

Consortium for Infectious Disease Control

Presents
a Public Health Forum

Lessons Learned from COVID-19: Getting our HPV immunization programs back on track



Presenter: Dr. Marc Steben MD, CCFM, FCFM

Chair of the Canadian Network on HPV Prevention
Co-President, HPV Global Action
Family Physician, Family Medicine Group, Montréal
Board Member and Chair of the Education Committee, International Papillomavirus Society



Presenter: Dr. Jia Hu MD, MSc, CCFP, FRCPC

Chair, 19 To Zero
Alberta Primary Care Vaccine Rollout Co-Lead
Industry for Vaccination (Alberta) Co-Lead
Adjunct Professor, University of Calgary



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Clinical lead COVID19, Public Health Agency of Canada

January 6, 2022

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The opinions expressed in this event are those of the presenters and do not necessarily reflect the views of CIDC or its partners



Webinar Objectives

1. Describe the impacts of the COVID-19 pandemic on the implementation of HPV prevention programs across Canada
2. Compare pre-COVID to current HPV programs in Canadian provinces and territories
3. Elaborate about CPAC HPV prevention objectives
4. Outline the National Advisory Committee on Immunization (NACI) position on HPV vaccination
5. List lessons learned from the COVID pandemic and discuss novel approaches to bolster the way forward for HPV vaccinations

Administrative Information

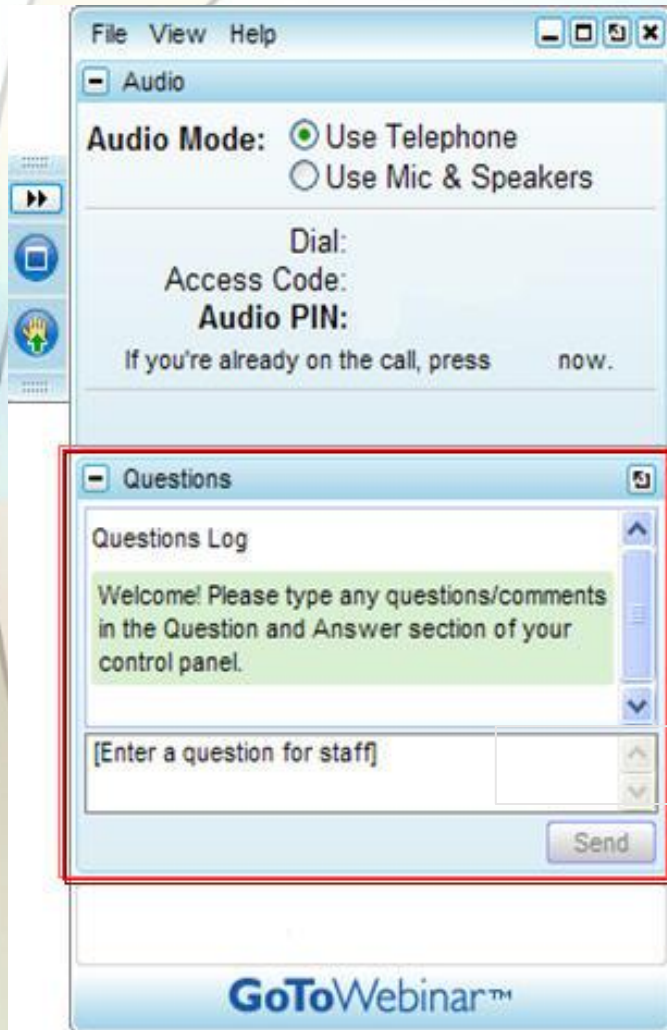


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 - Submit your text question using the Questions pane & click 'Send' button
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Introductory Comments & Presentation #1



Objective #1: Describe the impacts of the COVID-19 pandemic on the implementation of HPV prevention programs across Canada



Dr. Marc Steben, MD

- Chair, Canadian Network on HPV Prevention
- Co-President, HPV Global Action
- Family Physician, Family Medicine Group, Montreal
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Lessons Learned from COVID-19

Getting our HPV immunization programs back on track

Dr. Marc Steben MD, CCFM, FCFM

Co-President, HPV Global Action

Chair, Canadian Network on HPV Prevention

Family Physician, Family Medicine Group La Cité du Parc Lafontaine, Montréal, QC

Board Member & Education Committee Chair, International Papillomavirus Society

Disclosure Statement

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I am a member of an Advisory Board or equivalent with a commercial organization.	Merck, Genoccea, GSK, Innovio, Sprout
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I have received payment from a commercial organization (including gifts or other consideration or 'in kind' compensation).	Allergan, Bayer, Paladin, Roche molecular systems, Valeant.
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I hold investments in a pharmaceutical organization, medical devices company or communications firms.	I own a communication company (Communications Action-Santé Inc.)
I am currently participating in or have participated in a clinical trial within the past two years).	No

Learning Objectives:

- 1. Describe the impacts of the COVID-19 pandemic on the implementation of HPV prevention programs across Canada**
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Reality check!

- COVID-19 pandemic is a true public health priority!
- Preparedness of the healthcare system was not up to the actual needs
- But still the healthcare system response to the pandemic brought all preventive activities to a standstill...

HPV is also a pandemic!

- It has a huge impact on the development of vulnerable populations
- It can be eliminated!
- People do not see the accumulating burden of all HPV infections, diseases and direct and indirect burdens of HPV related cancers...

Impact of vaccination on cancer incidence, Sweden

THE NEW ENGLAND JOURNAL OF MEDICINE

ORIGINAL ARTICLE

HPV Vaccination and the Risk of Invasive Cervical Cancer

Jiayao Lei, Ph.D., Alexander Ploner, Ph.D., K. Miriam Elfström, Ph.D., Jiangrong Wang, Ph.D., Adam Roth, M.D., Ph.D., Fang Fang, M.D., Ph.D., Karin Sundström, M.D., Ph.D., Joakim Dillner, M.D., Ph.D., and Pär Sparén, Ph.D.

ABSTRACT

BACKGROUND
The efficacy and effectiveness of the quadrivalent human papillomavirus (HPV) vaccine in preventing high-grade cervical lesions have been shown. However, data to inform the relationship between quadrivalent HPV vaccination and the subsequent risk of invasive cervical cancer are lacking.

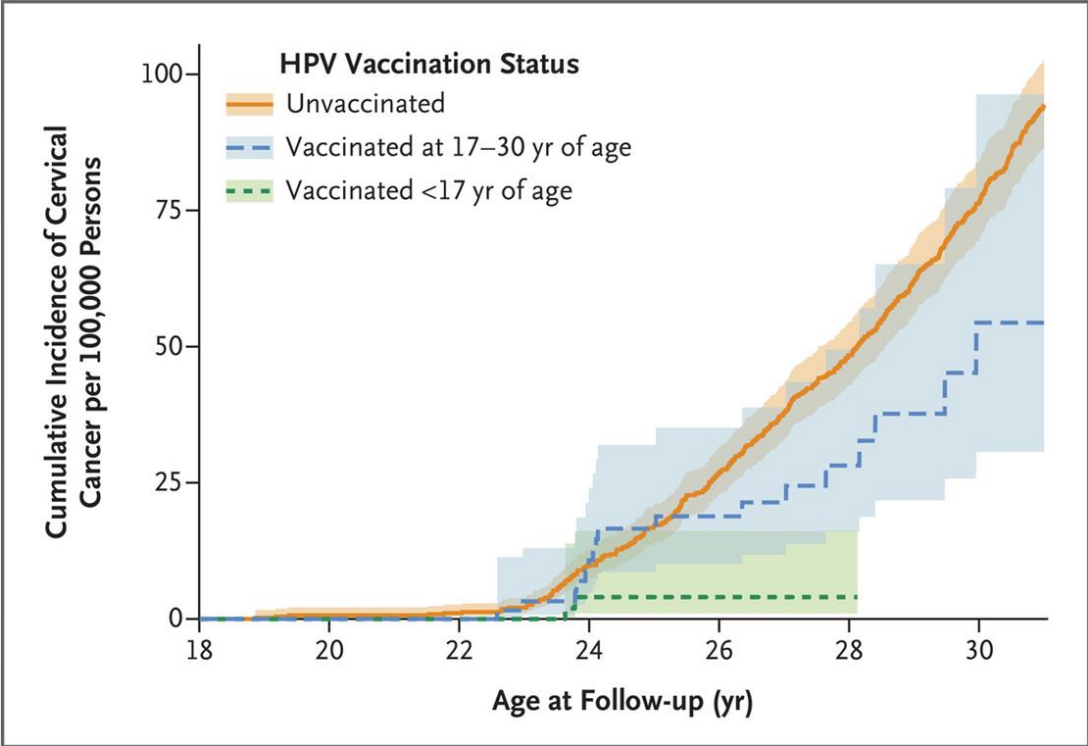
METHODS
We used nationwide Swedish demographic and health registers to follow an open population of 1,672,983 girls and women who were 10 to 30 years of age from 2006 through 2017. We assessed the association between HPV vaccination and the risk of invasive cervical cancer, controlling for age at follow-up, calendar year, county of residence, and parental characteristics, including education, household income, mother's country of birth, and maternal disease history.

