

Association of Higher Risk and PrEP Awareness Among MSM in Brazil, Mexico, and Peru

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BACKGROUND

- There were 1.8 million prevalent cases and 100,000 incident cases of HIV in Latin America by 2017 (1).
- MSM in Latin America are at 33.3 times the risk for HIV infection compared to the general population (1-3).
- Brazil became the first country in Latin America to provide free access to PEP (2009) and PrEP (2017), however awareness of both among MSM remained low (4, 5).
- Awareness and willingness to prescribe PrEP among Peruvian health care providers has also been shown to be low (6).
- We assessed whether PrEP and PEP awareness are associated with higher HIV risk and with other co-variables

METHODS

- MSM were recruited to complete an online survey via Facebook, Grindr, and Hornet from March to May 2018.
- Respondents were eligible if they were MSM, ≥18, HIV negative or unknown status, and lived in one of the three countries.
- The CDC's MSM risk index cutoff score of 10 was used to define higher risk for HIV (7).
- We used Poisson regression using robust adjustment to estimate prevalence ratios (PR) and confidence intervals (CI) PrEP and PEP.

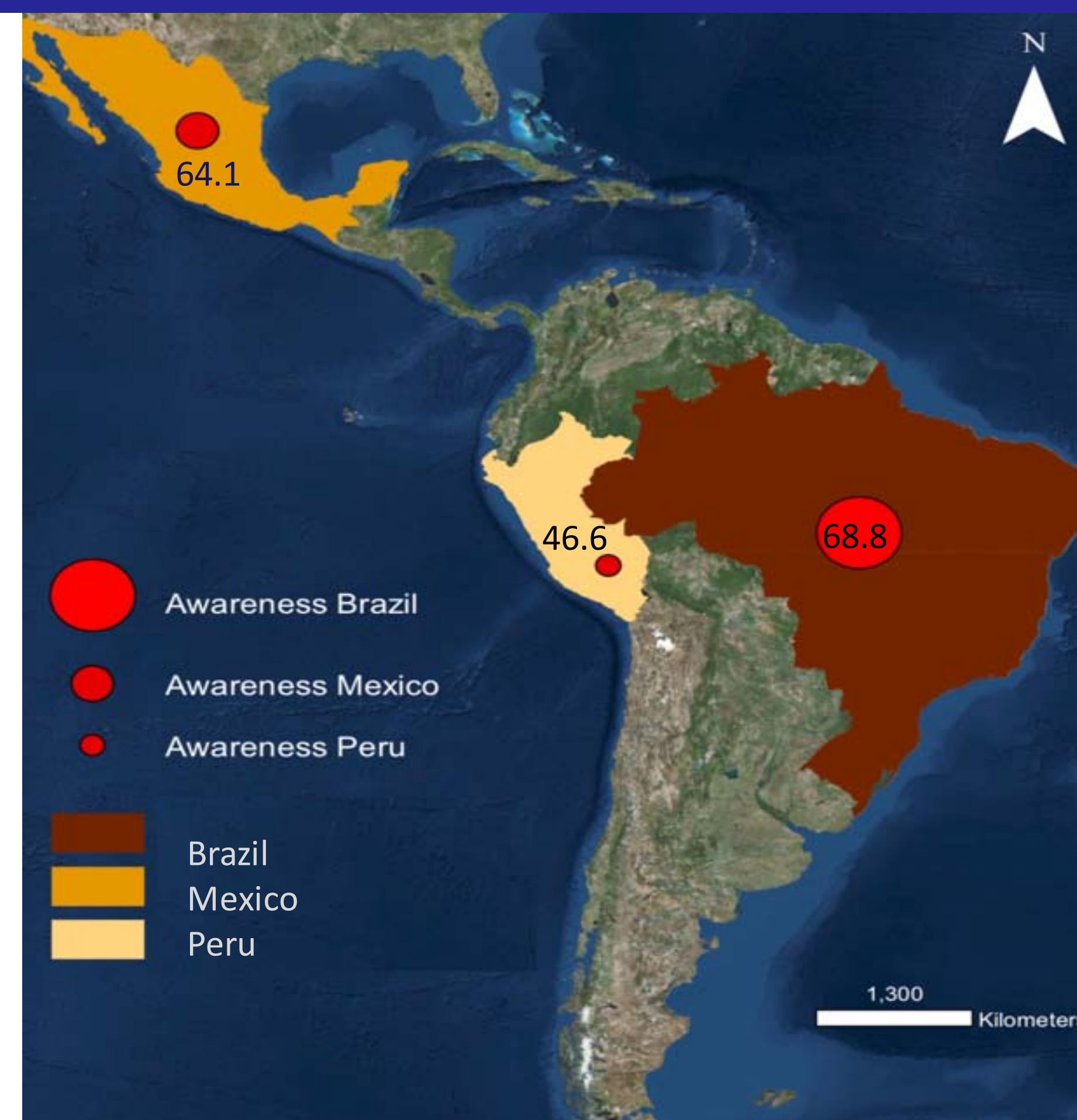
RESULTS

- 19,457 eligible respondents completed the survey.
- Respondents median age was 28 (IQR 24-34)
- PrEP Awareness: Brazil (68.8%), Mexico (64.1%), Peru (46.6%)
- PEP Awareness: Brazil (66.1%), Mexico (55.1%), Peru (36.1%)
- 53.3% of respondents were categorized as higher risk for HIV, however only 9.6% perceived themselves as high risk.
- Adjusted PR for PrEP awareness was 1.02 (95% CI 1.00, 1.05).
- Adjusted PR for PEP awareness was 1.02 (95% CI 0.99, 1.04).
- Age, country, education, income, drug use, and daily use of Gay social networking applications were positively associated with awareness of PrEP and PEP in both univariate and multivariate models.

