

Beyond Elimination of Cervical Cancer: A strategy for prevention of head and neck cancer



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Alberta Head and Neck Cancer Dental Leadership Team Lead
President, Canadian Association of Women Dentists



Presenter: Dr. Anthony Zeitouni MD, MSc, FRCSC
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Director (OTL-HNS) Skull Base Program: McGill University
Chair, Head and Neck Tumour Board, McGill University Health Centre



Moderator: Amélie McFadyen, M.A.
Chief Executive Officer, HPV Global Action/VPH Action Globale

November 16, 2022

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Moderator



Amélie McFadyen, M.A. Sexology

Chief Executive Officer,
HPV Global Action/VPH Action Globale

Webinar Objectives

- Clinical overview of head and neck cancers
- Review the burden of head and neck cancers
- Latest evidence for HPV vaccination preventing head and neck cancers
- Understand the role of oral healthcare professionals in the prevention of head and neck cancers

Administrative Information

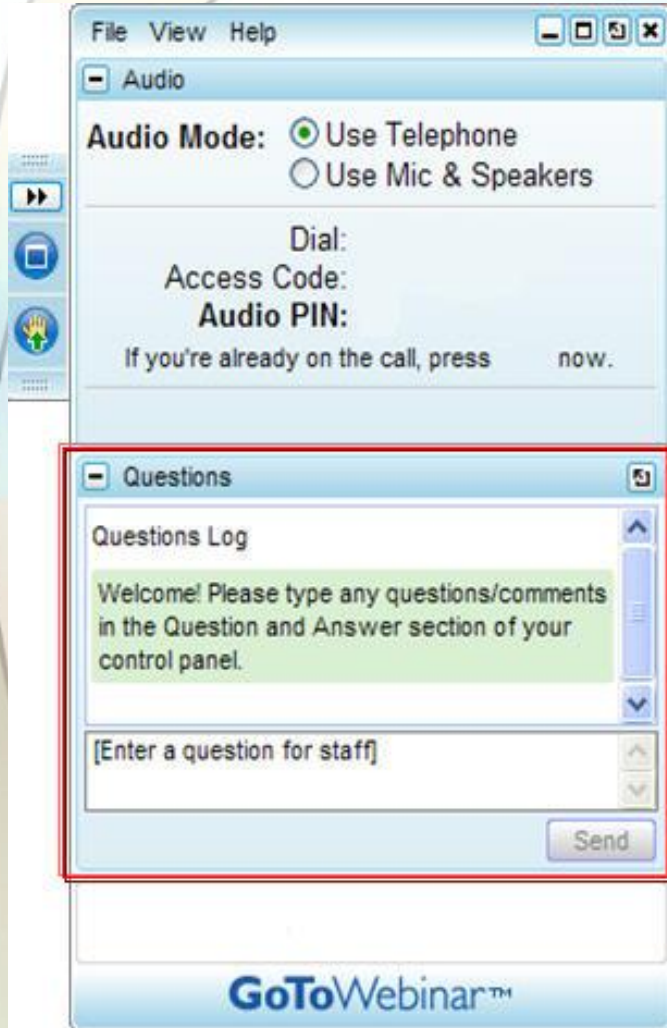
How to participate:

- 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"
- To change your audio setting, tap on the "Settings" icon

Note: A recording of the presentation will be made available at www.CIDCgroup.org and hpvglobalaction.org



Evaluation

Complete the Evaluation Survey at:

<https://forms.gle/9rVHvahqUDeRZg8u7>

Completion of survey is requested to receive a certificate of participation

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Slides and Video Recording

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

hpvglobalaction.org

and

www.CIDCgroup.org

Presenter



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OROPHARYNX CANCER

Anthony Zeitouni, MD, FRCSC

Associate Professor, Otolaryngology Head & Neck Surgery

McGill University



Centre universitaire de santé McGill
McGill University Health Centre



McGill

HEAD AND NECK CANCER

- 6.5% of annual cancer cases worldwide
- 2/3 men
- 1/3 women
- 5000 new cases in Canada per year
- One of the top 10 cancers for men



HIV ASSOCIATED HEAD AND NECK CANCERS

- Epidemiology of this emerging epidemic
- Clinical manifestations and diagnosis
- Overview of treatment options
- Burdon of this cancer
 - Physical
 - Psychological

HEAD AND NECK SURGERY

- Squamous cell cancer of the upper aerodigestive region
- Parotid and salivary gland cancers
- Skin cancers
- Thyroid cancers
- Sino-nasal cancers
- Skull Base tumors

SQUAMOUS CELL CANCER OF THE UPPER AERODIGESTIVE SPHERE

- Squamous cell cancers
- Change a person's ability to interact in society
- Speaking
- Eating
- Swallowing
- Appearance

HEAD AND NECK SQUAMOUS CELL CANCER

- Oral Cavity

- **Oropharynx**

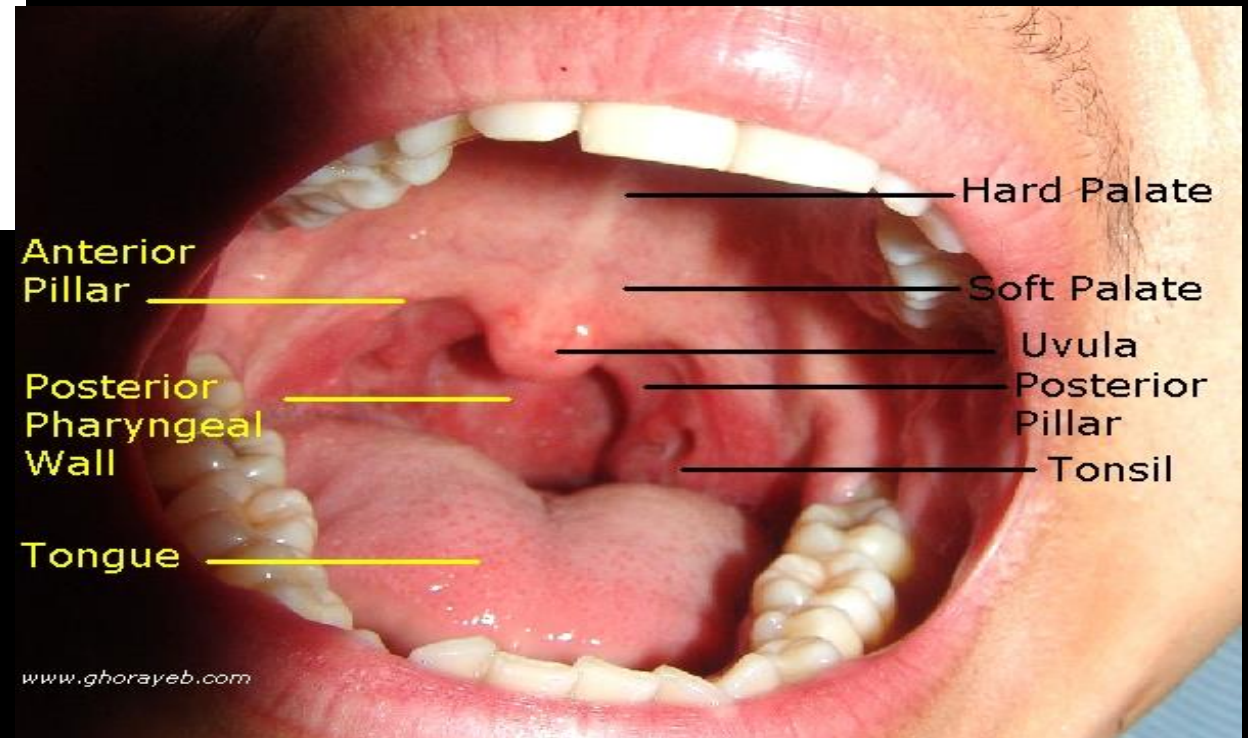
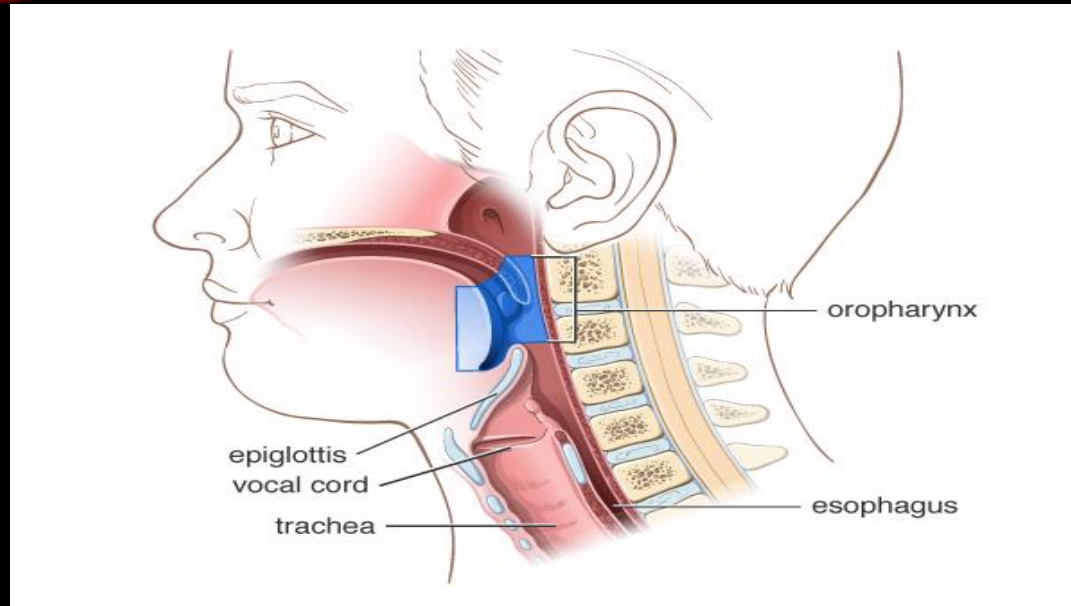
- Larynx

- Nasopharynx

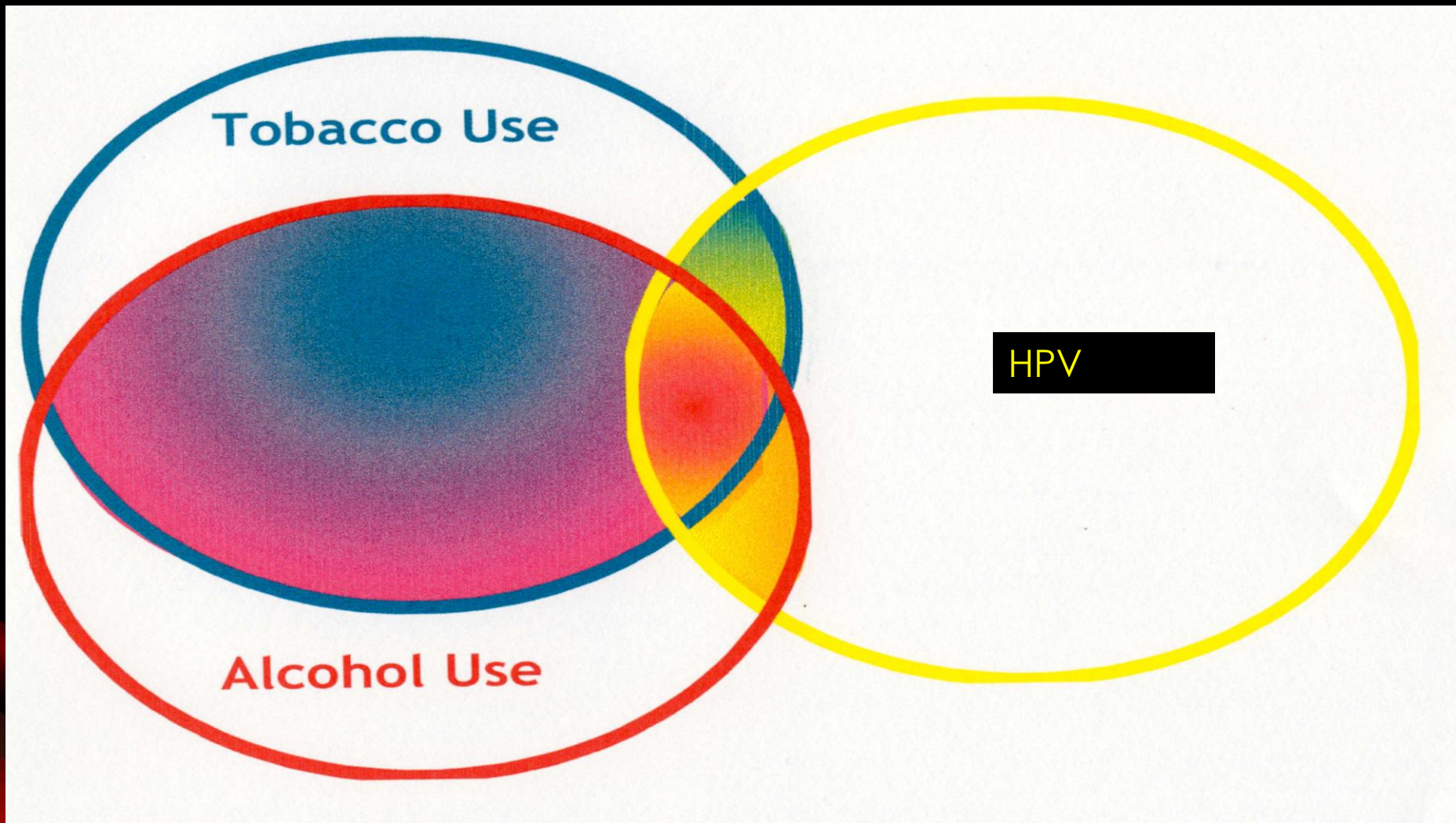
OROPHARYNGEAL SITES

- The oropharynx begins where the oral cavity stops.
- Base of tongue (the back third of the tongue),
- soft palate,
- tonsils and tonsillar pillars,
- the back wall of the throat.

