

Week 50: December 10 to December 16, 2023

Week in Review:

Virus Activity Indicator	Influenza Assessment*	COVID-19 Assessment*	Interpretation
<u>Weekly Reported Cases</u>	Higher	Similar	<p>For week 50:</p> <ul style="list-style-type: none"> Influenza: 41; COVID-19: 196 <p>For the previous week (week 49):</p> <ul style="list-style-type: none"> Influenza 18; COVID-19: 186
<u>Percent Positive Specimens</u>	Higher [†]	Similar	<p>Simcoe Muskoka:</p> <ul style="list-style-type: none"> Flu A[†] (1.0%); Flu B[†] (0.0%), COVID-19: (20.3%) <p>Ontario:</p> <ul style="list-style-type: none"> Flu A[†] (5.6%); Flu B[†] (0.4%), COVID-19: (19.3%)
<u>Local Institutional Outbreaks</u>	Similar	Higher	<p>Institutional outbreaks declared in week 50:</p> <ul style="list-style-type: none"> Influenza: 0 (season to date: 1) COVID-19: 14 (season to date: 107) RSV: 1 (season to date: 7)
Week 50 Assessment December 10 to December 16, 2023	Higher	Similar	<p>Influenza Activity Level: Sporadic 40 flu A and 1 flu B cases reported this week</p> <p>COVID-19 Community Risk[†]: High COVID-19 case counts are similar this week</p>
<u>Predominant[^] Circulating Respiratory Viruses:</u> COVID-19			
<u>Local Emergency Department Respiratory Visits</u>	Similar		Percentage of visits is similar compared to previous week and similar compared to same week in 2022-23

Notes: Reported influenza activity level is based on activity levels as per [Influenza activity reporting in the Ontario Surveillance Package](#). COVID-19 Risk level is based on the risk level from the [Simcoe Muskoka Community Risk Level](#). Additional definitions are available [here](#). NA = Not Available

* Compared to previous [surveillance week](#). Assessment of percent positivity for influenza and COVID-19 is based on provincial numbers due to small numbers.

[†] Reported for week 49

[^] Predominant is defined as any virus where provincial percent positivity is >10% as reported through [PHO's Ontario Respiratory Virus Tool - Summary - Overall Respiratory virus activity](#)

Weekly Reported Cases

Influenza: In Simcoe Muskoka, there have been **101 lab-confirmed influenza cases reported** as of 19 December 2023; **41 (41%) of which were reported in week 50** – this is higher when compared to week 49.

Of the 94 reported influenza A cases, 25 have been subtyped:

