

Influenza & Influenza Vaccine for Health Care Workers 2022-2023 Season



LEARNING OBJECTIVES

To gain an understanding of:

- Influenza **Virus** and the **Disease**:
 - Transmission, symptoms, diagnosis, and treatment
- Influenza **Vaccine**
 - Components, types available, effectiveness, benefits and side effects, how this season is different

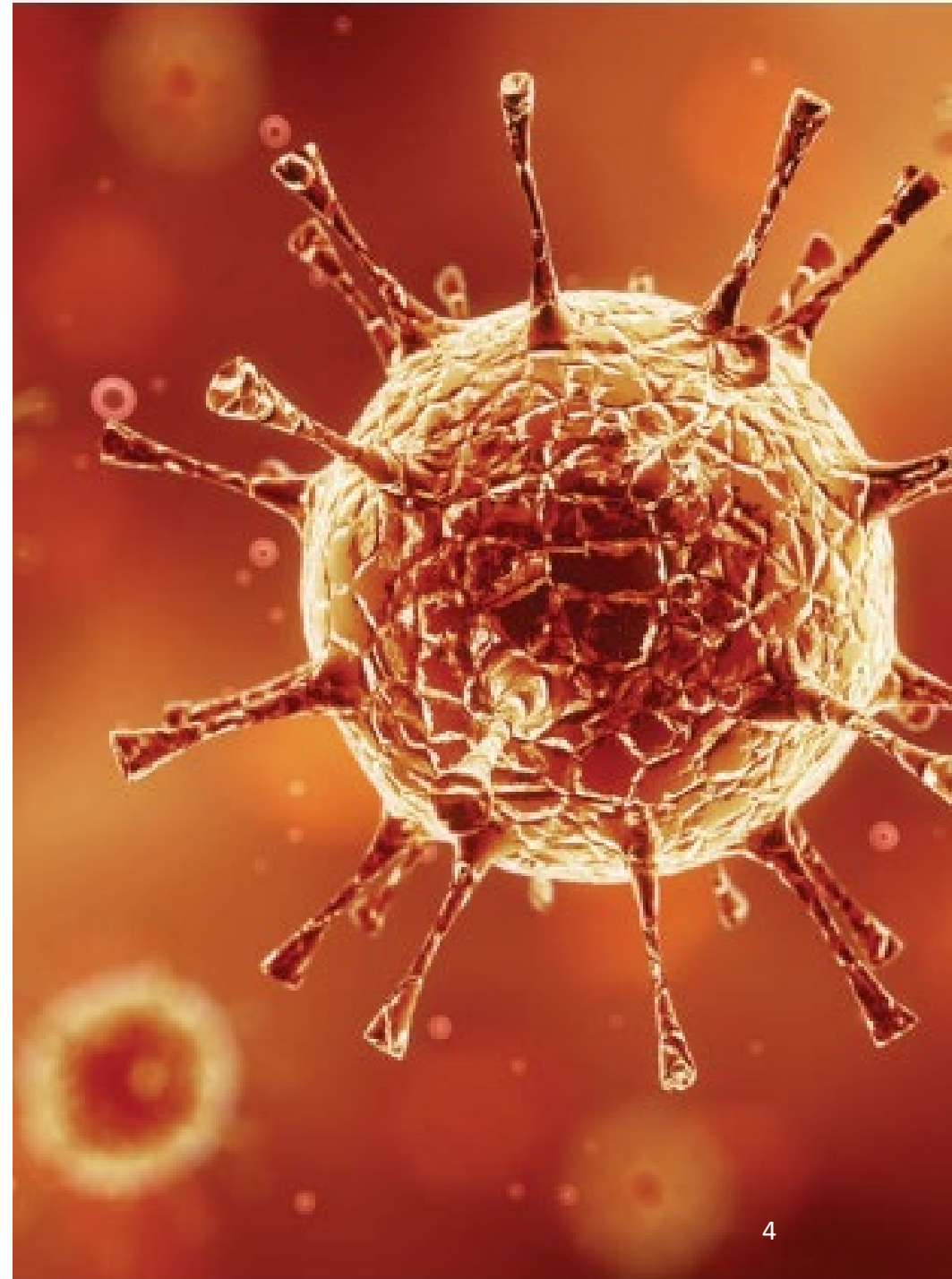
INFLUENZA VIRUS & DISEASE



DISEASE FACTS

Influenza, commonly known as 'the flu'

- Respiratory illness caused primarily by influenza A and B viruses.
- Symptoms typically include the sudden onset of fever, cough and muscle aches.
- Most people recover in seven to 10 days.
 - Some individuals are at an increased risk of severe influenza complications such as pneumonia and/or worsening of their underlying medical condition which may require hospitalization.



