



# PrEP knowledge & HIV risk among Queensland university students



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## Background

Young people aged 20-29 account for a quarter of new Australian HIV notifications<sup>1</sup>. As young people enter university the number of sexual partners increases and condom use declines, impacting sexual health and HIV related risks<sup>2,3</sup>. However, little is known about university students' HIV knowledge, risk, and awareness of HIV pre-exposure prophylaxis (PrEP). This study investigated HIV knowledge, risk, and awareness of PrEP among university students studying in Queensland, Australia.

## Methods

Using data from the 2019 *Tertiary Students Sexual and Reproductive Health Survey*, a cross-sectional online survey of 4,291 students from 11 Queensland universities, descriptive analyses were conducted to investigate HIV knowledge (12-items) and risk (41-items) using cumulative scores. Descriptive and logistic regression analyses examined self-reported PrEP awareness by age and across selected groups: men who have sex with men (MSM), men who have sex with men & women (MSMW), student enrolment type [international, domestic Australian-born (DAB) and domestic overseas-born (DOB)].

## Results

### HIV risk

- Higher mean aggregated HIV risk scores (range 0-37/41) were observed among MSM/MSMW (mean score 6.2) (table 1)
- Among MSM/MSMW higher risk scores were seen among:
  - Older age 35-39 years (11.5)
  - International students (7.0)
  - Those without Medicare (universal health) access (7.1)
  - Those reporting awareness of PrEP (7.0)

### HIV knowledge

- Mean HIV knowledge score for all groups = 9.8/12
- Lowest correct knowledge response rate (20.5%) was for:  
'You can take a pill every day to prevent getting infected with HIV'.

Table 2: Multivariate logistic regression analysis (OR) for selected determinants of PrEP awareness

		PrEP awareness	
		aOR	p-value
Age	18-19 years	Ref	
	20-24 years	2.68	<0.01
	25-29 years	2.65	<0.01
	30-34 years	2.86	<0.01
	35-39 years	1.98	0.02
	40+ years	1.17	0.63
Gender	Man	Ref	
	Woman	1.48	0.05
	Non-binary / Gender diverse	8.54	<0.01
	Different identify	1.00	(empty)
Sexual Identity	Men who have sex with women	Ref	
	Men who have sex with men	73.25	<0.01
	Men who have sex with men + women	11.11	<0.01
	Men who are unsure	3.46	<0.01
	Women who have sex with men	0.62	<0.01
	Women who have sex with women	3.89	<0.01
	Women who have sex with men + women	1.13	0.49
Ever had HIV test	No	Ref	
	Yes	2.28	<0.01
	Unsure	0.92	0.63
Condom usage	Never	Ref	
	Rarely	1.27	0.22
	Sometimes	1.81	<0.01
	Most of the time	2.02	<0.01
	Always	1.72	<0.01
	N/A	2.37	0.02
Student Enrolment	Domestic Australian-born	Ref	
	Domestic overseas-born	0.84	0.25
	International	0.64	0.01

## References

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Table 1: Mean HIV risk scores (out of 41) for MSM compared to all other sexual behaviours

		MSM/MSMW (n=207)	All other sexual behaviours (n=4,084)
Mean HIV risk score		6.2	3.2
Range 0-37			
Age	18-19 years	3.2	2.6
	20-24 years	6.8	3.3
	25-29 years	8.0	3.6
	30-34 years	6.0	4.0
	35-39 years	11.5	4.3
	40 years and over	7.8	3.6
Student status	Domestic Australian born	5.9	3.4
	Domestic Overseas born	6.3	3.3
	International	7.0	2.4
Medicare status	No Medicare access	7.1	2.4
	Medicare access	6.0	3.4
PrEP awareness	Not aware of PrEP	3.9	3.5
	Aware of PrEP	7.0	4.3

### PrEP awareness

- Self-reported PrEP awareness was higher among:
  - MSM/MSMW (53.1%) compared to all other sexual behaviours (21.0%)
  - DAB students (22.4%) compared to DOB (19.5%) & international students (17.0%)
  - Older age 30-34-years (28.8%) compared to 18-1-years (12.2%)
- Logistic regression (table 2) indicated PrEP awareness was associated with:
  - Older age (excluding 40+ years) (20-24, 25-29, 30-34 years p<0.01; 35.39 years p=0.02)
  - Identifying as non-binary/gender-diverse (p<0.01)
  - Identifying as MSM, MSMW or a woman who has sex with women (p<0.01)
  - Ever testing for HIV (p<0.01)
- International students have decreased odds of being aware of PrEP compared to domestic Australian born students (p=0.01)

## Conclusion

Our results indicate that while HIV knowledge is relatively high, awareness of biomedical prevention was limited. Increased HIV risk among MSM students, and lower awareness of PrEP among international students and younger students present opportunities for targeted promotion to improve PrEP awareness and access, supporting Australia's goal to end HIV transmission by 2025.

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