- 2/25 (8%) are influenza A, H3 strain
- 23/25 (92%) are influenza A, H1N1 pdm09

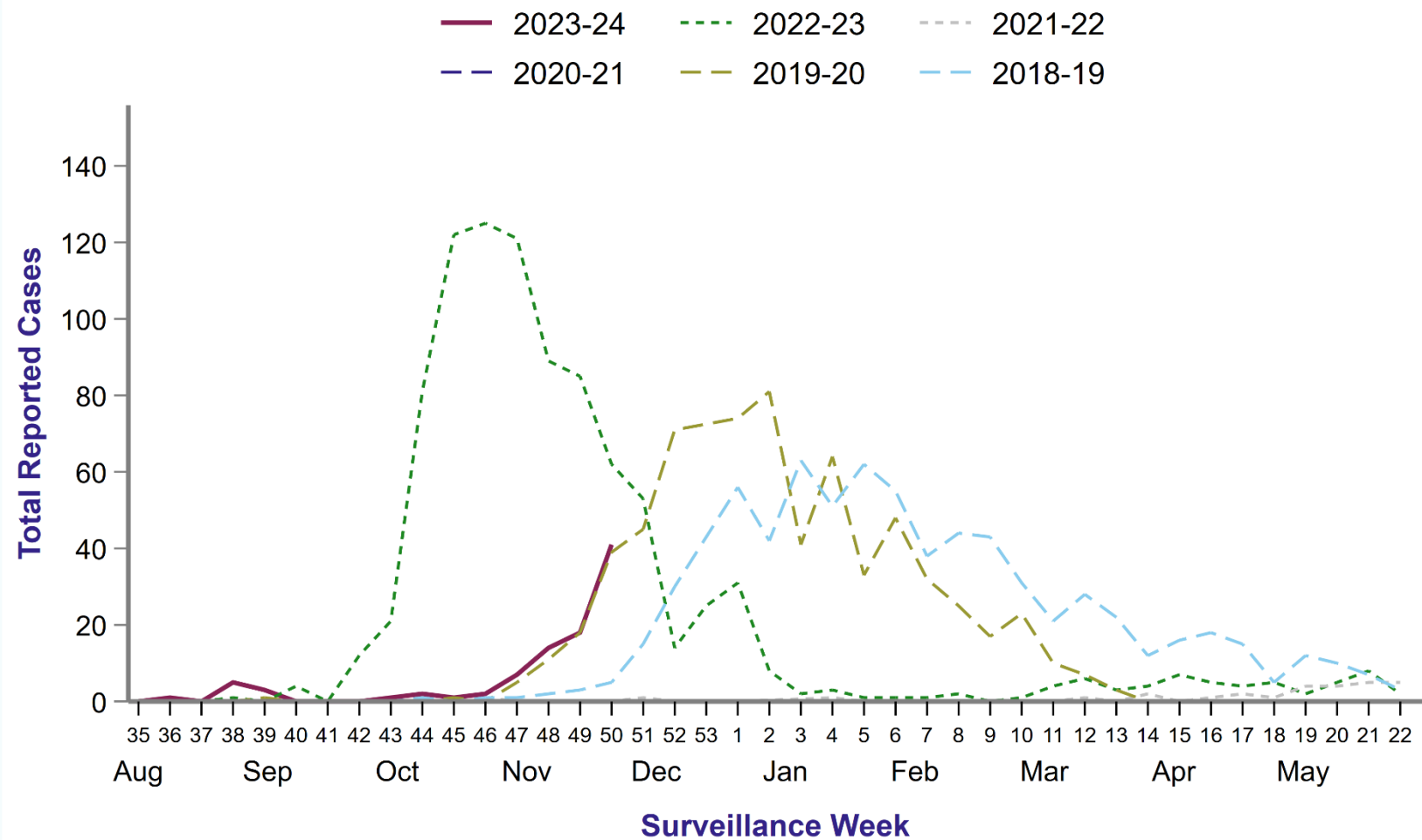
COVID-19: In Simcoe Muskoka, there have been **196 lab-confirmed COVID-19 cases reported** in week 50 – this is similar when compared to week 49.

Table 1: Summary of Influenza and COVID-19 Cases, Simcoe Muskoka, 2023-24 Season

Lab-confirmed Cases	Week 50	Season-to-Date
Influenza	41	101
Influenza A	40 (98%)	94 (93%)
Influenza B	1 (2%)	7 (7%)
Influenza A & B	0 (0%)	0 (0%)
COVID-19	196	2,150
Data source: <u>Case and Contact Management (CCM) System</u> and <u>Integrated Public Health Information System (iPHIS)</u> , extracted on December 19, 2023. Notes: Season-to-Date includes cases reported from the Sunday of the week in which September 1, 2023 falls (i.e., August 27, 2023 onwards).		

Historical Trends – Influenza

Figure 1: Weekly Influenza[^] Counts in Simcoe Muskoka*, Historical Comparison 2018-2019 to 2023-24 (present)



Data Source: Integrated Public Health Information System (iPHIS), extracted on 19 Dec 2023

