41.8%	44.3%	46.9%	47.2%
About half	13.4%	11.9%	11.2%	14.3%
Most	18.9%	14.2%	16.2%	17.4%
All	3.7%	3.2%	2.2%	2.2%

About two-thirds of participants believed that none of their gay friends used crystal methamphetamine. Few men thought that the majority of their friends used crystal methamphetamine. These proportions remained steady over time. This is indicated on table 20, below.

**Table 20. Proportion of gay friends who use crystal methamphetamine**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
None	62.5%	70.0%	68.0%	66.0%
A few	28.4%	24.0%	26.1%	27.6%
About half	5.0%	3.4%	3.3%	3.8%
Most	3.5%	2.0%	1.9%	2.7%
All	0.5%	0.6%	0.7%	0.1%

The majority of men in Flux believed that none of their gay friends injected drugs. These proportions were stable over time. This is indicated in table 21, below.

**Table 21. Proportion of gay friends who inject drugs**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
None	83.3%	86.1%	84.5%	85.5%
A few	14.9%	12.4%	14.2%	13.1%
Some	1.2%	0.7%	0.7%	0.7%
Most	0.5%	0.5%	0.5%	0.7%
All	0.1%	0.3%	0.2%	0.0%

## Tobacco and Alcohol

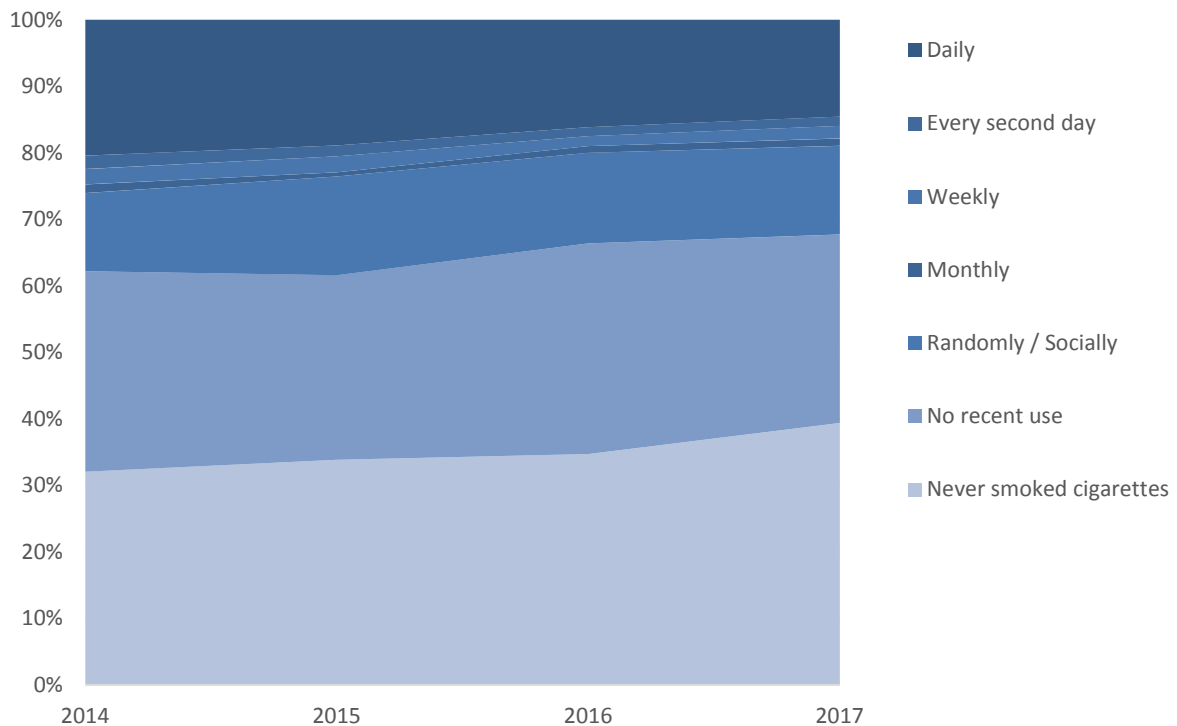
### Tobacco

Approximately two-thirds of the men in Flux have either never smoked cigarettes or had not smoked in the previous six months. Of the third of men who did report recent use, half smoked daily, and the other half smoked only on random and social occasions. Over time, there were fewer men in the sample who had ever smoked, and fewer who smoked every day.

**Table 22. Frequency of cigarette consumption**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
Never smoked cigarettes	31.9%	33.7%	34.6%	39.3%
No recent use	30.0%	27.6%	31.6%	28.3%
Randomly / Socially	11.7%	14.8%	13.6%	13.3%
Monthly	1.3%	0.6%	1.0%	1.1%
Weekly	2.3%	2.4%	1.5%	1.9%
Every second day	2.0%	1.6%	1.3%	1.4%
Daily	20.3%	18.8%	16.1%	14.5%
Unknown smoking status	0.5%	0.5%	0.2%	0.3%

**Figure 8. Frequency of cigarette consumption**



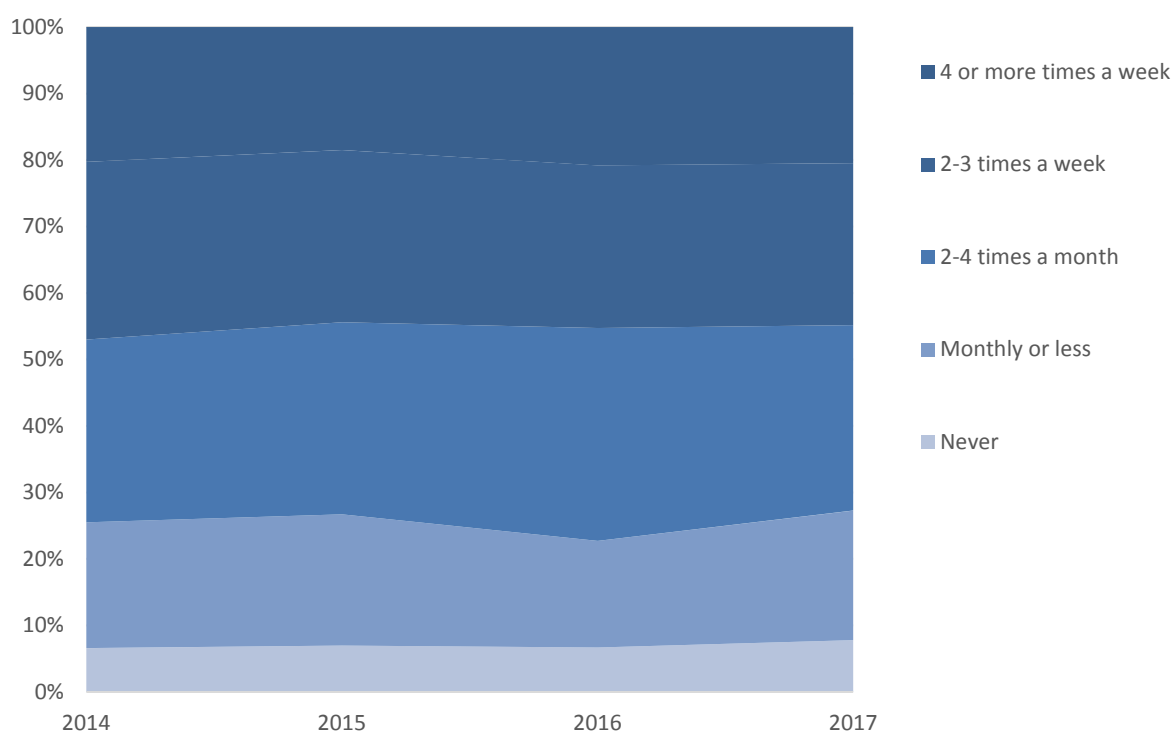
## Alcohol

Most men had consumed alcohol within the previous six months of completing each survey rounds. About one in five men drank four or more times a week. There was little change in the likelihood or frequency of drinking alcohol over time.

**Table 23. Frequency of alcohol consumption**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
Never	6.6%	7.0%	6.7%	7.8%
Monthly or less	18.9%	19.7%	16.0%	19.5%
2-4 times a month	27.5%	28.9%	32.0%	27.9%
2-3 times a week	26.7%	25.9%	24.4%	24.4%
4 or more times a week	20.3%	18.5%	20.8%	20.5%

**Figure 9. Frequency of alcohol consumption**

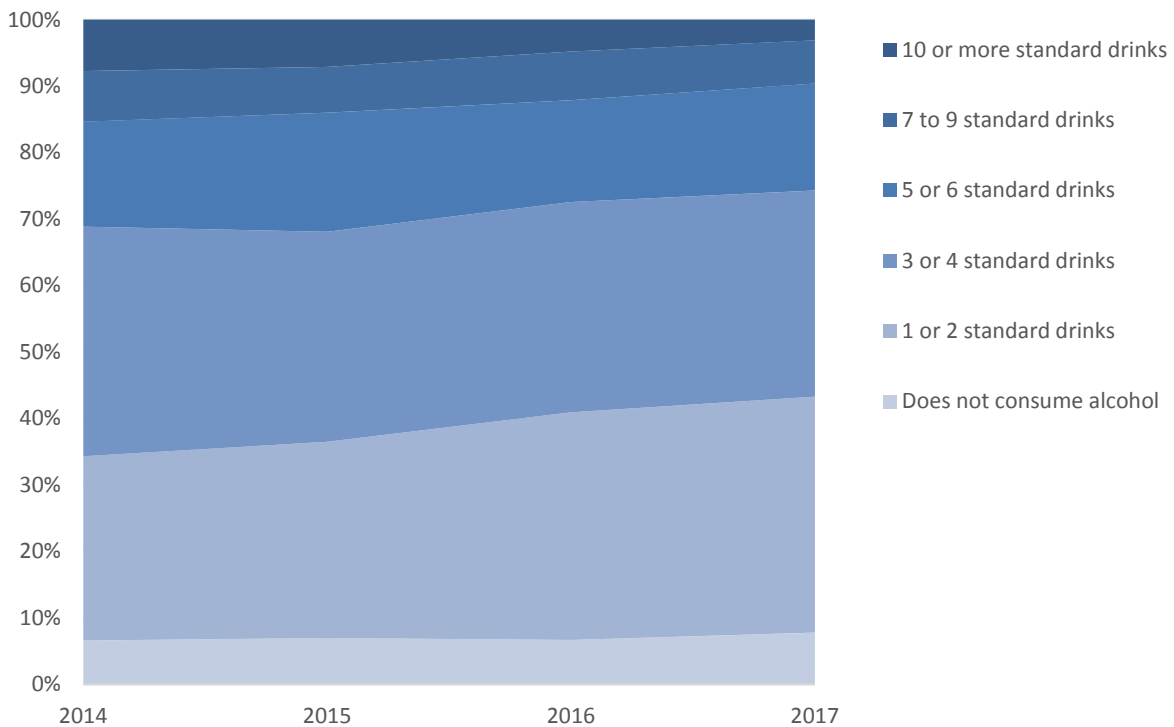


There has been a slight reduction in the quantity of alcoholic beverages consumed in the average sitting, yet the proportions remained relatively stable across years. Greater than one third of men in the study drink in excess of four standard drinks per sitting. The guide to what defines a standard drink is demonstrated below.

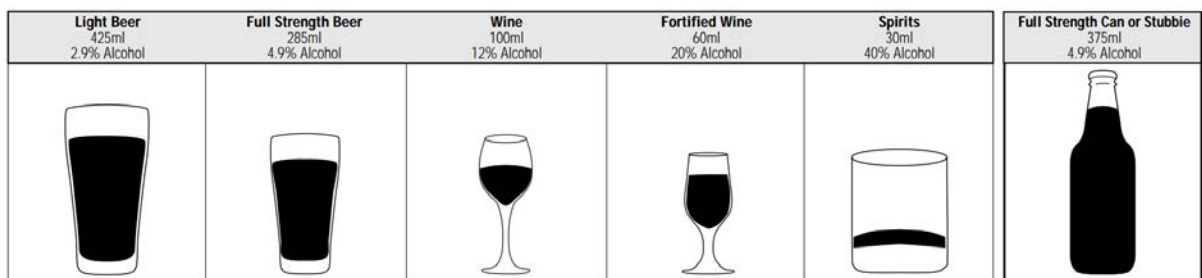
**Table 24. Quantity of alcoholic standard drinks consumed per average sitting**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
Does not consume alcohol	6.6%	7.0%	6.7%	7.8%
1 or 2 standard drinks	27.6%	29.5%	34.2%	35.5%
3 or 4 standard drinks	34.4%	31.6%	31.6%	31.0%
5 or 6 standard drinks	15.7%	17.9%	15.3%	16.1%
7 to 9 standard drinks	7.6%	6.9%	7.3%	6.5%
10 or more standard drinks	7.7%	7.1%	4.8%	3.1%
No data	0.4%	0.0%	0.0%	0.0%

**Figure 10a. Quantity of alcoholic standard drinks consumed per average sitting**



**Figure 10b. Guide to what defines a standard drink**



The guide above contains examples of **one standard drink**.

A full strength can or stubbie contains **one and a half standard drinks**.



## Erectile Dysfunction Medication

Men were asked why they take erectile dysfunction medication (EDM) and to tell us what they thought about it.

It definitely enhanced the my sexual pleasure and makes group sex sessions easier while partying.

My doctor prescribed them for me because I often go soft as soon as I put on a condom.

I use erection pills to ensure I maintain erection with condom use. I find it maintains erection longer and gives greater pleasure to my sex partner. It may be psychological as I only use a quarter of a tab.

I have tried one now, since last survey, because a casual sex partner wanted to share the experience with me. I see it as a kind of sex party-drug - something to enhance a sexual encounter. Since my positive experience with them, I probably have changed my attitude towards using them from ambivalence to mild support.

I think like all things in life, they are fantastic in moderation. I don't always take them - partly because I don't want to be dependent on them for an erection - but they can be a good 'stress relief' in a situation where I want to or feel expected to top, and they certainly help to prolong erections when using crystal. A bit like a chocolate, it's a 'sometimes' indulgence!

### Erectile Dysfunction Medication

Approximately one third of men reported recent use of erectile dysfunction medication (EDM). Medications include oral doses of Viagra, Cialis, and/or Levitra (or their generic equivalents), and any type of injectable EDM. A small proportion of men (about 0.8%) reported the use of herbal treatments but were not included in the calculations below. There was little evidence of changes in likelihood or frequency of use of EDM over time.

**Table 25. Frequency of erectile dysfunction medication consumption**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No recent use / never used	74.5%	77.7%	73.4%	69.3%
Used once or twice	14.2%	11.2%	13.6%	14.4%
Monthly	5.7%	6.1%	6.7%	7.6%
Weekly	4.5%	4.0%	5.1%	7.4%
Every second day	0.9%	0.9%	1.0%	1.1%
Daily	0.1%	0.2%	0.2%	0.3%

*Note: Excludes reported use of herbal treatment as erectile dysfunction medication.*

About half of the men in Flux who reported recent use of EDM indicated that they took it to stay harder for longer and about as many indicated taking EDM to make it easier to get an erection. Both of these reasons for using EDM appeared to have become more common over time. One third used EDM to counter the effects of other drugs, and one quarter took it for fun. These proportions remained stable over time. A small proportion of men took EDM because they were asked to do so by someone else. About one third specifically reported difficulty obtaining or maintaining an erection.

