

**CIC 2018 CCI** | December 4-6  
4 - 6 décembre  
**OTTAWA**

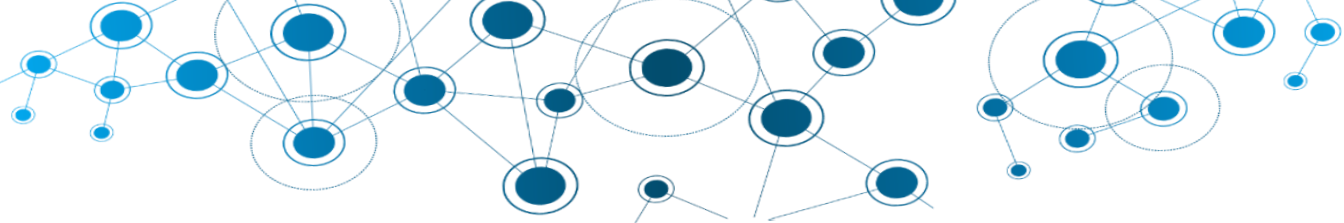
**Barriers and enabling factors of school-based HPV  
vaccination programs: Multi-provincial study  
conducted by the Canadian Immunization Research  
Network**

Eve Dubé

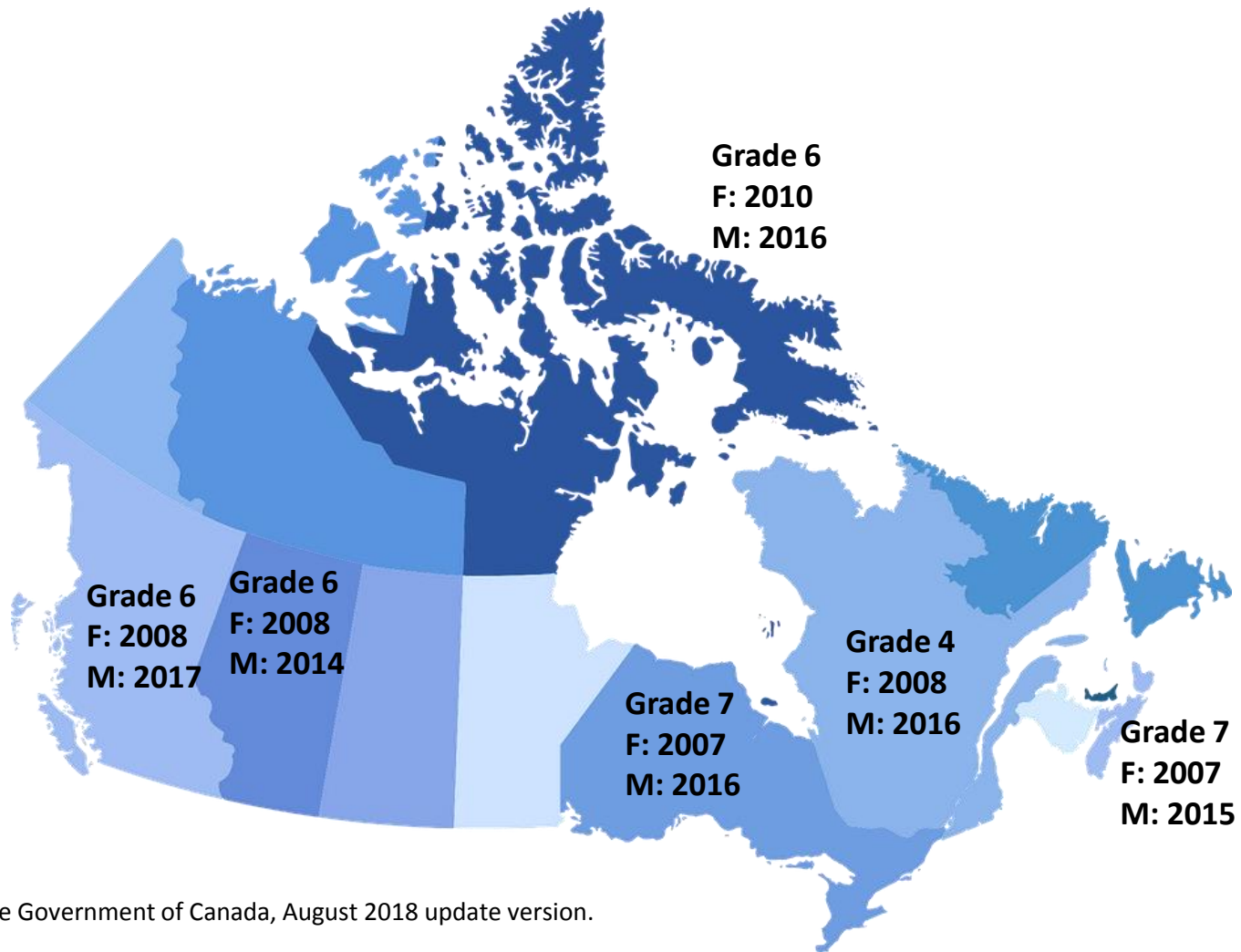
Institut national de santé publique du  
Québec

# Disclosure Statement

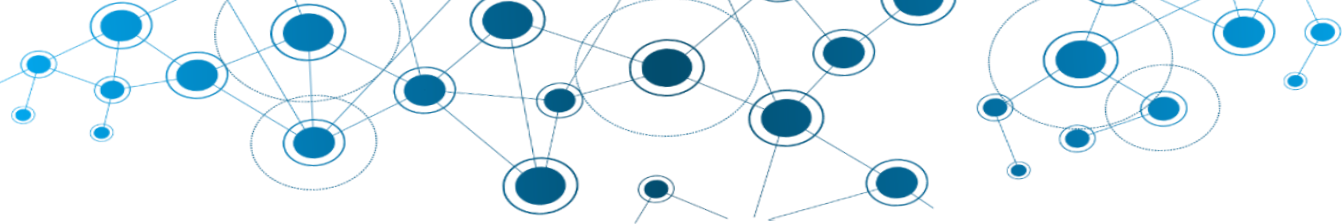
- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.



