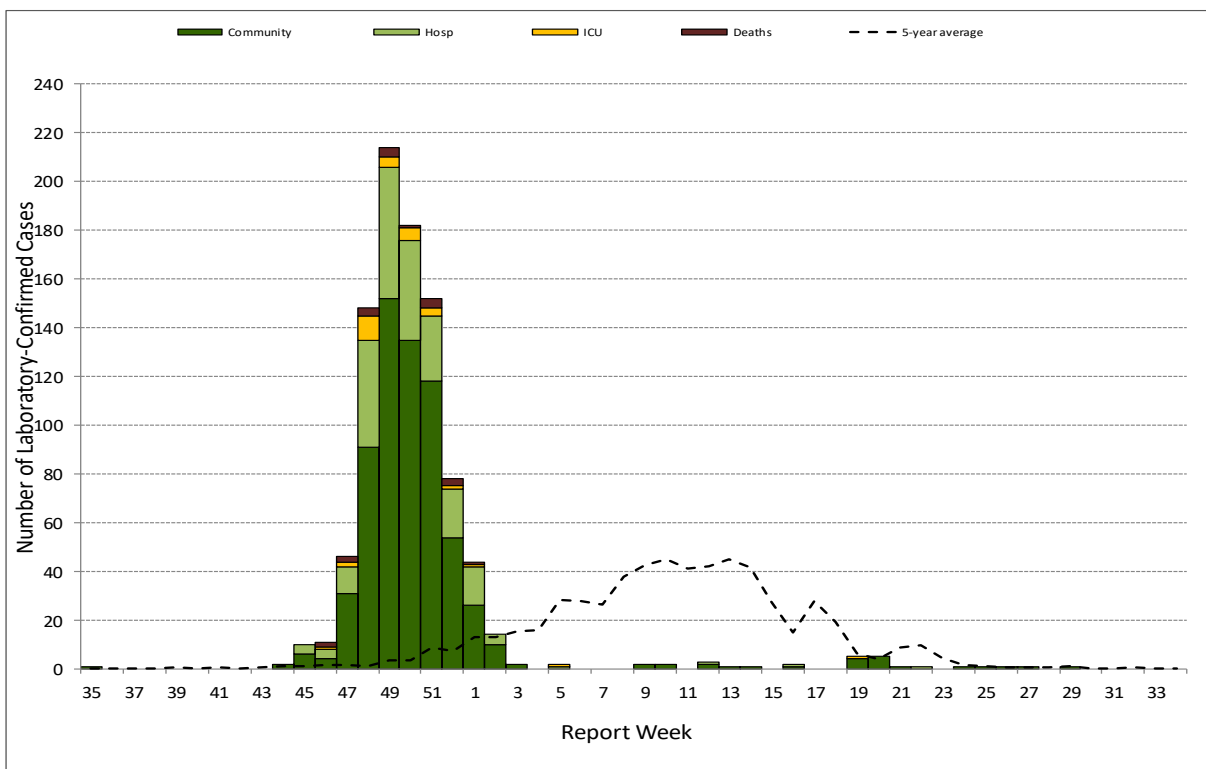


# 2022/2023 INFLUENZA REPORT

## Overview

- ⇒ There were 934 laboratory-confirmed cases of influenza during the 2022/2023 season. Of these cases, there were 229 hospitalizations, 29 ICU admissions and 20 influenza-related deaths (Table 1).
- ⇒ This season peaked in week 49 (week starting December 4th), 11 to 12 weeks earlier compared to the 5-year average (Figure 1).
- ⇒ Influenza A was the predominant virus circulating across all regional health authorities, accounting for 98.9% of all laboratory-confirmed cases (Figure 2).



**Figure 1: Number of cases, hospitalizations, ICU admissions and deaths, by week virus identified, NL, 2022/2023**

- ⇒ Children and young adults aged 0-19 years accounted for the largest proportion of cases overall (44%), followed by those 65 years of age and older (33%). Adults aged 20-64 accounted for 22% of lab-confirmed cases (Figure 3).
- ⇒ The average age of confirmed cases was highest for those who had died:
  - ⇒ Cases, mean: 39.1 years
  - ⇒ Hospitalizations, mean: 51.7 years
  - ⇒ ICU admissions, mean: 50.0 years
  - ⇒ Deaths, mean: 77.0 years
- ⇒ Over half (55.4%) of laboratory-confirmed cases were female, and they accounted for 55.5% of hospitalizations, 62.1% of ICU admissions and 40.0% of deaths (Table 1).