FLU – DISEASE DISTRIBUTION

Globally

- ~ 1 billion cases of influenza around the world annually, with three to five million cases of severe illness and further 290,000 to 650,000 deaths

In Canada

- Along with pneumonia, influenza is ranked among the top 10 leading causes of death
- In the five years prior to COVID-19, an average of 40, 000 laboratory-confirmed cases were reported each year.
- Influenza is estimated to be responsible for an average of:
 - 12,200 hospitalizations related to influenza/annually
 - 3,500 deaths attributed to influenza/annually

MODES OF TRANSMISSION

Influenza is most commonly spread through Droplets

- Droplets that contain the flu virus are generated when an individual ill with the flu coughs or sneezes or talks
- Droplets that contain the flu virus may land on the mouth, the eyes or the nose of an individual nearby, **within two meters**.

Less commonly, influenza is transmitted through Contact with a surface and/or object

- An individual may become infected with the flu virus if they touch a surface or object contaminated with the flu virus and then touches their mouth, nose or eyes

DIAGNOSIS AND TREATMENT

Public Health Ontario uses a testing eligibility criteria for influenza and other seasonal respiratory viruses. Eligibility criteria is based on patient setting and can be found on Public Health Ontario Laboratory services website.

When influenza is circulating in the community, influenza antiviral medications are recommended for treatment of some individuals such as, those at high risk for complications and/or those with moderate to severe illness (e.g., hospitalized patients)

- Prompt treatment (administered within 48 hours of symptoms onset) decreases the duration of influenza symptoms and may help prevent the complication of influenza.

PEOPLE CONSIDERED AT HIGH RISK OF FLU-RELATED COMPLICATIONS or HOSPITALIZATION?

- All children six months to 59 months of age
- Adults and children with chronic health conditions
- All pregnant individuals
- People of any age who are residents of nursing homes and other chronic care facilities
- Adults \geq 65 years of age
- Indigenous people

SICK WITH THE FLU?

- Stay home when sick to help prevent the spread of the flu
- Get plenty of rest and drink lots of fluids
- Seek medical attention as appropriate
- Avoid close contact with others until you feel well enough (back to usual day-to-day activities)
- Wash your hands often with soap and water or with alcohol-based hand sanitizer
- Cover your mouth when you cough or sneeze (use a tissue, then dispose of a tissue into garbage. When tissue is not available cough or sneeze into your sleeve). Make sure to wash your hands after.
- To prevent spread at home clean and disinfect surfaces and shared items frequently (phones, handles, etc.). Avoid sharing personal items such as towels.



INFLUENZA PREVENTION



HOW DOES THE FLU VACCINE WORK?

- The influenza vaccine initiates the process of antibodies being developed in the body.
- These antibodies provide protection against influenza infection.
- It generally takes about two weeks following immunization to develop protection against influenza.



INFLUENZA VACCINE RECOMMENDATIONS

- The flu shot is available for individuals who live, work, or go to school in Ontario and is recommended for everyone six months of age and older without contraindications.

Annual vaccination is recommended because:

- Flu viruses change frequently.
- The vaccine is made to protect against the flu viruses that research indicates will be most common during the upcoming influenza season.
- Protection wanes over time.