OROPHARYNX



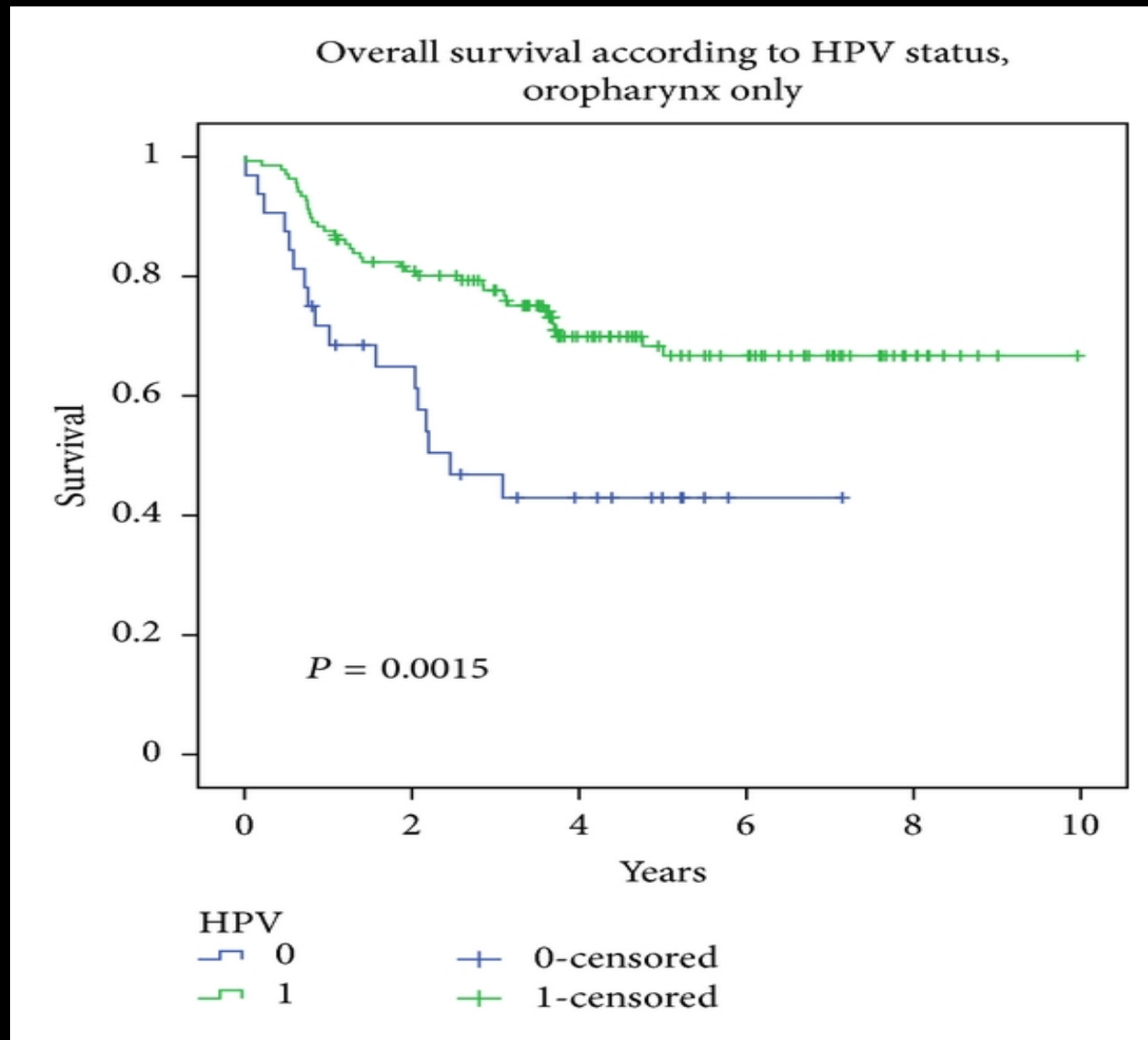
Head and Neck Cancer Risk Factors



OROPHARYNX SCCA: TWO DISTINCT DISEASES

	HPV POSITIVE	HPV NEGATIVE
Histology	Basaloid	Keratinized
Age	Younger	Older
Gender	3:1 men	3:1 men
SE status	High	low
Risk Factors	Sexual Behaviour	ETOH, Tobacco
Cofactors	Marijuana, immunosupp	ETOH, Tobacco
Incidence	Rising	Falling
Survival	Better	Worse

Overall survival according to HPV status



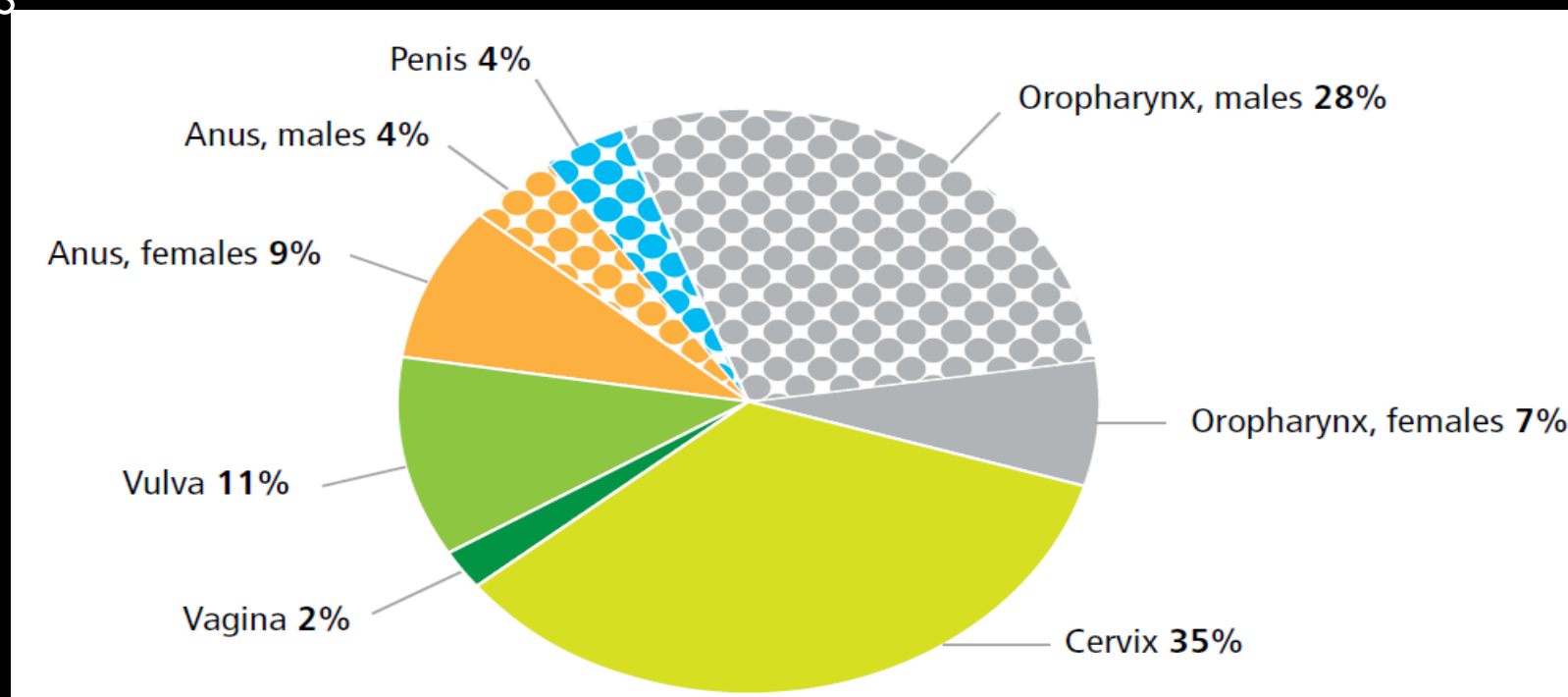


Incidence of HPV-associated cancers

- 3760 cases were diagnosed in 2012 (64% in females ; 36% in males)
- OPC and cervical cancers were the most commonly diagnosed, followed by anal and vulvar cancers