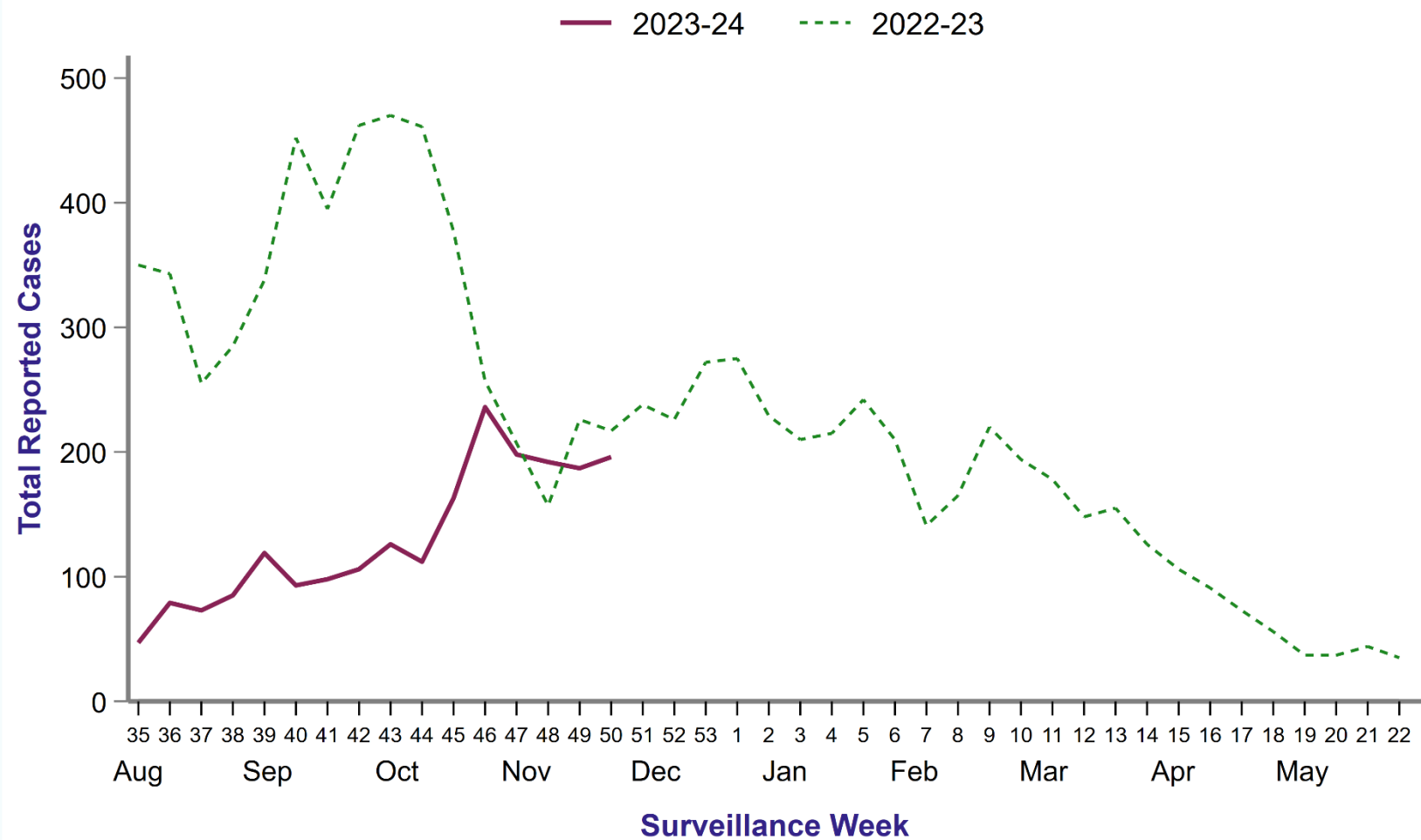
[^]Includes confirmed cases of influenza in Simcoe Muskoka residents.

*Case counts are based on reported date. Reported date is on average 7-10 days after onset date.

For comparability between years, the surveillance week number is used in this graph. The alignment with the dates for the 2023-24 respiratory season is provided for reference. Week 1 always corresponds with the week in which January 1 lands.

Historical Trends – COVID-19

Figure 2: Weekly COVID-19[^] Counts in Simcoe Muskoka*, Historical Comparison 2022-2023 to 2023-24 (present)



Data Source: Case and Contact Management (CCM) System), extracted on 19 Dec 2023

[^]Includes confirmed cases of COVID-19 in Simcoe Muskoka residents.

*Case counts are based on reported date. Reported date is on average 7-10 days after onset date.

For comparability between years, the surveillance week number is used in this graph. The alignment with the dates for the 2023-24 respiratory season is provided for reference. Week 1 always corresponds with the week in which January 1 lands.

