

EXAMINING SOCIO-SPATIAL DISPARITIES IN CERVICAL CANCER SCREENING AMONG A COHORT OF WOMEN LIVING WITH HIV IN CANADA

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BACKGROUND

Risk of cervical cancer is elevated among women living with HIV (WLWH) (1,2).

Current HIV guidelines suggest WLWH should receive annual Pap tests (1,2).

WLWH experience diverse challenges to accessing care, however there is little data on cervical screening practices in Canada where geographical and social disparities are pervasive.

Study objective: We examined socio-spatial disparities in cervical cancer screening among a cohort of WLWH in British Columbia (BC), Ontario (ON), and Quebec (QC).

METHODS

The **Canadian HIV Women's Sexual and Reproductive Health Cohort Study (CHIWOS)** is a longitudinal community-based research cohort study enrolling over 1,400 WLWH in BC, ON, and QC. Peer Research Associates administer a comprehensive, online questionnaire to participants at baseline and 18-months, collecting various socio-demographic, behavioral, and clinical information including Pap testing, postal code, proximity to HIV care and gender of HIV doctor.

Study Population: Baseline survey data were analyzed for participants enrolled between August 2013 and March 2015, identified as female (sex), and had never had a hysterectomy.

Outcome variable: Self-reported receipt of Pap test in the 12 months prior to the time of the questionnaire

Statistical Analysis: Multivariable logistic regression identified independent correlates of annual Pap testing.

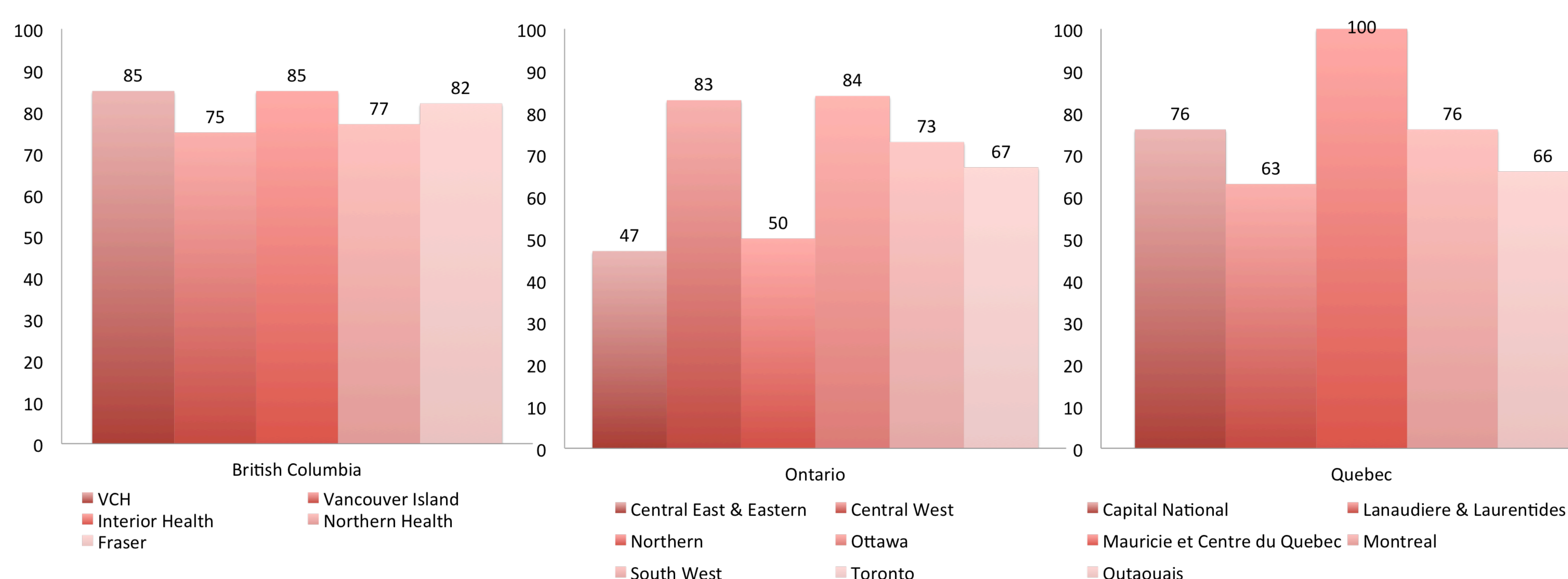
RESULTS

Table 1: Socio-spatial characteristics of sample (n=1172), n(%)