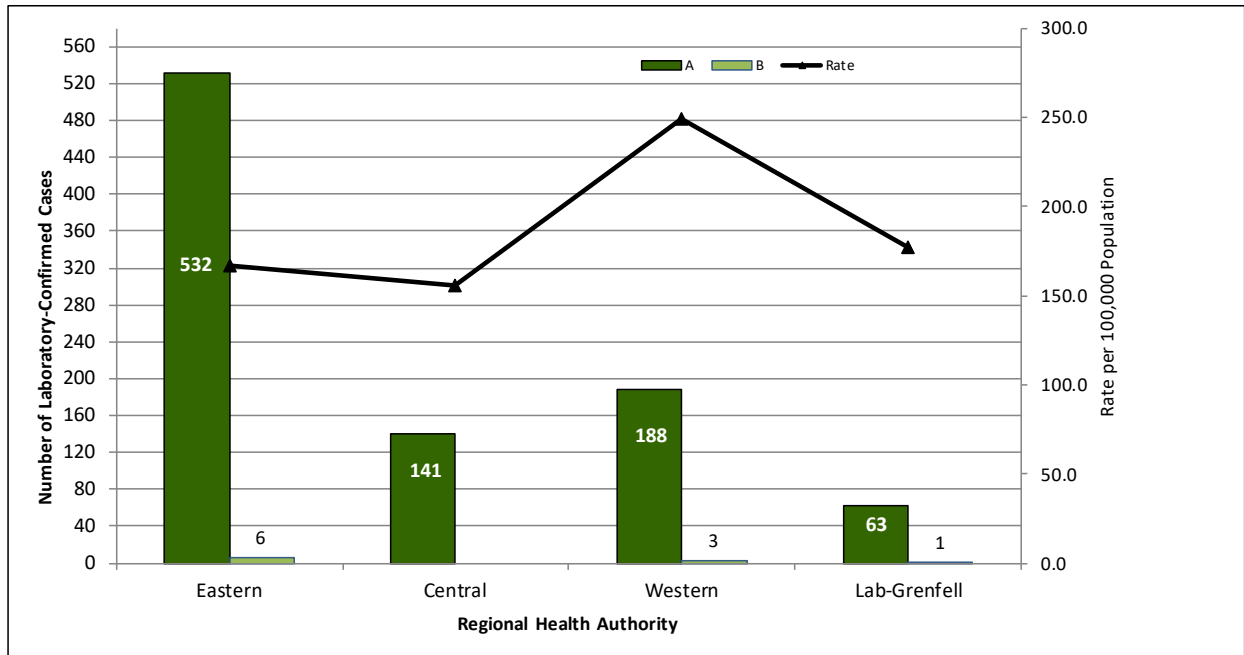


Figure 2: Total number of laboratory-confirmed influenza A and B, by RHA, 2022/2023

