

Real-world effectiveness of HIV Pre-Exposure Prophylaxis in key and priority populations receiving HIV services from PNFP health facilities in Uganda: *a retrospective cohort study*

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Background

Pre-exposure prophylaxis (PrEP) is an evidence-based HIV prevention intervention with reported efficacy from randomized clinical trials ranging from 86% to 93%. We found few observational studies that have reported on research-based effectiveness of PrEP. The objective of this study was to describe the effectiveness of PrEP in a Uganda cohort of key and priority populations at increased risk of acquiring HIV, using program data from PNFP health facilities.

Demographics

	Age disaggregates					Sex disaggregates		Total
	15-24 years	25-34 years	35-44 years	45-54 years	55+ years	Male	Female	
#	7783	7580	2615	871	214	8611	10452	19,063
Percent (%)	40.8%	39.8%	13.7%	4.6%	1.1%	45.2%	54.8%	100%

Methods

Study Design:

- Retrospective study

Period:

- Oct 2015 to Sept 2022

Scope:

- Private Not for Profit (PNFP) sites

Population:

- Key and priority populations

Variables:

- KP/PP identification codes, Age, sex, classifications, D.O.B, registration dates, date of last follow-up, baseline dates, HIV result at last follow-up, PrEP screening and initiation at baseline

Results

The analysis included 19,063 clients. Median time in care was 3.4 months (IQR 1.1 to 7.1). Over half of these (55%) were female at birth, over 80% were aged 15 to 34 years and 43% were sex workers. All were screened for PrEP at baseline, of whom 17,350 (91%) were eligible for PrEP. Of these, 15,811 (91%) initiated PrEP. Overall, 25 of the 19,063 clients (0.13%) seroconverted. Of these, 19 (76%) were female, 14 (56%) were aged between 25-34 years, 14 (56%) were sex workers and 14 (56%) were on PrEP. The risk of acquiring HIV among those ever initiated on PrEP was reduced by 98.6% compared to those who never initiated PrEP, adjusted hazards ratio 0.014 (p<0.001, 95% CI 0.006 to 0.032).

Cox proportional hazards regression: adjusted for age category, sex at birth and population category

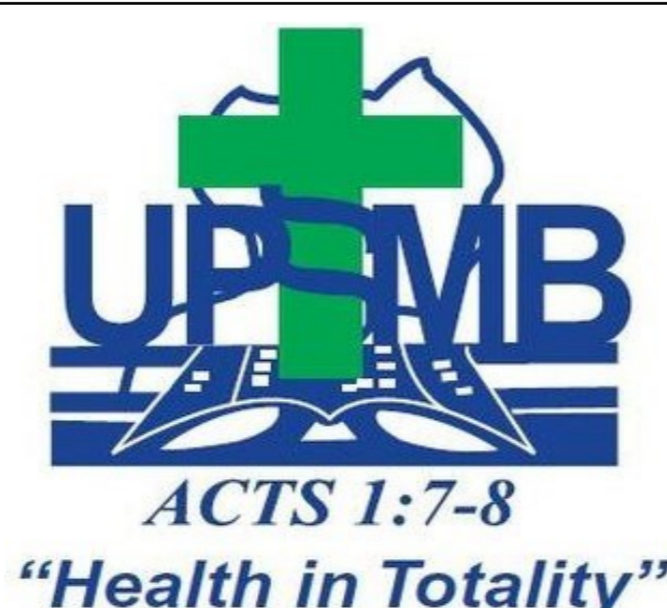
Factor	Adjusted Hazard Ratio (95% CI)	P-value
Ever initiated on PrEP	0.014 (0.006-0.032)	<0.001
Age category	0.940 (0.685-1.290)	0.702
Sex at birth	2.526 (0.502-12.708)	0.261
Population category	1.074 (0.986-1.171)	0.102

Conclusion

PrEP is an effective HIV prevention intervention that should be scaled up if we are to end HIV as a public threat by 2030.



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