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# Socioeconomic disparities associated with awareness, access, and usage of Pre-Exposure Prophylaxis among Latino MSM ages 21–30 in San Antonio, TX

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# Abstract

HIV continues to disproportionately affect Latino men who have sex with men (MSM) and disparities are even greater in the South. This study examines the implications of socioeconomic status (SES) associated with awareness, access, and usage of PrEP. Latino MSM (N=154) from San Antonio, TX completed a self-administered survey. Results revealed that PrEP uptake was significantly lower for low SES Latino MSM. PrEP related barriers included lack of awareness, stigmas, and side effects. Findings underscore the importance for a multi-systemic approach to enhance awareness and access of PrEP for Latino MSM with varying levels of SES in the South.

HIV incidence rates have decreased for White men who have sex with men (MSM) and stabilized for Black MSM, but have increased by 30% for Latino MSM and more than doubled for ages 25–34 (CDC, 2019). Texas (TX) has one of the highest HIV prevalence rates for Latinos (CDC, 2018a). HIV incidence rates for San Antonio-New Braunfels, TX is 15.2 per 100,000 compared to 11.8 for the nation (CDC, 2018a; Levison, Levinson, & Alegría, 2018; Pérez, Santamaria, & Operario, 2017). Recently, a highly HIV infectious cluster was identified among Latino MSM ages 20–29 in San Antonio, Texas (CDC, 2018a). The San Antonio cluster raised the concern of a missed opportunity for Latino MSM that received treatment for a sexually transmitted infection, but were not tested for HIV, despite having signs of acute infection (CDC, 2018a). The HIV epidemic in the US currently indicates that HIV prevention has been stagnant and not effectively addressing the needs of Latino MSM (CDC, 2019; Levison et al., 2018; Pérez et al., 2017; Reif, Safley, McAllaster, Wilson, & Whetten, 2017).

In 2019, the US government has proclaimed a plan for ending HIV, which highlights the urgency of increasing awareness and access to PrEP for HIV burdened regions and populations such as San Antonio, TX (Health and Human Services, 2019). PrEP as an HIV

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biomedical intervention has been proven to significantly reduce HIV transmission (Calabrese, Magnus, et al., 2017; Cederbaum, Holloway, & Shoptaw, 2017; Health and Human Services, 2019). Despite increasing rates of PrEP uptake, only 3% of Latinos were prescribed PrEP (Health and Human Services, 2019). In Texas, the PrEP-to-need-Ratio (PnR)—the number of PrEP users compared to the number of people newly diagnosed with HIV—is only 1.0, compared with 2.1 nationwide (Mansergh et al., 2019; Nunn et al., 2017; Siegler et al., 2018). To effectively promote PrEP uptake among Latino MSM in the South, it is critical to understand social and structural barriers that may hinder PrEP as a viable option for highly marginalized populations (Reif et al., 2017). This study examines the associations of socioeconomic status (SES) with awareness, access, and usage of PrEP for Latino MSM in San Antonio, TX.

#### Methods

A total of 154 Latino MSM ages 21–30 who reported an HIV negative status completed a survey online through convenience-based sampling at gay venues in San Antonio, TX. All participants were asked about their awareness and current use of PrEP, but only participants who were not on PrEP were asked about their willingness to take PrEP. Chi-square tests and multiple regression analyses were conducted to test the significant differences in PrEP-related measures by SES, measured by education (some college or below vs. bachelor's degree or above) and income level (\$49,999 vs. \$50,000).

## Results

Among the 154 Latino MSM, 95.3% of them identified as Mexican and 95.2% were born in the US. Slightly more than half of them are classified as Latino MSM with higher SES levels (59.1% bachelor's degree or higher and 54.3% \$50,000). Two out of three Latino MSM have heard of PrEP and three out of five Latino MSM reported PrEP uptake. As shown in Table 1, chi-square test results with a significant level of 0.05, which were further supported by multiple regression analyses controlling for age, indicated that SES disparities existed in awareness, access, and willingness of using PrEP for Latino MSM. Participants who reported higher education and income levels had significantly higher rates of PrEP awareness (92.6% vs. 32.9% and 93.6% vs. 34.2%) and PrEP uptake (72.8% vs. 1.4% and 75.6% vs. 1.3%). Lower levels of SES for Latino MSM not on PrEP were significantly less likely to take PrEP daily (56.9% vs. 86.4% and 54,7% vs. 100%) and reported concerns associated with PrEP-related side effects such as "nausea, dizziness, vomit, diarrhea, or stomach pain" (15.3% vs. 59.1% and 13.3% vs. 73.7%), "liver damage" (5.6% vs. 40.9% and 5.3% vs. 47.4%), and "kidney damage" (6.9% vs. 40.9% and 8.0% vs. 42.1%). Further, lower-income Latino MSM not on PrEP reported significant higher levels of mistrusting the government giving them PrEP to prevent HIV transmission (46.7% vs. 21.1) and experimenting with them taking PrEP (57.3% vs. 21.1%). Higher-educated Latino MSM not on PrEP had significant higher levels of concern that PrEP might cause people to stigmatize them as being sexually promiscuous (86.4% vs. 61.1%).