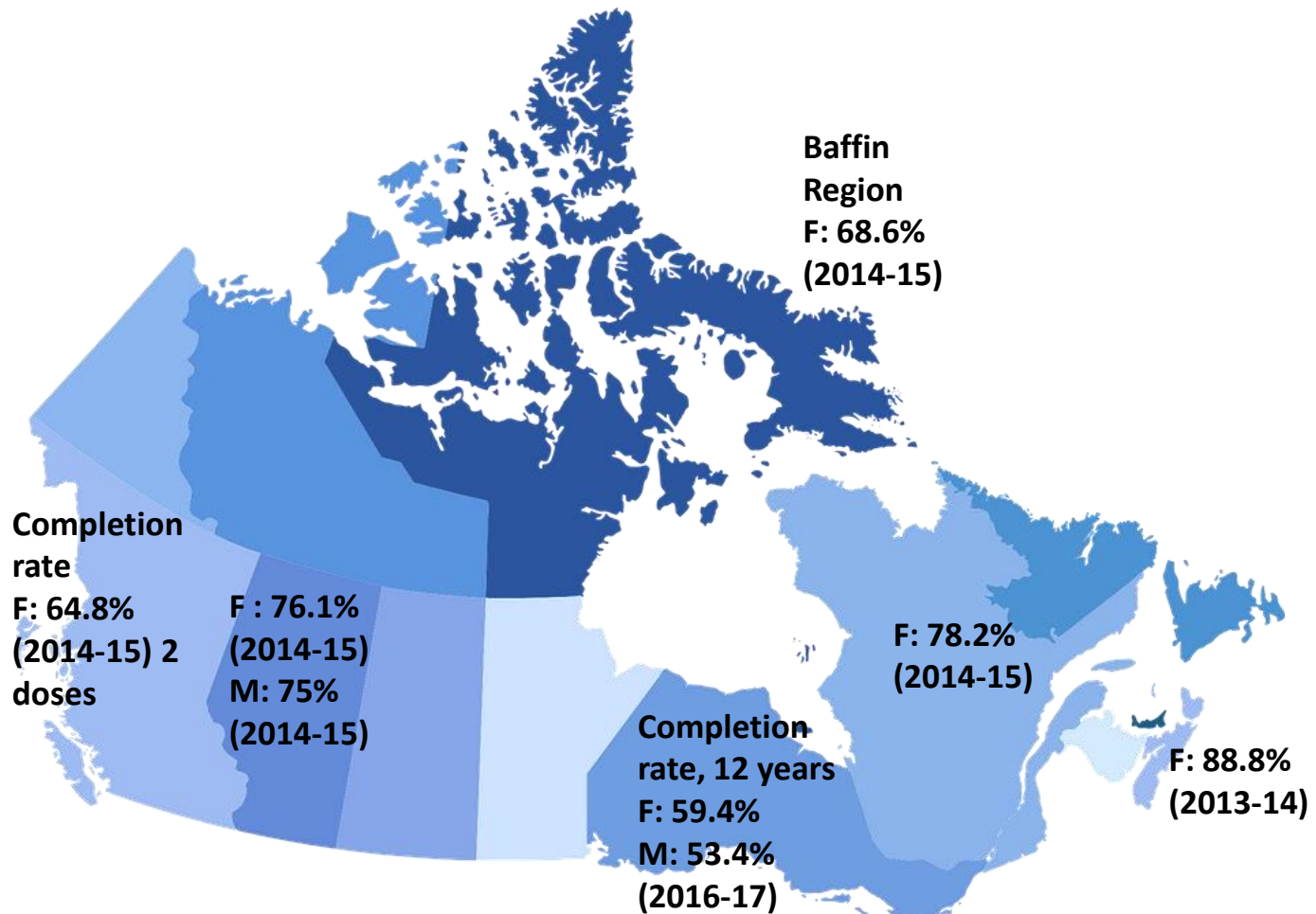
# HPV vaccination programs in participating P/Ts



\* HPV vaccination calendar reported from the Government of Canada, August 2018 update version.



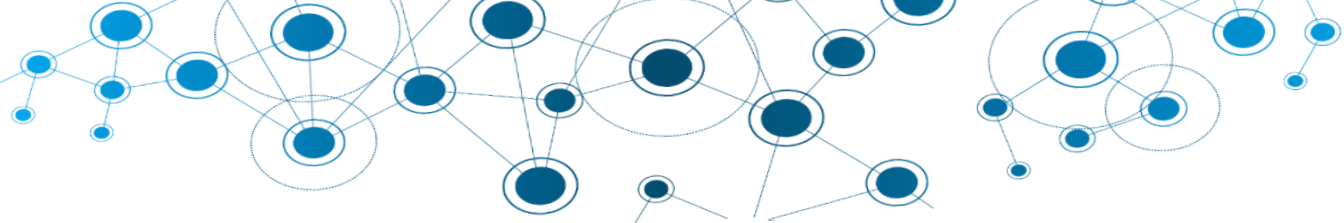
# HPV vaccination coverage in participating P/Ts



**Sources:**

ON: <https://www.publichealthontario.ca/en/eRepository/immunization-coverage-report-2016-17.pdf>

BC, AB, QC, NS, NU: Shapiro GK, Guichon J, Kelaher M. Canadian school-based HPV vaccine programs and policy considerations. *Vaccine*. 2017;35(42):5700-5707.



