Date: November 5, 2021

To: Nova Scotia Health Care Providers (including 811/911)

Topic: Booster COVID-19 vaccine doses in Nova Scotia

To date, COVID-19 vaccines have been shown to provide strong protection against serious illness, hospitalization, and death from COVID-19. There is currently no evidence of widespread waning of protection against severe disease in the general population who have been vaccinated against COVID-19. Current emerging evidence from Canada and elsewhere in the world suggests some decrease in protection against severe disease with time since vaccination in elderly adults, particularly those 80 years of age and over and residents in long term care facilities. Emerging evidence also suggests that vaccine effectiveness against asymptomatic infection and mild COVID-19 disease may decrease with time, which could contribute to increased transmission of infection, particularly with the highly transmissible Delta variant. Data also show that shorter intervals between doses in a primary series may result in lower immune responses and more rapid waning of protection. Studies have shown that people who received a complete vaccine series of a viral vector vaccine (two doses of AstraZeneca/COVISHIELD or one dose of Janssen COVID-19 vaccine) 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. Therefore, a booster dose of an mRNA COVID-19 vaccine in certain populations could help restore and maintain protection against disease. Studies suggest that a booster dose of an mRNA COVID-19 vaccine produces a 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.

The National Advisory Committee on Immunization (NACI) reviewed the evidence on the need for, and benefit of, a booster dose of an mRNA COVID-19 vaccine in key populations. In alignment with NACI recommendations, Nova Scotia will be offering mRNA COVID-19 booster doses for the following groups:

- Residents of long-term care facilities and seniors in congregate living settings (began September 18, 2021)
- Adults 80 years of age and older, followed by adults 70 to 79 years of age.
- Adult frontline healthcare workers who were vaccinated with a primary series interval between dose one and dose two of less than 28 days.
- Individuals who received two doses of AstraZeneca/COVISHIELD vaccine or one dose of the Janssen COVID-19 vaccine.

The province is also engaging with Indigenous and African Nova Scotian communities on the best way to offer booster doses in those communities.

In alignment with NACI’s recommendation, individuals who are within the above groups may receive a booster dose of either Moderna Spikevax or Pfizer-BioNTech Comirnaty COVID-19 vaccine (regardless of which COVID-19 vaccine was used in the primary series) six months (no sooner than 168 days) following completion of
the primary COVID-19 series. Long-term care facility residents and seniors in congregate living settings will receive the full dose if being offered Moderna Spikevax (100 mcg). For adults living in community, a full dose of Moderna Spikevax will be offered as a booster dose for individuals 70 years of age or older, while a half dose (50 mcg) will be offered for adults in community who meet the criteria above and are less than 70 years of age. Individuals receiving a booster dose of the Pfizer-BioNTech Comirnaty vaccine, regardless of age, will be offered the full dose (30 mcg).

Currently available data show that there have been no notable differences in side effects following a booster dose in study participants. It is unknown whether there is an increased risk of rare adverse reactions, such as myocarditis/pericarditis following a third dose. However, myocarditis/pericarditis is less of a concern for older adults as this adverse event occurs most frequently in people under 30 years of age.

Similar to previous doses of COVID-19 vaccine, eligible individuals will be able to book their booster dose appointments online or by phone. Updates to the vaccine booking system are being made and more information will be announced once booking for booster doses opens.