Percent Positivity

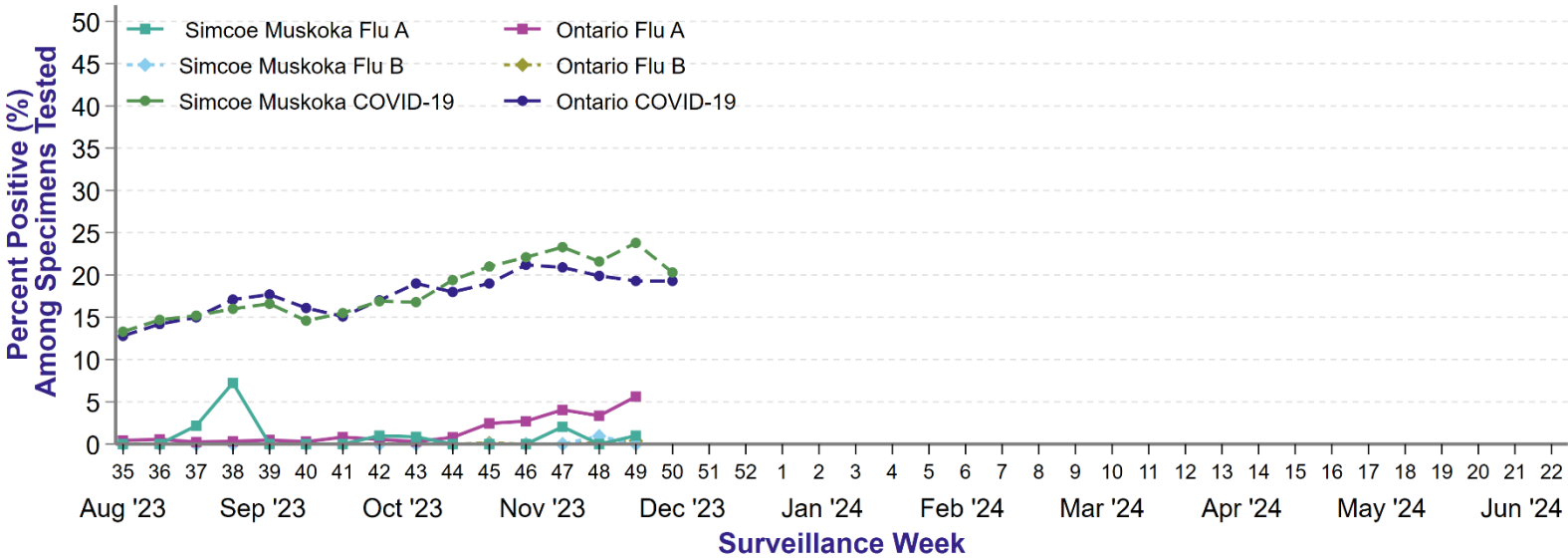
For week 49, the percentage of specimens that are positive (percent positivity) for **Influenza A is higher** compared to the previous week provincially. For week 50, provincial percent positivity for **COVID-19 is similar** compared to the previous week.

Table 2: Percent Positivity for Influenza (week 49) and COVID-19 (week 50), Simcoe Muskoka and Ontario

Region	Influenza A*	Influenza B*	COVID-19
Simcoe Muskoka	1.0%	0.0%	20.3%
Ontario	5.6%	0.4%	19.3%

Data source: Public Health Ontario’s Ontario Respiratory Virus Tool, extracted on December 19, 2023. Summarized data from Ontario Lab Information System (OLIS) COVID-19 test data from Ministry of Health SAS Visual Analytics COVID-19 Testing Report, extracted on December 19, 2023
Note: *Influenza percent positivity is reported with a one week lag and does not include week 50. COVID-19 percent positivity is reported for week 50; provincial data is incomplete and should be interpreted with caution.

Figure 3: Percent Positivity, Influenza A & B, COVID-19, Simcoe Muskoka & Ontario, 2023-24 Season



Data Source: Public Health Ontario Respiratory Pathogen Bulletin, extracted on 19 Dec 2023. Ministry of Health. 2020. Ontario Lab Information System (OLIS) COVID-19 test data from Ministry of Health SAS Visual Analytics COVID-19 Testing Report, extracted on 14 Dec 2023.
* Flu A and B specimens only include those tested at public health laboratories in Ontario. COVID-19 specimens are limited to those undergoing PCR testing.
Note: Simcoe Muskoka percent positivity, particularly for influenza, is based on small numbers of positive tests and should be interpreted with caution. Influenza data in this figure are reported with one week lag and do not include the most recently completed surveillance week. COVID-19 data may be incomplete.

