

# Consortium for Infectious Disease Control

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*A neutral, third party platform supporting infectious disease projects,  
providing continuing medical education, coordinating initiatives, and undertaking research*

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## HPV testing for the prevention of cervical cancer: A screening tool with many benefits and some challenges!



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### Dr. Zeev Rosberger, PhD

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### Moderator: Dr. Marc Steben MD, CCFM, FCFM

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



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The opinions expressed in this webinar are those of the presenters and do not necessarily  
reflect the views of CIDC, HPV Global Action or their partners

# Webinar Objectives

1. Explain how HPV testing will change the screening experience for women
2. Describe the performance parameters of HPV testing
3. Apply the new follow-up algorithms after a positive HPV test
4. Communicate the meaning of a positive HPV test to the patient

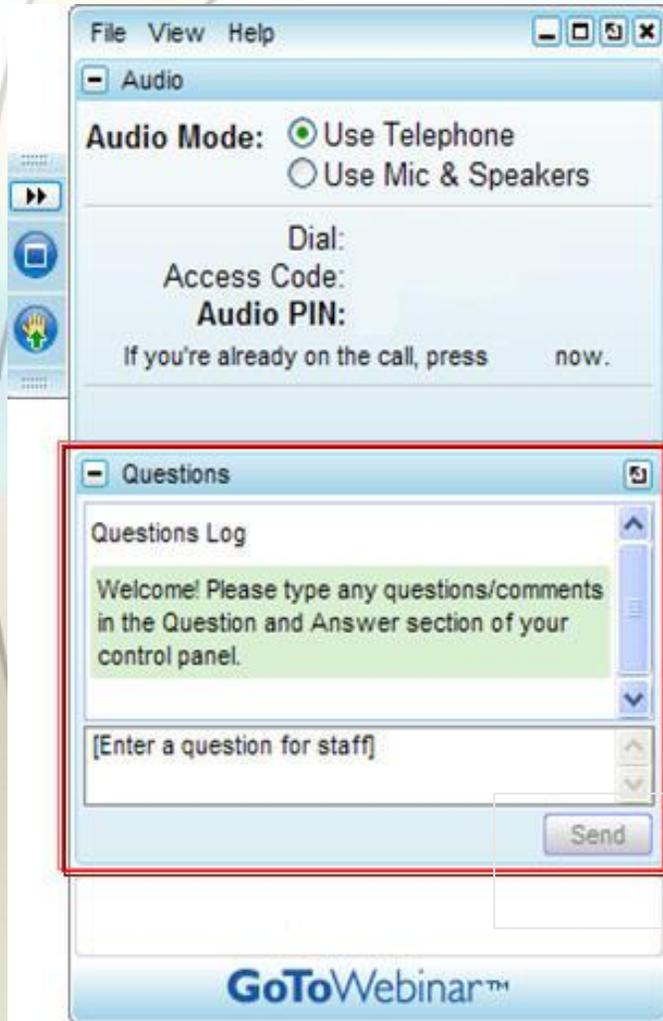
# Housekeeping

## How to participate:

- You can hear the audio for today's webinar via your computer by selecting "Use Mic & Speakers"
- Or, to join by phone, select "Use Telephone" in your Audio window. Info for dial in then will be displayed
- Submit your text question using the Questions pane & click 'Send' button
- Questions will be answered at the end of the presentation

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- Questions will be answered following the presentation

**Note:** A recording of the presentation will be made available at [www.CIDCgroup.org](http://www.CIDCgroup.org) and [www.hpvglobalaction.org](http://www.hpvglobalaction.org)



# Slides and Video Recording

The webinar **Slides and Recording** will be archived at:

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**Evaluation Survey:**

<https://www.surveymonkey.com/r/VM7P75K>

Completion of survey is requested – all registered participants will receive an email with this link

# Moderator



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

- Co-President, HPV Global Action
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# Presenter



## **Dr. Hélène Gagné, MD, FRCSC**

- Assistant Professor, Department of Obstetrics and Gynecology, The University of Ottawa
- Past President, Society of Canadian Colposcopists
- Cervical Screening and Colposcopy Lead for the Champlain region of Ontario
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# HPV Testing: What can it add to Patient Care?

Hélène Gagné MD, FRCSC

# Disclosure Statement

# Objectives

At the end of the webinar the participants will be able to:

- 1) Differentiate between pap test and HPV test results
- 2) Arrange appropriate follow-up when there is a positive test
- 3) Understand the different risk levels of high risk HPV subtypes

# Role of HPV Testing

- Almost all cervical cancers (> 99%) are caused by persistent infection with oncogenic (high risk) types of HPV virus.
- HPV testing identifies the presence of oncogenic types of HPV
- Risk to develop pre-cancerous lesions.
- Is more sensitive (more likely to detect lesions), but less specific (not as good to rule out people who are at less risk) than pap
- Not recommended before age 25-30, as HPV infections are usually transient, and cancer very rare

