

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

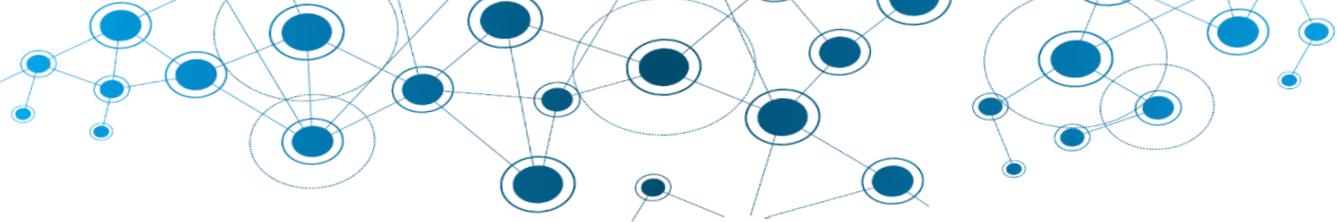
**Barriers and enabling factors of school-based HPV
vaccination programs: Multi-provincial study
conducted by the Canadian Immunization Research
Network**

Eve Dubé

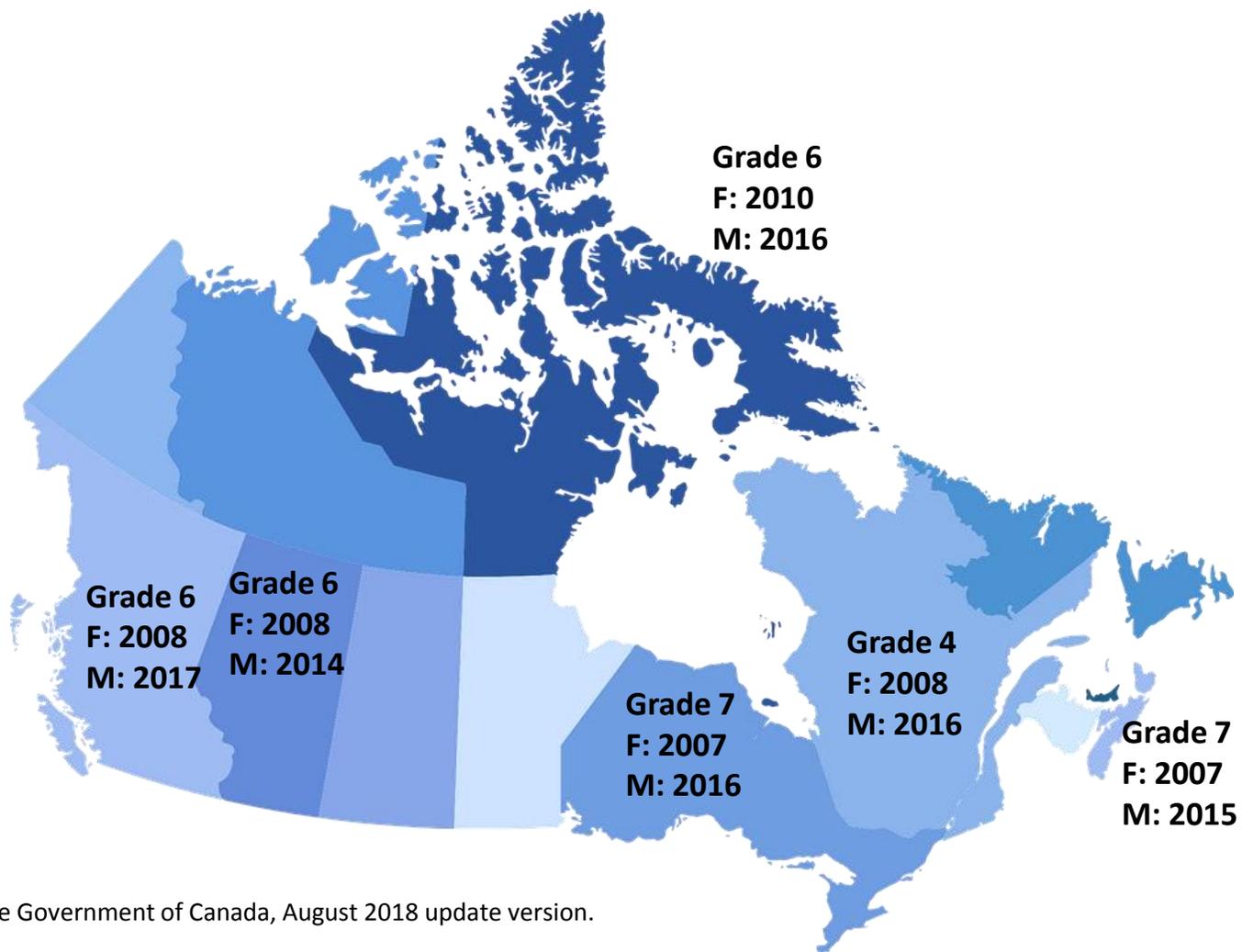
Institut national de santé publique du
Québec

Disclosure Statement

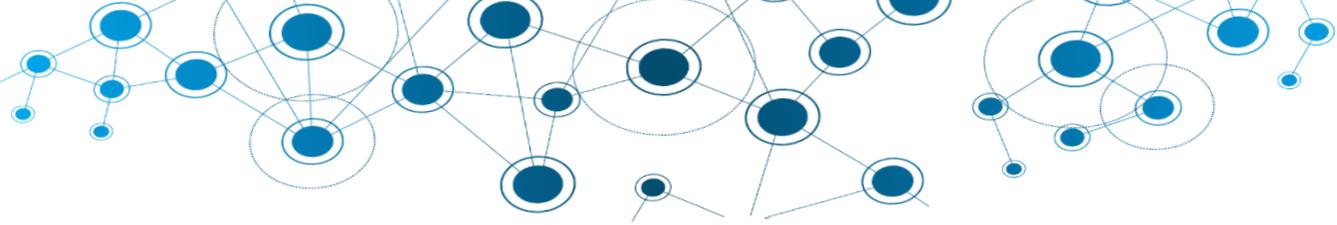
- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.



