Racial Disparities in HIV Pre-Exposure Prophylaxis-Related Outcomes in Male Veterans

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BACKGROUND

- Despite its demonstrated efficacy, human immunodeficiency virus (HIV) pre-exposure prophylaxis (PrEP) has had limited uptake in the United States (US).
- Veterans at high risk for HIV acquisition, including Black and African American men who have sex with men, are underrepresented in the receipt of PrEP.
- We hypothesized that Black US Veterans of minoritized sexual orientation (MSO) receive PrEP at comparable rates relative to other racial categories. However, we also hypothesized that higher rates of HIV acquisition would be associated with Black race, regardless of PrEP receipt.

METHODS

- A retrospective analysis was performed in a population of male US Veterans of MSO between July 12, 2012 and July 1, 2019.
- The cohort was derived using the Veterans Affairs (VA) Corporate Data Warehouse and a validated natural language processing system.
- HIV diagnosis was defined as the first appearance of the diagnosis in the electronic health record, by International Classification of Disease (ICD)-9 or ICD-10 code.
- PrEP recipients were defined as individuals with two or more pharmacy fills of emtricitabine/ tenofovir disoproxil fumarate.
- Race was defined by structured categories available in the VA electronic health record.
- Chi-square tests evaluated the association between race and HIV acquisition, stratified by PrEP use (α=0.05).

Compared to other racial groups, HIV acquisition was higher in Black U.S. Veterans of minoritized sexual orientation who did not receive PrEP. Among Black Veterans, HIV acquisition was comparable regardless of PrEP receipt.

Table. HIV Acquisition by Racial Category for Veterans Who Did and Did Not Receive PrEP

		PrEP Recipients				
		Total N = 2,375	Black N = 459	White N = 1621	Other N = 295	p-value
Diagnosed with HIV? N (percentage by race)	No	2,175 (91.6)	411 (89.5)	1,489 (91.9)	275 (93.2)	0.16
	Yes	200 (8.4)	48 (10.5)	132 (8.1)	20 (6.8)	
		PrEP Non-Recipients				
		Total N = 64,924	Black N = 10,722	White N = 48,715	Other N = 5,487	p-value
Diagnosed with HIV? N (percentage by race)	No	62,221 (95.8)	9,672 (90.2)	47,327 (97.2)	5,222 (95.2)	<0.0001
	Yes	2,703 (4.2)	1,050 (9.8)	1,388 (2.8)	265 (4.8)	

HIV, human immunodeficiency virus; PrEP, pre-exposure prophylaxis

RESULTS

- 79,455 male Veterans with documentation as being of MSO were identified. Of the male Veterans of MSO, 2,375 received PrEP and 64,924 did not.
- Of the 11,181 Black Veterans of MSO, 459 (4.1%) received PrEP, while 1621 (3.2%) of the 50,336 White Veterans and 295 (5.1%) of the 5,782 Other Veterans received PrEP.
- The association between HIV acquisition and race was not statistically significant in PrEP recipients, but was statistically significant in PrEP non-recipients (Table).

CONCLUSIONS

- Rates of PrEP receipt in Veterans of MSO were comparable across racial groups.
- HIV acquisition was lower in White and Other Veterans who did not receive PrEP, suggesting that patients and providers assessed their risk as lower than those who were offered PrEP.
- The lack of protection in those receiving PrEP reinforces the real-world occurrences of gaps in adherence and persistence and the need for more education in patients and providers.
- Among Black Veterans, rates of HIV acquisition were comparable for those who did and those who did not receive PrEP. This suggests a higher baseline risk for HIV acquisition that is independent of PrEP receipt.

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