

Booster Doses Provide Much Needed Protection Against Severe Illness and Death

Update to York Region health care providers as of February 7, 2022

Summary:

- A recent study from Ontario, confirming the findings of two others from the US and UK, provides evidence that third dose boosters of COVID-19 vaccine provide 95% protection against hospitalizations and deaths, **substantially more protection** compared to only two doses
- Recent York Region modeling estimates that the success of our booster campaign has prevented over half of hospital admissions and over 200 deaths. Achieving booster coverage of 70% is critically important to maintaining acute care capacity and re-opening
- **Please recommend, encourage and facilitate COVID-19 booster doses for your patients as soon as possible. Appointments and walk-ins are available at all York Region Clinics, as well as pharmacies.**

Exceptional vaccine efficacy of booster dose

Results of an IC/ES and PHO [study of cases in Ontario from December 6 to 26, 2021](#) estimated that efficacy against severe outcomes was very high (**99% and 95%**) following a third dose for both Delta and Omicron, respectively. Studies conducted in the United States and United Kingdom showed similar results, with a slightly lower vaccine efficacy, potentially related to the increased interval between doses in the Canadian context.

Impact of booster doses

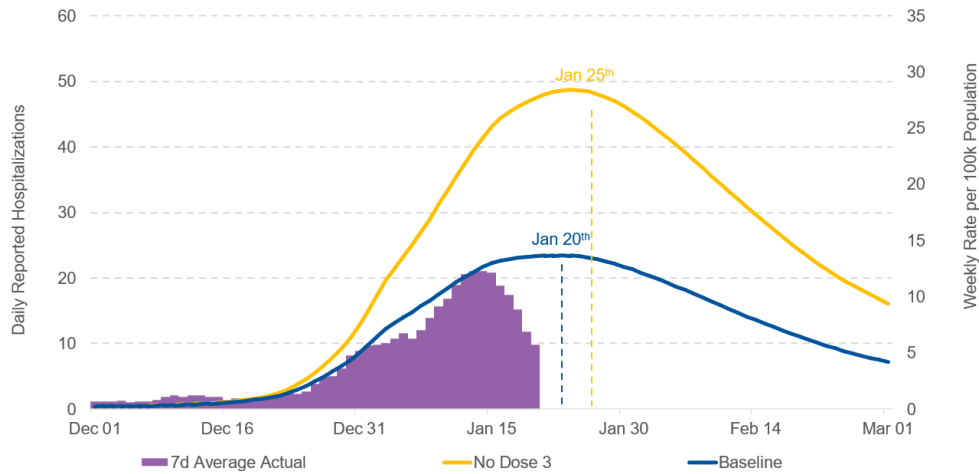
Our internal modeling recently examined the impact that the COVID-19 booster dose has had in York Region when compared to a scenario without booster doses in our population. The results show that daily hospital admissions would have **doubled** (49 vs 23) without booster doses compared to the 50% booster dose coverage we have currently. Our modeling estimates that from January 28 to February 28, 2022, booster doses will prevent 547 hospitalizations, 66 ICU admissions and 219 deaths. This model assumes a continued booster campaign reaching 70% coverage in order to achieved sustained reduction in admissions and deaths. Please ensure that all your patients receive their booster doses. All adults 18+ are currently eligible.

Walk in or book – appointments available

As of January 29, 2022, appointments are no longer required for anyone receiving any dose of COVID-19 vaccine. Appointments are available online, or by calling Access York at 1-877-464-9675. **Simply visit an open clinic and walk-in to receive your dose. York Region Public Health clinics will be decreasing our capacity shortly. It is critically important for your patients to get their boosters as soon as possible.** For information on clinics in York Region, visit york.ca/COVID19Vaccine.