## Different factors have been associated with HPV vaccination acceptance

*Providers' recommendations*

*Perceived safety and efficacy of the vaccine*

*Level of knowledge*

*Sociodemographic characteristics*

*Fear of adverse effects*

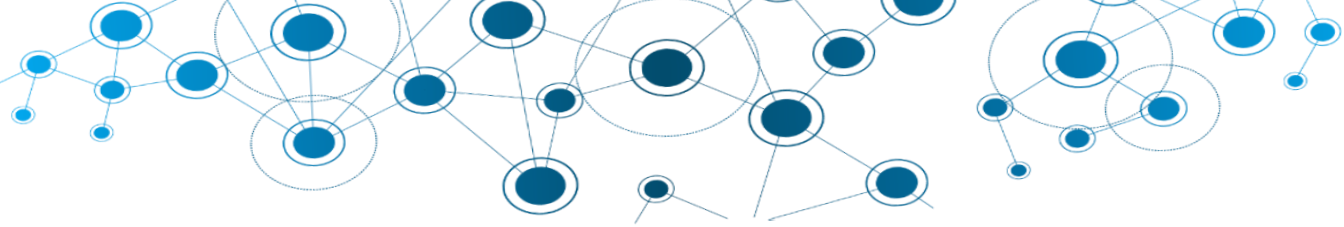
*Age at vaccination*

*Perceived risks associated with HPV*



Should my child receive the HPV vaccine?

*Most studies focused on individual factors - limited information on the contextual and organizational factors*

