Joint Immunize Canada and CANVax Webinar Series

School immunization in Canada during the COVID-19 pandemic

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Disclosures

- I hold research funding from national and provincial research funding bodies and public health agencies
- I am a pediatric nurse and public health epidemiologist with a strong bias in favour of protecting children against infectious disease through immunization

Credits

Much of the information in this presentation comes from:

- Key NACI guidance documents (references provided at end)

- An ongoing project funded by a *CIHR COVID-19 Rapid Research Funding Opportunity* - **Vaccination in a pandemic: The impact on routine vaccinations and future COVID-19 vaccine acceptance**

Grant project overview

Research team members:

Principal Investigator
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Grant project overview

Knowledge users:

Matthew Tunis	**National Advisory Committee on Immunization (NACI)** **Public Health Agency of Canada**
Nicholas Brousseau	**Institute National de Santé Public du Québec**
Céline O'Brien	**Alberta Health**
Monika Naus	**B.C. Centre for Disease Control**

Webinar Outline

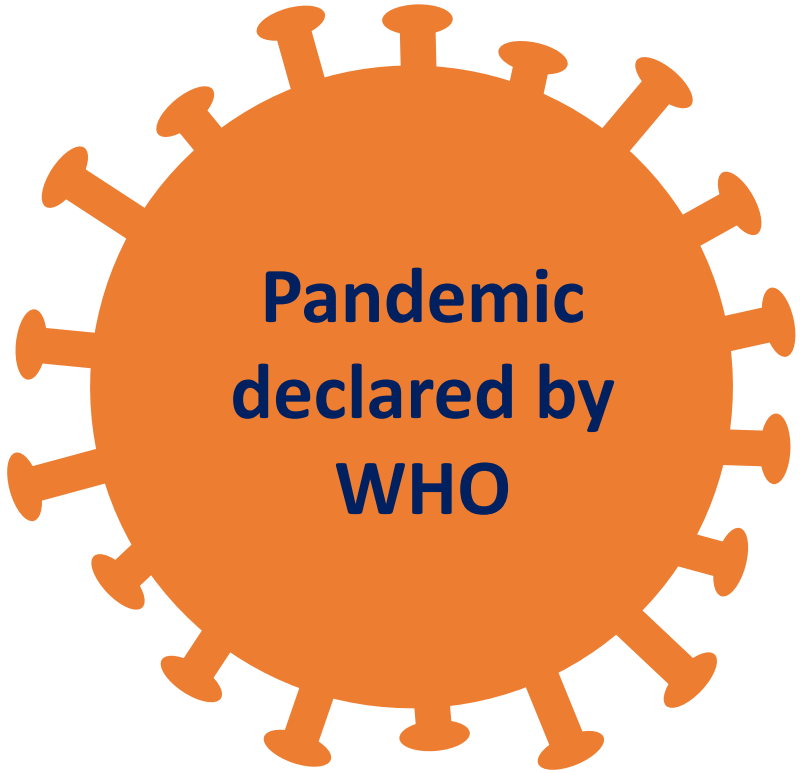
This webinar will present an overview of the impact and approaches in the various provinces and territories, answering the critical questions of:

1. What has been the impact of the COVID-19 pandemic on school vaccine delivery and uptake?
2. What is being done to complete interrupted vaccine schedules?
3. What are the plans to deliver school immunization programs in the coming school year?

Followed by a Q & A forum for participants to share current challenges and ideas on how to overcome them