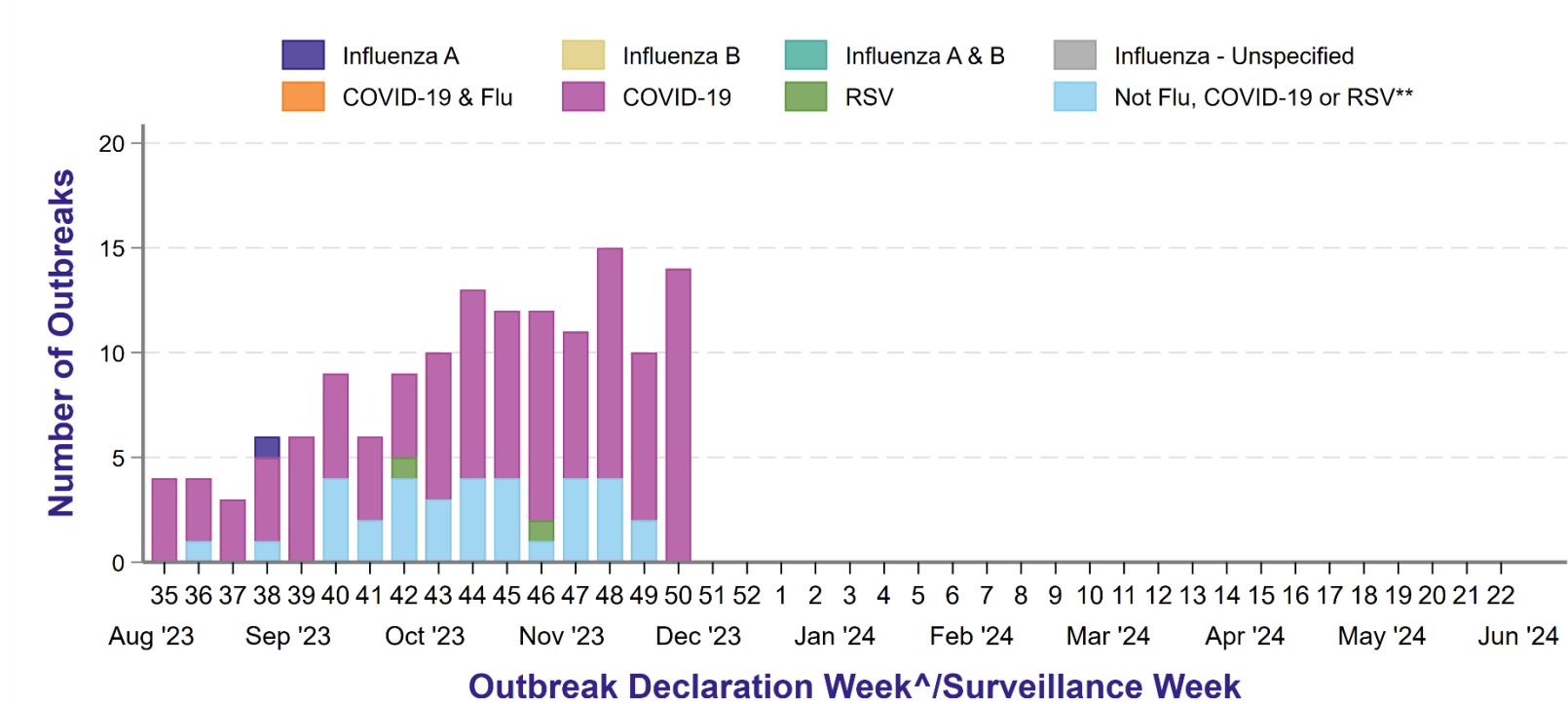
Institutional Respiratory Outbreaks

Since September 1, 2023, there have been **144 lab-confirmed institutional respiratory outbreaks** in Simcoe Muskoka:

