

# Achieving Cervical Cancer Screening Excellence through Empowerment



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- Co-President, HPV Global Action
- Chair, Canadian Network on HPV Prevention
  - Board Member, International Papillomavirus Society
  - President, International Society for STD Research

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# Moderator



## **Dr. Marc Steben** MD,CCFM, FCFM

- Co-President, HPV Global Action
- Chair, Canadian Network on HPV Prevention
- Board Member, International Papillomavirus Society
- Président, International Society for STD research

# Webinar Objectives

- 1- Increase cervical screening among under-screened women
- 2- Apply new Insights and Innovations in their offer of screening
- 3- Use effective Communication and Implementation Strategies

# Administrative Information

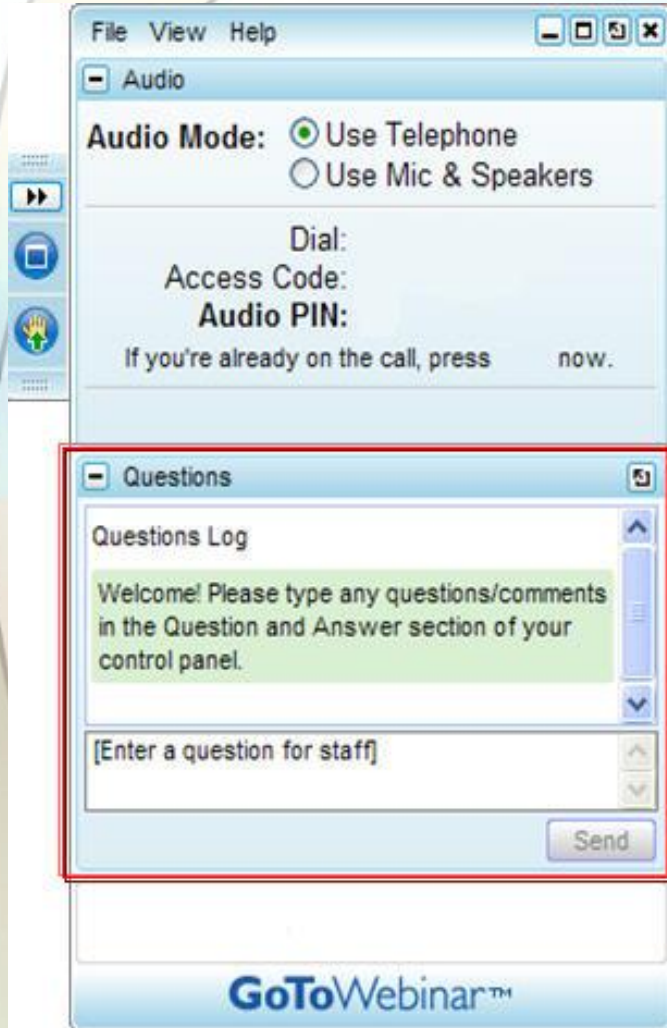
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- You can hear the audio for today's webinar via your computer by selecting "Use Mic & Speakers"
- Submit questions at any time by typing in the "Questions" pane on the control panel & click 'Send' button
- Questions will be answered at the end of the presentation

NOTE: For **mobile device** users:

- To open the questions pane, tap on the "?" or "Questions"
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**Note:** A recording of the presentation will be made available at [www.CIDCgroup.org](http://www.CIDCgroup.org) and [hpvglobalaction.org](http://hpvglobalaction.org)



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# Presenter



## Dr. Lananh Nguyen MD, MSc

- Diplomate of the American Board of the Pathology in Cytopathology
- Medical Director of Cytopathology at Unity Health Toronto Hospitals, Toronto, Ontario

# Financial disclosure

▮ Nguyen is an expert consultant for Hologic

# TURNING THE TIDE

## RECOMMENDATIONS TO INCREASE CERVICAL CANCER SCREENING AMONG WOMEN WHO ARE UNDER-SCREENED

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*Advancing Cervical Cancer Screening  
(ACCESS) International Consensus  
Group on Cervical Cancer*



**ACCESS**

International Consensus  
Group on Cervical Cancer



# Introduction

- Screening participation rates vary between countries in Europe (12%-79%)<sup>1</sup>, with declining rates in some countries.<sup>2,3,4</sup>
- Low participation rates in screening programmes have a very detrimental impact on women's health outcomes.
- Women who do not receive regular screening are at higher risk and more likely to have advanced disease and poorer outcomes.<sup>5</sup>
- Some women are consistently under-screened due to a wide range of factors including, lack of awareness, lack of access or cultural beliefs.

## Objectives:

- Propose solutions
- Accelerate cross-border collaboration
- Share best practices between countries

## The Goal:

- Support the under-screened population and ensure women have optimal access to screening.

# Executive Summary

## The facts

- ▮ It is possible to eliminate cervical cancer in high-income countries with organised screening and vaccination programmes.
- ▮ Screening is the most impactful intervention to reduce the burden of cervical cancer in the short term.
- ▮ Screening participation rates are sub-optimal and have been declining.

## A call on governments and healthcare authorities to:

- ▮ Develop national action plans for cervical cancer elimination within a defined timeframe, utilising the WHO's elimination framework.
- ▮ Raise awareness among under-screened populations, using targeted approaches created in partnership with healthcare professionals and communities.
- ▮ Improve the accessibility of cervical cancer screening for under-screened populations through use of new interventions.



“Urgent action is needed to address low and declining screening participation rates and to stop women dying from this largely preventable disease.”

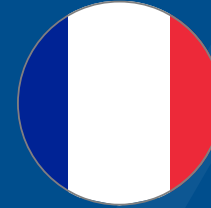
# Members



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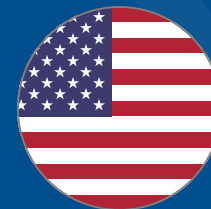
**Dr. Lananh Nguyen**  
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USA



Canada

# Background: Cervical Cancer Screening

- Cervical cancer is a leading cause of mortality among women. Each year, there are around **33,000 cases of cervical cancer and 15,000 deaths in the EU**.<sup>6</sup>
- National screening programmes have proven to be successful in reducing the disease burden. Since the 1980s, they have helped to **reduce cervical cancer rates by up to 80%**<sup>7</sup> in high-income countries with **established screening programmes**.
- Research in Europe has shown that women who attend **regular screenings reduce their risk of dying** from cervical cancer **by up to 92%**.<sup>8</sup>

# Main Barriers to Screening

- ▮ Vaccination alone is not sufficient to prevent all cases of cervical cancer, and regular screening remains critical for prevention and early detection.
- ▮ Disadvantaged groups of women are most likely to be under-screened and suffer disproportionately from cervical cancer due to, among others:
  - ▮ Geographical barriers.
  - ▮ Language, cultural or personal belief.
  - ▮ Physical and financial barriers to accessing healthcare.



# Key Recommendations

1

Develop cervical cancer national elimination plans by a defined date, including ambitious participation targets at the population level

2

Implement targeted and culturally-relevant education, focused on under-screened women

3

Improve the accessibility of cervical cancer screenings

4

Support healthcare professionals to increase participation in cervical cancer screenings

5

Encouraged and support the creation of national cervical cancer patient advocacy groups and prevention coalitions

6

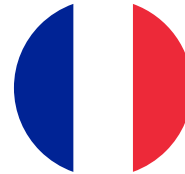
Ensure that health insurance appropriately covers screening in all high-income countries

# Examples of Country Best Practices



## Spain – Fostering Modern Communication Strategies

The Catalan Institute of Oncology (ICO) has created modern communication strategies to update healthcare professionals on the novel options for cervical cancer prevention, such as via the Cervical Cancer and HPV Programme of e-oncologia.<sup>9</sup>



## France – Educational Efforts of Patient Organisations Reaching Women

The French patient association “1000femmes1000vies” developed an information leaflet entitled “Cervical cancer, Pre-cancer and Papillomavirus infections: why, how and for whom?” to educate women about key facts and figures surrounding cervical cancer and what to do to prevent it.<sup>10</sup>



## Canada – National Target-Based Action Plan to Eliminate Cervical Cancer

The Canadian Partnership Against Cancer coordinated efforts with a broad group of partners, experts, stakeholders and patients to create the Action Plan to Eliminate Cervical Cancer in Canada, 2020-2030 with concrete priorities, targets and actions to eliminate cervical cancer in Canada by 2040.<sup>11</sup>

# Examples of Country Best Practices



## UK – YOUSCREEN

In 2021, NHS England launched YouScreen study, trialling HPV self-sampling in more than 31,000 women in London who were 15 months overdue for their cervical cancer screening.<sup>12</sup> The study aims to find out the best way to offer HPV self-sampling to women who have not responded to their invitation and is the first study of self-sampling in the UK. Study results are yet to be published.



## Ireland – National Roadmap to Eliminate Cervical Cancer and National Strategic Framework to Address Equity in Screening

Ireland's roadmap to eliminate cervical cancer was published in January 2023. Different national authorities established a working group to develop a model to work towards cervical cancer elimination and set a specific target date to reach this goal. They also developed a Strategic Framework to improve equity in screening for cervical, bowel and breast cancer.<sup>13</sup>



# Recommendations to Increase Cervical Screening Among Women Who Are Under-Screened



## 1. Develop cervical cancer national elimination plans

- With goals for elimination by a defined date, including ambitious national screening programme participation targets at the population level.
- Screening targets should go beyond the headline participation rate and address other key indicators such as equity, testing approaches, screening frequency and ensuring follow-up treatment and management.



“Screening targets should go beyond the headline participation rate and address other key indicators, such as equity.”

# Recommendations to Increase Cervical Screening Among Women Who Are Under-Screened

## 2. Education

- ▮ Implement targeted and culturally relevant education, information and awareness-raising initiatives, particularly focused on under-screened women.
  - ▮ Organising outreach programmes to under-screened populations
  - ▮ Developing social media campaigns utilising social media influencers
  - ▮ Supporting peer education
  - ▮ Developing culturally appropriate media campaigns
  - ▮ Using HPV vaccination as an opportunity to educate young women about cervical cancer prevention and the need for regular screening



# Recommendations to Increase Cervical Screening Among Women Who Are Under-Screened

## 3. Accessibility

- ▢ Improve accessibility of cervical cancer screening through:
  - ▢ Self-sampling – for under-screened women only, due to implementation challenges<sup>14</sup>, and a CIN2+ relative detection estimated as low as 76% in the largest, population-based, real-world study to date.<sup>15,16</sup>
  - ▢ Optimisation of the invitation system.
  - ▢ Providing non-GP locations for screening and screening appointments at varied times.
  - ▢ Carrying out outreach and information campaigns about the availability of cervical cancer screening.
  - ▢ Adequate funding and staffing of primary or obstetrics and gynaecology care.

# Recommendations to Increase Cervical Screening Among Women Who Are Under-Screened

## 4. Healthcare Professionals

- ▮ Provide updated training and education to raise awareness of screening by counselling women on HPV infection, the importance of screening and to encourage a partnership approach with patients.
- ▮ Develop clear pathways and best practice guidance for working with a patient who has additional requirements or needs onward referral.
- ▮ Ensure there are financial incentives in place for healthcare professionals, such as performance measures like screening coverage targets.



# Recommendations to Increase Cervical Screening Among Women Who Are Under-Screened

## 5. Patient Advocacy

- ▢ Encourage and support the creation of national cervical cancer patient advocacy groups and cervical cancer prevention coalitions.
  - ▢ Support patients and play a valuable role in education and awareness about cervical cancer prevention.
  - ▢ Policymakers should allocate increased funding to charitable organisations specifically supporting women and girls.



# Recommendations to Increase Cervical Screening Among Women Who Are Under-Screened

## 6. Health Insurance

- ▮ Ensure that health insurance appropriately covers screening in all high-income countries.
  - ▮ One of the main barriers to participation is the cost due to lack of or insufficient health insurance coverage.
  - ▮ Health insurance policies in all high-income countries should cover all available screening options, and programmes that provide access to cervical cancer screening to those who do not have health insurance should be available.



# Conclusions

- ▮ This White Paper highlights a number of actions that can be undertaken to increase participation in cervical cancer screening.
- ▮ International collaboration between experts should be intensified to allow for more frequent knowledge exchange and best-practice sharing.
- ▮ Policymakers and health authorities should urgently consider the highest-impact interventions for their local context to address the impact of cervical cancer and reduce the health inequalities that it creates.
- ▮ The ACCESS Consensus Group looks forward to partnering with stakeholders who share this critical mission.



“Screening is the most impactful prevention tool at our disposal for reducing the burden of cervical cancer in the coming years. It is alarming to witness sub-optimal participation rates in many high-income countries & a widening inequity among under-screened women.

Our recommendations address these challenges & provide a roadmap for improved accessibility to screening services, which will support the pathway to elimination.”

*Prof. Philippe Descamps  
Co-Chair, ACCESS Consensus Group*



# ACCESS

International Consensus  
Group on Cervical Cancer

# Thank you!

[accesscg.org](https://accesscg.org)



White Paper



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# Presenter



## Dr. Samara Perez PhD

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HPV Global Action/ VPH Action Globale in partnership with the Consortium for Infectious Disease Control (CIDC)

March 27, 2024



# A National Survey of Factors Influencing Women's Intentions to Participate in Human Papillomavirus Test-Based Primary Cervical Screening

