Up-to-date information about COVID-19 vaccination for children and youth

> School Name Date

Presented by the STOP COVID-19 in Kids Study Team and SickKids COVID-19 Vaccine Consult Service





## Land Acknowledgement

We would like to acknowledge the land on which SickKids operates. For thousands of years, it has been the traditional land of the Huron-Wendat and Petun First Nations, the Seneca, and most recently, the Mississaugas of the Credit River. Today, Toronto is home to Indigenous Peoples from across Turtle Island. SickKids is committed to working toward new relationships that include First Nations, Inuit, and Métis peoples, and is grateful for the opportunity to share this land in caring for children and their families.





### **Objectives**

# Have an open and judgement-free discussion about:

COVID-19 and prevention of transmission

Children and COVID-19 vaccines

≻Q&A



#### Stop COVID-19 in Kids

#### School-based vaccine education outreach to build trust and empower families

Parental attitudes, acceptance, and hesitancy toward COVID-19 vaccines

COVID-19 vaccines safety and Adverse Events Following Immunization in children aged < 18 years old.

Gathering and evaluating available educational online resources for parents on COVID-19 vaccines

Survey: vaccine acceptance and uptake among caregivers of children 5-11 years of age

Focus groups discussion with parents recruited through the survey study to generate in-depth qualitative data.

Perceptions and Practices on COVID-19 Vaccines for Children in Ontario Systematic Review

**Caregivers Survey** 

and focus group

discussion

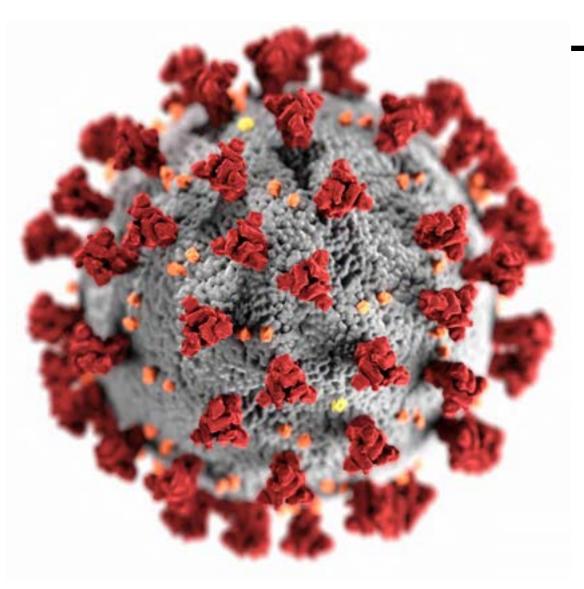
Pediatrician Survey

Development of the intervention and educational program

Training of healthcare professionals

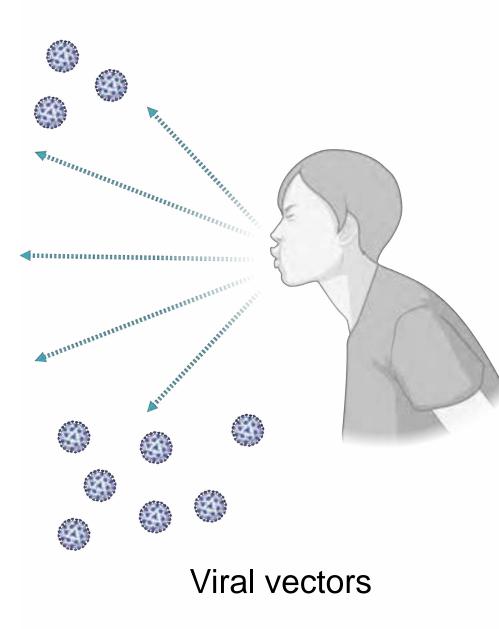
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Explore beliefs about covid-19 vaccination in children, parents, and educational preferences on COVID-19 vaccines



### SARS-CoV-2: The Virus Causing COVID-19

- Belongs to Coronavirus family
- Respiratory virus
- First recognized human-to-human spread in December 2019
- Global Pandemic declared March 11, 2020
- Lockdowns led to virtual education, no sports or extra-curriculars, mandates, no travel.
- Unique spike protein target of vaccine
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#### **SARS-CoV-2:** Transmission

- SARS-CoV-2 is a respiratory virus
- Spreads easily through air droplets
- Infected person coughs, droplets containing the virus spray out
- Droplets enter another person's nose or mouth, infecting them
- Transmits best in enclosed spaces, such as schools, buses, and restaurants....