# Impact of HPV Testing

- Better screening for pre-cancer and cervical cancer, identifies who is at most risk
- Potentially less frequent tests than cytology when in an organized screening programme
- Can reduce colposcopy referrals and biopsies, potentially unnecessary treatments
- Safer, earlier, more appropriate discharge from colposcopy
- More tailored follow-up concentrating on the highest risk patients

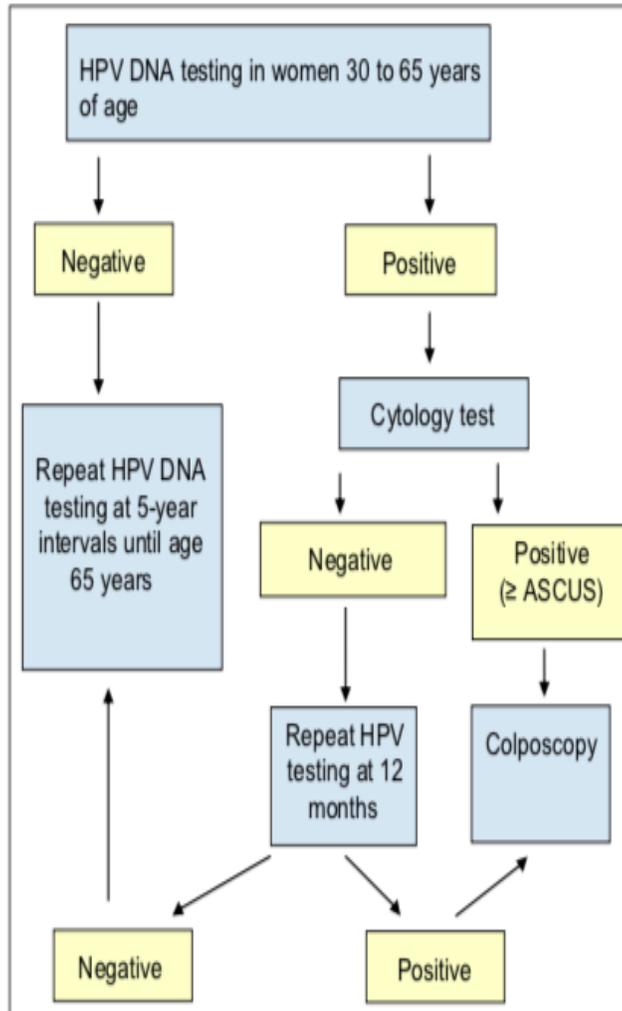
# How is it done? What does it test for?

- Can test a cervical specimen, a vaginal specimen, added to liquid based cytology (together or separate)
- Provider or self collected (in the future...)
- Finds HPV DNA
- **High-risk HPV** types include types 16, 18, 31, 33, 34, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68, and 70.
- Some tests also report presence or absence of the highest risk subtypes – 16 and 18 (or 18/45) which account for 70 (75)% of cervical cancers
- Included in the **high-risk** group are some **HPV** types that are less frequently found in cancers but are often found in squamous intraepithelial lesions

