

Characteristics of Gay Men in Sydney using HIV Pre-Exposure Prophylaxis (PrEP): Baseline Data from the PrELUDE Study

Vaccher S¹, Prestage G^{1,2}, McNulty A³, McAllister J⁴, Carr A⁴, Holden J⁵, Schmidt⁵ H, Holt, M⁶, Ooi C⁷, Templeton DJ^{1,8}, Poynten, IM¹, Grulich A¹, and Zablotska I¹, *on behalf of the PrELUDE Study Team*

¹ Kirby Institute, University of New South Wales, Sydney, Australia, ² Australian Research Centre in Sex Health and Society, La Trobe University, Melbourne, Australia, ³ Sydney Sexual Health Centre, Sydney, Australia, ⁴ St Vincent's Hospital, Sydney, Australia, ⁵ NSW Ministry of Health, Sydney, Australia, ⁶ Centre for Social Research in Health, UNSW, Sydney, Australia, ⁷ Western Sydney Sexual Health Centre, Western Sydney Local Health District, Sydney, Australia ⁸ RPA Sexual Health, Sydney Local Health District, Sydney, Australia

Introduction and Aims

- Pre-exposure prophylaxis (PrEP) involves HIV negative individuals taking daily antiretrovirals to prevent HIV infection
- Studies have found an 86% HIV risk reduction in Gay and Bisexual Men (GBM) taking daily PrEP
- PrELUDE is the NSW PrEP Demonstration Project, the largest HIV prevention study in Australia, designed for 300 participants
- We aimed to: (1) describe demographic and behavioural characteristics of PrELUDE participants at baseline and (2) compare this sample to the community sample recruited by the 2013 Sydney Gay Community Periodic Survey (GCPS).

Methods

- To enroll in PrELUDE, participants had to satisfy \geq one medium (not shown) or high-risk (below) behavioural eligibility criteria
- Enrolled participants completed an online survey providing socio-demographic, behavioural and attitudinal information
- Data were analysed using descriptive statistics. Indicators from the PrELUDE and GCPS samples were compared using χ^2 test for independence

Behavioural Eligibility Criteria

- High risk patients** (*recommend* prescribing daily PrEP) if a patient acknowledges:
- Be likely to have multiple events of unprotected anal intercourse (UAI), (+/- sharing IDU), in the next 3 months (indicating sustained risk)
- AND also have any of the following:
- Regular sexual partner of an HIV-infected man with whom condoms were not consistently used in the last 3 months (HIV positive partner is not on treatment and/or has detectable viral load);
 - At least **one** episode of receptive UAI with any casual HIV-infected male partner or a male partner of unknown HIV status in the last 3 months;
 - Rectal gonorrhoea or chlamydia diagnosis during the last 3 months or at screening;
 - Methamphetamine use in the last 3 months

Table 1: Baseline Demographic and Behavioural Characteristics of Participants in the PrELUDE Study and Sydney 2013 GCPS

Indicator	PrELUDE (n=301)	Sydney GCPS (n=2546)
Age in years: median (min-max)	36.0 (20 – 63)	37.2 (18-86)
Identifying as: gay/homosexual (bisexual)	92.4% (5.3%)	87.6% (6.8%)
Ethnic background: Anglo-Australian [#]	60.9%	60.1%
Employed full- or part-time	80.0%	80.5%
Post-secondary education or higher	78.5%	75.3%
Regular relationship with HIV+ partner	13.0%*	4.1%
CLAI with HIV+ partner	94.9%*	10.2%
CLAI with casual partners [^]	74.4%*	36.4%
Used crystal methamphetamine [^]	39.3%*	13.9%
Injecting drug use [^]	20.7%*	4.5%
Used party drugs for sex [^]	53.0%*	20.8%
Previous PEP use [^]	49.0%*	3.2%
Previous PrEP use [^]	10.0%*	1.3%
Any self-reported STI [^]	36.5%*	14.5%
Chlamydia	24.6%	N/A
Gonorrhoea	21.3%	N/A
Syphilis	5.3%	N/A

GCPS denotes 2013 Gay Community Periodic Survey; CLAI denotes condomless anal intercourse; N/A denotes Not Applicable as data were not collected in the GCPS. * indicates statistical significance of $p < 0.001$. For comparison purposes, HIV+ GCPS participants were excluded from this analysis. [#] Anglo-Australian included participants reporting either Anglo-Celtic or British-Irish ethnic background. [^]Please note that the preceding reference period in PrELUDE was 3 months (as per National PrEP Guidelines) whereas for the GCPS, it was 6 months for behavioural data and 12 months for having any STI diagnosis.

Results

- PrELUDE participants were similar to the 2013 Sydney GCPS respondents with respect to demographic characteristics
- Table 1 shows significant behavioural ($p < 0.001$) differences in between PrELUDE and GCPS participants:
 - PrELUDE participants were >9 times more likely than GCPS respondents to have engaged in condomless anal intercourse (CLAI) HIV+ partners or used PEP in the preceding period
 - PrELUDE participants were >2 times more likely than GCPS respondents to have engaged in CLAI with casual partners, used party drugs for sex or had an STI in the preceding period

Conclusions

- The PrELUDE Study has completed enrollment of a sample of 301 GBM at high and ongoing risk for HIV
- PrELUDE participants are not representative of a wider sample of gay and other homosexually active men
- Observed differences between PrELUDE and Sydney GCPS GBM are expected as PrELUDE participants were enrolled using high-risk behavioural eligibility criteria (left)
- PrELUDE is an ideal cohort for a PrEP demonstration project as high-risk GBM are expected to derive the most benefit from free access to PrEP and sexual health services

Acknowledgements: This study was funded by the NSW Ministry of Health, with Gilead Sciences providing the study medication, Truvada. The views expressed in this publication do not necessarily represent the position of these organisations. Special thanks to all the PrELUDE Study participants, clinical sites (Sydney Sexual Health Centre, St Vincent's Hospital, RPA Sexual Health, Western Sydney Sexual Health Centre, Taylor Square Private Clinic, Holdsworth House, Clinic 16 and Newcastle Sexual Health Service), community partners (ACON, Positive Life), St Vincent's Centre for Applied Medical Research, and members of the Protocol Steering Committee. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales.