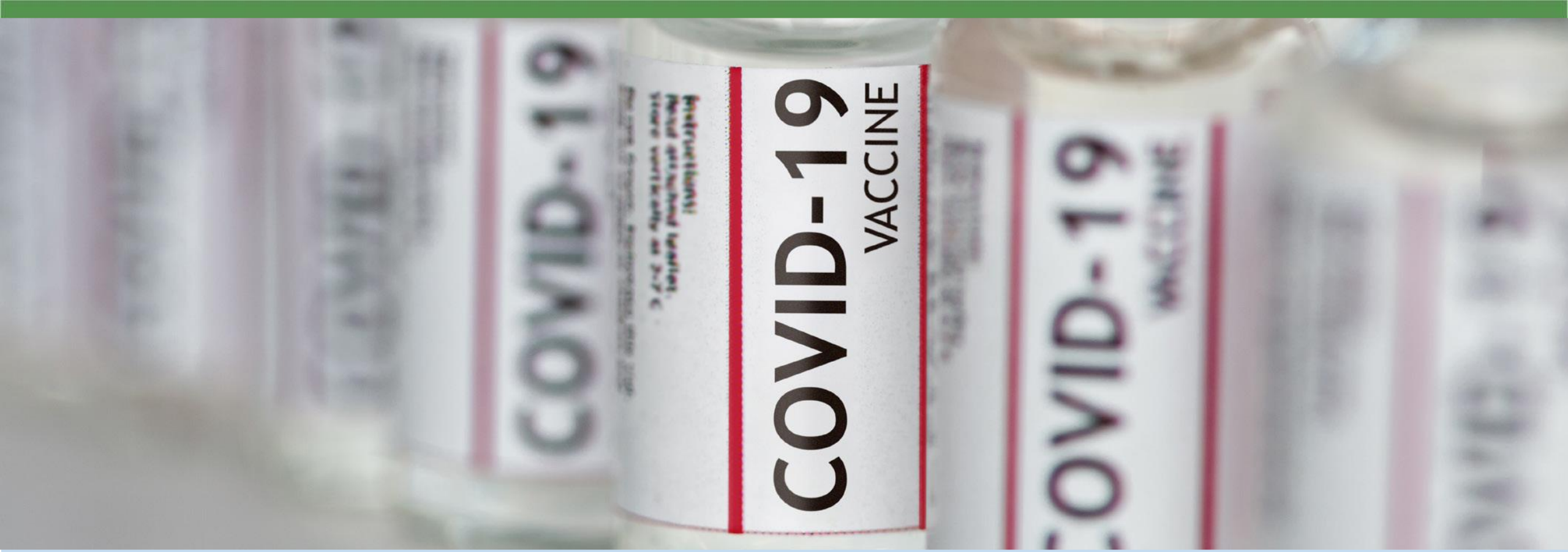


Healthcare Professional Town Hall:

Immunizing children under 5 against COVID-19

August 11, 2022

The webinar will begin at 7 p.m.
If you run into technical difficulties, please email Javier.Rincon@halton.ca

Indigenous Land acknowledgement

Boozhoo, She:kon , Tanshi, Greetings!

Halton Region acknowledges the Treaty Lands of the Mississaugas of the Credit First Nation as well as the Traditional Territory of the Haudenosaunee, Huron-Wendat and Anishinabek on which we gather.

In stewardship with Mother Earth and the enduring Indigenous presence connected to these lands we acknowledge the Indigenous Nations of the past, present and future.

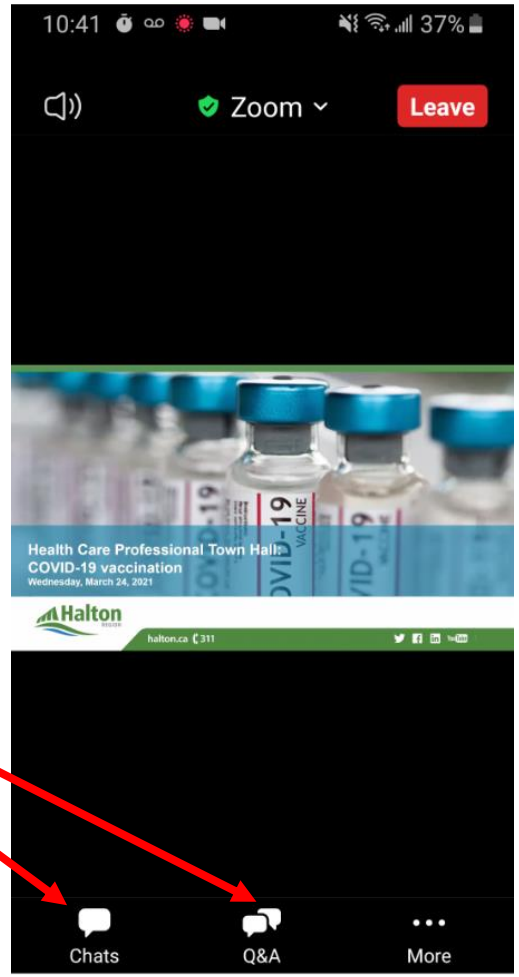
In the spirit of ally-ship and mutual respect, we will take the path of Truth and Reconciliation to create change, awareness and equity as we strive to elevate the collective consciousness of society.

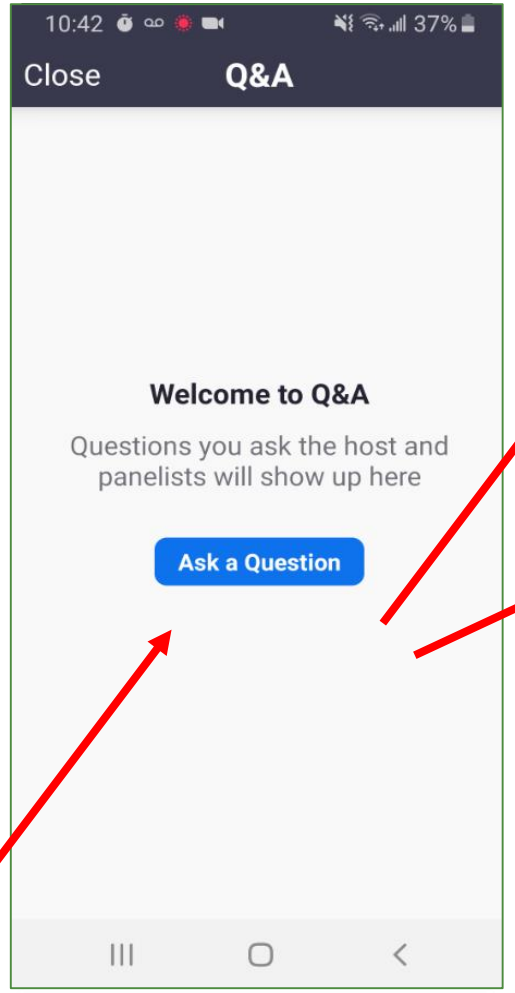
Miigwetch, Nia:wen, Marsi, Thank you

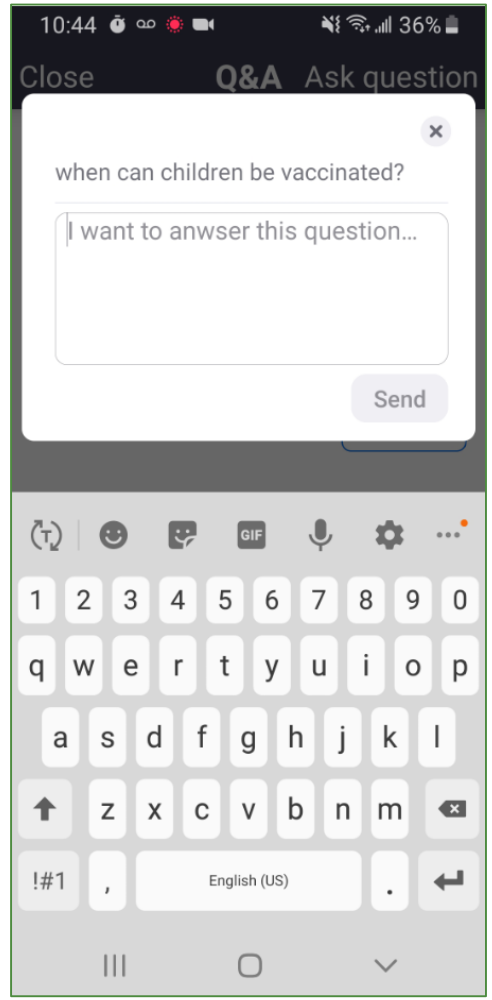
Agenda

- Where we are now
- Why the COVID-19 vaccine is important to 0-5 year olds
- What you need to know about the COVID-19 vaccine for 0-5 year olds
- Resources to support you
- Question & Answer Session

Housekeeping







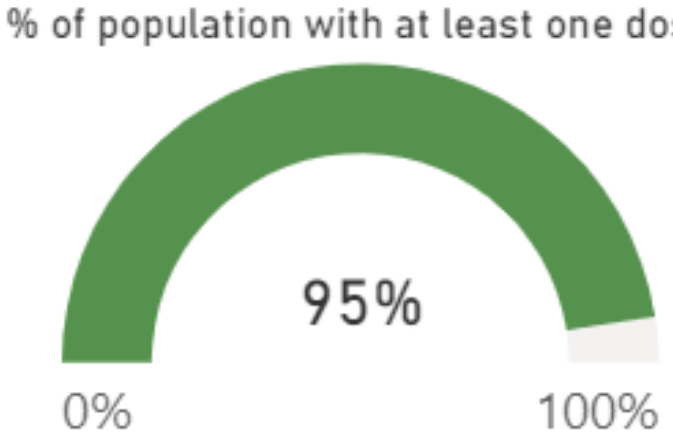
Use the Q&A function to ask, vote or comment on a question

