

Differences and Similarities in HIV and STI Testing and Prevalence by Race/Ethnicity among a Representative Sample of Men who have Sex with Men in Vancouver, BC

Gbolahan Olarewaju¹, Shenyi Pan¹, Julia Zhu¹, Nathan J. Lachowsky^{1,2}, Heather L. Armstrong^{1,3}, Kalysha Closson^{1,4}, Aidan Ablona³, Allan Lal^{1,5}, Chad Dickie^{2,5}, Darren Ho^{5,6}, Fahmy Baharuddin^{5,7}, Martin Morberg⁵, Joshun Dulai⁵, Lorenz Villa⁵, Sandy Lambert⁵, David M. Moore^{1,3}, Eric A. Roth², Robert S. Hogg^{1,4}

1. British Columbia Centre for Excellence in HIV/AIDS, Vancouver, BC | 2. University of Victoria, Victoria, BC | 3. University of British Columbia, Vancouver, BC | 4. Simon Fraser University, Burnaby, BC | 5. Momentum Health Study People of Colour Advisory Board, Vancouver, BC | 6. Community-Based Research Centre for Gay Men's Health, Vancouver, BC | 7. YouthCO HIV & HepC Society, Vancouver, BC

Background

- Gay, bisexual and other men who have sex with men (MSM) account for over half of people living with HIV in Canada.
- In BC, trends in HIV diagnoses by ethnicity have shifted in recent years with an increasing burden on Indigenous, Asian and other People of Colour (*BCCDC HIV Report 2015*).
- Race is rarely used as a primary lens in MSM research despite ethnicity-related HIV/STI risk and prevalence variations.
- We sought to examine HIV-related behaviours and health service access and awareness among ethnic minority MSM in Vancouver.

Methods

- We used respondent-driven sampling (RDS) to recruit 774 MSM ≥16 years in Vancouver from 2012-2017
- Participants completed computer-assisted self-interviews assessing HIV/STI risk and nurse-administered HIV/STI testing
- Participants were grouped by self-identified ethnicity (White, Indigenous, Asian, Latino, and Other)
- Variables of interest were selected following a consultation with a group of queer men of colour and Indigenous MSM about their experiences
- Risky sex was defined as any condomless anal sex with a serodiscordant or unknown status partner in the past 6 months
- RDS-weighted population parameters were calculated and univariate multinomial logistic regression assessed differences by ethnicity

Results

- Median age of the sample was 34 years (Q1,Q3: 26, 47)
- Of the 774 participants, 585 were white, 50 were Indigenous, 74 were Asian, 35 were Latino and 30 identified with other ethnicities.
- Demographic characteristics and some significant findings from the univariate analysis are presented in Tables 1 and 2 respectively.
- We found no significant differences across race/ethnicity for prevalence of risky sex, HIV testing, or STI testing.
- Indigenous MSM were less likely to have heard of Pre-Exposure Prophylaxis (PrEP) than White MSM (OR=0.17; 95%CI: 0.04-0.74)
- Compared with White MSM, Asian MSM were significantly less likely to:
 - be HIV-positive (OR=0.46; 95%CI: 0.24-0.88)
 - report recent (past 6 months) STI diagnoses (OR=0.11; 95%CI: 0.02-0.82)
 - report lifetime STI diagnoses (OR=0.37; 95%CI: 0.23-0.61)
 - have heard of Treatment as Prevention (OR=0.51; 95%CI: 0.31-0.83)
 - be out to their doctor (OR=0.32; 95%CI: 0.16-0.62)
- Latino MSM were less likely to have a family doctor than White MSM (OR=0.32; 95%CI: 0.16-0.64)

Table 1. Demographic Characteristics by Race/Ethnicity

	White (n=585, 75.5%)	Indigenous (n=50, 6.5%)	Asian (n=74, 9.6%)	Latino (n=35, 4.5%)	Other (n=30, 3.9%)
Median Age (Q1, Q3)	34 (26,48)	36.5 (30,46)	30 (24,38)	31 (24,38)	32.5 (27,43)
Income <\$30K/yr	356 (67.4%)	46 (95.0%)	39 (61.5%)	27 (86.9%)	17 (55.9%)
Unemployed	200 (41.0%)	35 (70.9%)	23 (34.6%)	15 (37.5%)	10 (41.9%)
High School or Less	137 (29.7%)	26 (54.4%)	3 (7.4%)	7 (18.0%)	6 (26.3%)
Out of the Closet	479 (77.2%)	37 (70.1%)	47 (55.0%)	26 (64.6%)	22 (57.7%)
Has a Doctor	409 (70.5%)	32 (53.3%)	46 (64.5%)	15 (25.4%)	23 (71.3%)
Out to Doctor	345 (80.8%)	27 (76.4%)	29 (57.1%)	14 (97.9%)	19 (75.6%)
Risky Sex	226 (34.0%)	17 (46.6%)	20 (29.1%)	19 (61.4%)	9 (19.5%)
Self-Reported HIV Positive	173 (27.8%)	21 (43.2%)	12 (17.8%)	7 (15.7%)	7 (26.5%)

Note: Percentages are Respondent-driven sampling adjusted percentages; Other = Participants that self-reported ethnicities other than the 4 largest groups.

Table 2. Univariate Multinomial Regression Analysis showing differences by Race/Ethnicity

	Indigenous OR (95% CI)	Asian OR (95% CI)	Latino OR (95% CI)	Other OR (95% CI)
Self-reported HIV Positive	1.73 (0.96-3.11)	0.46 (0.24-0.88)	0.60 (0.26-1.39)	0.73(0.31-1.72)
STI diagnosis (p6m)	0.96 (0.37-2.51)	0.11 (0.02-0.82)	1.73 (0.69-4.33)	1.68 (0.62-4.56)
Heard of TasP	0.56 (0.31-1.00)	0.51 (0.31-0.83)	0.63 (0.31-1.25)	1.09 (0.52-2.29)
Heard of PrEP	0.17 (0.04-0.74)	0.71 (0.36-1.42)	0.34 (0.10-1.15)	0.89 (0.35-2.27)
Has a Doctor	0.76 (0.42-1.39)	0.70 (0.43-1.16)	0.32 (0.16-0.64)	1.41 (0.59-3.34)
Out to Doctor	0.94 (0.35-2.54)	0.32 (0.16-0.62)	2.44 (0.31-18.86)	1.10 (0.32-3.84)

Note: White MSM are the reference group; Significant (p-value<0.05) results in bold.

Discussion

- Despite prior research showing increased HIV risk for Indigenous and People of Colour we did not find significant differences in risk characteristics in this population.
- Small samples in the non-white ethnic groups limited our ability to detect differences, highlighting the need for more longitudinal studies using race as a primary lens.
- While there was some suggestion of inequities for some parameters such as TasP and PrEP awareness, these were not significant, perhaps due to small sample sizes.
- Heterogeneity in the results highlight the need for ethnoculturally-competent health services.
- Public health research and policy needs to include community-specific consultation and engagement, as well as recognize the diversity within traditional racial/ethnic classifications. We plan to conduct longitudinal analyses under the continuous guidance of our People of Colour advisory group.

The authors have no conflicts of interest to disclose.
Corresponding author: golarewaju@cfenet.ubc.ca

EPHP3.12