

Publicly Funded Seasonal Inactivated Influenza Vaccine Information for Health Care Providers 2023-24

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Vaccine Information for Health Care Providers 2023
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Highlights for 2023-24

Everyone in Nova Scotia who is 65 years and older is eligible to receive High Dose influenza vaccine. High Dose influenza vaccine has four times the amount of antigen and offers better protection for this age group.

Coadministration of COVID-19 and Influenza Vaccines

Administration of COVID-19 vaccines may occur concurrently with (i.e., same day), or at any time before or after seasonal influenza immunization for those aged 6 months and older. Readers should consult the Canadian Immunization Guide COVID-19 chapter for updated NACI guidance on the concurrent administration of influenza and COVID-19.

<https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-26-covid-19-vaccine.html#a8.3>

Target Groups for Influenza Vaccination:

The National Advisory Committee on Immunization (NACI) advises on groups for whom influenza vaccination is particularly recommended. These include:

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

- All children 6-59 months of age
- Adults and children with specific chronic health conditions (see NACI statement for details)
<https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-statement-seasonal-influenza-vaccine-2023-2024.html>
- All pregnant people
- People of any age who are residents of nursing homes or other chronic care facilities
- Adults 65 years or older, and
- Indigenous peoples.*

People capable of transmitting influenza to those at high risk

- Health care and other care providers
- Household contacts, both adults and children, of people at high risk regardless of their vaccination status
- Those providing regular care to children 0-59 months (in or out of the home)
- Those who provide services within closed or relatively closed settings to people at high risk

Others

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

** There is a higher risk of flu-related complications and/or hospitalization for Indigenous peoples. This is a result of multiple factors, including a high occurrence of chronic health conditions, reduced access to health care, and other social and environmental factors such as poor housing conditions*

Influenza Vaccine Efficacy and Effectiveness

Influenza vaccine has been shown in randomized controlled clinical trials to be efficacious at preventing influenza infection and illness. However the effectiveness can vary from season to season by influenza vaccine strain and subtype. Influenza vaccine effectiveness depends on how well the vaccine strains match the circulating virus as well as the health and age of the individual receiving the vaccine. Even if the match is not optimal, it is important for individuals, particularly those at high risk of influenza related complications and hospitalization, to be immunized because they are more likely to be protected than those who are unvaccinated.

Immunization Provider Accountabilities

Vaccine Cold Chain

Cold chain is the process used to maintain required temperatures for vaccines. All vaccines must always be stored within +2°C to +8°C during transport or storage, from the point of manufacture through to the point they are administered to an individual.

The integrity of the cold chain depends on three essential elements:

- **the people** managing vaccine manufacture, storage, and distribution and those managing the cold chain at the provider level.
- **the systems** and processes providers use to ensure they monitor the vaccine storage conditions and actions taken if the vaccines are exposed to temperatures outside the required range.
- **the equipment** used for storing, transporting, and monitoring vaccines from the time the vaccine is delivered to an immunization provider to the time the vaccine is administered to an individual.

Please review the Infographic: A Visual Guide to Packing a Vaccine Cooler Properly at https://policy.nshealth.ca/Site_Published/covid19/document_render.aspx?documentRender.IdType=6&documentRender.GenericField=&documentRender.Id=99791 for information on transporting biologicals

All cold chain breaks must be reported to the local Public Health Office by emailing publichealthvaccineorders@nshealth.ca or contacting 902-481-5813. Following a cold chain breach, the primary concern is around decreased vaccine potency. Vaccines exposed to a cold chain break must be bagged, dated and labelled “Do Not Use” and refrigerated in a monitored and functioning vaccine fridge while waiting to receive direction from Public Health on use of the affected vaccines.