# What Happens After a Positive Test?

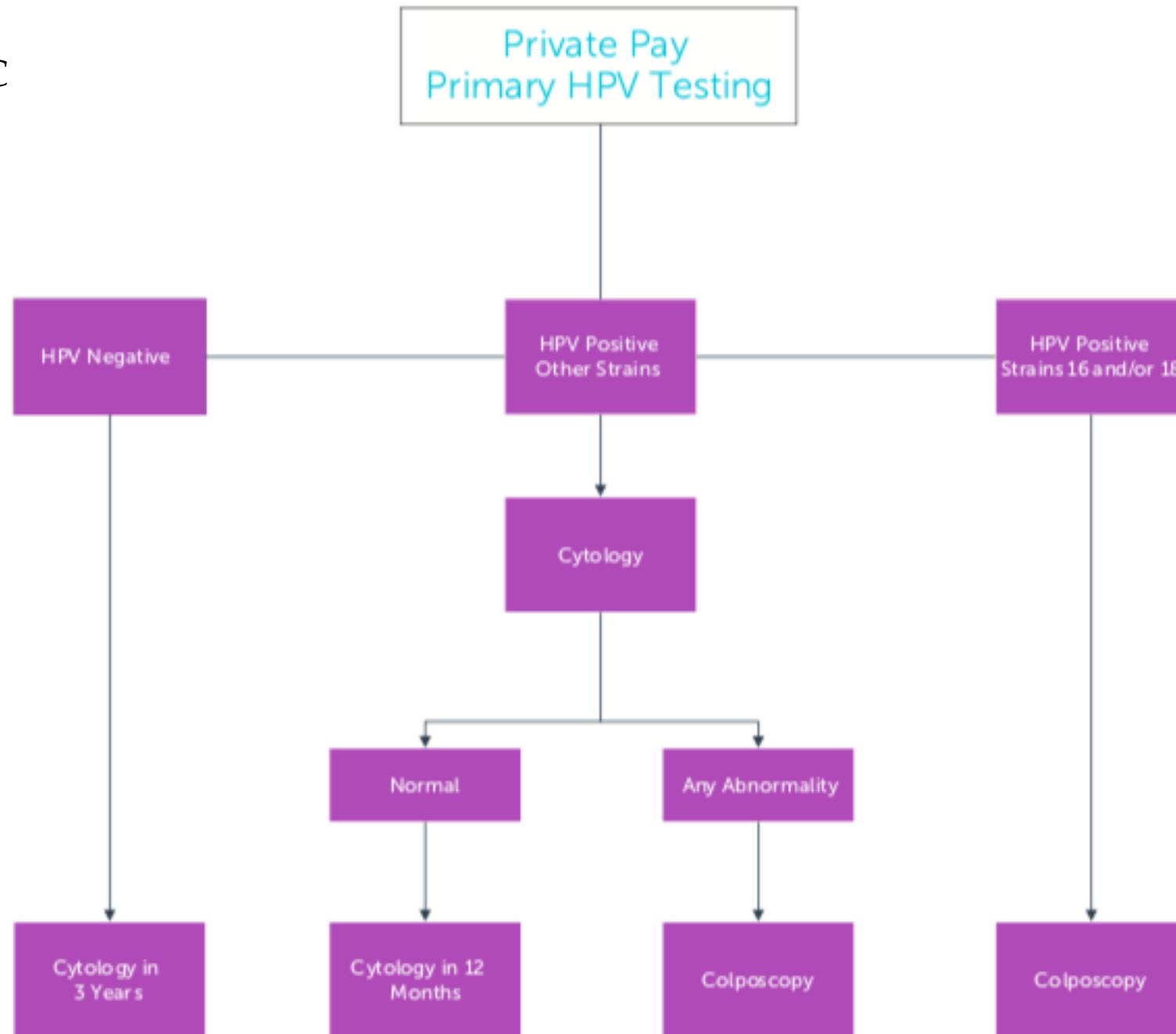
- For people who screen positive for oncogenic HPV, cytology tests help determine appropriate follow-up
  - People at greatest risk for cervical cancer are sent to colposcopy (abnormal pap test)
  - People who do not need referral to colposcopy can be screened again with cytology or HPV testing in the future (most new infections revert to negative in 6-12 months)
  - If HPV genotyping is done, HPV 16 or 18/45 positive is most at risk and should also be sent directly to colposcopy, independent of pap

### Primary cervical screening with HPV testing (women 30 to 65)



Adapted with permission of Elsevier from Cuzick J, Arbyn M, Sankaranarayanan R, Tsu V, Ronco G, Mayrand MH, et al. Overview of human papillomavirus-based and other novel options for cervical cancer screening in developed and developing countries. *Vaccine* 2008;26(Suppl 10):K29–41.<sup>20</sup>

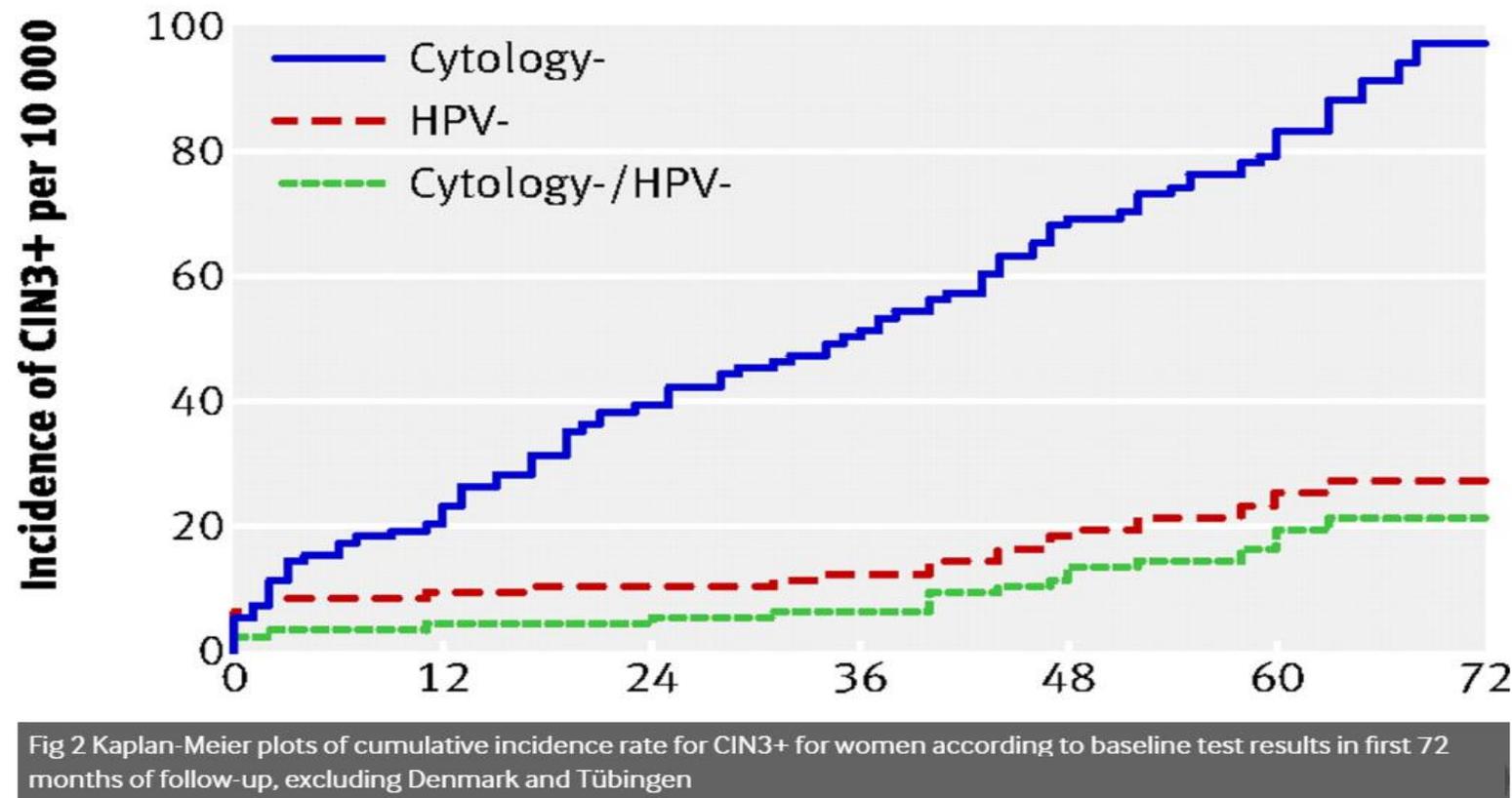
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# What does a Negative Test Mean?