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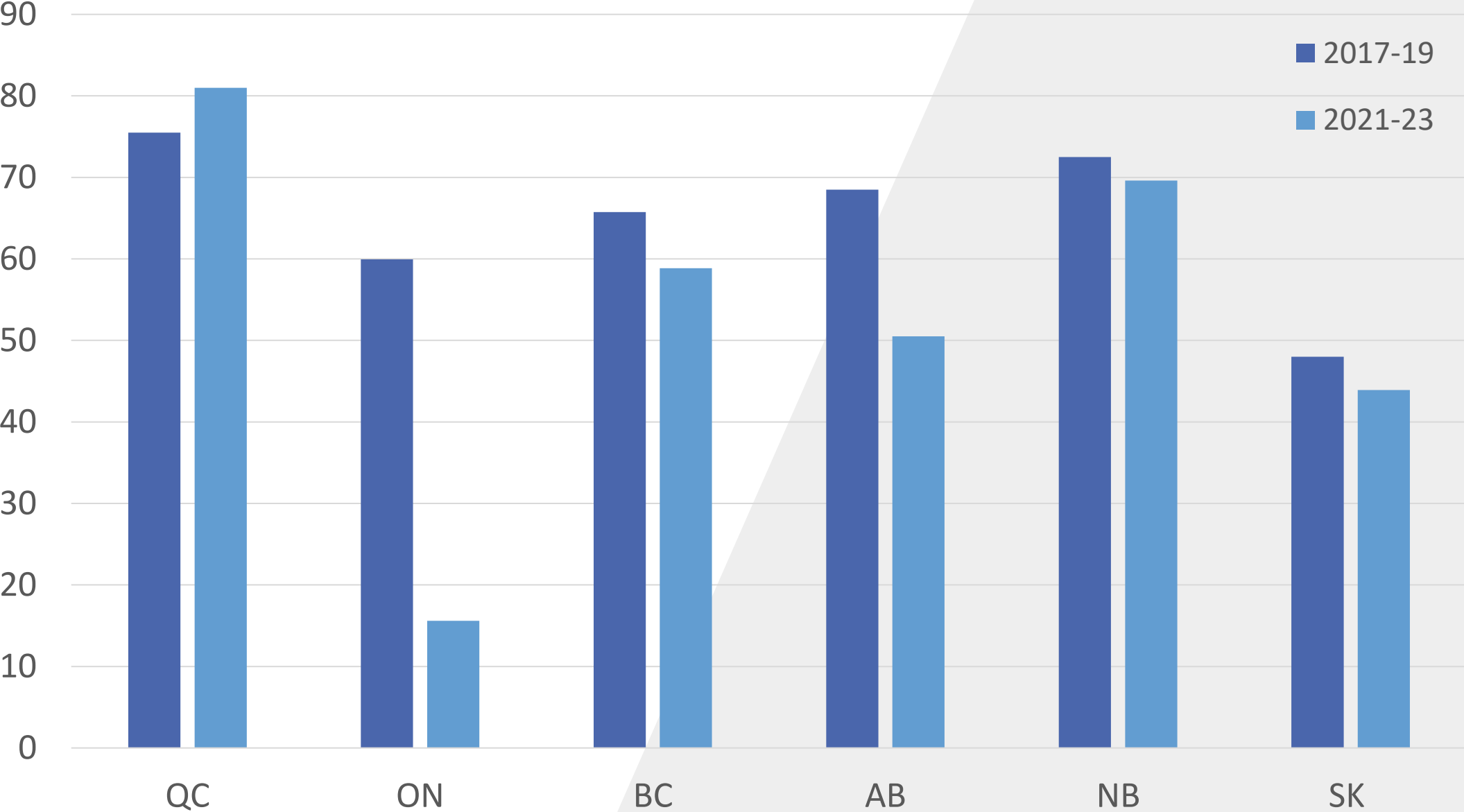
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No Conflicts of Interest to Declare

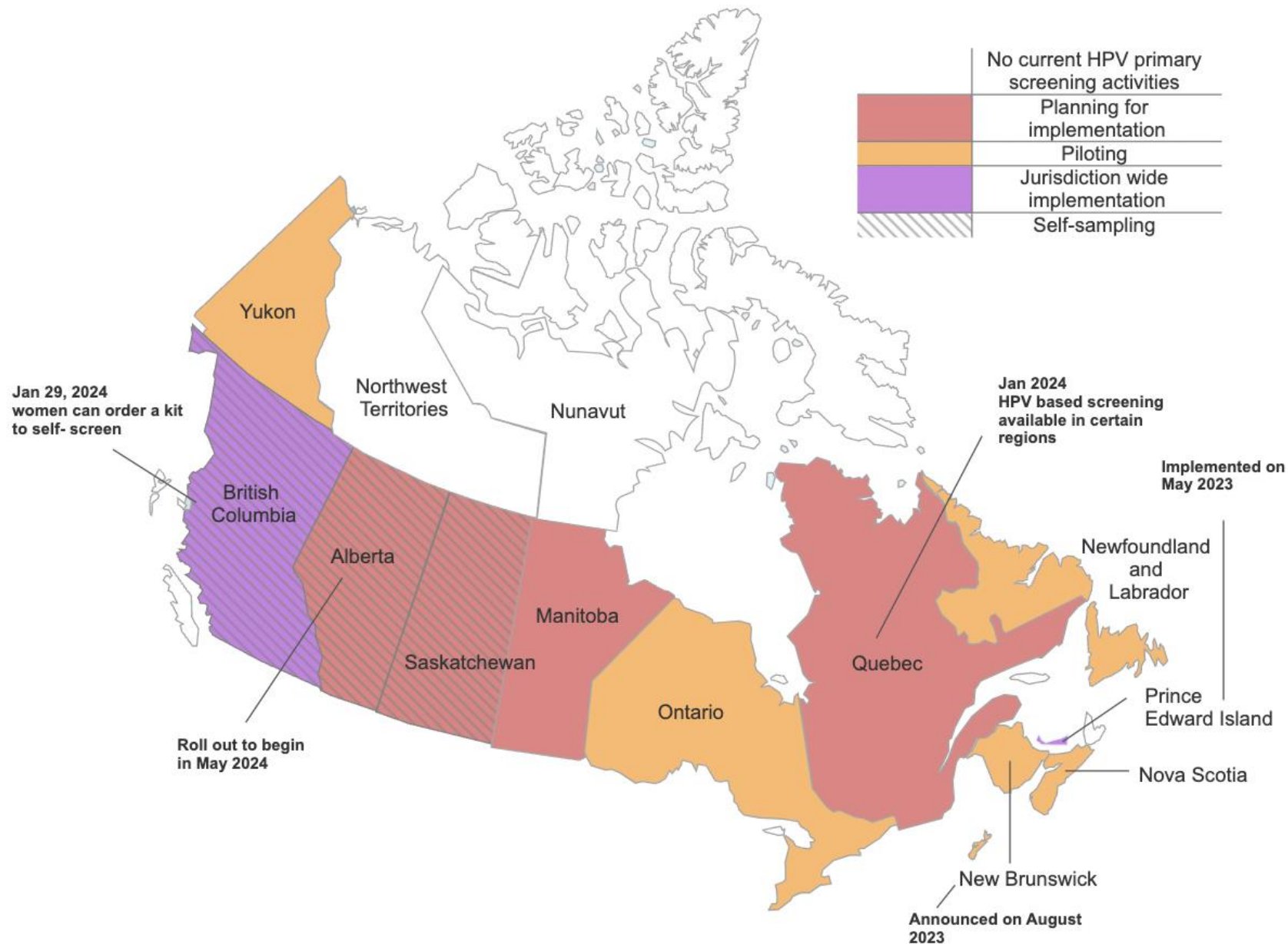
# Canada HPV Vaccination School-based Completion Rates (%) Pre and Post COVID-19 Pandemic