[National Vaccine Storage and Handling Guidelines for Immunization Providers 2015 – Canada.ca](#)
[Canadian Immunization Guide: Storage and handling of immunizing agents](#)

Vaccine Safety and Reporting

All adverse events not normally expected (i.e. listed in the product monograph) that are temporally related to the administration of the vaccine need to be reported to local public health in accordance with It's the Law: Reporting of Adverse Events Following Immunization as found at https://novascotia.ca/dhw/CDPC/documents/13087_AdverseEventsPoster_En.pdf

Post marketing surveillance of influenza vaccines in Canada has shown that seasonal influenza vaccines have a safe and stable profile. Serious adverse events are rare following influenza vaccination, and in most cases data are

insufficient to determine a causal association. Allergic responses to influenza vaccine are a rare consequence of hypersensitivity to some components of the vaccine or its container.

The multi-dose formulations of inactivated influenza vaccine that are authorized for use in Canada contain minute quantities of thimerosal which is used as a preservative. All single dose formulations are thimerosal -free.

After careful review of clinical and post-licensure safety data, NACI has concluded that egg-allergic individuals may be vaccinated against influenza using any influenza vaccine including egg-based vaccines without prior influenza vaccine skin test and with the full dose. The observation period post-vaccination is recommended in Vaccine Safety in the CIG. <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-2-vaccine-safety.html>

Individuals known to have Guillain - Barre syndrome without other known cause within 6 weeks of an influenza vaccination should avoid subsequent influenza vaccinations. But the potential risk of GBS must be balanced against the risk of GBS from influenza infection and the benefits of influenza vaccination.

Immunization Entry into Electronic Documentation

Electronic Medical Record:

The Nova Scotia provincial repository for immunization data (Panorama) accepts immunization records from EMRs. Step-by-step instructions for entering influenza vaccines into QHR Accuro and Telus Med Access EMRs may be found on this resource page: <https://support.novascotia.ca/applications/panorama>

To avoid risk of rejected records, the EMR must be configured using the following list: [EMR-Panorama Vaccine List](#). To confirm electronic records are being received, please email the Public Health Information Systems team, Department of Health and Wellness (panorama@novascotia.ca). Upon receipt of electronic records, providers are no longer required to send hardcopy reciprocal forms.

If you have questions related to the entry of influenza vaccines (and all vaccines), please email panorama@novascotia.ca

Billing

- Physicians are to use MSI billing codes
- Pharmacies are to use Clinic Flow for appointment booking and to document administration of influenza vaccine.
- Some immunization providers must complete aggregate data collection forms provided by and returned to Public Health. The forms can also be found in the '*Seasonal Influenza Vaccine Data Collection*' section of the [Surveillance Guidelines Forms document](#).

Competency

Immunizers will follow their respective professional guidelines (e.g. NSCN, CPSNS, and NSCP) with respect to immunization competency and professional responsibility. Immunizers may need to be deemed competent by their employing agency or college to provide immunization.

Safety

- Epinephrine must be present during vaccine administration.
- Clients must be monitored for at least 15 minutes post-immunization.
- Documentation of vaccine administration must include the lot number of the vaccine in case of recall or adverse event.
- For more information on safely providing influenza vaccine during COVID-19, see the PHAC guidance: <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/guidance-use-influenza-vaccine-covid-19.html>

Duty of Care/Role Model

Annual influenza immunization of health care workers is an important mechanism to reduce influenza-related morbidity and mortality among high-risk groups and individuals to whom you provide care. All immunization providers should receive an annual influenza vaccine.

Vaccine Products

Inactivated High-dose Quadrivalent Vaccine (IIV4-HD)

- The product used will be:
 - Fluzone® High-Dose (Sanofi Pasteur) – this product contains four times the virus antigen per strain in comparison to the standard-dose influenza vaccine. Evidence indicates better protection for those 65 years and older compared to the standard-dose influenza vaccine.
- The components of the vaccine include:
 - A/Victoria/4897/2022 (H1N1) pdm09-like strain (A/Victoria/4897/2022, IVR-238)
 - A/Darwin/9/2021 (H3N2)-like strain (A/Darwin/9/2021, SAN-010)
 - B/Austria/1359417/2021-like strain (B/Michigan/01/2021, wild type)
 - B/Phuket/3073/2013-like strain (B/Phuket/3073/2013, wild type)

Inactivated Standard Dose Quadrivalent Vaccine (IIV4-SD)