RESULTS
During the study period, we evaluated girls and women for cervical cancer until their 31st birthday. Cervical cancer was diagnosed in 19 women who had received the quadrivalent HPV vaccine and in 538 women who had not received the vaccine. The cumulative incidence of cervical cancer was 47 cases per 100,000 persons among women who had been vaccinated and 94 cases per 100,000 persons among those who had not been vaccinated. After adjustment for age at follow-up, the incidence rate ratio for the comparison of the vaccinated population with the unvaccinated population was 0.51 (95% confidence interval [CI], 0.32 to 0.82). After additional adjustment for other covariates, the incidence rate ratio was 0.37 (95% CI, 0.21 to 0.57). After adjustment for all covariates, the incidence rate ratio was 0.12 (95% CI, 0.00 to 0.34) among women who had been vaccinated before the age of 17 years and 0.47 (95% CI, 0.27 to 0.75) among women who had been vaccinated at the age of 17 to 30 years.

CONCLUSIONS
Among Swedish girls and women 10 to 30 years old, quadrivalent HPV vaccination was associated with a substantially reduced risk of invasive cervical cancer at the population level. (Funded by the Swedish Foundation for Strategic Research and others.)

N Engl J Med 2020;383:1340-8.
DOI: 10.1056/NEJMoa1917338
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1340 N ENGL J MED 383:14 NEJM.ORG OCTOBER 1, 2020



Among Swedish girls and women 10 to 30 years old, 4vHPV vaccination was associated with a substantially reduced risk of invasive cervical cancer at the population level.

And adding cervical cancer elimination and NTD/FGS: time for synergies and integration

World Health Organisation: Linking three separate strategies

HIV: End the AIDS epidemic in 2030

Build on momentum;
Accelerate the response
Aligned to UNAIDS strategy

STIs: End STI epidemics in 2030

Neglected area
multiple diseases/pathogens
drug resistance

Hepatitis: Eliminate Hepatitis B and C in 2030

Emerging global interest;
increasing patient demand;
new prevention and treatment opportunities



Broutet: RHR, WHO

VISION: A world without cervical cancer

THRESHOLD: All countries to reach < 4 cases 100,000 women-years

2030 CONTROL TARGETS

90%

of girls fully vaccinated
with HPV vaccine by 15
years of age

70%

of women screened with an
high precision test at 35
and 45 years of age

90%

of women identified with
cervical disease receive
treatment and care

SDG 2030: Target 3.4 – 30% reduction in mortality from cervical cancer

The 2030 targets and elimination threshold are subject to revision depending on the outcomes of the modeling and the WHO approval process



A warning coming before COVID-19 pandemic



NEWS

Cervical cancer: deaths increase as HPV vaccine is underused, says WHO

Owen Dyer

A warning coming before COVID-19 pandemic

IPVS press communiqué on the 4th of March 2021

International HPV awareness day

Ticking time bomb:

Medical expert warns thousands could die from HPV prevention programming interrupted by COVID

Rigidity of the health care system

- Silo attributed budget
- Economy made in one silo will not be allocated to the silo that permitted the economy...
- Job descriptions in the hierarchy are very rigid
- Delivery of services such as screening is very rigid - and vaccines also
- Tradition goes on... we never did that in the past...
- Established practices

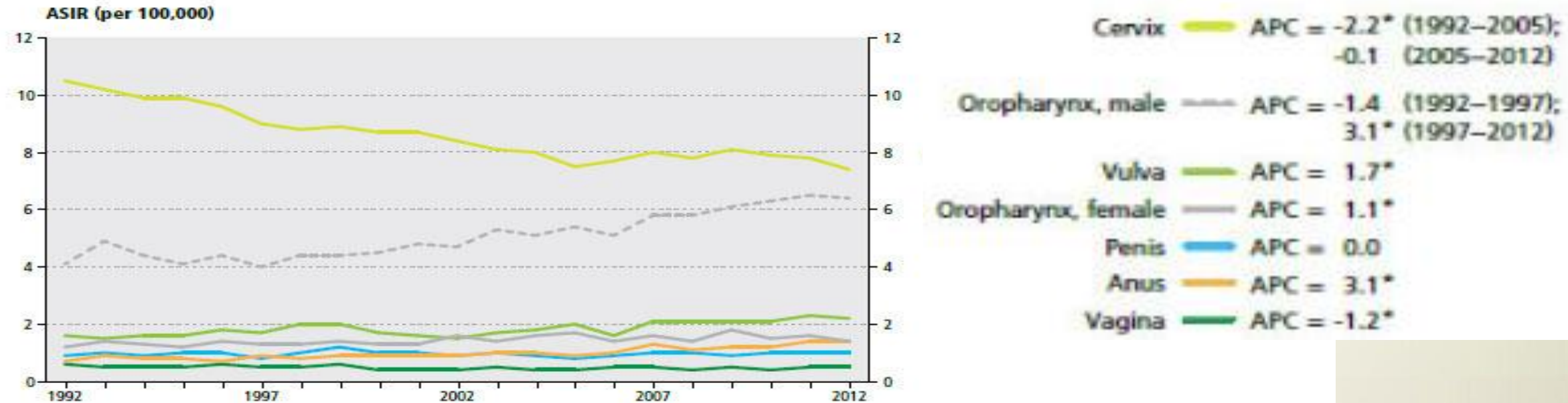
Negative results from the COVID-19 pandemic

Negative =

- Huge «Gross domestic product» drop for all countries
- Healthcare budget cannibalised by COVID-19 pandemic
- Healthcare diverted to emergency care and to immunization when available
- Loss of healthcare workers due to death, long term sequelae of COVID or due to change in professional job...
- Lateness in most cancer prevention and care activities...
- But enough COVID-19 blaming!

Sexual practices changed over decades and translate into new HPV related cancers that cannot be screened...

FIGURE 7.3 Trends in age-standardized incidence rates (ASIR) and annual percent change (APC)[†] for HPV-associated cancers[‡], Canada, 1992–2012[§]



* Significant increase or decrease in APC, $p < 0.05$

[†] APCs refer to 1992–2012 calendar years, unless there was a changepoint, in which case the applicable years are indicated.

[‡] Includes selected topographies and morphologies. Refer to Table A12 for definitions.

[§] Actual incidence data were available to 2012 for all provinces and territories except Quebec, for which data were available to 2010 and carried forward thereafter.