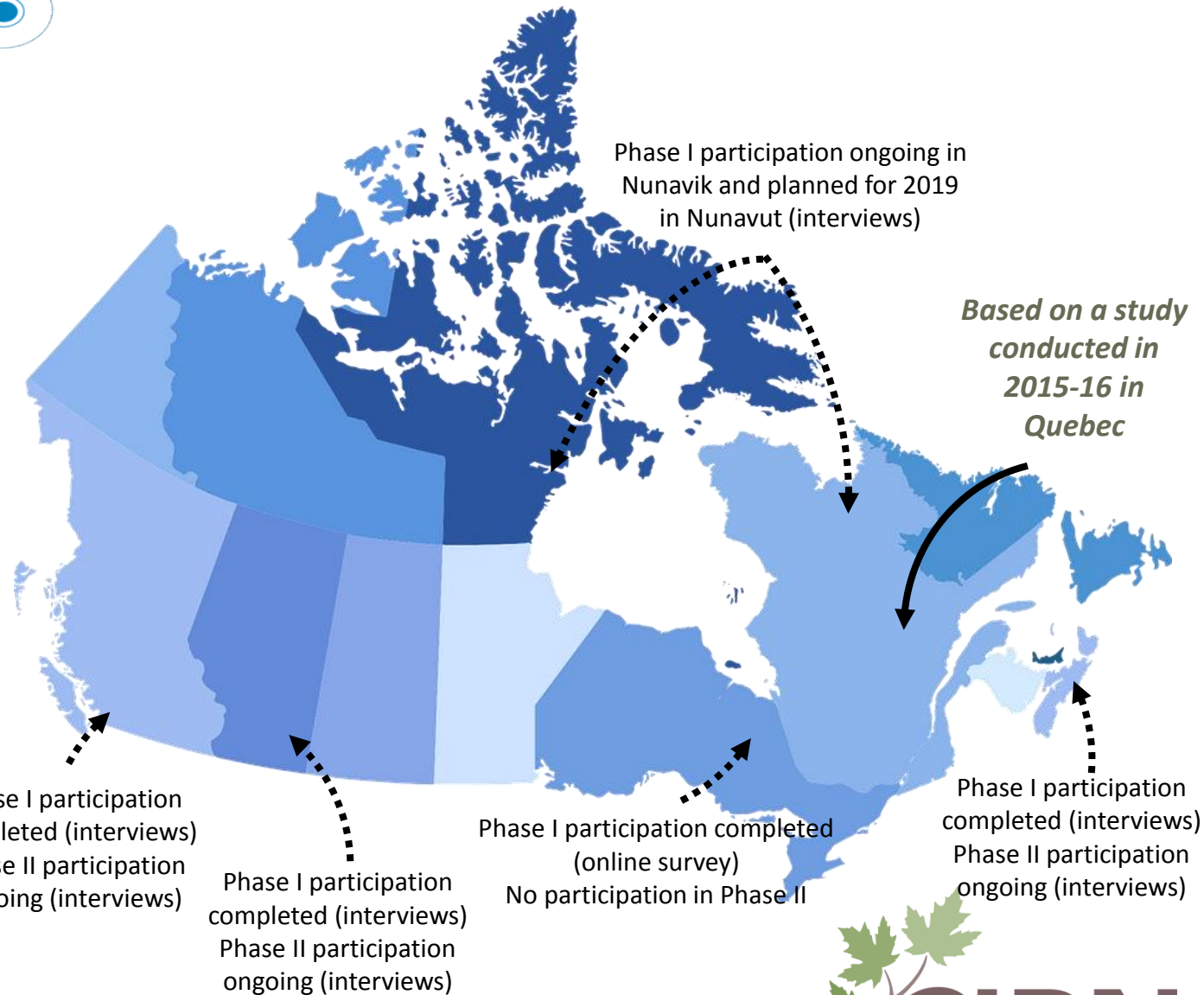


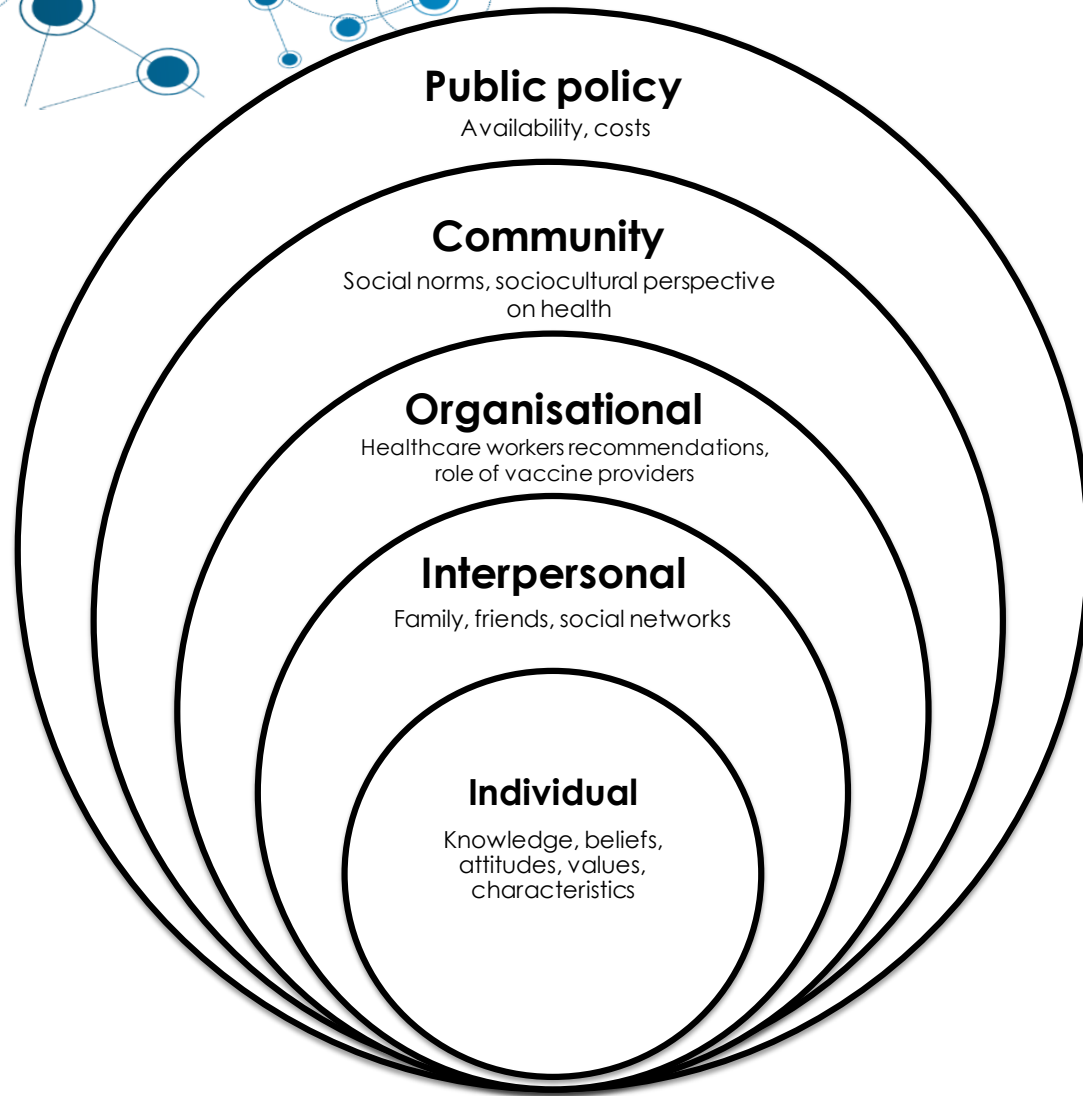
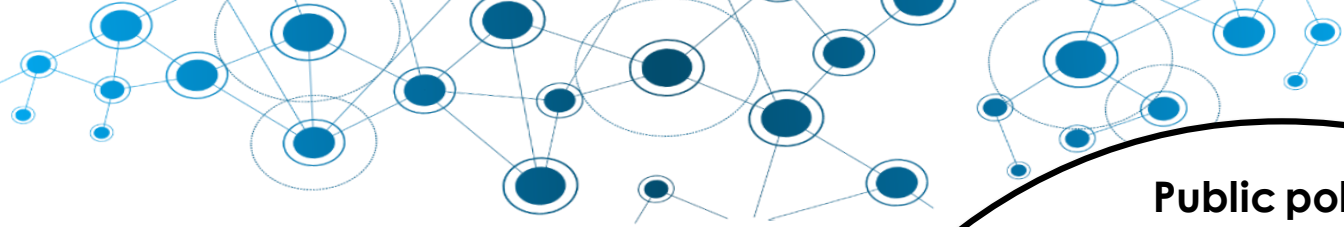
# Objective

- To identify **barriers & enabling conditions** of HPV vaccine acceptance and uptake

# Methods

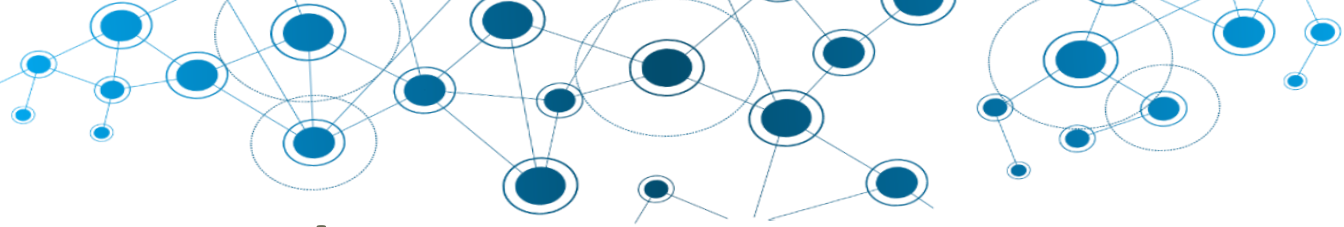
- Interviews in BC, AB, and NS
- Online survey in ON
- Target group: IM managers





## *The Socio-Ecological Framework*





# Results

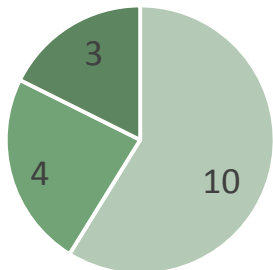
## Factors at the **Public policy & Community** levels

- *Negative coverage in the media, misinformation in social media*
- *Changes in the HPV program (gender-neutral in 4 provinces, changing from 3 to 2 doses in AB, ON and NS)*