- The products used will include:
 - Fluzone® Quadrivalent (Sanofi Pasteur)
 - Flulaval® Tetra (GlaxoSmithKline [GSK])
 - Afluria® Tetra (Seqirus) – **age indication 5 years and older**
- The components of the vaccine include:
 - A/Victoria/4897/2022 (H1N1)pdm09-like virus (A/Victoria/4897/2022 IVR-238)
 - A/Darwin/9/2021 (H3N2)-like virus (A/Darwin/9/2021 IVR-228)
 - B/Austria/1359417/2021-like virus (B/Austria/1359417/2021 BVR-26) from the B/Victoria/2/87 lineage
 - B/Phuket/3073/2013-like virus (B/Phuket/3073/2013) from the B/Yamagata/16/88 lineage

Table: Characteristics of influenza vaccine products available in Nova Scotia for 2023-2024 season*

Product Name	Fluzone® High-Dose (Individuals 65 years of age and older)	Flulaval® Tetra	Fluzone® Quadrivalent	Afluria® Tetra
Manufacturer	Sanofi Pasteur	GlaxoSmithKline	Sanofi Pasteur	Seqirus
Vaccine Type	IIV4-HD (high-dose, split virus inactivated, quadrivalent)	IIV4-SD (split virus inactivated, quadrivalent)	IIV4-SD (split virus inactivated, quadrivalent)	IIV4-SD (split virus inactivated, quadrivalent)
Route of Administration	IM	IM	IM	IM
Authorized Ages for Use	65 years and older	6 months and older	6 months and older	5 years and older
Antigen Content for each vaccine strain	60 µg HA/0.7 mL dose	15 µg HA/0.5 mL dose	15 µg HA/0.5 mL dose	15 µg HA/0.5 mL dose
Adjuvant	None	None	None	None
Formats Available in Nova Scotia	Single dose pre-filled syringes	5 mL multi-dose vial	5 mL multi-dose vial	5 mL multi-dose vial
Post-Puncture Shelf Life for Multi-Dose Vials	Not applicable	28 days	Up to expiry date indicated on vial label	Up to expiry date indicated on vial label.
Product Stability	Store between +2°C to +8°C. Must not be frozen and must be protected from light.	Store between +2°C to +8°C. Must not be frozen and must be protected from light.	Store between +2°C to +8°C. Must not be frozen and must be protected from light.	Store between +2°C to +8°C. Must not be frozen and must be protected from light.
Thimerosal	No	Yes (multidose vial)	Yes (multidose vial)	Yes
Antibiotics (Traces)	None	None	None	Yes (neomycin and polymyxin B)
Egg protein (traces)	Yes	Yes	Yes	Yes

*Adapted from: Appendix A. For further information refer to product monographs

Adapted from Appendix A of the NACI Statement on seasonal influenza vaccine for 2023-2024 <https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-statement-seasonal-influenza-vaccine-2023-2024.html>

Vaccine Ordering

- Influenza vaccine is usually available from Nova Scotia Health, Public Health in October. This is dependent upon national vaccine production, licensing, and distribution procedures.
- Faxed vaccine order forms will no longer be accepted. Influenza vaccine must be ordered through Shopify. A 30-day minimum vaccine fridge temperature log must be uploaded to Shopify prior to placing a vaccine order.
- A supply of inactivated high-dose quadrivalent vaccine (IIV4-HD) will be available for individuals 65 years and older. This vaccine comes in single dose pre-filled syringes and will require significant cooler and vaccine fridge space.
- A supply of inactivated standard dose quadrivalent vaccine (IIV4-SD) is available for all Nova Scotia residents aged 6 months and older. This vaccine comes in multi-dose vials.
- Providers will need to make appointments to pick up their influenza vaccine.
- Providers are asked not to book clinics prior to picking up their influenza vaccine.
- Providers are asked to bring the proper cooler and packing supplies to pick up their influenza vaccine.

