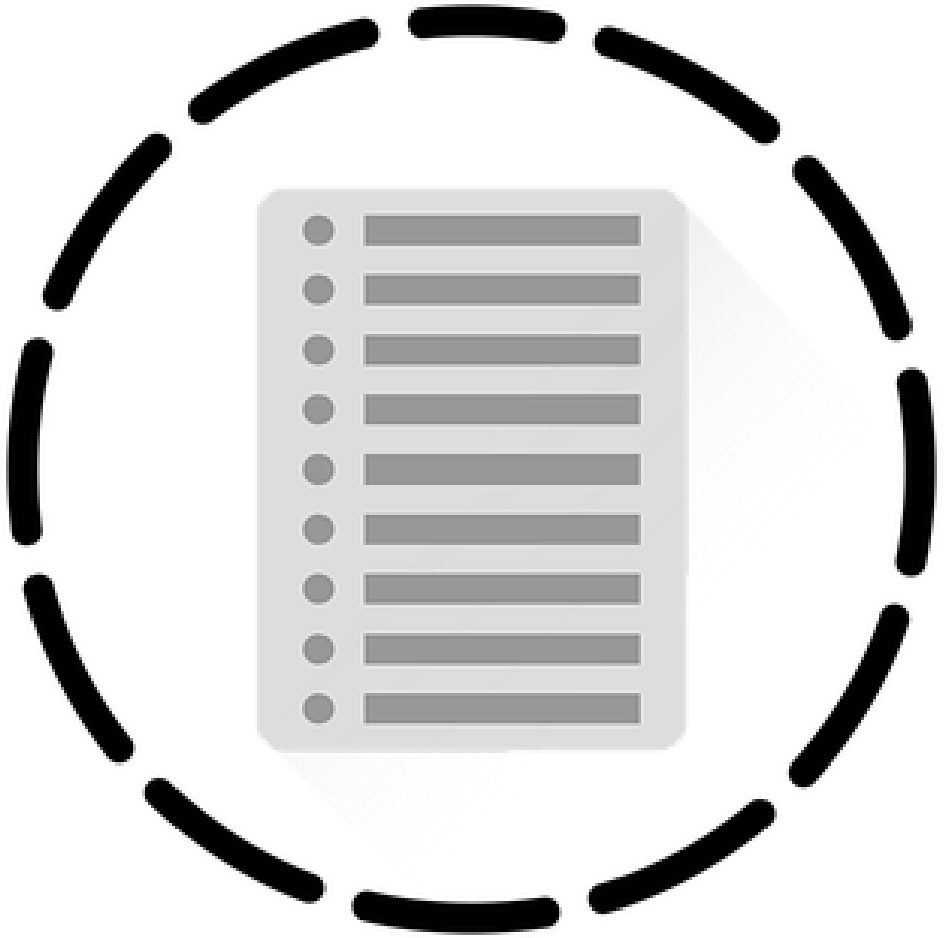
COVID-19 Halton Region Public Health Healthcare Advisory Table

Meeting #30
September 13, 2022 – 12-1:15 p.m.