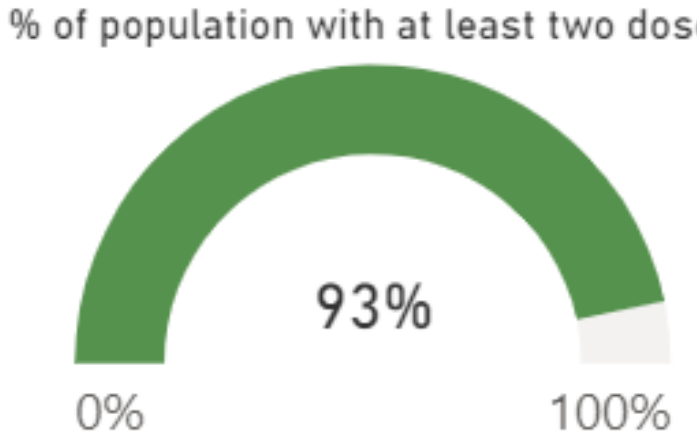
We are here

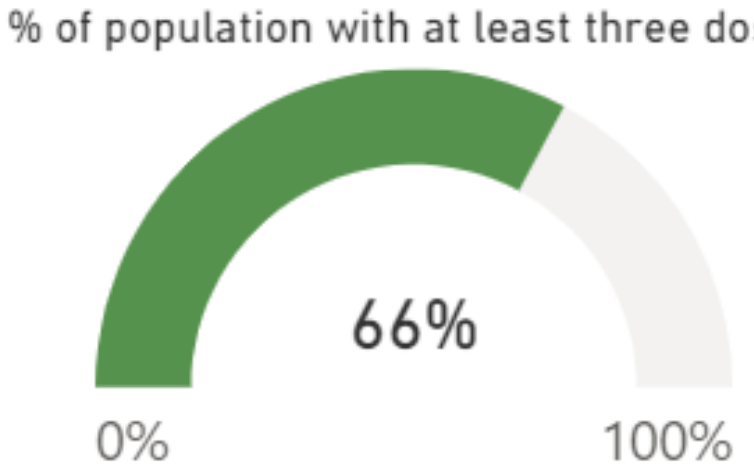
The current state

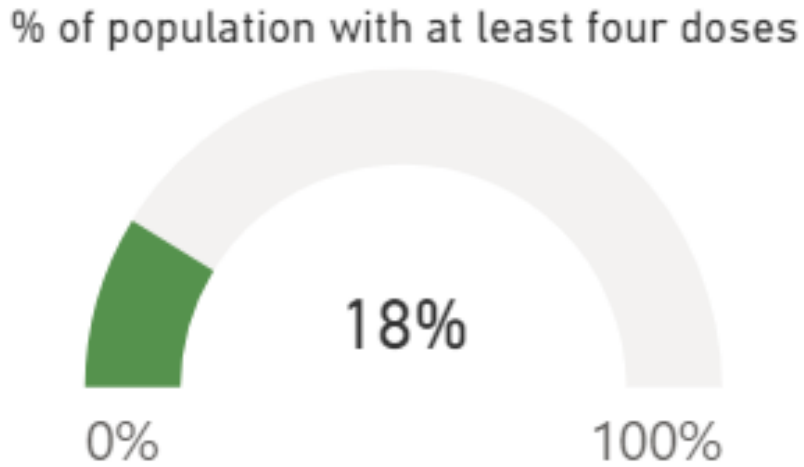
Vaccination coverage among Halton residents

As of August 10, 2022



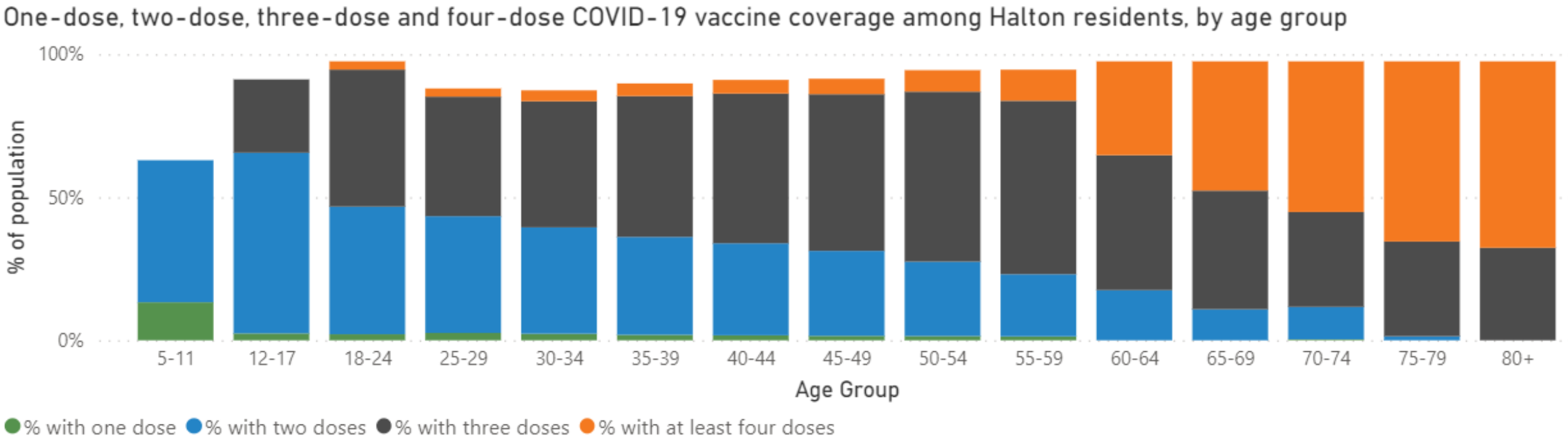






Vaccination coverage by age in Halton

As of August 10, 2022



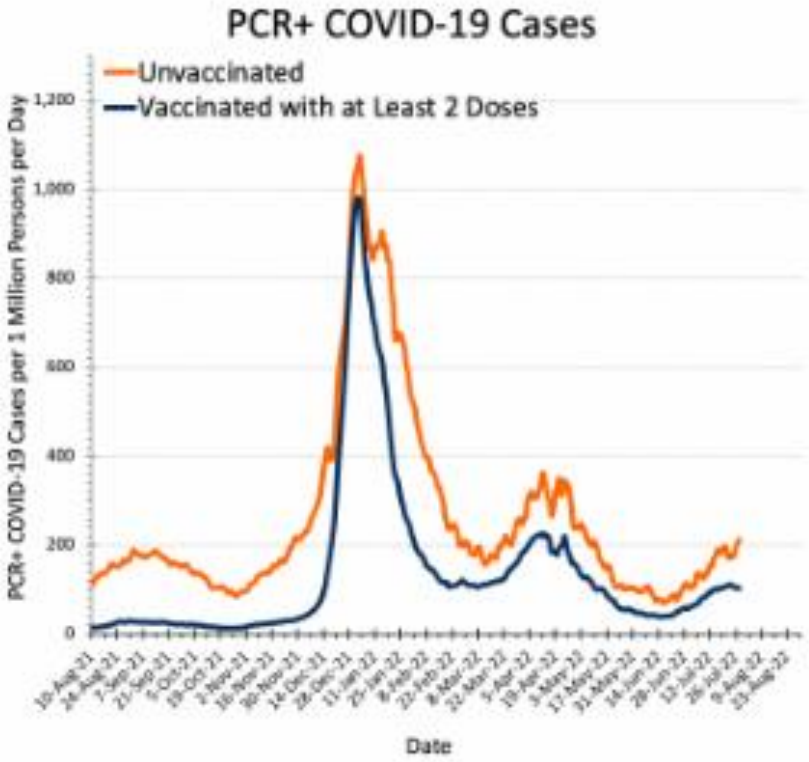
Vaccination coverage in Halton vs Ontario

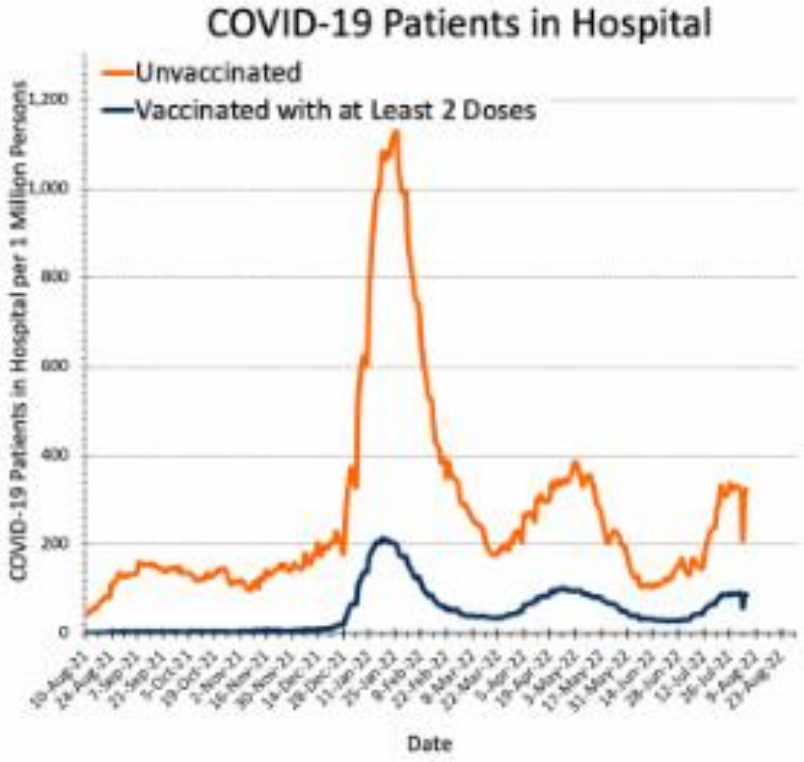
	@ least one dose		Complete primary series		Complete primary series + one booster	
5-11 year olds	63%	53.9%	50%	40.7%		
12-17 year olds	91%	85.9%	89%	82.3%	26%	19.6%