INFLUENZA VACCINE IS HIGHLY RECOMMENDED FOR

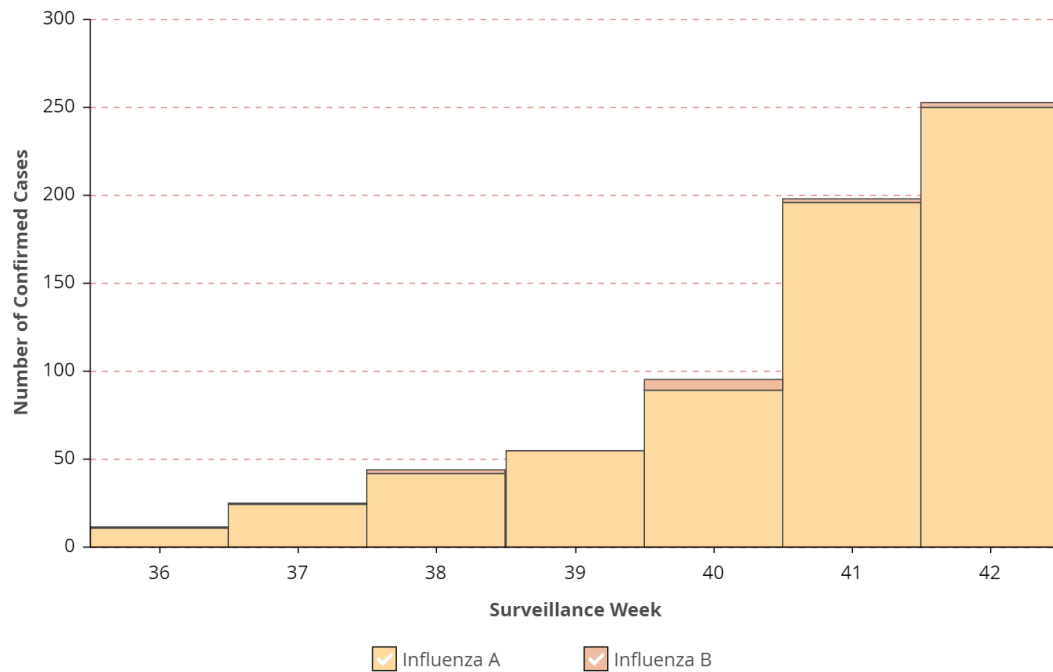
- People at high risk of severe disease, flu-related complications, or hospitalization;
 - All pregnant individuals
 - Adults and children ≥ 6 months with chronic health conditions
 - People of any age residing in LTC and other chronic care facilities
 - Adults ≥ 65 years of age
 - All children 6 to 59 months of age
 - Indigenous peoples
- People capable of spreading flu to those at high risk or to infants <6 mos (for example HCW and childcare workers)
- People who provide essential community services
- Poultry industry workers



INFLUENZA BURDEN 2022-23 SEASON IN ONTARIO

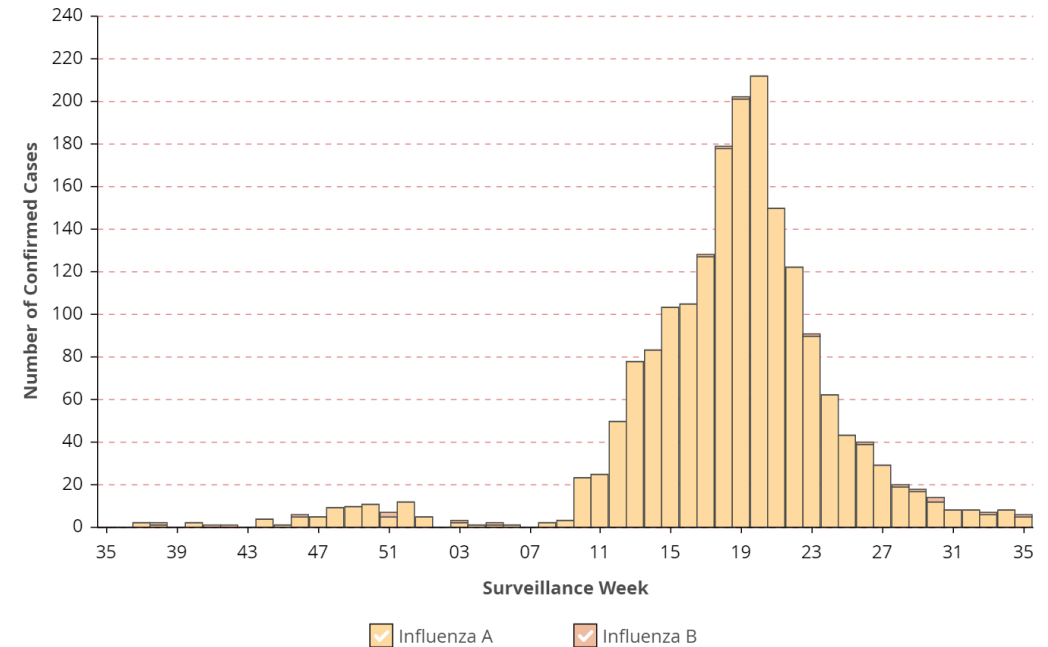
- Ontario is seeing a steep increase in the number of influenza cases in the 2022-23 season since September 4, 2022 (figure on the left) compared to the 2021-22 season (figure on the right).

