Influenza and the Flu Shot

Facts for Health Care Workers

2021-2022

Presentation to (group name)

Your Name

Your Title

Date

Influenza Facts

- Highly contagious and common respiratory illness caused by influenza A & B viruses
- Influenza strains circulating the globe change on a regular basis
- In Canada influenza generally occurs between late fall and early winter

Did You Know?

Estimated attack rate globally:

- 5 to10% in adults
- 20 to 30% in children

Each year in Canada, influenza:

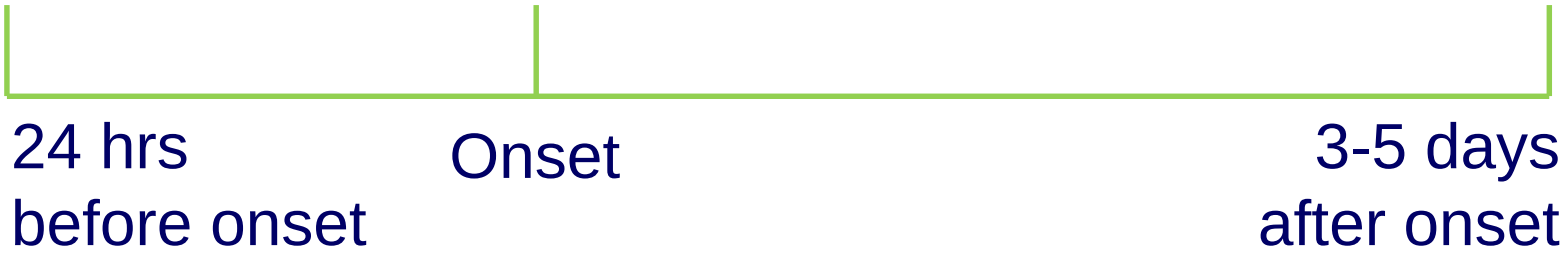
- causes up to **12,200** hospitalizations
- leads to about **3,500** deaths

Influenza Epidemiology

Incubation Period:

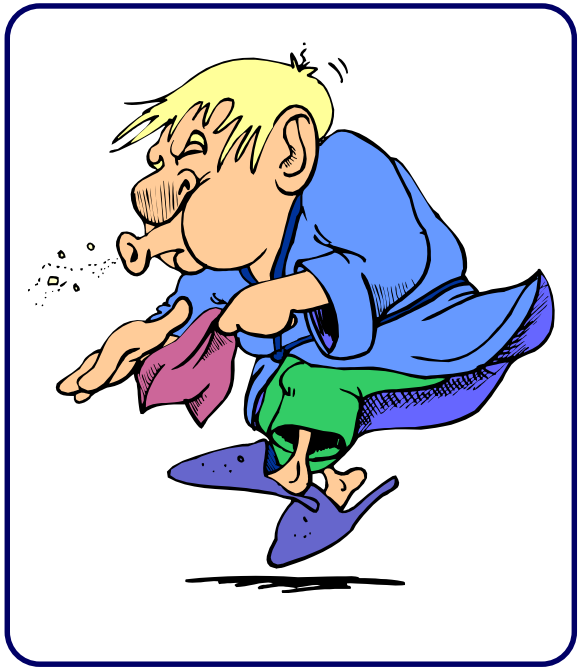
~1-4 days

Period of Communicability:

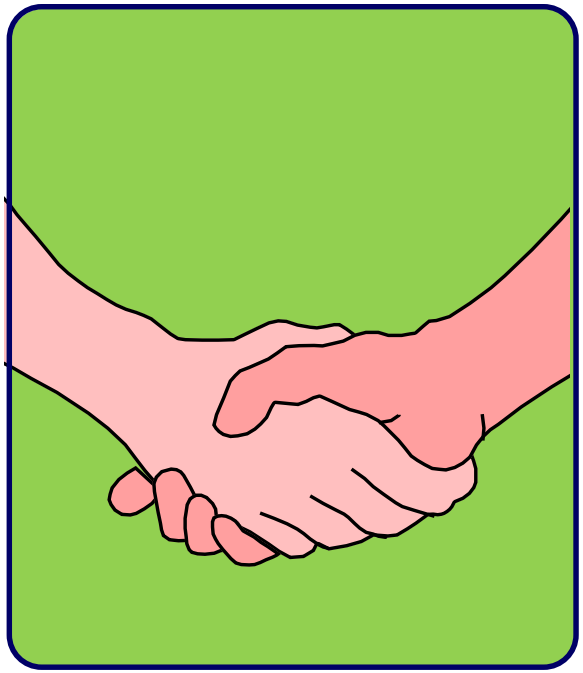


How Influenza Is Spread

Small Droplets



Direct Contact



Indirect Contact

Signs and Symptoms

- Fever
- Cough
- Muscle aches
- Headache
- Chills
- Loss of appetite
- Fatigue
- Sore throat
- Nausea, vomiting and diarrhea may occur, especially in children

Signs and Symptoms continued

- A person infected with influenza may:
  - not develop symptoms but may shed the virus and infect others
  - spread influenza for up to 24 hours before developing symptoms
  - develop only mild symptoms but continue to work and infect others

Why Should I Be Concerned?