- Very reassuring... the risk of a high grade precancerous lesion over the next 5 years is extremely low
- Even if no new partner, screening needs to continue as “dormant” HPV infection can get “reactivated” due to age-related immune changes or immunosuppression
- Currently cytology in 3 years, suggestion HPV in 5 years (again not part of official guidelines)

# Risk of CIN3+ after a Negative Test



# What About Coverage?

- HPV test based screening is not part of the cervical screening guidelines of most provinces and territories in Canada (therefore not covered)
- HPV test parallel recommendations are present in Ontario since 2011, but test not covered
- 2017 – Ontario Government announced intention to fund HPV testing as part of the screening programme
- Nunavut – covered for ASCUS triage and colposcopy discharge planning
- Rest of Canada?

# Looking to the Future

- HPV test based screening will become the gold standard in most jurisdictions
- Coming to Ontario soon hopefully!
- Already in place in Australia and in the Netherlands (2017)
- New technologies such as self sampling will help in increasing participation in cervical screening
- The evidence is there! The governments will follow....

# Presenter



## **Dr. Zeev Rosberger, PhD**

- Vice-President, HPV Global Action
- Senior Investigator, Lady Davis Institute for Medical Research
- Associate Professor, McGill University

# Canadian Women Need to Know What's Coming: Psychosocial Impact of Changes in Cervical Cancer Screening Programs from Primary Pap to Primary HPV Testing

Zeev Rosberger, PhD

Senior Investigator, Lady Davis Institute for Medical Research

Associate Professor, McGill University

Vice President, HPV Global Action

Montreal, Québec, Canada

CIDC Webinar, April 7, 2021



No Conflicts to Disclose

# Learning objectives

1. To understand women's needs for information and support in the transition for primary Pap to HPV screening
2. To understand the psychosocial impact of these changes on women
3. To learn what are the basic communication strategies for health care professionals to learn to address these changes

# Why do women need to know about HPV screening

It's coming

It's better

It's easier

It's less intrusive

It can prevent more high-risk cervical lesions

And.... mortality will decline significantly

# From Primary Pap to Primary HPV

## Public Health Communication Challenges

- The importance of effective communication about forthcoming HPV testing for Canadian women is underscored by the recent experiences of other countries implementing HPV testing.
- The Australian Ministry of Health delayed implementation of the program from May to December 2017.
- The only informational response to women was a one-page letter from the Ministry of Health summarizing the major points of the change with no apparent input from the women

### May 1st Changes to Pap Smears



 **Petition Closed**

This petition had 71,066 supporters



Malcolm  
Turnbull...