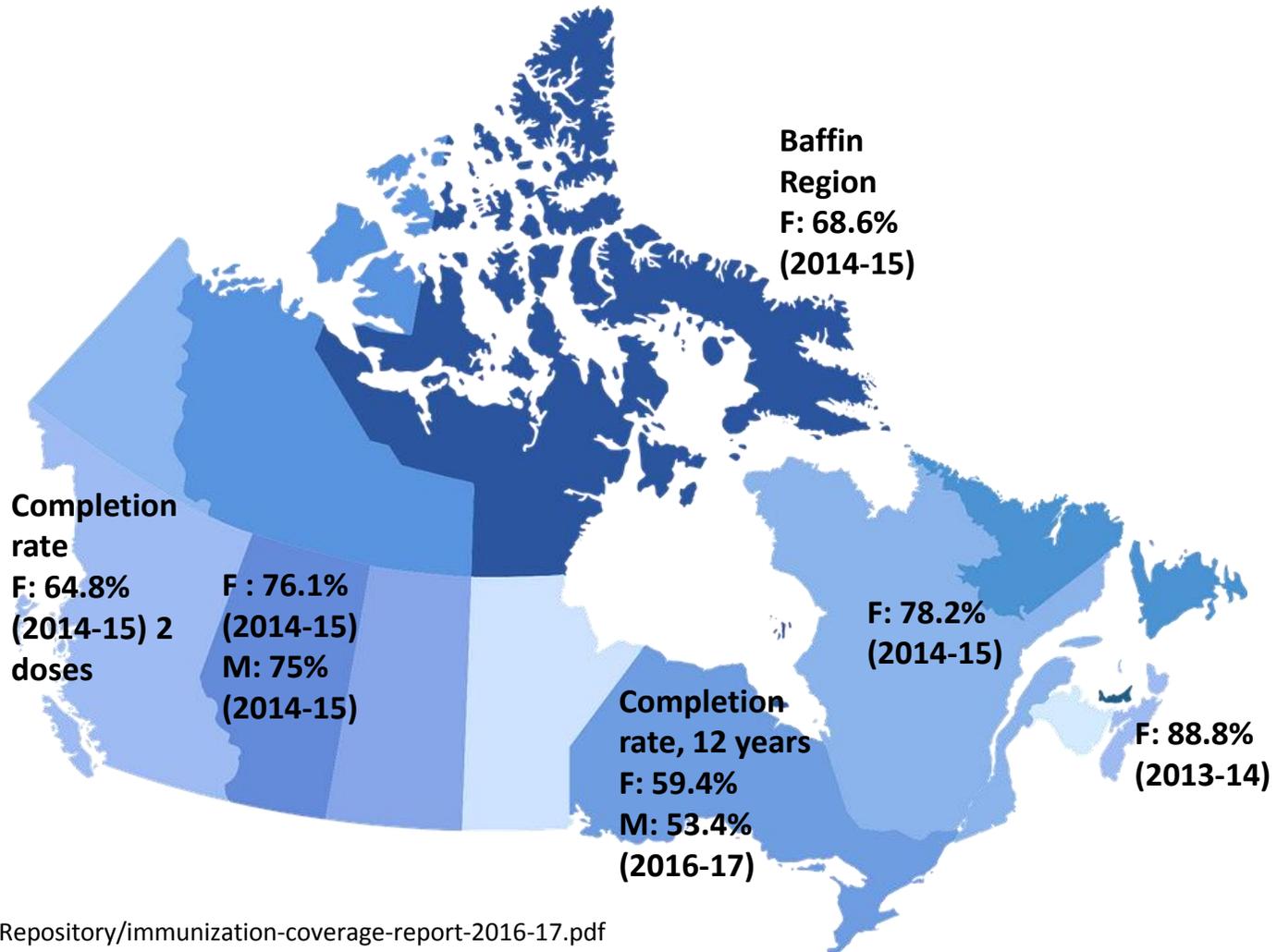
HPV vaccination programs in participating P/Ts



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



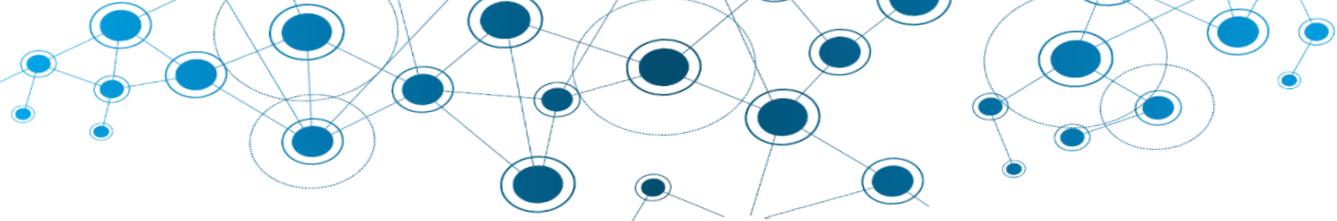
HPV vaccination coverage in participating P/Ts