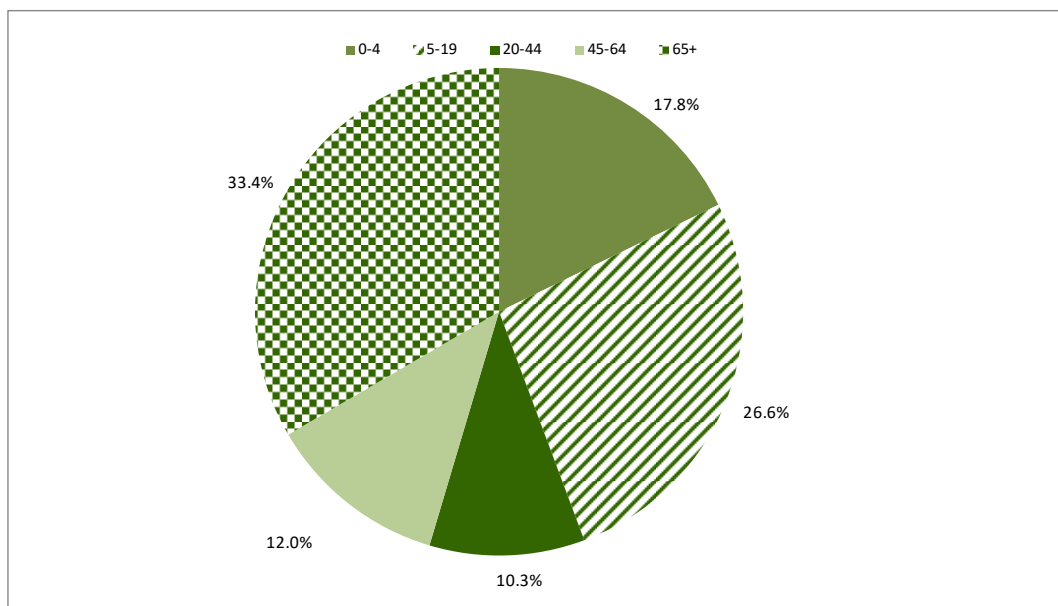


Figure 3: Number of laboratory-confirmed influenza cases, by age group, NL, 2022/2023

Table 1: Number and percent of influenza cases, hospitalizations, ICU admissions and deaths, by sex, NL, 2022/23

	Cases	Hospitalizations	ICU Admissions	Deaths
Female	517 (55.4)	127 (55.5)	18 (62.1)	8 (40.0)
Male	417 (44.6)	102 (44.5)	11 (37.9)	12 (60.0)
Total	934	229	29	20

## Influenza Strain

- ⇒ Influenza A was the predominant strain during the 2022/2023 season in NL. Of cases, 98.9% were influenza A and 1.1% were influenza B (Table 2). Fewer influenza B detections were reported this season compared to previous pre-pandemic years.
- ⇒ Across Canada, influenza A accounted for 93% of laboratory-confirmed cases, of which sub-type A(H3N2) was the most common.
- ⇒ Over the 2022/2023 season, the National Microbiology Laboratory tested 599 influenza A and B viruses for antiviral resistance: no virus was resistant to oseltamivir or zanamivir (Table 3).

Table 2: Number and percent of influenza cases, hospitalizations, ICU admissions and deaths, by type, NL, 2022/2023

Flu Type	Cases	Hospitalizations	ICU Admissions	Deaths
A	924 (98.9)	229 (100)	29 (100)	20 (100)
B	10 (1.1)	0	0	0
Total	934	229	29	20

Table 3: Cumulative antiviral resistance by influenza virus type and sub-type, Canada, 2022/2023

	Oseltamivir			Zanamivir			Amantadine		
	Tested	Resistant		Tested	Resistant		Tested	Resistant	
	#	#	%	#	#	%	#	#	%
A (H3N2)	379	0	0.0	379	0	0.0	--	--	--
A (H1N1)	105	0	0.0	105	0	0.0	--	--	--
B	115	0	0.0	115	0	0.0	--	--	--
Total	599	0	0.0	599	0	0.0	--	--	--

Source: Influenza and Respiratory Viruses Section, National Microbiology Laboratory (NML), Public Health Agency of Canada

## Immunization

- ⇒ Influenza immunization history is collected (when available) for lab-confirmed cases that result in a hospitalization or death. Of these cases, 9.8% reported receiving the 2022/2023 influenza seasonal vaccine, 59.3% reported no immunization, 2.9% were not eligible and 28.0% had unknown immunization status.
- ⇒ In NL, influenza vaccine is offered to all individuals six months of age and older. The flu vaccine is especially important for those who are at high risk of complications from the flu such as individuals with underlying health conditions. For more information visit <https://www.gov.nl.ca/hcs/publichealth/cdc/flu-information/>
- ⇒ The National Microbiology Laboratory (NML) characterized antigenically 680 influenza viruses (456 H3N2, 108 H1N1 and 116 B viruses) during the 2022/2023 influenza season. The majority of H3N2, H1N1, and influenza B viruses characterized were antigenically similar to the vaccine strain.

Note: The NML receives a proportion of the influenza positive specimens from provincial laboratories for strain characterization and antiviral resistance testing. Strain characterization data reflect the results of hemagglutination inhibition (HI) testing compared to the reference influenza strains recommended by WHO.

**Outbreak Reports (CNPHI: Outbreak Summaries)**

⇒ There were 128 respiratory outbreaks during the 2022/2023 season. Of these, 15 were confirmed influenza A outbreaks (Figure 4).