 **Share on  
Facebook**

 **Send a Facebook  
message**

# From Primary Pap to Primary HPV

## Public Health Communication Challenges

- In the Netherlands, women over age 40 expressed concerns about a **10-year screening interval** after a negative HPV test.
- What about Canada?
  - cannot assume that such concerns will not arise.
- We are carrying out a national survey of Canadian women funded by CIHR designed to address KABP
- The results are critical to inform public health authorities as to how, to whom and in what way HPV screening programs might be presented to women optimally

Rosberger et al (2019). *Ensuring a Successful Transition from Pap to HPV DNA Testing in Primary Cervical Cancer Screening: Exploring and Listening to Canadian Women's Needs is Critical for Effective Public Policy Change*. Funded by CIHR

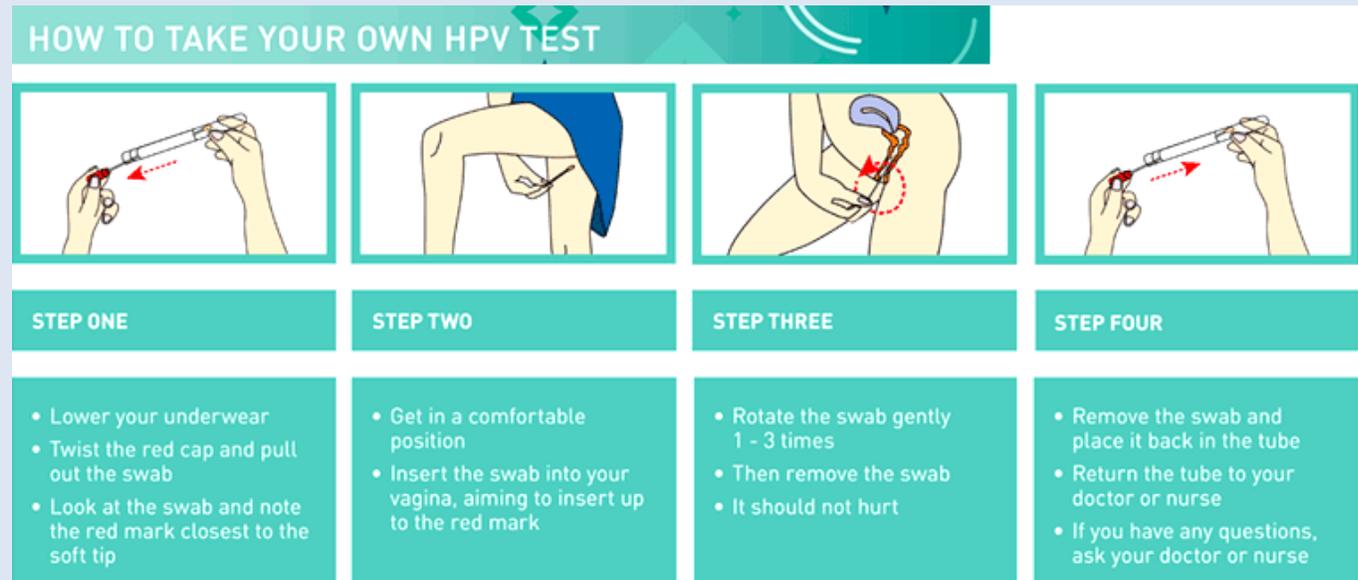


# Changes in Practice & Sources of Distress in HPV Screening

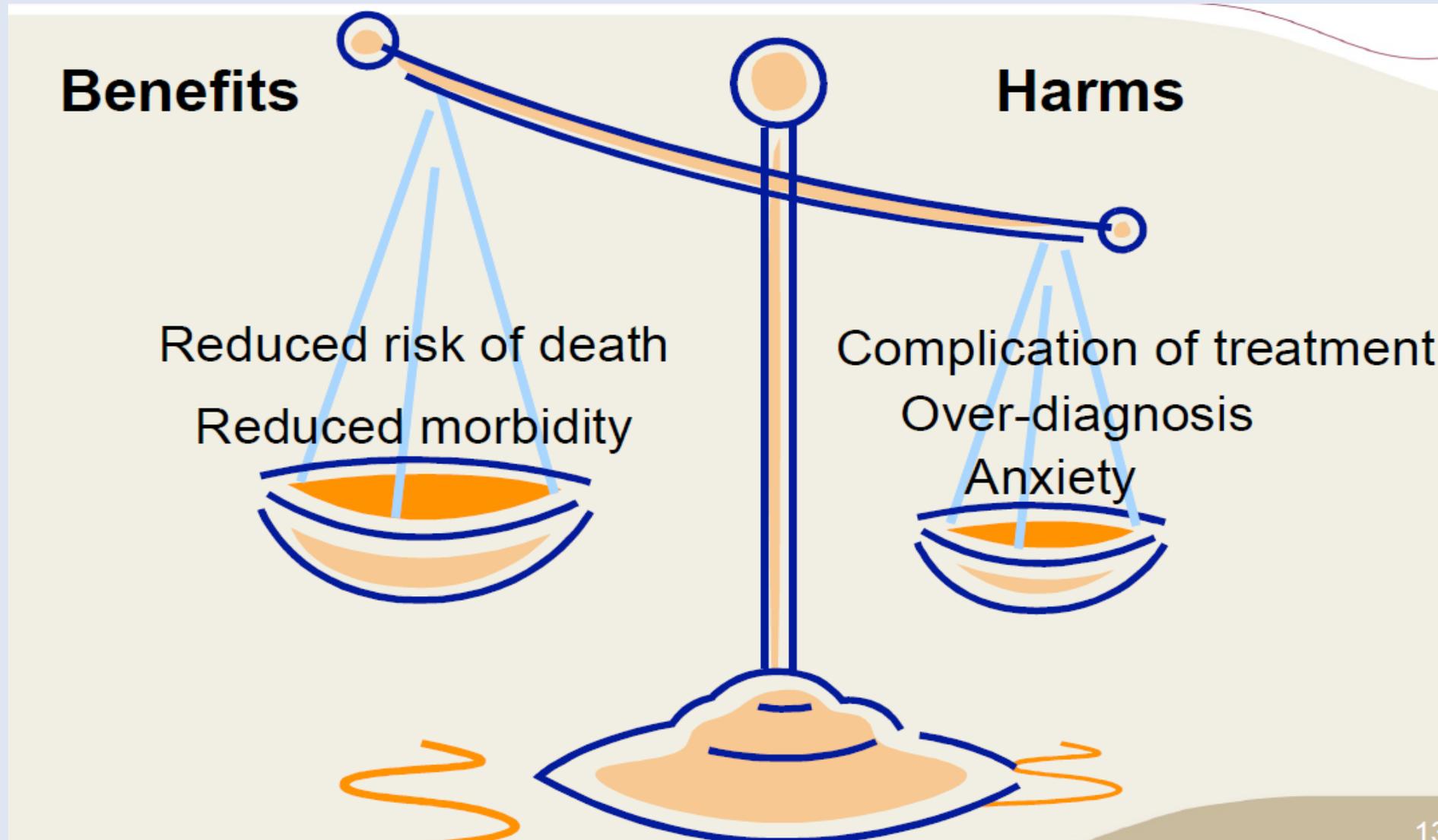
- Age of initiation
  - 25-30 years old
  - 21 or sexual debut