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

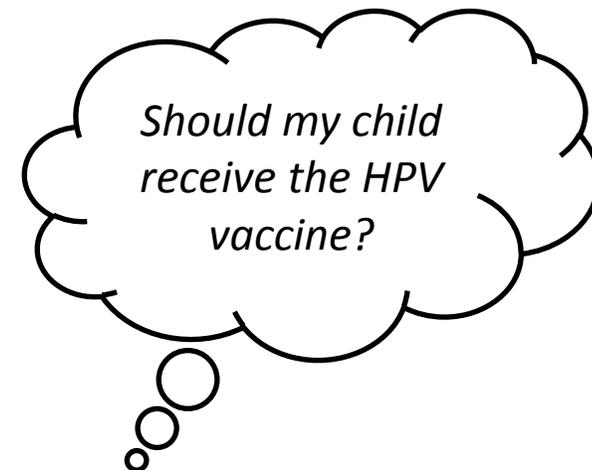
Level of knowledge

Sociodemographic characteristics

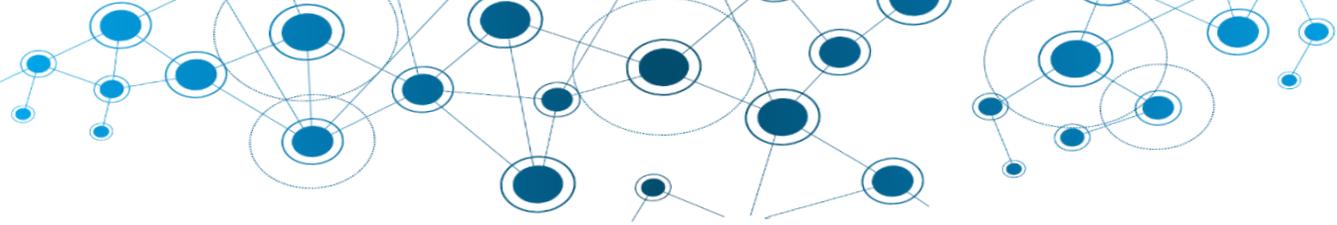
Fear of adverse effects

Age at vaccination

Perceived risks associated with HPV



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

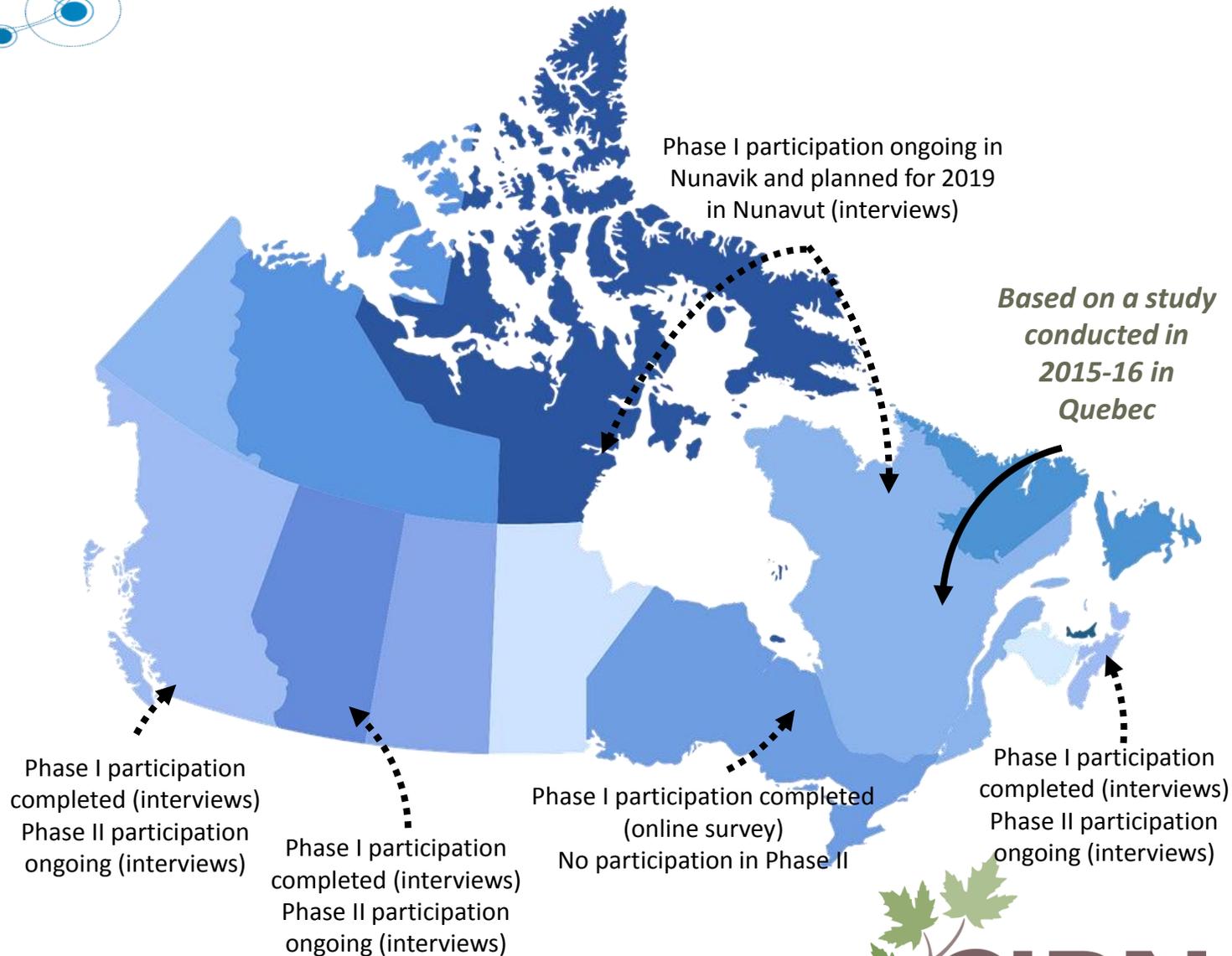


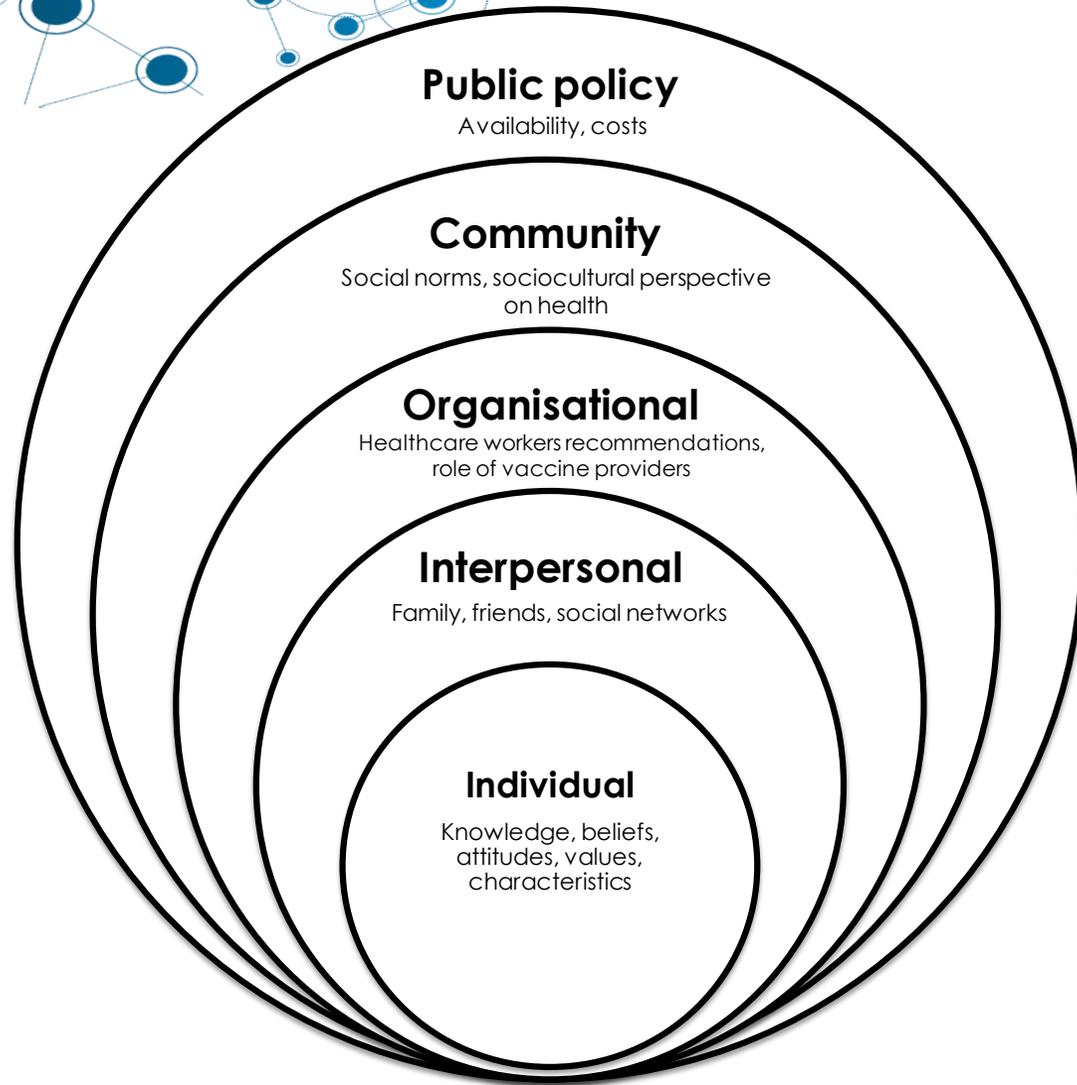
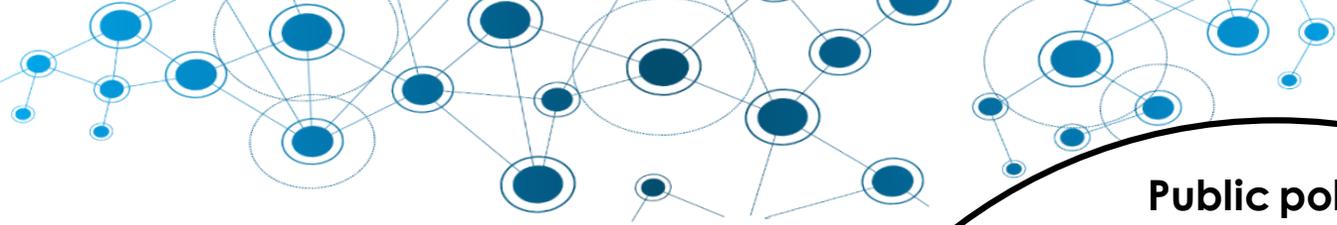
Objective

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

Methods

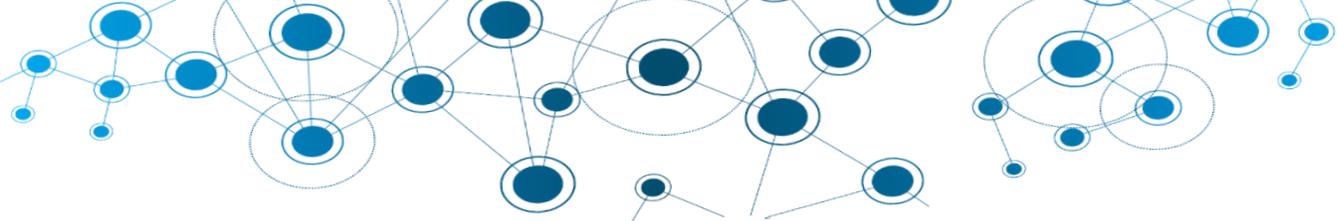
- Interviews in BC, AB, and NS
- Online survey in ON
- Target group: IM managers





The Socio-Ecological Framework





Results

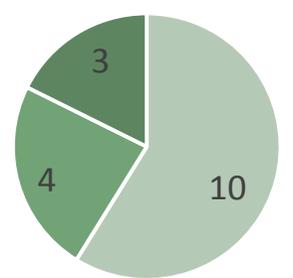
Factors at the **Public policy & Community** levels

- *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)*

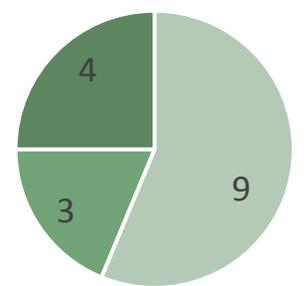
The biggest barrier is the media and how they portray the vaccine [...] It's all the bad press around HPV itself and in some minds, the people that are on the fence, it would be able to push them one way or the other (interview)