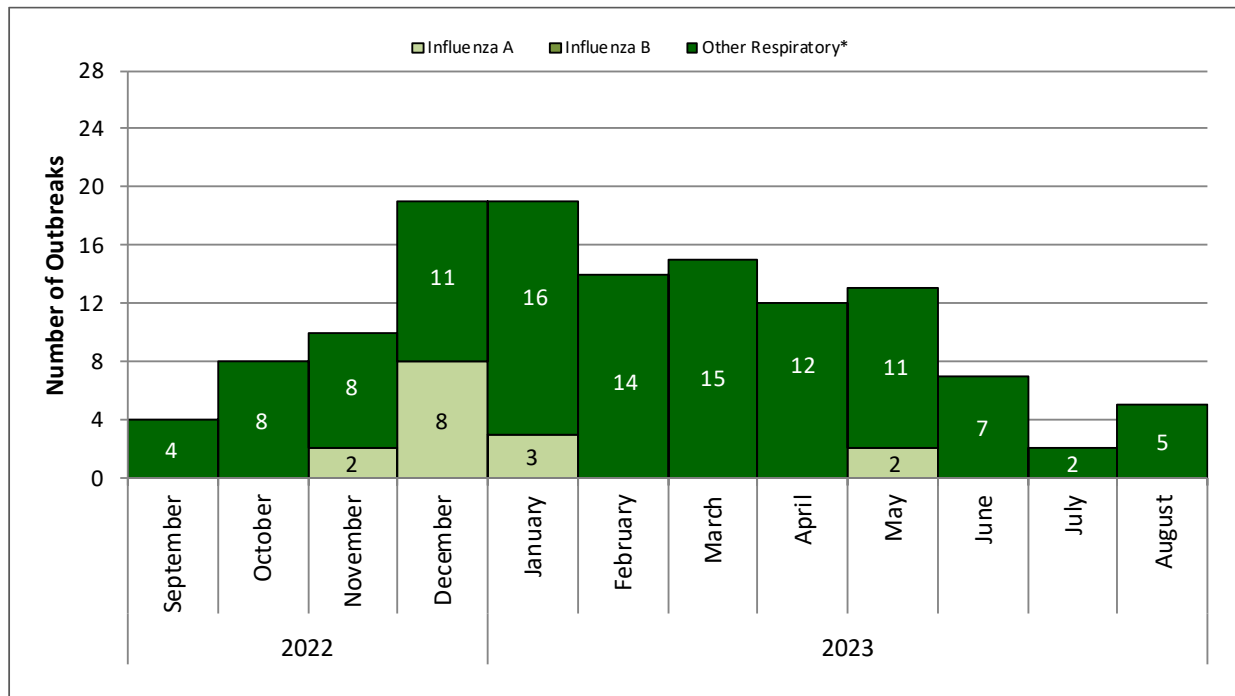


Figure 4: Number of confirmed influenza outbreaks reported in Canadian Network for Public Health Intelligence (CNPHI) Outbreak Summaries by month of onset of outbreak, NL, 2022/2023 season

**Other Respiratory Viruses**

⇒ In addition to influenza, there were a number of other respiratory viruses circulating during the 2022/2023 season (Table 4). The most predominant virus was Enterovirus/Rhinovirus which is consistent with previous seasons.

Table 4: Number of positive respiratory virus specimens, by type, NL, 2022/2023 season<sup>1</sup>

	Total
R.S.V.	649
Parainfluenza virus 1	75
Parainfluenza virus 2	33
Parainfluenza virus 3	388
Adenovirus	328
Enterovirus/Rhinovirus	1442
hMPV	386



<sup>1</sup>Source: Respiratory Virus Detections/Isolations for the period August 28, 2022 - August 26, 2023, Public Health Agency of Canada

**Syndromic Surveillance**

⇒ The peak in symptomatic respiratory Healthline calls coincided with the peak of the 2022/2023 influenza season in week 49. The number of calls sharply decreased and remained stable from January to the end of the season.