**Table 26. Reason for use of erectile dysfunction medication**

	N=288	N=479	N=326	N=736
	2014	2015	2016	2017
To stay hard longer	44.1%	57.0%	64.4%	61.1%
To make it easier to get hard	42.0%	51.6%	61.3%	56.0%
To counter the effects of other drugs	36.1%	34.2%	36.5%	33.2%
Difficulty getting or keeping an erection	29.3%	34.9%	39.9%	33.2%
For fun	20.8%	23.8%	22.7%	23.5%
To make it easier to use a condom	16.0%	18.0%	15.6%	13.2%
To see what it was like	12.5%	10.4%	8.3%	7.2%
Someone else wanted me to use it	5.9%	4.4%	2.5%	0.0%

*Note: Only includes those who have reported the use of Viagra, Cialis, and/or Levitra, or their generic alternatives, as erectile dysfunction medication in the previous six months.*

About half of those who used EDM obtained it by a prescription from a doctor. Up to one in five obtained their EDM online. At least one in ten reported obtaining EDM through either friends or sex partners.

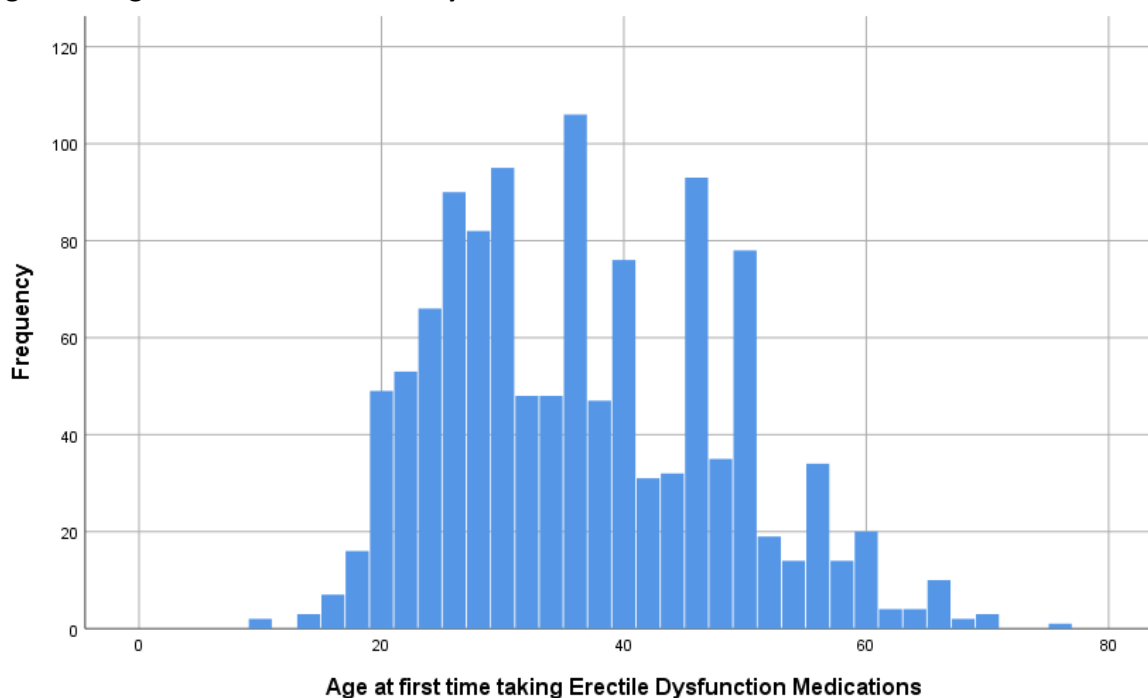
**Table 27. Primary method of obtaining erectile dysfunction medication**

	N=280	N=469	N=312	N=726
	2014	2015	2016	2017
Prescribed by doctor	44.3%	40.5%	53.8%	50.4%
Online	15.0%	17.7%	19.9%	18.6%
Gay friend	6.1%	6.0%	4.2%	7.0%
Casual partner	11.8%	8.7%	5.4%	6.7%
Regular partner	6.1%	8.5%	5.1%	5.6%
Dealer	3.2%	4.7%	3.8%	3.6%
Acquaintance	3.9%	3.0%	2.2%	1.4%
Straight friend	0.7%	0.6%	1.0%	1.4%
Stranger	1.1%	0.9%	0.3%	0.0%
Via other means	7.9%	9.4%	4.2%	5.2%

*Note: Only includes those who have reported the use of Viagra, Cialis, and/or Levitra Levitra, or their generic alternatives, as erectile dysfunction medication in the previous six months*

Participants reported that the average age at which they first tried EDM was 37 years of age (SD 11.5 years). A substantial proportion first tried EDM in their 20s.

**Figure 11. Age of first use of erectile dysfunction medication**



## Drug Acceptability Among Friends

Men were asked to discuss how they felt about drugs and their acceptability.

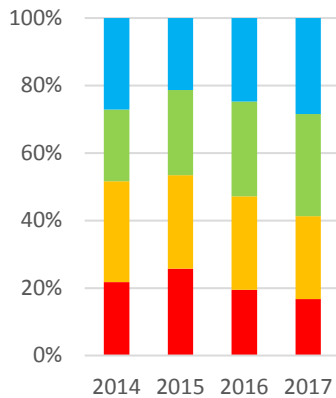
I think drugs have their time and place. I think we would be much better off legalising and regulating them rather than criminalising people who use them. If we can limit how much Sudafed people can buy from chemists, I'm sure we could do the same for party drugs.

I've seen too many of my friends go from using drugs to make a good night great, to depending on them to in order to have any fun. It is a scary spiral, and I don't know when I should voice my concerns to them.

Recreational drug use is fine, when you start using drugs by yourself and more than once a week this becomes an issue.

I have always enjoyed drugs because it lets you enjoy another perspective of life / enhancing feelings and sensations. It gives me confidence that I can tap into when sober also. It also pushes me and tests me, mentally.

**Table 28. Acceptability of using erectile dysfunction medication among gay friends**



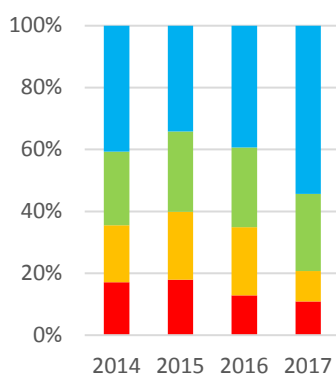
*Note: only includes participants who answered the question*

	N=645	N=1,674	N=1,115	N=1,773
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	27.1%	21.3%	24.8%	28.4%
Somewhat	21.2%	25.3%	28.1%	30.3%
Slightly	29.9%	27.7%	27.7%	24.6%
Not at all	21.7%	25.7%	19.5%	16.7%

Approximately one in five men believed that it is not at all acceptable among their gay friends to use EDM. About a quarter believed that it was very acceptable among their gay friends to use EDM. There was little indication of a change over time in the perceived acceptability of EDM use among gay friends.

Erection pills are not really a thing with my group of friends. Some of us have been known to use them if we have been on an alcohol or drug bender, but very rarely, and only if they are made available by a new casual partner...

**Table 29. Acceptability of using amyl nitrite among gay friends**



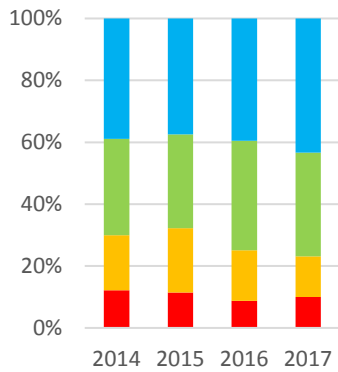
*Note: only includes participants who answered the question*

	N=644	N=1,686	N=1,119	N=1,739
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	40.7%	34.2%	39.3%	54.3%
Somewhat	23.8%	26.0%	25.8%	25.0%
Slightly	18.5%	22.0%	22.0%	9.8%
Not at all	17.1%	17.9%	12.9%	10.9%

Between a third and half of the men in Flux believed that it is very acceptable among their gay friends to use amyl nitrite, and one-tenth believed it is not at all acceptable. There was some suggestion that the use of amyl nitrite may be becoming somewhat more acceptable over time among the participants' gay friends.

Amyl has become so widespread in our culture. I don't see the big deal.

**Table 30. Acceptability of using cannabis among gay friends**



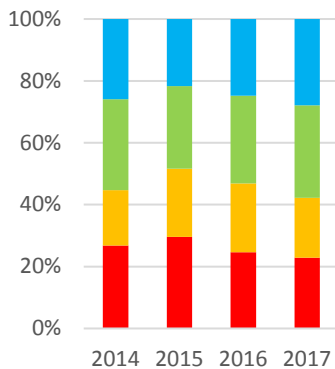
*Note: only includes participants who answered the question*

	N=650	N=1,681	N=1,126	N=1,743
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	38.9%	37.4%	36.5%	43.3%
Somewhat	31.1%	30.3%	35.4%	33.6%
Slightly	17.8%	20.8%	16.3%	13.1%
Not at all	12.2%	11.4%	8.8%	10.0%

About two in five men in Flux believed that it is very acceptable among their gay friends to use cannabis, and about one in ten believed it is not at all acceptable among their gay friends to use cannabis. There was little change over time in the perceived acceptability of cannabis use among participants' gay friends.

I've only ever used marijuana with friends (not party drugs), good to help relax/relieve stress.

**Table 31. Acceptability of using ecstasy among gay friends**



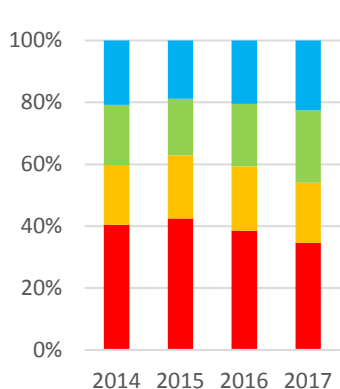
*Note: only includes participants who answered the question*

	N=649	N=1,676	N=1,119	N=1,735
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	25.9%	21.7%	24.8%	27.9%
Somewhat	29.4%	26.7%	28.3%	29.9%
Slightly	17.9%	22.0%	22.3%	19.3%
Not at all	26.8%	29.6%	24.6%	22.9%

Approximately one quarter of men in Flux believed it is not at all acceptable among their gay friends to use ecstasy, but a similar proportion believed it is very acceptable among their friends to use ecstasy. These proportions have remained fairly steady over time.

I mainly use ecstasy/MDMA. I like the enhanced feelings of light/sound and of course the euphoria and lovina feelings that come with it.

**Table 32. Acceptability of using cocaine among gay friends**



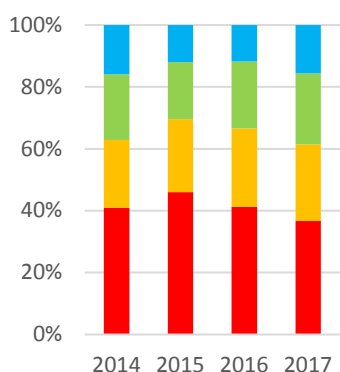
*Note: only includes participants who answered the question*

	N=648	N=1,671	N=1,117	N=1,728
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	20.8%	18.8%	20.5%	22.6%
Somewhat	19.4%	18.3%	20.2%	23.4%
Slightly	19.3%	20.4%	20.8%	19.4%
Not at all	40.4%	42.5%	38.5%	34.7%

About one in five men believed it is very acceptable among their gay friends to use cocaine. Over a third believed it is not at all acceptable among their friends. There was some suggestion of increasing acceptability among their gay friends.

I use coke every once and a while when I go out with friends but can't afford to do it too often.

**Table 33. Acceptability of using speed among gay friends**



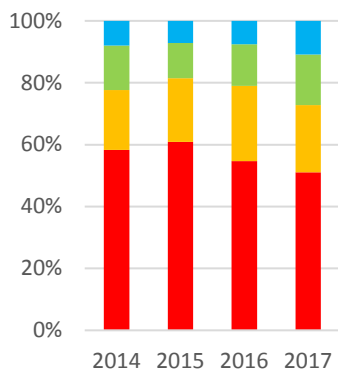
*Note: only includes participants who answered the question*

	N=649	N=1,666	N=1,117	N=1,718
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	15.9%	12.0%	11.8%	15.6%
Somewhat	21.3%	18.4%	21.6%	23.0%
Slightly	21.9%	23.5%	25.4%	24.7%
Not at all	41.0%	46.0%	41.2%	36.7%

Up to nearly half of the men in Flux believed that it is not at all acceptable among their gay friends to use speed, but about a third believed it is somewhat or very acceptable. These proportions have remained stable over time.

I don't think any of my friends take speed... that drug seems before my time.

**Table 34. Acceptability of using ketamine among gay friends**



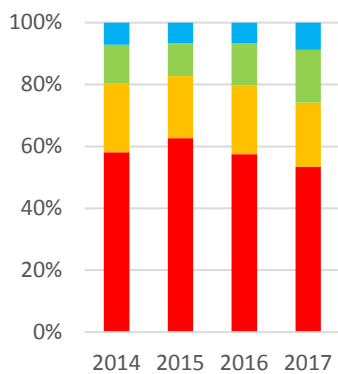
*Note: only includes participants who answered the question*

	N=648	N=1,666	N=1,115	N=1,715
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	8.0%	7.1%	7.5%	10.9%
Somewhat	14.4%	11.4%	13.5%	16.3%
Slightly	19.3%	20.6%	24.3%	21.7%
Not at all	58.3%	60.9%	54.6%	51.1%

Up to nearly half of the men in Flux believed that it is not at all acceptable among their gay friends to use ketamine. There was little suggestion of change in these proportions over time.

More and more of my friends are using ketamine. I've tried it a few times but didn't see what the big deal was.

**Table 35. Acceptability of using gamma-hydroxybutyrate (GHB) among gay friends**



*Note: only includes participants who answered the question*

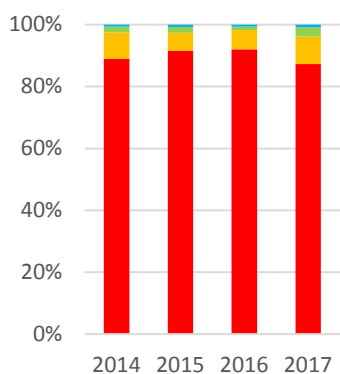
	N=648	N=1,666	N=1,115	N=1,715
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	7.1%	6.6%	6.7%	8.8%
Somewhat	12.5%	10.7%	13.6%	17.0%
Slightly	22.3%	20.0%	22.3%	20.8%
Not at all	58.1%	62.7%	57.5%	53.3%

Over half of the men in Flux believed it is not at all acceptable among their gay friends to use GHB, but about one in five believed it is somewhat or very acceptable. This has remained fairly stable over time.

I met a couple of guys I that I felt safe enough with to experiment with G. They were extremely meticulous in their usage and administration of it and held each other to a very strict standard of how often to take it (literally using stopwatch functions on their phones) and keeping each other from drinking alcohol when on it.



**Table 36. Acceptability of using heroin among gay friends**



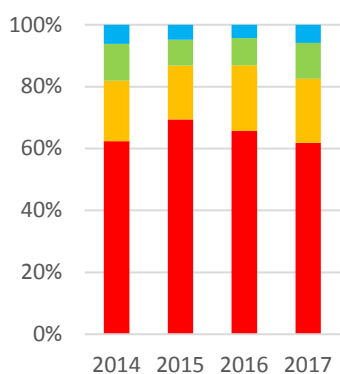
*Note: only includes participants who answered the question*

	N=640	N=1,665	N=1,115	N=1,710
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	0.6%	0.7%	0.6%	0.8%
Somewhat	1.9%	1.9%	1.2%	3.0%
Slightly	8.6%	5.8%	6.2%	8.9%
Not at all	88.9%	91.7%	92.0%	87.3%

Few men believed that it is even slightly acceptable among their gay friends to use heroin. This perception has remained stable over time.