Proportion (%) of new cases for selected HPV-associated cancers, Canada 2012*

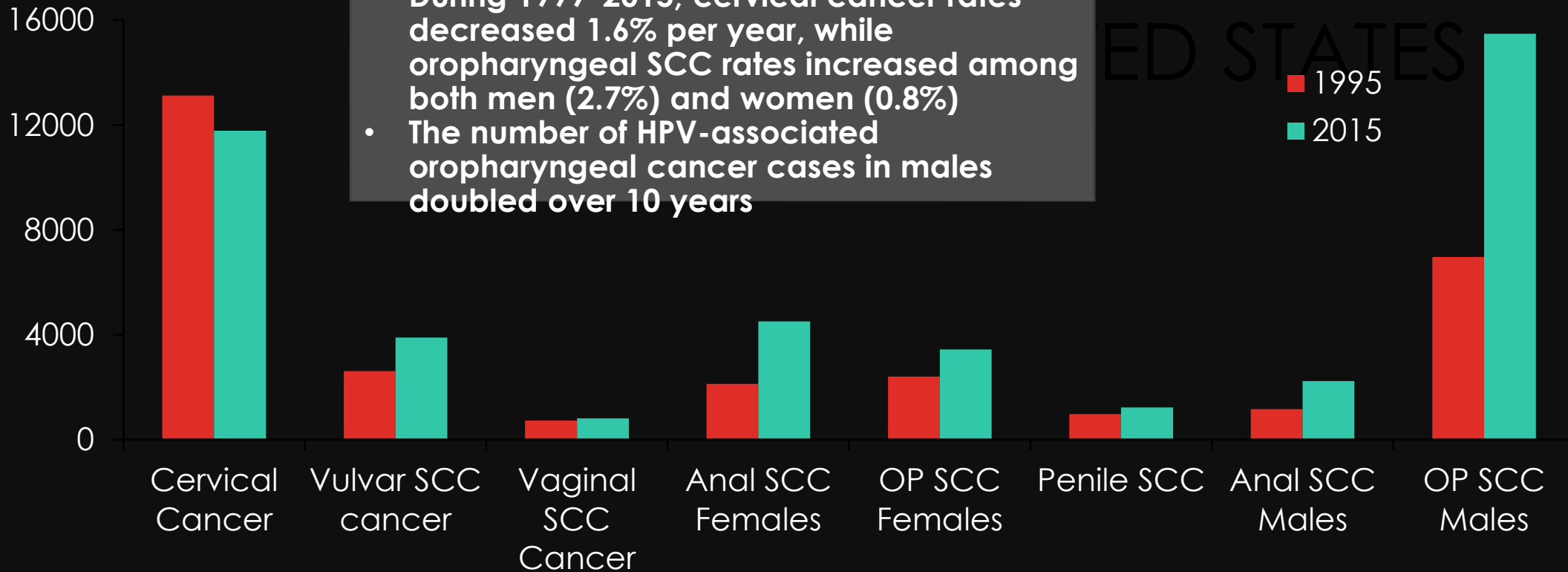
*Quebec data are from 2010



TRENDS IN HPV-ASSOCIATED CANCERS

1999-2015

UNITED STATES

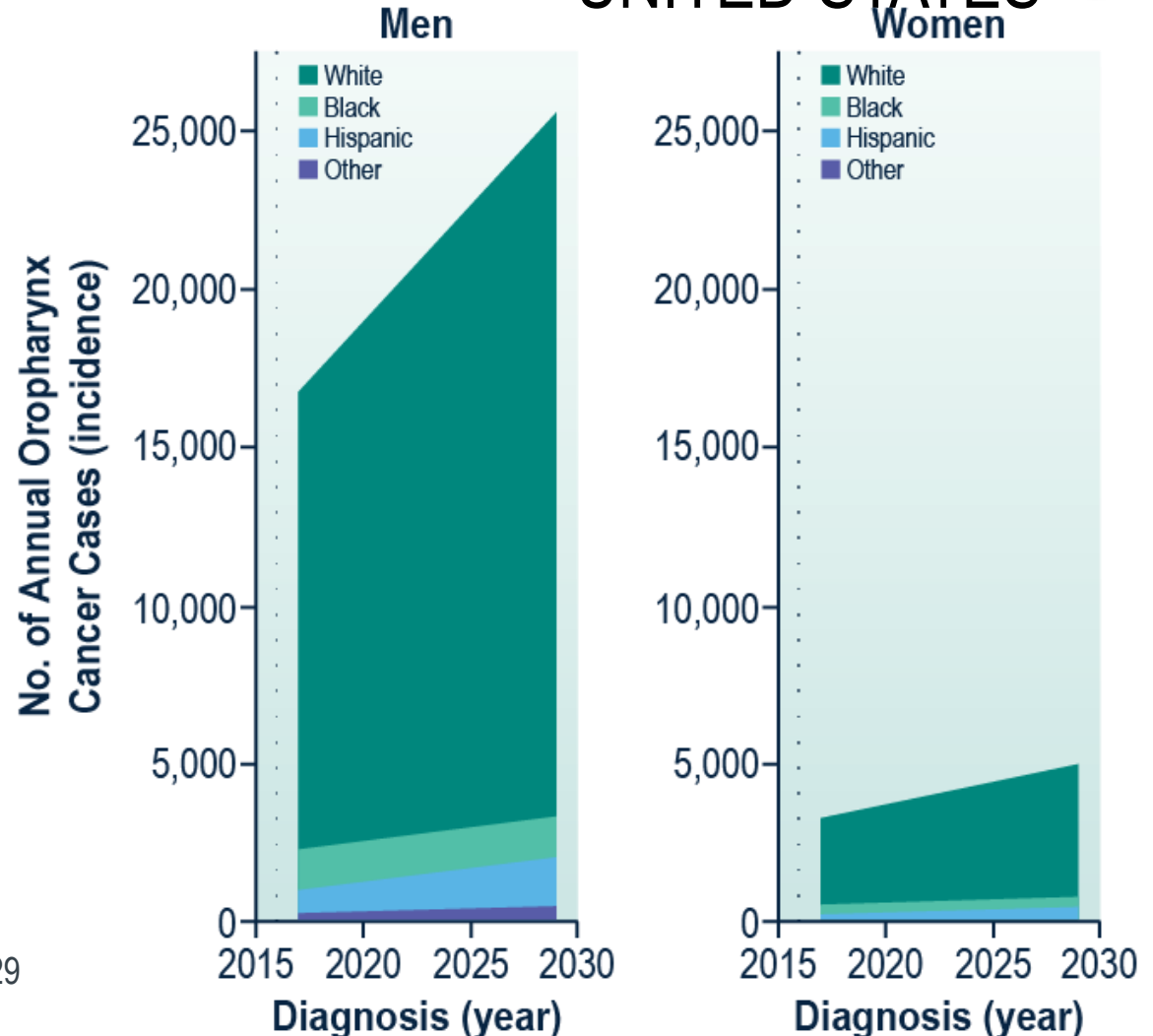


OP: Oropharyngeal; SCC: Squamous Cell carcinoma

Van Dyne et al, Trends in Human Papillomavirus-Associated Cancers - United States, 1999-2015. *MMWR Morb Mortal Wkly Rep.* 2018;67(33):918-924. <https://pubmed.ncbi.nlm.nih.gov/30138307>

PROJECTED OROPHARYNGEAL CANCER RATES: UNITED STATES^A

- Analysis projects a dramatic increase in annual number of oropharyngeal cancer cases in the US:
 - From **20,124 cases** in 2016 to **30,629 cases** in 2029
- **Increase is primarily driven by**
 - Older white males and females ≥ 65 years of age
- Most dramatic increase projected to be in **older white males**



An analysis forecasted the future burden of oropharynx cancers through 2029 by projecting the observed cohort-specific age-specific incidence rates.

HPV: THE MOST COMMON SEXUALLY TRANSMITTED DISEASE

- Most individuals will have at least one infection
- Infection occur via oral sex
- Infection is usually cleared in 6-12 months
 - Men mount lower antibody response
 - Accounting for risk factors men have 2.3 x oral HPV infection
- Infections usually resolve
- Very rarely lead to cancer
- Cancer develops over many decades

WHY MORE FREQUENT IN MEN?

- Higher number of partners
- Only explains part of the difference in prevalence
- Per partner risk is 3-4 times higher in men than women
- Chaturvedi et al: data consistent with higher transmission when oral sex performed on a woman by a man
- Differences in immune response between genders

DIAGNOSES

- Oropharynx cancer presentation different HPV – vs HPV+
- HPV –
 - Present most often with a sore throat x months
- HPV +
 - Present with a neck node or persistent sore throat
 - Unilateral painful tonsil



The McGill Head & Neck Cancer Fund
Fonds de recherche McGill des cancers tête et cou
 Department of Otolaryngology - Head and Neck Surgery
 Département d'oto-rhino-laryngologie et de chirurgie cervico-faciale

Special Honoree
 Invité d'honneur



Michael Douglas

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 Business attire - Tenue

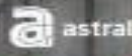
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Tuesday, May 3rd, 2011
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 Le mardi 3 mai 2011
 À compter de 19h00

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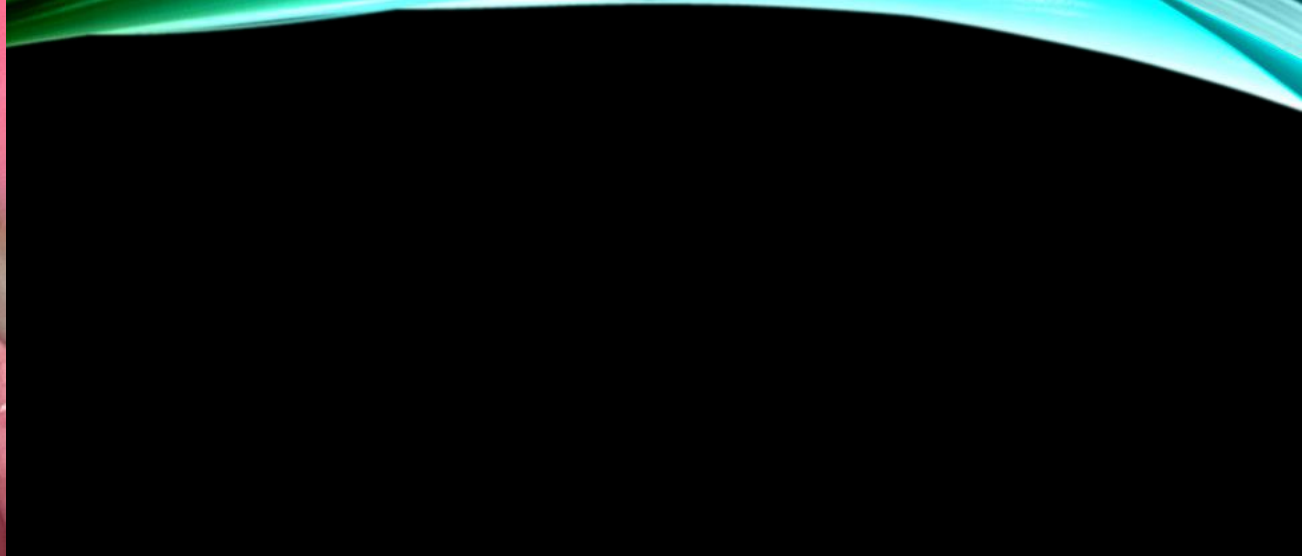
MICHAEL





DIAGNOSIS:
NECK NODES





UNILATERAL TONSIL
SWELLING
WITHOUT ULCER



BASE OF TONGUE MASS



PRIMARY CAN BE VARIABLE IN SIZE. TONSIL, BASE OF TONGUE PALATE

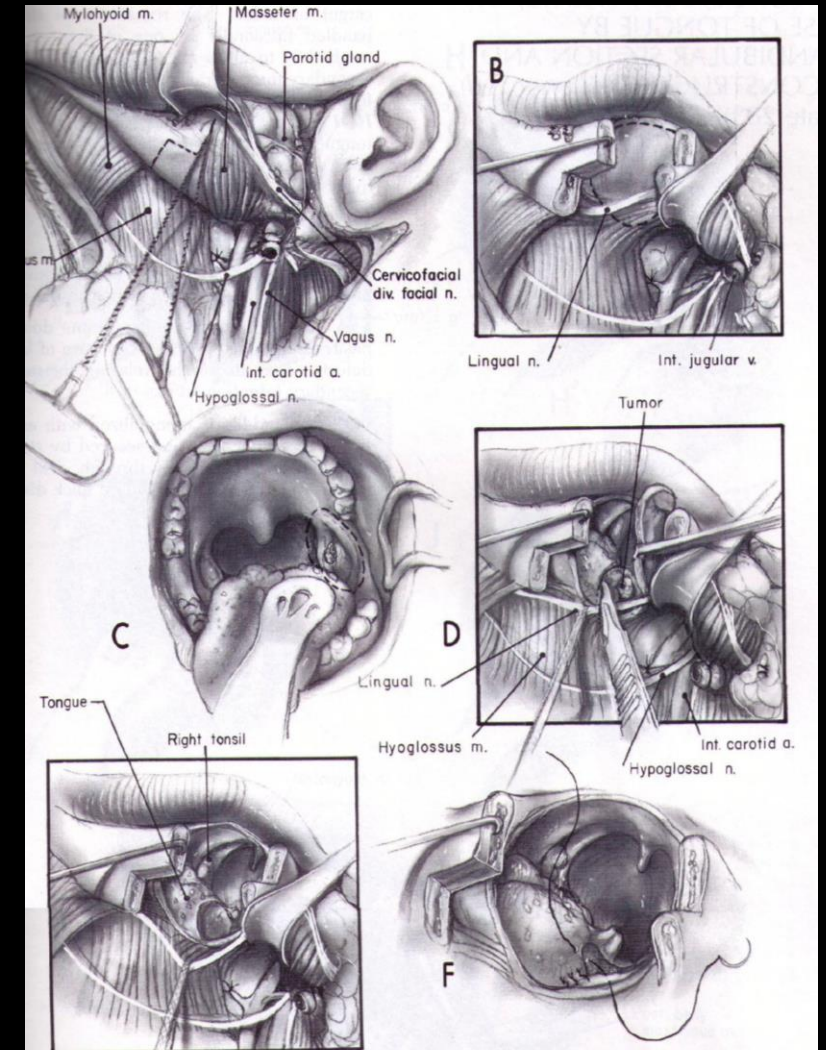
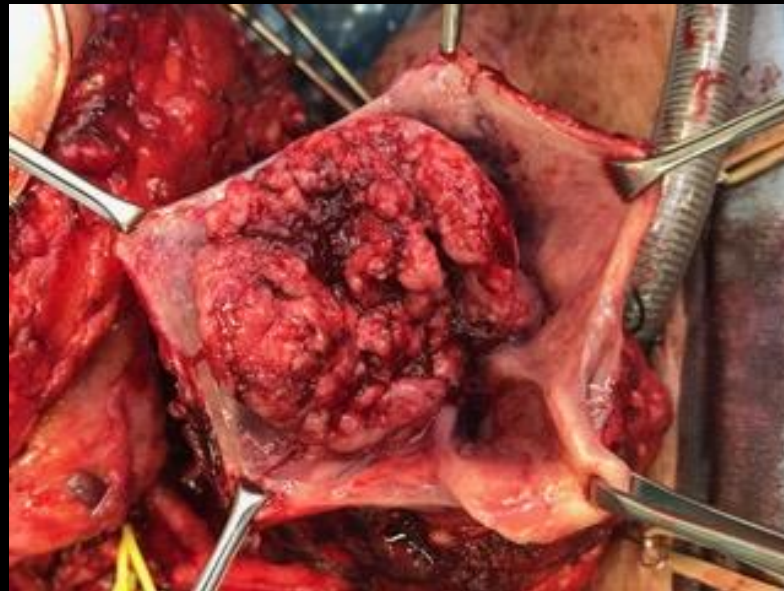


TREATMENT

- Surgical
- Radiation
- Chemo
- Psycho-oncological

TREATMENT

- In 1970-90
- Open surgical approaches
- Followed by radiation
- Effective but surgery led to significant morbidity



TREATMENT

- Chemo-radiation
- High dose of radiation with chemotherapy to augment the effect of xrt
- Worked well in eradicating disease
- High morbidity
- 10-30 % of patients could not swallow after
- PEG dependence
- Dry mouth, dental disease...