Total Influenza:	1 outbreak	COVID-19:	107 outbreaks
Influenza A:	1 outbreak	COVID & Influenza:	0 outbreaks
Influenza B:	0 outbreaks	Respiratory Syncytial Virus (RSV):	7 outbreaks
		Other or Unknown Respiratory Pathogen:	34 outbreaks

Note: Total number of outbreaks by pathogen above may not equal total respiratory outbreaks or Figure 4. Outbreaks with multiple pathogens are counted under each pathogen. Combined COVID-19, influenza and/or RSV outbreaks may be included in the influenza, COVID-19, RSV and/or combined COVID-19 and Flu categories above, as appropriate.

Figure 4: Institutional Outbreaks by Respiratory Pathogen, Simcoe Muskoka, 2023-24 Season



Data Source: Integrated Public Health Information System (iPHIS) & Public Health Case and Contact Management Solution (CCM) extracted by SMDHU on 19 Dec 2023.

* Confirmed outbreaks only. Institutions can include acute care facilities, long-term care homes, retirement homes, corrections facilities and childcare facilities.

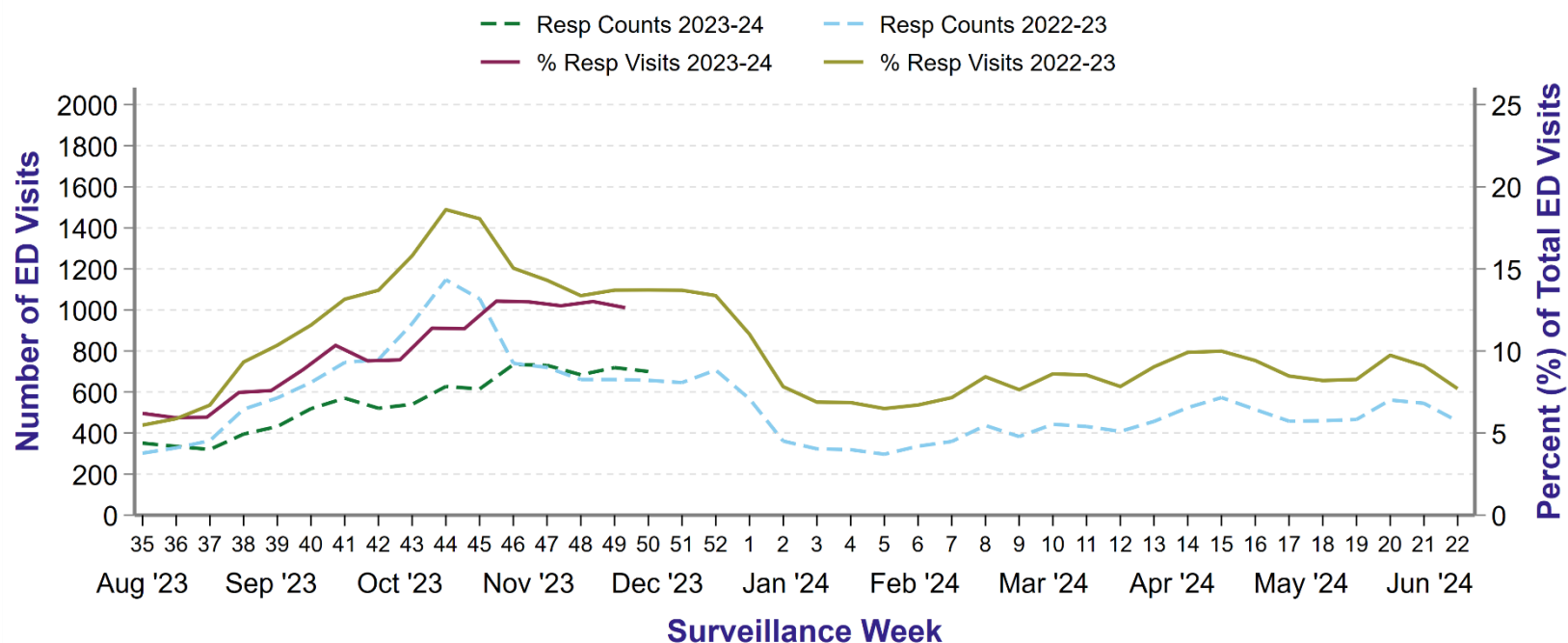
**Includes outbreaks where a respiratory pathogen other than influenza, COVID-19 or RSV is identified, or no pathogen was identified.