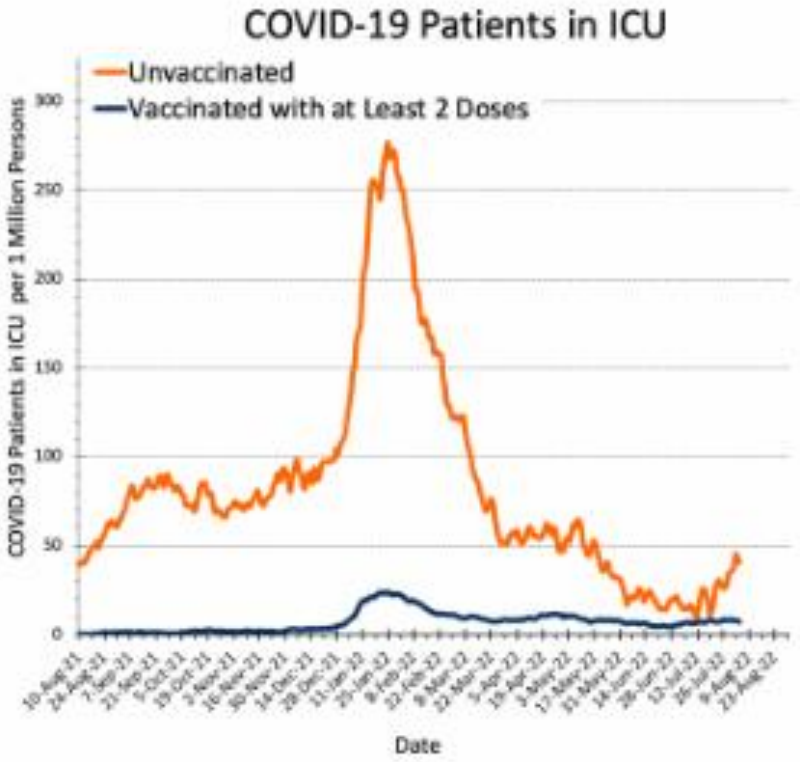
Green = Halton Region statistics
Purple = Provincial statistics

[Halton Region COVID-19 vaccine dashboard]
[Public Health Ontario surveillance report]

Vaccines are working







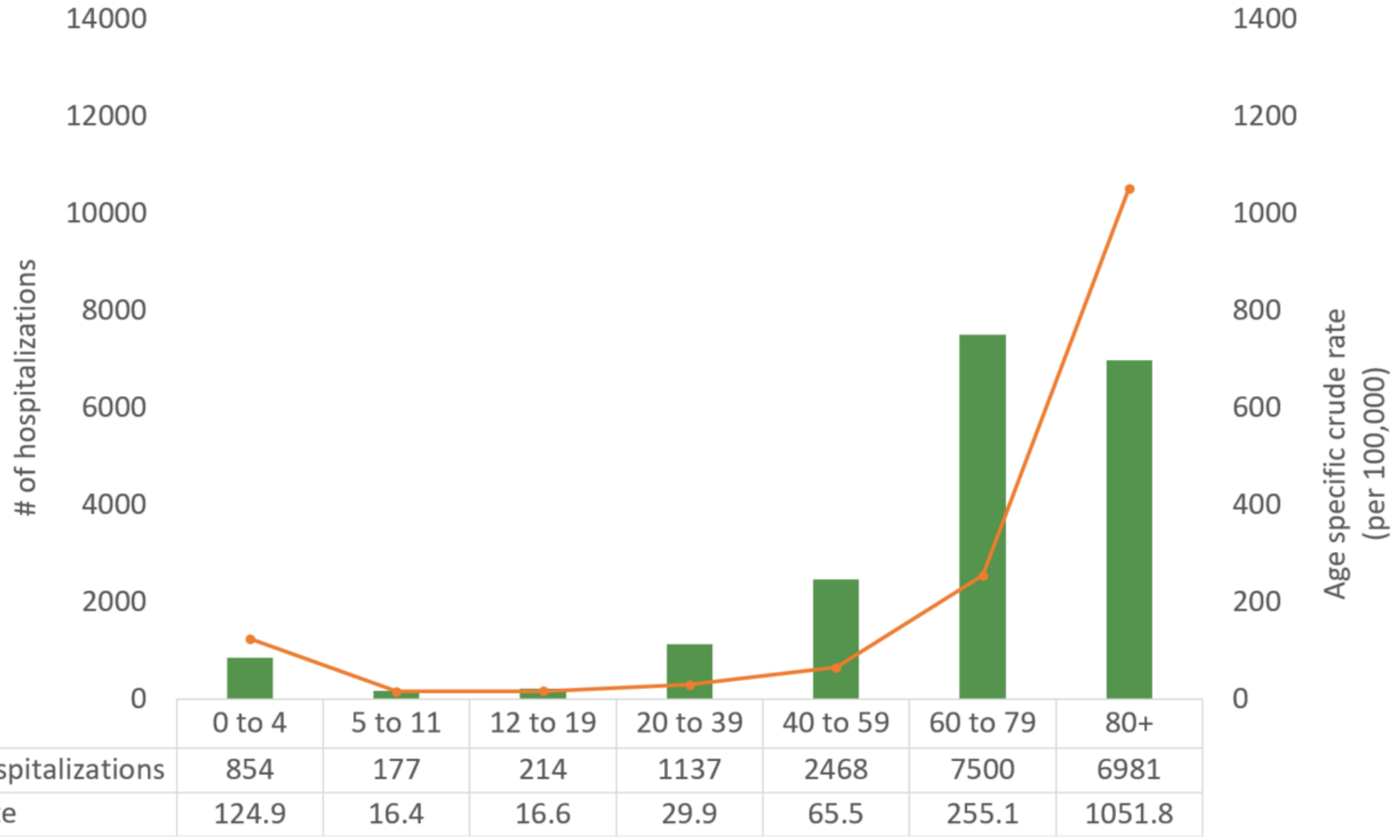
[Ontario Dashboard – Ontario COVID-19 Science Advisory Table (covid19-sciencetable.ca)]

August 23, 2022

Why the COVID-19 vaccine is important to younger children (6 months – 5 years old)

Hospitalizations Among COVID-19 Cases by Age

Jan 1, 2022 – Aug 4, 2022

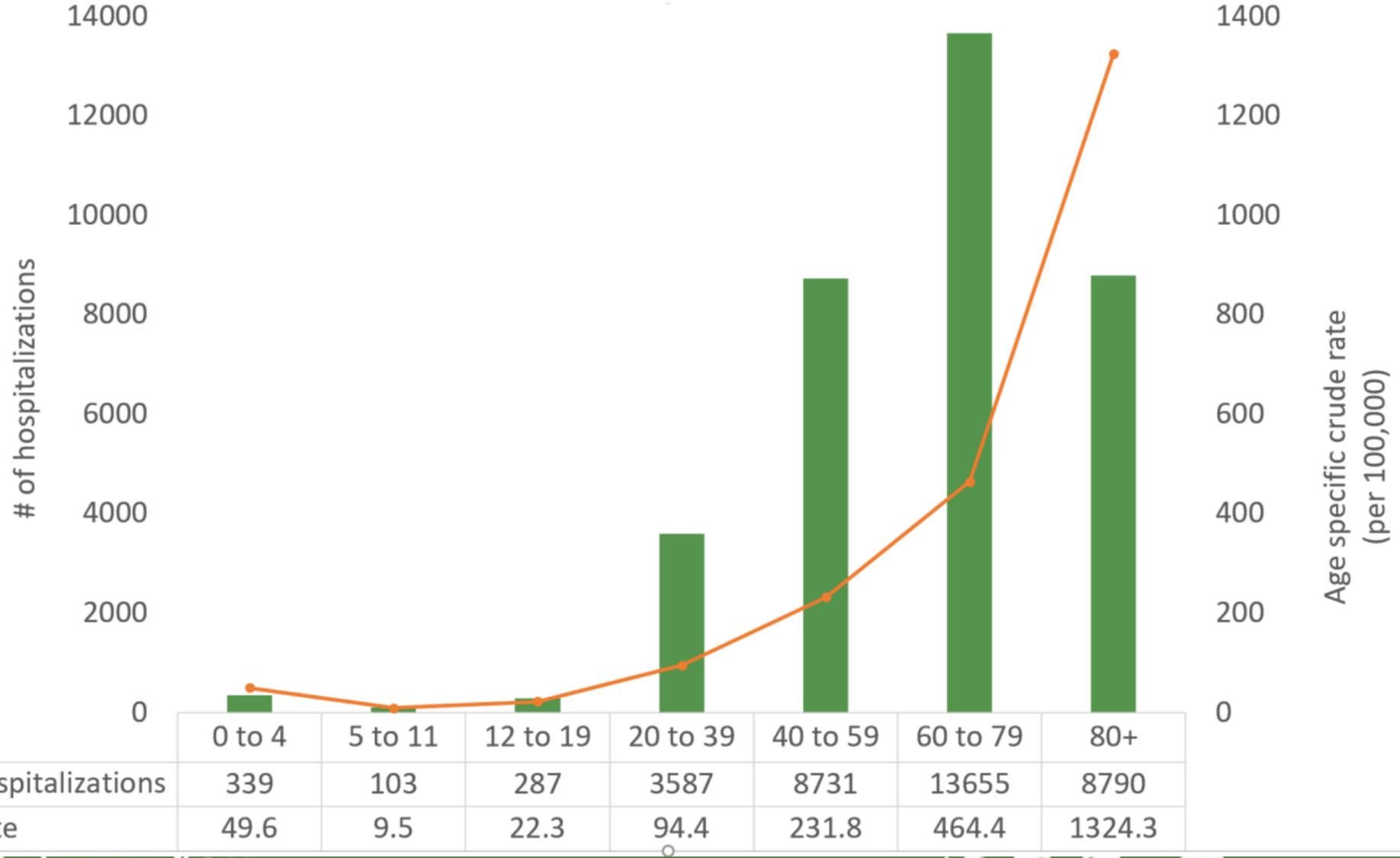


	0 to 4	5 to 11	12 to 19	20 to 39	40 to 59	60 to 79	80+
Hospitalizations	854	177	214	1137	2468	7500	6981
Rate	124.9	16.4	16.6	29.9	65.5	255.1	1051.8

Fig: Recent counts and rates of hospitalizations among COVID-19 cases by age group in Ontario from January 1, 2022 to August 4, 2022

Hospitalizations Among COVID-19 Cases by Age

Jan 1, 2020 – Dec 31, 2021



	0 to 4	5 to 11	12 to 19	20 to 39	40 to 59	60 to 79	80+
Hospitalizations	339	103	287	3587	8731	13655	8790
Rate	49.6	9.5	22.3	94.4	231.8	464.4	1324.3

Fig: Recent counts and rates of hospitalizations among COVID-19 cases by age group in Ontario from January 1, 2020 to December 31, 2021

Do younger kids really need the vaccine?