## Most Up to date HPV school-based vaccination rates, as per March 2024

Province	School Year	Total (%)	Female (%)	Male (%)	Reference	Additional Remarks
NB	2022-23	69.6	66.3	73	[1]	
BC	2022-23	58.85	60	57.7	[2]	
SK	2022-23	43.9	62.2	61.8	[3]	
QC	2022-23	81.5	83	80	[4]	
ON	2021-22	15.6	16.4	14.8	[5]	
AB	2021-22	50.5	50.9	50.2	[6]	
NL	2020-21	76.1			[7]	The pandemic affected the availability of resources & efforts are underway to acquire more recent years uptake rates[7]
MB	2020-21	63.95	69.8	58.1	[8]	Currently ongoing a review of the immunization coverage data [9]
NS	2021-22	81.5	80.5	82.5	[10]	
PEI	2019-20	82.65	83.7	81.6	[12]	

- The provinces of Prince Edward Island and British Columbia have implemented HPV testing for primary cervical screening
- The remaining 8 Canadian provinces + Yukon Territory are planning to transition or in the process of piloting the transition to HPV-based primary cervical screening programs in Canada



## Status of HPV test-based primary cervical screening programs in Canada





As of March 2024 via Personal Communications

# Objective

To Estimate the associations between psychosocial factors and the intentions of **adequately screened and under-screened Canadians to participate in HPV test-based screening and self-sampling**

Article

## Are Canadian Women Prepared for the Transition to Primary HPV Testing in Cervical Screening? A National Survey of Knowledge, Attitudes, and Beliefs

Ben Haward <sup>1,\*</sup>, Ovidiu Tatar <sup>1,2</sup>, Patricia Zhu <sup>1</sup>, Gabrielle Griffin-Mathieu <sup>1</sup>, Emily McBride <sup>3</sup>, Jo Waller <sup>4</sup>, Julia Brotherton <sup>5</sup>, Aisha Lofters <sup>6</sup>, Marie-Hélène Mayrand <sup>2,7</sup>, Samara Perez <sup>8,9</sup> and Zeev Rosberger <sup>1,9,10</sup>

Published on 16.6.2022 in **Vol 11, No 6 (2022): June**

 Preprints (earlier versions) of this paper are available at <https://preprints.jmir.org/preprint/38917>, first published April 21, 2022.



### Ensuring a Successful Transition From Cytology to Human Papillomavirus–Based Primary Cervical Cancer Screening in Canada by Investigating the Psychosocial Correlates of Women’s Intentions: Protocol for an Observational Study

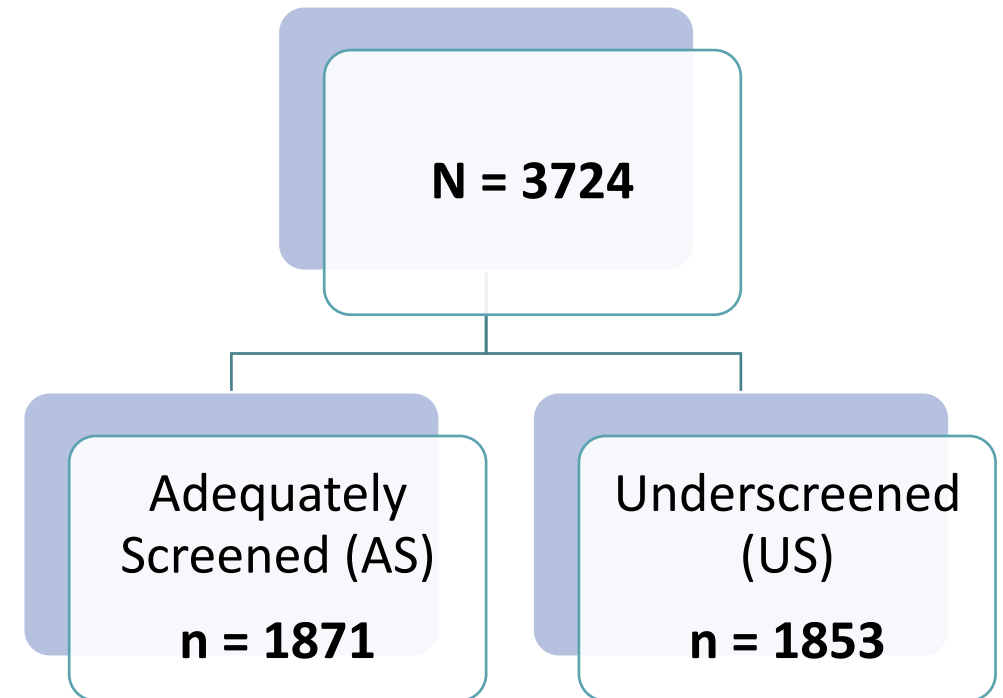
Gabrielle Griffin-Mathieu <sup>1</sup>, Ben Haward <sup>1</sup>, Ovidiu Tatar <sup>1,2</sup>, Patricia Zhu <sup>1,3</sup>, Samara Perez <sup>1,4,5,6</sup>, Gilla K Shapiro <sup>7</sup>, Emily McBride <sup>8</sup>, Erika L Thompson <sup>9</sup>, Laurie W Smith <sup>10</sup>, Aisha K Lofters <sup>11,12</sup>, Ellen M Daley <sup>13</sup>, Juliet R Guichon <sup>14</sup>, Jo Waller <sup>15</sup>, Marc Steben <sup>6,16</sup>, Kathleen M Decker <sup>17,18</sup>, Marie-Helene Mayrand <sup>2,19</sup>, Julia M L Brotherton <sup>20,21</sup>, Gina S Ogilvie <sup>10,22,23</sup>, Gregory D Zimet <sup>24</sup>, Teresa Norris <sup>6</sup>, Zeev Rosberger <sup>1,3,5,6,25</sup>

Scan to learn more  
about our work



# Canada-Wide Survey to understand KABs

- Web-based, population-wide survey of screening-eligible Canadians with a cervix in Summer 2022
- Used oversampling to ensure approximately 50/50 adequately screened and under-screened sample
- Census-based quotas applied for age, province, primary language, household income, and rural/urban residence





# Questionnaire flow

Eligibility criteria (4 items)
Cervical cancer screening history and health (14 items)
HPV general knowledge (23 items)
Cervical Cancer Knowledge (8 items)
HPV test knowledge (8 items)
Informative statement about HPV testing
Measure intentions to engage in HPV testing using PAPM (1 item)
Measure attitudes and beliefs about HPV testing (23 items)
Informative statement about HPV self-sampling
Measure intentions to engage in HPV self-sampling using PAPM (1 item)
Measure attitudes and beliefs about HPV self-sampling (9 items)
Summary informative statement about screening methods
Measure preferences using best-worst scaling (9 items)
Information and screening preferences (6 items)
Sociodemographic (13 items)
Open-ended questions for HPV testing & self-sampling (2 items)

