# INFLUENZA IMMUNIZATION POCKET GUIDE FOR HEALTH CARE PROVIDERS

### WHO SHOULD RECEIVE THE VACCINE?

All individuals 6 months of age and older, with a particular focus on:

### People at high risk of influenza-related complications or hospitalization

- All pregnant women (the risk of influenza-related hospitalization increases with length of gestation (i.e., it is higher in the third trimester than in the second)
- Adults and children with the following chronic health conditions:
  - o cardiac or pulmonary disorders (includes bronchopulmonary dysplasia, cystic fibrosis, and asthma)
  - o diabetes mellitus and other metabolic diseases
  - o cancer, immune compromising conditions (due to underlying disease, therapy, or both)
  - o renal disease
  - o anemia or hemoglobinopathy
  - neurologic or neurodevelopment conditions (includes neuromuscular, neurovascular, neurodegenerative, neurodevelopmental conditions, and seizure disorders [and, for children, includes febrile seizures and isolated developmental delay], but excludes migraines and psychiatric conditions without neurological conditions)
  - o morbid obesity (body mass index [BMI] of 40 and over); and
  - children 6 months to 18 years of age undergoing treatment for long periods with acetylsalicylic acid, because of the potential increase of Reye's syndrome associated with influenza
- People of any age who are residents of nursing homes and other chronic care facilities
- Adults 65 years of age and older
- All children 6 to 59 months of age; and
- Indigenous peoples

# People capable of transmitting influenza to those at high risk

- Health care and other care providers in facilities and community settings who, through their activities, are capable of transmitting influenza to those at high risk
- Household contacts, both adults and children, of individuals at high risk, whether or not the individual at high risk has been vaccinated:
  - household contacts of individuals at high risk
  - household contacts of infants <6 months of age, as these infants are at high risk but cannot receive influenza vaccine
  - members of a household expecting a newborn during the influenza season
- Those providing regular child care to children 6-59 months of age, whether in or out of the home
- Those who provide services within closed or relatively closed settings to people at high risk (e.g., crew on a ship)

#### **Others**

- People who provide essential community services
- People who are in direct contact with poultry infected with avian influenza during culling operations

# WHO SHOULD NOT RECEIVE THE VACCINE?

- People who have had an anaphylactic reaction to a previous dose of influenza vaccine
- People who have had an anaphylactic reaction to any of the vaccine components, with the exception of egg
- People who have developed Guillain-Barré Syndrome (GBS) within 6 weeks of a previous influenza vaccination

# LAIV4 SHOULD NOT BE ADMINISTERED TO:

- People with immune compromising conditions, due to underlying disease, therapy, or both
- People with severe asthma (defined as currently on oral or high-dose inhaled glucocorticosteroids or active wheezing) or medically attended wheezing in the 7 days prior to the proposed date of vaccination
- Children < 24 months of age, due to increased risk of wheezing
- Children 2 to 17 years of age currently receiving aspirin or aspirin-containing therapy, because of the association of Reye's syndrome with aspirin and wild-type influenza infection
- Pregnant women

# Additional Information

- Aspirin-containing products in children <18 years of age should be delayed for 4 weeks after receipt of LAIV4
- Influenza vaccination should usually be postponed in people with serious acute illnesses until their symptoms have abated
- LAIV4 recipients should avoid close association with people with severe immune compromising conditions (e.g., bone marrow transplant recipients requiring isolation) for at least 2 weeks following vaccination, because of the theoretical risk for transmitting a vaccine virus and causing infection
- LAIV4 should not be administered until 48 hours after antiviral agents active against influenza (e.g., oseltamivir, zanamivir) are stopped, and those antiviral agents, unless medically indicated, should not be administered until 2 weeks after receipt of LAIV4 so that the antiviral agents do not kill the replicating vaccine virus

Source: National Advisory Committee on Immunization (NACI). Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2019-2020. Available at: https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/canadian-immunization-guide-statement-seasonal-influenza-vaccine-2019-2020.html





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### CO-ADMINISTRATION

Based on expert opinion, NACI recommends that LAIV4 can be given together with or at any time before or after the administration of any other live attenuated or inactivated vaccine. NACI recognizes that some vaccine providers may choose to give LAIV4 and other live vaccines simultaneously or separated by at least 4 weeks as a professional preference.