Note: Rates are age-standardized to the 2011 Canadian population.

Analysis by: Health Statistics Division, Statistics Canada

Data source: Canadian Cancer Registry database at Statistics Canada

Thank you
Please submit your questions!



Presentation #2

Objective #2: Compare pre-COVID to current HPV programs in Canadian provinces and territories

Objective #3: Elaborate about CPAC HPV prevention objectives



Dr. Jia Hu MD, MSc, CCFP, FRCPC

- Chair, 19 To Zero
- Alberta Primary Care Vaccine Rollout Co-Lead
- Industry for Vaccination (Alberta) Co-Lead
- Adjunct Professor, University of Calgary



HPV IMMUNIZATION DURING THE TIME OF COVID-19

Jia Hu MD MSc CCFP FRCPC

January 6, 2022

Presenter Overview & Disclosures

- CEO & Co-Founder, 19 To Zero (www.19tozero.ca)
- Adjunct Professor, University of Calgary
- Corporate Medical Director – Canadian Pension Plan Investment Board, via Cleveland Clinic Canada
- Alberta Primary Care Vaccine Rollout Co-Lead
- Industry for Vaccination (Alberta) Lead
- Consultant – Calgary Board of Education, Calgary Catholic School District
- Consultant – PHAC / Deloitte – Federal Vaccine Passport Development
- **Funding:** 19 To Zero receives funding from numerous sources including granting agencies (CIHR, PHAC, Alberta Innovates), Industry (Pfizer/GSK/Merck/Sanofi/Moderna), other organizations (e.g., Suncor, City of Calgary, etc. to do vaccine uptake campaigns / deliver mobile vaccines);

Who 19 To Zero is

19 TO ZERO is a non-profit coalition of healthcare workers, academics, public health experts, behavioural economists, and creative professionals working to **understand and promote vaccinations** through **research**, **engagement**, and **education**.

Our philosophy

Shifting perceptions and behaviours towards vaccines and other medical interventions requires an **agile, multi-modal approach**. Our team consists of experts across multiple disciplines who come together to form creative, timely solutions that engage communities, elucidate their needs, and develop interventions to drive positive behaviour change and increase vaccinations.

We work with a trusted network of **all sectors of society and healthcare**, from corporations, to community groups, to hospital systems/primary care/public health, to government. Engaging a diverse set of stakeholders allows us to bring together the strengths of groups working towards a common goal – improving public health – while operating efficiently around barriers many individual organizations face.

What we do

A multi-modal approach to encourage vaccination and improve public health

Primary Research

We conduct market research and social media listening to understand perceptions and discourse surrounding vaccines and public health



Advocacy

We advocate for policies at federal, provincial, and health system levels that will improve healthcare delivery and outcomes for Canadians



Stakeholder Engagement

We are a trusted partner of a large network of groups representing communities and organizations of all types across Canada



Health Advisory & Strategy

We advise industry and health systems partners on best practices to improve health outcomes, particularly with respect to vaccine uptake



Behaviour Change Campaigns

We develop, design, and execute targeted educational and marketing interventions to improve public health

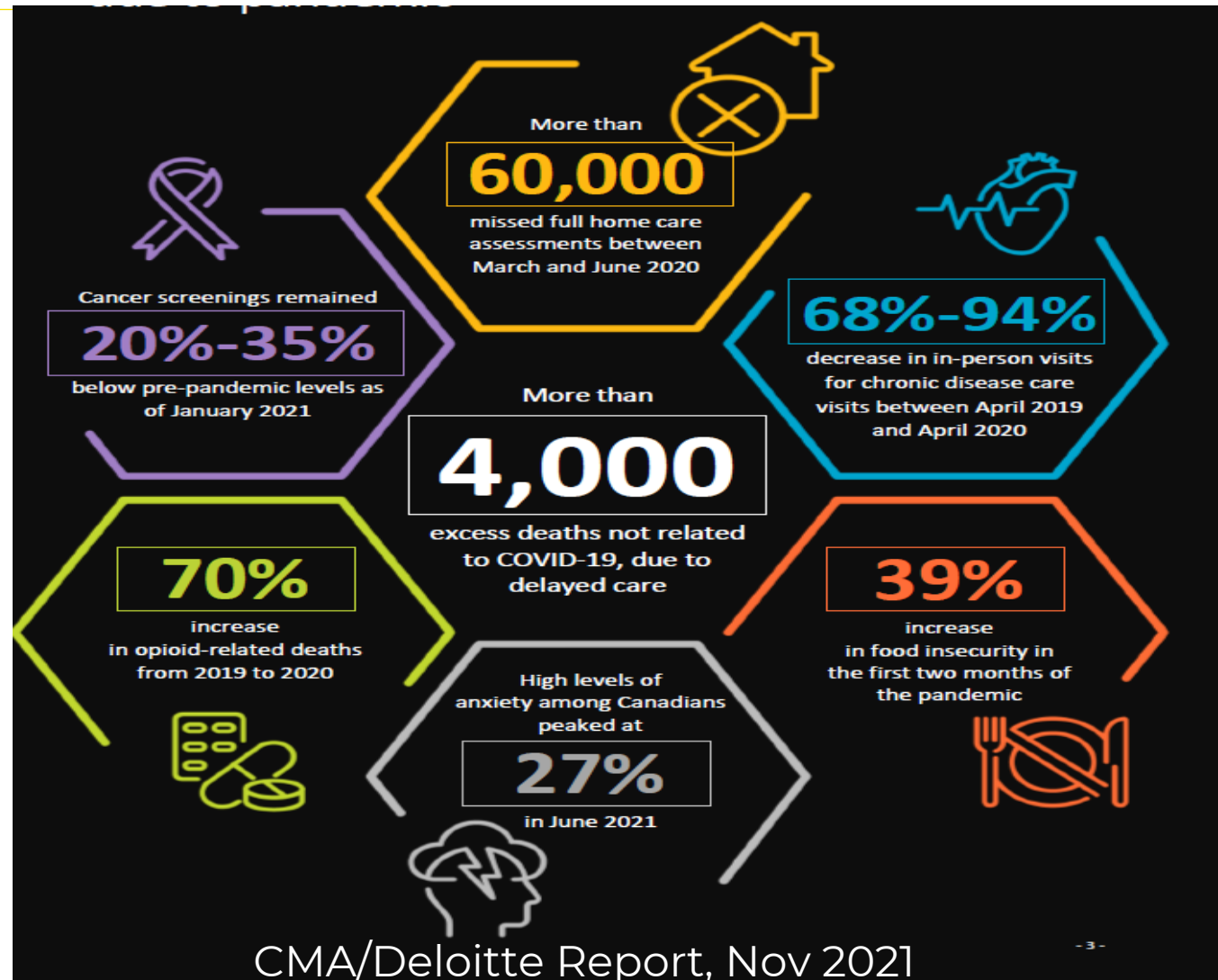


Healthcare Worker Engagement

We engage a pan-Canadian network of healthcare professionals (physicians, nurses, pharmacists) to understand their needs and provide tailored resources to improve their practices



The pandemic has had a profound impact on all aspects of society, including how we live our lives and the healthcare system



There were significant educational losses throughout the pandemic for all Canadians

COVID-19 has led to significant educational losses over the course of the pandemic

- **Individual school closures:** 241 elementary school closures in Ontario between September 16, 2020 - April 9, 2021 and 19 in current school year (August 31 – November 11, 2021)
- **Province-wide school closures:** Students in Ontario experienced more periods of school closures (over 20 weeks total) than students in any other region in Canada between March to May 2021
- These are **underestimates** of true educational losses as they don't account for individual classroom closures and students isolating due to symptoms or being household contacts
 - In the current school year alone (August 31 – November 11, 2021), 19 elementary school closures and 1537 elementary schools reporting at least 1 new case on any given day means that **at least around 46,481 total students** have been impacted*