Online survey – ON

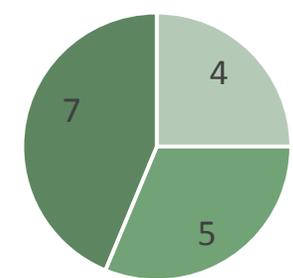
Impact of gender-neutral program (n=17)



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

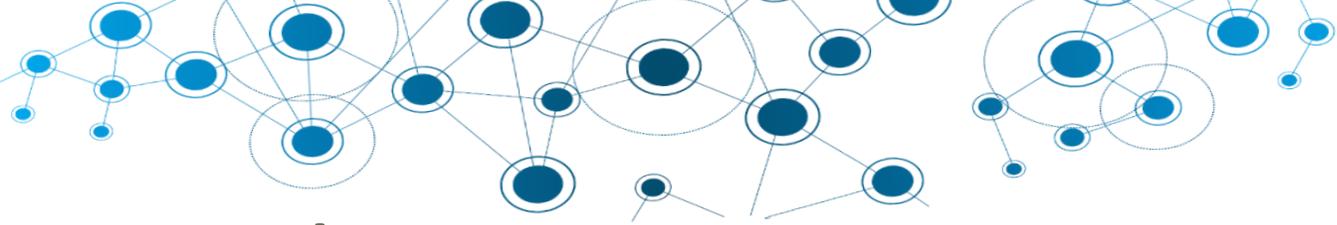


Impact of changing from Grade 8 to Grade 7 (n=16)



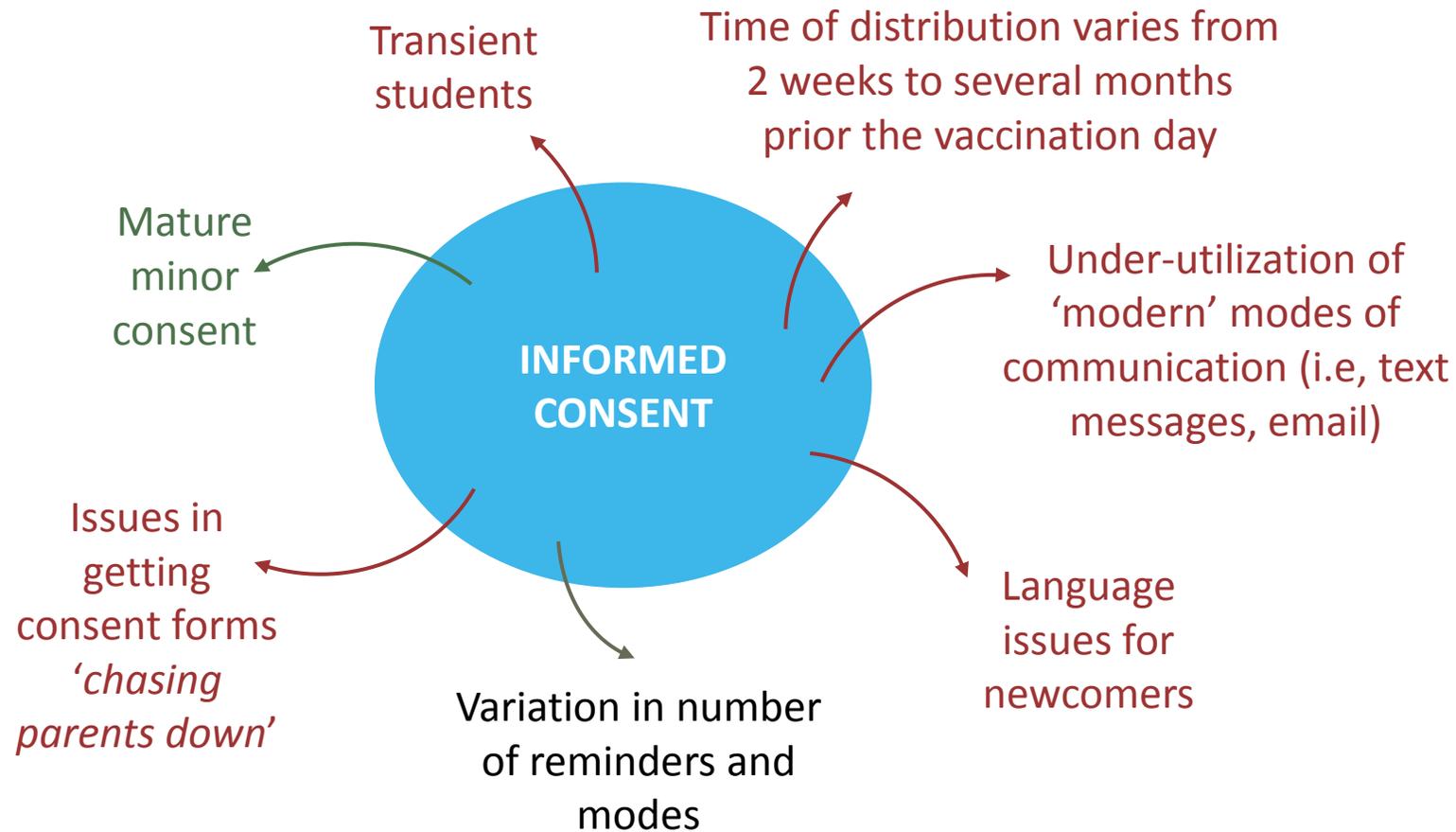
■ Yes (+ or -impact) ■ No impact ■ Unsure / don't know