# Measures

## Psychometrically Valid scales

- **Knowledge:**

1. Cervical Cancer Knowledge Scale (CCKS)
2. HPV Testing Knowledge Scale (HTKS)
3. HPV General Knowledge Scale

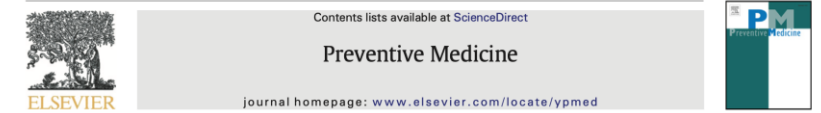
- **Attitudes and Beliefs:**

1. HPV Testing Attitudes and Beliefs Scale (HTABS)
2. HPV Self-Sampling Attitudes and Beliefs Scale
3. Best-Worse Scaling Items

Article

### Understanding the Challenges of HPV-Based Cervical Screening: Development and Validation of HPV Testing and Self-Sampling Attitudes and Beliefs Scales

Ovidiu Tatar <sup>1,2,\*</sup>, Ben Haward <sup>1</sup>, Patricia Zhu <sup>1</sup>, Gabrielle Griffin-Mathieu <sup>1</sup>, Samara Perez <sup>1,3,4</sup>, Emily McBride <sup>5</sup>, Aisha K. Lofters <sup>6,7</sup>, Laurie W. Smith <sup>8</sup>, Marie-Hélène Mayrand <sup>2,9</sup>, Ellen M. Daley <sup>10</sup>, Julia M. L. Brotherton <sup>11,12</sup>, Gregory D. Zimet <sup>13</sup> and Zeev Rosberger <sup>1,4,14</sup>



Extending and validating a human papillomavirus (HPV) knowledge measure in a national sample of Canadian parents of boys



Samara Perez <sup>a,b,\*</sup>, Ovidiu Tatar <sup>b</sup>, Remo Ostini <sup>c</sup>, Gilla K. Shapiro <sup>a,b</sup>, Jo Waller <sup>d</sup>, Gregory Zimet <sup>e</sup>, Zeev Rosberger <sup>a,b,f</sup>



Development and validation of the cervical cancer knowledge scale and HPV testing knowledge scale in a sample of Canadian women

Ben Haward <sup>a</sup>, Ovidiu Tatar <sup>a,b,\*</sup>, Patricia Zhu <sup>a,c</sup>, Gabrielle Griffin-Mathieu <sup>a</sup>, Samara Perez <sup>a,d,e</sup>, Gilla K. Shapiro <sup>f</sup>, Emily McBride <sup>g</sup>, Gregory D. Zimet <sup>h</sup>, Zeev Rosberger <sup>a,c,e,i</sup>

# Informative statements

## Please carefully read the following information about HPV testing:

Human papillomavirus (HPV) is the most common sexually transmitted infection. Almost all cervical cancers are caused by HPV. Cervical cancer is a highly preventable disease.

### The Pap Test

- Cervical cells are looked at in the lab under a microscope to check for abnormal cells
- Currently used for routine cervical cancer screening in Canada
  - Every 2 or 3 years (starting at age 21 or 25, continuing until 65 or 70 depending on the province/territory in which you live)

**SCREENING IS AN IMPORTANT PART OF PREVENTION**


Today, there are two main screening tests for cervical cancer.

**PAP TEST**

Used for nearly 80 years to look for abnormal changes in cells.

**HPV TEST**

Uses modern technology to detect DNA of high-risk HPV to identify a woman's risk for pre-cancer or cancer.



Pictures adapted from [CancerCare Manitoba](#) and [Roche Diagnostics websites](#)

### The HPV Test

- Uses specialized technology to look for the presence of HPV DNA
- **Not yet used** for routine cervical cancer screening in Canada
  - Public health authorities are in the process of developing programs to introduce it
- Research shows that if HPV DNA is not found, women are at very low risk for cervical cancer and do not need to screen for cervical cancer as often (for example, every 5 years instead of 2-3 years with the Pap test).





For both tests, the procedure to collect the cell sample is the same (see picture above)

## Please carefully read the following information about HPV self-sampling:

The HPV test detects the presence of HPV DNA in cervical cells. The collection of the cells for the HPV test is typically done by your healthcare professional.

The collection of the cells can also be done by you in privacy. This is called **HPV self-sampling**, where you insert a thin swab into the vagina to collect cervical cells using a kit approved by Health Canada. The sample is then sent to a laboratory for analysis. The results are then returned to your clinic/healthcare provider. If the test shows that you have HPV, you will need to follow-up in-person with a healthcare professional. HPV self-sampling is **not yet used** but is being considered for routine cervical cancer screening in Canada. See the figure containing a description of HPV self-sampling in four steps.

### How to perform HPV Self-Sampling

			
<b>Step 1</b> <ul style="list-style-type: none"><li>• Lower your underwear</li><li>• Twist the red cap and pull out the swab</li><li>• Look at the swab and note the red mark closest to the soft tip</li></ul>	<b>Step 2</b> <ul style="list-style-type: none"><li>• Get in a comfortable position</li><li>• Insert the swab into your vagina, aiming to insert up to the red mark</li></ul>	<b>Step 3</b> <ul style="list-style-type: none"><li>• Rotate the swab gently 1-3 times</li><li>• Then remove the swab</li></ul>	<b>Step 4</b> <ul style="list-style-type: none"><li>• Place the swab back in the tube</li><li>• Return your sample as directed (either to your healthcare provider or by mail)</li></ul>

Picture adapted from The Royal Australian College of General Practitioners

# HPV Self-Sampling Attitudes and Beliefs Scale



Article

## Understanding the Challenges of HPV-Based Cervical Screening: Development and Validation of HPV Testing and Self-Sampling Attitudes and Beliefs Scales

Ovidiu Tatar <sup>1,2,\*</sup>, Ben Haward <sup>1</sup>, Patricia Zhu <sup>1</sup>, Gabrielle Griffin-Mathieu <sup>1</sup>, Samara Perez <sup>1,3,4</sup>, Emily McBride <sup>5</sup>, Aisha K. Lofters <sup>6,7</sup>, Laurie W. Smith <sup>8</sup>, Marie-Hélène Mayrand <sup>2,9</sup>, Ellen M. Daley <sup>10</sup>, Julia M. L. Brotherton <sup>11,12</sup>, Gregory D. Zimet <sup>13</sup> and Zeev Rosberger <sup>1,4,14</sup>

### I feel that...

#### Factor 1: Concerns

1. ... if I did HPV self-sampling, I would worry that I am not doing it right
2. ... if I did HPV self-sampling, I could harm myself
3. ... if I did HPV self-sampling, I could get an infection
4. ... I would feel embarrassed doing HPV self-sampling