#### Discussion

The results of this study document the substantial SES disparities in the awareness and usage of PrEP among Latino MSM. Overall, Latino MSM with lower SES are severely underserved and uninformed on PrEP as a viable option for HIV prevention. One possible explanation is that lower-SES Latino MSM may have less access to health insurance, primary care providers, or private health care, which hinders their decisions to take PrEP when comparing with their higher-SES counterparts. Therefore, future HIV prevention efforts need to address structural barriers of SES and reach those Latino MSM with lower SES in the South by promoting economically and culturally informed healthcare and campaigns for sexual minorities of color to access PrEP (CDC, 2018b).

Research findings of this study highlight the importance of examining within group disparities for Latino MSM based on SES to further understand social and structural factors that motivate and hinder Latino MSM from considering PrEP. An emphasis on TX is important because sexual minorities have no legal protections and are more likely to encounter economic instability, which results in greater health disparities due to stigma and discrimination experienced by sexual minorities (Mallory, Brown, Russell, & Sears, 2017). This study corroborates prior findings that Latino MSM are concerned that PrEP would stigmatize them as being gay and promiscuous (Brooks, Landrian, Nieto, & Fehrenbacher, 2019; Calabrese, Krakower, & Mayer, 2017). Medical providers are encouraged to integrate PrEP as routine prevention for all patients to ameliorate racial disparities for PrEP uptake (Calabrese, Krakower, et al., 2017). Our research findings also suggest developing PrEP campaigns that are inclusive for everyone to consider PrEP as a practical option to prevent HIV acquisition, which prevents further marginalization of "high-risk" populations such as Latino MSM.

PrEP related health side effects were a significant deterrent for Latino MSM with low SES. Future research is encouraged to explore SES disparities in the knowledge of PrEP related symptoms among Latino MSM. Greater concerns for PrEP related health side effects for lower-SES Latino MSM might be due to lacking understanding of the temporary symptoms and medical supports of using PrEP.

### Implications

Research findings of this study underscore a multi-systemic approach to enhance awareness and access of PrEP for Latino MSM with low SES in the South. At the structural level, PrEP providers are encouraged to hire PrEP navigators to provide peer-based culturally informed PrEP services for Latino MSM to address PrEP related expenses and emphasize the importance of PrEP quarterly medical visits to prevent any serious side effects for ensuring their wellbeing. Socially, PrEP campaigns must avoid further marginalization of "high-risk groups" and promote inclusive messages that PrEP is free and enhances their wellbeing, regardless of their sexuality and socioeconomic status. Individually, engagement to PrEP must provide patient-centered counseling for Latino MSM from various SES backgrounds to self-assess perceived risks and how to prevent exposure to HIV. PrEP navigators from the community are significant conduits for ameliorating government mistrust, contextualizing

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the importance of PrEP, and enhancing access to PrEP for low SES and highly marginalized populations.

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#### Table 1.

Chi-Square Test Results for Comparison of Access to and Willingness to take PrEP across Socioeconomic Groups among Latino MSM

		Education			Income		
		Lower	Higher	- p	Lower	Higher	- p
Access to $PrEP^{a}$							
Awareness	Yes	32.9	92.6	<.001	34.2	93.6	<.00
	No	67.1	7.4		65.8	6.4	
Current use	Yes	1.4	72.8	<.001	1.3	75.6	<.00
	No	98.6	27.2		98.7	24.4	
Willingness to take PrEP <sup>b</sup>							
PrEP Adherence							
Take a daily pill	Yes	56.9	86.4	.012	54.7	100.0	<.00
	No	43.1	13.6		45.3	0.0	
Get an HIV test every 3 months	Yes	68.1	77.3	.408	68.0	78.9	.351
	No	31.9	22.7		32.0	21.1	
Get blood tests every 3 months	Yes	69.4	77.3	.478	69.3	78.9	.408
	No	30.6	22.7		30.7	21.1	
PrEP Related Side Effects							
Nausea, dizziness, vomit,	Yes	15.3	59.1	<.001	13.3	73.7	<.00
diarrhea, or stomach pain	No	84.7	40.9		86.7	26.3	
Liver damage	Yes	5.6	40.9	<.001	5.3	47.4	<.00
	No	94.4	59.1		94.7	52.6	
Kidney damage	Yes	6.9	40.9	<.001	8.0	42.1	<.00
	No	93.1	59.1		92.0	57.9	
Government Mistrust							
I don't trust the government	Yes	45.8	27.3	.122	46.7	21.1	.043
giving me PrEP to prevent HIV	No	54.2	72.7		53.3	78.9	
I don't trust the government to experiment with me with PrEP	Yes	55.6	31.8	.051	57.3	21.1	.005
	No	44.4	68.2		42.7	78.9	
PrEP Related Stigma							
I'm gay	Yes	66.7	77.3	.346	66.7	78.9	.301
	No	33.3	22.7		33.3	21.1	
I have HIV	Yes	50.0	59.1	.455	50.7	57.9	.573
	No	50.0	40.9		49.3	42.1	
I have sex with a lot of guys	Yes	61.1	86.4	.027	62.7	84.2	.074
	No	38.9	13.6		37.3	15.8	

Note. p = p-value

<sup>*a*</sup>All participants. The sample size was n = 154.

<sup>b</sup>Only participants who were not on PrEP. The sample size was n = 94.

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