Heroin is way too hardcore for me. No thanks!

**Table 37. Acceptability of using crystal methamphetamine among gay friends**



*Note: only includes participants who answered the question*

	N=647	N=1,670	N=1,117	N=1,724
<b>Acceptability</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Very	6.2%	4.8%	4.3%	5.9%
Somewhat	11.9%	8.4%	8.8%	11.6%
Slightly	19.5%	17.4%	21.2%	20.6%
Not at all	62.4%	69.3%	65.7%	61.9%

About two-thirds of the men in Flux believed that it is not at all acceptable among their gay friends to use crystal methamphetamine, but up to one in six believed it is somewhat or very acceptable among their friends. This perception has changed little over time.

The potential for abuse is high. While some will have no problem trying it or using it semi-frequently, I think a higher proportion of people are susceptible to pushing it a bit too far. It's not a drug I would suggest to anyone, and this is due to my own analysis of my use. While I've had no issues, I can recognize the potential for abuse.

## Illicit Drug Use

Men were asked to reflect on theirs or their friends drug use.

The difficulty with drugs is that people can become addicted and therefore unable to control their use and spend too much time escaping reality and the responsibilities of their social and working lives. In worst case scenarios they might resort to crime in order to pay for their drug habit, neglect their health, or become violent and endanger others.

Society tends to want to make people conform to very rigid notions of proper, correct behaviours and ways of thinking. The use of mood-changing or mind-altering substances can shake people out of that mind-numbing conformity, if only for a short while, and I believe that is a good thing.

If the situation is spontaneous, say you're at a kind of boring party and someone offers you a fat line of coke, it can be super fun! Drugs can remove inhibitions, and you can feel really in the moment, not worrying about the past or the future. I've had really fun adventures on drugs, they can make the mundane seem interesting.

Drugs can easily turn into something you depend on and, now that I'm getting older, coping with the comedown is harder to handle. Also, they set back my fitness goals substantially.

## Illicit Drug Use

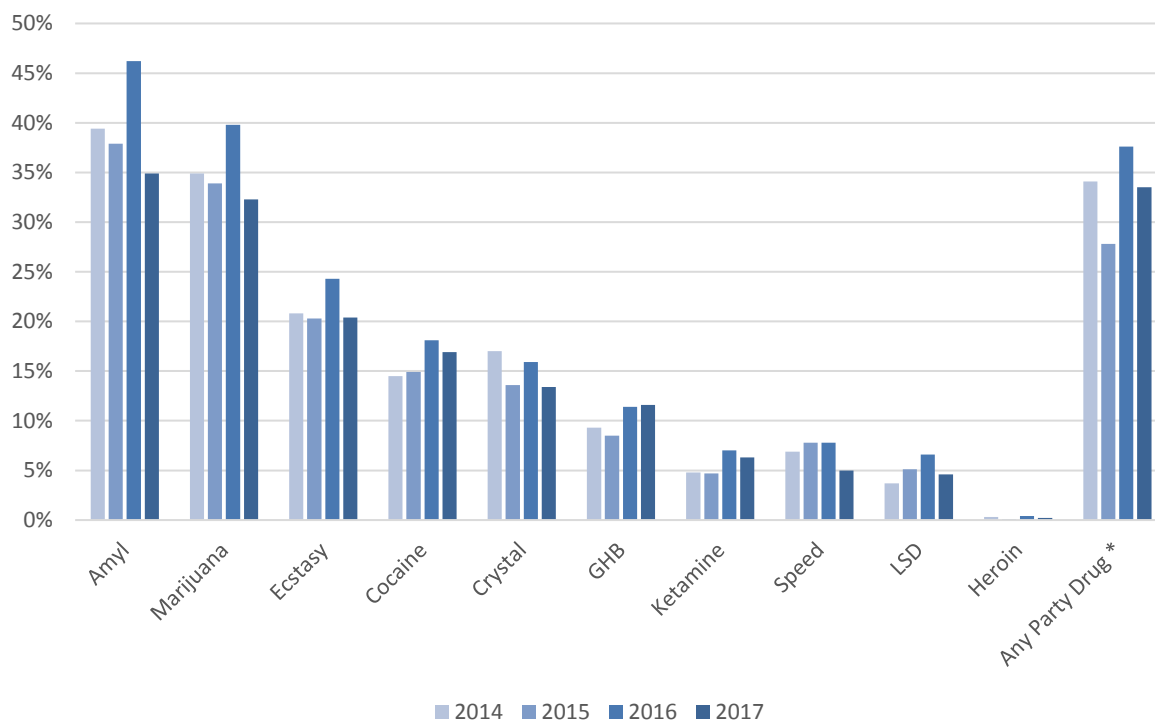
The most commonly used drugs in the six months prior to each survey round were amyl nitrite followed by cannabis, with approximately one-third of men reporting recent use. One-fifth reported recent use of ecstasy. About one in seven had recently used cocaine and similar proportions had used crystal methamphetamine. One in ten had recently used GHB. Less than 1% had used heroin in the six months prior to survey. About a third had used at least one of either ecstasy, speed, cocaine, crystal methamphetamine, GHB, ketamine, or lysergic acid diethylamide (LSD). There was little change in the proportions who had used each type of drug over time.

**Table 38. Recent use of illicit drugs**

	N=753 2014	N=1,900 2015	N=1,158 2016	N=1,995 2017
Amyl Nitrite	39.4%	37.9%	46.2%	34.9%
Cannabis	34.9%	33.9%	39.8%	32.3%
Ecstasy	20.8%	20.3%	24.3%	20.4%
Cocaine	14.5%	14.9%	18.1%	16.9%
Crystal methamphetamine	17.0%	13.6%	15.9%	13.4%
GHB	9.3%	8.5%	11.4%	11.6%
Ketamine	4.8%	4.7%	7.0%	6.3%
Speed	6.9%	7.8%	7.8%	5.0%
LSD	3.7%	5.1%	6.6%	4.6%
Heroin	0.3%	0.1%	0.4%	0.2%
Any party drug *	34.1%	27.8%	37.6%	33.5%

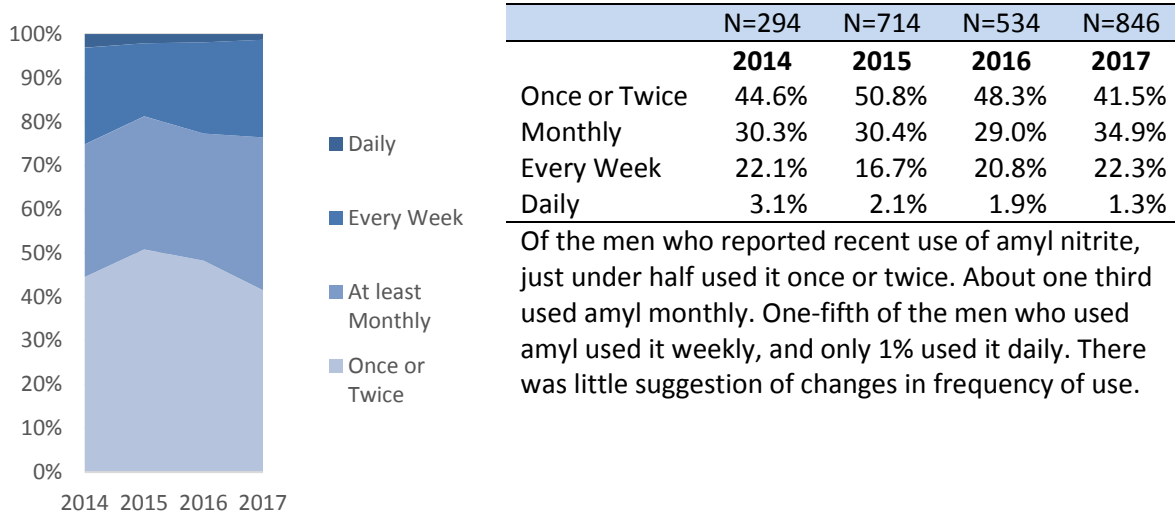
\* *ecstasy, speed, cocaine, crystal, GHB, ketamine, LSD.*

**Figure 12. Proportion of men who use illicit drugs**



\* *ecstasy, speed, cocaine, crystal, GHB, ketamine, LSD.*

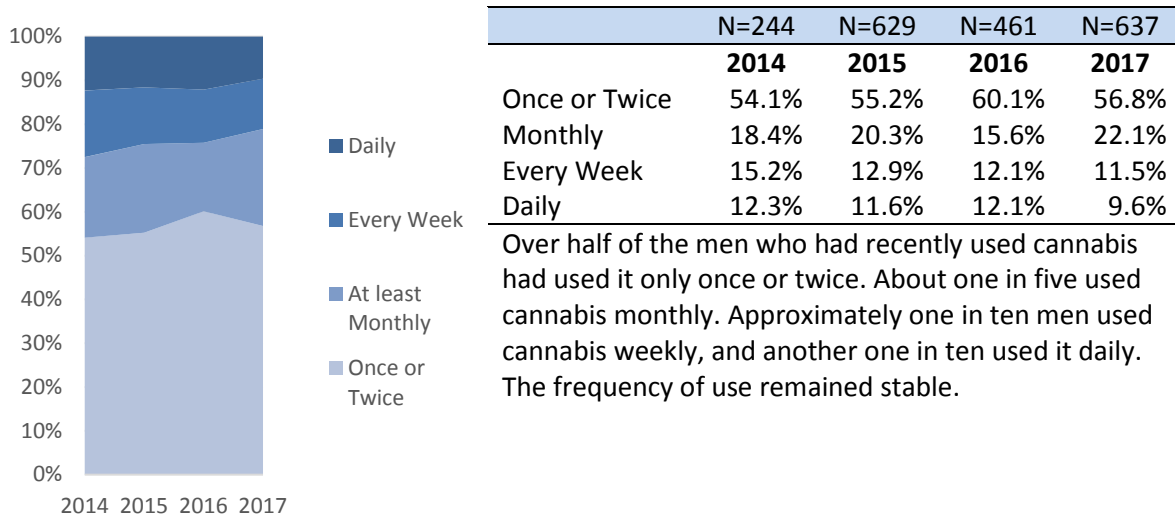
**Table 39. Frequency of use among men who used amyl nitrite**



Of the men who reported recent use of amyl nitrite, just under half used it once or twice. About one third used amyl monthly. One-fifth of the men who used amyl used it weekly, and only 1% used it daily. There was little suggestion of changes in frequency of use.

*Note: Only includes participants who reported recent use of amyl and answered the question.*

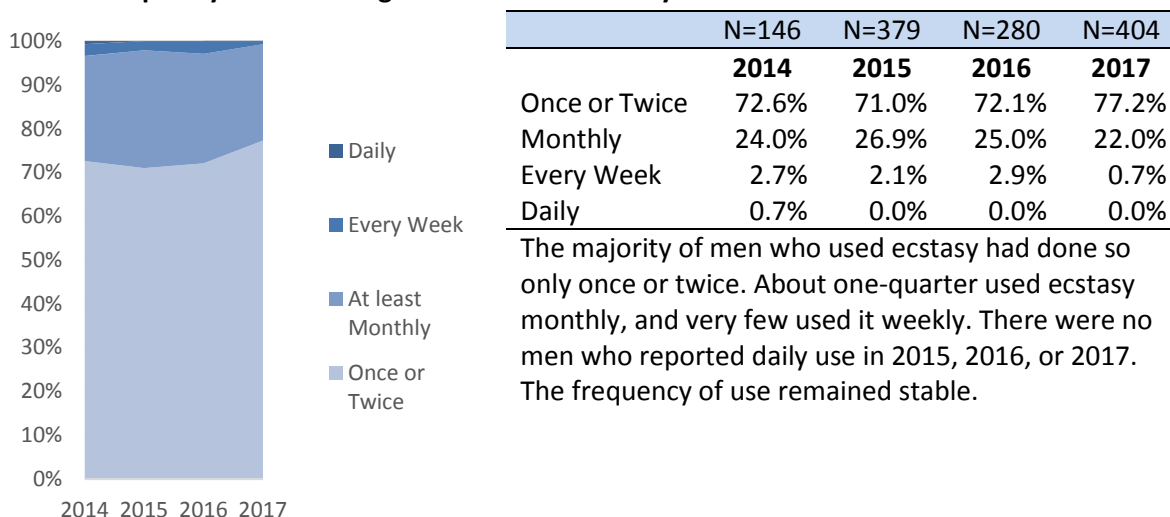
**Table 40. Frequency of use among men who used cannabis**



Over half of the men who had recently used cannabis had used it only once or twice. About one in five used cannabis monthly. Approximately one in ten men used cannabis weekly, and another one in ten used it daily. The frequency of use remained stable.

*Note: Only includes participants who reported recent use of cannabis and answered the question.*

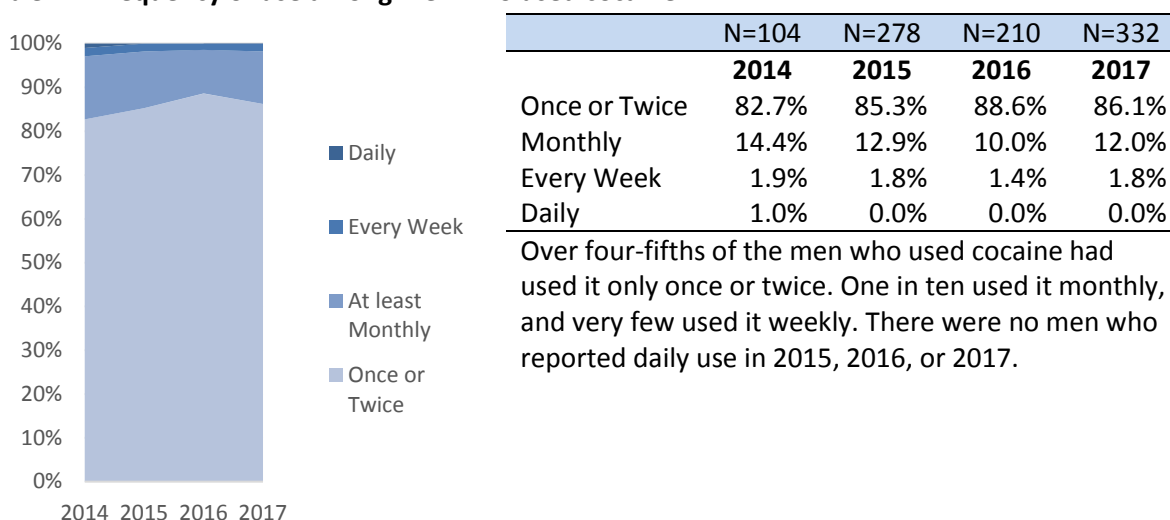
**Table 41. Frequency of use among men who used ecstasy**



The majority of men who used ecstasy had done so only once or twice. About one-quarter used ecstasy monthly, and very few used it weekly. There were no men who reported daily use in 2015, 2016, or 2017. The frequency of use remained stable.