# RECOMMENDED DOSAGE

#### Important notice

FluMist® Quadrivalent is not available for use in Canada for the 2019-2020 influenza season. Influvac® (trivalent formulation) is no longer available in Canada. Influvac® Tetra quadrivalent inactivated influenza vaccine is now authorized by Health Canada for use in adults > 18 years of age. Refer to product monograph for further details: https://pdf.hres.ca/dpd\_pm/00049880.PDF

Age group	IIV3-SD* or IIV4-SD† (IM)	IIV3-Adj‡(IM)	IIV3-HD § (IM)	LAIV4    (intranasal)	Number of doses required
6-23 months	0.5 mL ¶	0.25 mL	-	_	1 or 2**
2–8 years	0.5 mL	-	-	0.2 mL (0.1 mL per nostril)	1 or 2**
9–17 years	0.5 mL	-	_	0.2 mL (0.1 mL per nostril)	1
18-59 years	0.5 mL	-	_	0.2 mL (0.1 mL per nostril)	1
60-64 years	0.5 mL	-	-	_	1
≥65 years	0.5 mL	0.5 mL	0.5 mL	_	1

Abbreviations: IIV3-Adj: adjuvanted trivalent inactivated influenza vaccine; IIV3-HD: high-dose trivalent inactivated influenza vaccine; IIV3-SD: standard-dose trivalent inactivated influenza vaccine; IIV4-SD: standard-dose quadrivalent inactivated influenza vaccine; IM: intramuscular; LAIV4: quadrivalent live attenuated influenza vaccine

- \* Agriflu® (6 months and older), Fluviral ® (6 months and older), Influvac® (3 years and older)
- † Afluria® Tetra (5 years and older), Flulaval® Tetra (6 months and older), Fluzone® Quadrivalent (6 months and older)
- ‡ Fluad Pediatric® (6-23 months) or Fluad® (65 years and older)
- § Fluzone® High-Dose (65 years and older)
- II FluMist® Quadrivalent (2-59 years)
- $\P$  Evidence suggests moderate improvement in antibody response in infants, without an increase in reactogenicity, with the use of full vaccine doses (0.5 mL) for unadjuvanted inactivated influenza vaccines. For more information, see Statement on Seasonal Influenza Vaccine for 2011-2012. Available at: https:// www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-reportccdr/monthly-issue/2011-37/canada-communicable-disease-report-acs-5.html
- \*\* Children 6 months to less than 9 years of age receiving seasonal influenza vaccine for the first time should be given 2 doses of influenza vaccine, with a minimum interval of 4 weeks between doses. Children 6 months to less than 9 years of age who have been properly vaccinated with one or more doses of seasonal influenza vaccine in the past should receive 1 dose of influenza vaccine per season thereafter.

# CHOICE OF VACCINE PRODUCT

# Children 6 to 23 months

- IIV4-SD is recommended
- If IIV4-SD is not available, any of the available trivalent vaccines should be used

# Healthy children 2 to 17 years

- Either IIV4-SD or LAIV4 are recommended
- If IIV4-SD or LAIV4 are not available, IIV3-SD should be used

### Children with immune compromising conditions or receiving aspirin or aspirincontaining therapy

• IIV4-SD is recommended

### Children with severe asthma or medically attended wheezing in the previous seven days

• IIV4-SD is recommended

## Children with non-immune compromising chronic health conditions

- Either IIV4-SD or LAIV4 are recommended
- If IIV4-SD or LAIV4 are not available, IIV3-SD should be used
- LAIV4 may be given to children with:
  - o stable, non-severe asthma
  - o cystic fibrosis who are not treated with immunosuppressive drugs (e.g., prolonged systemic corticosteroids)

Healthy adults 18 to 59 years • IIV4-SD, IIV3-SD or LAIV4 are recommended unless contraindicated

# Adults with chronic health conditions including immune compromising

conditions IIV4-SD or IIV3-SD are recommended

# Adults 60 to 64 years

• Either IIV4-SD or IIV3-SD are recommended

- Adults 65 and older
- Any of the following vaccines can be used: IIV3-SD, IIV3-Adj, IIV3-HD, or IIV4-SD
  When available, NACI recommends IIV3-HD should be used over IIV3-SD

**Pregnant women** • IIV4-SD or IIV3-SD are recommended

Health care and other providers • IIV4-SD or IIV3-SD are recommended

Source: National Advisory Committee on Immunization (NACI). Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2019–2020. Available at: https:// www.canada.ca/en/public-health/services/publications/vaccines immunization/canadian-immunization-guide-statement-seasonal-influenza-vaccine-2019-2020.html