Table 1: Adjusted prevalence ratios (aPR) for PrEP and PEP awareness among MSM in Brazil, Mexico, and Peru, 2018 (n=19,457)

	%n	PrEP Awareness		PEP Awareness	
		aPR	95% CI	aPR	95% CI
Calculated Risk	Higher	53.3	1.02 (1.00, 1.05)	1.02 (0.99, 1.04)	
	Lower	46.7	1	1	--
Age, years	36+	21.9	1 (0.97, 1.04)	1.04 (1.00, 1.08)	
	31-35	16.5	1.07 (1.04, 1.11)	1.09 (1.05, 1.13)	
	25-30	31.4	1.06 (1.03, 1.09)	1.08 (1.04, 1.12)	
	18-24 (ref)	30.2	1	1	--
Country	Brazil	58.4	1.12 (1.09, 1.15)	1.23 (1.20, 1.27)	
	Mexico (ref)	30.5	1	1	--
	Peru	11.1	0.77 (0.73, 0.81)	0.69 (0.65, 0.73)	
Education	Postgrad	20.6	1.27 (1.22, 1.31)	1.26 (1.21, 1.31)	
	Completed Undergrad	39.3	1.2 (1.16, 1.25)	1.18 (1.14, 1.22)	
	Did not complete Undergrad	18.3	1.01 (0.97, 1.06)	1.01 (0.96, 1.06)	
	Completed High School (ref)	20.3	1	1	--
Income	Less than High School	1.5	0.73 (0.63, 0.84)	0.7 (0.60, 0.82)	
	High	17.3	1.12 (1.09, 1.14)	1.09 (1.06, 1.13)	
	Middle (ref)	43.1	1	1	--
GSN Apps for Sex	Low	39.6	0.9 (0.87, 0.92)	0.91 (0.88, 0.93)	
	Never	8.6	0.88 (0.84, 0.92)	0.94 (0.89, 0.99)	
	Sometimes (ref)	45	1	1	--
Binge Drinking	Daily	46.4	1.03 (1.01, 1.06)	1.03 (1.01, 1.05)	
	Yes	69	1 (0.97, 1.02)	1.02 (1.00, 1.05)	
Drug Use	Yes	43.4	1.14 (1.12, 1.17)	1.13 (1.10, 1.16)	

Figure 1: PrEP awareness by percent (%) among study population within Brazil, Mexico, and Peru



CONCLUSIONS

- Individuals at higher risk for HIV are aware of PrEP and PEP, however this association is weak
- Respondents from Brazil had a higher awareness of PrEP and PEP, while those in Peru had lower awareness of both. This could reflect the length of time these two countries have had PrEP and PEP available for access.
- Increasing awareness of PrEP and PEP among those at risk for HIV is a critical first step that is needed for increasing uptake.
- Use of GSN apps and further interventions can be useful tools in increasing awareness and use of these biomedical tools.

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