#### COVID-19 Symptoms in Children

- Asymptomatic versus symptomatic
- Common symptoms include:
  - Fever/chills
  - > Abdominal pain/nausea/vomiting
  - Joint/muscle pain
  - ➤ Fatigue
  - Sore throat, runny nose, congestion
  - Cough, shortness of breath
  - > Headache
  - Loss of taste/smell





### **Preventing COVID-19**

- Stay home when sick
- Masks
- Improve ventilation
- Rapid Antigen Tests (RAT) and PCR testing, if able.
- Stay up-to-date with COVID-19 vaccines.
- Good handwashing and cough etiquette are important too.





### Why Should Children Get Vaccinated?

#### **COVID-19 vaccines decrease the risk of:**

- COVID-19 infection
- Hospitalization due to COVID-19
- MIS-C (Multisystem Inflammatory Syndrome in Children)
- Long COVID

#### COVID-19 vaccines will also:

- Decrease transmission
- Protect family and community
- Help keep schools and extra-curricular activities open



### **COVID-19 Vaccine Effectiveness**

COVID-19 cumulative hospitalization rate for 5-11-yearolds kids was 33 per 100,000 population; death rate in 0-18 yo individuals was 0.7 per 100,000 population.





(from January 15, 2020 to March 11, 2023, Ontario)

Overall effectiveness in protecting 5-11-year-olds kids from severe outcomes (e.g.hospitalization) is around 80% after two doses of the vaccine. (March 2023, Ontario)



The Pfizer-BioNTech vaccine was shown to be effective in protecting 12-18-year-olds from MIS-C, with an estimated effectiveness of **91%**. (January 2022)





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### **COVID-19 Vaccines for Children**

### Setting the Record Straight on mRNA Vaccines



- mRNA technology is **<u>not</u>** new.
- mRNA vaccines cannot change DNA.
- mRNA does <u>not</u> stay in the body.
- Do <u>not</u> contain microchips, metals, magnets, antibiotics, animal or fetal tissues and latex.
- One <u>cannot</u> get COVID-19 from the vaccine.
- Do not impact fertility.

#### mRNA Vaccines are Safe and Effective



• Messengers carry instructions into our cells.

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• Vaccines contain mRNA, lipids (fats), sugar and stabilizers.

### **Approved COVID-19 Vaccines: 5-11 years**



#### **Primary Series:**

1. Pfizer 10 mcg – 2 doses; 8-week interval (preferred vaccine)

2. Moderna 50 mcg – 2 doses; 8-week

interval

#### **Boosters:**

- 1. Pfizer Bivalent BA.4/5 preferred booster
- 2. Pfizer Monovalent
- Eligible 6 months after completion of primary series

### Approved COVID-19 Vaccines: 6 months-under 5 years



#### **Primary Series:**

Moderna 25 mcg – 2 dose primary series;
 8-week interval

2. Pfizer 3 mcg – 3 dose primary series; 8week intervals

≻Get whichever one is available first!

➢No time needed between COVID-19 vaccines and other vaccines

Booster: not approved in Canada at this time



## Approved COVID-19 Vaccines: 12-17 years



#### **Primary Series:**

 Pfizer 30 mcg – 2 doses; 8-week interval (preferred vaccine)
 Moderna 100 mcg – 2 doses; 8week interval

3. Novavax – newly approved in Canada

**Boosters:** 6 months after previous dose

- Pfizer Bivalent B.A.4/5 preferred booster
- 2. Pfizer Monovalent
- 3. Moderna Monovalent





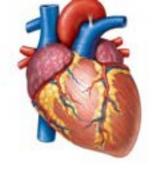
### Side Effects: 6 months+

- Sore arm
- Irritability
- Fatigue
- Low-grade fever/chills
- Muscle or joint pain