#### Factor 2: Autonomy

5. ... I would be more comfortable doing the swab by myself using HPV self-sampling than having an HPV test done by a healthcare professional
6. ... I would prefer doing HPV self-sampling at home because it would save me travelling to see a healthcare professional
7. ... if I did HPV self-sampling, I would be more in control of my body

# Best Worst Scaling Items – Form of Discrete Choice Experiment

## Domain A – Screening Intervals

Question 3/9		
LEAST preferred	Options	MOST preferred
	Cervical cancer screening with the <b>Pap test</b> every 3 years	
	Cervical cancer screening with the <b>HPV test</b> every 10 years	
	Cervical cancer screening with <b>both the Pap test and the HPV test</b> every 5 years	
	Cervical cancer screening with the <b>HPV test using HPV self-sampling</b> every 10 years	

## Domain B – Age of screening initiation

Question 4/9		
LEAST preferred	Options	MOST preferred
	Cervical cancer screening with the <b>Pap test</b> starting at age 25 years old	
	Cervical cancer screening with the <b>HPV test</b> starting at age 21 years old	
	Cervical cancer screening with <b>both the Pap test and the HPV test</b> starting at age 30 years old	
	Cervical cancer screening with the <b>HPV test using HPV self-sampling</b> starting at age 30 years old	

Methods of testing (attributes)

HPV Test, Pap test, HPV-Pap co-testing, HPV self-sampling

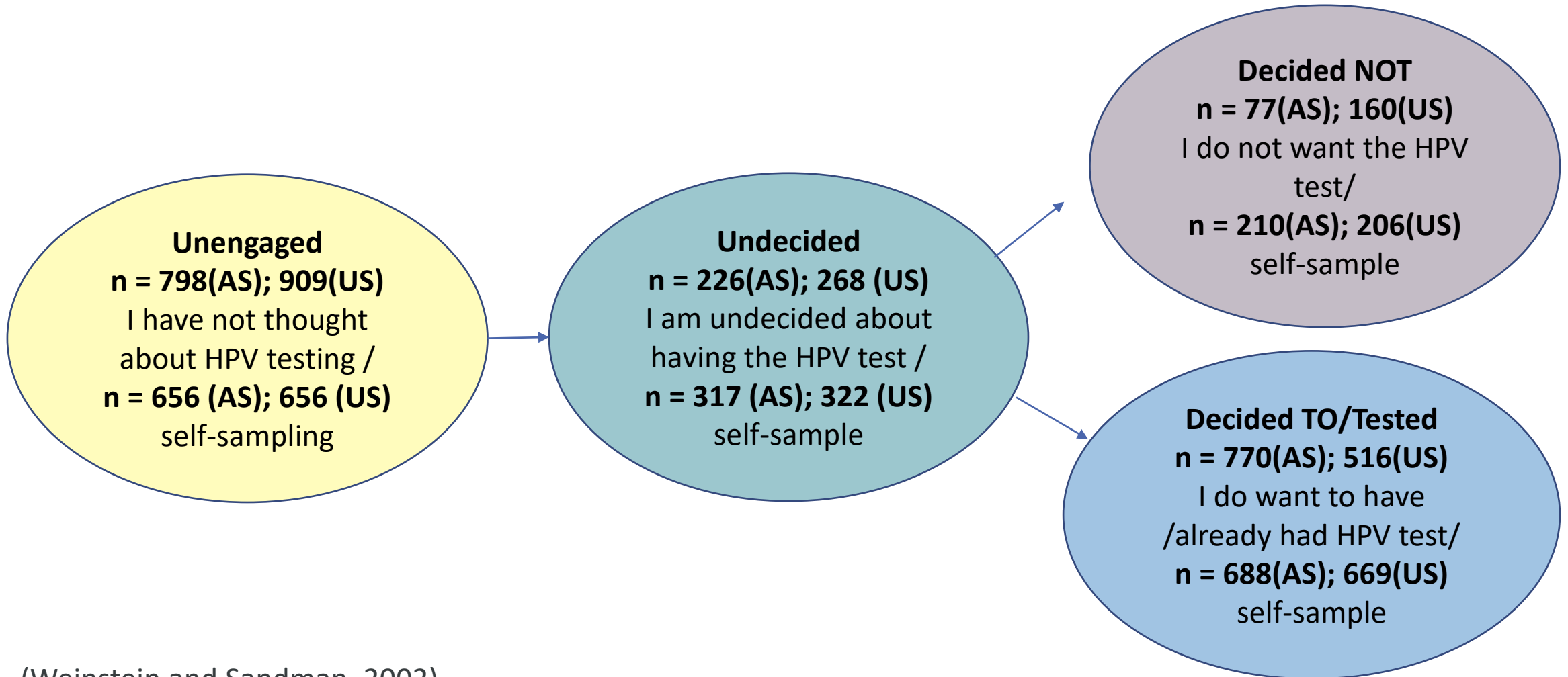
Two scenarios (attribute levels)

1. Screening intervals: 3 years, 5 years, 10 years

2. Age of screening initiation: 21 years, 25 years, 30 years

- The ending of each statement (the attribute level) varies randomly across each question

# The Precaution Adoption Process Model (PAPM)



(Weinstein and Sandman, 2002)



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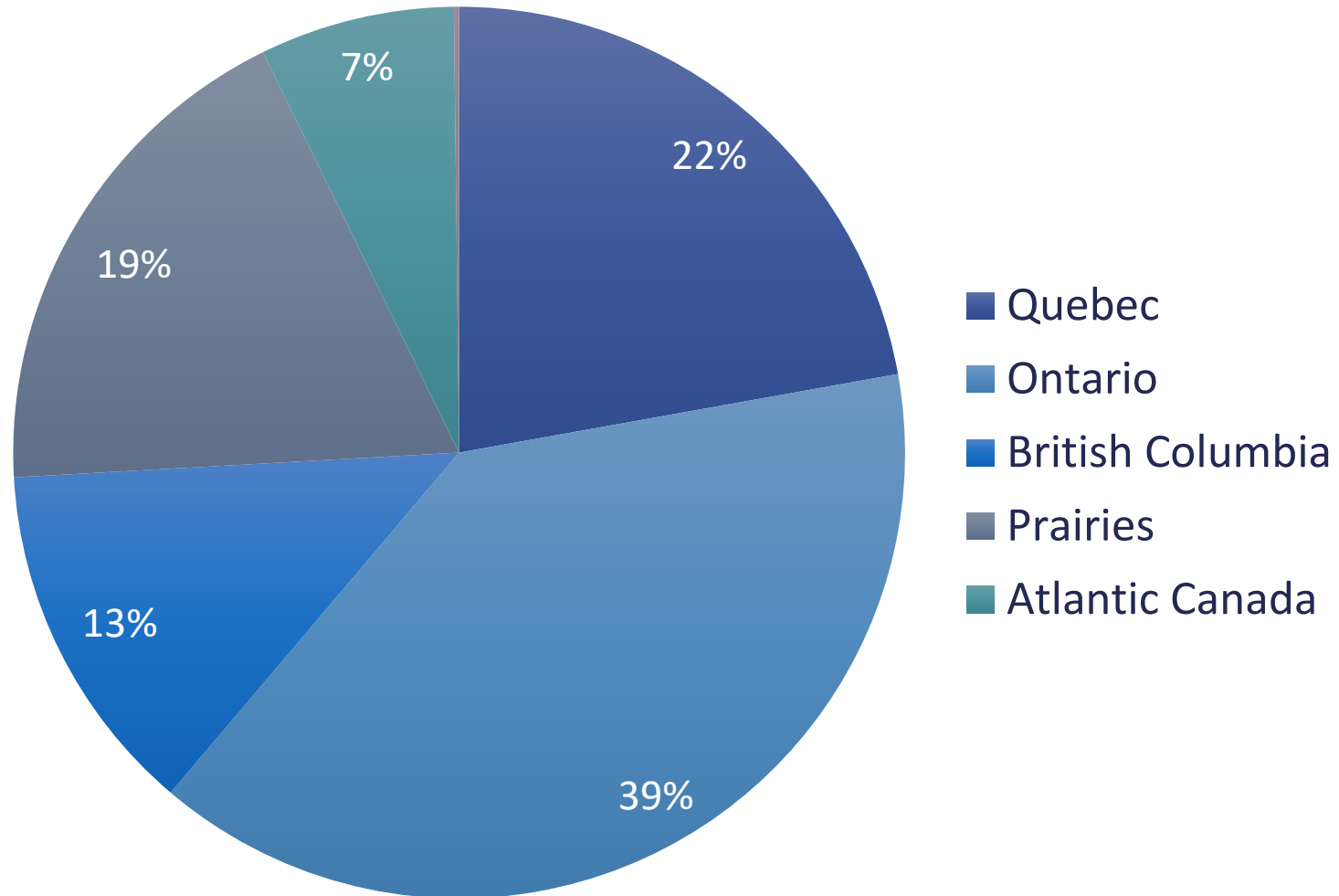
## Statistical Analysis