*Note: Only includes participants who reported recent use of ecstasy and answered the question.*

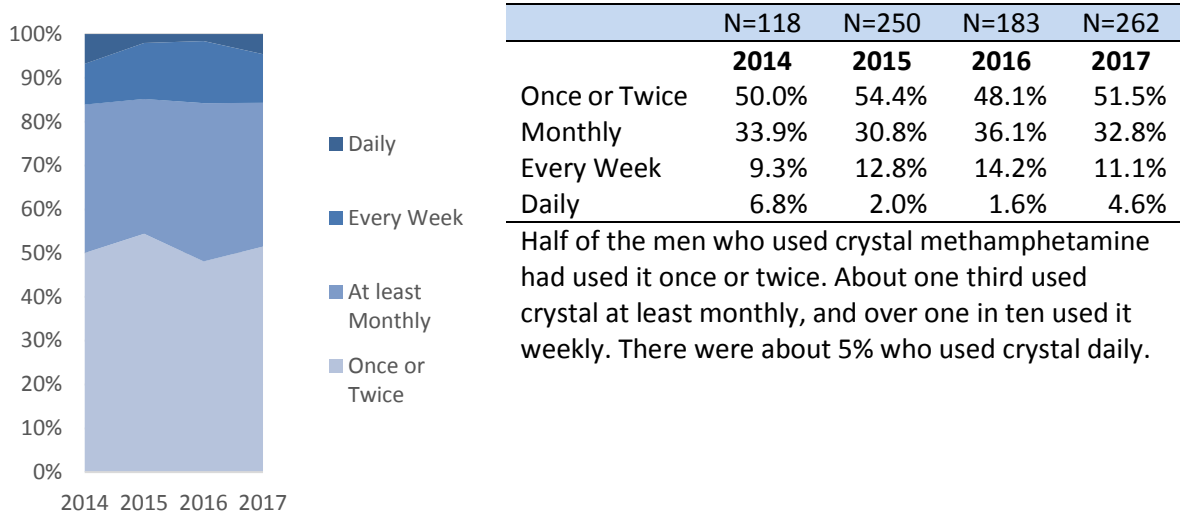
**Table 42. Frequency of use among men who used cocaine**



Over four-fifths of the men who used cocaine had used it only once or twice. One in ten used it monthly, and very few used it weekly. There were no men who reported daily use in 2015, 2016, or 2017.

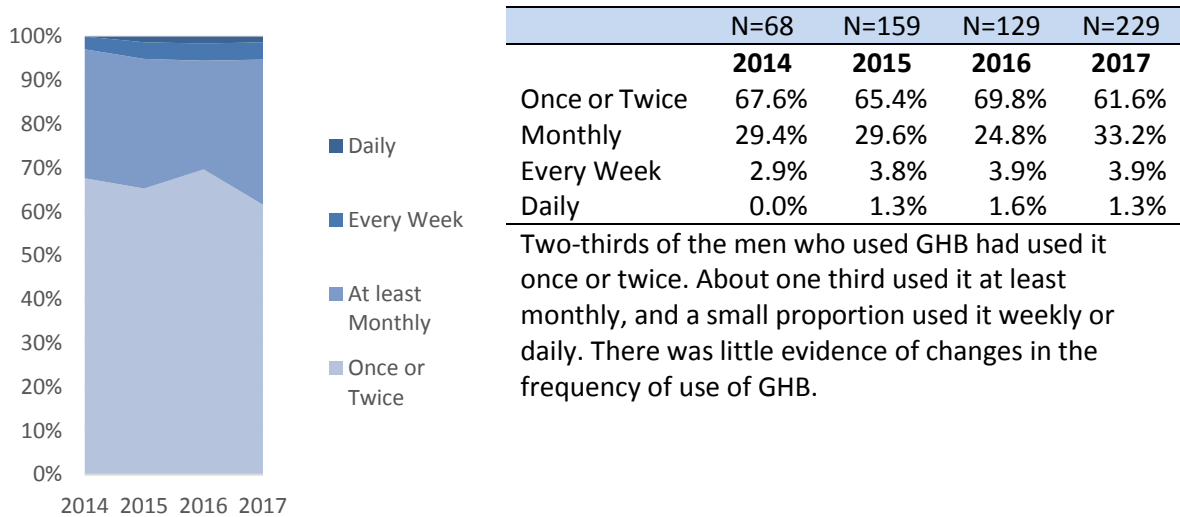
*Note: Only includes participants who reported recent use of cocaine and answered the question.*

**Table 43. Frequency of use among men who used crystal methamphetamine**



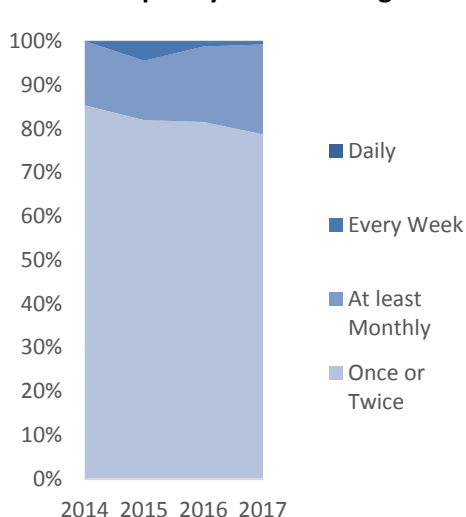
*Note: Only includes participants who reported recent use of crystal and answered the question.*

**Table 44. Frequency of use among men who used GHB**



*Note: Only includes participants who reported recent use of GHB and answered the question.*

**Table 45. Frequency of use among men who used ketamine**

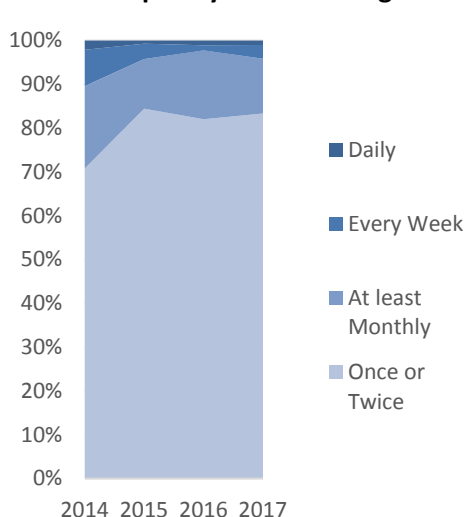


	N=34	N=87	N=81	N=122
	2014	2015	2016	2017
Once or Twice	85.3%	62.2%	81.5%	78.7%
Monthly	14.7%	10.3%	17.3%	20.5%
Every Week	0.0%	3.4%	1.2%	0.8%
Daily	0.0%	0.0%	0.0%	0.0%

The majority of men who used ketamine had used it only once or twice. About one in five men used it at least monthly. There was a small number of men who used ketamine weekly, and no men reported daily use. There was some suggestion of changes in the frequency of use of ketamine over time.

*Note: Only includes participants who reported recent use of ketamine and answered the question.*

**Table 46. Frequency of use among men who used speed**

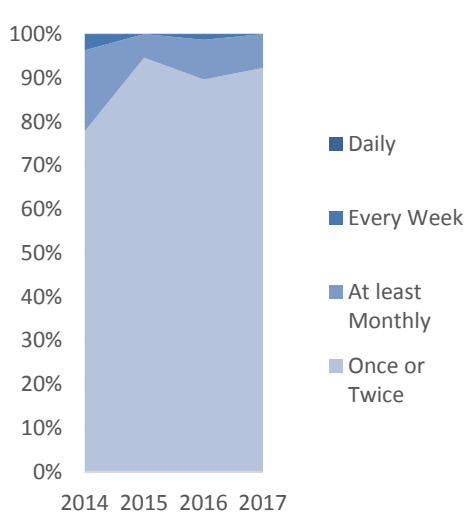


	N=48	N=141	N=89	N=96
	2014	2015	2016	2017
Once or Twice	70.8%	84.4%	82.0%	83.3%
Monthly	18.8%	11.3%	15.7%	12.5%
Every Week	8.3%	3.5%	1.1%	3.1%
Daily	2.1%	0.7%	1.1%	1.0%

Most of the men who had recently used speed had used it once or twice. About one in ten of men had used it at least monthly. There was a small proportion of men who used speed weekly, and an even smaller proportion who used it daily. There was some suggestion of a decrease in the frequency of use of speed over time.

*Note: Only includes participants who reported recent use of speed and answered the question.*

**Table 47. Frequency of use among men who used LSD**

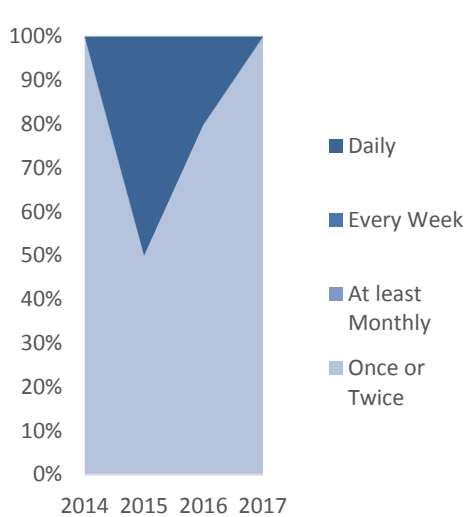


	N=27	N=92	N=77	N=91
	2014	2015	2016	2017
Once or Twice	77.8%	94.6%	89.6%	92.3%
Monthly	18.5%	5.4%	9.1%	7.7%
Every Week	3.7%	0.0%	1.3%	0.0%
Daily	0.0%	0.0%	0.0%	0.0%

Nearly all of the men who used LSD had used it only once or twice. Less than 10% of men used it at least monthly, and there were no men in 2017 who reported weekly or daily use. There was little change in the frequency of use over time.

*Note: Only includes participants who reported recent use of LSD and answered the question.*

**Table 48. Frequency of use among men who used heroin**



	N=1	N=2	N=5	N=3
	2014	2015	2016	2017
Once or Twice	100%	50%	80%	100%
Monthly	0.0%	0.0%	0.0%	0.0%
Every Week	0.0%	0.0%	0.0%	0.0%
Daily	0.0%	50%	20%	0.0%

There were only a few men in all of Flux who had recently used heroin. The frequency of their use varied between seldomly to daily. The number of men who used heroin was too small for meaningful detailed analysis.

*Note: Only includes participants who reported recent use of heroin and answered the question.*



## Sex and Drugs

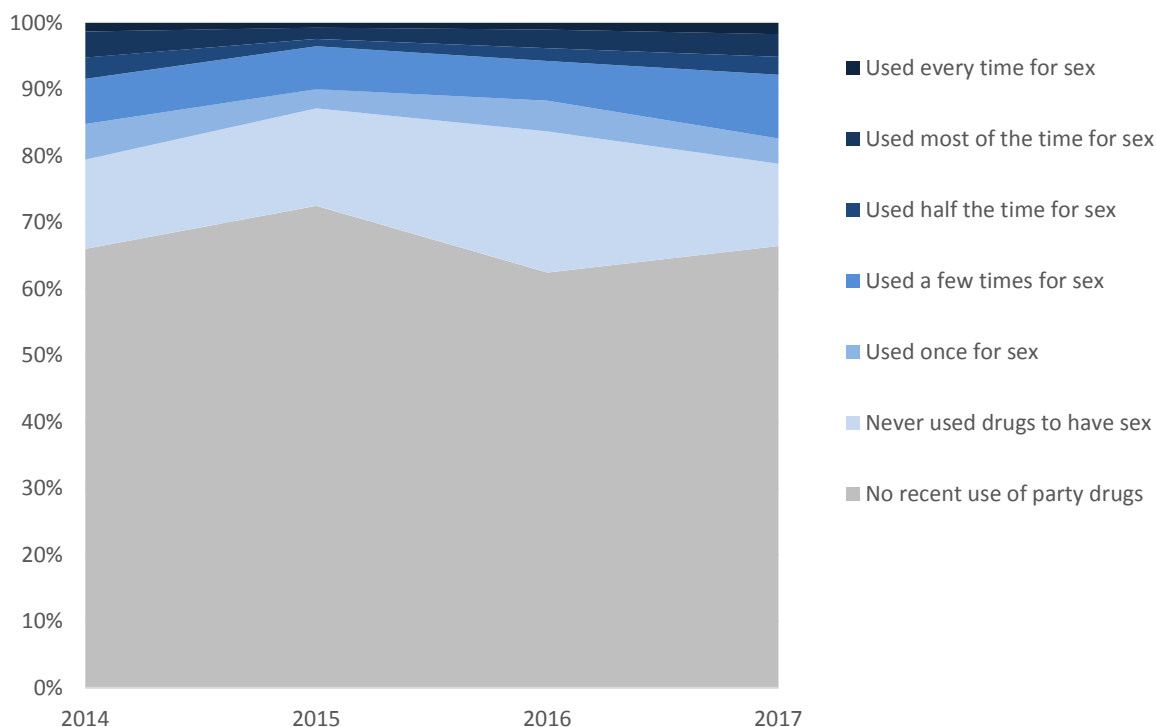
About half of the men who had used party drugs (ecstasy, speed, cocaine, crystal, GHB, ketamine, LSD) also indicated having used drugs to enhance sex. The majority of the men who used party drugs for sex did so “a few times.” Very few men had sex every time they used drugs.

**Table 49. Use of party drugs to have sex**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No recent use of party drugs	65.9%	72.2%	62.4%	66.5%
Never used drugs to have sex	13.4%	14.6%	21.2%	12.4%
Used once for sex	5.3%	2.9%	4.6%	3.8%
Used a few times for sex	6.8%	6.4%	6.0%	9.6%
Used half the time for sex	3.2%	1.1%	1.9%	2.7%
Used most of the time for sex	3.9%	1.7%	2.8%	3.4%
Used every time for sex	1.3%	0.7%	1.0%	1.7%
No data	0.3%	0.4%	0.0%	0.1%

Drugs give me enjoyable experiences in a group or couple situation, either for sex or while out partying. They are relaxing, and I feel uninhibited.

**Figure 13. Proportion of men who use party drugs to have sex**



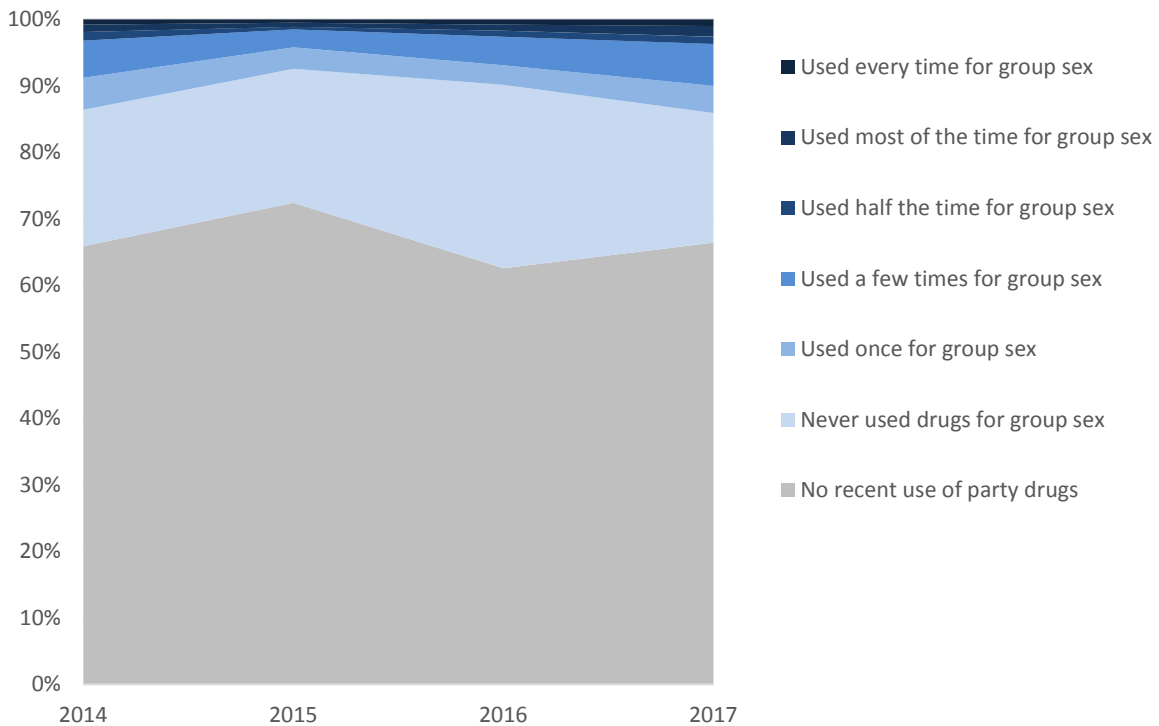
**Group Sex and Drugs**

Of the men who used drugs, less than one third had ever had group sex while using party drugs (ecstasy, speed, cocaine, crystal, GHB, special K, LSD). The majority of the men who engaged in group sex while using party drugs did so only once or a few times. There was a very small number of men who had group sex most or every time they used party drugs.