Number of Reported Laboratory-Confirmed Cases of Influenza by Surveillance Week



Caveat notes go here.

Number of Reported Laboratory-Confirmed Cases of Influenza by Surveillance Week



Caveat notes go here.

IMPORTANCE OF INFLUENZA VACCINATION THIS SEASON

- Vaccination is the most effective way to prevent influenza and its complications.
- Vaccinated individuals who are protected from influenza will not pass infection to others.
- Although most people will recover fully from influenza infection in 7–10 days, influenza can lead to severe disease, and/or complications, including hospitalization and death.
- Reducing the burden of influenza is particularly important this flu season to decrease the burden on the healthcare system while there is continuing COVID-19 infection across communities.



VACCINATION OF HCWs AND OTHER CARE PROVIDERS

- In the absence of contraindications, HCWs and other care providers in facilities and communities should be vaccinated against influenza annually
- HCWs and care providers, through their activities, have the potential to transmit influenza to individuals at high risk for flu-related complications
- HCWs and care providers are at risk of acquiring influenza due to their nature of work (close contact with people who may be infected with influenza)

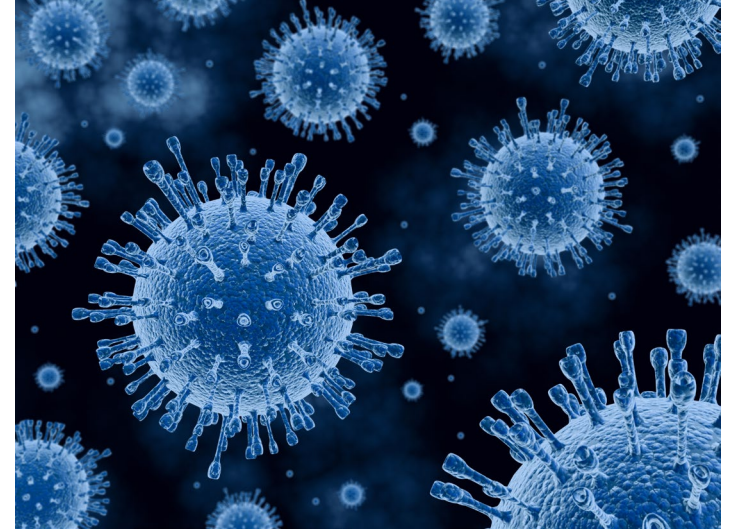


UNIVERSAL INFLUENZA IMMUNIZATION PROGRAM (UIIP) VACCINES FOR 2022-2023

Age Group	QIV			QIV-HD	TIV-adj
	FluLaval Tetra	Fluzone [®] Quadrivalent	Afluria [®] Tetra	Fluzone [®] High-Dose Quadrivalent	Fluad [®]
5 to 64 years	✓	✓	✓		
≥ 65 years	✓	✓	✓	✓	✓

WHAT IF THE VACCINE IS NOT A GOOD MATCH?