Child and Youth Infection Outcomes as of July 16, 2022[1]

- Over 1,000 children under 5 years old have been hospitalized from COVID-19 in Ontario
- The 0-4 population has the highest number of hospitalizations among children due to COVID-19

Youth Infection Outcomes Overview[1]	
Population (age)	**Hospitalizations**
0 – 4	1,105
5 – 11	264
12 – 19	475
Total	1,844

Note: *There have been 18 deaths in the 0-19 age group; the number for the 0-4 age group is not currently available.*

https://www.publichealthontario.ca/en/Data-and-Analysis/Infectious-Disease/COVID-19-Data-Surveillance/COVID-19-Data-Tool?tab=ageSex

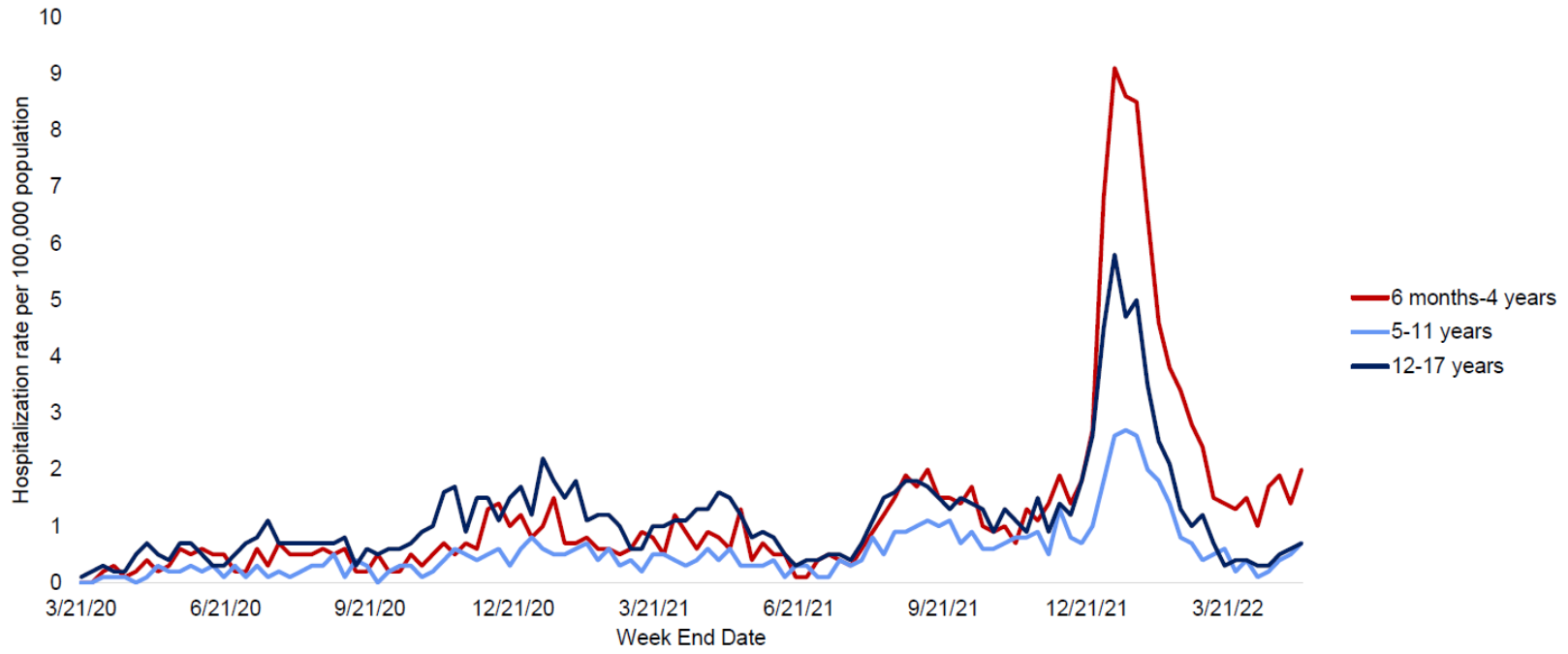
1. Public Health Ontario - Data as of July 16, 2022; Ontario COVID-19 Data Tool | Public Health Ontario

Multisystem inflammatory syndrome in children (MIS-C)

- Multisystem inflammatory syndrome in children (MIS-C) is a severe potential complication of COVID-19 that most frequently occurs among children.
- Rare: 419 cases reported nationally to date
- Severe:
  - A review of the 269 cases reported to PHAC between March 11, 2020 and October 2, 2021:
  - 99% required hospitalization; 36% ICU admission
- ~30% of cases occurred in children 1-4 y.o.

COVID-19-associated hospitalizations in children and adolescents 6 mos–17 yrs

Mar 2020-Mar 2022



Fleming-Dutra, K. COVID-19 epidemiology in children ages 6 months– 4 years. Advisory Committee on Immunization Practices. Meeting 2022 Jun 17-18 : Atlanta, GA

In U.S., COVID-19 is leading cause of death among children and teens 1-19 years

March 1, 2020-April 30, 2022

Age group	Rank of COVID-19 among causes of death
1-4 years	5
5-9 years	5
10-14 years	4
15-19 years	4

Based on death certificate data from the National Center for Health Statistics. COVID-19 based on cumulative total incidence of COVID-19 deaths from March 1, 2020-April 30, 2022.

Source: Flaxman S, Whittaker C, Semenova E et al. Covid-19 is a leading cause of death in children and young people ages 0-19 years in the United States. medRxiv 2022.05.23.22275458; doi: https://doi.org/10.1101/2022.05.23.22275458

Is the vaccine effective?

50.6%

36.8%

Moderna randomized control trial

	mRNA-1273 (25 mcg)	Placebo
6 months – 23 months	51/1511 (3.4%)	34/513 (6.6%)
VE (95% CI)	50.6% (21.4, 68.6)	
2 years – 5 years	119/2,594 (4.6%)	61/858 (7.1%)
VE (95% CI)	36.8% (12.5, 54.0)	

- Per protocol results: i.e. negative baseline SARS-CoV-2 and received two doses of vaccine or placebo
- Cases were PCR confirmed + at least one symptom.
- Followed for median of 71 days (data cut off Feb 2022)
- No cases of severe COVID-19, MIS-C or deaths among trial participants; unable to estimate protection against severe disease.

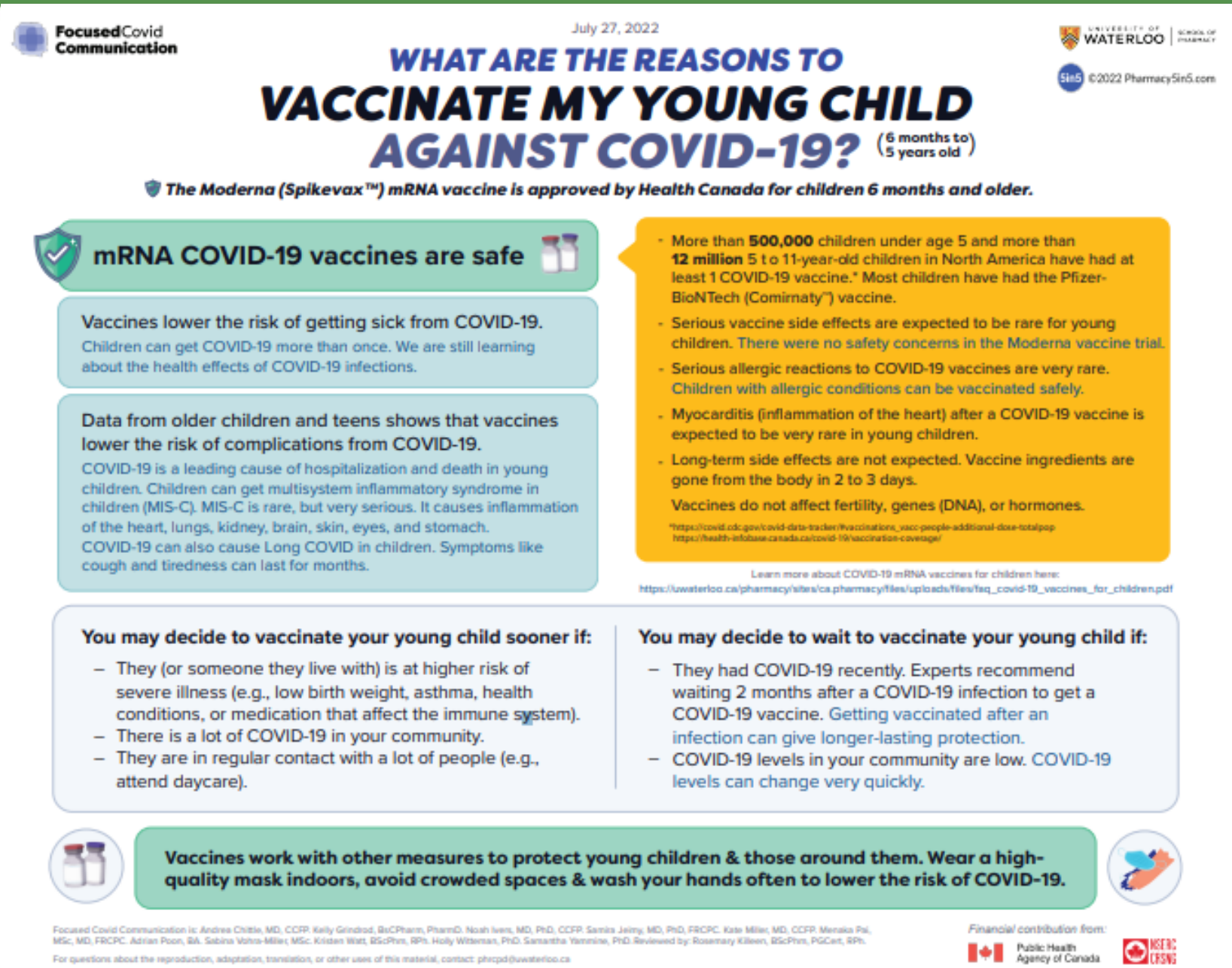
Moderna Trial – Immunogenicity outcomes

Outcome	N	GMT (95% CI)	N	GMT (95% CI)	GMR
	6-23 months		18-25 y.o.		
Neutralizing antibody level	230	1780.7 (1606.4, 1973.8)	291	1390.8 (1269.1, 1524.2)	1.28 (1.12, 1.47)
	2-5 y.o.		18-25 y.o.		
Neutralizing antibody level	264	1410.0 (1273.8, 1560.8)	291	1390.8 (1269.1, 1524.2)	1.01 (0.88, 1.17)

Excluded children with serologic evidence of previous infection
Samples collected 28 days following dose 2.