- **We estimated associations of psychosocial factors with the intentions' stage using multinomial logistic regression**
- We calculated the relative risk ratio (RRr) [and 95% confidence interval (CI)] for each PAPM intention stage and used *unengaged* as the reference
- Analyses were conducted for each primary outcome and separately for under-screened and adequately screened women.

	Full Sample (n = 3724)	Adequately Screened (n=1871)	Under-screened (n=1853)
Age (years), M (SD)	44.97 (14.73)	46.44 (13.9)	43.50 (15.33)
Ethnicity, n (%)			
North American Indigenous	123 (3.3)	67 (3.6)	56 (3.0)
North American-Other	1653 (44.4)	840 (44.9)	813 (43.9)
European	1120 (30.1)	618 (33.0)	502 (27.1)
Asian	529 (14.2)	203 (10.8)	326 (17.6)
Other	299 (8.0)	143 (7.6)	156 (8.4)
Visible minority, n (%)			
Yes	741 (19.9)	306 (16.4)	435 (23.5)
No	2983 (80.1)	1565 (83.6)	1418 (76.5)
Gender identity, n (%)			
Female/woman	3676 (98.7)	1855 (99.1)	1821 (98.3)
Gender diverse	48 (1.3)	16 (0.9)	32 (1.7)
Sexual Orientation, n (%)			
Heterosexual	3302 (88.7)	1698 (90.8)	1604 (86.6)
Bisexual	218 (5.9)	99 (5.3)	119 (6.4)
Other <sup>7</sup>	204 (5.5)	74 (4.0)	130 (7.0)



# Representative of Canada



**Both Adequately screened and Under-screened**

**Higher Intentions**

Participants who had more **knowledge about HPV** → participate in HPV-based screening

- AS: RRr=1.05;CI:1.02;1.08; US: RRr=1.04;CI:1.01;1.07

Participants expressing higher need for **autonomy** about HPV testing → self-sampling

- AS: RRr=1.41;CI:1.27;1.56; US: RRr=1.42;CI:1.26;1.59

Participants with higher **worries** scale scores → participate in HPV-based screening and self-sampling

- AS: RRr=1.11;CI:1.08;1.28; US: RRr=1.26;CI:1.14;1.39
- AS: RRr=1.11;CI:1.01;1.21; US: RRr=1.22;CI:1.10;1.35

Belonging to **other than North American ethnic groups** (e.g., Caribbean, Latin, Central, and South American) → participate in HPV-based screening

- AS: RRr=1.89;CI:1.10;3.26; US: RRr=2.13;CI:1.33;3.43)

Reporting a history of STI → self-sampling

- AS: RRr=1.70;CI:1.21;2.39;US: RRr=1.66;CI:1.11;2.49).

**Lower intentions**

Participants expressing more **personal barriers** to the HPV test → participate in HPV-based screening & self-sampling

- AS: RRr=0.66;CI:0.57;0.75; US: RRr=0.60;CI:0.52;0.69
- AS: RRr=0.78;CI:0.66;0.93; US: RRr=0.81;CI:0.70;0.94

**Confidence** in HPV-based screening → lower odds of refusing HPV-based screening

- AS: RRr=0.70;CI:0.51;0.98; US: RRr=0.51;CI:0.40;0.64

Participants expressing **higher concerns** about self sampling → participate in self-sampling

- AS: RRr=0.74;CI:0.64;0.85; US: RRr=0.68;CI:0.59;0.78

Participants expressing influence of **religious beliefs** on health decisions → participate in HPV-based screening

- AS: RRr=2.21;CI:1.09;4.49; US: RRr=3.40;CI:2.07;5.61

Higher **HPV test knowledge** → self-sampling

- AS: RRr=1.16;CI:1.03;1.32; US: RRr=1.20;CI:1.07;1.35

Each 1-year **increase in age** → HPV-based screening & self-sampling

- AS: RRr=0.98;CI:0.97;0.99; US: RRr=0.98;CI:0.97;0.99

Results	Under-screened
<b>Higher Intentions</b>	<p>Higher <b>HPV test knowledge</b> → participate in HPV based screening</p> <ul style="list-style-type: none"> <li>• RRR=1.09;CI:1.00;1.18</li> </ul> <p><b>Living in Canada for &lt; 10 years</b> → self-sampling and participate in HPV-based screening</p> <ul style="list-style-type: none"> <li>• RRR=1.90;CI:1.17;3.08</li> <li>• RRR=1.66;CI:1.00;2.75</li> </ul> <p><b>Indigenous ethnicity</b> → participate in HPV-based screening</p> <ul style="list-style-type: none"> <li>• RRR=2.14;CI:1.07;4.27</li> </ul> <p><b>Having a history of STI</b> → participate in HPV-based screening</p> <ul style="list-style-type: none"> <li>• RRR=1.51;CI:1.03;2.20</li> </ul> <p><b>Current smokers</b> → participate in HPV-based screening</p> <ul style="list-style-type: none"> <li>• RRR=0.40;CI:0.20;0.79</li> </ul> <p><b>having 5-10 lifetime sexual partners</b> (as compared to 1-4) → participate in HPV-based screening</p> <ul style="list-style-type: none"> <li>• RRR=0.30;CI:0.13;0.68</li> </ul>
<b>Lower intentions</b>	<p>Higher <b>cervical cancer knowledge</b> → participate in HPV based screening</p> <ul style="list-style-type: none"> <li>• RRR=0.86;CI:0.78;0.95)</li> </ul> <p>Declaring influence on health decisions by <b>religious beliefs</b> → participate in self-sampling</p> <ul style="list-style-type: none"> <li>• RRR=1.66;CI:1.00;2.75</li> </ul> <p>Women expressing higher <b>perceived norms</b> → participate in HPV based screening</p> <ul style="list-style-type: none"> <li>• RRR=1.17;CI:1.04;1.32</li> </ul> <p>Declaring <b>no lifetime sexual partners</b> → participate in HPV-based screening &amp; self sampling</p> <ul style="list-style-type: none"> <li>• RRR=0.65;CI:0.50;0.83 RRR=0.69;CI:0.54;0.87</li> </ul>