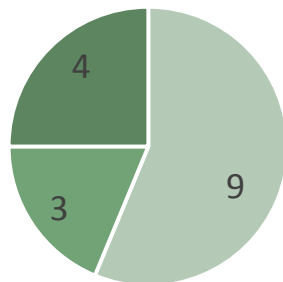
*The biggest barrier is the media and how they portray the vaccine [...] It's all the bad press around HPV itself and in some minds, the people that are on the fence, it would be able to push them one way or the other (interview)*

### Online survey – ON

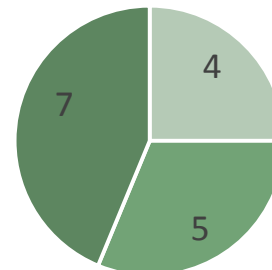
Impact of gender-neutral program (n=17)



Impact of changing from 3 to 2 doses (n=16)

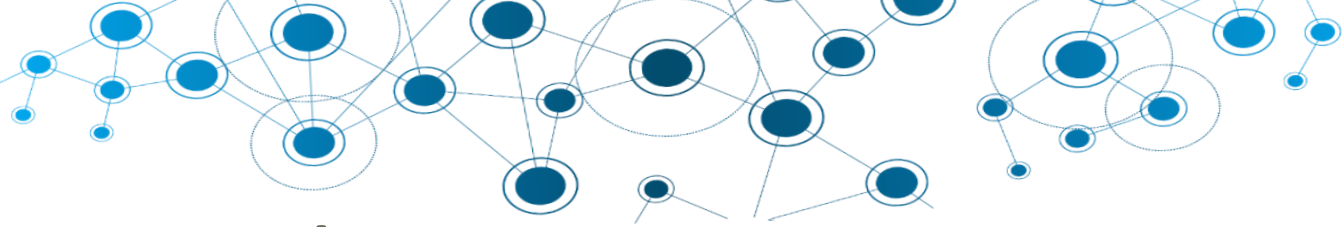


Impact of changing from Grade 8 to Grade 7 (n=16)



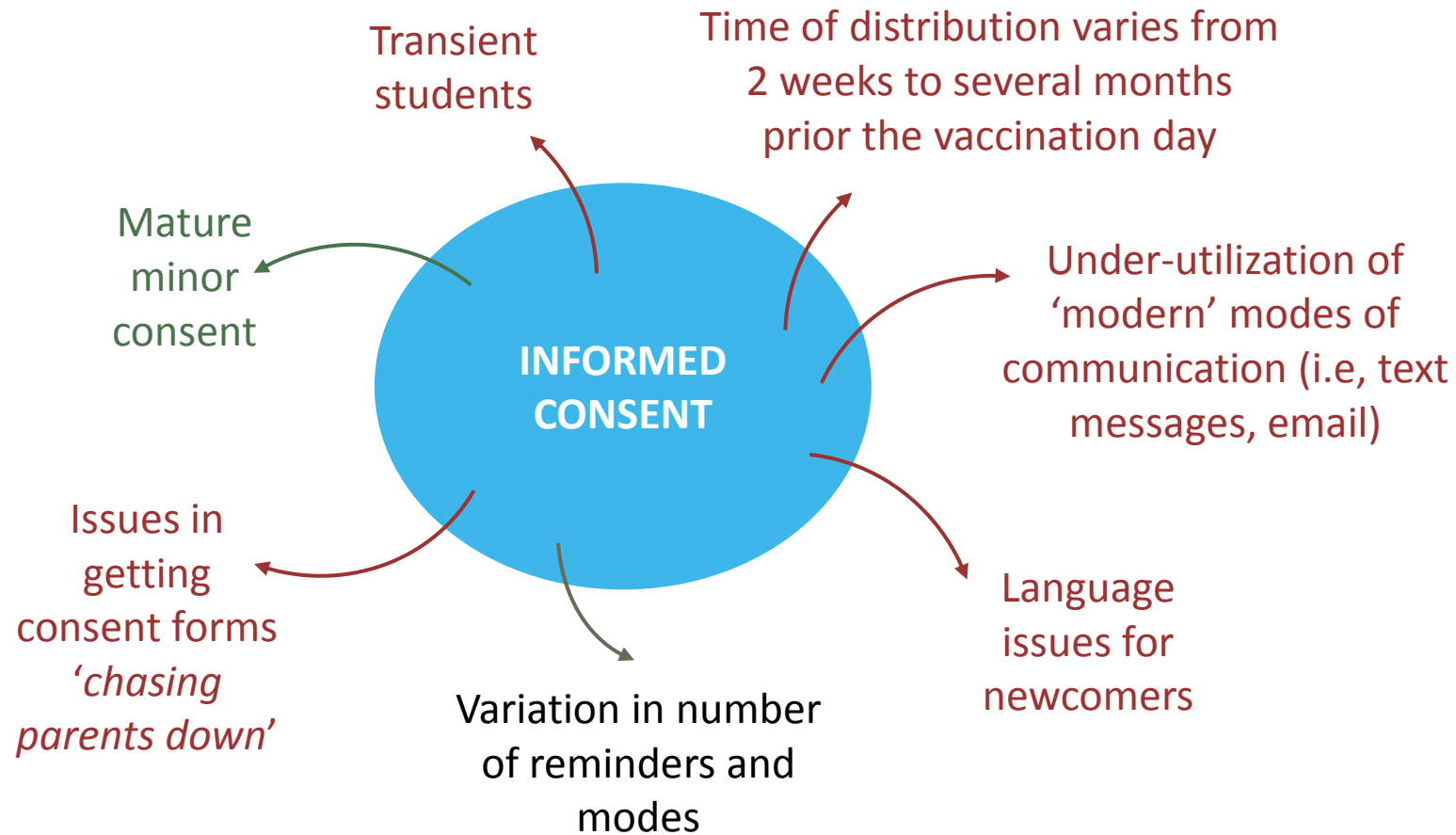
■ Yes (+ or -impact)   ■ No impact   ■ Unsure / don't know