- Screening interval
  - 5-10 years
  - 2-3 years for Pap

- Self-sampling
  - Less need for office visits
  - Easier access to marginalized populations



# Cervical Cancer Screening: Decision Balance



# Population-based HPV Screening

## The Paradox of Test Results

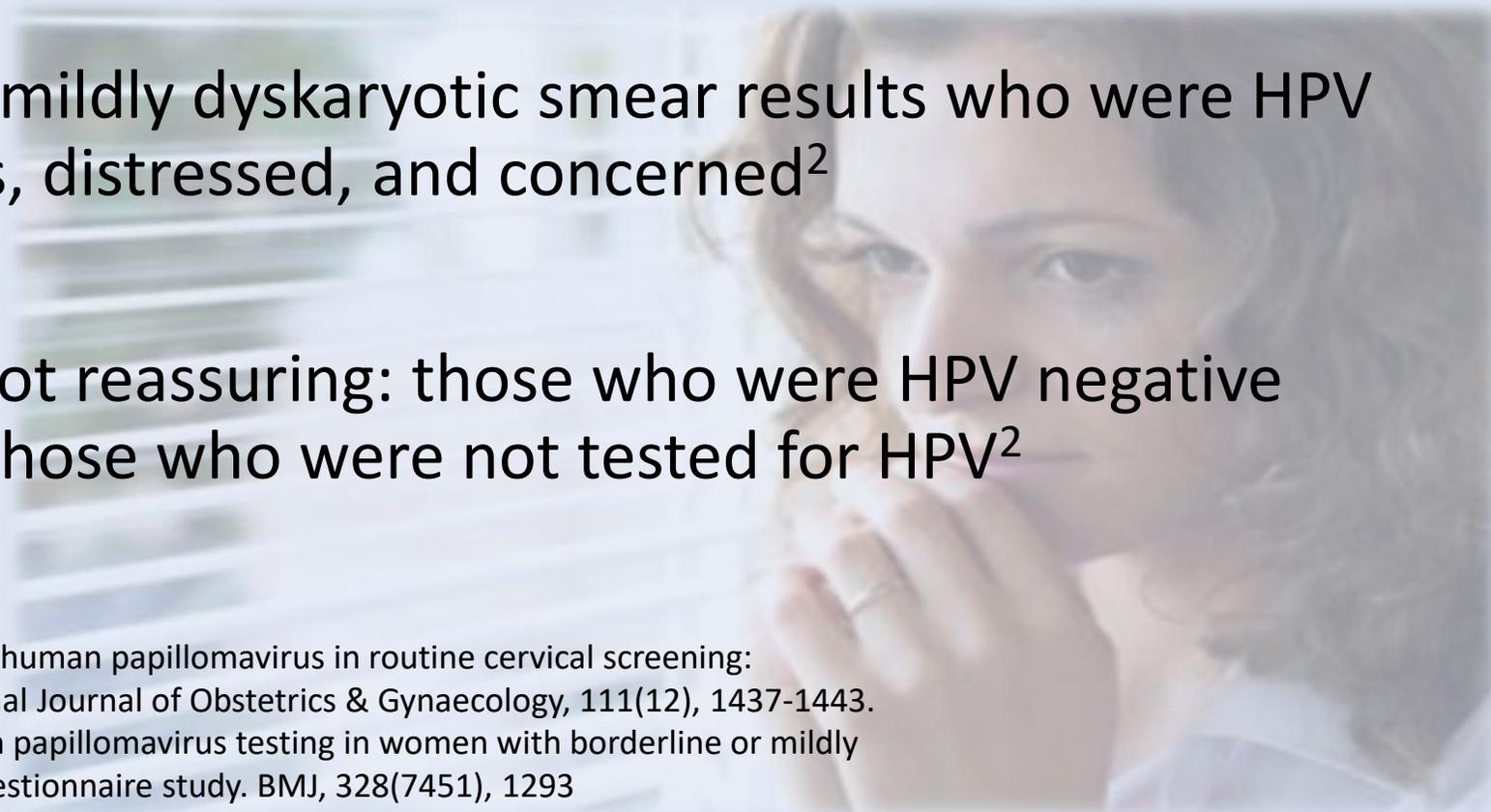
1. Receiving an HPV + test result is a negative impact message
  - Requires earlier re-testing, possible triage Pap, colposcopy, etc.
2. Receiving an HPV - test result is a positive impact message
  - Next test after 5 years or more