Data: Ministry of Education, school closures reported by school boards to EDU regional offices
*Estimate based on average Ontario school size (424), class/cohort size (25) and school outbreak guidance where one case means cohort dismissal

Provincial and Territorial-Level Elementary School Closures in Canada, from March 14, 2020 to May 15, 2021



Gallagher-Mackay et al, 2021
COVID-19 Science Advisory
Table

... a sampling of the effects of pandemic on children compiled by the Ontario Ministry of Health

- Broader impacts of the pandemic have been varied across the pediatric population
- The pandemic has disproportionately impacted equity-deserving groups, including children who are racialized or newcomers, from low-income families, or with disabilities

Physical Health



Guelph Family Health Study, 2020:
Eating **more food** (42%)
Eating more **snack** food (55%)



Mitra et al, 2020
Decreased outdoor **activities** (56%)
Decreased outdoor **sports** (64%)
Increased **screen time** by 79%



Moore et al, 2021
Only 4.8% of children meeting **movement guidelines**



Cacioppo et al, 2021
77% of children with disabilities had clinic appointments **cancelled or delayed** (in France)

Mental Health



Racine et al, 2021
Depression (25.2% from 11.6%) and **anxiety** symptoms (20.5% from 12.9%) in children **doubled**



TARGetKids! Study, 2021
More **screen time**, video game time, and e-learning contributes to increased **irritability** and **hyperactivity**



Ontario Parent Survey, 2020
40% of parents report deterioration in child's **mood or behaviour**



Leeb et al, 2020
Mental health-related **ER visits** in kids 5-11 increased by 24% (in the USA)

Education



Maximum City Report, 2021
53% of kids spending **less time** on school work
45% of kids find school **less interesting**
52% of kids requiring **extra support** are not receiving it



Gallagher-Mackay et al, 2021
Younger students had greater educational losses, and **young children with disabilities** had more service losses



Pier et al, 2021
English-language learners fell behind 30% of a school year



Fuller et al, 2021
Greater **impact on women** due to increased unpaid family care

Conceptual effects of COVID-19 pandemic on non-COVID-19 vaccine uptake

The pandemic has generally had a **negative effect on uptake of routine immunizations**, through two mechanisms

- **Lack of access** – closures of vaccine access points (public health clinics, schools, GP offices) throughout the pandemic (e.g., in ON, 50% of visits remain virtual)
- **Fear of accessing health services** – Significant fear of accessing health services (particularly in Wave 1 and whenever there were extreme peaks) *even when safe for patients* led to +++ avoided routine care

The extent to which lack of access impacted uptake varied based on province-specific vaccine service delivery models (e.g., fewer effects in Alberta – centralized PH - than Ontario – decentralized GP delivery)

School-based programs (e.g., HPV, HBV, conjugated meningitis) were hit particularly hard due to school closures and unavailability of vaccines elsewhere

How were we doing before the pandemic with respect to HPV vaccine uptake?

PROVINCE/ TERRITORY	Uptake Rate
BC (Detailed in Appendix A)	Gr 6 F: 66.9% M: 64.6% (2018) ¹⁴ Gr 9 F: 65.2% (2018) ¹⁴
AB	Gr 5 M: 64.9% Gr 5 F: 66.3% Gr 9 M: 66.4% Gr 9 F: 76.3% (2015-16) ²⁵
SK	F: 69% (2017) ⁴⁰
MB (Detailed in Appendix B)	62.2% (2015-16) ¹³

PROVINCE/ TERRITORY	Uptake Rate
ON	F: 59.5% M: 53.4% (2016-2017) ³⁵
QC (Detailed in Appendix C)	F: 77% M: 74% (2017-18) ¹⁶
NB	F: 74.7% (2016-17) ⁴¹
NS	M+F: 79.0% M: 84.9% F: 73.4% (2016-17) ⁴²
PEI (Detailed in Appendix D)	F: 84.3% M: 85.0% (2015-2016) ³⁹
NL	88.7% ¹³ (2013-14)

- P/Ts generally had **uptake in the ~60-70% range** – so much lower than infant vaccination programs
- Primary mode of delivery was via **school-based programs** with various ways for catch-up if missed primary series in school
- **Data on uptake is patchy** in that it would not necessarily be registry data (sometime it was ‘survey’ type data)

Date last updated:
July 2019

What has been the effect of pandemic on HPV vaccine uptake? Provincial registry data -

The **best 'single source of truth' would be vaccine registry data** – COVID-19 has been good for the creation of vaccine registries and many provinces now have better data on routine immunization uptake

Provincial coverage estimates reflecting completion of the immunization series (i.e. up to date) for the school-based immunization programs for 12-year-olds for the 2019-20 and 2020-21 school years, respectively, are outlined below.



SURVEILLANCE REPORT

Immunization Coverage
Based Programs in Ontario
21 School Years

- 25.0% and 16.8% for Hepatitis B
- 5.2% and 0.8% for HPV
- 67.2% and 17.3% for MCV4

Ontario has had a **precipitous declines in completion of HPV series. Other provinces (e.g., BC/QC/AB) report generally similar numbers, when they report at all**

What has been the effect of pandemic on routine vaccine uptake? National Survey Data -

Various anecdotal communications with Ministries of Health across the country shows substantial declines in various routine immunizations - due to some of these data challenges, 19 To Zero did a survey on missed / delayed routine vaccination

- 9,091 adult Canadian citizens surveyed online between August 30th and October 10th, 2021 – **self-reporting of vaccine uptake / missed or delayed vaccination**
- Quotas set on gender, age (18-34, 35-54, 55+), language, region (Atlantic, Quebec, Ontario, West) to match 2016 census benchmarks; ranked weighting algorithm used to construct sample weights based on population benchmarks within region by age and gender

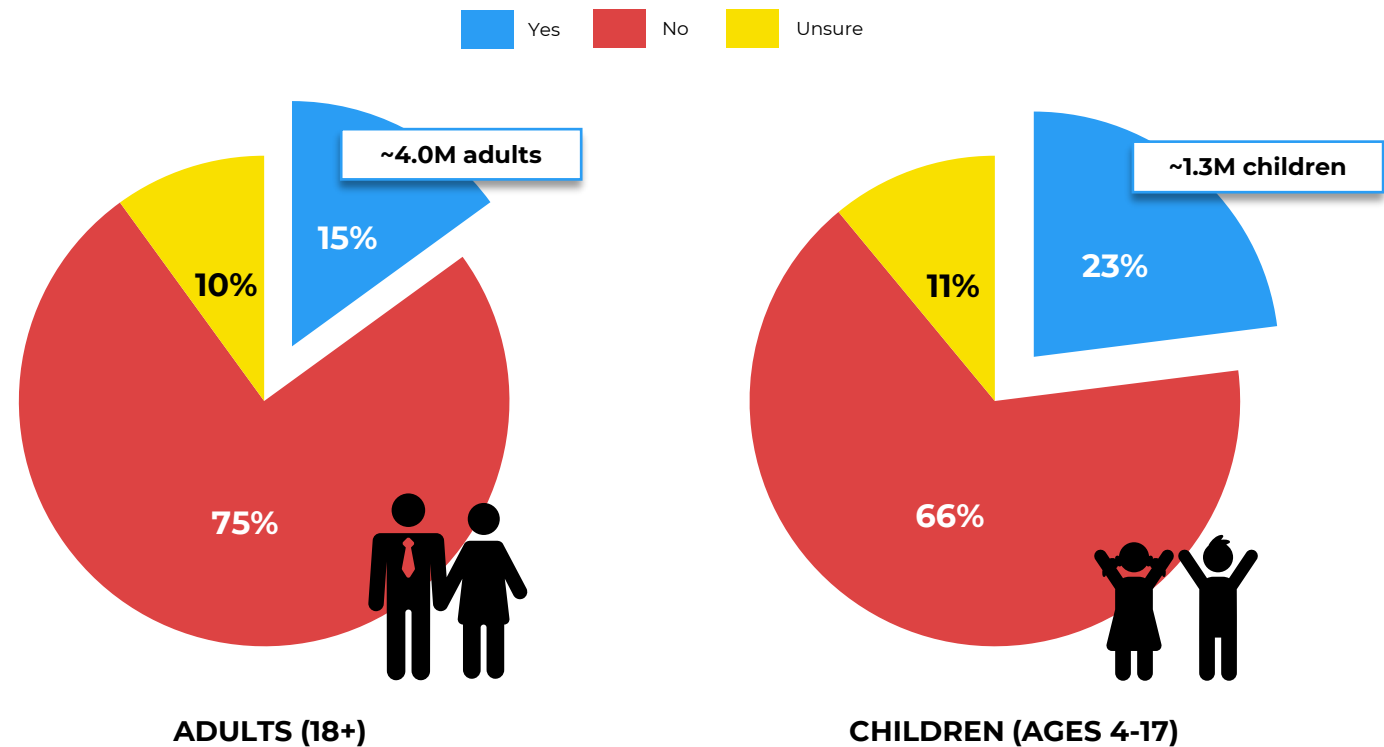
The goal of this survey was **to attempt to quantify decreases in routine vaccine coverage** (at a time when provinces didn't necessarily have the bandwidth to pull from their registries) but also to **advocate for other channels for routine vaccine delivery (e.g., pharmacies)**