Halton REGION

Agenda

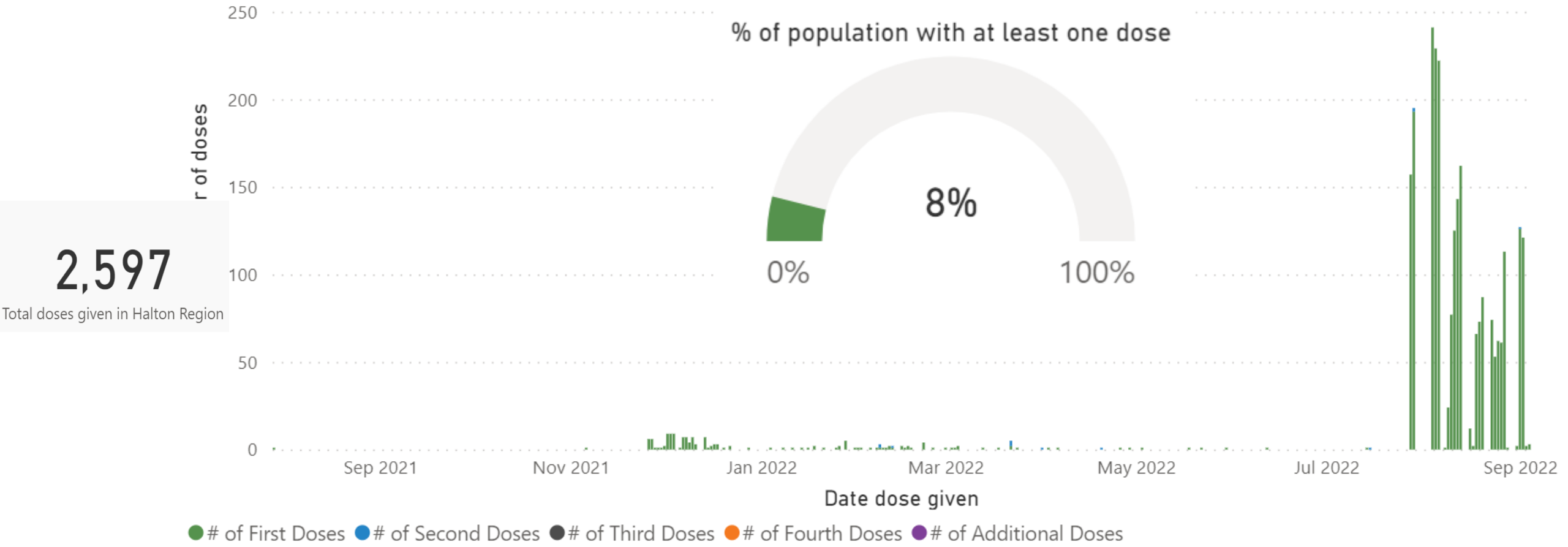
- Roundtable updates
- Latest vaccination trends
- Bivalent boosters
- Open Forum



Roundtable updates

- Hospital
- Ontario Health
- Home and Community Care
- Ontario Health Teams
- Pharmacy
- Pediatrics
- Primary Care
- Community

0-5 COVID-19 vaccination coverage in Halton



As of September 9, 2022

5-11 COVID-19 booster coverage in Halton

1,459 children ages 5-11 have had their third dose, representing 3% coverage of third doses in that age group (as of Sept 8, 2022)