# Psychosocial Impact of HPV positive test results on women: Qualitative study

- Testing positive for HPV was associated with **adverse social and psychological consequences**, relating primarily to the **sexually transmitted nature** of the virus and its link to cervical cancer<sup>1</sup>
- Women described feeling **stigmatised, anxious and stressed**, concerned about their **sexual relationships**, and were **worried about disclosing** their result to others

# Psychosocial Impact of HPV positive test results on women: Selected Quantitative studies

- Women with normal cytology who tested for positive for HPV were significantly more anxious and distressed than women who who were HPV negative <sup>1</sup>
- Women with borderline or mildly dyskaryotic smear results who were HPV positive were more anxious, distressed, and concerned<sup>2</sup>
- Testing HPV negative was not reassuring: those who were HPV negative were no less anxious than those who were not tested for HPV<sup>2</sup>



Source (1) McCaffery, K., et al. (2004). Testing positive for human papillomavirus in routine cervical screening: examination of psychosocial impact. *BJOG: An International Journal of Obstetrics & Gynaecology*, 111(12), 1437-1443.  
(2) Maissi, E., et al. (2004). Psychological impact of human papillomavirus testing in women with borderline or mildly dyskaryotic cervical smear test results: cross sectional questionnaire study. *BMJ*, 328(7451), 1293

# Responses to a Positive HPV test

- HPV+ women with abnormal or normal cytology displayed higher short-term anxiety than those with normal results
  - there were no long-term differences
- Psychological distress (general/sexual/test-specific) was higher in HPV+ women with abnormal cytology in the short-term and long-term
- Testing HPV+ was also related to disgust/shame, surprise and fear about cancer.

# Psychosocial Impact of HPV + test results

## Summary



**Testing positive for HPV may have an adverse psychosocial impact:**

- Surprise and increased anxiety
- Distress
- Cervical cancer worry
- Feeling stigmatised
- Feeling ashamed
- Concern about sexual relationships
- Worry about disclosing results to others
- Risk of colposcopy and surgery

# Self-Sampling Acceptability

- 97% of women considered self-sampling for HPV testing acceptable
- 87% would be willing to self-sample again in the future.
- Most reasons for accepting self-sampling
  - ease of use
  - privacy, comfort and convenience
- Reasons for disliking self-sampling
  - lack of confidence in their ability to collect the specimen,
  - discomfort with the procedure
  - anxiety
- Further research is needed to assess the associations between the barriers and facilitators of self-sampling in **underscreened women** who are at highest risk

Nelson E. J., Maynard B. R., Loux T., Fatla J., Gordon R., Arnold L. D. The acceptability of self-sampled screening for HPV DNA: a systematic review and meta-analysis. *Sex Transm Infect* 2017;93(1):56-61.

# Counselling Strategies



# Some Counselling Strategies

- HPV testing should be accompanied by extensive health education to inform women and to de-stigmatise infection
- Providing a lot of HPV information to women who report high intolerance to uncertainty could increase anxiety
- Reassurance for those who test HPV negative
- Informing women more effectively about the relationship between low-grade Pap results and HPV status, in particular about the absolute risks of cervical cancer and the prevalence of HPV infection, may avoid some anxiety for those who are HPV positive
- Especially true those with low screening uptake rates. Care needs to be taken to ensure HPV information is clear and 'normalized' to minimize anxiety



Source: 1) McCaffery, et al. (2006). Social and psychological impact of HPV testing in cervical screening: a qualitative study. *Sexually Transmitted infections*, 82(2), 169-174.; (2) Kahn, J. A., et al. (2005). Psychological, behavioral, and interpersonal impact of human papillomavirus and Pap test results. *Journal of Women's Health*, 14(7), 650-659.; (3) Waller, J., et al. (2009). Anticipated shame and worry following an abnormal Pap test result: the impact of information about HPV. *Preventive medicine*, 48(5), 415-419.