Vaccines are safe

https://uwaterloo.ca/pharmacy/sites/ca.pharmacy/files/uploads/files/what_are_the_reasons_to_vaccinate_my_young_child_against_covid-19_1.pdf



FocusedCovid Communication

July 27, 2022

University of Waterloo | School of Pharmacy

5in5 ©2022 Pharmacy5in5.com

WHAT ARE THE REASONS TO VACCINATE MY YOUNG CHILD AGAINST COVID-19? (6 months to 5 years old)

The Moderna (Spikevax™) mRNA vaccine is approved by Health Canada for children 6 months and older.

mRNA COVID-19 vaccines are safe

Vaccines lower the risk of getting sick from COVID-19.
Children can get COVID-19 more than once. We are still learning about the health effects of COVID-19 infections.

Data from older children and teens shows that vaccines lower the risk of complications from COVID-19.
COVID-19 is a leading cause of hospitalization and death in young children. Children can get multisystem inflammatory syndrome in children (MIS-C). MIS-C is rare, but very serious. It causes inflammation of the heart, lungs, kidney, brain, skin, eyes, and stomach. COVID-19 can also cause Long COVID in children. Symptoms like cough and tiredness can last for months.

- More than **500,000** children under age 5 and more than **12 million** 5 to 11-year-old children in North America have had at least 1 COVID-19 vaccine.* Most children have had the Pfizer-BioNTech (Comirnaty®) vaccine.
- Serious vaccine side effects are expected to be rare for young children. There were no safety concerns in the Moderna vaccine trial.
- Serious allergic reactions to COVID-19 vaccines are very rare. Children with allergic conditions can be vaccinated safely.
- Myocarditis (inflammation of the heart) after a COVID-19 vaccine is expected to be very rare in young children.
- Long-term side effects are not expected. Vaccine ingredients are gone from the body in 2 to 3 days.

Vaccines do not affect fertility, genes (DNA), or hormones.

*https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-people-additional-dose-totalpop
https://health-infobase.canada.ca/covid-19/vaccination-coverage/

Learn more about COVID-19 mRNA vaccines for children here:
https://uwaterloo.ca/pharmacy/sites/ca.pharmacy/files/uploads/files/faq_covid-19_vaccines_for_children.pdf

You may decide to vaccinate your young child sooner if:

- They (or someone they live with) is at higher risk of severe illness (e.g., low birth weight, asthma, health conditions, or medication that affect the immune system).
- There is a lot of COVID-19 in your community.
- They are in regular contact with a lot of people (e.g., attend daycare).

You may decide to wait to vaccinate your young child if:

- They had COVID-19 recently. Experts recommend waiting 2 months after a COVID-19 infection to get a COVID-19 vaccine. Getting vaccinated after an infection can give longer-lasting protection.
- COVID-19 levels in your community are low. COVID-19 levels can change very quickly.

Vaccines work with other measures to protect young children & those around them. Wear a high-quality mask indoors, avoid crowded spaces & wash your hands often to lower the risk of COVID-19.

Focused Covid Communication is: Andrea Chittle, MD, CCFP, Kelly Grindrod, BsCPharm, PharmD, Noah Ivers, MD, PhD, CCFP, Samira Jaimy, MD, PhD, FRCPC, Kate Miller, MD, CCFP, Menaka Pai, MSc, MD, FRCPC, Adrian Poon, BA, Sabina Vohra-Miller, MSc, Kristen Watt, BScPhm, RPh, Holly Witteman, PhD, Samantha Yammine, PhD. Reviewed by: Rosemary Killeen, BScPhm, PGCert, RPh.

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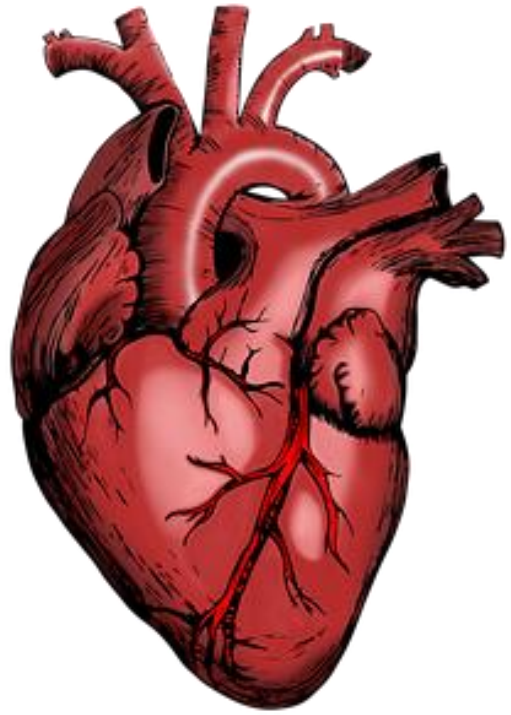
Financial contribution from: Public Health Agency of Canada

Halton Region

What about myocarditis and pericarditis?

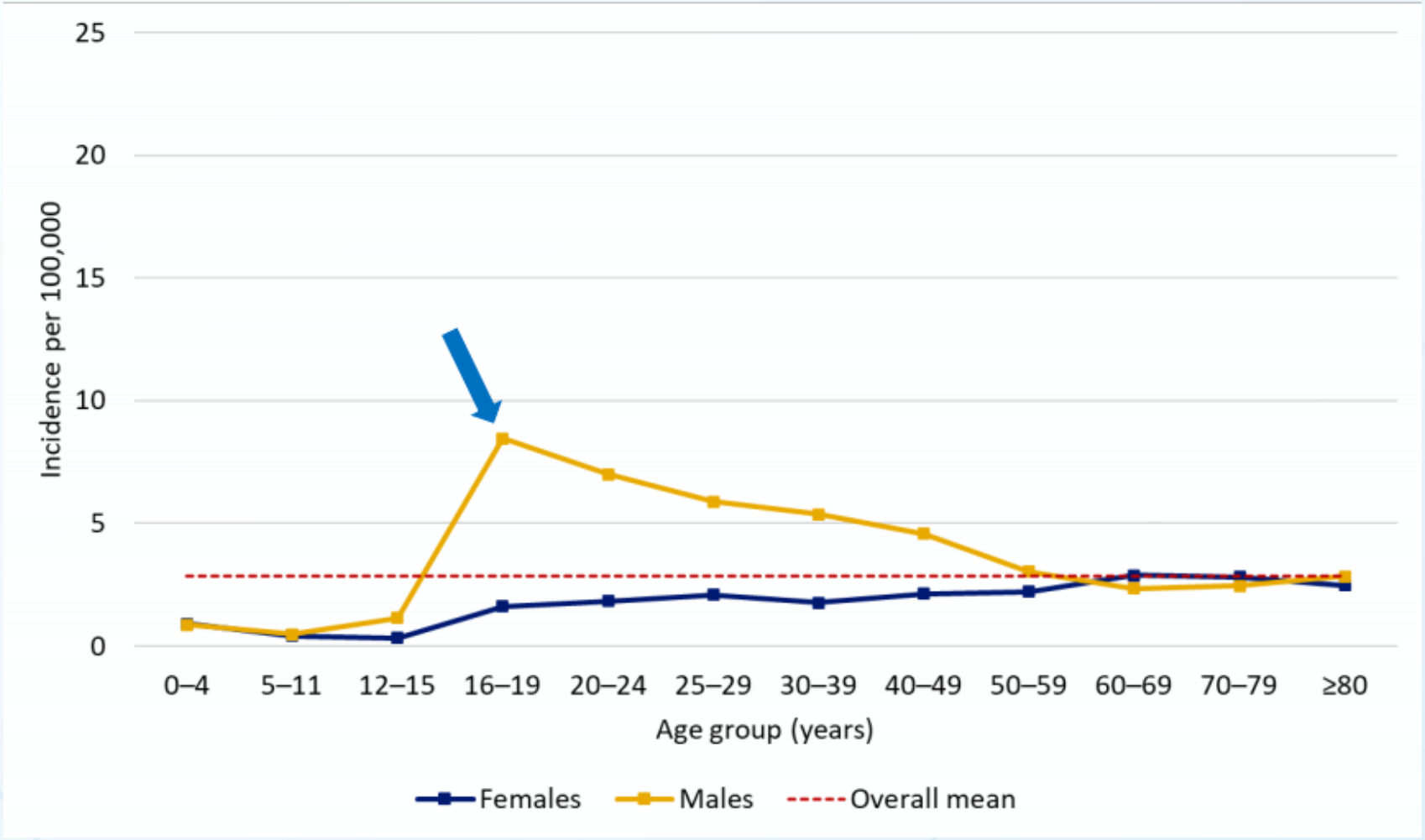


Myocarditis/Pericarditis post-COVID immunization

- A known adverse event following immunization with mRNA COVID-19 vaccines
- As of March 2022, Ontario reporting a crude rate of 24.3 per million doses administered.
- Higher rates among:
  - Males
  - 18-29 y.o.
  - After the second dose
  - People receiving Moderna (Spikevax)