ROBOTICS



ROBOTIC SURGERY

- Transoral resection
- 5 yr local control >90%
- 14% temporary trach
- 4% permanent G tube





COMPLICATIONS

- Psycho-social
- Physical

PSYCHOLOGICAL COMPLICATIONS

- Secondary to having a head and neck cancer
 - Disfigurement
 - Loss of functions related to speech and eating
 - Highest rates of anxiety and depression
 - Highest rates of suicide ideation
- Secondary to having a HPV, thus sexually transmitted cancer
 - Fear, shame, guilt
 - Issues of infidelity

COMPLICATIONS- PSYCHOLOGICAL

- Sexually transmitted nature of this cancer
- Disfigurement
 - Very high in Head and Neck cancer patients
- Depression
 - Highest level of any cancer site
- suicide risk
 - Head and neck patients have the highest risk of any cancer site

RISK OF SUICIDE FOR HEAD & NECK < CANCER SURVIVORS: UNITED STATES

An analysis of SEER data for over 4 million cancer survivors from 2000-2014 found that for survivors of head & neck cancers :

- There was a **27% increase in the risk of suicide** in 2010-2014 compared with 2000-2004
- Suicide rates were **twice as high** (63.4/100,000) as for other cancers (23.6/100,000)
- Sources of distress unique to head & neck cancer survivors that may result from treatment:

- facial disfigurement
- difficulty swallowing
- loss of taste or smell



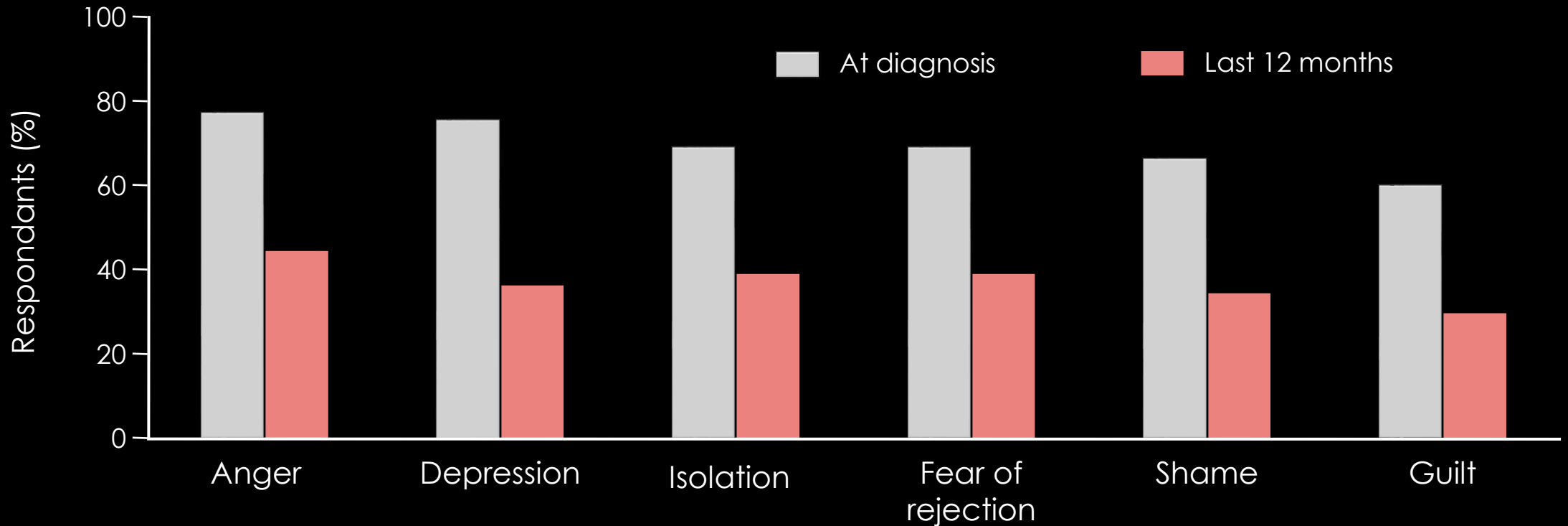
- difficulty speaking
- depression



IMPACT OF HPV-POSITIVE STATUS ON PATIENTS WITH OPC AND THE NEED FOR COUNSELING

- The psychosocial burden of an HPV diagnosis has been well documented among women with cervical cancer.
- Limited study measuring the impact of HPV-positive status of patients with OPC.
- Patients within these populations all share the same risk factors.
- It is necessary to extrapolate from the wealth of available data on women with HPV-induced cellular lesions

PSYCHOSOCIAL REACTION TO DIAGNOSES OF HPV



n = 454

COMPLICATIONS: PHYSICAL

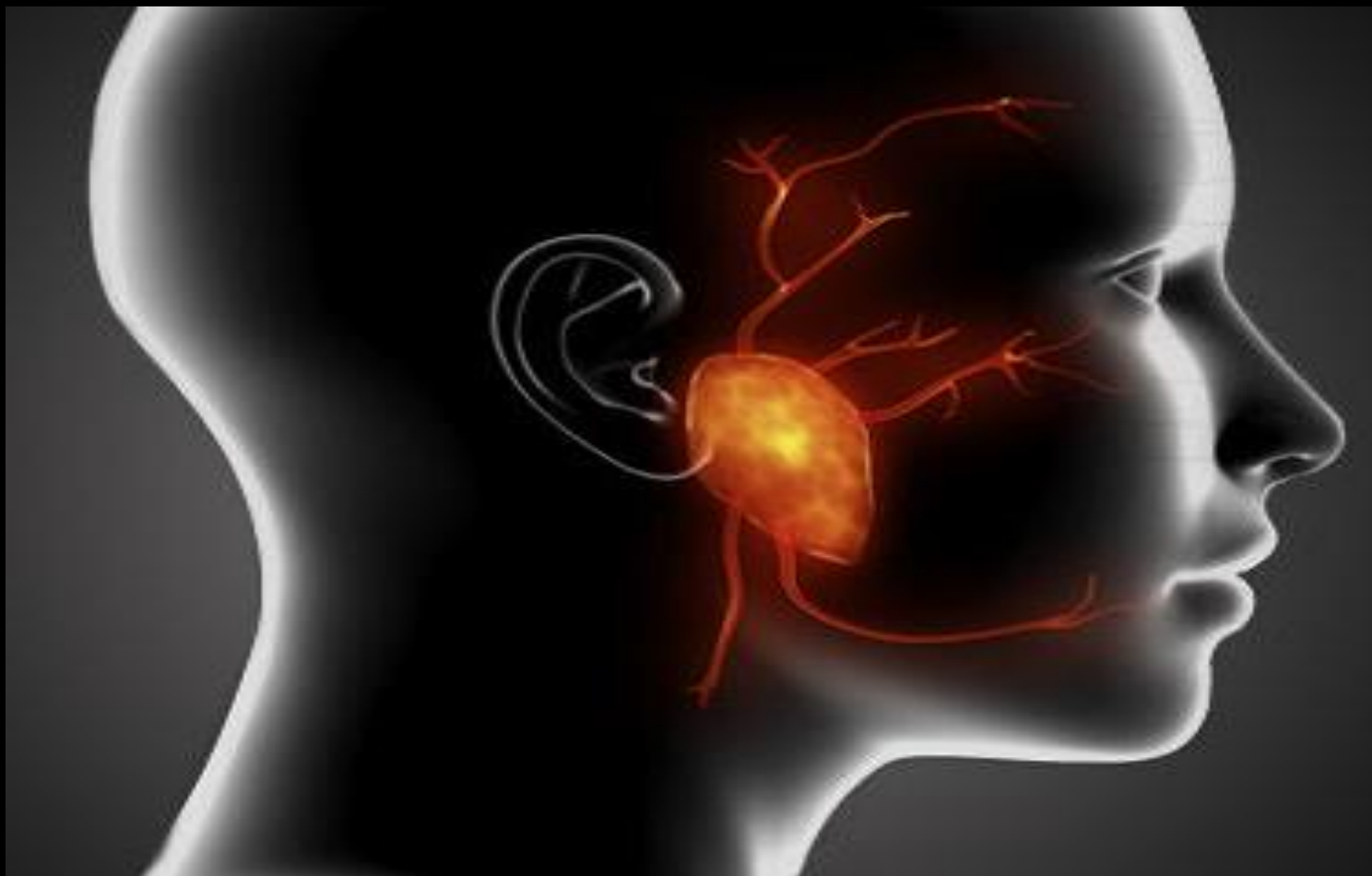
- Skin
 - Scars, contracture
 - lymphedema
- Mucosal
 - XRT leads to loss of salivary function
 - Dental problems
 - Xerostomia
 - Dysphagia and scarring
- Trismus:
- Endocrine: loss of thyroid function
- Unable to eat by mouth = 30%



HPV ASSOCIATED HEAD AND NECK CANCERS

- Epidemiology of this emerging epidemic
- Clinical manifestations and diagnosis
- Overview of treatment options
- Burdon of this cancer
 - Physical
 - Psychological

THANK YOU



Presenter

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Beyond Elimination of Cervical Cancer:

A Strategy for Prevention of Head and Neck Cancers

Dr Cheryl E Cable BSc, DDS, MBA, FRCDC(C)

Prosthodontist and Maxillofacial Prosthodontist

Lead, Alberta Head and Neck Cancer Dental Leadership Team

SPEAKER

Cheryl Cable

BSc, DDS, MBA Cert Prosthodontics, FRCDC(C)



Dr Cheryl E Cable is an associate professor at the University of Alberta in the Faculty of Medicine and Dentistry

She completed her undergraduate BSc and DDS degrees at the University of Alberta, received her Prosthodontics and Maxillofacial Prosthodontics certifications at the Mayo Clinic in Rochester, Minnesota and her MBA from the Haskayne School of Business in Calgary, Alberta as well as at the University of Alberta.

Dr. Cable has developed innovative programs in implant dentistry as well as business education at the undergraduate and postgraduate levels.

She has been past President of the Alberta Academy of Prosthodontics, Alberta Society of Dental Specialists, and member of several committees and working groups within the Alberta Dental Association and College. She has worked with Alberta Health on the Oral and Maxillofacial Devices and Services Program and has been an examiner of the Royal College of Dentists of Canada for dental specialists. She is the founding President of the Canadian Association of Women Dentists.

Dr Cable is the Lead of the Alberta Head and Neck Cancer Dental Leadership Team. This group is focused on raising awareness of head and neck cancer realities locally, nationally and world-wide. They advocate the benefits of preventive programs such as vaccine protocols, develop communication tools and facilitate dental rehabilitation in a local and timely manner.

Dr Cable maintains her private practice serving Alberta and northern Canada with patients with head and neck reconstruction, and she prides herself on timely, compassionate care that puts her patients first.

Presenter Disclosure:

- All content and opinions are my own – do not represent any commercial interests
- I may recommend off label indications as an active practicing clinician in Canada
- Consent has been received for clinical images presented
- Honorarium received for this presentation

The Burden of Head and Neck Cancers:

what do we know / what do we see

Objectives of Discussion:

- 1. Latest evidence for HPV vaccination preventing head and neck cancers
- 2. Understand the role of oral healthcare professionals in the prevention of head and neck cancers
- 3. What can we do today – a way to change our conversation. What if?



In a land so close to home...

The problem is getting worse.

So much worse.

HPV Attribution in Head & Neck Cancers Canada

RESEARCH

Human papillomavirus in oropharyngeal cancer in Canada: analysis of 5 comprehensive cancer centres using multiple imputation

Steven Habbous MSc, Karen P. Chu MD, Harold Lau MD, Melissa Schorr MD, Mathios Belayneh BMSc, Michael N. Ha PhD MD, Scott Murray MD, Brian O'Sullivan MB, Shao Hui Huang MRT(T) MD, Stephanie Snow MD, Matthew Parliament MD, Desiree Hao MD, Winson Y. Cheung MPH MD, Wei Xu PhD, Geoffrey Liu MSc MD

■ Cite as: CMAJ 2017 August 14;189:E1030-40. doi: 10.1503/cmaj.161379

ABSTRACT

BACKGROUND: The incidence of oropharyngeal cancer has risen over the past 2 decades. This rise has been attributed to human papillomavirus (HPV), but information on temporal trends in incidence of HPV-associated cancers across Canada is limited.