- You may get sick with influenza
- You may spread influenza to family and friends
- You may transmit influenza to people at high risk of influenza-related complications, including pneumonia or even death

People at high risk for influenza-related complications

- Adults and children with chronic health conditions
- People of any age who are residents of nursing homes and other chronic care facilities
- Adults 65 years of age and older
- All children under six years of age
- All pregnant people
- Indigenous peoples

What Can be Done to Prevent and Control the Spread of Influenza?

- Influenza Immunization
- Basic infection prevention & control measures:
  - Hand hygiene
  - Respiratory etiquette
  - Avoid touching your eyes, nose and mouth
  - Physical distancing
  - Stay home if you are ill

What Can be Done to Prevent and Control the Spread of Influenza?

- Routine Practices/Additional Precautions
  - Acute respiratory infection screening
  - Droplet/contact precautions
  - Facial protection within 2 m of ill residents
  - Isolation of ill residents in a single room or cohort with another lab-confirmed case
  - Continued precautions for five days
  - Environmental cleaning
  - Outbreak control measures, including antiviral prophylaxis

Influenza Vaccine

- Vaccination is the most effective way to protect against influenza infection
- Influenza vaccine ~ 50% effective
- Reduces hospitalization, pneumonia and death in the elderly

Influenza Vaccine Effectiveness

- Can vary from season to season
- Depends on at least two factors:
  - Who is being vaccinated
  - Match between the influenza strains in the vaccine and the influenza strains that are circulating
- With a poor match, may still offer some protection
- Other flu shot vaccine strains may be well matched

2021-22 Publicly Funded Flu Vaccines

Age Cohort	Vaccine Product	Vaccine Type	Recommended Vaccine
≥ 65 years	Fluzone® High-Dose Quadrivalent	High-Dose QIV (QIV-HD)	When possible, administer QIV-HD or TIV-adj over the standard dose QIV for adults 65 years+ If QIV-HD or TIV-adj are not available, **don't delay vaccination for individuals 65 years+.** Give standard dose QIV.
≥ 65 years	Fluad®	Adjuvanted Trivalent Inactivated Vaccine (TIV-adj)	
≥ 6 months	FluLaval Tetra, Fluzone® Quadrivalent	Quadrivalent Inactivated Vaccine (QIV)	No preferential vaccine, with exception of contraindications (see note below). **Note:** Flucelvax® Quad is now approved for individuals ≥ 2 years. Children under nine years of age, without previous flu vaccination, need a second dose, given 4 weeks after the first dose.
≥ 2 years	Flucelvax® Quad	Quadrivalent Inactivated Vaccine (QIV)	
≥ 5 years	Afluria® Tetra	Quadrivalent Inactivated Vaccine (QIV)	

NEW: Cell-Culture Based Vaccine (Flucelvax Quad)

- Flu virus is grown in cultured cells from mammalian origin (versus hens' eggs)
- Does not promote egg adaptive mutations
- Similar immunogenicity, effectiveness and safety profile to egg-based vaccines
- Standard dose quardrivalent for people 2 years of age and older
- No concern for people with dog or egg allergies
- Can be given to pregnant women

NEW: Vaccine co-administration with COVID vaccines

- NACI advised COVID-19 vaccines may be given at the same time as, or any time before or after, other vaccines, including live, non-live, adjuvanted or unadjuvanted vaccines
- Vaccines administered during the same visit should be given at different injection sites. As with other vaccines, when possible administration on the same day is preferred to vaccines being given a few days of each other

Possible Flu Vaccine Side Effects

- Influenza vaccine is safe and well tolerated
- Soreness at the injection site may occur, and last up to 2 days
- Children may get a fever after vaccination
- Severe side effects and allergic reactions are rare
- Oculorespiratory syndrome (ORS) causing both eyes to be red and one or more of cough, wheeze, chest tightness, difficulty breathing, difficulty swallowing, hoarseness or sore throat.
- Guillain Barré Syndrome (GBS) is a rare disease that causes muscle paralysis and has been associated with certain infectious diseases. The risk after flu vaccination is fewer than 1-2 cases per one million people vaccinated. GBS is more common following a flu illness but is still rare.

Who Should Get Influenza Vaccine?