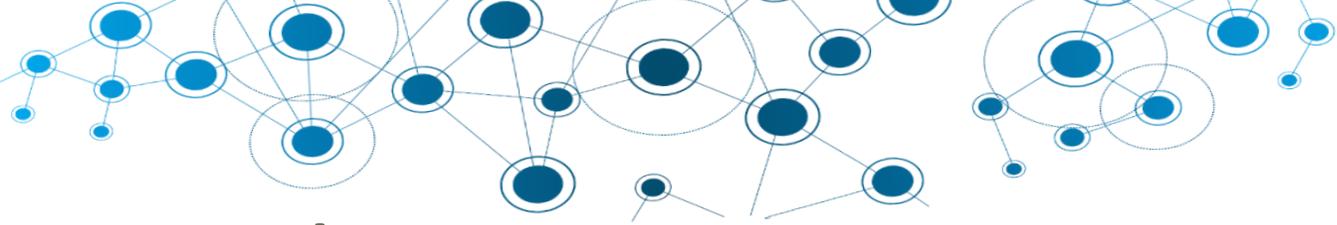




Results

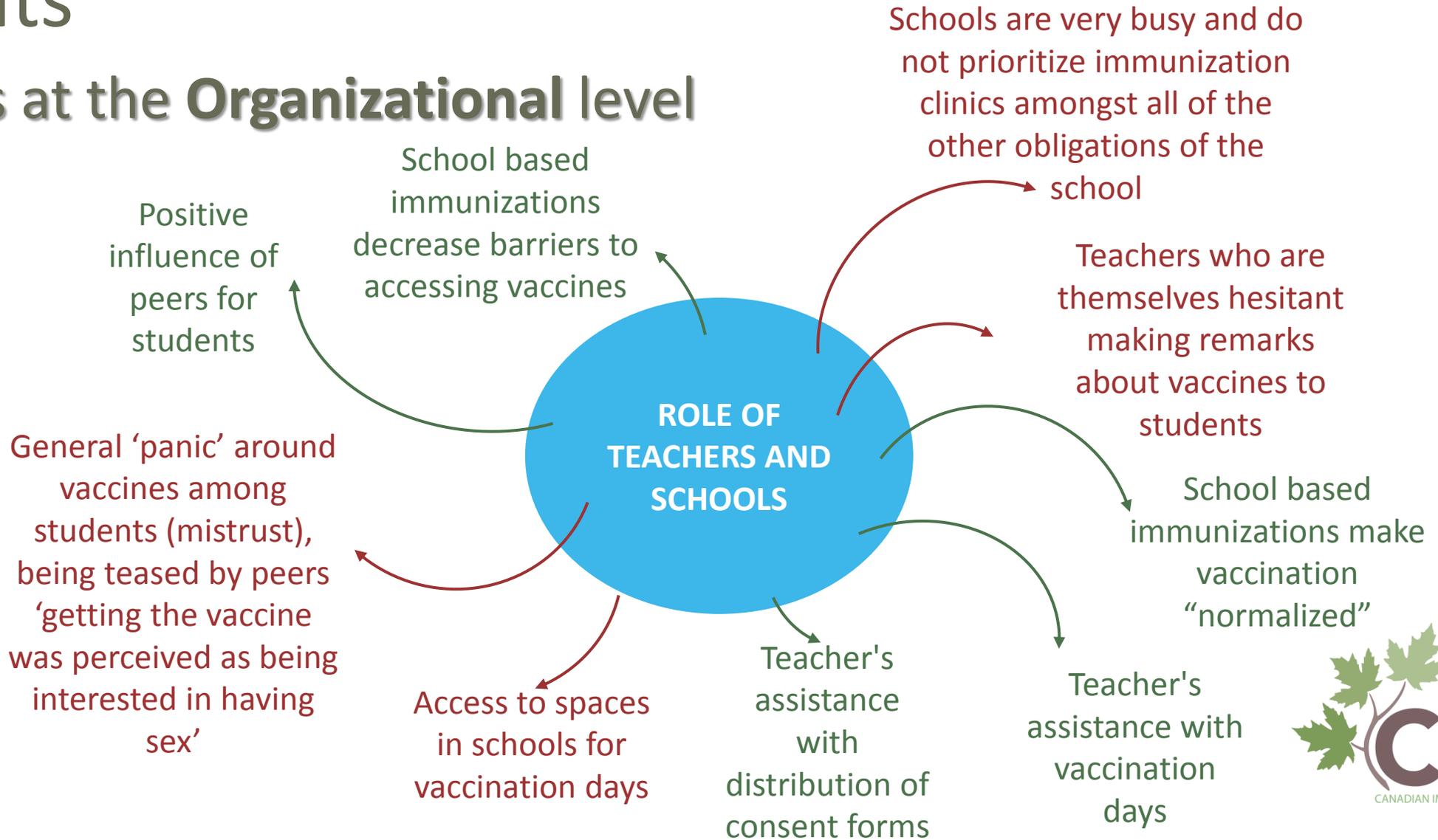
Factors at the Organizational level

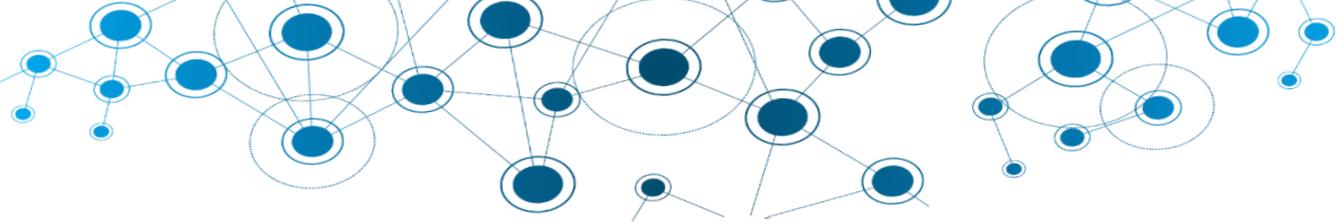




Results

Factors at the **Organizational** level



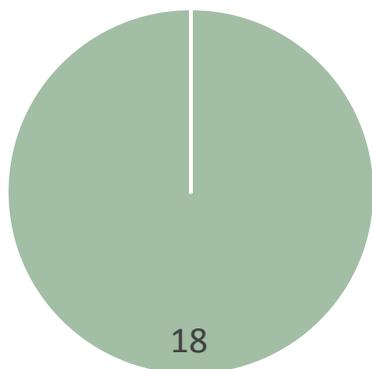


Results

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

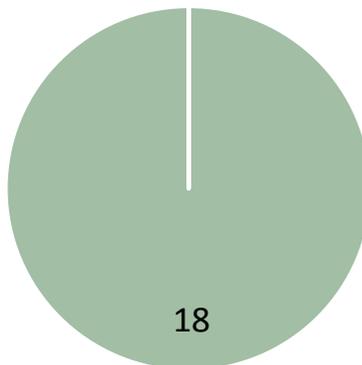
Are you permitted to provide school-based HPV immunization clinics in all...