- Vaccination is still recommended annually, particularly for people at high risk of influenza-related complications and hospitalization, as vaccinated individuals are still more likely to be protected compared to those who are unvaccinated
- Protection offered from the vaccine varies from year-to-year depending on how well the strains included in the vaccine match the circulating strains. How well the vaccine works also depends on other factors such as the age and health status of the person.
- Even mismatched vaccines can generally provide some protection against circulating influenza viruses



CONTRAINDICATIONS AND PRECAUTIONS TO FLU VACCINE

Speak with your health care provider if you:

- have serious allergies to ingredient(s) in the vaccine or have experienced a serious allergic reaction from a previous flu shot
- have developed Guillain-Barre Syndrome within six weeks of a previous flu shot
- developed Oculorespiratory syndrome within 24 hours of vaccination
- have an acute illness

COMMON REACTIONS TO THE FLU SHOT

- Common mild and transient reactions:
 - Soreness, redness or swelling at the injection site (usually lasts less than 2 days)
 - Low grade fever and aches (can last 1-2 days)
 - The most common reactions experienced by recipients of LAIV3 are nasal congestion and runny nose, which are also reported for LAIV4
- Serious adverse events are very rare
- The mild reactions people have to the flu shot are considerably less severe than having the flu

IF PEOPLE GET SICK AFTER HAVING THE FLU SHOT

- They have contracted a respiratory virus that causes similar symptoms
- They were already exposed to the flu virus prior to vaccination
- They were among the percentage of the population where the shot was not effective
- They have contracted a different strain of flu that is circulating and not contained in the vaccine (referred to as a 'vaccine mismatch')

FLU AND COVID-19 VACCINES

- For individuals 5 years of age and older, the seasonal influenza vaccines, including live-attenuated influenza vaccine (LAIV), may be given at the same time as, or at any time before or after, administration of other vaccines, including COVID-19 vaccines.
- The influenza vaccine does not protect against other respiratory viruses such as COVID-19.
- Influenza vaccine is particularly recommended this fall for individuals who are at risk of severe COVID-19 related illness and for those who are able to transmit influenza to individuals who are at risk of severe COVID-19 related illness.
- Current evidence does not suggest that getting the influenza vaccine increases your risk of COVID-19 infection or severe outcomes related to COVID-19.

COMPARISON OF MOST COMMON SYMPTOMS OF FLU, COLD AND COVID-19

Symptoms	Cold	Flu	COVID-19
Fever	Rare	Common. Starts suddenly and lasts 3 to 4 days. High (102°F-104°F or 39°C – 40°C). *Not everyone with flu gets a fever	A temperature of 37.8 degree Celsius or higher and/or chills
Cough	Sometimes, mild to moderate	Common. Can become severe.	Common. Including a barking cough or croup (continuous, more than usual).
General aches and pains	Sometimes, mild	Common, often severe	For adults over 18 years of age: joint pain
Muscle aches	Sometimes, usually mild	Often, can be severe	Common for adults over 18 years of age.
Feeling tired and weak	Sometimes, mild	Common, may last 2 to 3 weeks or more	Common for adults over 18 years of age.
Fatigue (extreme tiredness)	Unusual	Common, starts early	Common for adults over 18 years of age.
Sneezing	Common	Sometimes	N/A
Chest Discomfort	Sometimes. Mild to moderate.	Common. Can become severe.	Common. Shortness of breath (out of breath, unable to breathe deeply).
Other characteristics	N/A	N/A	Decrease or loss of taste or smell. For children under 18 years of age: nausea, vomiting, and/or diarrhea.

ADDITIONAL INFORMATION

- Ontario Respiratory Virus Bulletin: <https://www.publichealthontario.ca/en/data-and-analysis/infectious-disease/respiratory-pathogens-weekly>
- Canadian Flu Watch: <http://healthy Canadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/flu-grippe/surveillance/index-eng.php>
- National Advisory Committee on Immunization (NACI): <https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/vaccines-immunization/canadian-immunization-guide-statement-seasonal-influenza-vaccine-2022-2023/naci-2022-2023-statement.pdf>
- Video: The Flu – don't pass it on! <https://www.youtube.com/watch?v=ELE8eUNULwU>
- <https://www.ontario.ca/page/flu-facts>
- <https://www.york.ca/health/immunizations/flu-shot-information>

THANK YOU!

Vaccine Question Line 1-877-464-9675, ext.73452

Vaccine Order Line 1-877-464-9675, ext.74033