Timeline

December 2019



March 11, 2020

Mid-March 2020

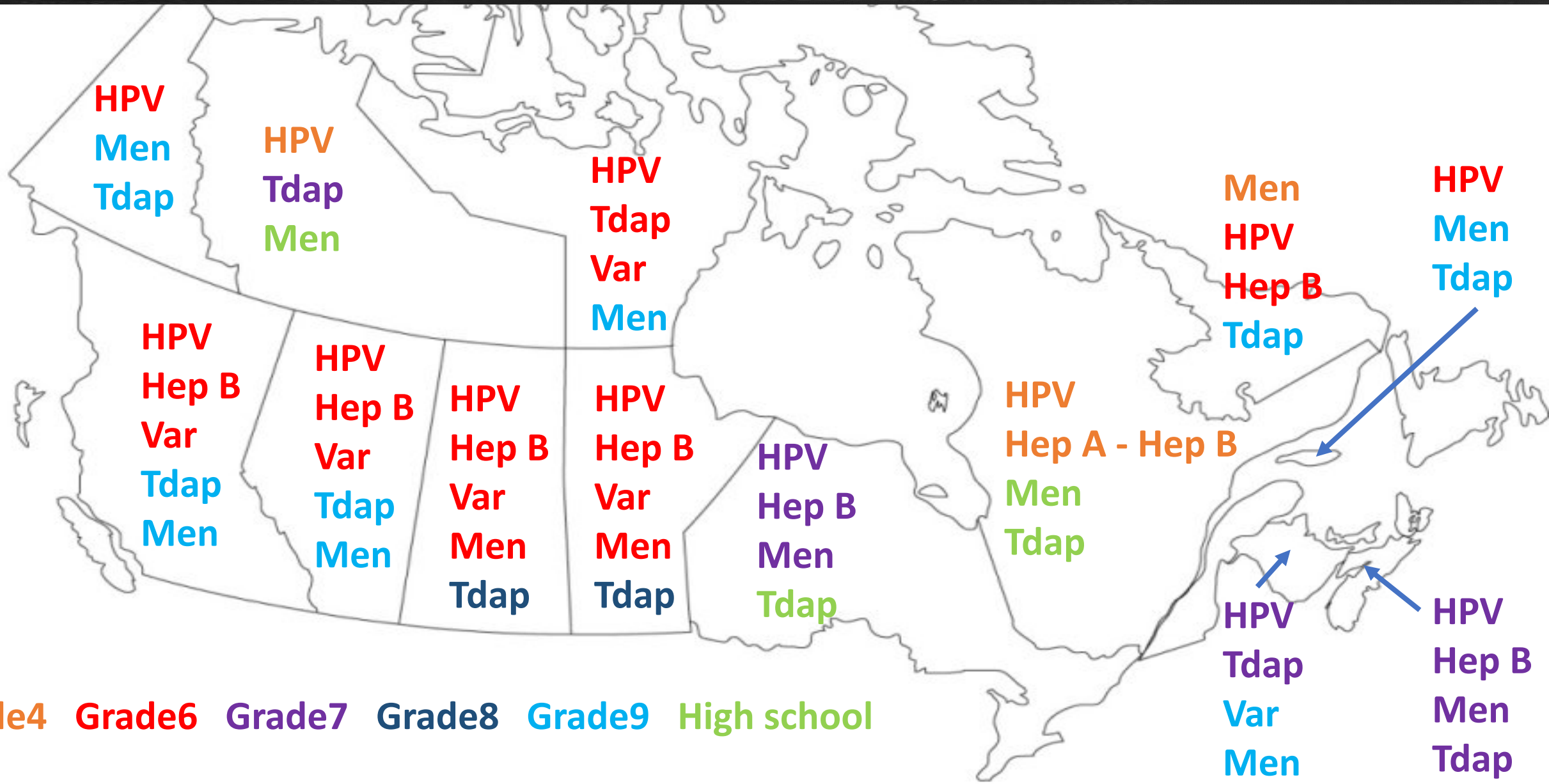
What has been the impact of the COVID-19 pandemic on school vaccine delivery and uptake?

School-based immunization programs in Canada

Name of vaccine	Number of doses
Human papillomavirus (HPV)	2 or 3
Hepatitis B (Hep B)	2 or 3
Meningococcal conjugate (Men-C-ACYW135)	1
Tetanus, diphtheria, acellular pertussis (Tdap)	1
Varicella (Var) – catch-up program	1

* The most common schedule, with variability across P/Ts

School vaccines by P/T



COVID-19 impact on school vaccine delivery

- School-based programs halted across all P/Ts in March 2020

- Vaccine doses scheduled for the spring term were missed

  For example, in Alberta:

  - Approximately 50,000 grade 6 students missed their second dose of HPV and Hep B
  - Grade 9 students missed their Men-C-ACYW135 vaccine

Implications of missed doses

HPV	Lower vaccine effectiveness with 1 dose versus 2 doses (with appropriate interval)
Hep B	Protective antibodies significantly lower in one-dose recipients compared to two-doses
Men-C-ACYW135	Only lifetime dose provided for this vaccine (only Men-C in infancy), so vulnerable to Men-ACYW-135 strains during high risk period of adolescence and young adult
Tdap	Waning immunity, as the last dose was at preschool
Var	A single dose increases likelihood of both primary and secondary vaccine failure

Implications of interrupting the vaccine series

HPV	Series does not need to be restarted; recent data has suggested that a 0 &12-month schedule may have immunogenic advantages compared to a 0 & 6-month schedule
Hepatitis B	Series does not need to be restarted, but long-term immunity may not be obtained until receipt of the last dose
Men-C-ACYW135	Usually only one dose given in the school-based program
Tdap	Usually only one booster dose given in the school-based program
Varicella	Series does not need to be restarted; children recommended to have received two doses in their lifetime to be considered immune

COVID-19 impact on school vaccine uptake

- Analysis is ongoing in three provinces who are partnering on our grant

What is being done to complete interrupted vaccine schedules?