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



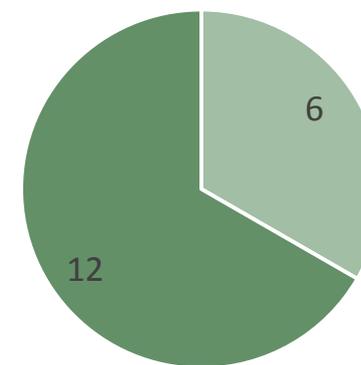
■ Yes ■ No

Catholic schools in your PHU? (n=18)



■ Yes ■ No

private schools in your PHU? (n=18)



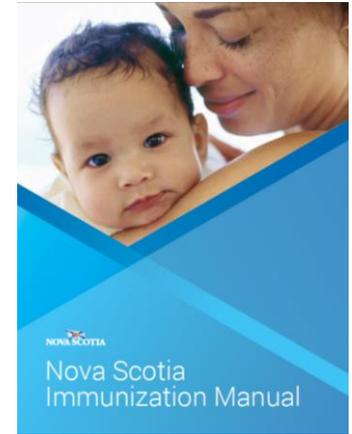
■ Yes ■ No



Results

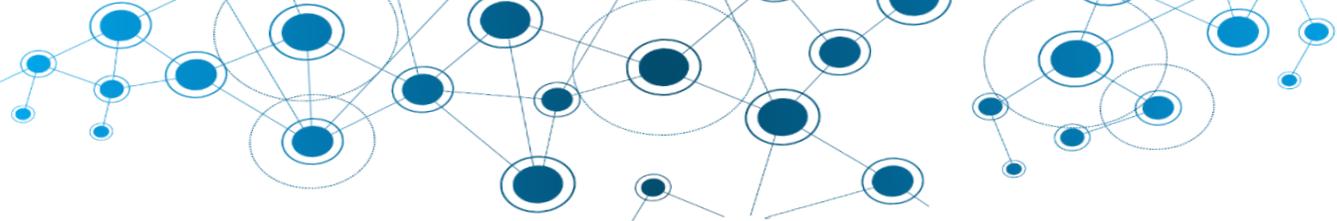
Factors at the Organizational level

- 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:

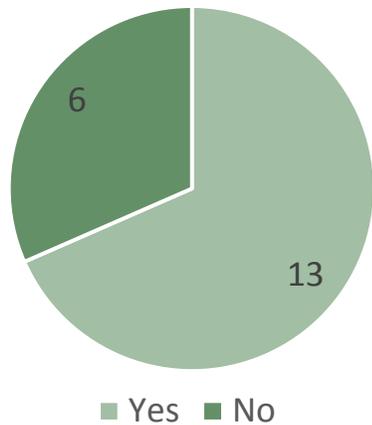
- HealthLinkBC Human Papillomavirus (HPV) Vaccines** (November 10/10, September 2017): A detailed brochure explaining HPV vaccines, their benefits, and eligibility criteria. It lists that HPV vaccines prevent genital infections from certain types of HPV, which cause most cervical, anal, and throat cancers, as well as genital warts. It also notes that HPV is the most common sexually transmitted infection in Canada.
- Human Papillomavirus (HPV) Immunization (Grade 7) Facts** (revised July 2018): A fact sheet from the Public Health Ontario website. It states that HPV is an extremely common virus worldwide and that there are many types of HPV. Some types can cause cancer of the cervix in women, penis cancer in men, and a number of other types of cancers (oral, genital, mouth and throat) in both men and women. It also mentions that the virus is spread by intimate skin-to-skin contact and that it is estimated that 75% of Canadians will get HPV at least once in their lifetime.
- Prevent Cancer in Men and Women**: A purple infographic stating that 3 out of 4 Canadians will get or have at least one HPV infection in their lifetime. It also notes that each year, the diagnosis and treatment of HPV-related infections costs the Canadian health care system over \$300 million. Statistics include: 70% of cervical cancers in women, 32% of anal cancers in men and women, 32% of genital (penile) cancers in men, 90% of genital warts in women and men, 83% of oral cancers in women and men, 22% of mouth cancers in women and men, and 31% of throat cancers in women and men.
- Help protect your kids from HPV cancers**: A yellow and blue infographic stating that HPV is associated with 25-35% of mouth and throat cancers, almost ALL cases of cervical cancer, 40% of vaginal and vulvar cancers, and over 90% of genital warts. It also notes that about 80-90% of anal cancers are caused by HPV.
- Welcome to the HPV Vaccine Decision Tool**: A website interface for a decision tool that helps users determine if their child is eligible for the HPV vaccine. It includes a navigation bar with 'What Are You?', 'Check Eligibility', 'View Results', 'Your Decision', and 'What's Next?'. Below the title, it asks 'First, who are you thinking of getting the vaccine for?' and offers three options: 'My Child', 'Myself, I am a Female', and 'Myself, I am a Male'. It also includes a 'VACCINE DECISION TOOL' logo.
- Helping your child get ready for immunizations**: A green and white card with tips for parents, such as 'Prepare them: encourage them to eat a healthy breakfast before they get to school or visit a clinic', 'Remind them at least 1 day before', and 'Work out ways to take their mind off the actual shots'. It also lists ways to distract themselves while waiting for the needle, such as 'Think of a favorite memory', 'Talk with a friend', 'Listen to music', and 'Read a book'. It includes a 'Never say, "It won't hurt."' section with advice to be honest and to encourage the child to cope with the experience.
- Nova Scotia Health Authority Grade 7 Immunization Program - Information for Parents**: A white card with a drawing of a school building and a person. It states 'Hi I'm Anna, and I'm here to provide you with information about how to prepare your child for the upcoming vaccine clinics at their school.' It includes a 'Nova Scotia Health Authority' logo and a 'Nova Scotia' logo.