# Key Findings

We found that higher **HPV testing knowledge** was associated with **higher intention to receive the HPV test** in under-screened women but with **lower intentions to participate in self-sampling** in both groups

**Confidence in HPV-based screening** was associated with **higher intentions to participate in HPV-based screening** for both groups

**Experiencing autonomy in cervical screening** (e.g., being more comfortable, in control of one's body), was associated with **higher intentions to use self-sampling** in both adequately and under-screened

**Recent immigration history** was associated with **higher intentions for self-sampling** while **Influence of religious/spiritual beliefs** was associated with **lower intentions for self-sampling** in under-screened

**Personal barriers** (e.g., lack of time, conflicting duties) to HPV testing was associated with decreased **intentions to participate in HPV-based screening & self-sampling** in both adequately and under-screened



## Canada's shift to HPV testing as primary method for cervical screening requires clarity, consistency & collaboration

- There was a trend: It's the attitudinal factors that are more consistent e.g., beliefs, barriers, rather than socio-demographics or knowledge which was mixed
- Explain starting screening at an increased age and of longer screening intervals compared to cytology and difficulties in interpreting screening results.
- Messages that empower through autonomy and confidence e.g., “**cervix screening is in your hands.**”  
“**It is simple, easy, safe and can be done the comfort of your home**”  
“**You got this**”



Canada's shift to HPV testing as primary method for cervical screening requires clarity, consistency & collaboration in communication of messages & implementation of this new test

- Self sampling is appealing to all screening eligible Canadians and should be available and a choice for all screening eligible Canadians, and not solely under-screened
  - = OPT OUT STRATEGY (\*with the option for those who prefer provider-collected or for a variety of reasons cannot self sample)



- Our results sensitize healthcare professionals and public health decision makers about the multifaceted factors that influence acceptability of the new screening method, especially HPV and screening knowledge and negative attitudes and beliefs.
- Key messages are CRUCIAL in cc prevention interventions to address low knowledge, high perceived personal screening barriers, low confidence in the HPV test and empower screening autonomy needs via HCP, videos, brochures



Canada's shift to HPV testing as primary method for cervical cancer screening requires clarity, consistency & collaboration in communication & implementation

- Let's not re-invent the wheel → **Partner** across the provinces to ensure a screening eligible individual in PEI gets the same information & recommendations as a screening eligible individual in Manitoba or Yukon or...
- **Work together** for this shift to prevent confusion and backlash → patient partners, stakeholders, screening eligible individuals, provincial health departments, screening program managers, cancer organizations, healthcare providers, researchers, NGOs ...
- Because **TOGETHER** WE can **ELIMINATE** cervical cancer in Canada and globally



Working on HPV testing Messaging & implementation in Canada or elsewhere? LET'S WORK TOGETHER TO ELIMINATE CC  
Looking for validated questionnaires?  
Please contact:

[Samara.perez@mcgill.ca](mailto:Samara.perez@mcgill.ca)



Left to right: Gabrielle Griffin-Mathieu, Zeev Rosberger, Patricia Zhu, Ben Haward, Ovi Tatar, Samara, Eytan, and Liev Perez

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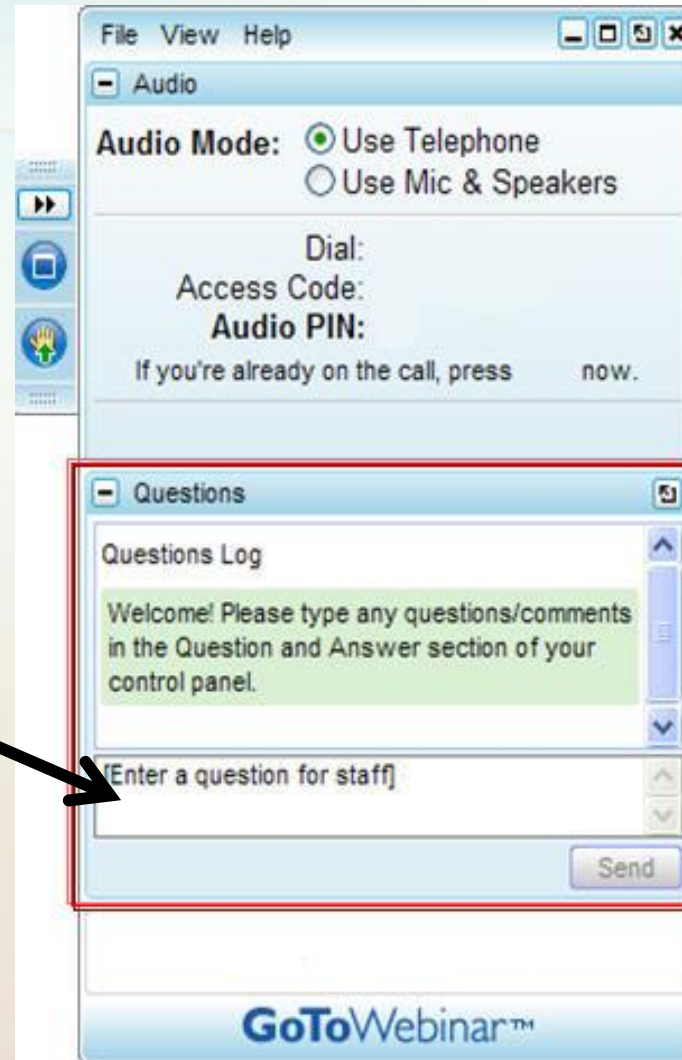


Scan to learn more about our HPV-related cancer prevention work

# Question & Answer Period

On a **computer**, submit your text question using the Questions pane

NOTE: On a **mobile device**, tap on the “?” or “Questions” to open the questions pane



# Achieving Cervical Cancer Screening Excellence through Empowerment

**Evaluation:** <https://forms.gle/zWsirosUMvBsHoLn8>

**Slide Set, Video recording, HPV documents at:**  
[hpvglobalaction.org](http://hpvglobalaction.org) & [www.CIDCgroup.org](http://www.CIDCgroup.org)

**Thank you for participating!**

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