NACI recommendations: Delivering school immunizations during COVID-19

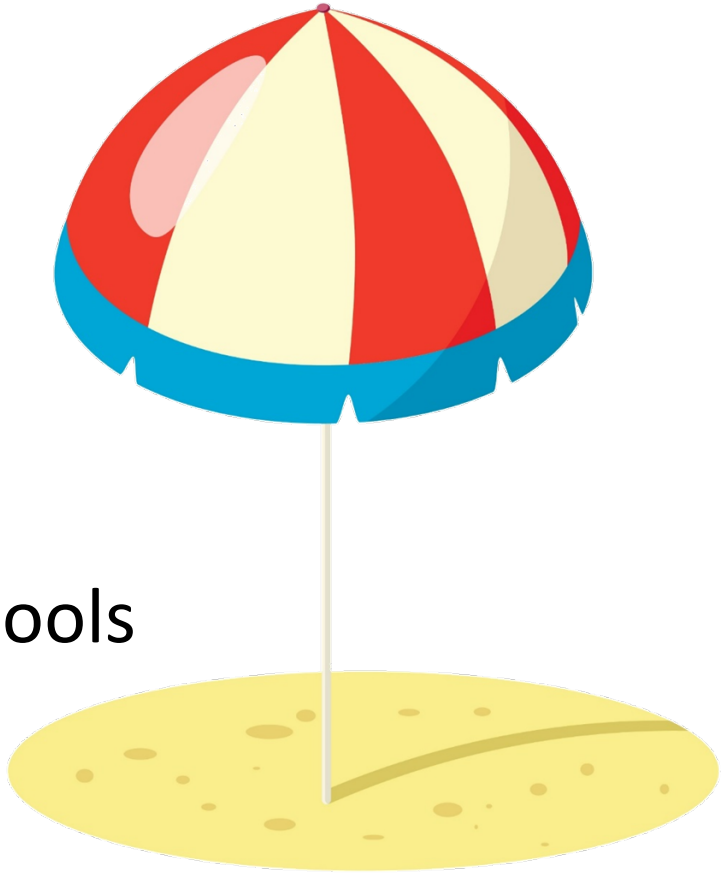
- Routine school-aged vaccines can be deferred until schools re-open or full health services are available
- Re-starting a series that has been interrupted is never necessary for routine immunization programs
- Eligibility criteria should ensure that students who missed immunizations due to COVID-19 school closures remain eligible for the recommended vaccines.
- Reminder or recall processes should be used to ensure children receive immunizations after schools or health services resume

What has been happening with school immunization catch-up: March-August 2020 (n=7 P/Ts)

- No summer catch-up program (n=2)
- Summer catch up in some regions of P/T (n=4)
- Summer catch up across the P/T (n=1)

Where?

- Encouraged primary care providers to immunize
- Offered immunizations through public health at schools or local facilities



What will happen with school immunization catch-up: 2020-21 school year (n=7 P/Ts)

- Planning to offer catch-ups through the regular school-based program, if possible (n=5)
- May offer catch-up immunizations outside of the school-based program (e.g., at community facilities or public health clinics) (n=3)
- Unsure (n=1)

What are the plans for delivery of school immunization programs in the coming school year?

NACI recommendations: Immunizations with COVID-19 measures

Regardless of whether provided in school or off-site:

- PPE for healthcare providers
- Wearing of non-medical masks by clients
- Physical distancing
- Scheduling considerations
- Child (& parent, if present) health pre-screening
- Immunization deferrals for symptomatic individuals
- Separation of well and sick patient visits (in clinic settings)

What are the P/T plans for school immunization programs: 2020-21 school cohort (n=7 P/Ts)

Location of delivery

- If possible, planning to continue school-based delivery with adaptations for COVID-19 restrictions (n=6)
- Possibly moving to community-based delivery by appointment outside of school hours (n=3)
- Discussed releasing school-based vaccines in small quantities to health care providers (n=1)

What are the P/T plans for school immunization programs: 2020-21 school cohort (n=7 P/Ts)