Over 5.3 million Canadians have missed or delayed a routine vaccination since the beginning of COVID-19

Insights

- **15% of adults and 26% of children adults missing or delaying immunizations is significant:** The majority of Canadians were not due for a routine immunization over the past 18 months
- **Figure is likely an underestimate due to self-reporting:** many are not aware of the need for a routine immunization unless informed by a healthcare provider
- **Many of those who are “unsure” may have missed immunizations for themselves or their child due to lack of awareness**

% Canadians who missed or delayed a routine immunization due to the pandemic



19 to Zero National Vaccine Survey w/ University of Toronto, Fall 2021
n = 9,078 (Adults); 1,805 (Children); Other Sources: Stats Canada
Other sources: Statistics Canada

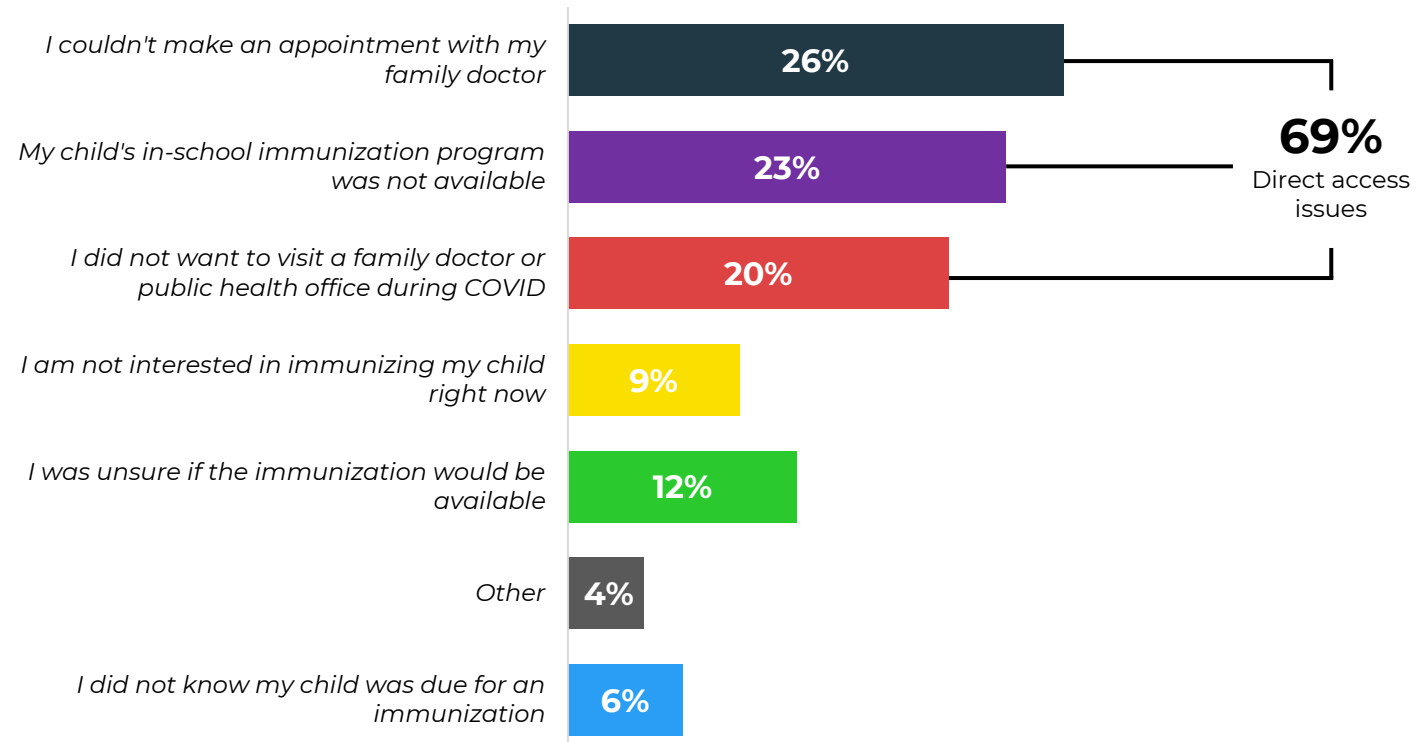
Question: Have you (or your child) missed or delayed a non-COVID routine immunization due to the pandemic?

~70% of children missed or delayed routine immunizations due to access issues

Insights

- **Provider access impacted children more than adults**, with about **70% of delays caused by direct access barriers**
- **School-based cancellations were responsible for about a quarter** of missed vaccines
- Unwillingness to vaccinate is **considerably lower (<10%) for children** than for adults