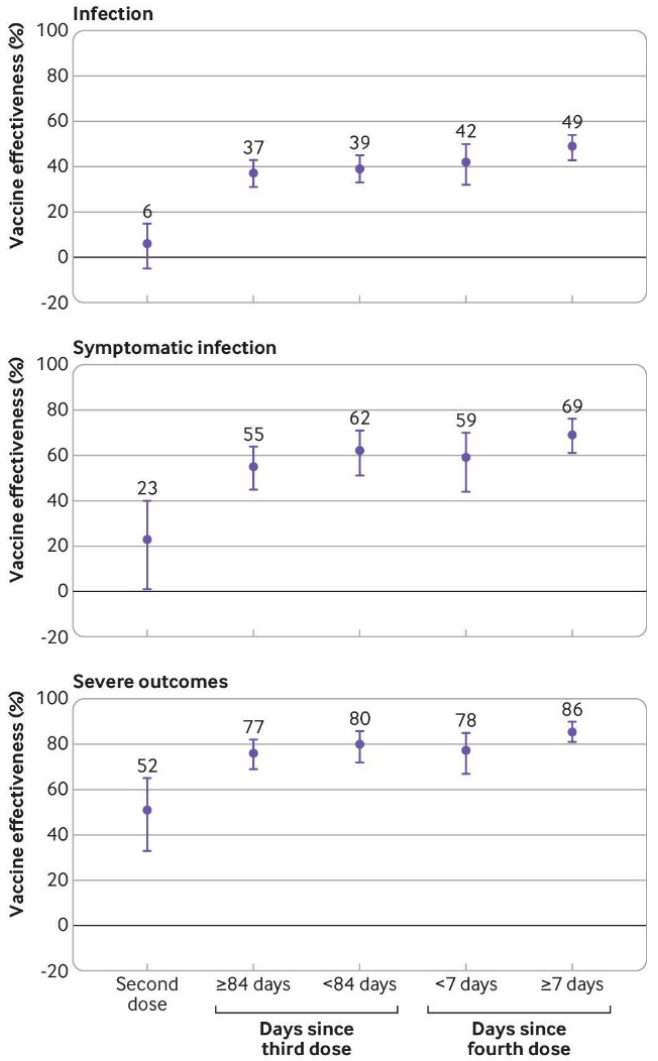
Bivalent Vaccines

Bivalent COVID-19 vaccine

- Moderna authorized by Health Canada on September 1
  - protects against the original COVID-19 virus and the Omicron (BA.1) variant.
- Pfizer has submitted to Health Canada for a similar product
  - protects against the original COVID-19 virus and the Omicron (BA.1) variant.
  - Authorization expected later in September
- Pfizer has submitted a second application for a BA.4/BA.5-containing product.
  - This is not expected to be available in the Fall.

Effectiveness of Boosters with original strain

- 61, 344 residents of LTCs in Ontario
- Dec 30/21 – Apr 27/22, when omicron was dominant.
- Small increase in protection from second booster compared to first
- Uncertain duration



Grewal R, et al. Effectiveness of a fourth dose of covid-19 mRNA vaccine against the omicron variant among long term care residents in Ontario, Canada: test negative design study. BMJ. 2022 Jul 6;378:e071502.

Effectiveness of BA.1 containing vaccines

- BA4. and BA.5 now the dominant strains circulating
- The Omicron variant is partially evasive of the immunity conferred by original COVID-19 vaccines and infection with other COVID-19 variants.
- Some emerging evidence that immune evasion may be greater for BA.4 and BA.5 compared to other Omicron subvariants.
- Hybrid immunity, immunity derived from both infection and vaccination, provides more robust protection than from either vaccine only or infection only, but of uncertain duration.
- Emerging evidence that in Canada older adults are less likely to have been infected with Omicron.

Effectiveness of BA.1 containing vaccines

- Clinical trial data:
  - All participants had received a 2 dose primary series and first booster
  - Moderna bivalent elicited higher neutralizing antibody responses against Omicron BA.1, BA.4 and BA.5, across all age groups, including older people
  - Antibody response was higher than the levels seen in the original Phase 3 trials for Moderna monovalent
    - Unknown clinical significance
  - People without evidence of prior infection had a larger *relative* increase in antibodies, but overall lower levels than people with evidence of infection
    - Hypothesize that those with a history of infection may have more rapidly induced immunity from a booster; those without a history of infection may benefit from vaccine-induced priming.

NACI recommendations for bivalent boosters

- 18+ who are recommended to receive a fall booster dose – one dose of a bivalent Omicron containing mRNA COVID-19 vaccine. If the bivalent Omicron containing mRNA COVID-19 vaccine is not readily available, an original mRNA COVID-19 vaccine should be offered to ensure timely protection
- 12-17 with moderately to severely immunocompromising conditions and/or who have biological or social risk factors that place them at high risk of severe outcomes from COVID-19 – one dose of a bivalent Omicron-containing mRNA COVID-19 vaccine may be offered off-label.
- Individuals eligible for fall boosters, especially those at increased risk for severe outcomes from COVID-19, should not delay their planned vaccination in anticipation of a bivalent Omicron-containing COVID-19 vaccine. Individuals choosing to delay a booster dose in anticipation of a new vaccine should carefully consider their individual risk.

Provincial Rollout

- Starting **September 12,** certain higher risk groups may receive a bivalent COVID-19 booster dose:
  - Adults 70 years of age and older
  - Immunocompromised individuals who are 12 years of age and older
  - Residents of congregate settings
  - Healthcare workers
  - Pregnant individuals
  - First Nations, Inuit and Metis individuals and their household members 18+
- Starting **September 26**, all persons 18+ may receive a bivalent COVID-19 vaccine
- **Anticipate once bivalent Pfizer is approved, people 12+ will be able to receive a bivalent vaccine.

