

COVID-19 Vaccine Bulletin #10

Updates & Herd Immunity

The purpose of the Vaccine Bulletin is to give you the latest information about COVID-19 vaccines. For this bulletin, the focus will be on herd immunity, COVID-19 updates and resources.

Quick Updates

- The [total number of doses](#) that have been administered in **Wellington-Dufferin-Guelph** is **8036**.
- Second dose vaccination clinics in long-term care and retirement homes began on February 4, 2021 and are scheduled to be completed on February 24, 2021.
- 2nd dose Pfizer clinics for staff who have received their first dose started on February 10 at the Guelph Chancellors Way Public Health office. **Public health will be phoning or emailing** people to schedule their second dose appointment, based on the date of their first dose.

WDG Vaccine Implementation Plan – Phase 2 Update

For more details on **Phase 1** of the WDG Vaccine Implementation Plan, see [Vaccine Bulletin #8](#)

- Increased vaccine availability for Phase 2 (April to July 2021) will allow for expanded prioritized groups to be reached.
- It is assumed that demand for COVID-19 vaccine supply will continue to exceed available supply for a few weeks and thus a stepwise approach to prioritization may be used, focusing on certain sectors and settings as directed by the province.
- There will be overlap between Phase 1 and Phase 2 vaccinations.
- In Phase 2, vaccines will continue to be available to Phase 1 groups

Herd Immunity

Public Health Ontario has published a [rapid review of evidence relating to herd immunity](#), estimating the proportion of the population requiring vaccination to prevent ongoing transmission of COVID-19.

Summary

- Herd immunity occurs when a significant proportion of the population is immune to an infection leaving few susceptible people who can be infected and transmit the infection. Herd immunity can be achieved through vaccination or infection.

- The herd immunity threshold is achieved when there is sufficient immunity in the population, such that each person who acquires the infection passes it on to less than 1 person on average (i.e., the basic reproduction number (R_0) falls below 1).
- The proportion of the population requiring vaccination to prevent ongoing transmission of a virus is a function of the herd immunity threshold and vaccine effectiveness.
- Estimating the herd immunity threshold for COVID-19, and by extension the proportion of the population that requires vaccination to achieve this threshold, is imprecise given the dynamic nature of virus transmission, accurate estimates of immunity due to infection, changes in implementation and individual adherence to public health measures, and uncertainties in vaccine effectiveness and duration of immunity.
- Given these uncertainties, based on a plausible range of R_0 estimates in Canada, **56% to 89%** of the population of Ontario will require vaccination against COVID-19 to achieve herd immunity.

Adverse Events Following Immunization (AEFIs) in Ontario

Public Health Ontario Summary Report – [AEFIs for COVID-19 in Ontario: December 13, 2020 to January 30, 2021](#)

COVID-19 Vaccine Multi-Language Information Sheets

Women’s College Hospital has created [multi-language information sheets](#) on the current COVID-19 vaccines.

Updates from Ontario’s Vaccine Distribution Plan

- [COVID-19 Vaccination Update: Technical Briefing \(February 2\)](#)
- Ontario updated its goal of administering first doses in long-term care, high-risk retirement and First Nations elder care home residents by February 10.
- The table below shows the Pfizer allocations expected in Ontario for February.

Pfizer Allocations	Timeline
26,325 (82% reduction)	Week of Feb. 1
27,300 (81% reduction)	Week of Feb 8
130,650 (8% reduction)	Week of Feb 15
155,025 (9% increase)	Week of Feb 22

COVID-19 Vaccines Under Review in Canada

Developer	Vaccine Platform	Application Received
AstraZeneca & University of Oxford	Viral vector (non-replicating)	October 1, 2020
Janssen Pharmaceutical	Viral vector (non-replicating)	November 30, 2020
Novavax	Protein subunit	January 29, 2021

Status of Doses Administered in Ontario

Total doses administered = **412,119**

Daily doses administered = **13,486**

Total vaccinations completed = **125,725**

Reliable Sources of Information on Vaccines

[Public Health Agency of Canada](#)

[Government of Ontario](#)

[Public Health Ontario](#)

[Centre for Effective Practice \(CEP\)](#)

[World Health Organization](#)

[COVID-19 Studies from the World Health Organization Database](#)

[Centres for Disease Control and Prevention \(CDC\)](#)