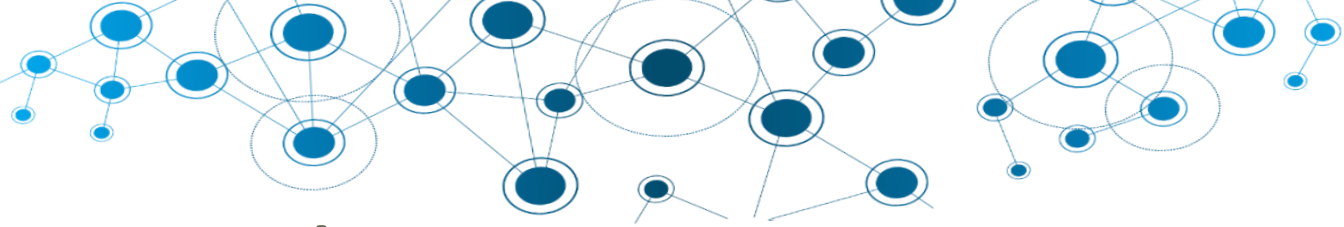




# Results

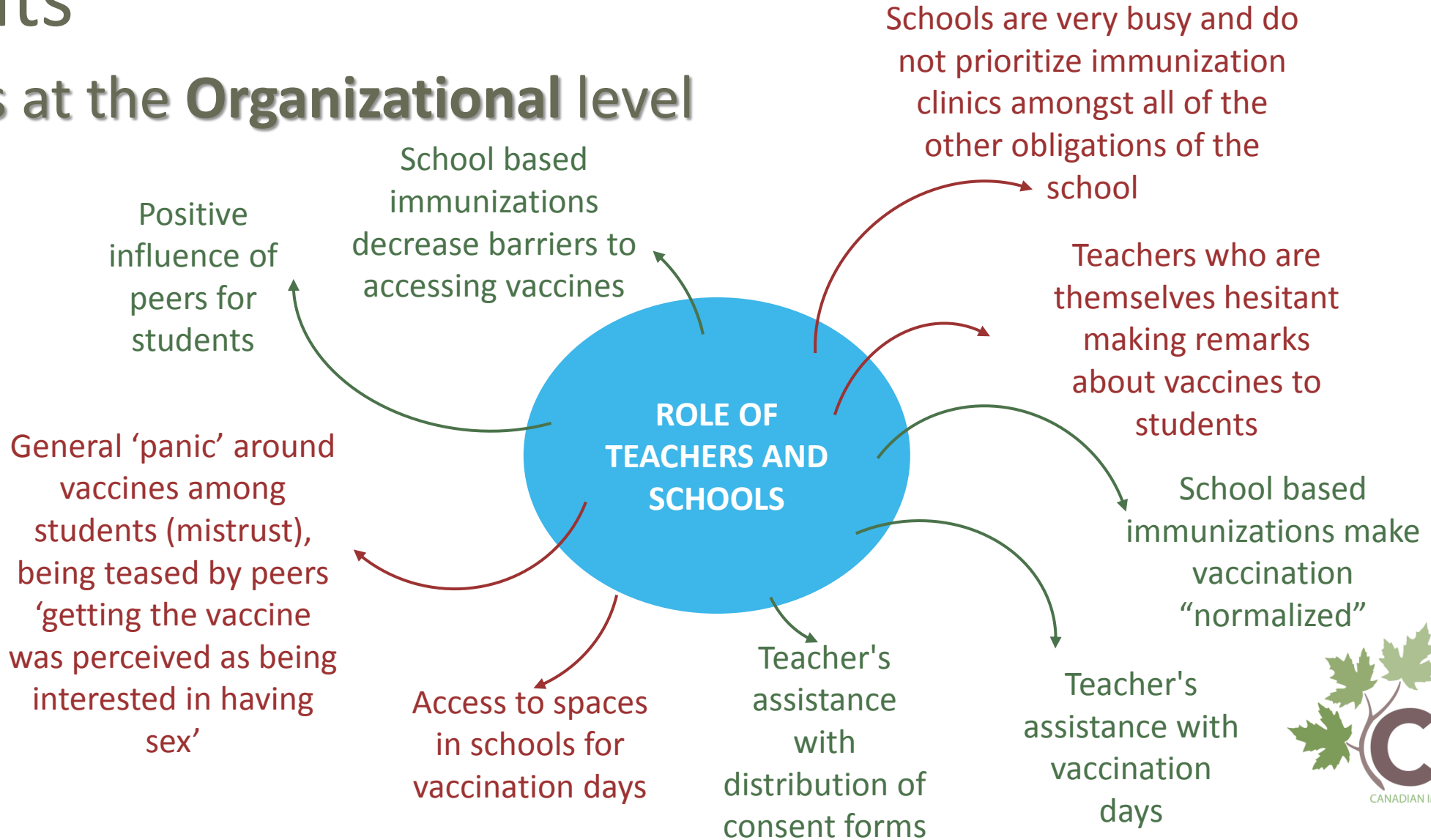
## Factors at the **Organizational** level