**Table 50. Group sex after or while using party drugs**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No recent use of party drugs	65.9%	72.2%	62.4%	66.5%
Never used drugs for group sex	20.5%	20.1%	27.5%	19.5%
Used once for group sex	4.8%	3.2%	2.9%	4.1%
Used a few times for group sex	5.6%	2.7%	4.3%	6.3%
Used half the time for group sex	1.3%	0.4%	0.9%	1.1%
Used most of the time for group sex	1.1%	0.6%	0.9%	1.6%
Used every time for group sex	0.8%	0.5%	0.8%	1.0%
No data	0.1%	0.5%	0.3%	0.1%

**Figure 14. Proportion of men who have group sex while using party drugs**



## Obtaining Drugs

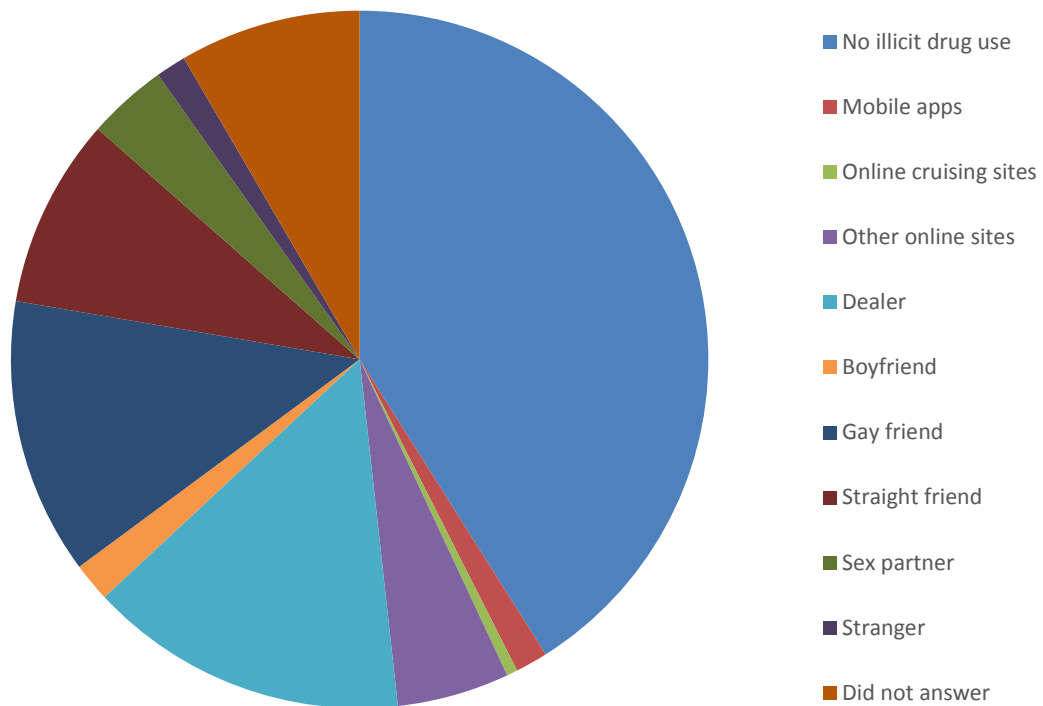
The largest proportion of men obtained their illicit drugs through drug dealers, followed by their gay friends, then by straight friends.

**Table 51. Primary method of obtaining illicit drugs (2017)**

	N=1,995
No illicit drug use	41.0%
Dealer	14.8%
Gay friend	12.8%
Straight friend	8.8%
Other online sites	5.2%
Sex partner	3.7%
Boyfriend	1.8%
Mobile apps	1.5%
Stranger	1.4%
Online cruising sites	0.5%
Did not answer	8.5%

*Note: Only includes men who had used any drug in the previous six months*

**Figure 15 Primary method of obtaining illicit drugs (2017)**



## Reasons for drug use

The questions asked regarding reasons for using drugs were changed between 2016 and 2017.

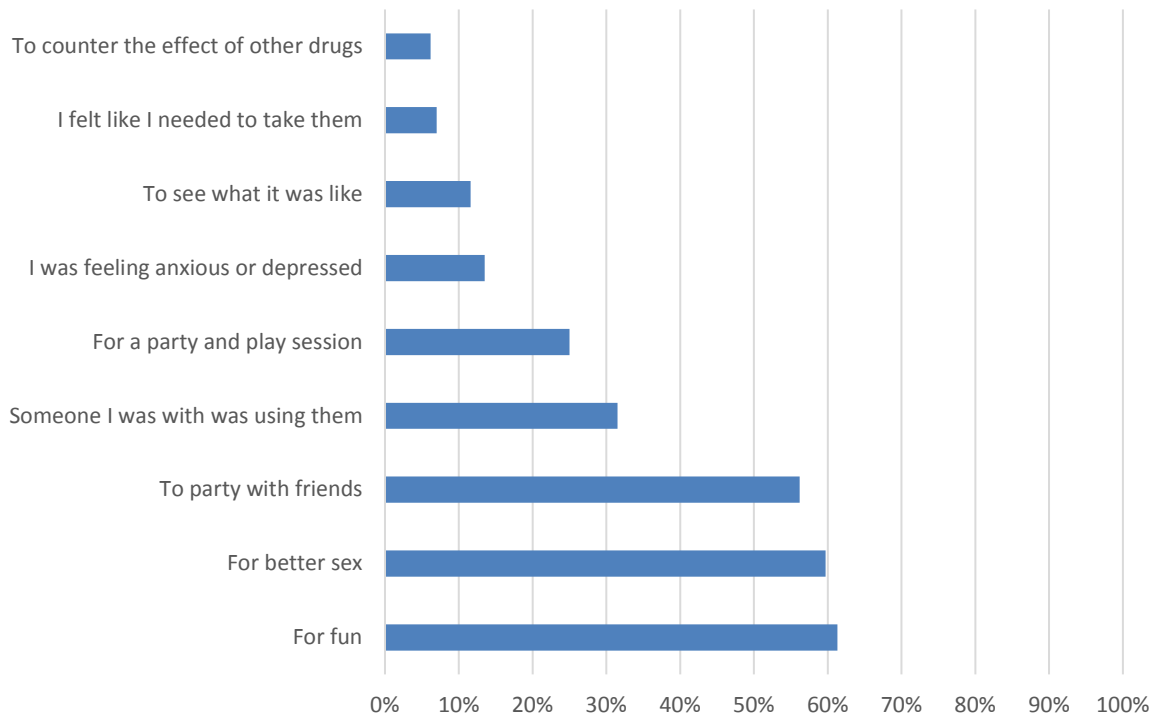
In 2017, the three most commonly reported reasons for using any type of illicit drugs were to party with friends, for fun, and for better sex. 7.0% of men took illicit drugs because they felt they needed them and 6.2% to counter the effects of other drugs. 13.5% of men who used illicit drugs reported taking them because they were depressed. One in four men reported taking illicit drugs for a ‘party and play’ session.

**Table 52. Reason for using any illicit drugs in the previous six months (2017)**

	N=1,177
For fun	61.3%
For better sex	59.7%
To party with friends	56.2%
Someone I was with was using them	31.5%
For a party and play session	25.0%
I was feeling anxious or depressed	13.5%
To see what it was like	11.6%
I felt like I needed to take them	7.0%
To counter the effect of other drugs	6.2%

*Note: Only includes men who had used illicit drugs in the previous six months (including amyl).*

**Figure 16. Reason for using any illicit drugs in the previous six months (2017)**



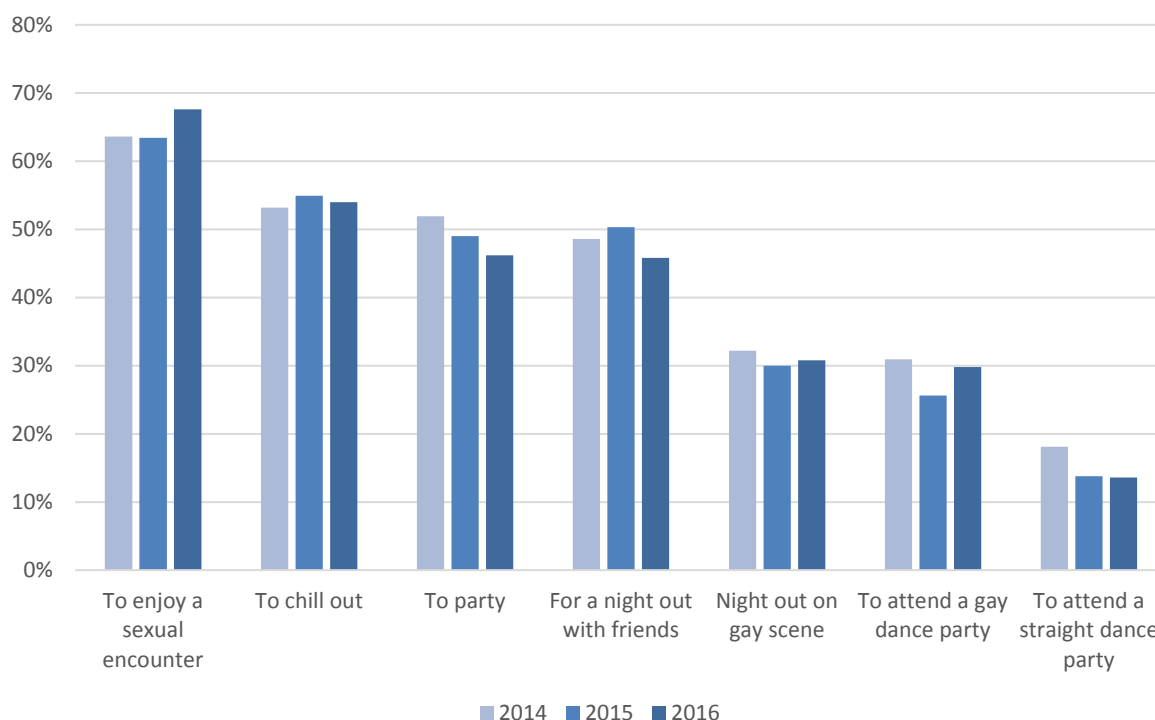
The majority of men who used illicit drugs reported having used them to enjoy a sexual encounter. About half used illicit drugs to chill out, to have a night out with friends, and to party. About one third used illicit drugs to attend gay dance parties or to have a night out on the gay scene. A smaller proportion of men used illicit drugs to attend straight dance parties. There was little evidence of changes in the reasons for using drugs over the years.

**Table 53. Reason for using any illicit drugs (2014 – 2016)**

	N=459	N=1,056	N=744
	2014	2015	2016
To enjoy a sexual encounter	63.6%	63.4%	67.6%
To chill out	53.2%	54.9%	54.0%
To party	51.9%	49.0%	46.2%
For a night out with friends	48.6%	50.3%	45.8%
Night out on gay scene	32.2%	30.0%	30.8%
To attend a gay dance party	30.9%	25.6%	29.8%
To attend a straight dance party	18.1%	13.8%	13.6%

*Note: Only includes men who had used illicit drugs in the previous six months (including amyl).*

**Figure 17. Reason for using any illicit drugs (2014 - 2016)**



### Crystal Methamphetamine

The most common reason for using crystal methamphetamine in 2017 was for party and play sessions (PnP), which is using illicit drugs to enhance sex. Using crystal methamphetamine for 'better sex' was the second more frequent response. There were smaller groups of men who used crystal methamphetamine for fun or to party with friends. Few men used crystal to counter the effects of other drugs, or because they were curious. Approximately one in ten men who used crystal did so because they felt as though they 'needed' to take it.

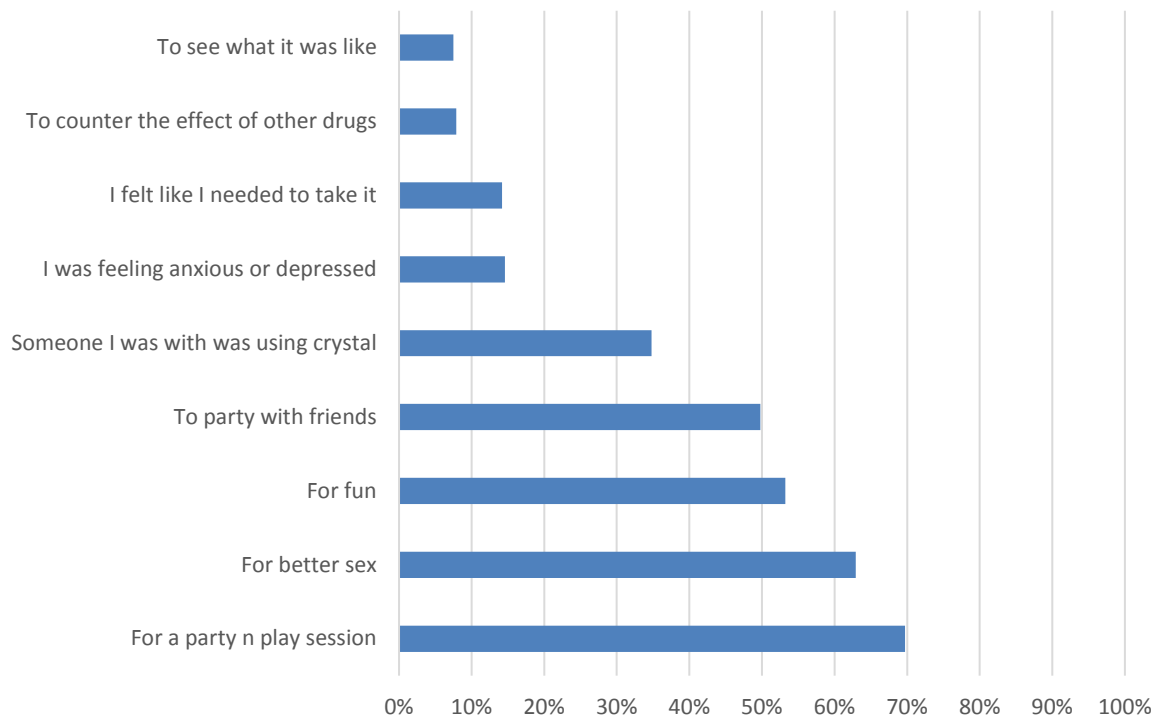
**Table 54. Reason for using crystal methamphetamine (2017)**

	n (%)
	N=267
For a party n play session	69.7%
For better sex	62.9%
For fun	53.2%
To party with friends	49.8%
Someone I was with was using crystal	34.8%
I was feeling anxious or depressed	14.6%
I felt like I needed to take it	14.2%
To counter the effect of other drugs	7.9%
To see what it was like	7.5%

*Note: Only includes men who had crystal methamphetamine in the previous six months.*

The stigma around meth use, such as 'ice epidemics', makes getting support and discussing use harder - therefore increasing the risk of the drug. It is a drug which is in my opinion, easier to develop dependence or abuse, than others.