# Recommendations for Screening Programs

- Embarrassment and other psychosocial barriers may initially be problematic, but over time as education and knowledge increase, these diminish, as social norms around screening evolve
- The role of peer-to-peer education and community authorities (e.g., NGOs) on healthcare cannot be overlooked and can have a major impact in overcoming psychosocial and social barriers to screening
- More data to come

# Summary

Targeted information programs

Clear description of program changes (intervals, safety, enhanced protection)

Details regarding accessibility, home self-sampling

Consider sending reminders (and self-sampling kits?)

Clear reporting of results-positive or negative

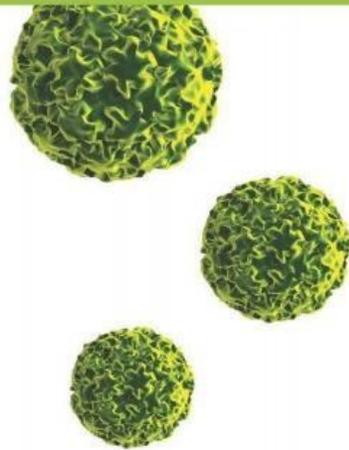
Opportunity to ask and answer questions

Referral to appropriate consultants if necessary

**But first....ask women!**

# Counselling Patients About HPV Test Results

Transmission, Screening / Testing & Vaccination



**ICID**  
International Centre  
for Infectious Diseases

Canada's Role  
in Accelerating  
Global Elimination  
of Cervical Cancer

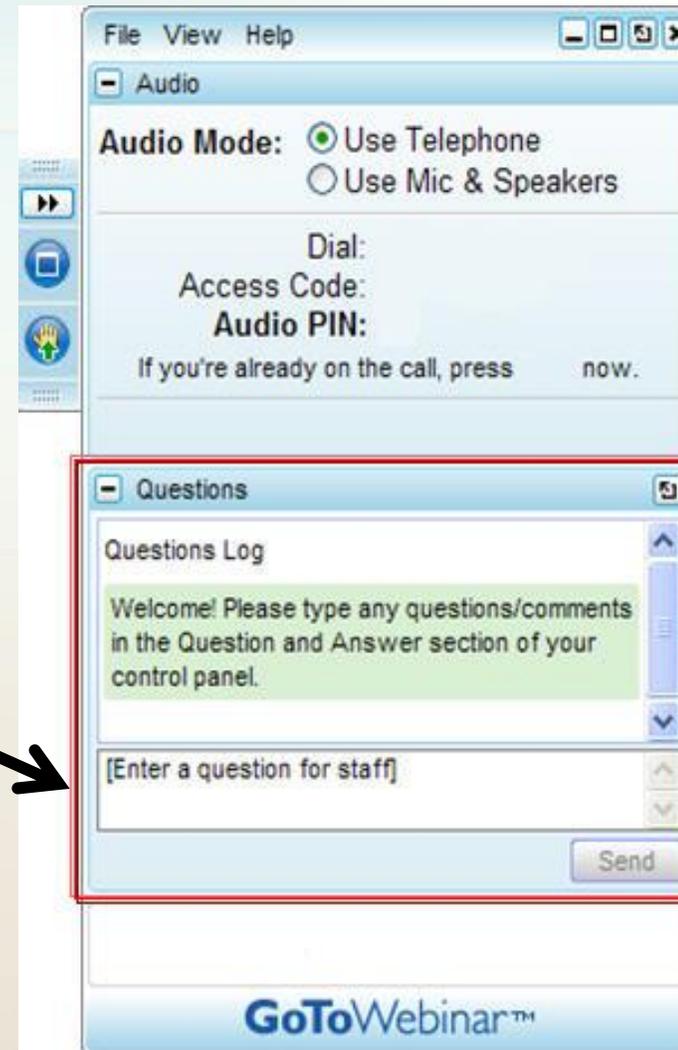


JULY 2019

[https://www.cidcgroup.org/s/cervical-cancer-elim-report\\_final.pdf](https://www.cidcgroup.org/s/cervical-cancer-elim-report_final.pdf)

# Question & Answer Period

Submit your text question using  
the Questions pane



# HPV testing for the prevention of cervical cancer: A screening tool with many benefits and some challenges!

- **Evaluation:** <https://www.surveymonkey.com/r/VM7P75K>
- **Slide Set, Video recording, HPV documents at:**  
[www.CIDCgroup.org](http://www.CIDCgroup.org) & [www.hpvglobalaction.org](http://www.hpvglobalaction.org)

**Thank you for participating!**

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