

Beliefs about Cervical Cancer Screening in Women Living with HIV and Recency of Screening

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First Canadian study to explore attitudes towards cervical cancer screening among women living with HIV and its effects on the timeliness of screening

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Women living with HIV are at an increased risk of cervical cancer

- Cervical cancer rates are **6x** higher for women living with HIV compared to the general population
- **61%-86%** of women living with HIV in Ontario have had a Pap test in the last 3 years
- Other studies have observed that screening delays among women with HIV are related to a lack of with healthcare providers, provider, gender older age and being Canadian-born

Objectives

- (1) To understand beliefs related to cervical cancer screening for women living with HIV in Ontario
- (2) To compare beliefs between women who were screened in a 'timely' manner to those who were not

Methods: Cross-Sectional Survey



Data Source: Ontario HIV Treatment Network Cohort Study (OCS)

- Clinical cohort of people attending HIV care clinics
- One-time administration of an HPV Module including questions on HPV and cervical cancer prevention
- Administered to 618 women from July 2017 to Jan 2020



Measurement: 5-point Likert scale belief statements informed by Theory of Planned Behaviour

- Measures behavioural, normative, and control beliefs towards a behaviour
- 13 belief statements about cervical cancer screening with 5-point Likert scale response



Analysis:

- Classified self-reported screening as:
 - Up to Date: within past 3 years
 - Delayed/Unscreened: >3 years ago/never screened/ uncertain
- Belief responses collapsed : Agree, Neutral/Don't Know, Disagree
- Descriptive statistics and chi-square tests to determine differences between groups according to timeliness of screening

KEY RESULTS

84.9%

screened for cervical cancer within the last 3 years

33.0%

believed they had ‘no chance’ of getting cervical cancer

80.1%

of those up-to-date with screening agreed their healthcare provider believed they should get screened

vs

52.6%

of those with delayed/no screening

Table 1. Demographics of the OCS (n=509).

Characteristics	
Median Age at Interview (years)	46.0
White race/ethnicity	27.7%
Black/Caribbean/African race/ethnicity	54.6%
Indigenous race/ethnicity	4.1%
Household Income <\$20 000	37.7%
Immigrant from an HIV endemic country	56.6%
Completed college, university or other post-graduate education	62.9%
Last CD4 count: >500 CD4 cells/mm ³	50.1%

Table 2. Timeliness of Screening and Self-perceived Risk of Cervical Cancer.

Timeliness of Last Pap Test	Less than 1 year Ago	61.5%
	1-3 Years Ago	23.4%
	>3 years or Don't Remember	8.2%
	Never Screened	6.8%
Self-Perceived Risk of Cervical Cancer	No risk	33.0%
	Low	27.7%
	Moderate	13.4%
	High /Certain	7.1%
	Missing	18.9%

Table 3. Differences in beliefs regarding cervical cancer screening according to timeliness of cervical cancer screening

	Belief	Disagree	Neutral/ DK	Agree	P-value
Behavioural Beliefs	If cervical pre-cancer is found, I will be offered treatment				
	Up-to-date	Not Shown ^A		94.0%	<0.01
	Delayed/Unscreened	Not Shown ^A		77.6%	
	I would (not) worry while waiting for my appointment for a Pap test or cervical swab*				
	Up-to-date	19.4%	7.6%	72.9%	<0.01
	Delayed/Unscreened	22.4%	19.7%	57.9%	
	I have a (low) chance of getting unpleasant short-term side effects after a Pap Test*				
	Up-to-date	22.2%	8.5%	69.3%	<0.01
	Delayed/Unscreened	18.4%	22.4%	59.2%	
	I will (not) feel embarrassed during the Pap test or cervical swab*				
	Up-to-date	23.1%	8.1%	68.8%	<0.01
	Delayed/Unscreened	23.7%	22.4%	53.9%	
	I will (not) feel pain during the exam*				
	Up-to-date	32.8%	10.4%	56.8%	<0.01
Delayed/Unscreened	28.9%	23.7%	47.4%		
I would (not) be worried that a Pap test or cervical swab would show something wrong*					
Up-to-date	40.0%	9.5%	50.5%	<0.01	
Delayed/Unscreened	37.3%	25.3%	37.3%		

DK, Don't know

^ARepresents cells that were suppressed due to small cell size

*Denotes statements that were reverse coded during analysis to represent positive attitudes towards screening; bracketed words for starred statements were added for clarification

	Belief	Disagree	Neutral / DK	Agree	P-value
Control Beliefs	I can find out where to go to get a Pap test or cervical swab for cervical cancer				
	Up-to-date	4.2%	2.5%	93.3%	<0.01
	Delayed/Unscreened	Not Shown ^A		80.0%	
	It would (not) be difficult to take time away from family/work/responsibilities to get a Pap test*				
	Up-to-date	6.7%	3.7%	89.6%	<0.01
	Delayed/Unscreened	Not Shown ^A		75.0%	
	I feel comfortable disclosing my HIV status to the healthcare provider doing the exam				
	Up-to-date	18.8%	9.7%	71.5%	0.08
	Delayed/Unscreened	17.1%	18.4%	64.5%	
	It would be easier for me to get the exam done by a female healthcare provider				
Up-to-date	21.9%	23.1%	55.0%	0.04	
Delayed/Unscreened	Not Shown ^A		53.9%		
It would be easier for me to get the exam done by a male healthcare provider					
Up-to-date	65.7%	28.2%	6.0%	0.26	
Delayed/Unscreened	61.8%	Not Shown ^A			
Subjective Beliefs	Those who are important to me would encourage me to get a Pap test				
	Up-to-date	8.5%	9.0%	82.4%	0.06
	Delayed/Unscreened	Not Shown ^A		72.0%	
	My healthcare provider thinks that I should get a Pap test for cervical cancer				
Up-to-date	14.1%	5.8%	80.1%	<0.01	
Delayed/Unscreened	25.0%	22.4%	52.6%		

KEY TAKEAWAY

Healthcare provider recommendations and discussion of cervical cancer screening is an important factor for timely screening attendance



- Our observed proportion having ‘timely screening’ (85%) was similar to previous studies conducted in Ontario using self-report
- System-level targets which improve the availability of **convenient** and **accessible** services to women can help address concerns around Pap testing.
- Self-collection for cervical cancer screening may help to overcome some observed barriers and has been shown in previous studies to be **feasible** and **acceptable**.
- **Limitations:**
 - Screening likely overestimated due to self-report, volunteer study participants more engaged in care
 - Cross sectional data precludes inferences about causality

Acknowledgements

Ontario HIV Treatment Network Cohort Study Team

The OHTN Cohort Study Team consists of Dr. Abigail Kroch (Principal Investigator); Dr. Ann Burchell; Dr. Jeffrey Cohen; Dr. Curtis Cooper; Dr. Gordon Arbess; Elizabeth Lavoie; Dr. Mona Loutfy; Dr. Nisha Andany; Dr. Sharon Walmsley; Dr. Michael Silverman; Dr. Roger Sandre; Dr. Phillipe El-Helou; Holly Gauvin; Wangari Tharao; Dr. Alan Li; Dr. Jeffrey Craig; and Dr. Jorge Martinez-Cajas.

OCS participants, participating sites, and OHTN staff

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This work is supported by Dr. Ann Burchell’s CIHR Foundation Award and Canada Research Chair in Sexually Transmitted Infection Prevention.

Funders



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