**Figure 18. Reason for using crystal (2017)**



**Gamma-hydroxybutyrate (GHB)**

The most common reasons for using GHB in 2017 were for ‘better sex’, to party with friends, for a ‘party and play’ session, and for fun. Approximately one in four men took GHB because someone they were with was using it. Very few men reported using GHB because they were anxious or depressed, felt like they ‘needed’ to take it, or out of curiosity.

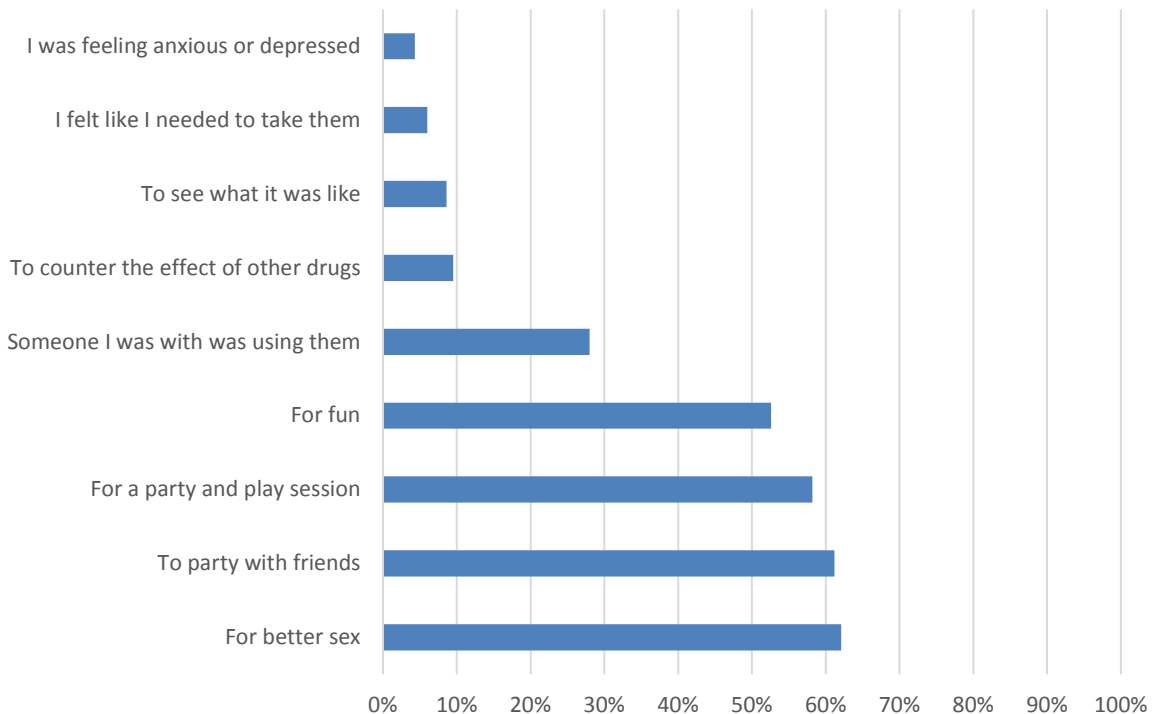
**Table 55. Reason for using GHB (2017)**

	n (%)
	N=232
For better sex	62.1%
To party with friends	61.2%
For a party and play session	58.2%
For fun	52.6%
Someone I was with was using them	28.0%
To counter the effect of other drugs	9.5%
To see what it was like	8.6%
I felt like I needed to take them	6.0%
I was feeling anxious or depressed	4.3%

*Note: Only includes men who had GHB in the previous six months.*

I definitely am more uninhibited and wild when I’m on G. It’s fun, but I do tend to go a bit crazy on it.

**Figure 19. Reason for using GHB (2017)**





## Injecting drug use

Men were asked how they keep themselves and others safe when injecting drugs.

I use only my own equipment, from needle dispensing machines. Never share. Never re-use.

I make up my rigs before I party, so the dosage is correct. I never share needles and always dispose of my needles safely.

When I'm using I don't really care at all about my own safety, the sex is pretty abusive of me and the drugs pretty well always trigger psychosis. I guess the only way I look after myself is pull up faster now because it is so painful.

Unfortunately, I don't keep myself safe. I can't inject myself, so I let others (usually strangers) administer it for me. I've had several instances where I've been so off my face I'm not in control. I usually have sex with multiple people at parties and regret it afterwards.

Insecurities within myself made it hard for me to have the sex I wanted while I was sober. The drugs provided me with a way to completely live out my sexual fantasies and never feel bad or uncomfortable about them.

I started blasting as I realised I had a serious problem with the amount of crystal I was using, up to a gram a day. In talking with my friends, several recommended I try blasting as a way to cut down my usage. After a few people told me this, I thought I'd give it a try. My usage dramatically decreased; I was sleeping more and felt less craving for the drug.

**Injecting Drug Use**

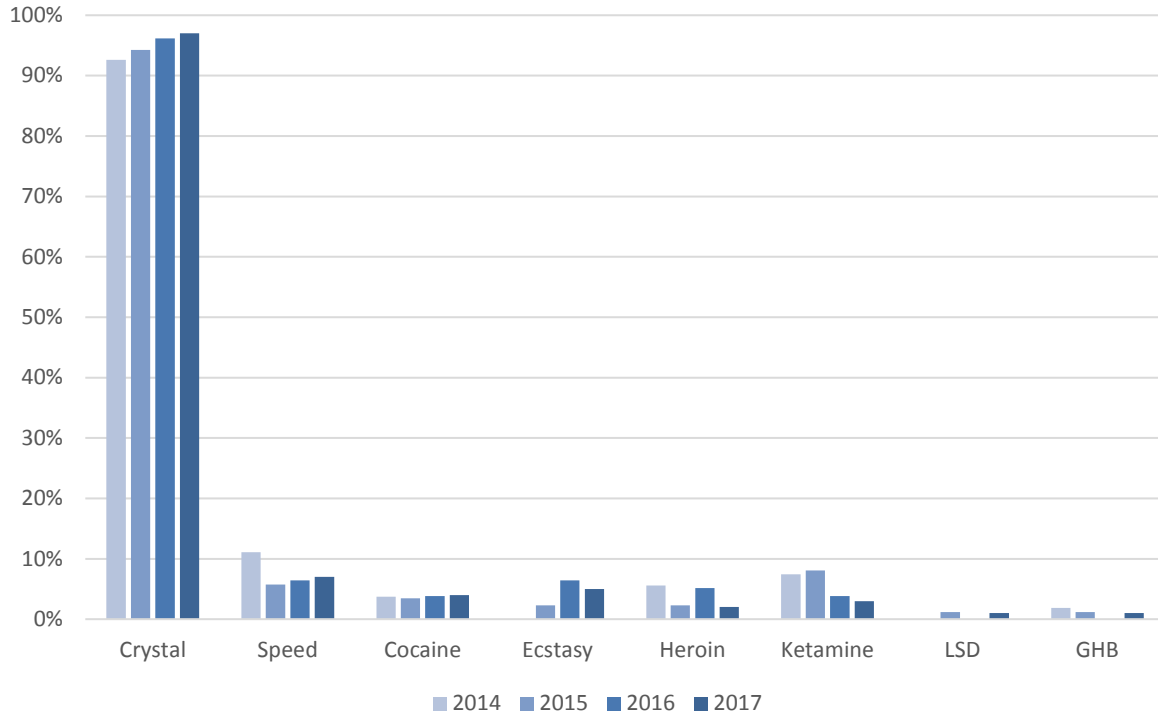
Approximately one in twenty men in Flux had injected an illicit drug in the past six months. Crystal methamphetamine was the most common type of drug injected, followed by speed, ketamine, and cocaine. A very small proportion had injected heroin or ecstasy. There has been little change over time in the proportions and types of drugs injected.

Of the 100 men who reported recent injecting in 2017, 45 were HIV negative and taking PrEP, 17 were HIV negative or untested and not taking PrEP, 34 were HIV positive on treatment, and 4 were HIV positive and not on treatment.

**Table 56. Recent Injecting drug use in the previous six months**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No recent injecting history	92.8%	95.4%	93.3%	95.0%
Any drug (listed below)	7.2%	4.6%	6.7%	5.0%
Crystal	6.6%	4.3%	6.5%	4.9%
Speed	0.8%	0.3%	0.4%	0.4%
Cocaine	0.3%	0.2%	0.3%	0.2%
Ecstasy	0.0%	0.1%	0.4%	0.3%
Heroin	0.4%	0.1%	0.3%	0.1%
Ketamine	0.5%	0.4%	0.3%	0.2%
LSD	0.0%	0.1%	0.0%	0.1%
GHB	0.1%	0.1%	0.0%	0.1%

**Figure 20. Type of illicit drug injected among men who reported recent injecting drug use**



Previously, I was having sex with partners who didn't inject, and because I don't inject myself, I just took drugs the way they did (smoke or snort). However, I have had a few hook-ups with a guy who injects, so he's happy to inject me.

I am not, nor have I ever been a REGULAR injector. Yes, I have on occasion injected. It's all about a time and a place... I am sure if you had experienced it, you would understand.

I inject to mentally escape.

I was introduced to injecting by a sexual partner during a time when I was unemployed and depressed.

I was acting out and being rebellious after the breakdown of a friendship and turned to injecting.

I've never done it before and everyone I was playing with were blasting so I thought I'd give it a try. One of the guys in the group is a nurse and knew what he was doing and used clean syringes and needles for everyone.

### Sharing Injecting Equipment

There has been an increasing proportion of shared injecting equipment among men who had recently injected illicit drugs. In 2014, 5.6% of men who reported recent injecting had shared needles or syringes. In 2017, the number was 12.0%. About half of the men who reported recent injecting reported always sterilizing the needle before they used it.

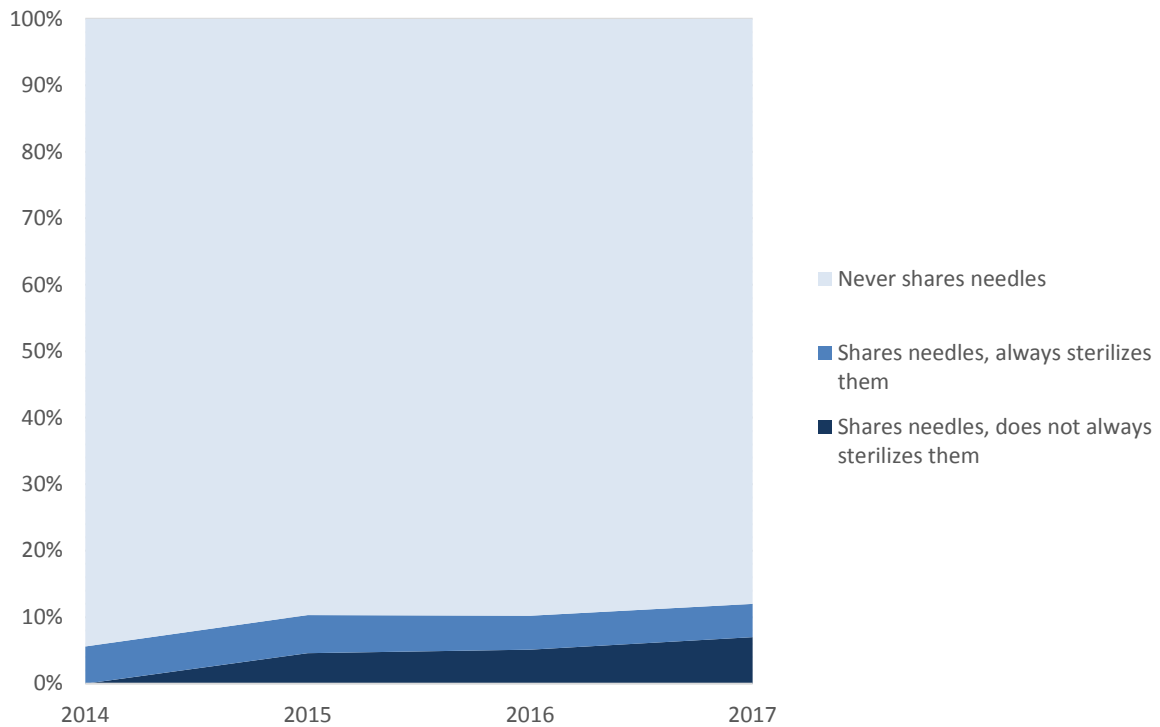
Of the 100 men who reported recent injecting in 2017, 12 said they have shared needles at least once. Of the 12 men who reported sharing needles, six were HIV negative and taking PrEP, and the other six were HIV positive and on treatment; of those six HIV positive men on treatment, five reported having an undetectable viral load, while one reported having a detectable viral load.

**Table 57. Sharing injecting equipment in the previous six months**

	N=54	N=87	N=78	N=100
	2014	2015	2016	2017
Never shared needles	94.4%	89.7%	89.7%	88.0%
Have shared, always sterilized	5.6%	5.7%	5.1%	5.0%
Have shared, not always sterilized	0.0%	4.6%	5.1%	7.0%

*Note: Only includes men who had injected illicit drugs in the previous six months*

**Figure 21. Proportion of men who share injecting equipment among men who inject**



*Note: Only includes men who had injected illicit drugs in the previous six months*

About half of the men who injected illicit drugs in the previous six months obtained their needles or syringes through a Needle and Syringe Program (NSP). One-third obtained their injecting equipment from NSP vending machines, a community pharmacy, or through their sex partners. About one quarter obtained their needles from their dealers, and a small proportion obtained them through hospitals, outreach programs, or their doctor. No men reported getting their needles from strangers or their partner.

**Table 58. How obtained injecting equipment in the previous six months (2017)**

	N=100
Needle and syringe program (NSP)	45.0%
Sex partners	39.0%
NSP vending machine	37.0%
Friends	30.0%
Dealer	28.0%
Hospital	5.0%
Outreach program	3.0%
Chemist/community pharmacy	2.0%
Doctor	2.0%
Strangers	0.0%
Partner	0.0%

*Note: Only includes men who had injected illicit drugs in the previous six months*

### Reasons for Injecting

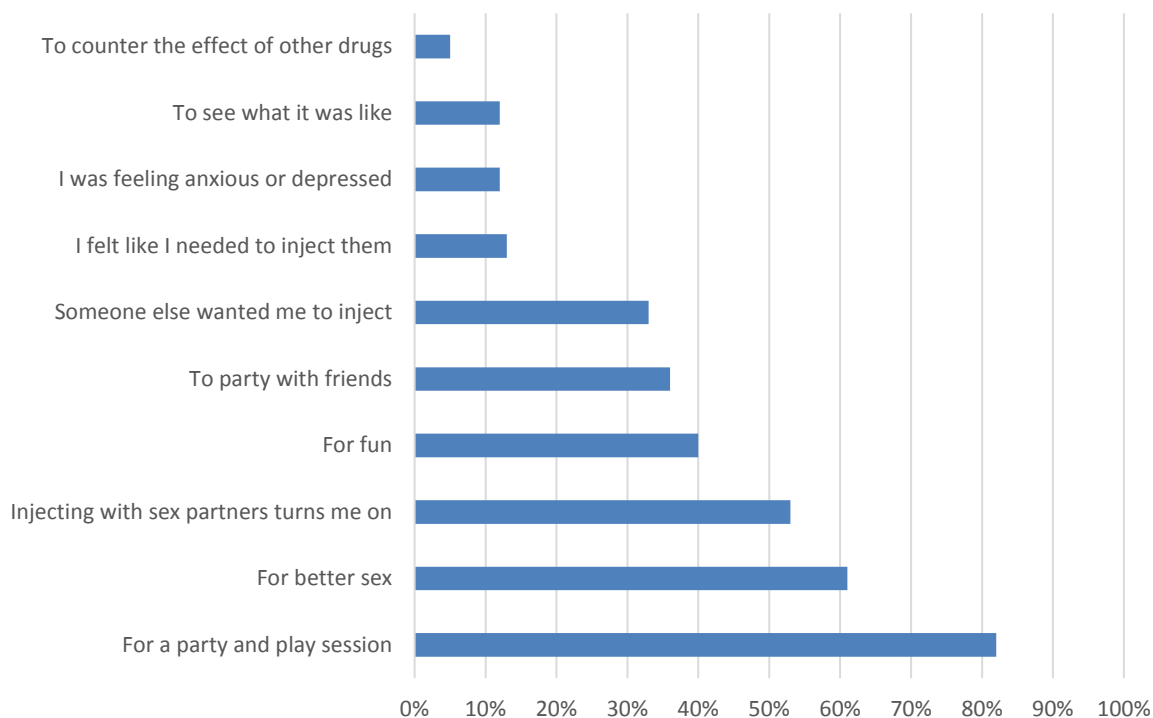
The most commonly reported reason for injecting drugs in 2017 was for a party and play session followed by ‘better sex’ and because injecting with sex partners aroused them. Fun, partying with friends, and the request of others were the reasons for use among just over one in three participants who reported injecting drug use. Curiosity, anxiety, depression, and dependency were the reasons for injecting among approximately one in ten men who recently injected. Only 5% of men with recent injecting history did so to counter the effects of other drugs.