METHODS: We collected social, clinical and demographic characteristics and p16 protein status (p16-positive or p16-negative, using this immunohistochemistry variable as a surrogate marker of HPV status) for 3648 patients with oropharyngeal cancer diagnosed between 2000 and 2012 at comprehensive cancer centres in British Columbia (6 centres), Edmonton, Calgary, Toronto and Halifax. We used receiver operating

characteristic curves and multiple imputation to estimate the p16 status for missing values. We chose a best-imputation probability cut point on the basis of accuracy in samples with known p16 status and through an independent relation between p16 status and overall survival. We used logistic and Cox proportional hazard regression.

RESULTS: We found no temporal changes in p16-positive status initially, but there was significant selection bias, with p16 testing significantly more likely to be performed in males, lifetime never-smokers, patients with tonsillar or base-of-tongue tumours and those with nodal involvement ($p < 0.05$ for each variable). We used the following

variables associated with p16-positive status for multiple imputation: male sex, tonsillar or base-of-tongue tumours, smaller tumours, nodal involvement, less smoking and lower alcohol consumption ($p < 0.05$ for each variable). Using sensitivity analyses, we showed that different imputation probability cut points for p16-positive status each identified a rise from 2000 to 2012, with the best-probability cut point identifying an increase from 47.3% in 2000 to 73.7% in 2012 ($p < 0.001$).

INTERPRETATION: Across multiple centres in Canada, there was a steady rise in the proportion of oropharyngeal cancers attributable to HPV from 2000 to 2012.

The incidence of oropharyngeal cancer has increased over the past 2 decades.¹⁻³ This rise has largely been attributed to oncogenic human papillomavirus (HPV), yet many population-based studies have been limited to using anatomic subsites as an indicator for “HPV-associated” cancer.⁴⁻⁷ Patients with HPV-positive oropharyngeal cancer have consistently had better survival than those with HPV-negative oropharyngeal cancer.⁸ Because of the high rates of response to treatment, therapy that is less intense may reduce treatment-related toxicity without detrimentally affecting outcomes.^{9,10} On this basis, HPV-positive oropharyngeal cancer is considered a

distinct form of head and neck cancer.¹¹ To evaluate the changing burden of HPV-positive oropharyngeal cancer in Canada, its changing incidence should be estimated accurately.

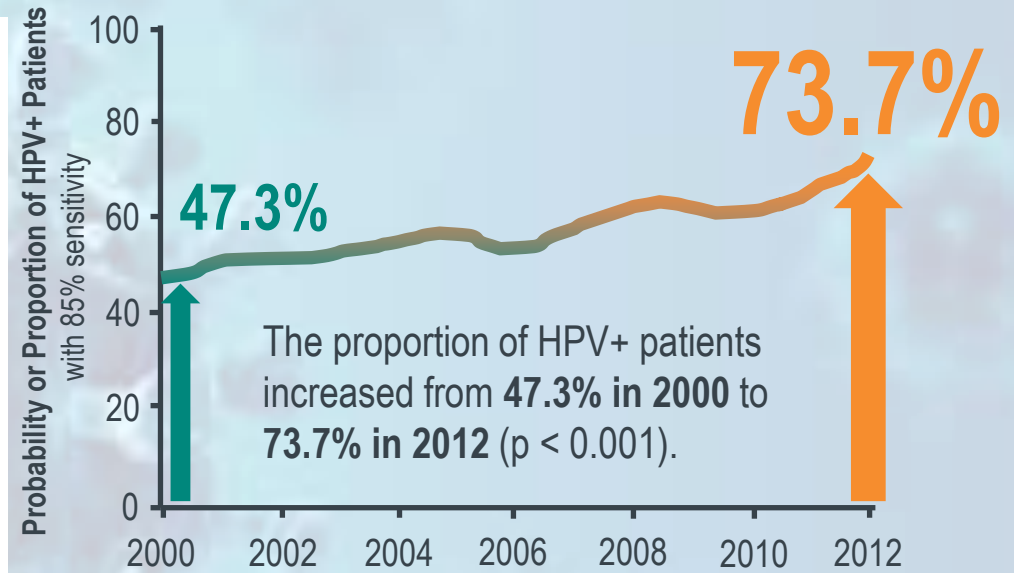
Systematic testing of all available oropharyngeal tumours for HPV status has become routine practice in some centres, but not across Canada. Selected testing was the norm from 2000 to 2012. Failing to account for testing selection bias can result in inaccurate estimates of HPV positivity. In this study, we attempted to address this knowledge gap by using data obtained from several major centres across Canada to analyze all patients with oropharyngeal cancer and assess rates of HPV-associated cancer.

E1030

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5 Cancer Centres Across Canada



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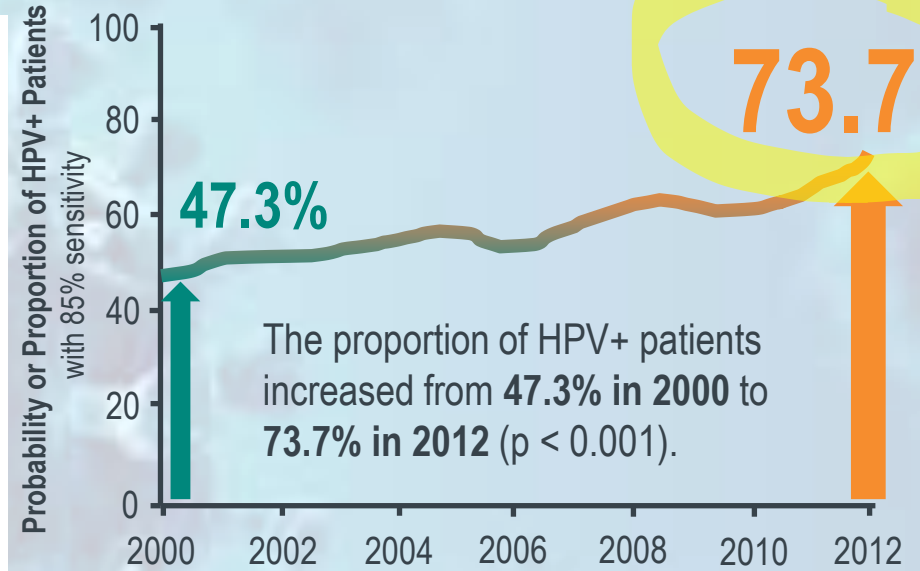
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Epidemiology of Oral HPV Infection: Association with Head & Neck Cancer

Over a decade of evidence has determined that human papillomavirus (HPV) is **the principal cause of an increase in incidence** of certain head and neck squamous cell cancers in some regions of the world.



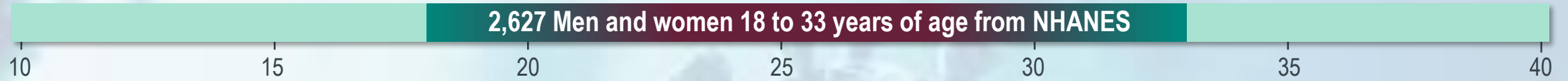
Case-control studies have **established oral HPV infection as the principal risk factor** for HPV-positive oropharyngeal cancer



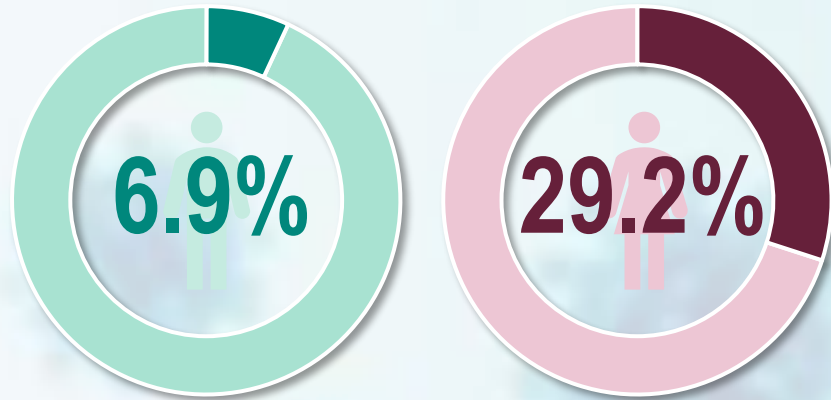
Why vaccinate?

- Because it works.

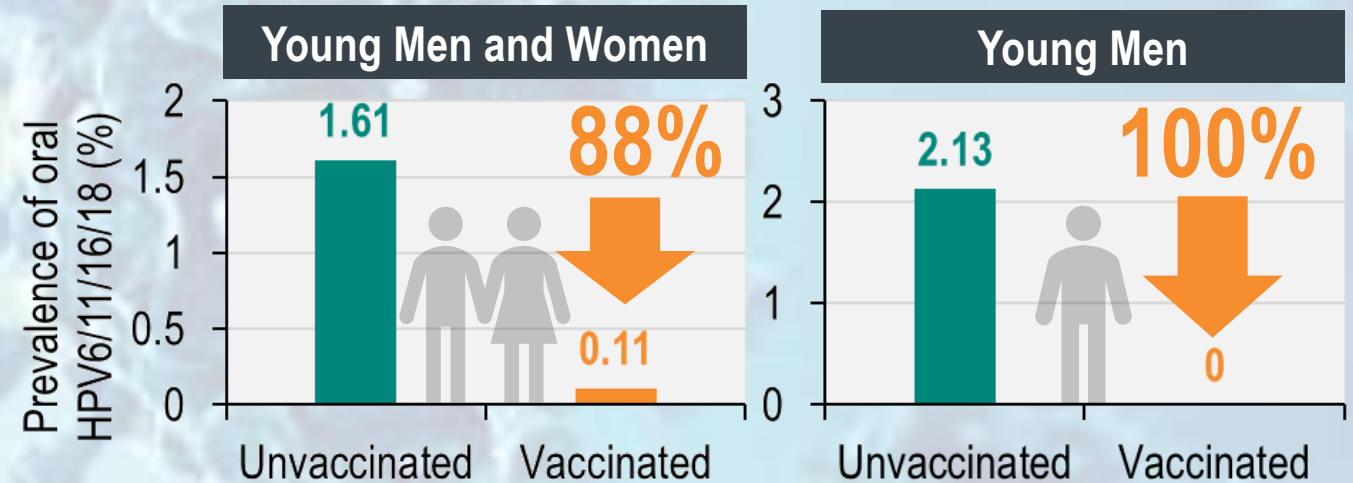
HPV Vaccination: Effect on Oral HPV Infection Among Young Adults United States



Cross-sectional study: Population-level effect of prophylactic HPV vaccination on the burden of oral HPV infection



Between 2011 and 2014,
6.9% Men 29.2% Women
18 to 33 years of age
reported receipt of at least one dose of the 4-valent HPV vaccine before the age of 26 years