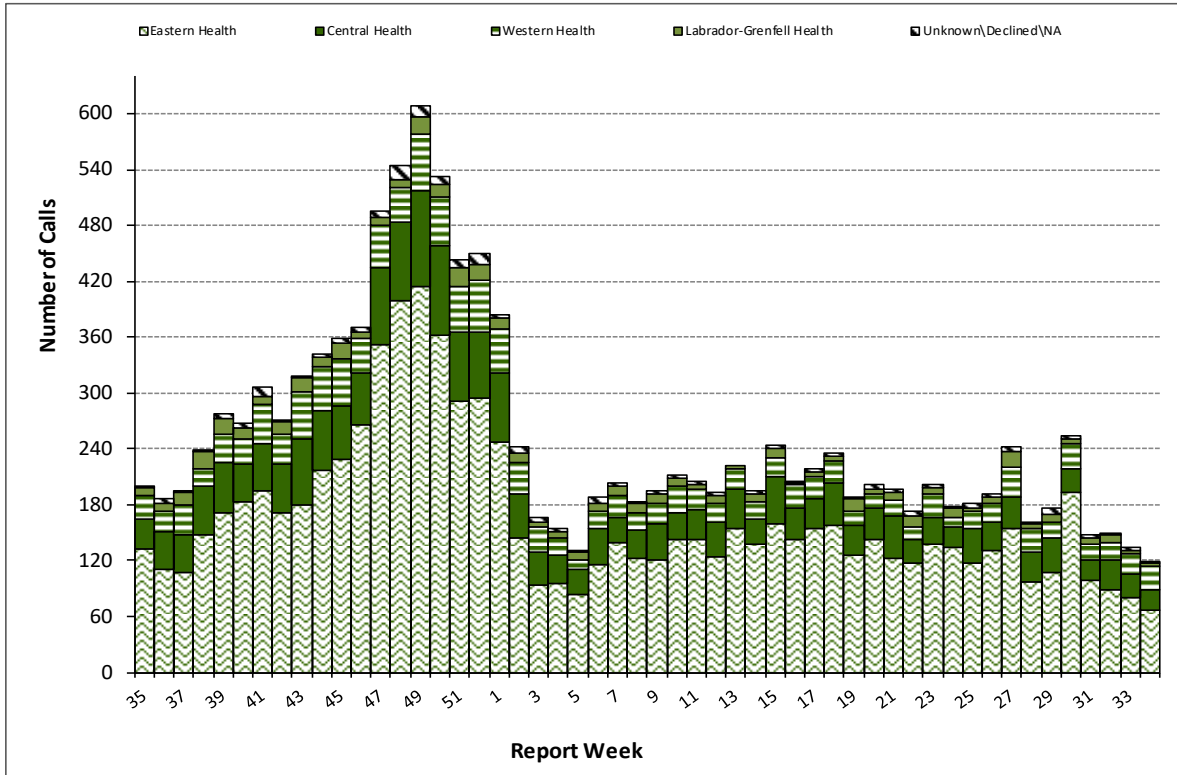


Figure 5: Number of symptomatic respiratory HealthLine calls by report week and RHA, 2022/2023 season