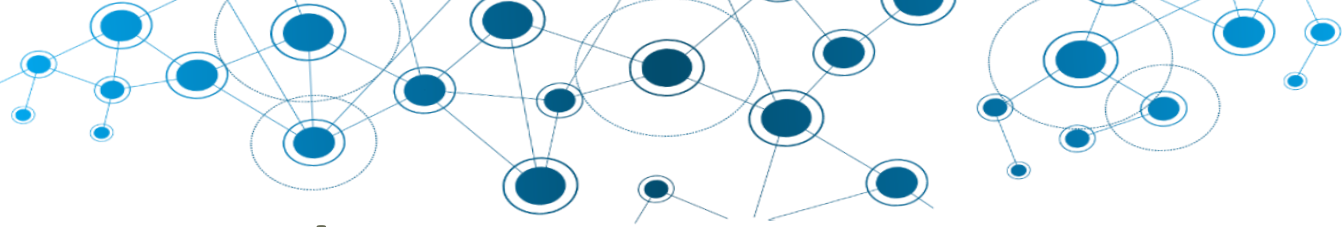




# Results

## Factors at the **Organizational level**



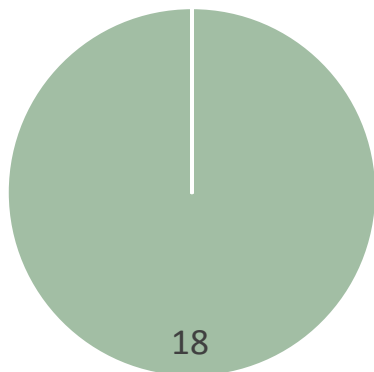


# Results

## Factors at the **Organizational** level (online survey – ON)

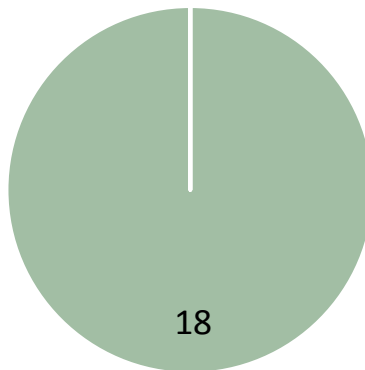
**Are you permitted to provide school-based HPV immunization clinics in all...**

public schools located within your PHU? (n=18)



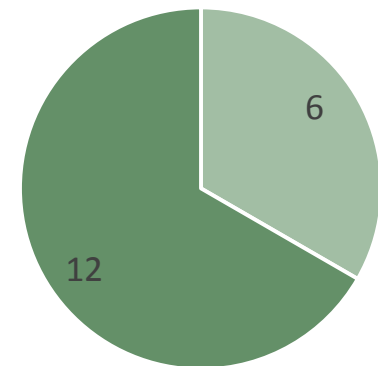
■ Yes ■ No

Catholic schools in your PHU? (n=18)



■ Yes ■ No

private schools in your PHU? (n=18)

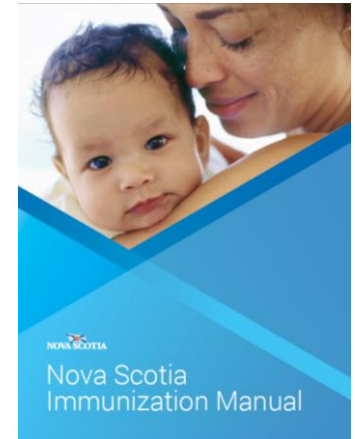


■ Yes ■ No

# Results

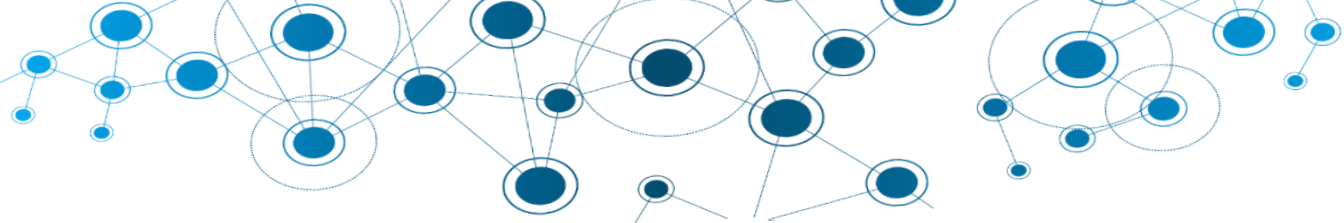
## Factors at the Organizational level

- Training and support offered to school nurses, access to regional vaccine educator and/or team coordinator for their school
- Communication and promotion tools used with parents and schools



The collage includes several key documents:

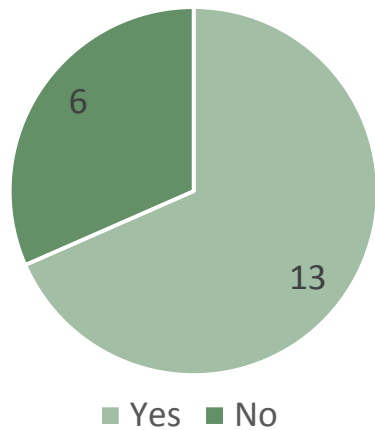
- HealthLinkBC Human Papillomavirus (HPV) Vaccines:** A brochure explaining HPV vaccines, their benefits, and eligibility criteria. It mentions that HPV vaccines protect against infections from certain types of the virus, which can cause cervical, anal, and throat cancers, as well as genital warts.
- Human Papillomavirus (HPV) Immunization (Grade 7):** A fact sheet from Nova Scotia Public Health, dated October 2016, providing key facts about HPV and the vaccine.
- Prevent Cancer in Men and Women:** A graphic showing that 3 out of 4 Canadians will get or have at least one HPV infection in their lifetime, and that the diagnosis and treatment of HPV-related infections cost the Canadian health care system over \$300 million each year.
- Help protect your kids from HPV cancers:** A graphic stating that HPV is associated with almost ALL cases of cervical cancer, 25-35% of mouth and throat cancers, 40-50% of penile cancers, and about 80-90% of anal cancers.
- Welcome to the HPV Vaccine Decision Tool:** A decision tool for parents and children, with options for "My Child", "Myself, I am a Female", and "Myself, I am a Male".
- Helping your child get ready for immunizations:** A card with tips for parents to help their child feel comfortable during immunizations, such as encouraging a healthy breakfast and listening to music.
- Nova Scotia Health Authority Grade 7 Immunization Program - Information for Parents:** A card providing information about the program and how to prepare for the upcoming vaccine clinics.