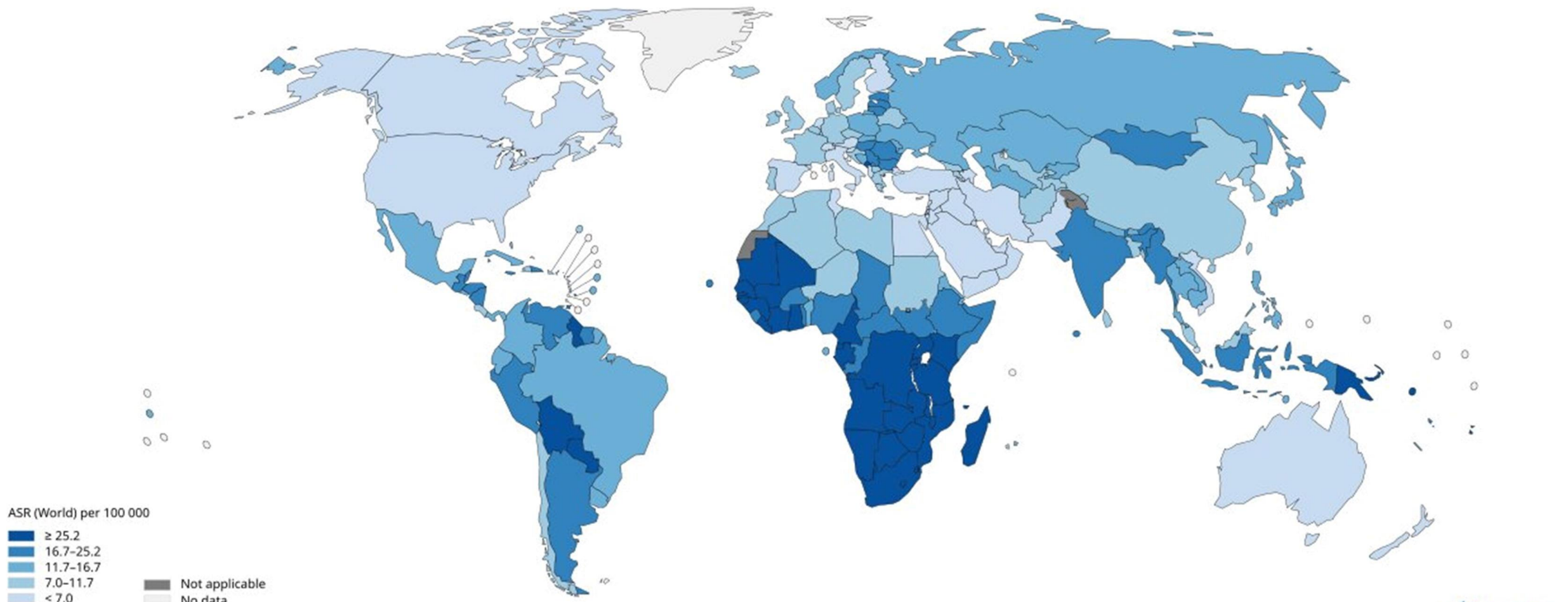
HPV vaccination was associated with an estimated **88% reduction** in the prevalence of HPV 6/11/16/18-related oral infections among **vaccinated young adults** and **100% reduction in vaccinated men**

Why vaccinate?

- It's safe
 - First Phase III clinical trials in females (Future I, II) was in **2002**.
 - qvHPV vaccine was approved in Canada (along with 50+ other countries) in **2006**.

Why vaccinate?

- Because the status quo is not good.
- It's the opposite of good.
- Its actually bad.
- Really bad.

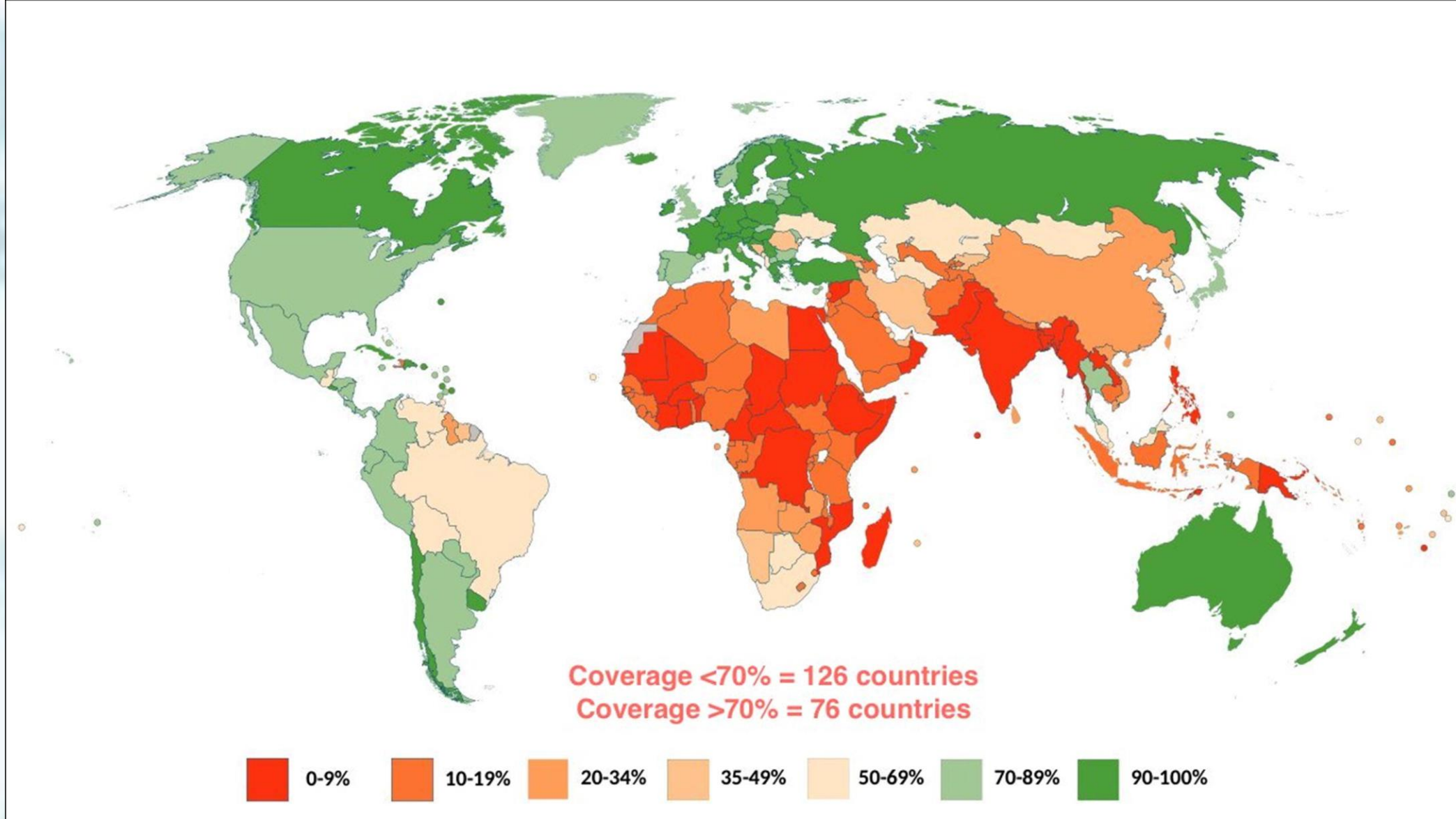


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Data source: GLOBOCAN 2020
 Graph production: IARC (<http://www.iarc.fr/>)
 World Health Organization

 World Health Organization
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Estimated age-standardized incidence rates of cervical cancer in 2020 (all ages), from GLOBOCAN 2020, IARC.



Global map showing the **distribution of country's lifetime screening coverage** (2019), women aged 30–49 years by country. Adapted from Lancet Global Health, 2022, Bruni et al. ([https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(22\)00241-8/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00241-8/fulltext)).

WHO – International scope

- Because HPV infections are commonly acquired soon after sexual debut, **WHO recommends use of prophylactic HPV vaccines in early adolescence, with the primary target being girls before the initiation of sexual activity (9–14year-olds) for the prevention of CxCa**
 - [\[WHO position on HPV vaccines. Vaccine 2009;27\(52\):7236–7\].](#)
- **School-based programmes** are mainly used as the vaccine delivery strategy among LMICs, resulting in relatively higher coverage than the facility-based programmes
 - [\[The World Health Organisation. WHO HPV Vaccine Dashboard.\].](#)



Understanding the Role of Oral HealthCare Professionals in the Prevention of Head and Neck Cancers

Oral Cancer Screening Practices of Canadian Dental Hygienists: Canada

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ORIGINAL ARTICLE

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Oral cancer screening practices of Canadian dental hygienists

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Abstract
Purpose: This study investigates whether dental hygienists are routinely conducting oral cancer screenings (OCS) as per their professional capability and responsibility. Factors that may mediate provision of OCS, and ability to discuss sensitive topics with patients, are also examined.
Methods: A pretested online questionnaire was sent via national and provincial regulatory bodies to target practicing registered dental hygienists across Canada. Analysis was conducted using statistical software.
Results: Results of 256 surveys were analysed. Sixty-four per cent of dental hygienists listed an OCS as part of their regular process of care. Except for the initial examination, respondents were significantly more likely to report being responsible for the OCS than the dentist, $P < .001$. On average, intraoral components are inspected at higher frequencies (96%) than extraoral components (73%). Confidence in OCS technique was high (70%). The majority felt prepared by their education to conduct OCS (60%), but those with a bachelor's degree felt more prepared than those with a diploma, $P = .005$. The average time to conduct an OCS is 4.09 minutes, with most agreeing there is sufficient time in an appointment (57%). Only 37% felt their education prepared them to discuss sensitive topics, level of education had no effect, $P > .05$. Only 43% of respondents felt confident in their human papillomavirus (HPV) knowledge and comfortable discussing HPV risk factors with patients.
Conclusion: Dental hygienists in this study are regularly conducting OCS; however, they lack comfort discussing sensitive topics such as transmission of oral HPV, and screenings may not be fully comprehensive.

KEYWORDS
dental hygiene, health communication, human papillomavirus, oral cancer screening, oral health, survey

1 | INTRODUCTION

Head and neck cancers, including lip, oral, laryngeal and pharyngeal cancers, show an increasing incidence in many parts of the world.¹⁻³ Oral cavity and oropharyngeal cancers in particular have the sixth highest incidence rate of all cancers on a global scale,⁴ with a recorded 145 500 deaths worldwide in 2012.⁵ Many oral cancer diagnoses anticipate only a 50% chance of survival within 5 years.⁴ Canadian national statistics predict there will be 3.1 deaths for every 100 000 Canadians related to oral cancer.⁶ Survival rates improve by 50% when detected at localized stages; however, oral cancers are only detected at this early stage 30% of the time.⁷ Even with survival, quality of life is often seriously impacted after treatment.⁸ Treatments (surgery, radiation, chemotherapy) can often be visibly disfiguring and physically destructive, damaging teeth, salivary glands, and other head and neck tissues necessary for everyday activities such as eating and talking.

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Int J Dent Hygiene. 2018;16:e38-e45.

64% dental hygienists listed an oral cancer screening as part of their regular process of care

Intraoral Components are inspected at higher frequencies (96%) than extraoral components (73%)



The average time to conduct an oral cancer screening

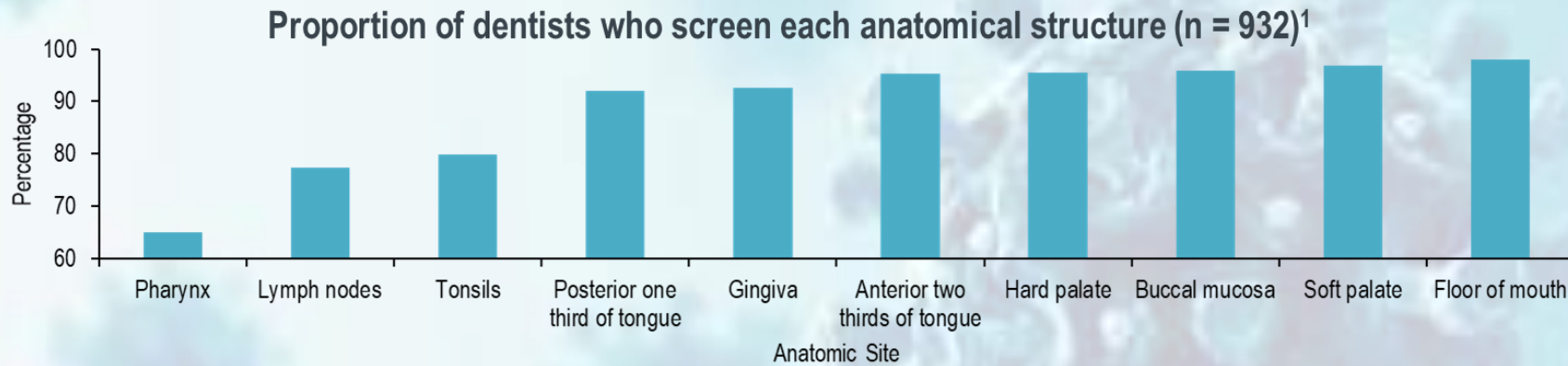
4.09 minutes

37% felt their education prepared them to discuss sensitive topics

43% felt confident in their HPV knowledge and comfortable discussing HPV risk factors with patients

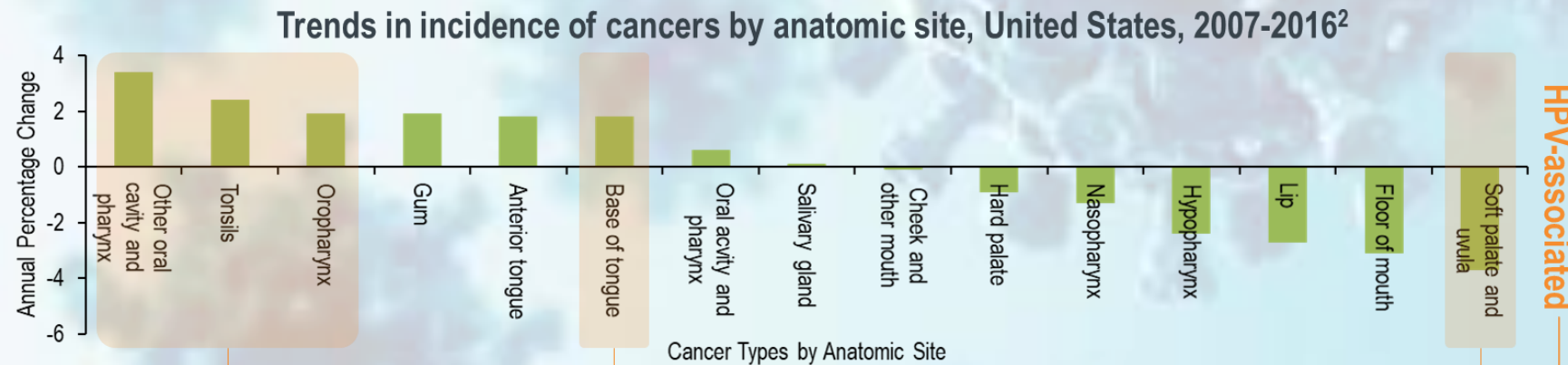
Dental hygienists (n=256) in this study regularly conducts oral cancer screenings; however, they lack comfort discussing sensitive topics such as oral HPV, and screenings may not be fully comprehensive.