Moderna Spikevax bivalent vaccine

Product characteristics	Moderna Spikevax Bivalent
Date of authorization	September 1, 2022
Age Indication	18 years of age and older
Dose	50 mcg (25 mcg original SARS-CoV-2 + 25 mcg Omicron BA.1)
Diluent	None required
Presentation	• 0.10 mg/mL • 5 doses per vial • Royal blue cap vial • Green label border
Potential Allergens	• Polyethylene glycol (PEG) • Tromethamine (Tris, Trometamol)
Storage[a]	• Frozen until expiry date printed on the label • Refrigerated for up to 30 days • Unpunctured vials may be stored between 8° to 25°C (46° to 77°F) for up to 24 hours • Once needle-punctured, vials can be stored at room temperature or refrigerated up to 24 hours but cannot be refrozen.
Transport	If transport at -50° to -15°C is not feasible, thawed vials in a liquid state may be transported at +2°C to +8°C for up to 12 hours.

[a] Frozen is -25°C to -15°C; Refrigerated is +2°C to +8°C; Room temperature is +15°C to +25°C

Recommended & minimum intervals for COVID vaccination

Age	Recommended Intervals[3]	Minimum Intervals[4]
6 months to under 5 years (Moderna)	**Primary Series** • 2nd dose, 2 months (56 days) after 1st dose **Booster Doses** - not eligible	**Primary Series** • 2nd dose, 28 days after 1st dose **Booster Doses** - not eligible
5 years and older (Pfizer) or 6 years and older (Moderna)	**Primary Series** • 2nd dose, 2 months (56 days) after 1st dose **Booster Doses**: 6 months (168 days) after last dose	**Primary Series** • 2nd dose, 19 days (Pfizer-BioNTech) or 21 days (Moderna) after 1st dose **Booster Doses**: 3 months (84 days) after last dose

Moderately or severely immuno-compromised individuals ≥6 months of age	**Primary Series**
	• 2nd dose, 2 months (56 days) after 1st dose
	• 3rd dose, 2 months (56 days) after 2nd dose
	
	Booster Doses
	• (≤4 years old) – not eligible
	• (≥5 years old) – 6 months (168 days) after last dose
		Primary Series
		• 2nd dose,
		  ○ 6 months to 5 years: 28 days (Moderna) after 1st dose
		  ○ 6 years and over: 19 days (Pfizer-BioNTech) or 21 days (Moderna) after 1st dose
		• 3rd dose, 28 days after 2nd dose
		
		Booster Doses
		• (≤4 years old) – not eligible
		• (≥5 years old) – 3 months (84 days) after last dose

[3] There is good evidence that longer intervals between the first and second doses of COVID-19 vaccines result in more robust and durable immune response and higher vaccine effectiveness and may be associated with a lower risk of myocarditis and/or pericarditis in adolescents and young adults. See the Canadian Immunization Guide for more information.
[4] NACI's Minimum Interval Recommendation (Table 1: Immunization schedule for a primary series, by COVID-19 vaccine).

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Suggested intervals between infection & boosters

Infection timing relative to COVID-19 vaccination	Population	Suggested interval between infection* and vaccination
Infection prior to completion or initiation of primary vaccination series	Individuals 6 months of age and older who are not considered moderately to severely immunocompromised and with no previous history of multisystem inflammatory syndrome in children (MIS-C)	Receive the vaccine 2 months (56 days) after symptom onset or positive test (if asymptomatic)
	Individuals 6 months of age and older who are moderately to severely immunocompromised and with no previous history of MIS-C	Receive the vaccine dose 1 to 2 months (28 to 56 days) after symptom onset or positive test (if asymptomatic)
	Individuals 6 months of age and older with a previous history of MIS-C (regardless of immunocompromised status)	Receive the vaccine dose when clinical recovery has been achieved or ≥90 days since the onset of MIS-C, whichever is longer

Infection timing relative to COVID-19 vaccination	Population	Suggested interval between infection* and vaccination
Infection after primary series	Individuals currently eligible for booster dose(s)	A minimum of 3 months (84 days) after symptom onset or positive test (if asymptomatic); however, a 6 month (168 day) interval may provide better immune response regardless of the product given.

*A previous infection with SARS-CoV-2 is defined as:

- Confirmed by a molecular (e.g., PCR) or rapid antigen test; or
- Symptomatic **AND** a household contact of a confirmed COVID-19 case.

Open Forum