Reasons why Canadian children missed or delayed a routine immunization

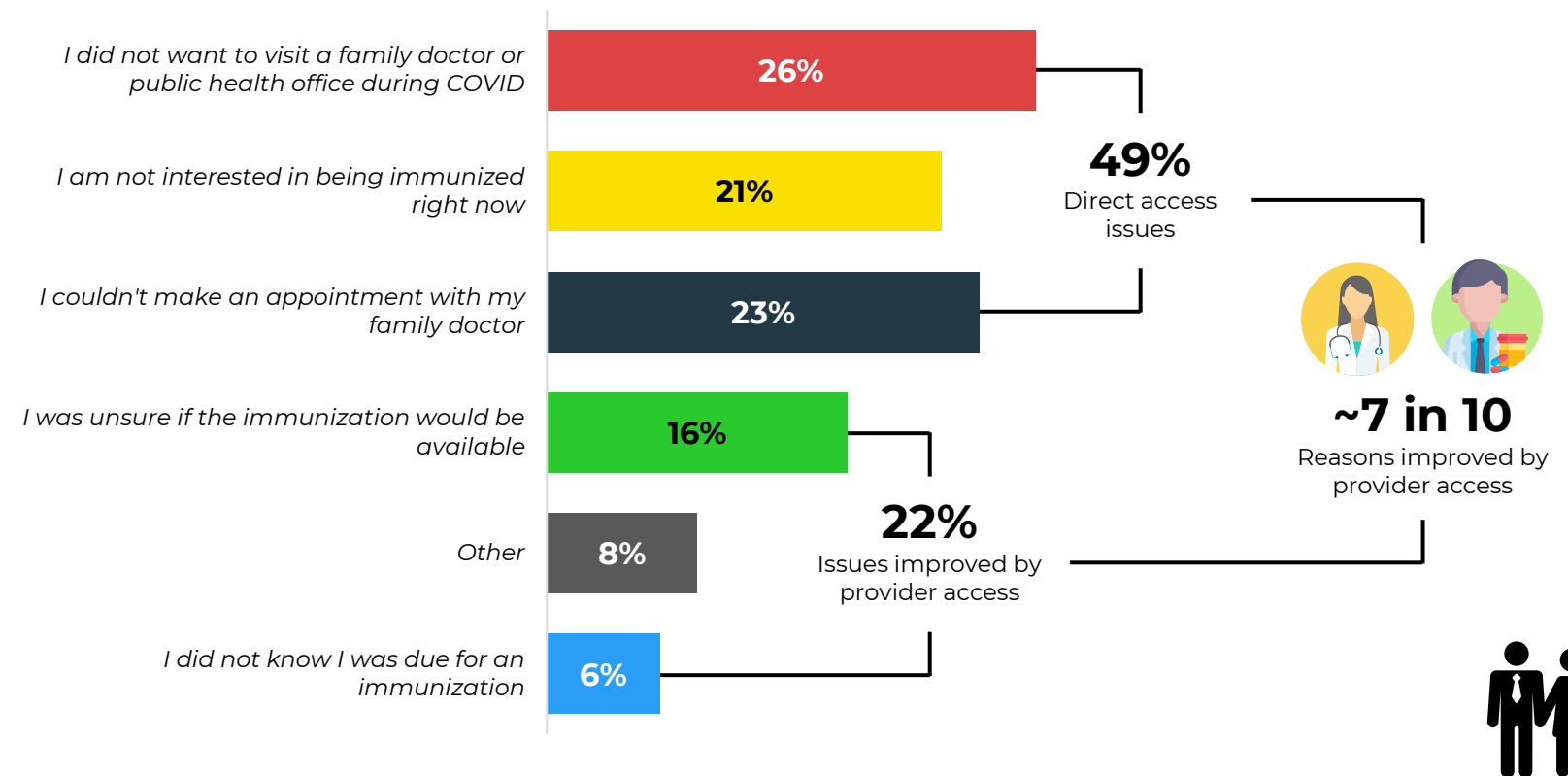


7 in 10 missed or delayed routine immunizations in Canada could have been avoided with improved provider access

Insights

- **Lack of access** to family doctors / public health directly accounted for **about half** of missed immunizations
- **Uncertainty about the need for a vaccine or its availability** caused about **20%** of delays
- The vast majority of delays in routine immunizations (7 of 10) **could have been avoided by improved access to healthcare providers**

Reasons why Canadian adults missed or delayed a routine immunization



19 to Zero National Vaccine Survey w/ University of Toronto Fall 2021
n = 1,173
Other sources: Statistics Canada

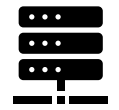
Question: Why did you miss or delay this immunization?

Opportunities for increasing routine vaccination in the post-pandemic world

While the pandemic has decreased routine vaccination rates, there are many opportunities to leverage what has happened during pandemic to increase routine vaccination uptake



Health service delivery mix: Pharmacists have been the backbone of COVID-19 vaccine delivery, and can assist with other routine vaccinations (**see oneinfour.ca campaign**) – broadening access points is a key element of increasing uptake



Data systems: P/Ts have been forced to build vaccine registries due to COVID-19 and move from paper to digital. This will enable all future vaccination campaigns / uptake initiatives



Coverage of publicly funded vaccines: Greater attention to vaccination writ-large has led to expansion of vaccine coverage (e.g., Shingrix in ON, HPV up to age 26 in AB)



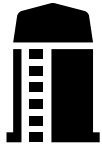
Multisectoral Collaborations: Throughout the pandemic, we have worked with multiple groups that wouldn't normally care about vaccination (companies, schools, NGOs, etc.) – leveraging these relationships can allow for more channels for promoting / enabling vaccine access

Challenges routine vaccination in the post-pandemic world

While there are many opportunities to increase vaccination, many challenges still remain and need to be addressed



Healthcare worker burnout: Public health (both front-line staff and administrators) are rather burnt out at this point in the pandemic, and holding people's interest and effort is challenging without ways of addressing this burnout



Re-siloing: As amazing as the intersectoral collaborations forged during COVID-19 have been, it remains to be seen how to maintain these relationships to promote other vaccines and positive health behaviors once the emergency of pandemic has faded



Misinformation: The magnitude of vaccine misinformation we've seen during COVID-19 is unprecedented, and society is edging towards one that is less grounded in science/reality – addressing this is important for increasing vaccination, and frankly for maintaining the fabric of society

CPAC Action Plan for Elimination of Cervical Cancer



PRIORITY 1
Improve HPV immunization rates

TARGET

By 2025

- 90% of 17-year-olds are fully vaccinated with the HPV vaccine



PRIORITY 2
Implement HPV primary screening

TARGET

By 2030

- 90% of eligible individuals have been screened with an HPV test
- 90% of eligible individuals are up to date with cervical screening
- No less than 80% of eligible individuals in any identifiable group are up to date with cervical screening



PRIORITY 3
Improve follow-up of abnormal screening results

TARGET

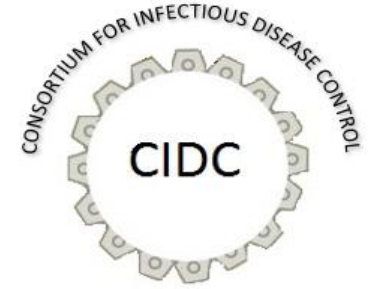
By 2030

- 90% of all individuals with an abnormal screening result (positive HPV test) should have a clear plan of appropriate follow-up designed and communicated to them within three months of the test that generated the positive result
- 90% of all individuals identified as being at elevated risk for significant cervical abnormalities have colposcopy in a timely manner
- No less than 90% of individuals in any identifiable group receive follow-up

- Achieving these goals will be challenging as we emerge from the COVID-19 pandemic and **will require unprecedented levels of innovation and collaboration**
- We are now **working 'uphill'** due to pandemic-induced **care deficits** (e.g., *90%+ declines in HPV immunization, ~40-50% declines in aggregate cancer screening in Ontario*)
- Leveraging the best of what we learned during the pandemic when it comes to **unique collaborations, data systems, engagement of the right HCP mix, health system integration will be critical**

Thank you
Please submit your questions!

Presentation #3



Objective #4: Outline the National Advisory Committee on Immunization (NACI) position on HPV vaccination

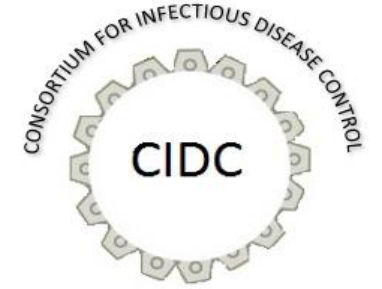


Dr. Marina Salvadori MD, FRCPC

- Professor McGill University
- Division of Pediatric Infectious Diseases, Montreal Children's Hospital
- Clinical lead COVID-19, Public Health Agency of Canada

Thank you
Please submit your questions!