PHO. Myocarditis and Pericarditis after COVID-19 mRNA Vaccines, March 2022

Mean Rates of Myocarditis, 2015–2019



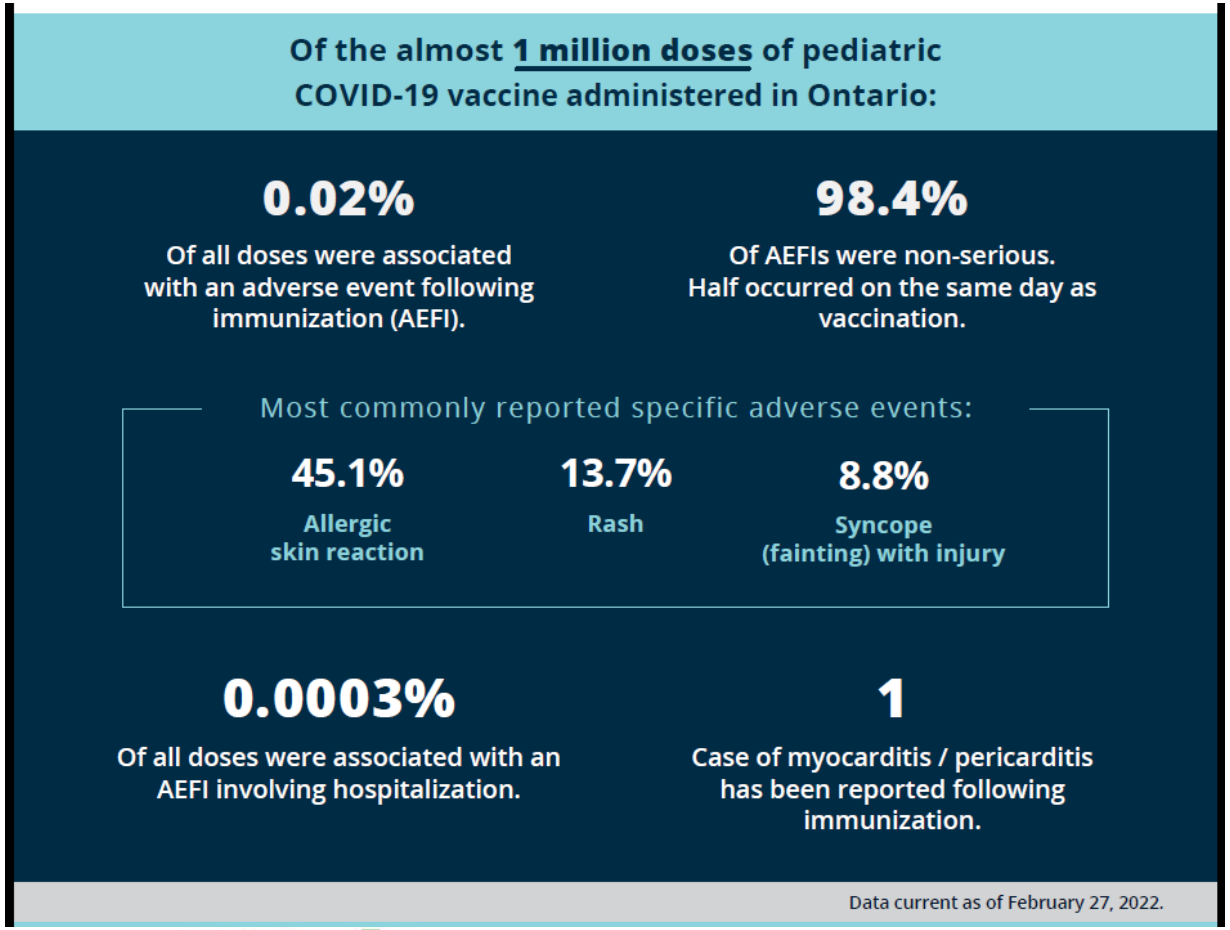
Sharifa Nasreen and Jeff Kwong

NACI Vaccine Safety Working Group Meeting

October 25, 2021

([Unpublished data, ICES, 2021])

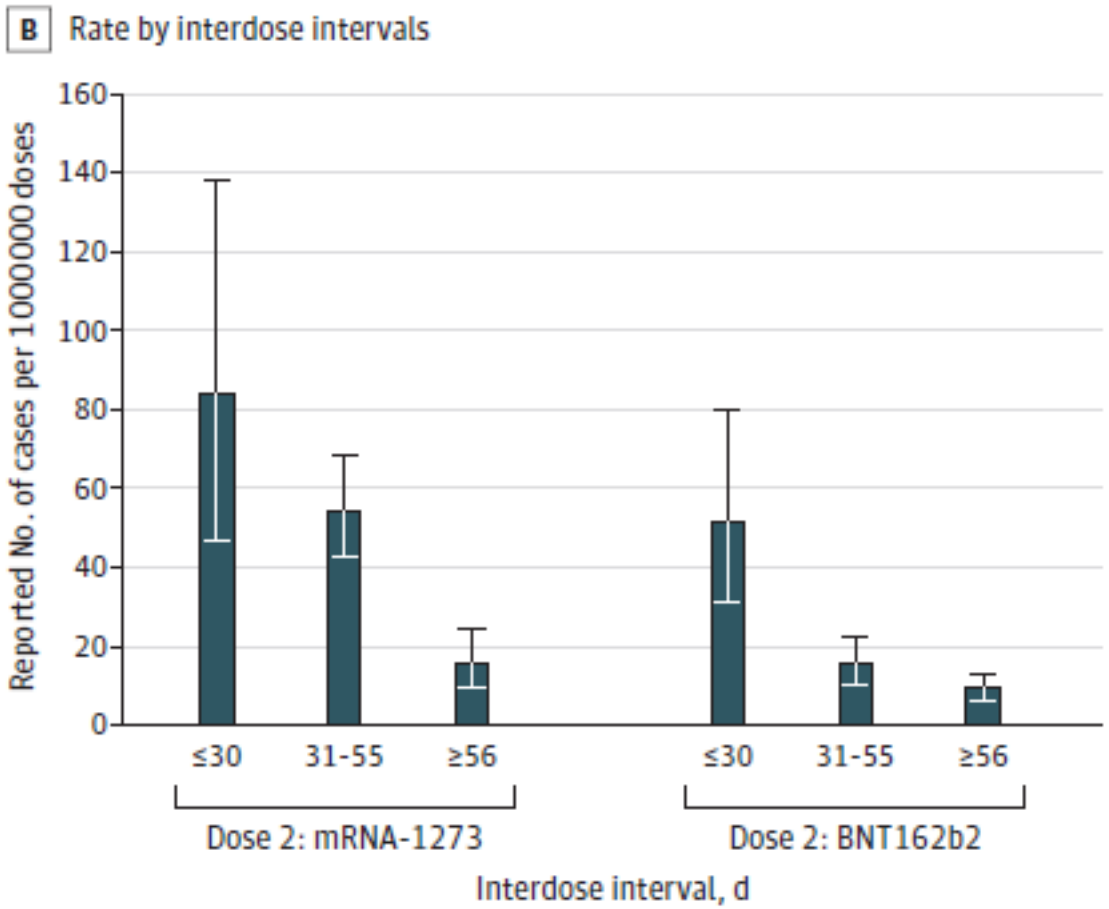
Myocarditis/Pericarditis post-COVID vaccine, 5-11 y.o.



- Public Health Ontario data, Feb 2022
- After 600,000 first doses, 355,000 second doses, one case of myocarditis/pericarditis
- Similar results in other countries:
  - Denmark: 5 in 1,000,000
  - US: 2 in 1,000,000 for boys post dose 2; less than 1 in 1,000,000 for girls

PHO. Safety of COVID-19 Vaccine in 5-11 y.o. February, 2022

Additional benefit to the 8 week interval



- AEFI surveillance data from Dec 2020 to Sept 2021
- Included 19.7 million doses of vaccine
- 297 reports of myocarditis or pericarditis

Buchan SA, Seo CY, Johnson C, et al. Epidemiology of Myocarditis and Pericarditis Following mRNA Vaccination by Vaccine Product, Schedule, and Interdose Interval Among Adolescents and Adults in Ontario, Canada. *JAMA Netw Open.* 2022;5(6):e2218505

Vaccinating now or later

NOW

- Higher risk or live with someone at higher risk
- A lot of COVID-19 in community
- Regular contact with lots of people (e.g. daycare)

LATER

- Had COVID-19 recently
- Low levels of COVID-19 in community. NB: levels can change quickly

Bivalent for this age group unlikely in the near future.

Halton REGION


SEAT BELT

What you need to know about the COVID-19 vaccine for 6 months – 5 year olds

Moderna Spikevax for children 6 mos-5 yrs

	Moderna Spikevax
Age	6 months to 5 years
Dose	25 mcg (0.25 mL)
Presentation	0.10 mg/mL Royal blue vial cap
Diluent	None
Immunization schedule	2-dose schedule (3-dose primary series for moderately to severely immunocompromised)
NACI recommended interval	At least 8 weeks
Stability	Fridge stable for 30 days

NACI recommendations for 6 mos - 5 yrs

1) Complete series with Moderna Spikevax COVID-19 vaccine (25 mcg) may be offered to children 6 mos-5 yrs with at least 8 weeks between first and second doses.
2) Moderately to severely immunocompromised may be immunized with three dose primary series of Moderna Spikevax (25 mcg) vaccine, with 4-8 weeks between each dose.
3) Moderna Spikevax (25 mcg) COVID-19 vaccine primary series for 6 mos-5 yrs should not be given concurrently (same day) with other vaccines (live or non-live). A shorter interval may be warranted in some circumstances at the discretion of a health care provider.

