



Changes in sexual behaviour and drug use following PrEP initiation among Australian gay and bisexual men

Garrett Prestage, Mohamed A. Hammoud, Lisa Maher, Steffanie Vaccher, Jeff Jin Kirby Institute, UNSW

Louisa Degenhardt National Drug & Alcohol Research Centre, UNSW

Adam Bourne Australian Research Centre in Sex, Health & Society, La Trobe University

IUSTI Asia Pacific Sexual Health Congress

Auckland, New Zealand

November 2018

Disclosures: The Flux Study is funded by an Australian Research Council Discovery Project. This study was partly funded by the Gilead Australia Fellowship: Research Grants Program.

Funders had no input in the data collection, analysis, interpretation, or presentation of any findings.

Changes in behaviours following PrEP initiation



Background, Aims, and Methods

Background

- Gay and bisexual men (GBM) account for the majority of new HIV infections in Australia
- Those considered 'high risk' are eligible to access PrEP

Aims

- Estimate incidence of uptake and factors predicting PrEP initiation
- Describe changes in behaviour following initiation

Methods

- Flux Study - prospective observational study of Australian GBM
- Six monthly surveys since 2014
- Analysis restricted to non-HIV positive men who reported no PrEP use at baseline (n=1257)
- Poisson regression

www.flux.org.au

#FluxStudy

/FluxStudy

/FluxStudy

flux@kirby.unsw.edu.au

Changes in behaviours following PrEP initiation



Australian eligibility for accessing PrEP

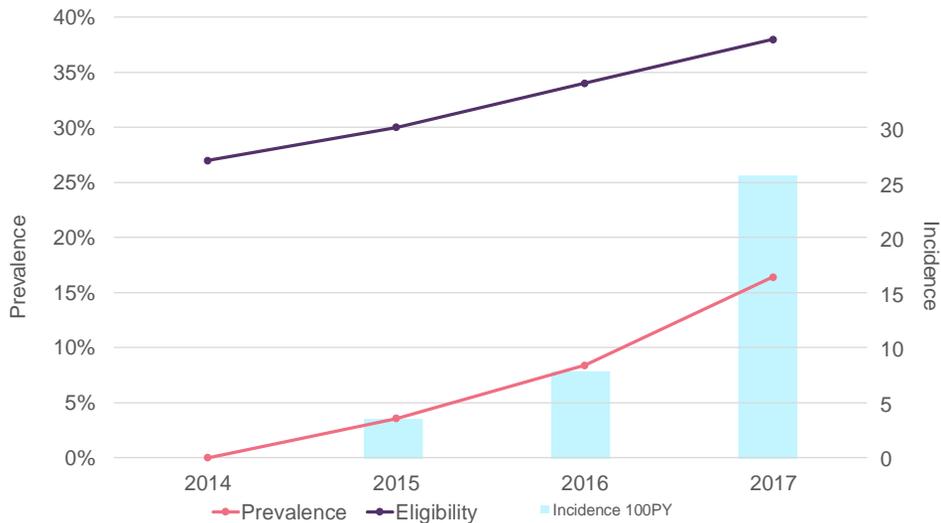
Risk factor	HIV incidence per 100 PY	95% CI
At least one episode of condomless anal intercourse (CLAI) with a regular HIV+ partner (not on treatment and/or detectable viral load)	5.36	2.78 – 10.25
Receptive CLAI with any casual HIV+ male partner or a male partner of unknown status	2.31	1.48 – 3.63
Methamphetamine use	1.89	1.25 – 2.84
Rectal gonorrhoea	7.01	2.26 – 21.74
Rectal chlamydia	3.57	1.34 – 9.52

www.flux.org.au
[#FluxStudy](#)
[f/FluxStudy](#)
[t/FluxStudy](#)
flux@kirby.unsw.edu.au

Changes in behaviours following PrEP initiation



Prevalence of eligibility & use, and incidence 100PY of PrEP use


www.flux.org.au
[#FluxStudy](#)
[f/FluxStudy](#)
[t/FluxStudy](#)
flux@kirby.unsw.edu.au