Presentation #4



Objective #5: List lessons learned from the COVID pandemic and discuss novel approaches to bolster the way forward for HPV vaccinations



Dr. Marc Steben, MD

- Co-President, HPV Global Action
- Chair, Canadian Network on HPV Prevention
- Family Physician, Family Medicine Group La Cité du Parc Lafontaine, Montreal, QC
- Board Member and Chair of the Education Committee, International Papillomavirus Society

Learning Objectives:

1. Describe the impacts of the COVID-19 pandemic on the implementation of HPV prevention programs across Canada
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5. **List lessons learned from the COVID pandemic and discuss novel approaches to bolster the way forward for HPV vaccinations**

Access to information

- The access to information has become a difficult endeavour
 - Alternative facts
 - Competing false information looking very likely and professional
 - People doing their own research of information
- Chatbox can permit answers to most common questions
 - Saving resources
 - Rapid answers

Help people in
discrimination
for real infos

THE MISINFORMATION WEB:

Learn How to Find and Trust Online Information about HPV Immunization.

Every day we use social media and other online sources as ways to find health-related information. Finding information helps us to make informed decisions about our health. When the information we find is incorrect, it affects our ability to make decisions that are in our best interest.



HPV IMMUNIZATION IS ESSENTIAL.

Immunization against the human papillomavirus (HPV) is one of many public health tools to help us maintain good health. Most people will get a sexually transmitted HPV infection in their lifetime and will show no symptoms, but they are likely to spread it to others through direct skin-to-skin contact. The HPV vaccine is proven to reduce the risk of infection, which if left untreated may lead to cancers and other diseases. It is most beneficial to receive the HPV vaccine before exposure to the virus, but there is still benefit to getting vaccinated regardless of past exposure.

Access to care

«... there is general agreement that more equitable access to life-saving technologies must be improved.»

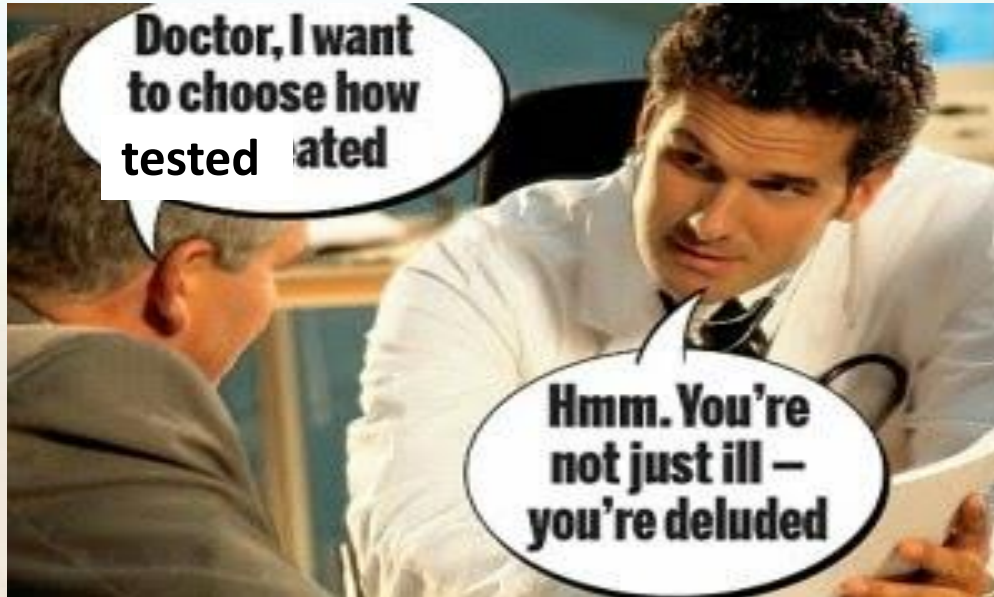
Equitable Access to Health Care and Infectious Disease Control – Concepts, Measurement and Interventions. Report of an International Symposium, 13–15 February 2006 in Brazil.

Oswaldo Cruz Foundation (FIOCRUZ) and co-organized with the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR), the World Health Organization (WHO) and the United Nations Research Institute for Social Development (UNRISD).

Access to health care

- While access to care has always been through health care professionals since the 20th century
- Patients claim more control on their health management and even making their own diagnosis
- People access information on the Net...how to insure validity of information
- Simple tests such as pregnancy test and strep throat test have change the entry point in the healthcare experience
- HIV screening tests are available for purchase or through community activities in some countries
- Now is the time to discuss self-directed approaches for HPV screening

Healthcare system reluctance to change the diagnostic paradigm



- Conservative
- Heavily regulated
- «MD knows best»
- Paternalistic
- Needs to prevent all harms at all cost
- Self-collection for HPV screening have been shown safe, effective, preferred and saves precious/rare healthcare resources

Key concerns regarding HIV self-testing

- The potential for harm can be minimized if HIV self-testing is provided along with:
 - Adequate information,
 - Quality products and
 - In a regulated way
 - Within a human rights framework and
 - With community involvement in decision-making.
- All of this also apply to all other types of HIV testing.

Cisco 2016 survey about office visit

Americans who were representative of the country, and 74% did not want to physically go for an office visit. They preferred a virtual visit.

They do not want to wait an hour for a 7-minute face-to-face visit;

they would rather have this visit in the comfort of wherever they are, at home or on-the-go, and have this visit via secure video or another type of communication.

One in 6 consultation in USA is now not office based

The future of medical visit

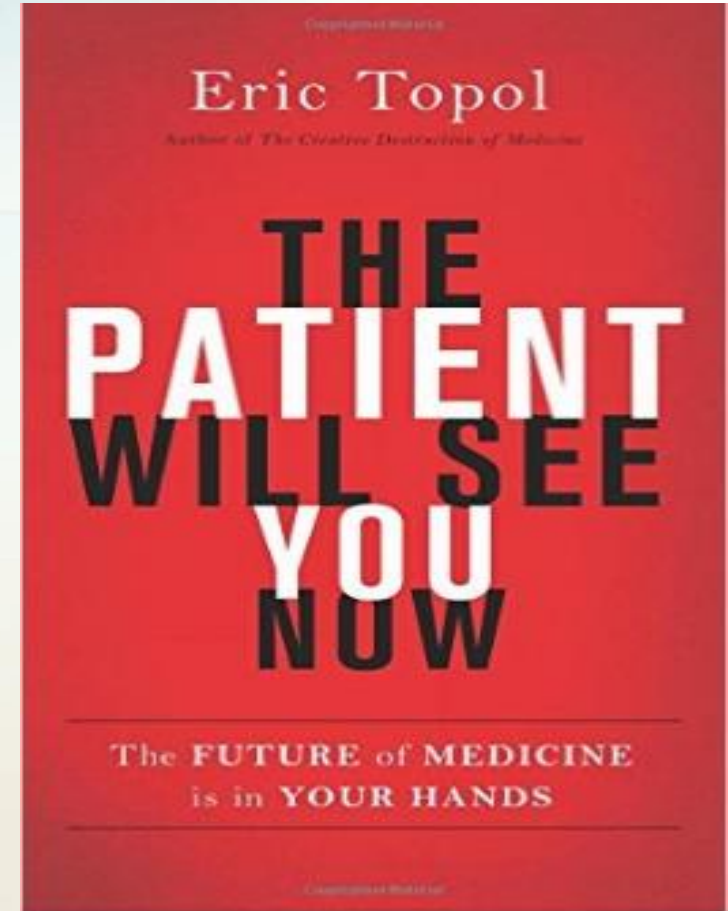
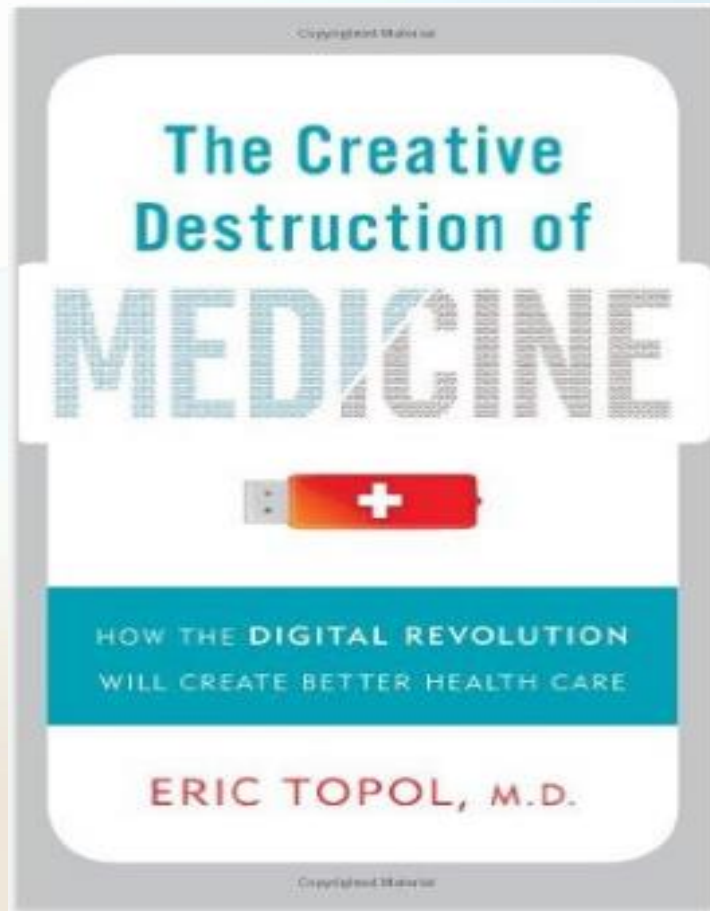
- How will people engage in the health system?
- How people will engage with the variety of providers and settings where they access care in our system
- I believe that health care will be provided by a team including doctors (for Dx and Tx), nurses for long-term follow-up, navigators and counselors.
- I believe that the patient will own his own chart and will navigate in the system
- Testing will happen with nurses and community workers, more than with doctors.
- Artificial intelligence will support or even propose testing and counseling!