Results (online survey – ON)

Training and support

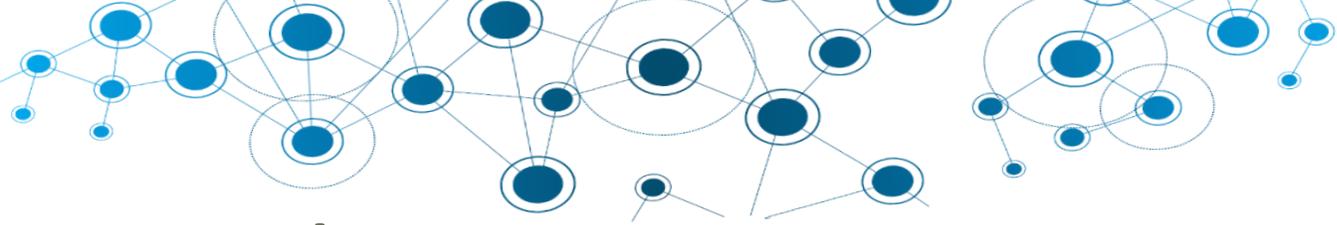
In the 2017-18 school year, did you offer specific training for nurses administering school-based immunization programs in your PHU? (n=19)



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

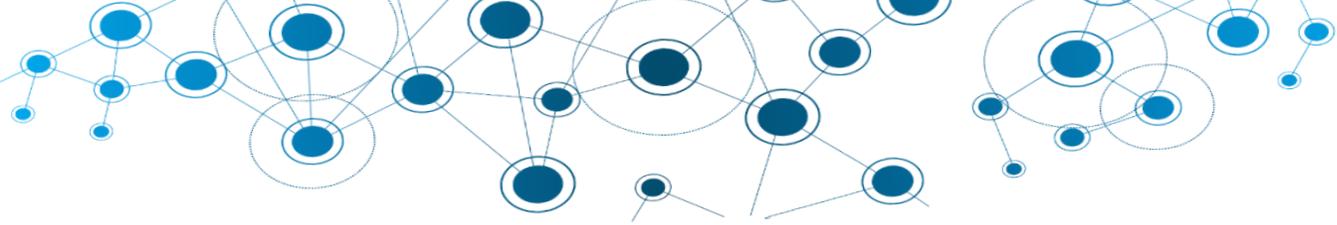
- Child is too young
- Getting the HPV vaccine will increase sexual activity
 - It's a vaccine for girls
- It's too new, it has not been studied enough
 - The HPV vaccine causes cancer

More time to educate / inform parents

High workload

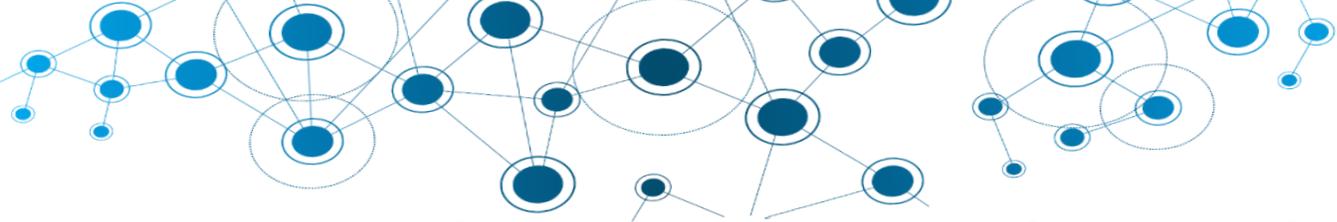
Fear of 'blow back' from parents





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

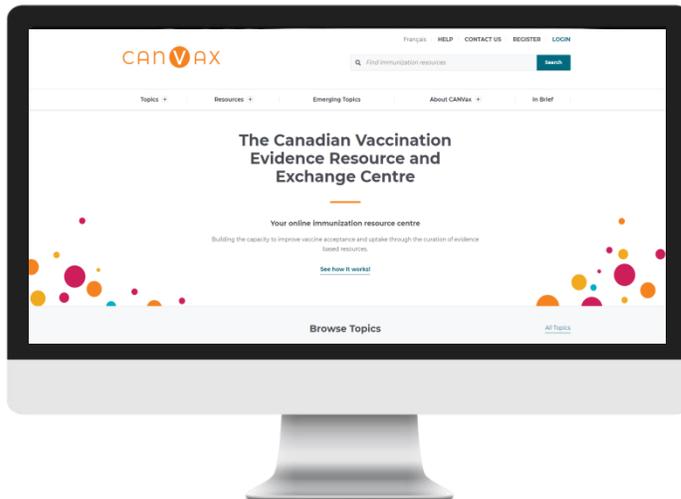
- **Nova Scotia**
 - Jeannette Comeau, Noni MacDonald, Melissa Kervin, Audrey Steenbeck
- **Ontario**
 - Sarah Wilson, Shelley Deeks, Vinita Dubey, Natasha Crowcroft
- **Alberta**
 - Shannon MacDonald, Jillian Paragg
- **British Columbia**
 - Julie Bettinger, Clara Rubincam, Hana Mijovic, Gina Ogilvie and Monika Naus
- Quebec's collaborators: Chantal Sauvageau, Maryse Guay, Dominique Gagnon

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