**Table 59. Reason for injecting drugs in the previous six months (2017)**

	N=100
For a party and play session	82.0%
For better sex	61.0%
Injecting with sex partners turns me on	53.0%
For fun	40.0%
To party with friends	36.0%
Someone else wanted me to inject	33.0%
I felt like I needed to inject them	13.0%
I was feeling anxious or depressed	12.0%
To see what it was like	12.0%
To counter the effect of other drugs	5.0%

*Note: Only includes men who had injected illicit drugs in the previous six months.*

**Figure 22. Reason for injecting illicit drugs among men with recent injecting use (2017)**



## Overdose

An overdose was defined as any of: nausea and vomiting, chest pain, tremors, increased body temperature, increased heart rate, extreme anxiety, panic, extreme agitation, hallucinations, excited delirium that are outside your normal drug experience, or where professional assistance would have been helpful.

Approximately one percent of men in Flux have ever overdosed while using crystal methamphetamine; this was roughly one in ten of the men who used crystal. The proportion of men who reported overdosing remained stable across years.

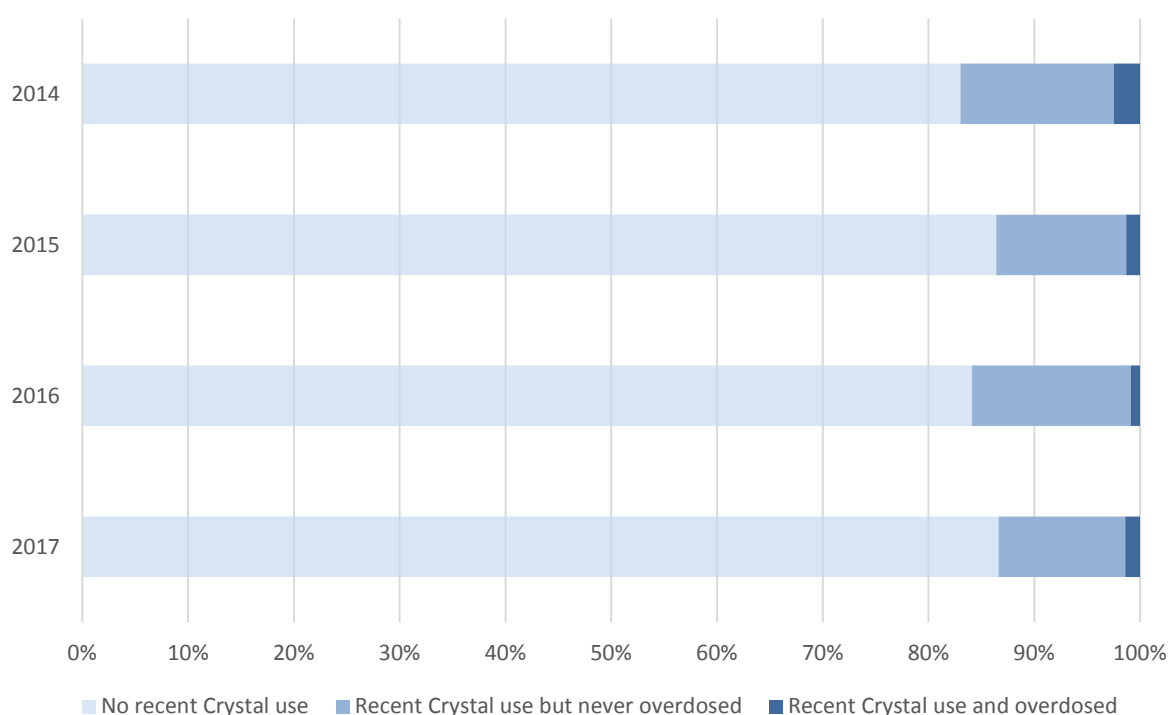
**Table 60. Overdose due to drug use while using crystal methamphetamine**

	N=753	N=1,900	N=1,158	N=1,995
	2014	2015	2016	2017
No recent crystal use	83.0%	86.4%	84.1%	86.6%
Recent crystal use no overdose	14.5%	12.3%	15.0%	12.0%
Recent crystal use and overdosed	2.5%	1.3%	0.9%	1.4%

I have had friends and acquaintances overdose. I've taken too much and gotten ill. It's a risk not worth taking.

You just have to be careful and lookout for your mates.

**Figure 23. Proportion of men who have overdosed while using Crystal Methamphetamine**



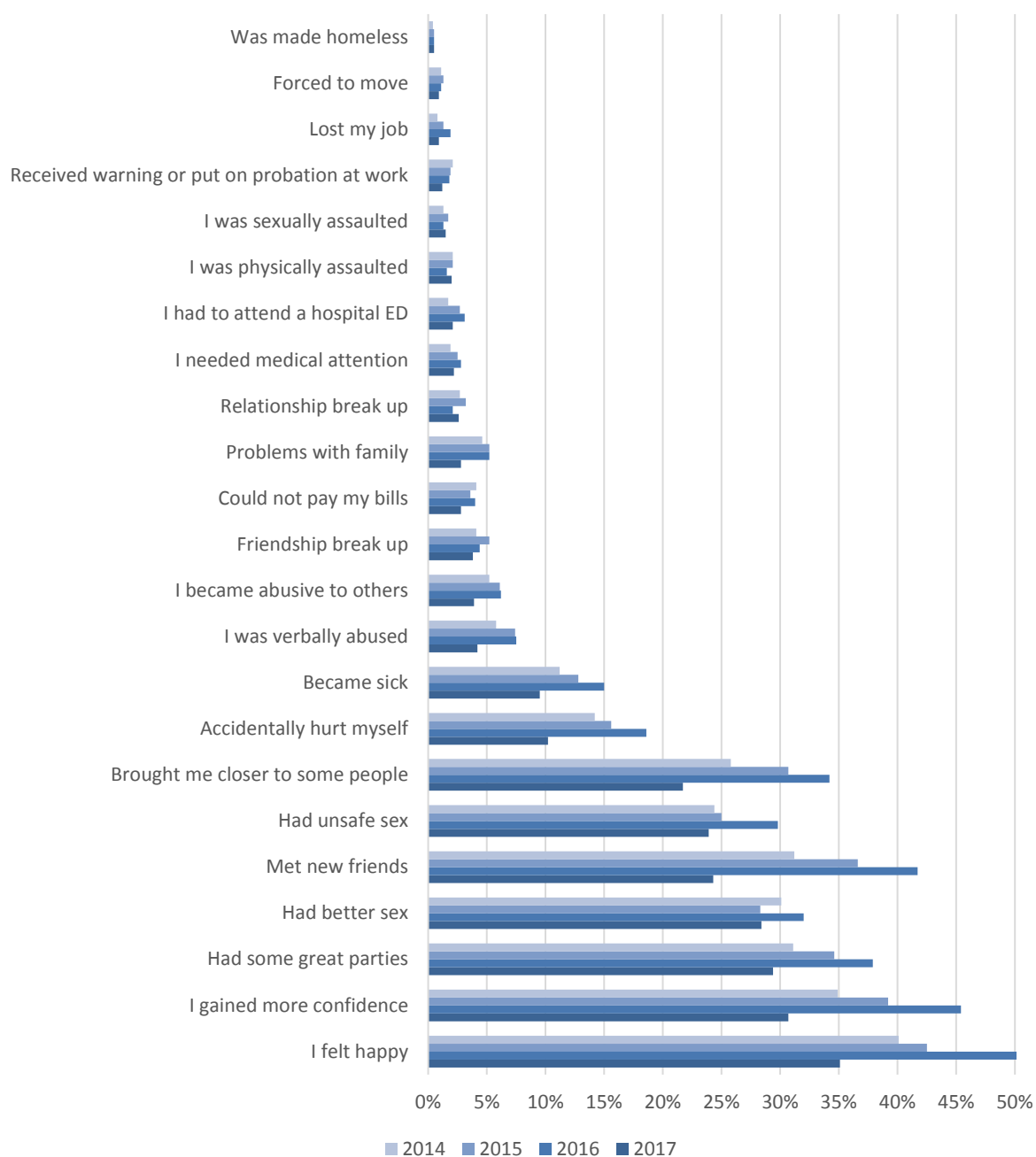
The majority of participants ascribed fairly positive consequences to their alcohol and other use. Feeling happy, gaining more confidence, enjoying parties, and having better sex were the most frequently reported consequences. Approximately one quarter of men reported having “unsafe sex,” or sex without the use of condoms, as a result of their drug or alcohol use. The ascribed consequences of drug use remained relatively stable across years. There were few men who had reported adverse events such as being physical or sexual assaulted, having problems at their workplace or home, or requiring medical attention.

**Table 61. Consequences ascribed to drug or alcohol use in the previous six months**

	n (%) N=753	n (%) N=1,900	n (%) N=1,158	n (%) N=1,995
	2014	2015	2016	2017
I felt happy	40.1%	42.5%	50.5%	35.1%
Gained more confidence	34.9%	39.2%	45.4%	30.7%
Had some great parties	31.1%	34.6%	37.9%	29.4%
Had better sex	30.1%	28.3%	32.0%	28.4%
Met new friends	31.2%	36.6%	41.7%	24.3%
Had unsafe sex	24.4%	25.0%	29.8%	23.9%
Brought me closer to some people	25.8%	30.7%	34.2%	21.7%
Accidentally hurt myself	14.2%	15.6%	18.6%	10.2%
Became sick	11.2%	12.8%	15.0%	9.5%
I was verbally abused	5.8%	7.4%	7.5%	4.2%
I became abusive to others	5.2%	6.1%	6.2%	3.9%
Friendship break up	4.1%	5.2%	4.4%	3.8%
Could not pay my bills	4.1%	3.6%	4.0%	2.8%
Problems with family	4.6%	5.2%	5.2%	2.8%
Relationship break up	2.7%	3.2%	2.1%	2.6%
I needed medical attention	1.9%	2.5%	2.8%	2.2%
I had to attend a hospital ED	1.7%	2.7%	3.1%	2.1%
I was physically assaulted	2.1%	2.1%	1.6%	2.0%
I was sexually assaulted	1.3%	1.7%	1.3%	1.5%
Put on probation at work / warning	2.1%	1.9%	1.8%	1.2%
Lost my job	0.8%	1.3%	1.9%	0.9%
Forced to move	1.1%	1.3%	1.1%	0.9%
Was made homeless	0.4%	0.5%	0.5%	0.5%



**Figure 24. Consequences and harms ascribed to alcohol and other drug use in the previous six months**



Over half of all the men in Flux had experienced others voicing concern about their alcohol or other drug use within the previous six months of completing the survey. Approximately half of men had at one point been concerned about their own usage. The proportions expressing such concerns appear to have increased over time.

**Table 62. Concerns about alcohol or drugs use**

	n (%) N=753	n (%) N=1,900	n (%) N=1,158	n (%) N=1,995
	2014	2015	2016	2017
Self-concerned	39.4%	43.8%	54.8%	51.9%
Others were concerned	50.7%	49.0%	58.7%	63.5%

## Conclusion

The Flux Study sample is similar to other samples of gay and bisexual men in Australia, although slightly younger. As with most samples of Australian gay and bisexual men, most were university educated and in professional employment.

In 2014, about one in seven men reported no recent HIV test (status unknown) within the six months prior to completing the survey. In 2017, however, this proportion reduced to one in ten. Within this sample, the proportion of men who reported PrEP use dramatically increased from less than 1% in 2014 to 29.7% in 2017. The rapid rate of PrEP initiation found in this sample mirrors the increasing prevalence of PrEP use found in Australian behavioural surveillance among gay and bisexual men, coinciding with the roll-out of large-scale PrEP implementation projects throughout Australia. To coincide with this increase, there has been a reduction in consistent condom use during sex with casual partners, fuckbuddies, and boyfriends.

There was a reduction in the proportion of men who smoke tobacco, however, alcohol consumption has remained stable across years. Approximately one-third of men reported recent use of erectile dysfunction medication. About half of the men in Flux who reported recent use of EDM indicated that they took it to stay harder for longer and about as many indicated taking EDM to make it easier to get an erection. Both of these reasons for using EDM appeared to have become more common over time.

Most men continued to have negative perceptions toward drug use within the gay community, although they held less negative views about their own drug use. The most commonly used drugs were amyl nitrite followed by cannabis. About one in seven had recently used cocaine and a similar proportion had used crystal methamphetamine. There was little change in the proportions who had used each type of drug over time. Frequent use of most drugs was not common among the men in Flux, with most use occurring only once or twice in the six months prior to completing the survey.

About half of the men who had used “party drugs” (ecstasy, speed, cocaine, crystal, GHB, ketamine, LSD) also indicated having used drugs to enhance sex. Of the men who used party drugs, less than one third had ever had group sex while using party drugs. The three most commonly reported reasons for using any type of illicit drugs were to party with friends, for fun, and for better sex.

Approximately one in twenty men in Flux had injected an illicit drug in the past six months. About half of the men who injected in the previous six months obtained their needles or syringes through a NSP. Crystal methamphetamine was the most common drug injected. There has been little change over time in the proportions and types of drugs injected.

Approximately one in one hundred men in Flux have ever overdosed while using crystal methamphetamine; this was roughly one in ten of the men who used crystal. The majority of participants ascribed fairly positive consequences to their alcohol and other drug use.

## Publications from the Flux Study

### 2018

Jin F; Hammoud MA; Maher L; Degenhardt L; Bourne A; Lea T; Prestage G, 2018, '**Age-related prevalence and twelve-month incidence of illicit drug use in a cohort of Australian gay and bisexual men: Results from the Flux Study**', *Drug and alcohol dependence*, 188, 175-179.  
<https://doi.org/10.1016/j.drugalcdep.2018.04.009>

Hammoud MA; Vaccher S; Jin F; Bourne A; Haire B; Maher L; Lea T; Prestage G, 2018, '**The new MTV generation: Using methamphetamine, Truvada™ and Viagra™ to enhance sex and stay safe**', *International Journal of Drug Policy*, vol. 55, pp. 197 - 204,  
<http://dx.doi.org/10.1016/j.drugpo.2018.02.021>

Prestage G; Hammoud MA; Jin F; Degenhardt L; Bourne A; Maher L, 2018, '**Mental health, drug use and sexual risk behaviour among gay and bisexual men**', *International Journal of Drug Policy*, vol. 55, pp. 169 - 179,  
<http://dx.doi.org/10.1016/j.drugpo.2018.01.020>

Bui H; Zablotska-Manos I; Hammoud MA; Jin F; Lea T; Bourne A; Iversen J; Bath N; Grierson J; Degenhardt L; Prestage G, 2018, '**Prevalence and correlates of recent injecting drug use among gay and bisexual men in Australia: Results from the FLUX study**', *International Journal of Drug Policy*, vol 55, pp.222-230.  
<http://dx.doi.org/10.1016/j.drugpo.2018.01.018>.