#### \*Tylenol or Advil may be given as directed



### What About Myocarditis?

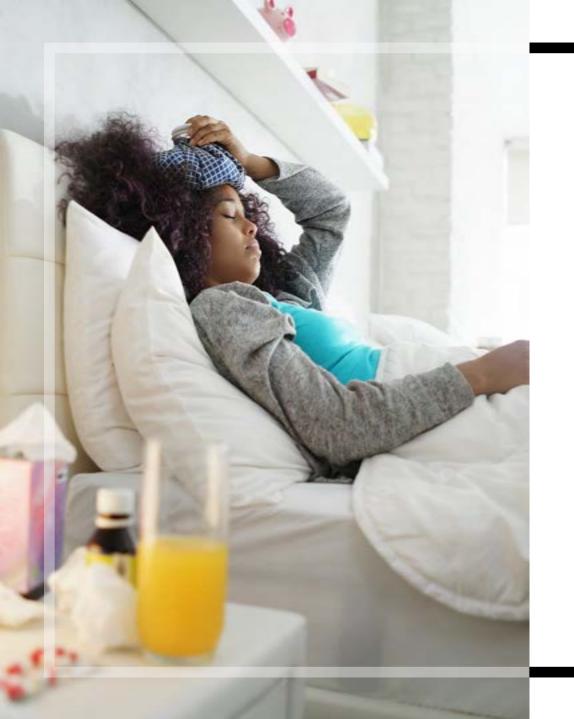


- Myocarditis is inflammation of the heart
  Treated with rest and NSAIDs muscle (like Advil)
- **Rare** side effect following COVID-19 vaccination (see table below)
- Most cases related to vaccination are mild and recovery is fast

- Having a heart condition does not increase the likelihood of **Myocarditis**

AGE	Myocarditis % after second dose
6months – under 5 years	No reports
5-11 years	0.0006%
12-17 years	0.0099%





#### My Child Already Had COVID-19. Do They Still Need to be Vaccinated?

- Yes, a **complete** vaccination series and boosters are still recommended as it provides additional protection
- NACI recommends 8 weeks between a COVID-19 infection and a primary series dose
- NACI recommends (for those 5+) 3 6 months between a COVID-19 infection and a booster dose SickKids



#### **CONTACT INFORMATION**

• Email: <a href="mailto:stopcovid19.inkids@sickkids.ca">stopcovid19.inkids@sickkids.ca</a>







#### What is the importance of the booster dose?



Primary doses teach our immune system to recognize and produce antibodies against the virus

**Booster shots** are administered to **remind** the body's immune system **about the virus** it needs to defend against

This improves or gives the immune system a boost

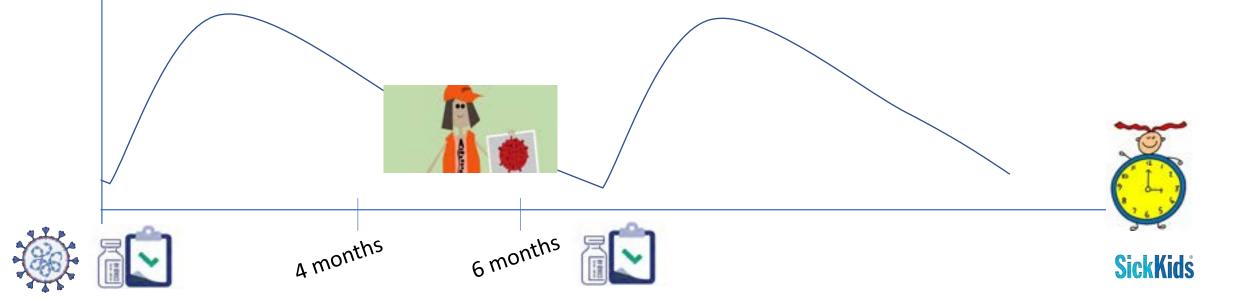




#### What is the importance of the booster dose?

Antibodies after infection naturally decline over time and vaccination provides added protection, eliciting a new immune response

The same for kids who had already COVID-19; a complete vaccination series trigger an higher antibodies production