Eric Topol, cardiologist, Medscape

- 90% of what doctors do today
- will be done by patients in 10 years

And it will not stop at HIV!

- Home self sampling for HPV = Netherland
- Community based HPV sampling helped by community workers = some countries in Africa
- GC and CT screening = Boots' pharmacy in UK
- I want the kit and Canadian equivalent in BC and Ontario



Why 2021 technologies be dispensed the 1950' type of medical encounter

Negative and positive results from the COVID-19 pandemic

Negative =

- Huge «Gross domestic product» drop for all countries
- Healthcare budget cannibalised by COVID-19 pandemic
- Healthcare diverted to emergency care then to immunization when available
- Loss of healthcare workers due to death, long term sequelae of COVID or due to change in professional job...
- Lateness in most cancer prevention and care activities...
- Enough COVID-19 blaming!

Positive =

- Task shifting
- Recycling retired or part time health care workers or candidates from immigration
- Making better use of trainees
- Rapid training of non-traditional healthcare workers
- Use of the media
- Making access easier for testing or vaccinating
- Reaching out to hard to reach populations
- Chatbots
- Partnering with NGOs

Short term issues with the COVID-19 pandemic

- Most HPV vaccines are not given
- Older cohorts will be lost unless unprecedented efforts will be made to recuperate them
- Younger cohorts will have lost the momentum of previous cohorts...
- Many other (political) priorities for the upcoming waves or after COVID-19?

Long term issues with the COVID-19 pandemic

- It will take decades to account for the damage to our cervical cancer elimination efforts as cancer is a long term complication whilst COVID-19 is short term complication...

When are we going to achieve cervical cancer elimination?

We have a choice: When do we want to eliminate oncogenic HPV types and cervical cancer?

1. **Now.** Catch-up vaccination up to age 30 to reduce R_0 , inducing elimination of vaccine HPV types. If followed by a one-time HPV screening = permanent elimination of cervical cancer.
2. **Later.** Effective vaccination, but only in children + Screening as usual = The oncogenic HPVs eliminated several decades later. Cervical cancer eliminated a lifetime later.
3. **Never.** Ineffective vaccination (e.g. disorganized, only girls, low coverage) allowing continued circulation of oncogenic HPV.

Conclusion

- Rigidity impedes changes in the delivery of vaccines and screening
- New tools such as HPV vaccine, (rapid) HPV testing, AVE and therapeutic tools are available to make happen the elimination of cervical cancer
- Elimination of cervical cancer still possible
- We have to insulate our cervical cancer elimination drive since there will be more pandemic, environmental/climate/political/displacement crisis, competing needs in the future

Sun Tzu > Quotes > Quotable Quote



“In the midst of chaos, there is also opportunity”

– Sun-Tzu, A Arte da Guerra

tags: [business](#), [strategy](#)

Read more quotes from [Sun Tzu](#)

HPV: A VIRUS WE

ALL

CAN BEAT

#AskAboutHPV



ipvs
International
Papillomavirus
Society

The IHAD Campaign toolkit and will become available in January 2022.

For additional information contact hpvday@kenes.com

and visit AskAboutHPV.org

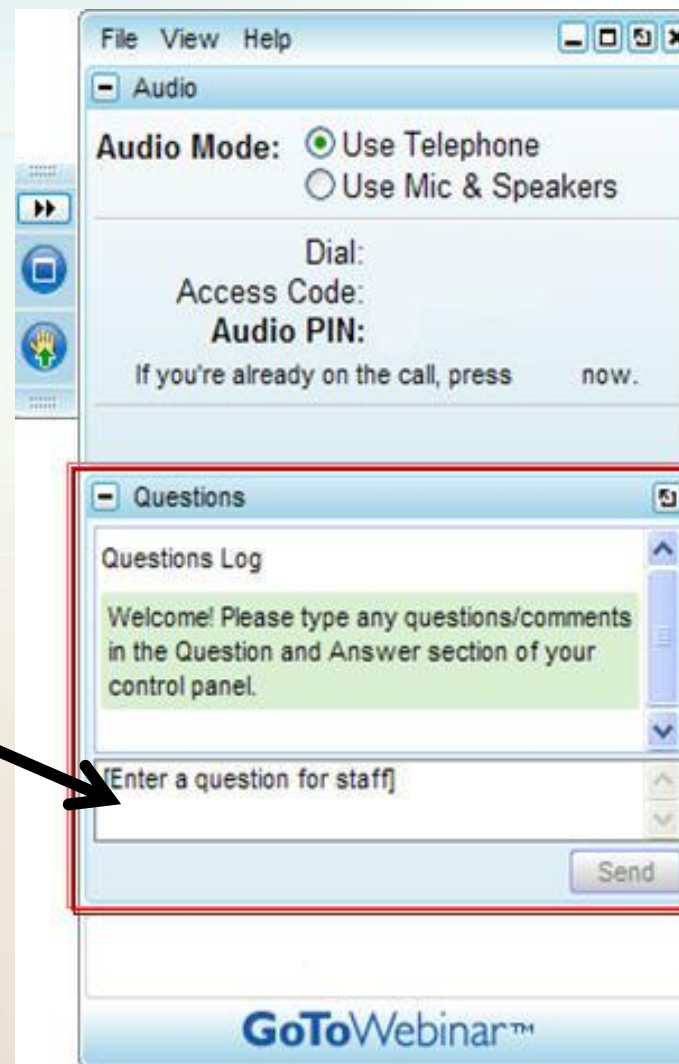


Thank you
Please submit your questions!

Discussion/Q&A 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



Lessons learned from COVID-19: Getting our HPV immunization programs back on track



- **Evaluation:**
<https://www.questionpro.com/a/TakeSurvey?tt=xKGXvKdcRew%3D>
- **Slide Set, Video recording, HPV documents are available at:**
www.CIDCgroup.org

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