Needle selection guidelines

Route of administration	Needle gauge	Age of vaccine recipient	Site of injection	Needle length
Intramuscular (IM) 90° angle	22-25	Infants (1-12 months)	Anterolateral thigh (vastus lateralis)	2.2 cm- 2.5 cm (⅞ inch -1 inch)
		Young children (>12 months-3 years)	Deltoid muscle	1.6 cm–2.5 cm (⅝ inch – 1 inch)
			Anterolateral thigh (vastus lateralis)	2.5 cm- 3.2 cm (1 inch - 1¼ inch)
		Children (>3 years- 12 years)	Deltoid muscle	1.6 cm–2.5 cm (⅝ inch – 1 inch)
			Anterolateral thigh (vastus lateralis)	2.5 cm- 3.2 cm (1 inch - 1¼ inch)
			Anterolateral thigh (vastus lateralis)	2.5 cm- 3.2 cm (1 inch - 1¼ inch)

Table 1. Needle Selection Guidelines. CIG: Adapted from Vaccine administration practices *[1]*.

What about the 5 year olds?

- Pfizer-BioNTech vaccine (10 mcg) is preferred to Moderna vaccine (25 mcg) for children who are 5 years old
- Moderna (25 mcg) may be offered to children who are 5 years old as an alternative to Pfizer-BioNTech (10 mcg) with informed consent and discussion of risks/benefits with HCP
- COVID-19 Vaccine Administration, Ministry of Health, for more details

	Moderna (25 mcg)	Pfizer (10 mcg)
Indicated in 5 year olds	Yes	Yes (recommended)
Recommended interval	8 weeks	8 weeks
Minimum interval	28 days	19 days
Co-administration with other vaccines	Not recommended	Permitted

Summary of vaccine options for children aged 4-5

Age at First Dose	First Dose	Age at Second Dose	Recommended Second	Alternative Second
4 years	Moderna 25mcg	5 years	Moderna 25mcg	Pfizer 10mcg
5 years	Moderna 25mcg (requested to receive Moderna)	5 years	Moderna 25mcg	Pfizer 10mcg
5 years	Moderna 25mcg (requested to receive Moderna)	6 years	Moderna 50mcg	Pfizer 10mcg
4 years	Inadvertent administration of 10mcg Pfizer	4 years	Moderna 25mcg	n/a
4 years	Inadvertent administration of 10mcg Pfizer	5 years	Pfizer 10mcg	Moderna 25mcg
5 years	Pfizer 10mcg	5 years	Pfizer 10mcg	Moderna 25mcg

Thanks to Ottawa PHU for this table

Want to learn more?

- COVID-19 Vaccination in Canada: an educational series for primary care professionals
  - One-credit-per-hour self-learning program (Mainpro+)
  - Module 7 – Vaccinating children

Family & Community Medicine
UNIVERSITY OF TORONTO

Ontario College of Family Physicians
Leaders for a healthy Ontario

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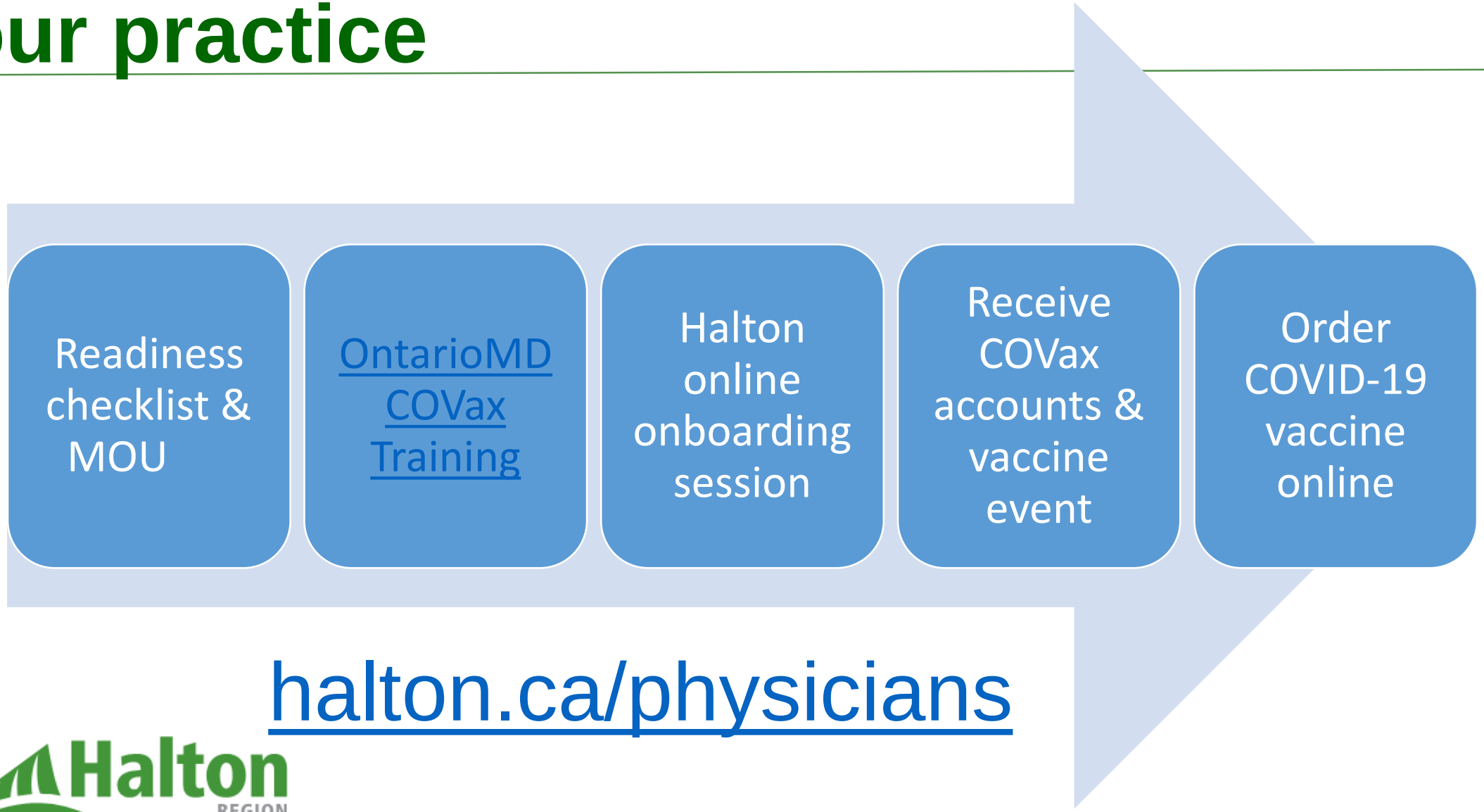
We’re here to help

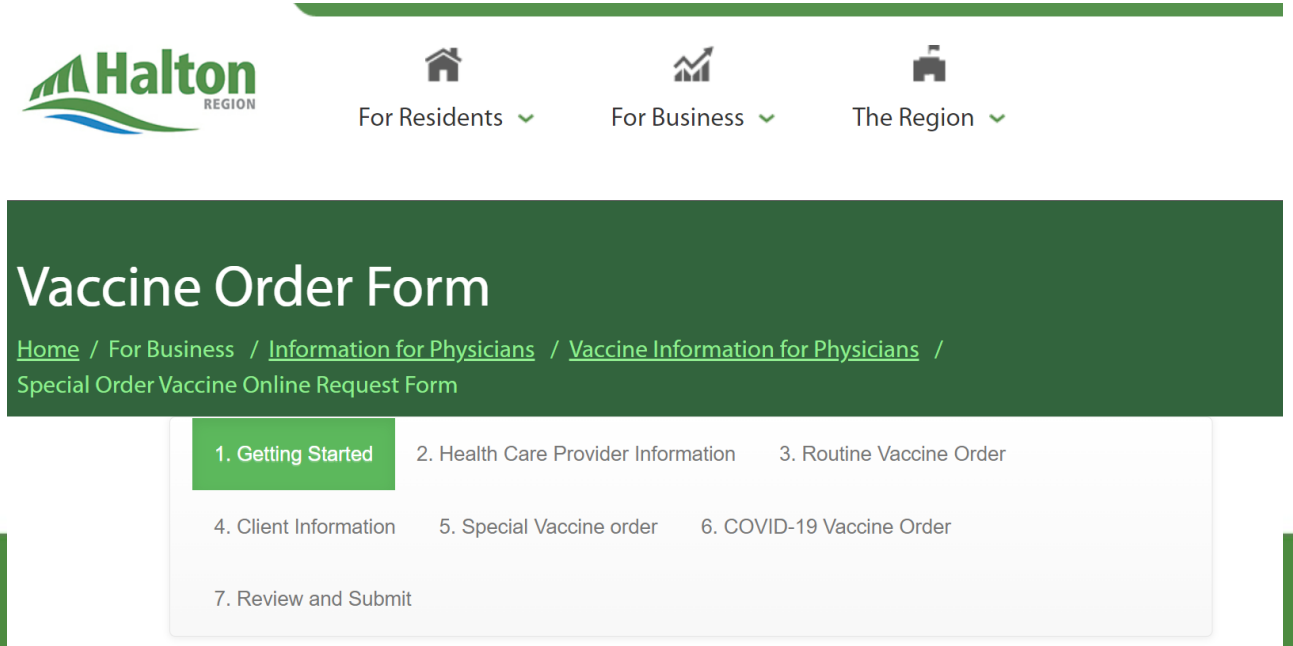
Offering COVID-19 vaccine in your practice



halton.ca/physicians

Accessing vaccine

- Onboarded physicians can order through the online vaccine ordering portal
- Small amount of Moderna (2,900 doses) was received as initial allocation with future orders tbd
- Pharmacies able to immunize 2+ yrs as per UIIP and Ministry has sent info re. how to opt-in for under 2 immunizations
- Pharmacies to order Under 5 products through Public Health due to limited supply at this time.



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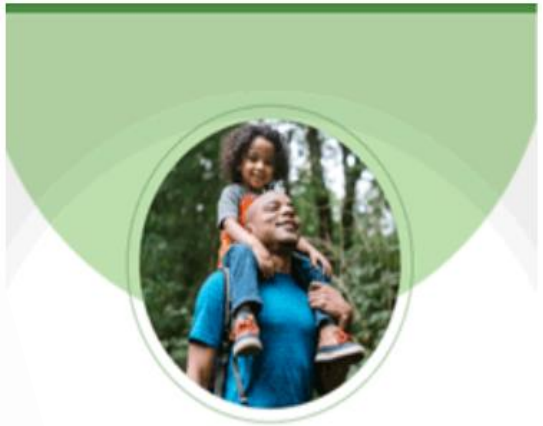
halton.ca 311

Order public health resources online

- halton.ca/COVIDvaccines
  - COVID-19 Vaccine Resources
  - Order COVID-19 Vaccine print resources for delivery



#EveryDoseCounts

Stay up-to-date with the COVID-19 vaccine.