Variable	BC (n=286)	ON (n=615)	QC (n=271)	Overall
Age Median (IQR)	43 (36-50)	39 (33-47)	45 (37-52)	41 (35-49)
Ethnicity				
Aboriginal	125 (44)	118 (19)	7 (3)	250 (21)
Caucasian	99 (35)	232 (38)	120 (44)	451 (38)
African / Caribbean / Black Canadian	27 (9)	206 (34)	134 (49)	367 (31)
Other	35 (12)	59 (10)	10 (4)	104 (9)
Gender of primary HIV doctor				
Female	178 (63)	188 (34)	97 (37)	463 (42)
Male	103 (37)	265 (66)	166 (63)	634 (58)
Location of HIV clinic				
Rural region	8 (3)	25 (5)	9 (3)	42 (4)
Larger urban area	272 (97)	511 (95)	252 (97)	1035 (96)
Received Pap test at HIV clinic in previous 12 months				
Yes	204 (71)	209 (34)	101 (37)	514 (44)
No	40 (14)	135 (22)	38 (14)	213 (18)
Unknown	42 (15)	271 (44)	132 (49)	445 (38)
Driving distance in kilometers to HIV clinic Median (IQR)	9 (3-43)	7 (3-19)	11 (6-16)	9 (4-22)

Of the 1172 women included in this analysis, 1107 (94%) have had a Pap test at least once in their life. Among those women, 796 (72%) reported having a Pap test in the previous 12 months. Report of annual Pap test was most common in BC (82%) followed by QC (75%) and ON (66%).

Figure 1: Proportion of of annual Pap tests by health authority and province among those who have ever had a Pap test (%)



RESULTS CONTINUED

In the multivariable logistic regression model, women who identified as African/Caribbean/Black (Adjusted Odds Ratio [aOR]=2.2, 95% Confidence Interval (CI): 1.51-3.2) and had a female primary HIV doctor (aOR=2.1, 95% CI: 1.55-2.85) were more likely to report having a Pap test in the 12 months prior to questionnaire (alpha=0.05).

Table 2: Bivariate and multivariable analysis of women who did and did not receive a Pap test in the previous 12 months (n=1107), n(%)

Variable	Received Pap test in previous 12 months (n=796)	Did not receive Pap test in previous 12 months (n=311)	p-value	Adjusted Odds Ratio (95% Confidence Interval)	p-value
Age Median (IQR)	41 (34-49)	41 (35-51)	0.382		
Sexual orientation					
Heterosexual	696 (87)	268 (86)	0.344		
LGBQQT*	82 (10)	39 (13)			
Other	18(2)	4 (1)			
Ethnicity					
Caucasian	298 (37)	139 (45)	<0.001	1.0	<0.001
Aboriginal	159 (20)	80 (26)		1.07 (0.74-1.56)	
ACB**	272(34)	58 (19)		2.2 (1.51-3.2)	
Other	67 (8)	34 (11)		0.86 (0.52-1.4)	
Engaged in sex work, ever					
Unknown	387 (49)	181 (58)	0.005	1.0	0.038
Yes	138 (17)	54 (17)		1.28 (0.85-1.93)	
No	271 (34)	76 (24)		1.54 (1.1-2.16)	
Received HIV medical care in previous year					
Yes	765 (96)	277 (89)	<0.001		
No	30 (4)	34 (11)			
Gender of primary HIV doctor					
Male	398 (52)	198 (71)	<0.001	1.0	<0.001
Female	366 (48)	79 (29)		2.1 (1.55-2.85)	
Consensual sex in previous 6 months					
Yes	401 (56)	125 (43)	<0.001		
No	320 (44)	164 (57)			
Experiences of adult sexual assault					
Yes	350 (44)	113 (36)	0.027	1.0	0.089
No	379 (48)	176 (57)		0.71 (0.52-0.97)	
Unknown	67 (8)	22 (7)		0.92 (0.51-1.64)	

*Lesbian/Gay/Bisexual/Queer/Questioning/Two-spirit
**African/Caribbean/Black

CONCLUSIONS

There are notable differences in self-reported rates of Pap testing across geographic regions in Canada. Gender of primary HIV doctor and ethnicity emerged as strong predictors of Pap testing in accordance with HIV guidelines. While spatial factors did not emerge as significant in this analysis, we will explore more nuanced distance measures such as proximity to HIV care.

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