Dentists' Capacity to Mitigate the Burden of Oral Cancers: Ontario, Canada



92.4%

believed that they are adequately trained to recognize the early signs and symptoms of oral cancer¹



35.4%

believed said that they are adequately trained to obtain biopsy samples from suspected lesions¹

<40%

believed said that they are adequately trained to address relevant risk factors (smoking, alcohol use, HPV)¹

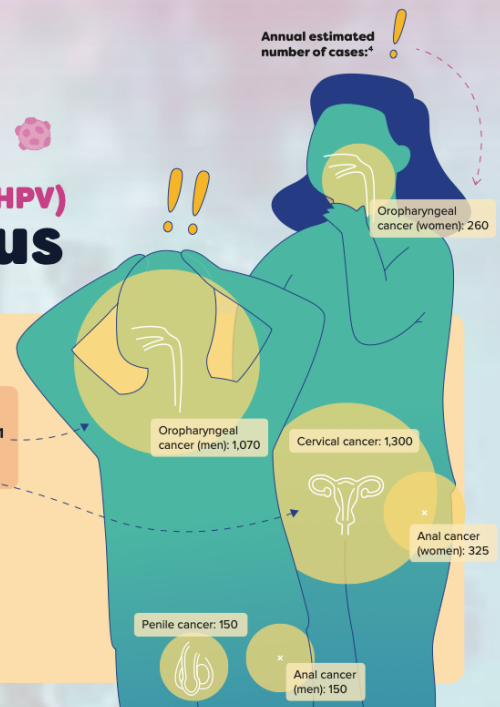
1. J Can Dent Assoc. 2020 Feb;86:k2. 2. MMWR Morb Mortal Wkly Rep. 2020 Apr 17;69(15):433-438.

Find the Patients

- Screen
 - Common language
- Educate
 - Personal risk assessment
 - Make it personal
- Empower
 - Provide a RX
 - Provide a vaccine
- Close the circuit



A Pharmacist's Guide to Human Papillomavirus (HPV)



▶ THE PROBLEM:

Human papillomavirus (or HPV) is the leading cause of oropharyngeal¹ and cervical cancer.²

↓ The COVID-19 pandemic has greatly reduced rates of HPV vaccination.

In Ontario, school HPV vaccination rates have dropped to as low as 0.8%.³

HPV is very common.
75% of adults will have one HPV infection in their life.²

▶ THE SOLUTION:

1 IDENTIFY PATIENTS 🔍

Spot patients in your pharmacy who may benefit most from HPV vaccination.

- i. Aged 9 years or older
- ii. Immunocompromised
(e.g., watch out for patients taking prednisone)
- iii. Collaborate with dental professionals
Dentists are already screening for oral cancers in their patients and can prescribe vaccines.

2 INFORM PATIENTS 💬

i. Explain HPV

“Are you aware of your risk of certain cancers from HPV infection?”

ii. Mention preventative measures

1. Vaccines
2. Condoms and other physical barriers
3. Limit number of sexual partners

3 VACCINATE PATIENTS 💉

Be open to patients outside of the inclusion criteria with higher risks.

YOU CAN DO IT!

Tip: Ask local clinics if they have any patients they'd like to send to your pharmacy for an HPV vaccination.

¹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4299160/>

² <https://cancer.ca/en/cancer-information/reduce-your-risk/get-vaccinated/human-papillomavirus-hpv>

³ Public Health Ontario Surveillance Report - Ontario Agency for Health Protection and Promotion, 2021

⁴ Cancer Incidence by Cancer Registry in Canada. Canadian Cancer Statistics 2016. Special topic: HPV-associated cancers, Government of Canada, October 2016. Merck Canada Inc. 2015.

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The background of the slide is a microscopic image of cells, likely from a Pap smear or similar cytology specimen. The cells are stained, showing various shades of blue, purple, and pink. Some cells are large and have a distinct nucleus, while others are smaller and more numerous. The overall appearance is that of a dense population of cells, possibly including squamous epithelial cells.

Case Presentation:

female HPV-related oropharyngeal cancer patient

History and Patient Presentation

- She was diagnosed with squamous cell carcinoma on the left base of the tongue.
- The biopsy was HPV positive.
- Surgical treatment of the lesion included removal of a salivary gland. She also went through a course of radiation therapy.

- She has severe xerostomia,
- eats only on the right side,
- has a cast partial upper denture that could not be used due to friable tissues.
- Her oral health had deteriorated following her cancer diagnosis, resulting in generalized caries and large failing restorations.
- She was depressed and overwhelmed by how her life had changed post treatment and was contemplating initiating an end-of-life protocol.

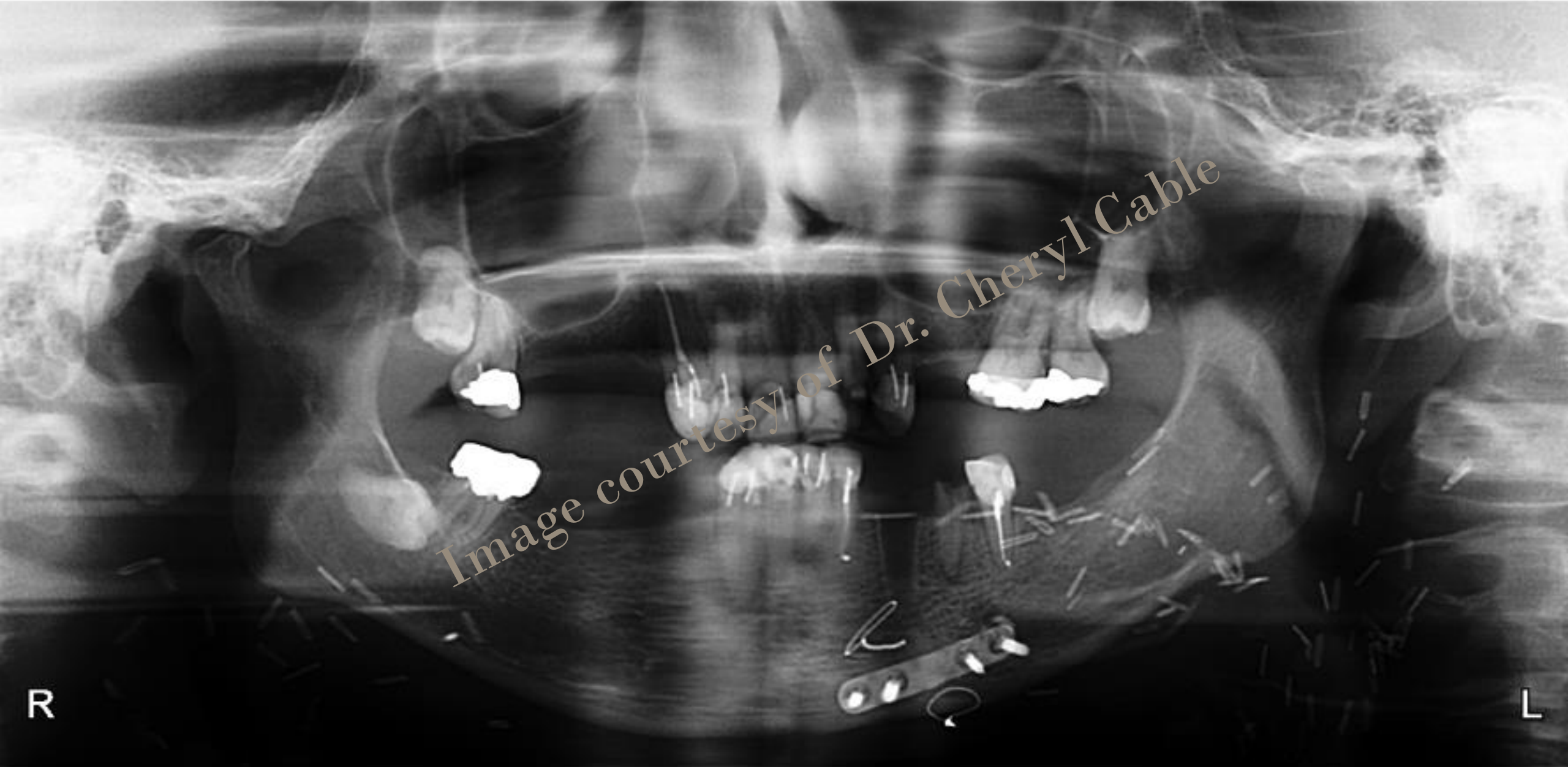


Image courtesy of Dr. Cheryl Cable

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Image courtesy of Dr. Cheryl Cable

Mandibular arch and tongue (courtesy of Dr. Cheryl Cable)

