

# Eligibility for and factors associated with likelihood of using antiretroviral medications for HIV pre-exposure prophylaxis(PrEP) by gay and other men who have sex with men in Australia

Kagize J<sup>1</sup>, Mcevoy M<sup>1</sup>, Templeton DJ<sup>2,3</sup>, Grulich AE<sup>2</sup>, Hall J<sup>1</sup>, Poynten IM<sup>2</sup>, Prestage G<sup>2</sup>, Mcallister JW<sup>4</sup>, Zablotska IB<sup>2</sup>

<sup>1</sup> University of Newcastle School of Medicine and Public Health, Newcastle, NSW 2308; <sup>2</sup> The Kirby Institute, University of New South Wales, Sydney, NSW 2052; <sup>3</sup> RPA Sexual Health, Sydney Local Health District, Camperdown, NSW 2050; <sup>4</sup> St. Vincent's Hospital, Darlinghurst, NSW 2010.

## Background & Aims

- ❑ Pre-exposure prophylaxis (PrEP) is an effective strategy for HIV prevention in gay and other men who have sex with men (GMSM)
- ❑ First access to PrEP in Australia has been primarily through demonstration projects.
- ❑ At this time, it is unclear how many GMSM willing to take PrEP will be eligible for it under new national PrEP guidelines.
- ❑ We assessed the levels of eligibility of PrEP based on the national PrEP guidelines among GMSM who are likely to request PrEP and factors associated with the likelihood of use.

## Methods

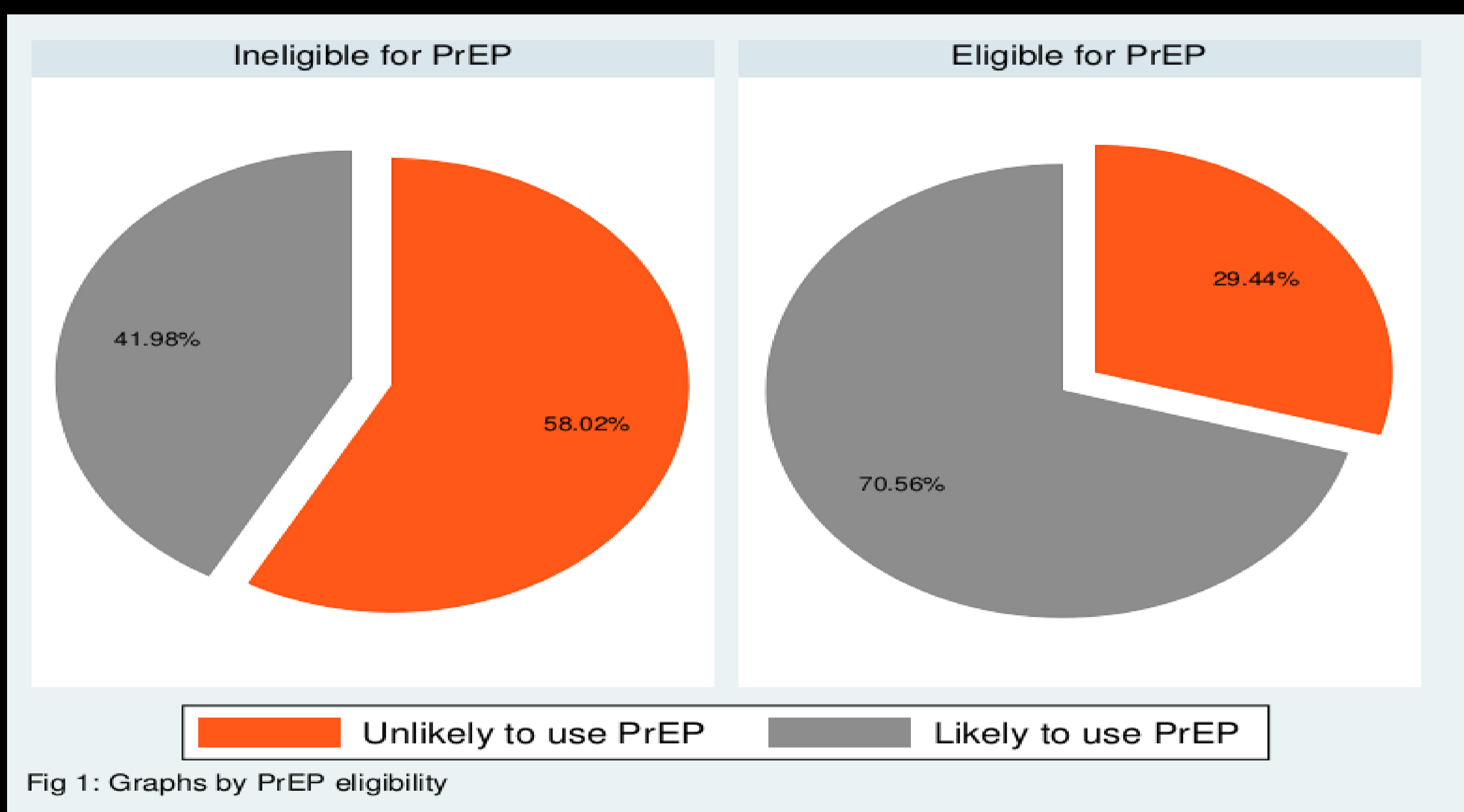
- ❑ We used data from "Treatment Options to Reduce Chances of HIV" (TORCH) study- a nationwide online survey of Australian GMSM
- ❑ Measure of PrEP eligibility was constructed using PrEP eligibility criteria specified in the national PrEP guidelines. We focused on two criteria based on sexual practices;
  - 1) *Having had Condomless anal intercourse with a HIV positive regular partner in the last 3 months; and/or*
  - 2) *Having had at least one episode of receptive CLAI with casual partner of HIV positive or unknown status in the last 3 months*
- ❑ Chi-squared tests were used for comparing likely future PrEP users versus unlikely future users by their demographic characteristics, sexual behaviours and eligibility for PrEP based on sexual practices
- ❑ We used logistic regression to evaluate factors associated with the likelihood of taking PrEP.