FREE for everyone greater than 6 months old who lives, works or goes to school in Ontario

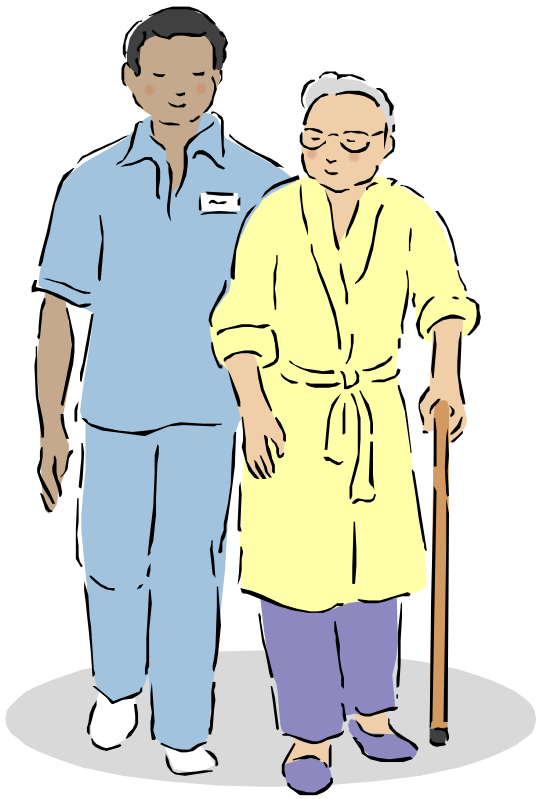
NACI recommends flu shot programs should focus on people:

- At high risk for influenza-related complications or hospitalization
- Capable of transmitting flu to high risk individuals
- Who provide essential community services

Important Additional Reasons to Get Your Flu Vaccine

- Individual protection against influenza
  - Lack of natural immunity since 1.5 years since influenza circulation
- Decreased burden on health care system
- Decreased illness that can be confused with COVID-19 and need for testing
- Decreased chance of co-infection in people, and outbreaks with more than one virus

Health Care Workers' (HCWs) Duty of Care



"In the absence of contraindications, refusal of HCWs to be immunized against influenza implies **failure in their duty of care to patients**."

- NACI

Who Should NOT Get the Vaccine?

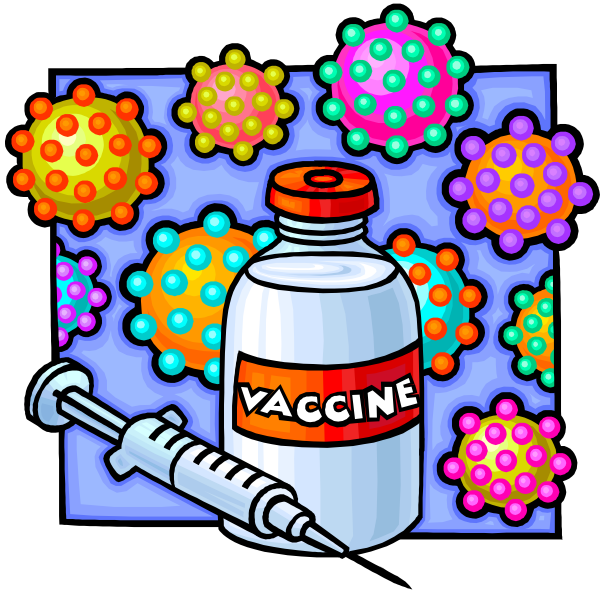
- Infants under 6 months of age
- Person who had an anaphylactic reaction to a previous dose of influenza vaccine **OR** to any vaccine components, with the exception of egg
- Person who has had GBS within 6 weeks of influenza vaccination
- Most people who had ORS can safely receive the vaccine but should talk to their doctor first
- Postpone vaccination in persons with serious acute illness until their symptoms have abated

NEW: During Pandemic, Defer Flu Vaccine if Ill with ARI Until Recovered

- During the COVID-19 pandemic, people with any symptoms of acute respiratory infection, including minor symptoms such as sore throat or runny nose, should **defer influenza vaccination until they have recovered** since they can pose a risk to others, including healthcare providers if they have COVID-19

Under What Conditions Can I Work During an Influenza Outbreak?

- Must be **well**
- Vaccinated for 2 weeks or more
- Vaccinated for less than 2 weeks - must take antivirals
- Unvaccinated - must take antivirals



Summary

- Influenza vaccines are safe and the most effective way to prevent influenza
- Unvaccinated staff can spread influenza to family, friends, and patients/residents
- Hospitalized and other vulnerable patients can have prolonged hospitalizations, severe illnesses, and can die as a result of influenza transmission from healthcare workers
- Influenza illness can add additional burden to our healthcare system which is already stretched due to the pandemic

Toronto Public Health

Questions?