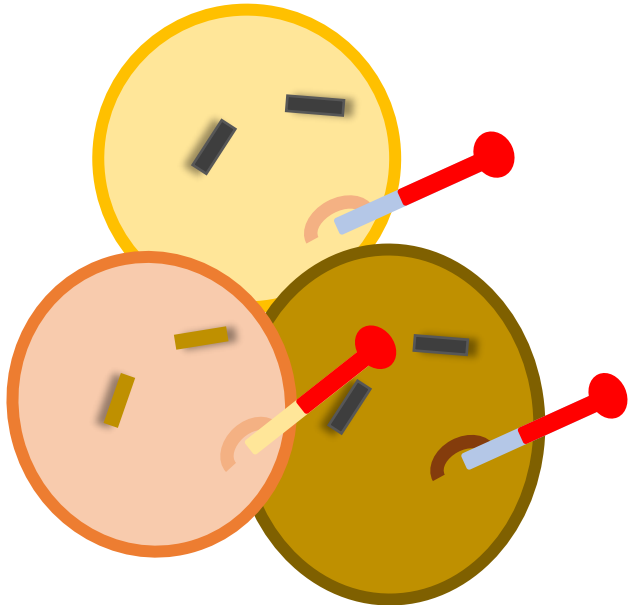
Potential COVID-19 measures

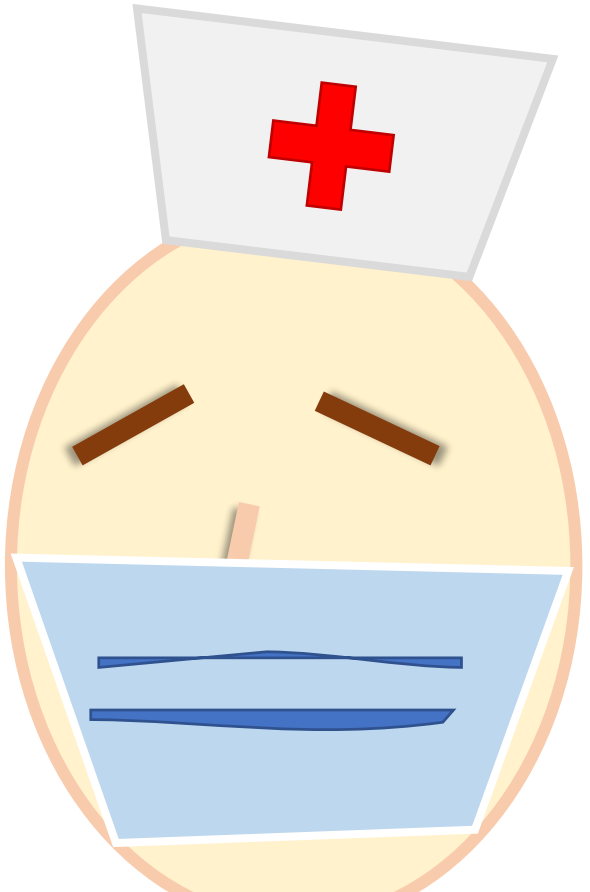
- Health pre-screening questions
- Physical distancing
- PPE by immunizers
- Wearing of medical/non-medical masks by clients
- Use of larger facilities or spaces
- Separate entrance/exit
- Ventilation, air flow of facilities
- Appointments to minimize crowds

Why worry about school vaccines in the midst of a pandemic?

Prevention of VPD outbreaks

- Dropping vaccine coverage can lead to outbreaks of vaccine-preventable diseases during or post-pandemic





Thank you

Thank you to CANVax & Immunize Canada for the opportunity to present

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Feel free to contact me at: smacdon@ualberta.ca

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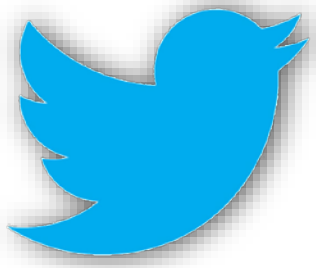

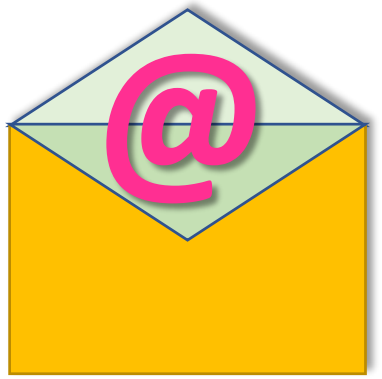

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Let's Chat!

I am happy to answer your questions

I would also love to hear your insights on how we can better provide school-based vaccines during this ongoing pandemic

- What have been your key challenges in delivering school immunizations?
- What strategies have you used/proposed to overcome these?
- Is there anything that hasn't been discussed today that might help in maintaining school-based immunizations during the pandemic?