## Results

- ❑ Out of 707 men, 204 were classified as eligible for PrEP based on high risk sexual practices
- ❑ 139 GMSM eligible for PrEP said they were likely to use PrEP once it becomes available in Australia (Fig 1)
- ❑ Several individual-level factors were found to be associated with the likelihood of using PrEP.(Table.1)

**Table 1: Factors associated with the likelihood of PrEP use in a multivariable regression model**

Factors	% likely to use		AOR(95%CI)	P value
	PrEP	OR(95%CI)		
<b>PrEP eligibility based on sexual practises</b>				
No	199(59%)	1.00	1.00	0.005
Yes	139(41%)	3.31(2.31,4.73)	1.97(1.23,3.14)	
<b>Residence in state with demonstration project</b>				
No	69 (21%)	1.00	1.00	0.045
Yes	258(79%)	1.74(1.15,2.64)	1.78(1.01,3.12)	
<b>Last HIV test</b>				
≥12months	38(13%)	1.00	1.00	0.016
<12months	256(87%)	2.10(1.35,3.25)	1.98(1.14,3.44)	
<b>Perceived likelihood of acquiring HIV</b>				
Unlikely	190(62%)	1.00	1.00	<0.001
Neutral	76(25%)	4.35(2.63,7.19)	3.31(1.86,5.9)	
Likely	39(13%)	3.95(2.05,7.60)	2.78(1.22,6.33)	
<b>Group sex in the last 6months</b>				
No	222(66%)	1.00	1.00	0.021
Yes	122(34%)	1.97(1.44,2.7)	1.63(1.08,2.46)	



## Conclusion

- ❑ Majority of Australian GMSM who expressed interest in PrEP use were eligible for PrEP based on their high risk sexual practices under the new PrEP treatment guidelines
- ❑ HIV preventives services can be directed to GMSM who are at risk for HIV and willing to uptake PrEP
- ❑ It might render the implementation of PrEP in Australia to be time-saving and cost-effective