Dosage and frequency of the influenza vaccines

- As per the link to the Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI) 2023-2024 <https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-statement-seasonal-influenza-vaccine-2023-2024.html>, the dose for inactivated unadjuvanted influenza vaccine is 0.5 ml. **The dosing for ages 6 months – 23 months may differ from the product monograph.**

Age Group	IIV4-SD (Fluzone® or Flulaval® Tetra)	IIV4-SD (Afluria® Tetra)**	IIV4-HD (Fluzone® HD)	No. of Doses
6 months - 8 years*	0.5 ml	–	–	1 or 2*
5 years - 8 years*	0.5 ml	0.5 ml	–	1 or 2*
9 years and older	0.5ml	0.5 ml	–	1
65 years and older	–	–	0.7 ml	1

Inactivated Influenza Vaccine Doses by Age, 2023-24

*Two doses 4 weeks apart are required if a child is less than 9 years of age. If a child less than 9 years received a dose of influenza vaccine in the past, then only one dose is required this year.

There is no evidence on the efficacy, effectiveness, immunogenicity, or safety for the use of Afluria® Tetra in children < 5 years of age, and Afluria® Tetra **is not authorized for use in this age group in Canada.

If an individual eligible for inactivated high-dose quadrivalent influenza vaccine (IIV4-HD) refuses the vaccine, the individual must be made aware that the IIV4-HD provides better protection in individuals 65 years of age and older in comparison to the inactivated quadrivalent standard dose influenza vaccine (IIV4-SD). If an individual still refuses IIV4-HD, IIV4-SD should be offered.

Individuals 65 years and older who have received the IIV5-SD, should not be re-immunized with the IIV4-HD.

Influenza vaccine eligibility

Immunization against influenza is publicly funded and advised for all Nova Scotians 6 months and older. The vaccine is free of charge. As in previous years, those without a valid Nova Scotia health card are eligible to receive publicly funded influenza vaccine.

Inactivated High-dose Quadrivalent Vaccine (IIV4-HD)

Nova Scotia residents 65 years and older are eligible to receive inactivated high dose quadrivalent influenza vaccine (IIV4-HD).

Inactivated Quadrivalent Standard Dose Vaccine (IIV4-SD)

All other individuals, 6 months and older, should be offered the IIV4-SD product.

Physician billing for influenza immunization

MSI billing information for influenza (Flu) and polysaccharide pneumococcal (PC) vaccines:

Provincial immunization tray fee:

Billing requires a health service code, a modifier, and a diagnostic code				
Immunization	Health Service Code	Modifier	MSUs	Diagnostic Code
Influenza	13.59L	RO=INFL	6.0	Select diagnostic code from the table below
	13.59L	RO=HDIN	6.0	
Pneumococcal	13.59L	RO=PNEU	6.0	
Patient Status			Diagnostic Codes	
			FLU	PC
Pregnant			V221	N/A
Males & non-pregnant females			V048	V066

Notes for billing:

Health Services Code	Description	MSUs
13.59M	Provincial immunization tray fee	1.5 per multiple (max 4/visit)

- If one vaccine is administered but no associated office visit is billed (i.e. the sole purpose for the visit is the immunization), claim the immunization at a full fee of 6.0 MSUs.
- If two vaccines are administered at the same visit but no associated office visit is billed (i.e. the sole purpose for the visit is the immunization), claim for each immunization at a full fee of 6.0 MSUs each. Any subsequent injections after two will be paid at 50%.
- If one vaccine is administered in conjunction with a billed office visit, claim both the office visit and the immunization at full fee.
- For children less than 12 months of age, if a vaccine is administered in conjunction with a well-baby care visit, claim the well-baby care visit and the immunization.
- If two vaccines are administered in conjunction with a billed office visit, claim the office visit and the first injection can be claimed at full fee. All subsequent injections will be paid at 50%.

Pharmacy billing for influenza immunization

Pharmacies book influenza vaccine appointments and document immunizations through Clinic Flow. This program will provide the information required for pharmacy billing so there is no need to submit additional information.

More information on influenza vaccines

For more information on influenza vaccine, contact your local Public Health office. You may also check the following websites:

- National Advisory Statement on Seasonal Influenza Vaccine for 2023-2024
<https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-statement-seasonal-influenza-vaccine-2023-2024.html>
- Nova Scotia Department of Health and Wellness
- Canadian Public Health Association
- Immunize Canada