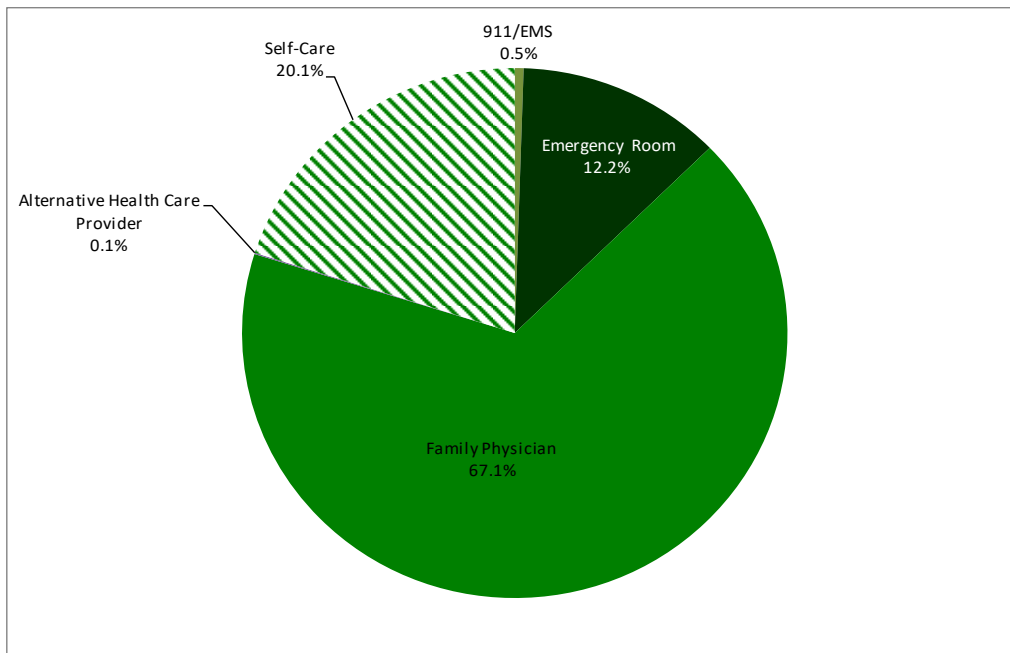
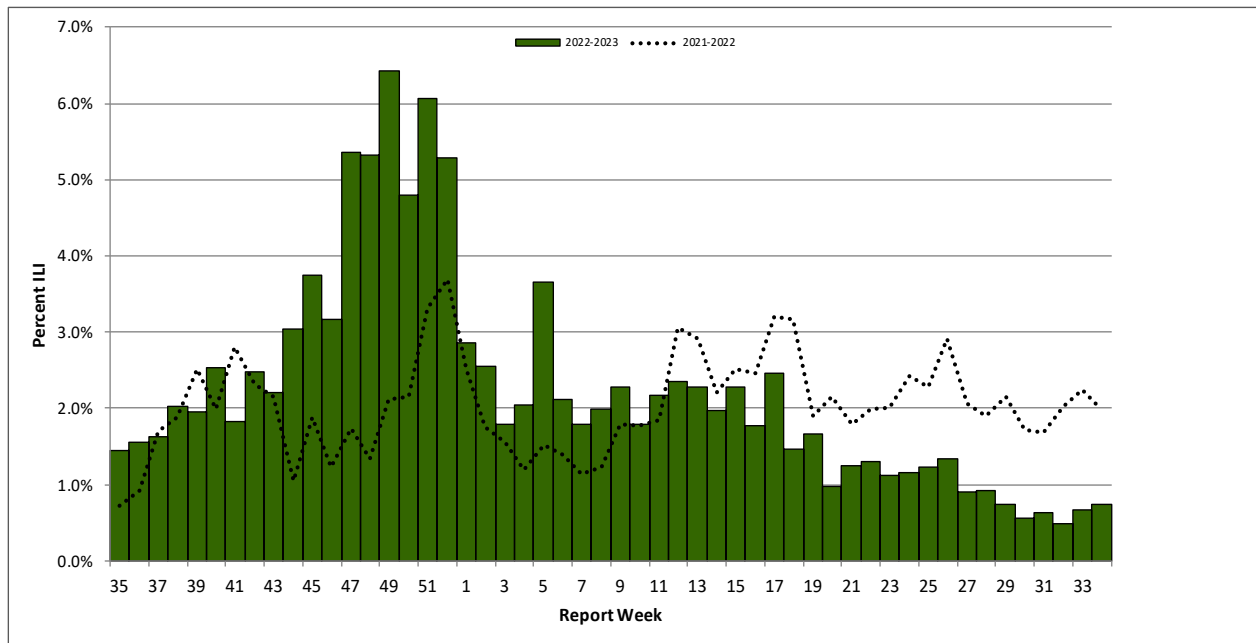


Figure 6: Symptomatic respiratory HealthLine calls by disposition, NL, 2022/2023 season

**Emergency Department Influenza-like-illness**



**Figure 7: Percent of emergency department visits with ILI by report week, NL, 2022/2023**

⇒ The percentage of emergency room visits with Influenza-like-illness is consistent with the peak of the 2022/2023 influenza season (Figure 7). Visits with ILI sharply decreased in January and remained stable until the end of the season.

**Data Sources and Disclaimer**

Influenza case data is from the Communicable Disease Control influenza reporting tool: case counts are available from Influenza Weekly Reports, located at: <https://www.gov.nl.ca/hcs/publichealth/cdc/informationandsurveillance/>

Influenza outbreak data are from the Canadian Network for Public Health Intelligence (CNPHI).

HealthLine data are from the NL HealthLine: <https://www.811healthline.ca>

Note: The data presented here are from August 28, 2022 - August 26, 2023; report weeks from various sources may not align exactly. Fluctuations in data occur with each report and can be attributed to continuous updating. Death surveillance is passive and may underestimate the true number of influenza-related deaths in NL.

All laboratory-confirmed influenza and severe respiratory illness (SRI) are reported to the Regional Medical Officer of Health (RMOH) or designate responsible for appropriate investigation, treatment, case follow up and provincial reporting.

For more information on influenza in Canada see the Public Health Agency of Canada website: <http://healthycanadians.gc.ca/diseases-conditions-maladies-affections/disease-maladie/flu-grippe/surveillance/index-eng.php>