#### Third Round: Are COVID-19 Vaccine Safe?

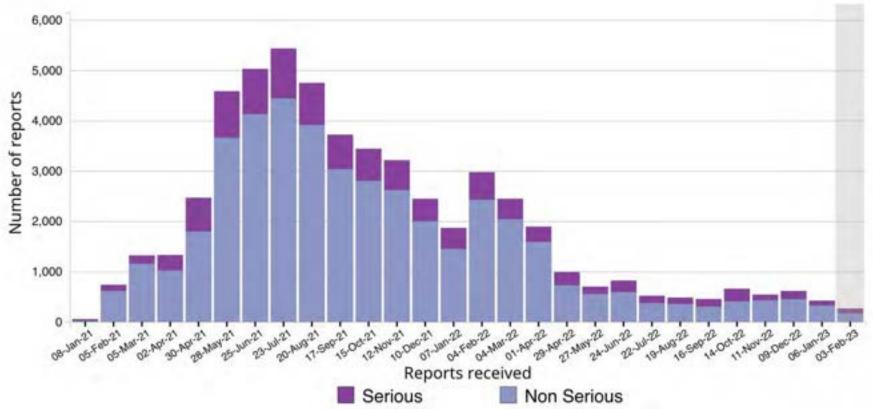


43,500 were not serious 10,582 were serious 54,082 Total adverse event following immunization reports

(0.056% of all doses administered)

The rate of adverse event reports was lowest in the **5 to 11 year age group** 

Also BIVALENT boosters have been demonstrated to be safe in 5-11 years old children





### Are COVID-19 vaccines safe?

COVID-19 vaccines are **safe** and meet Health Canada's rigorous scientific standards for safety and manufacturing quality.



Through continued safety monitoring, COVID-19 vaccination has been found to be safe for children and teens.

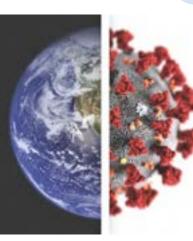
The known risks of severe complications of COVID-19 outweigh the potential **rare** adverse reaction to vaccination.





### Are COVID-19 vaccines safe? How are COVID-19 vaccines monitored after vaccination?

After a vaccine is authorized for use, the Health Canada monitors its safety and how well it works in people, including children **post-market surveillance** 



Assessing how vaccines work and their safety in the 'real world' helps us:



Adjust vaccine recommendations, as needed, such as booster doses 011

Guide vaccine policy and vaccine distribution

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Inform development of vaccine technologies



Government of Canada



### Are COVID-19 vaccines safe?

#### Millions of children in the world have received COVID-19 vaccines



#### Suggested resources where to find more information



**Children and COVID-19 Vaccination** 

http://www.bccdc.ca/health-info/diseases-conditions/covid-19/covid-19-vaccine/vaccines-children

ImmunizeBC COVID-19 vaccines (children 5 to 11 yrs)

https://immunizebc.ca/question-categories/covid-19-vaccines-children-5-11



Government of Canada Vaccines for children: COVID-19

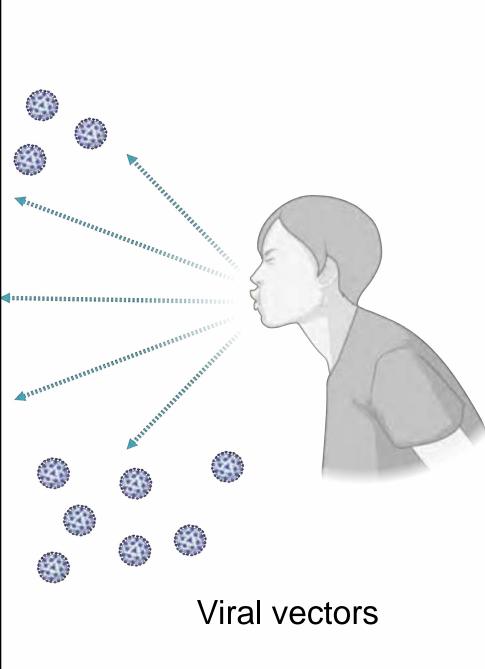
https://www.canada.ca/en/public-health/services/vaccination-children/covid-19.html

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COVID-19

https://www.aboutkidshealth.ca/COVID-19





#### **SARS-CoV-2:** Transmission

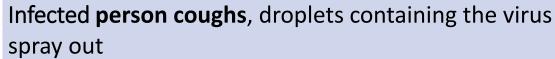


SARS-CoV-2 is a respiratory virus

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**OOO** Spreads **easily through air** droplets





Droplets enter another person's nose or mouth, infecting them



Transmit best in enclosed spaces, such as schools, buses, and restaurants

