



SUMMARY OF NATIONAL ADVISORY COMMITTEE ON IMMUNIZATION (NACI) STATEMENT OF OCTOBER 29, 2021

Interim guidance on booster COVID-19 vaccine
doses in Canada



OVERVIEW

- On October 29, 2021, the Public Health Agency of Canada (PHAC) released interim guidance from the National Advisory Committee on Immunization (NACI) on booster doses of COVID-19 vaccines. These recommendations are based on current scientific evidence and NACI's expert opinion.
- NACI reviewed the evidence on the need for, and benefit of, a booster dose of a COVID-19 vaccine following a primary series in various populations. NACI used a decision-making framework to help guide ethical and evidence-informed decisions.

At this time, NACI strongly recommends that:

- Populations at highest risk of waning protection following their primary series and at highest risk of severe COVID-19 illness **should** be offered a booster dose of an mRNA COVID-19 vaccine at least 6 months after completing their primary series. These populations include:
 - Adults living in long-term care or other congregate settings that provide care for seniors (as recommended by NACI on September 28, 2021)
 - Adults 80 years of age and older

NACI also recommends that:

- Other key populations who may be at increased risk of lower protection over time since vaccination, increased risk of severe illness, or who are essential for maintaining health system capacity, **may** be offered a booster dose of an mRNA COVID-19 vaccine at least 6 months after completing their primary series. These populations include:
 - Adults 70 to 79 years of age;
 - People who received two doses of the AstraZeneca Vaxzevria/COVISHIELD vaccine or one dose of the Janssen vaccine;
 - Adults in or from First Nations, Inuit and Métis communities; and
 - Adults who are frontline healthcare workers who have direct in-person contact with patients and who were vaccinated with a very short interval.

NACI continues to strongly recommend that:

- All individuals in the authorized age groups without contraindications receive a primary series of an mRNA COVID-19 vaccine (Moderna Spikevax and Pfizer-BioNTech Comirnaty).
- People in the authorized age group who are moderately to severely immunocompromised should receive a primary series of three doses of an authorized mRNA vaccine. Those who have previously received a complete primary COVID-19 vaccine series should receive an additional dose of an authorized mRNA COVID-19 vaccine.

To see the full interim guidance, including important information on the framing of COVID-19 booster dose recommendations and the evidence and rationale behind these recommendations, please visit [NACI Interim guidance on booster doses of COVID-19 vaccines](#).

WHAT YOU NEED TO KNOW

- Evidence to-date shows that COVID-19 vaccines provide lasting protection against serious illness and death from COVID-19. There is currently no evidence of widespread waning of protection against severe disease in the general Canadian population who have been vaccinated against COVID-19. Lower vaccine effectiveness against severe disease has mainly been identified in residents in long-term care homes, with some evidence of decreased effectiveness in elderly adults, particularly those 80 years of age and over.
- Emerging evidence suggests vaccine effectiveness against asymptomatic infection and mild COVID-19 disease may decrease over time. A booster dose could help restore and maintain protection against infection in certain populations. It is currently unknown how long effectiveness from a booster dose may last.
- NACI reviewed the evidence on the need for, and benefit of, a booster dose of a COVID-19 vaccine in various populations:
 - Evidence suggests protection against infection decreases as time since completion of the primary vaccine series increases.
 - Evidence also shows that shorter intervals between doses in a primary series may result in lower immune responses and more rapid waning of protection.
 - Populations at high risk of severe illness from COVID-19 or high risk of exposure to the COVID-19 virus were prioritized for early COVID-19 vaccination. Many people in these populations completed their primary vaccine series earlier than the general population and with shorter intervals of 21 to 28 days between doses.
 - People who received a complete vaccine series of a viral vector vaccine (AstraZeneca Vaxzevria/COVISHIELD, Janssen) have somewhat lower initial vaccine effectiveness and may become susceptible to infection sooner than people who received a primary series that included at least one dose of an mRNA vaccine.
- Studies suggest that a booster dose of an mRNA COVID-19 vaccine produces a very good immune response that is generally higher than the immune response after the primary series, has a favourable safety profile, and provides good short-term protection against infection.

- NACI makes the following recommendations on booster doses in the context of ongoing risk of severe illness from COVID-19 and risk of exposure to the COVID-19 virus, including variants of concern, in Canada. These recommendations were also made in the in the context of the World Health Organization’s call for global equity to ensure that booster doses are targeted to the population groups in greatest need.
- NACI used a decision-making framework based on risk of any waning protection from a primary series, risk of severe illness from COVID-19, risk of exposure to the COVID-19 virus, as well as consideration of ethics, equity, feasibility and acceptability.