### 2017

Hammoud MA; Bourne A; Maher L; Jin F; Haire B; Lea T; Degenhardt L; Grierson J; Prestage G, 2017, '**Intensive sex partying with gamma-hydroxybutyrate: factors associated with using gamma-hydroxybutyrate for chemsex among Australian gay and bisexual men—results from the Flux Study**', *Sexual Health*, vol 15(2), pp.123-134.  
<http://dx.doi.org/10.1071/SH17146>

Prestage G; Hammoud MA; Lea T; Jin F; Maher L, 2017, '**Measuring drug use sensation-seeking among Australian gay and bisexual men**', *International Journal of Drug Policy*, vol. 49, pp. 73 - 79,  
<http://dx.doi.org/10.1016/j.drugpo.2017.07.027>

Hammoud MA; Jin F; Lea T; Maher L; Grierson J; Prestage G, 2017, '**Off-Label Use of Phosphodiesterase Type 5 Inhibitor Erectile Dysfunction Medication to Enhance Sex Among Gay and Bisexual Men in Australia: Results From the FLUX Study**', *Journal of Sexual Medicine*, vol. 14, pp. 774 - 784,  
<http://dx.doi.org/10.1016/j.jsxm.2017.04.670>

Hammoud MA; Jin F; Degenhardt L; Lea T; Maher L; Grierson J; Mackie B; Pastorelli M; Batrouney C; Bath N; Bradley J; Prestage G, 2017, '**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**', *International Journal of Drug Policy*, vol. 41, pp. 41 - 50,  
<http://dx.doi.org/10.1016/j.drugpo.2016.11.012>

## Conference and Community Talks

2018

Prestage G; Hammoud MA; Maher L; Lea T; Jin F; Bath N; Degenhardt L; Bourne A; Callander D, **'Initiating sex work among Australian gay and bisexual men.'** *2018 Australasian Conference on HIV & AIDS, Sydney, Australia*

Hammoud MA; Vaccher S; Jin F; Haire B; Holt M; Lea T; Maher L; Bavington B; Prestage G, **'Increase in uptake and incidence of HIV pre-exposure prophylaxis (PrEP) among gay and bisexual men in Australia.'** *2018 Australasian Conference on HIV & AIDS, Sydney, Australia*

Hammoud MA; Jacka B; Prestage G, **'What drugs are GBMSM using and what role do they play?'** *2018 Australasian Conference on HIV & AIDS, Sydney, Australia*

Hammoud MA; Vaccher S; Jin F; Bourne A; Haire B; Maher L; Grulich A; Holt M; Degenhardt L; Bavinton B; Prestage G, **'Factors associated with the non-use of pre-exposure prophylaxis (PrEP) among eligible men in Australia.'** *2018 Australasian Conference on HIV & AIDS, Sydney, Australia*

Clackett S, Prestage G; Maher L; Lea T; Jin F; Hammoud MA, **'Incidence and predictors of recent HIV testing among gay and bisexual men in Australia who were never tested for HIV: Results from the Flux Study.'** (Poster) *2018 Australasian Conference on HIV & AIDS, Sydney, Australia*

Hammoud MA; Bourne A; Maher L; Jin F; Haire B; Lea T; Degenhardt L; Prestage G, **'Gamma-hydroxybutyrate (GHB) use in chemsex and its association with HIV risk behaviours and overdose.'** (Poster) *2018 Australasian Conference on HIV & AIDS, Sydney, Australia*

Hammoud MA; Vaccher S; Bourne A; Haire B; Lea t; Jin F; Maher L; Prestage G, **'The new MTV generation: Using methamphetamine, Truvada and Viagra to enhance sex and stay safe.'** *22<sup>nd</sup> International AIDS Conference, Amsterdam, the Netherlands*

Prestage G; Maher L; Jin F; Degenhardt L; Vaccher S; Bourne A; Hammoud MA, **'A longitudinal analysis of the impact of PrEP on sexual behaviour and drug use among Australian gay and bisexual men.'** *22<sup>nd</sup> International AIDS Conference, Amsterdam, the Netherlands*

Hammoud MA; Maher L; Jin F; Bourne A; Vaccher S; Degenhardt L; Prestage G, **'Predictors of non-use of PrEP among gay and bisexual men.'** *22<sup>nd</sup> International AIDS Conference, Amsterdam, the Netherlands*

Hammoud MA; Vaccher S; Bourne A; Haire B; Lea t; Jin F; Maher L; Prestage G, **'The new MTV generation: Using methamphetamine, Truvada and Viagra to enhance sex and stay safe.'** *Association for the Social Sciences and Humanities in HIV (ASSHH), Amsterdam, the Netherlands*

Hammoud MA; Maher L; Jin F; Bourne A; Vaccher S; Degenhardt L; Prestage G, **'Predictors of non-use of PrEP among gay and bisexual men.'** *Association for the Social Sciences and Humanities in HIV (ASSHH), Amsterdam, the Netherlands*

Prestage G; Maher; Bourne A; Hammoud MA; Vaccher S; Bavinton B; Holt M; Jin F, **'A longitudinal analysis of the impact of PrEP on sexual behaviour and drug use among Australian gay and bisexual men.'** *Association for the Social Sciences and Humanities in HIV (ASSHH), Amsterdam, the Netherlands*

Bourne A; Hammoud MA; Prestage G, **'The current state of chemsex among Australian gay and bisexual men.'** *Australian Federation of AIDS Organisations (AFAO) members meeting, Sydney, Australia*

Prestage G; Hammoud MA; Bourne A; Jin J; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batrouney C; Bath N, **'Changes in drug use behaviour over time among Australian gay and bisexual men.'** *Australian Research Centre in Sex, Health and Society Community Feedback, La Trobe University, Melbourne, Australia*

Hammoud MA; Vaccher S; Bourne A; Haire B; Lea T; Jin F; Maher L; Prestage G, **'The current state of chemsex among gay and bisexual men in Australia: Results from the Flux Study.'** *Health in Difference Conference, Sydney Australia*

Prestage G; Hammoud MA; Bourne A; Jin F; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batrouney C; Bath N, **'Changes in drug use behaviour over time among Australian gay and bisexual men.'** *SAMESH community feedback session, Adelaide, Australia*

Prestage G; Hammoud MA; Bourne A; Jin F; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batrouney G; Bath N, **'Changes in drug use behaviour over time among Australian gay and bisexual men.'** *WAAC community feedback session, Perth, Australia*

Prestage G; Hammoud MA; Bourne A; Jin F; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batrouney C; Bath N, **'Changes in drug use behaviour over time among Australian gay and bisexual men.'** *QuAC community feedback session, Brisbane, Australia*

Hammoud MA; Prestage G, **'The Flux Study: Drug use incidence, and trends in patterns of use over two years of follow up.'** *Kirby Institute Seminar Series, Sydney, Australia*

Prestage G; Hammoud MA; Maher L; Degenhardt L; Bourne A; Lea T; Mackie B; Bath N; Haire B; Batrouney C; Jin F, **'Initiation of illicit drug use in the FLUX cohort of Australian gay and bisexual men.'** *Australian and New Zealand Addiction Conference, Gold Coast, Australia*

## 2017

Hammoud MA; Jin F; Maher L; Lea T; Vaccher S; Prestage G, **'Incidence and predictors of the initiation of crystal methamphetamine use among gay and bisexual men.'** *9th International AIDS Society (IAS) conference on HIV Science, Paris, France*

Hammoud MA; Jin F; Maher L; Lea T; Vaccher S; Prestage G, **'Incidence and predictors of the initiation of HIV pre-exposure prophylaxis use among gay and bisexual men.'** *9th International AIDS Society (IAS) conference on HIV Science, Paris, France*

Hammoud MA; Jin F; Lea T; Prestage G, **'Gay and bisexual men alternate ways of obtaining erectile dysfunction medication and their reasons for use.'** *23rd Congress of the World Association for Sexual Health. Prague, Czech Republic*

Hammoud MA; Jin F; Lea T; Mayer L; Prestage G, **'Off-label use of erectile dysfunction medication to enhance sex among gay and bisexual men in Australia.'** *23rd Congress of the World Association for Sexual Health. Prague, Czech Republic*

Prestage G; Hammoud MA; Maher L; Lea T; Jin F, **'Selling drugs and sex among Australian gay and bisexual men.'** *23rd Congress of the World Association for Sexual Health. Prague, Czech Republic*

Hammoud MA; Jin F; Maher L; Prestage G, **'Party drug use and sexual risk behaviours among gay and bisexual men.'** *23rd Congress of the World Association for Sexual Health. Prague, Czech Republic*

Prestage G; Maher L; Jin F; Degenhardt L; Vaccher S; Bourne A; Hammoud MA, **'Why Are Some Gay and Bisexual Men Eligible for PrEP but Not Taking It?'** *Australasian HIV & AIDS Conference, Canberra, Australia*

Hammoud Ma; Vaccher S; Jin F; Haire B; Lea T; Maher L; Jin F; Bourne A; Prestage G, **'PrEP and other drugs in the Flux cohort: The new MTV generation.'** *Australasian HIV & AIDS Conference, Canberra, Australia*

Bourne A; Hammoud M; Bath N; Batrouney C; Prestage G, **'Self-Perceived Problematic Relationship with Drugs and the Use of Alcohol and Other Drug (AOD) Services among Gay and Bisexual Men.'** *Australasian HIV & AIDS Conference, Canberra, Australia*

Prestage G; Hammoud MA; Bourne A; Jin F; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batroyney C; Bath N, **'Starting and stopping drug use over time: Gay men's perceptions of their drug use in the Flux Study.'** *ACON NSW community feedback session, Sydney, Australia*

Prestage G; Hammoud MA; Bourne A; Jin F; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batroyney C; Bath N, **'Starting and stopping drug use over time: Gay men's perceptions of their drug use in the Flux Study.'** *Centre for Social Research in Health Seminar Series. Sydney, Australia*

Prestage G; Hammoud MA; Bourne A; Jin F; Maher L; Haire B; Lea T; Degenhardt L; Mackie B; Batroyney C; Bath N, **'Drug use and mental health among Australian gay and bisexual men: Results from the Flux Study.'** *St Vincent's Hospital, Sydney, Australia*

Prestage G, **'MSM, Drug Use & Sex.'** *HIV Treatment Update Seminar, Auckland, New Zealand*

Prestage G, **'Flux Study Update.'** *Gilead Sex Conference, Sydney, Australia*

## 2016

Hammoud MA; Jin F; Maher L; Lea T; Prestage G, **'Key predictors with the initiation of crystal methamphetamine, and HIV Pre-exposure Prophylaxis, among gay and bisexual men.'** *Australasian HIV & AIDS Conference, Adelaide, Australia*

Kolstee J; Hammoud MA; Jin F; Degenhardt L; Maher L; Lea T; Prestage G, **'Characteristics of gay and bisexual men who use little to no HIV risk reduction Strategies during condomless anal intercourse.'** *Australasian HIV & AIDS Conference, Adelaide, Australia*

Hammoud MA; Jin F; Maher L; Lea T; Prestage G, **'Party Drug Use and Sexual Risk Behaviours Among Gay and Bisexual Men.'** *Australasian HIV & AIDS Conference, Adelaide, Australia*

Prestage G; Hammoud MA; Maher L; Lea T, **'Use of Erectile Dysfunction Medications and Risk Behaviour Among Gay and Bisexual Men.'** *Australasian HIV & AIDS Conference, Adelaide, Australia*

Hammoud MA; Jin F; Degenhardt L; Maher L; Lea T; Prestage G, **'Associations with PrEP Initiation among Gay and Bisexual Men.'** *Australasian HIV & AIDS Conference, Adelaide, Australia*

Prestage G; Jin F; Hammoud MA; Degenhardt L; Lea T; Grierson J; Mackie B; Pastorelli M; Batrouney C; Bath N; Bradley J; Maher L, **'Party drug use within gay community networks in an online cohort of gay and bisexual men.'** *Australasian Professional Society on Alcohol and other Drugs, Sydney, Australia*

Lea T; Hammoud MA; Jin F; Degenhardt L; Lea T; Grierson J; Mackie B; Pastorelli M; Batrouney C; Bath N; Bradley J; Maher L; Prestage G, **'Attitudes towards illicit drug use among gay and bisexual men in Australia: Evidence for normalisation.'** *Australasian Professional Society on Alcohol and other Drugs, Sydney, Australia*

Hammoud MA; Jin F; Degenhardt L; Lea T; Grierson J; Mackie B; Pastorelli M; Batrouney C; Bath N; Maher L; Bradley J; Prestage G, **'Baseline key findings from an online cohort.'** *Australian Federation of AIDS Organisations, Sydney, Australia*

Hammoud MA; Jin F; Degenhardt L; Lea T; Prestage G, **'At what age do gay and bisexual men commence using drugs?'** *Social Research Conference on HIV, Viral Hepatitis, and Related Diseases, Sydney, Australia*

Prestage G; Hammoud MA, **'Incidence and predictors of the initiation of HIV-pre-exposure prophylaxis among gay and bisexual men.'** *NSW Ministry of Health, Sydney, Australia*

## 2015

Hammoud MA; Jin F; Degenhardt L; Lea T; Prestage G, **'The highs and lows of methamphetamine use among gay and bisexual men.'** *Australasian Professional Society on Alcohol and other Drugs, Brisbane, Australia*

Hammoud MA; Jin F; Degenhardt L; Lea T; Prestage G, **'Gay and bisexual men's alternate ways of obtaining erectile dysfunction medication and their reason for use.'** *Australasian Professional Society on Alcohol and other Drugs, Brisbane, Australia*

Hammoud MA; Jin F; Maher L; Lea T; Prestage G, **'Party drug use and sexual risk behaviours among gay and bisexual men.'** *Australasian Professional Society on Alcohol and other Drugs, Brisbane, Australia*

Hammoud MA, **'The Highs and Lows of methamphetamine use among Australian Gay and Bisexual men.'** *Postgrad Symposium, UNSW Sydney, Australia*

Hammoud MA; Prestage G, **'The Flux Study: A cohort study of drug use among gay men. Preliminary data.'** *Kirby Institute Seminar Series, Sydney, Australia*

Hammoud MA; Prestage G, **'The Flux Study: A cohort study of drug use among gay men. Preliminary data.'** *ACON NSW Community Feedback Session, Sydney, Australia*

## Flux Symposium

The Flux Symposium took place on 3 May 2017 at the Kirby Institute, UNSW Sydney. The symposium was a one-day event which brought together experts in the fields of drug, sexual health and infectious disease research. It showcased the unique nature of our research as a world-first longitudinal study of gay and bisexual men's drug use and discussed the motivations for and consequences of drug use among gay and bisexual men.

The Honourable Michael Kirby AC CMG opened the symposium. Speakers included Associate Professor Garrett Prestage, Dr Fenjyi Jin, and Mr Mohamed A. Hammoud, with guest speakers Associate Professor Martin Holt and Associate Professor Adam Bourne (UK). The symposium was hosted by Dr Denton Callander.

To watch the symposium, go to <https://www.flux.org.au/symposium>.