Changes in behaviours following PrEP initiation



Prior behaviours predicting PrEP initiation

Factor	Did not initiate vs. initiated %		IRR	Upper-Lower	p
Social engagement with gay men	45	55	1.48	1.08 – 2.04	<0.001
Recent methamphetamine use					
No recent use	54	46	1		
Any recent use	34	66	1.50	1.10 – 2.05	<0.012
Number of sex partners					
1	84	16	1		<0.001
Up to 10	57	43	3.78	1.35 – 10.61	
Up to 50	32	68	7.91	2.75 – 22.73	
More than 50	25	75	8.03	2.40 – 26.87	
Sex with casual partner					
No casual partner	81	19	1		
Receptive condomless anal intercourse	25	75	2.5	1.29 – 4.67	<0.001
Sex with regular partner					
No regular partner	51	49	1		
Any condomless anal intercourse (HIV-positive partner)	46	54	14.74	7.53 – 28.86	<0.001

www.flux.org.au
[#FluxStudy](#)
[f/FluxStudy](#)
[t/FluxStudy](#)
flux@kirby.unsw.edu.au

Changes in behaviours following PrEP initiation

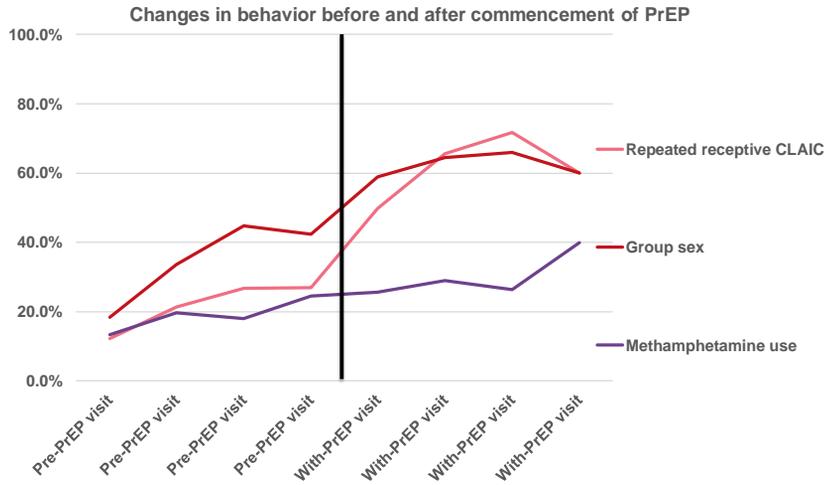


Factors associated with non-initiation of PrEP

Factor	Did not initiate vs. initiated %		OR	Lower Upper	p	aOR	Lower Upper	p
State of residence								
NSW and ACT	42	58	1			1		
VIC	52	48	1.49	0.96 – 2.33	0.077	1.30	0.77 – 2.19	0.331
QLD	57	43	1.78	0.97 – 3.26	0.064	1.30	0.65 – 2.62	0.463
Other	61	39	2.02	1.30 – 3.72	0.003	2.11	1.16 – 3.85	0.014
Reasons for party drug use								
No recent drug use	63	37	1			1		
Drugs used (not for sex)	46	54	0.47	0.29 – 0.77	0.003	0.37	0.21 – 0.64	<0.001
Drugs used for sex	45	55	0.48	0.30 – 0.78	0.003	0.57	0.32 – 1.00	0.049
Group sex								
No group sex	49	51	1			1		
Recent group sex	35	65	0.35	0.24 – 0.51	<0.001	0.59	0.37 – 0.93	0.025
Sex with casual partners								
No casual partners	80	20	1			1		
Insertive condomless anal intercourse	41	59	0.17	0.08 – 0.37	<0.001	0.21	0.09 – 0.51	0.001
Receptive condomless anal intercourse	36	64	0.15	0.08 – 0.27	<0.001	0.20	0.10 – 0.41	<0.001
Social engagement with other gay men	46	54	0.71	0.63 – 0.81	<0.001	0.78	0.68 – 0.91	0.001

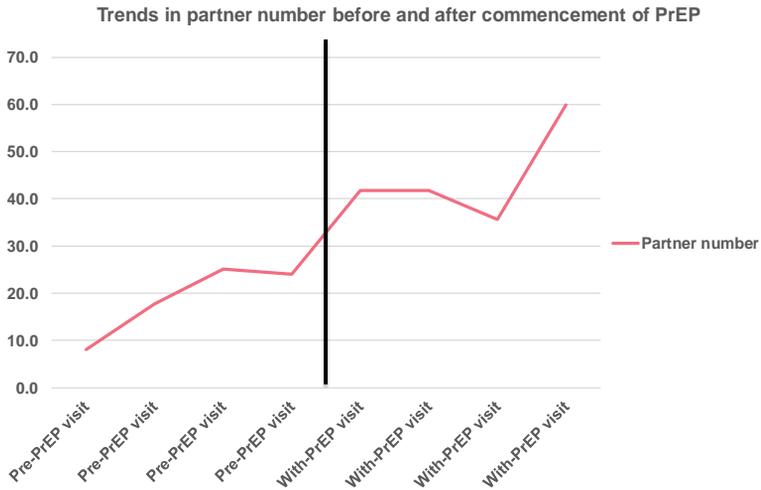
www.flux.org.au
[#FluxStudy](#)
[f/FluxStudy](#)
[t/FluxStudy](#)
flux@kirby.unsw.edu.au