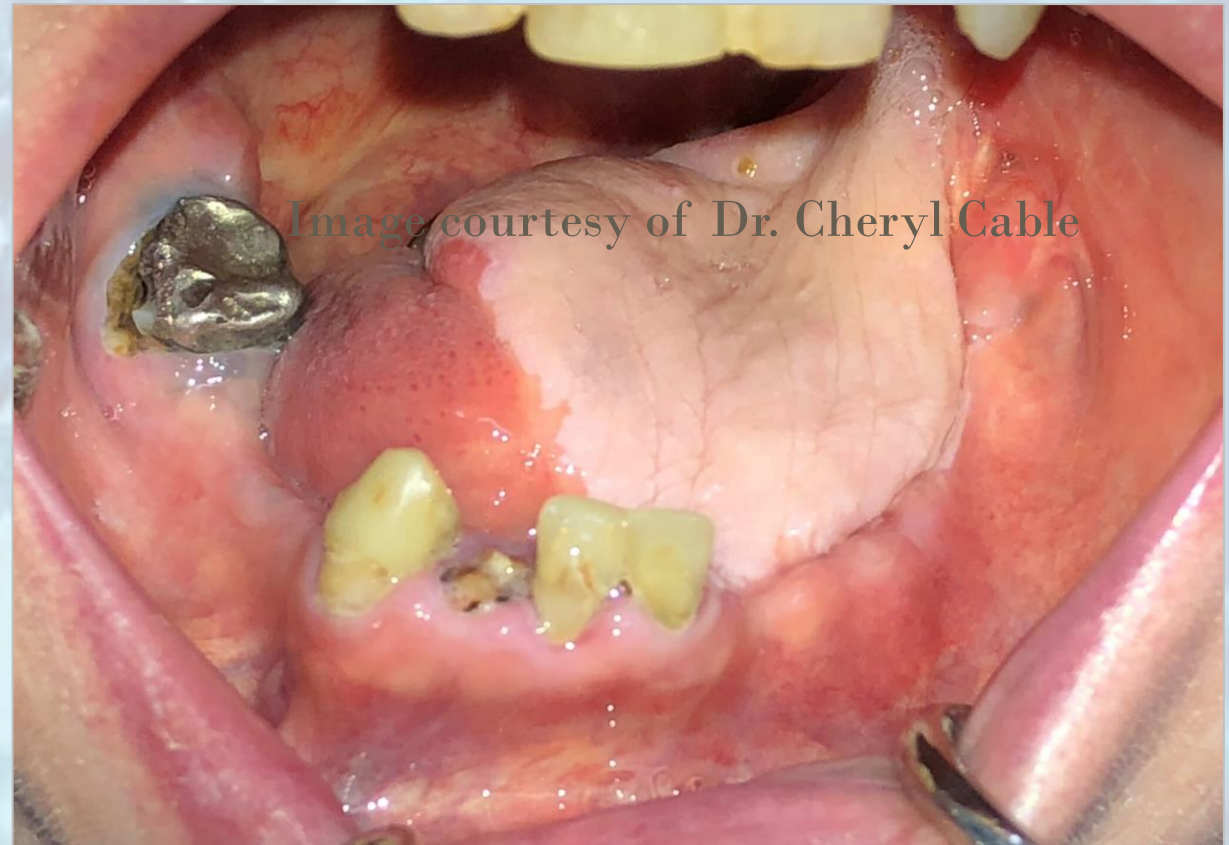


Image courtesy of Dr. Cheryl Cable

y arch

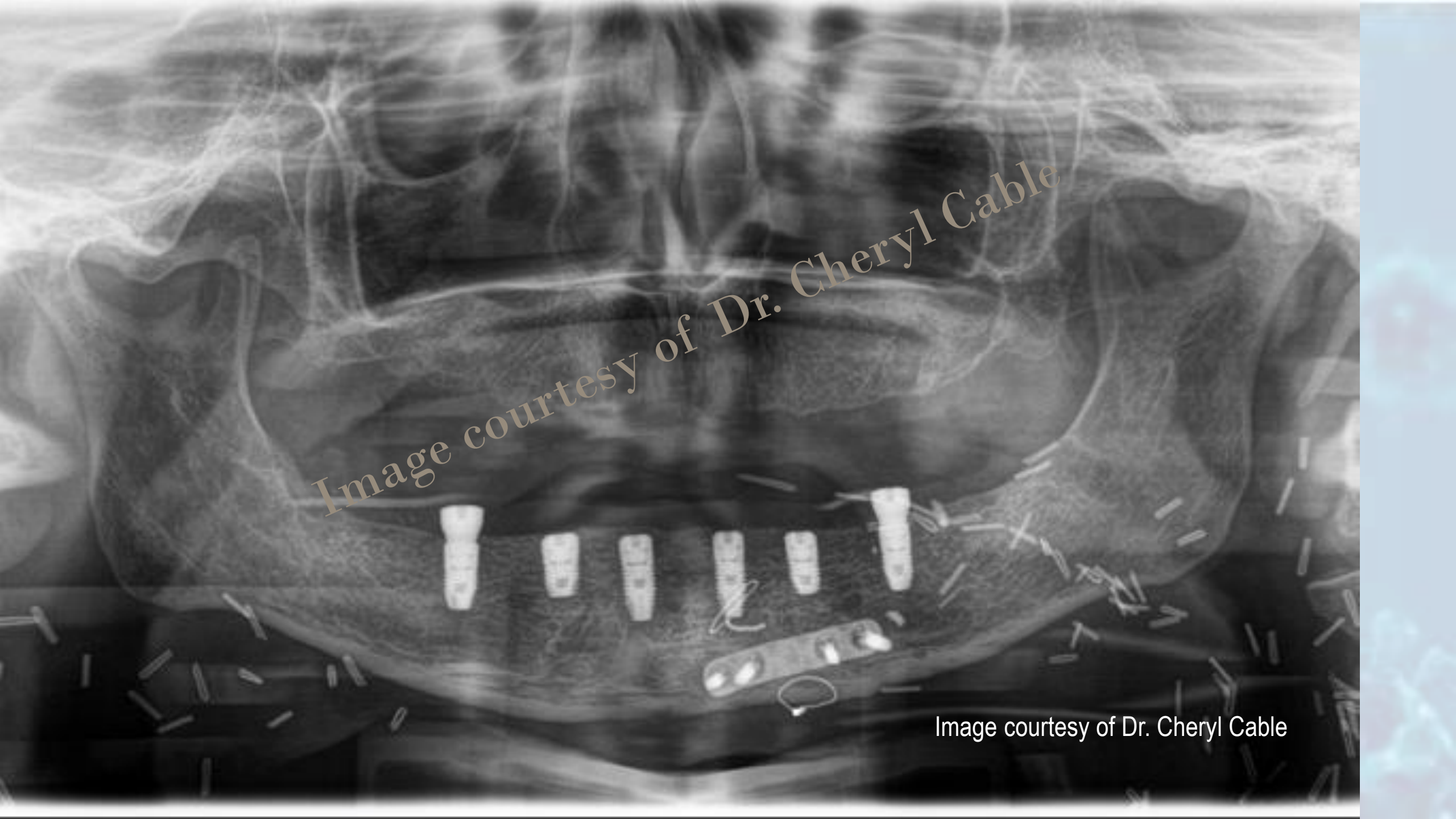
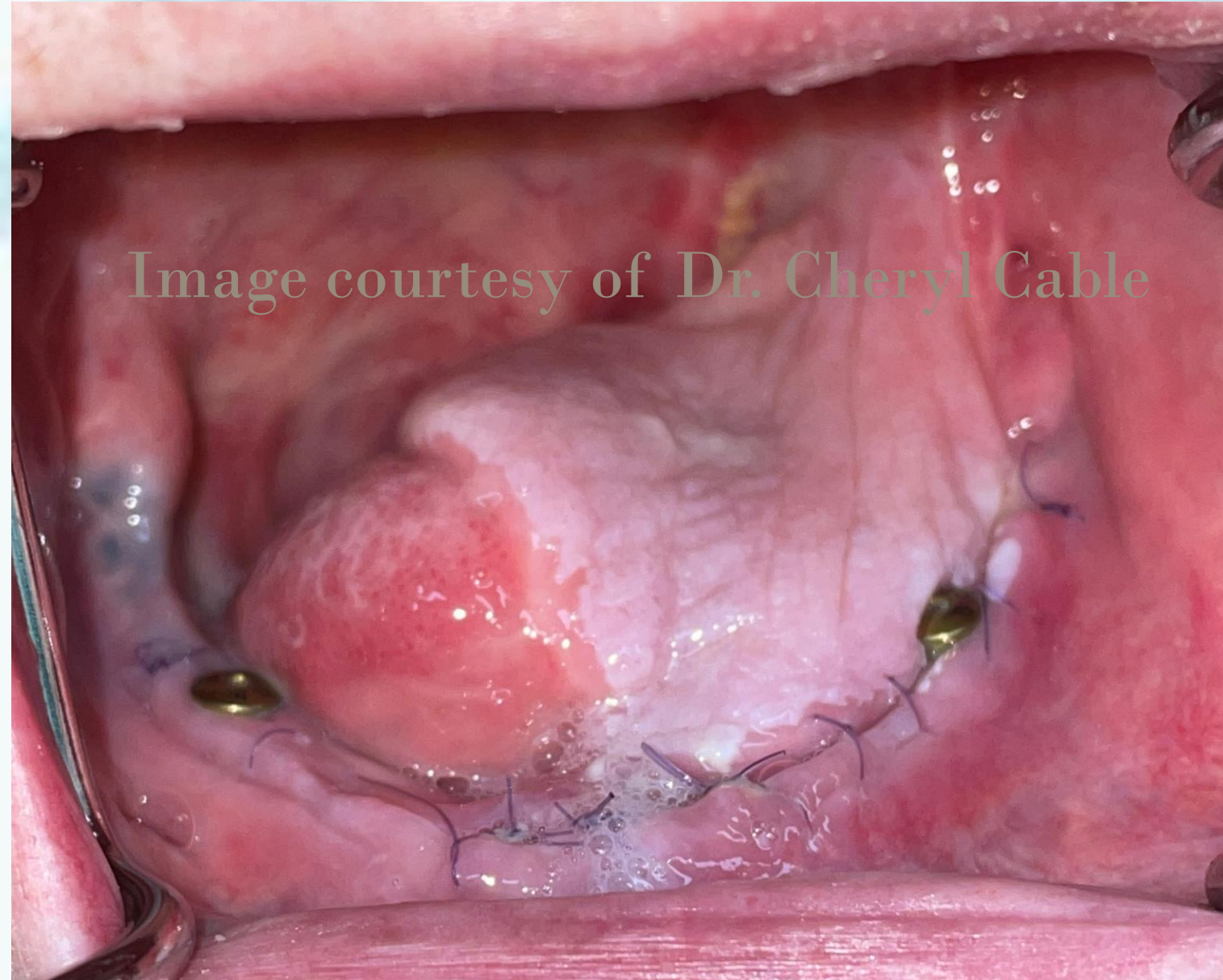


Image courtesy of Dr. Cheryl Cable

Image courtesy of Dr. Cheryl Cable

Images courtesy of Dr. Cheryl Cable

Image courtesy of Dr. Cheryl Cable



What can we do today – a way to change our conversation. What if?



We must act cohesively:

■ Advocate

- advocate the benefits of preventive programs such as vaccine protocols
- Goal: funding vaccine programs for every patient who wants and needs one
- Eliminate barriers to vaccination – cost / availability / knowledge

■ Develop communication tools

- Clear and concise language – common language between physicians, nurses, pharmacists, dentists...
- To our colleagues and to decision makers

■ Facilitate

- facilitate dental rehabilitation in a local and timely manner.
- Protect the vulnerable patients and ensure their care is supported not just short term, but long term. This disease and the sequelae are for life.
 - Close to home
 - Competent, certified clinicians
 - Financial support
 - Currently – not good

■ Dentists as Vaccinators

- Support and encouragement

USC&LS Procedure Codes

Insurance Providers

What
if?

It





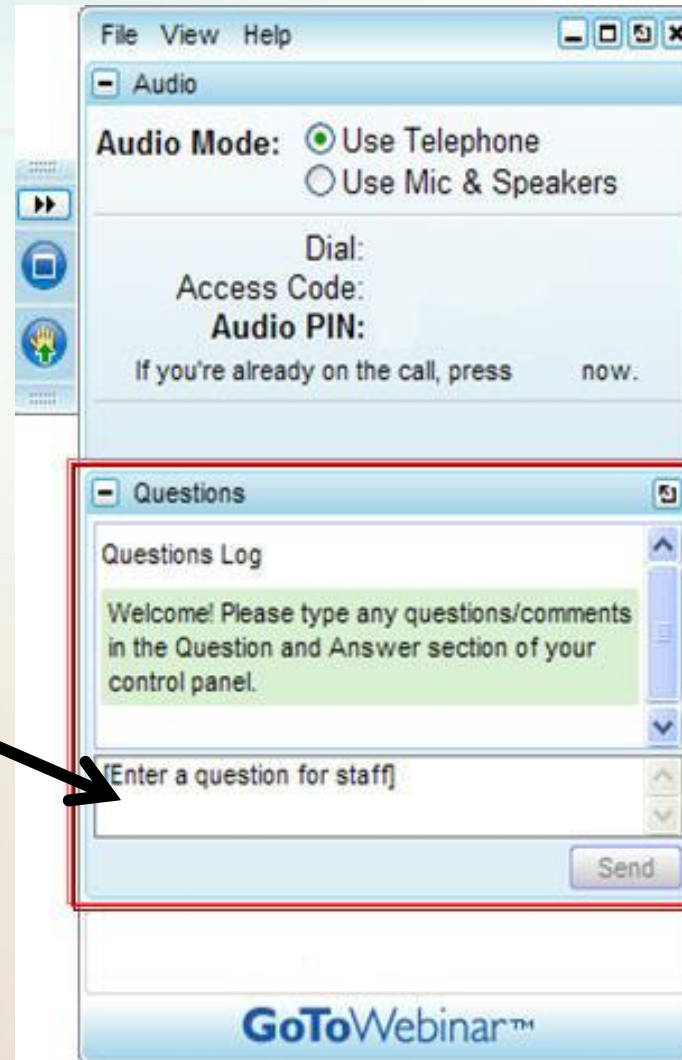
Let's work together and
defeat the dark side

Thank you

Question & Answer Period

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

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



Beyond Elimination of Cervical Cancer: A strategy for prevention of head and neck cancer

- **Evaluation:** <https://forms.gle/9rVHvahqUDeRZg8u7>
- **Slide Set, Video recording, HPV documents at:**
hpvglobalaction.org & www.CIDCgroup.org

Thank you for participating!

This educational program is made possible through the support of Merck Canada
The opinions expressed in this webinar are those of the presenter and do not necessarily reflect the views of CIDC, HPV Global Action or their partners