Scan to view COVID-19 vaccine recommendations, clinic locations and times.

#EveryDoseCounts posters

When should I get vaccinated if I' had COVID-19? e

What to Expect After Getting a COVID-19 Vaccine

Pediatric pain management

skip solutions for kids in pain / pour la douleur chez les enfants

Solutions for Kids in Pain (SKIP) is a national knowledge mobilization network incorporated as a not-for-profit organization.

- Needle Pain Management for Vaccinations & More, Solutions for Kids in Pain (SKIP)
- Needle Pain and Phobia: How to avoid fear of needles and vaccines (Video with Dr. Andrea Furlan)
- Child Life Specialist Infographic
- Parents Canada infographic on needle pain

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Resources for vaccine hesitant patients

COVID-19 Vaccine Consult Service | SickKids

[SickKids COVID-19 Vaccine Consult Service]

- Appointment-based, phone consultation for youth 12+ and their families
- Available in multiple languages
- No OHIP card required
- Sickkids.ca/vaccineconsult
- 437-881-3505

- [COVID-19 vaccination for ages under five], SickKids AboutKidsHealth

- Provincial Vaccine Contact Centre: 1-833-943-3900

Halton Region

Resources for 0-5 vaccination & hesitancy

- Halton Hero COVID-19 vaccination program, Halton Region Public Health
- Max the Vax campaign, Canadian Medical Association
- COVID-19 mRNA vaccines for children FAQ – University of Waterloo
- COVID-19 Community of Practice for Family Physicians, University of Toronto Department of Family and Community Medicine (DFCM) and Ontario College of Family Physicians (OCFP)

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Family & Community Medicine UNIVERSITY OF TORONTO

Ontario College of Family Physicians
Leaders for a healthy Ontario

Resources for 0-5 vaccination & hesitancy

- COVID-19: Vaccines resource, Centre for Effective Practice (CEP)
- KidsHealthFirst, resources for parents and providers on COVID-19 vaccine
- The Vaccine Hesitancy Guide, University of Calgary and partners
- Addressing vaccine hesitancy in the context of COVID-19: A primer for healthcare providers, Health Canada
- COVID-19 Conversations, COVID-19 Resources Canada

Reporting AEFIs

1. Complete Ontario AEFI reporting form (Ministry of Health) – 3 page form updated in October 2021

2. Fax to 905-465-3403 or
Email to AEFI@halton.ca

What AEFIs to report?

AEFI fact sheet,
(Public Health Ontario)

TYPES OF ADVERSE EVENTS TO REPORT

The table below lists the types of adverse events that you should report to your local public health unit. For each event there are estimated timelines between vaccination and onset of symptoms (i.e., temporal criteria). Other events not listed below can also be reported if they are clinically significant. If you are unsure, be proactive and report.

Adverse event type	TEMPORAL CRITERIA for Non-live vaccines	TEMPORAL CRITERIA for Live vaccines
Injection site reactions	**Non-live vaccines**	**Live vaccines**
Pain or redness or swelling lasting 4 days or more OR extending beyond the nearest joint	0 to 2 days	0 to 7 days
Infected abscess	0 to 7 days	0 to 7 days
Sterile abscess	0 to 7 days	0 to 7 days
Nodule	0 to 7 days	0 to 7 days
Cellulitis	0 to 7 days	0 to 7 days
Systemic reactions	**Non-live vaccines**	**Live vaccines**
Rash	0 to 7 days	0 to 42 days
Adenopathy/lymphadenopathy	0 to 7 days	0 to 42 days
Severe vomiting/diarrhea	0 to 3 days	0 to 42 days
Parotitis	N/A	0 to 30 days
Hypotonic-hyporesponsive episode (HHE); under 2 years of age only	0 to 2 days	0 to 2 days
Persistent crying/screaming; under 2 years of age only	0 to 3 days	0 to 3 days
Allergic reactions	**Non-live vaccines**	**Live vaccines**
Event managed as anaphylaxis (i.e., epinephrine administered)	0 to 24 hours	0 to 24 hours
Oculorespiratory Syndrome (ORS)	0 to 24 hours	0 to 24 hours
Allergic skin reaction (e.g., hives)	0 to 2 days	0 to 2 days
Neurologic events	**Non-live vaccines**	**Live vaccines**
Convulsions/seizure	0 to 3 days	0 to 42 days
Encephalopathy/encephalitis	0 to 42 days	0 to 42 days
Meningitis	0 to 15 days	0 to 42 days
Anaesthesia/paraesthesia	0 to 42 days	0 to 42 days
Paralysis	0 to 42 days	0 to 42 days
Myelitis/transverse myelitis	0 to 42 days	0 to 42 days
Acute disseminated encephalomyelitis (ADEM)	0 to 42 days	0 to 42 days
Guillain Barré Syndrome (GBS)	1 to 8 weeks	1 to 8 weeks
Bell's palsy	0 to 3 months	0 to 3 months
Other events of interest*	**Non-live vaccines**	**Live vaccines**
Arthritis/arthralgia	0 to 30 days	0 to 42 days
Intussusception	N/A	0 to 42 days
Thrombocytopenia	0 to 42 days	0 to 42 days
Syncope (fainting) with injury	0 to 30 minutes	0 to 30 minutes
Kawasaki disease	0 to 42 days	0 to 42 days
Other severe/unusual events	Reportable regardless of timeline	Reportable regardless of timeline

*Other adverse events of special interest for COVID-19 vaccine have been added to the Ontario AEFI Reporting Form, please refer to the form for a complete list of types of adverse events to report.

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For questions about AEFI reporting, contact your **local public health unit**.
PublicHealthOntario.ca/VaccineSafety

Ontario

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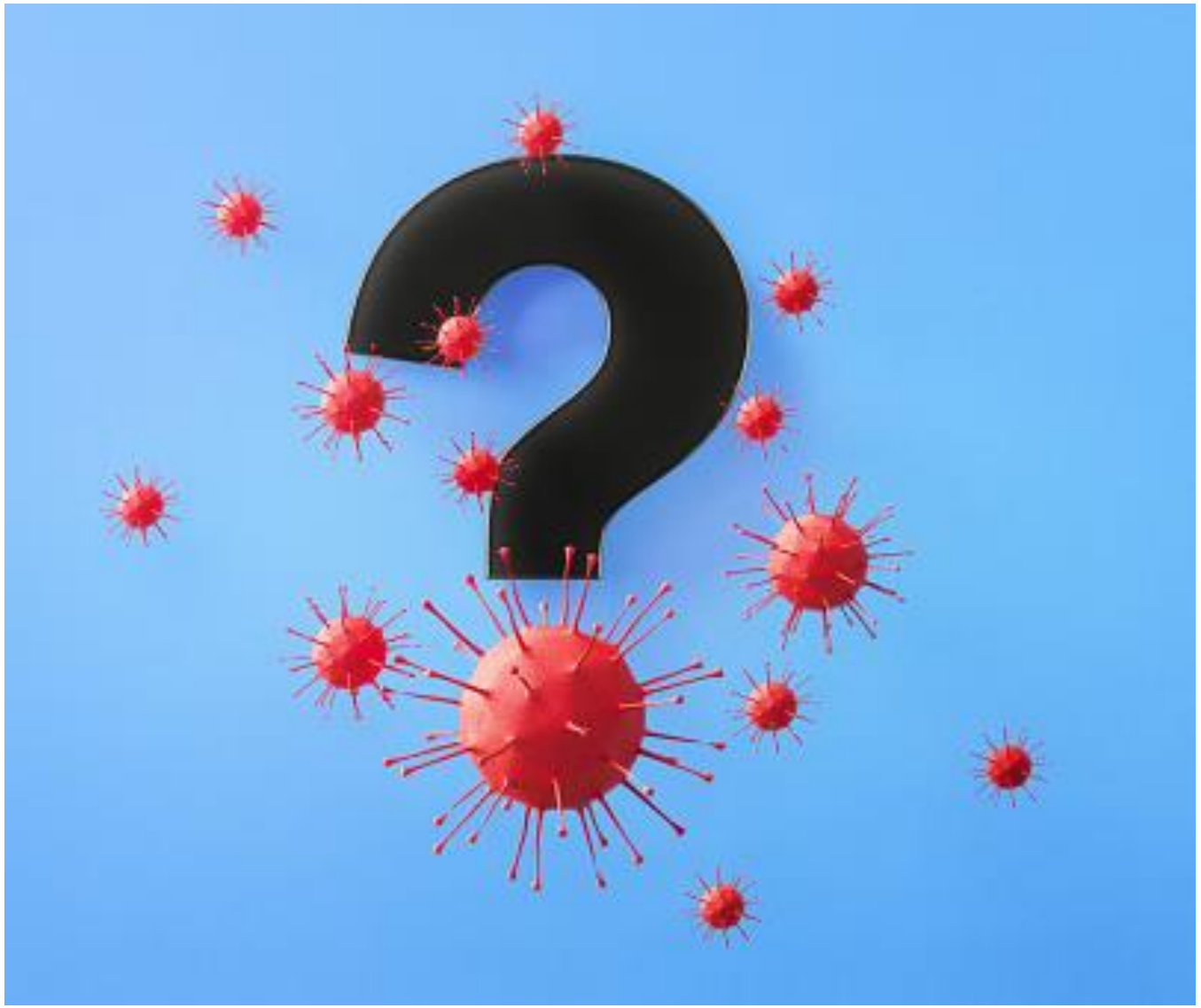
Questions?

Email doctors@halton.ca
Call 311

halton.ca/COVIDvaccines



Thank you!

doctors@halton.ca

halton.ca/physicians

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