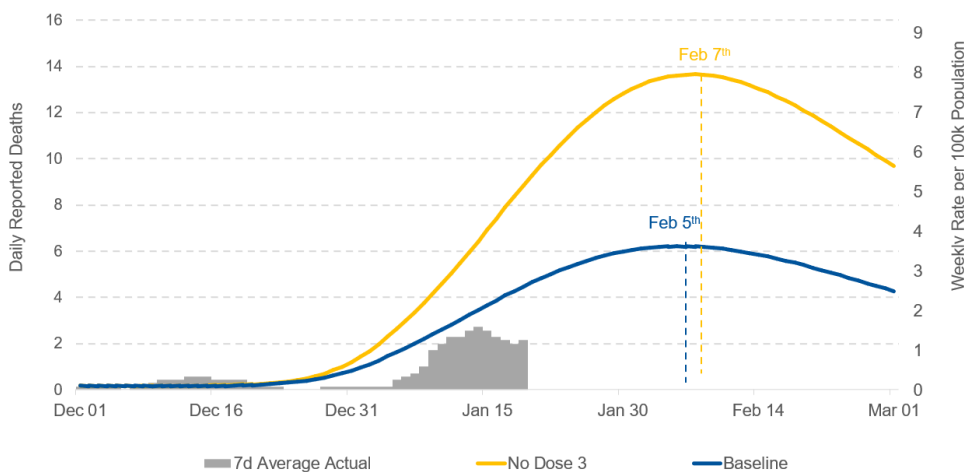
Booster doses in York Region had a dramatic impact on hospitalization preventing more than half of daily admissions and over 500 total admissions



**No Dose 3 is a hypothetical scenario which assumes 0% third dose coverage among YR residents.*

This graphic shows the dramatic difference between the current estimated impact of the Omicron surge in blue, and the potential impact in yellow if there were no third doses administered. The graphic below indicates how many deaths are estimated to be prevented.

Booster doses in York Region had a dramatic impact on Deaths preventing 219 deaths by early March



**No Dose 3 is a hypothetical scenario which assumes 0% third dose coverage among YR residents.*

Booster dose, third dose, fourth dose – which applies?

Individuals with immunocompromising conditions are at increased risk of severe outcomes from COVID-19 and do not gain adequate immunity against COVID-19 from a two-dose COVID-19 vaccine series due to their underlying condition.

In these situations, a third dose is recommended as part of the **primary series** of vaccination for [moderately to severely-immunocompromised individuals](#) at an interval of **two months (56 days)** from the second dose, with a minimum interval of 28 days.

As moderately to severely immunocompromised people are recommended to receive an initial *three-dose* primary series, as opposed to a two-dose primary series for the general population, a fourth dose in this case is the individual's *booster* dose.

In line with all others age 18+ who received a two-dose primary series, moderately to severely immunocompromised people are now eligible for a booster dose (a fourth vaccine following their three-dose primary series) at an interval of **three months (84 days)** from their last vaccine.

In addition, the Ontario government [announced December 30, 2021](#) based on recommendations from the Ontario Immunization Advisory Committee, fourth doses of mRNA COVID-19 vaccines will be offered to residents of long-term care homes, retirement homes, Elder Care Lodges and other congregate care settings if at **least three months (84 days)** have passed since their third booster dose – the same interval as individuals with immunocompromising conditions.

Residents of these settings are at increased risk for both COVID-19 infection and severe disease, such as hospitalization and death. Many of these individuals are now up to five months from their third dose and are likely becoming increasingly susceptible to COVID-19 infection due to waning immunity.

Similar to those with immunocompromising conditions, a third dose for residents of congregate settings will enhance the immune response and establish an adequate level of protection for individuals who may develop a sub-optimal immune response to a two-dose primary series. The subsequent fourth dose will boost immunity and protect against waning protection, especially while the surge of Omicron cases causes high incidence of COVID-19 throughout York Region and Ontario.

Contact York Region Public Health

If you have any questions, call our dedicated health care professional line at 1-877-464-9675 ext. 77280 (8:30 a.m. to 4:30 p.m., Monday to Friday) or visit york.ca/healthprofessionals.

To book an appointment or for clinic availability for COVID-19 vaccination, please visit york.ca/COVID19Vaccine. For the latest information on COVID-19 in York Region, please visit york.ca/COVID19.

For questions regarding COVID-19 vaccine ordering please contact our Vaccine Inventory Program at COVID19vaccine@york.ca or 1-877-464-9675 ext. 50174.