For key populations at highest risk of severe illness from COVID-19 and highest risk of waning protection:

- NACI strongly recommends that a booster dose of an authorized mRNA COVID-19 vaccine **should** be offered at least 6 months after completion of a primary vaccine series to individuals in the following key populations:
 - Adults living in long-term care homes for seniors or other congregate living settings that provide care for seniors (as recommended by NACI on September 28, 2021)
 - Adults 80 years of age and older

*For the following populations, booster doses **may** be offered considering local epidemiology and any evidence of diminished protection, and with consideration of individual risks and potential benefits.*

For key populations at increased risk of severe illness from COVID-19 and increased risk of waning and/or lower protection:

- NACI recommends that a booster dose of an mRNA COVID-19 vaccine **may** be offered at least 6 months after completion of a primary COVID-19 vaccine series to:
 - Adults 70 to 79 years of age
 - Adults who received two doses of the AstraZeneca Vaxzevria vaccine or one dose of the Janssen vaccine

For key populations who may be at increased risk of severe illness from COVID-19 (due to intersecting social and health risk factors) and waning protection and where infection can have disproportionate consequences:

- NACI recommends that a booster dose of an mRNA COVID-19 vaccine **may** be offered at least 6 months after completion of a primary COVID-19 vaccine series to:

- Adults in or from First Nations, Inuit and Métis communities. Booster vaccine programs in Indigenous communities should be determined by Indigenous leaders and communities with health care and public health partners.

For key populations who are essential for maintaining health system capacity and who may be at increased risk of waning protection and who could pose increased risk of transmission to vulnerable populations:

- NACI recommends that a booster dose of an mRNA COVID-19 vaccine **may** be offered at least 6 months after completion of a primary COVID-19 vaccine series to:
 - Adults who are frontline healthcare workers who have direct in-person contact with patients and who were vaccinated with an exceptionally short minimum interval.
- Either mRNA COVID-19 vaccine may be used as a booster dose, regardless of which COVID-19 vaccine was used in the primary series.
 - If offering the Pfizer-BioNTech Comirnaty mRNA vaccine, a full dose (30 mcg) should be used.
 - If offering the Moderna Spikevax mRNA vaccine, a full dose (100 mcg) should be used for adults living in long-term care homes for seniors or other congregate living settings that provide care for seniors and adults 70 years of age and older. A half dose (50 mcg) should be used for other adults recommended to receive a booster dose.
- Informed consent should include discussion about what is known and unknown about the risks and benefits of providing a booster dose, including the off-label status of NACI's recommendation.
- NACI continues to monitor the evidence on the need for, and benefit of, a booster dose in other populations and will update recommendations in future.

To see the full update, including the evidence and rationale behind these recommendations, please visit [NACI Interim guidance on booster doses of COVID-19 vaccines](#).

QUOTES

“NACI has been closely monitoring the national trends in vaccine effectiveness, and we are seeing that two doses of mRNA COVID-19 vaccines continue to perform very well for the majority of people. Ensuring all eligible Canadians receive the primary vaccine series remains a priority. However, some key populations would benefit from a booster dose of mRNA vaccine at least 6 months after the second dose. At this time, off-label booster doses are being recommended for those who may be at increased risk of severe illness from COVID-19 and increased risk of waning protection. NACI has also identified situations where infection can have disproportionate consequences, and considered populations that maintain health system capacity who may be at both increased risk of transmitting the virus to vulnerable populations and increased risk of waning protection given a longer time since completion of their primary vaccine series with a shorter interval between doses. NACI will continue to monitor the evidence and will issue additional booster advice as data emerge.”

- Dr. Shelley Deeks, NACI Chair

“NACI’s latest review of vaccine effectiveness data provides reassurance that there is currently no evidence of widespread waning of protection against severe disease in the general Canadian population vaccinated against COVID-19. While the vaccines in use in Canada continue to be very effective in protecting most people against serious illness due to COVID-19, at this time NACI is recommending that some adult populations at increased risk of severe outcomes and highest risk of waning protection following their primary series should be offered a booster dose of an mRNA COVID-19 vaccine. NACI continues to closely monitor vaccine effectiveness across the population and will update their advice as needed to ensure the best possible protection for all Canadians. With over 5.5 million adults and eligible youth yet to be fully vaccinated in Canada, it is important to emphasize that getting more people to complete their two-dose primary series remains a key focus of the COVID-19 immunization effort in Canada.”

- Dr. Theresa Tam, Chief Public Health Officer