

COVID-19 Vaccine Bulletin #19

AEFIs & Real-World Effectiveness

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 adverse events and real-world vaccine effectiveness.

Quick Updates

- Check out [Wellington-Dufferin-Guelph's vaccination dashboard](#). The **total number of doses** administered in Wellington-Dufferin-Guelph (WDG) is **78,978**.
- **92%** of people who are **80 years of age and older** and **68%** of people who are **65-79 years old in WDG** have received at least one dose of vaccine, with many more in the 65-79 age category booked for appointments.
- **All residents (age 16+) in WDG can pre-register for their vaccination.** The benefits of pre-registration include: identifying individuals who live in local “hot spots”, identifying neighbourhoods of vaccine hesitancy, and ensuring people are invited to book an appointment when it is their turn. Local vaccinations will continue to follow the Province's prioritization framework with timelines based on vaccine supply.
- Go to www.wdgpUBLICHEALTH.ca/register for more information about vaccine pre-registration. There is a **Vaccine Registration and Booking Helpline: 1-844-780-0202 (Mon-Sat, 12-8 pm)** for anyone who has issues pre-registering or booking online.
- Based on the review of available data from Europe and United Kingdom, Health Canada announced that it was not restricting the use of AstraZeneca vaccine in any specific populations at this time. **Starting Tuesday, April 20, 2021, pharmacy and primary care clinics in Ontario can extend eligibility for the AstraZeneca vaccine to those aged 40 years and older.**
- There are five mass vaccination sites and five smaller pop-up clinics in more remote areas currently operating in WDG. Self selected primary care offices and [33 pharmacies](#) in WDG are offering AstraZeneca vaccine. Physicians who wish to deliver the AstraZeneca vaccine in their office who have not previously been onboarded can contact marlene.jantzi@wdgpUBLICHEALTH.ca for more information.
- See updates to the webpage: [local vaccination planning and updates](#).
- **Second dose appointments:** WDGPH will be contacting each person to book a second dose appointment as their 16-week interval approaches.

Vaccine Status for Wellington-Dufferin-Guelph

| | |
|--|--|
| 78,978 doses administered | 28% of eligible population received one dose |
| Maximum number of doses administered in one day = 2,986 | Total number of doses given in primary care office or pharmacy = 10,171 |
| Maximum number of doses administered in one week = 12,903 | 74% Pfizer 18% Moderna 8% AstraZeneca |

| Age Group | Percentage with First Dose |
|-----------|----------------------------|
| 85+ | 93% |
| 80-85 | 92% |
| 75-79 | 80% |
| 70-74 | 74% |
| 65-69 | 56% |
| 60-64 | 48% |

COVID-19 Vaccine and Administration of Other Vaccines

- Currently, no data exist on the simultaneous administration of COVID-19 vaccine with other vaccines.
- It is recommended to **wait 28 days after each dose of a COVID-19 vaccine before the administration of another vaccine (except in the case where another vaccine is required for post-exposure prophylaxis).**
- It is recommended to **wait at least 14 days after the administration of another vaccine before administering a COVID-19 vaccine.**

Reference

National Advisory Committee on Immunization's [Recommendations on the Use of COVID-19 Vaccines](#).

Adverse Events Following Immunizations (AEFIs)

- In Ontario, 1,367 AEFI reports have been received following 3,141,288 doses of COVID-19 vaccines administered (Dec 13, 2020 – Apr 10, 2021):
 - 1,331 (97%) AEFI reports are non-serious.
 - 36 (3%) AEFI reports meet the serious definition.
 - Thirty-five of the 36 clients were hospitalized related to the reported event. There was one report of death following receipt of the vaccine. The individual was a resident of a health care institution with significant co-morbidities and the cause of death was not attributed to the vaccine.
 - Note that the proportion of AEFIs defined as serious for all vaccines administered in Ontario ranged from 3 to 5% between 2012 and 2018.
- The most commonly reported adverse events are allergic skin reactions (29%) and pain/redness/ swelling at the injection site (27%).
- AEFIs are more likely to be reported for younger age groups and females.
- 52 reports of events were managed as anaphylaxis.
- There were 18 reports of adverse events of special interest (identified based on a theoretical rationale for a possible association with COVID-19 vaccines).

AEFI Reporting by Vaccine Type

| | Pfizer-BioNTech | Moderna | COVISHIELD (AstraZeneca) |
|--|---|--|--|
| Serious event reporting rate per 100,000 doses | 0.8 | 2.7 | 2.5 |
| Most common AEFIs reported | 1. Allergic skin reactions 2. Other severe or unusual events* 3. Pain/redness/ swelling at injection site | 1. Pain/redness/ swelling at injection site 2. Allergic skin reactions 3. Rash | 1. Other severe or unusual events* 2. Allergic skin reaction 3. Pain/redness/ swelling at injection site |

* Includes reports of adverse events that do not meet any other pre-defined event.

Reference

Public Health Ontario's [Adverse Events Following Immunization \(AEFIs\) for COVID-19 in Ontario: December 13, 2020 to April 10, 2021.](#)

Real-World Vaccine Effectiveness

- Vaccine effectiveness refers to the **proportionate reduction in cases** among vaccinated persons compared to those not vaccinated in real world settings (see [Vaccine Bulletin #13](#)).
- Most of the vaccine effectiveness (VE) data is from Israel, the United Kingdom, the United States, and Canada for the mRNA vaccines (Pfizer and Moderna). There is some VE data from the UK for the AstraZeneca vaccine and there was no VE data identified for the Janssen (Johnson & Johnson) vaccine.
- In general, VE is about 60-80% for preventing COVID-19 infection 3-4 weeks after receiving a single dose of Pfizer, Moderna or AstraZeneca vaccine. VE increases to greater than 85% after a second dose.
- VE for preventing severe disease and COVID-19 related hospitalization ranges from 70 to 90% for the Pfizer, Moderna and Astra Zeneca vaccines.
- Emerging population-level data demonstrates that vaccination is associated with reduced spread in populations and regions with higher rates of vaccination or those that were vaccinated earlier than others.
- One Israel study (Pfizer) and two UK studies (Pfizer and AstraZeneca) conclude that VE was demonstrated against B.1.1.7, as it was the dominant variant circulating at the time of the studies.

Canadian Data

- Canadian data from Ontario, British Columbia and Quebec show a VE of 80% for preventing COVID-19 in long-term care residents 2-3 weeks following a single dose of either Pfizer or Moderna vaccine.
- In Ontario, VE for preventing COVID-19 was 89% (and 96% for preventing mortality) for long-term care residents 8 weeks after the start of vaccination at which point 92% had received a first dose of Pfizer or Moderna vaccine, and 67% had received a second dose. VE was 79% for Health Care Workers in long-term care facilities 8 weeks after the start of vaccination, at which point 55% had received at least one dose of Pfizer or Moderna (45% received two doses).

Reference

Public Health Ontario's [COVID-19 Real-World Vaccine Effectiveness – What We Know So Far](#).

Ministry of Health Updated Vaccine Documents

- [Vaccination in Pregnancy & Breastfeeding Decision-Making Support Tool](#) (for Health Care Providers) (**NEW**)
- [Vaccination in Pregnancy & Breastfeeding Patient Decision-Making Tool](#) (infographic for patients) (**NEW**)
- [Administration of AstraZeneca COVID-19 Vaccine/COVISHIELD Vaccine](#) (Updated)
- [Vaccine Storage and Handling Guidance](#) (Updated)
- [Vaccine Documents Available in Multiple Languages](#) (**NEW**)

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 \(CDC\)](#)