Changes following PrEP



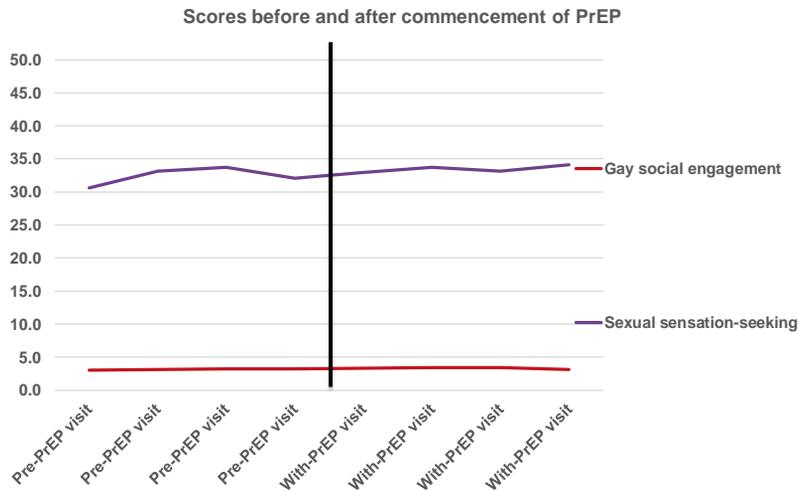
www.flux.org.au
[#FluxStudy](#)
[f/FluxStudy](#)
[t/FluxStudy](#)
flux@kirby.unsw.edu.au

Changes following PrEP



www.flux.org.au
[#FluxStudy](#)
[f/FluxStudy](#)
[t/FluxStudy](#)
flux@kirby.unsw.edu.au

Changes following PrEP



Summary

- **Drug use was common**
 - But usually infrequent
- **Commonly used drugs for sex & partying**
 - Risk behaviour associated with chemsex drugs
- **Negative health outcomes were associated with frequent or dependent use**
- **Initiation of drug use was very high**
 - Particularly for younger men
- **Stopping use of most drugs was also high**
 - But can't be sure if it's really cessation – need more data
- **Initiation of drug use associated with social engagement with gay men**
 - Particularly with those that use drugs themselves
- **Men who initiate methamphetamine use also tend to start using PrEP**
 - Initiation of methamphetamine is often accompanied by increased sexual risk behaviour
 - Those who are riskier are particularly more likely to use PrEP
- **Attitudes to drug use fairly accepting within gay men's friendship networks**

PrEP and sexual 'freedom'

"It's helped me be more confident sexually and have the freedom to enjoy the kind of sex I like and be less inhibited, less controlled by the 'dangers' associated with my sexuality, and less subject to the stigma that was historically associated with male on male sex. It's freeing and humbling, something that our gay forefathers never had the chance to try, and it's led to this kind of powerful new generation of gays that didn't have to self-actualise during the AIDS epidemic surrounded by death and pain. I feel privileged to be able to be so protected."

Thank you

The Flux participants

All 3253 participants

Lead Investigator

Garrett Prestage
Kirby Institute, UNSW

Senior Research Officer

Mohamed A. Hammoud
Kirby Institute, UNSW

The Study Team

Jack Bradley
Kirby Institute, UNSW

Stefanie Vaccher
Kirby Institute, UNSW

Chief Investigators:

Adam Bourne
ARCSHS, La Trobe

Jeff Jin
Kirby Institute, UNSW

Lisa Maher
Kirby Institute, UNSW

Louisa Degenhardt
National Drug and Alcohol Research Centre, UNSW

Toby Lea
Centre for Social Research in Health, UNSW

Bridget Haire
Kirby Institute, UNSW

Martin Holt
Centre for Social Research in Health, UNSW

Peter Saxton
New Zealand AIDS Foundation

Associate Investigators

Nicky Bath
ACON

Brent Mackie
AOCN

Colin Batrouney
VAC

Funders

Australian Research Council
Gilead Science

Questions