# Results (online survey – ON)

## Training and support

In the 2017-18 school year, did you offer specific training for nurses administering school-based immunization programs in your PHU? (n=19)

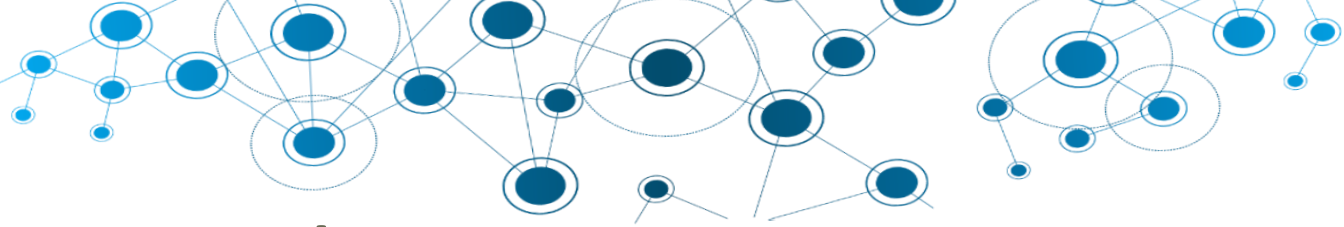


Type of content covered by the training (n=12)	Number of mentions
HPV vaccination program and schedules (e.g., new vaccines, changes in program)	12
Roles and responsibilities in school-based immunization programs	11
HPV vaccine safety and management of adverse events following immunization (AEFI)	10
HPV vaccine efficacy (e.g., duration of protection)	8
Communication approaches (e.g., addressing common misperceptions about HPV, communicating with vaccine-hesitant parents, motivational interviewing)	7
Immunology and vaccination in general (e.g., vaccine-preventable diseases, target groups, how vaccines work, herd immunity, etc.)	5

### Support provided by PHUs to nurses for HPV vaccination delivery:

- Technical assistance by phone (n=15/18)
- Paper & electronic tools (n=15/18)





# Results

## Factors at the **interpersonal and personal** levels

### Numerous parental concerns

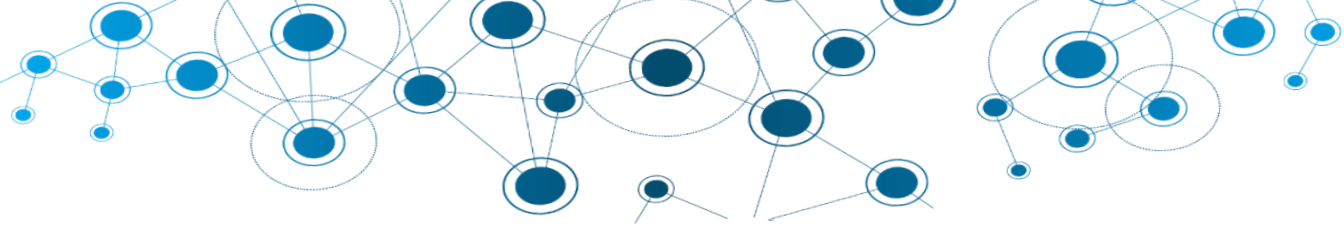
- Child is too young
- Getting the HPV vaccine will increase sexual activity
  - It's a vaccine for girls
- It's too new, it has not been studied enough
  - The HPV vaccine causes cancer

More time to educate / inform parents

High workload

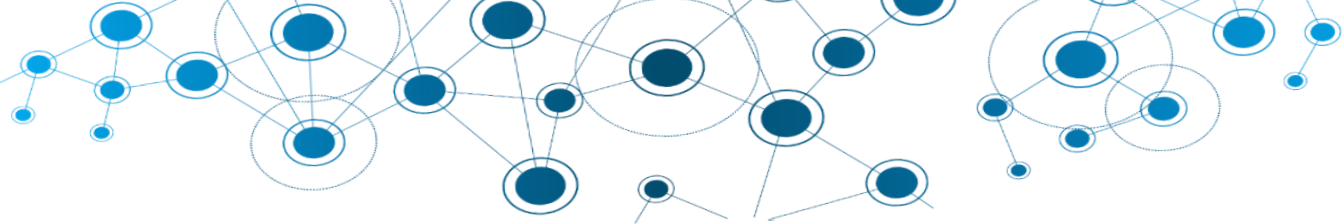
Fear of 'blow back' from parents





# Conclusions

- Our data suggests that HPV vaccine uptake is dependent on many interrelated factors at the individual and interpersonal level, at the community level, at the organizational level and at the policy level;
- Although many common barriers to HPV vaccination in school-based programs were identified, it is expected that the impact of these barriers is greatly influenced by specific local contexts, within and across provinces;
- To increase HPV vaccine uptake rates, we need interventions that address both system-level / operational factors and psychosocial / individual factors.



# Research team & acknowledgements

- **Nova Scotia**
  - Jeannette Comeau, Noni MacDonald, Melissa Kervin, Audrey Steenbeck
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- **Alberta**
  - Shannon MacDonald, Jillian Paragg
- **British Columbia**
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- Quebec's collaborators: Chantal Sauvageau, Maryse Guay, Dominique Gagnon

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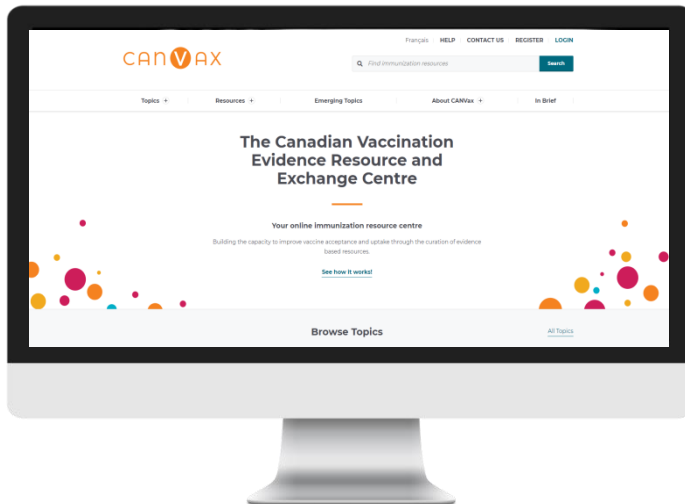






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