^Week declared is the week (Sun-Sat) in which the outbreak became a confirmed outbreak.

Local Emergency Department Visits

Emergency department (ED) visits for respiratory syndrome in Simcoe Muskoka accounted for **12.6% of visits in week 50**. This is **similar** when compared to week 49, and **similar** when compared to the same time in the 2022-23 season.

Figure 5: Emergency Department Visits for Respiratory Syndrome at Participating Simcoe Muskoka Hospitals, 2022-23 and 2023-24 Seasons



Data Source: Acute Care Enhanced Surveillance (ACES) System, extracted on 19 Dec 2023

^ Respiratory syndrome is defined as 'respiratory infection non-croup, non-bronchiolitis. Includes sore throat, cough, cold, ear infection, blocked ear, earache, etc.' This syndrome does not include influenza-like illness, which is 'fever, myalgia, undifferentiated flu.'

* Participating hospitals are RVH, OSMH, MAH (Bracebridge and Huntsville), GBGH, CGMH and SVMH; includes Simcoe Muskoka residents and visitors.

The above data is provided through Acute Care Enhanced Surveillance (ACES), an emergency department (ED) syndromic surveillance system managed by KFLA Public Health Informatics for participating Ontario hospitals. Seven hospitals participate in Simcoe Muskoka.

Influenza Vaccine Match and Influenza Strains

The quadrivalent 2023-2024 egg-based influenza vaccine for the northern hemisphere contains the following strains:

- A/Darwin/6/2021 (H3N2)-like virus;
- A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
- B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

Table 3: Local, Provincial and National Matched and Mismatched Influenza Specimens and National Match Percent, 2023-24 Season

Influenza Strains	Number of Specimens with Strain Characterization Results		National Match Percent [†]
	Ontario	Canada	
Influenza A Vaccine Strains			
Influenza A (H3N2) A/Darwin/6/2021-like	NR	33	15%
Influenza A (H1N1) A/Wisconsin/588/2019 pdm09-like	NR	183	85%
Influenza B Vaccine Strains			
B/Austria/1359417/2021 (B/Victoria)-like	NR	16	100%
B/Phuket/3073/2013 (B/Yamagata)-like (Quad vaccine only)	NR	0	0%

Data Source: Government of Canada, [FluWatch Surveillance Report](#), Influenza Strain Characterization, extracted December 19, 2023.

Provincial and national counts are reported with one week lag and do not include the most recently completed surveillance week. Surveillance weeks can be found [here](#).

† Non-vaccine match strains are not reported. Percent match is based on antigenically similar strains. Denominator = 216 (Flu A), 16 (Flu B).

NR = Not Reported

COVID-19 2023/24 Vaccination Campaign

Table 4: COVID-19 Vaccination Uptake among Simcoe Muskoka Residents

Vaccination Indicator	Time Period	
	Cumulative (Sept 17 – Dec 16)	Increase From Previous Week (Dec 10 – Dec 16)
# of Doses Administered Inside Simcoe Muskoka Since September 17, 2023		
Any Health Canada Approved COVID-19 Vaccine	92,886	5,188
# (%) of the Simcoe Muskoka Population with a Dose of COVID-19 Vaccine Since September 17, 2023		
All Ages	90,381 (14.3%)	4,925 (0.8%)
<5	320 (1.0%)	49 (0.2%)
5-17	1,820 (2.1%)	211 (0.2%)
18-64	29,739 (7.7%)	1,950 (0.5%)
65+	58,502 (45.0%)	2,715 (2.1%)

Data Source: COVaxON, IntelliHEALTH ONTARIO, extracted by SMDHU on: December 19, 2023. 2022 population estimates from Statistics Canada (Table: 17-10-0139-01, downloaded January 30, 2023) were used as the denominators for the coverage rates.

Health Canada approved COVID-19 vaccine doses administered inside of Simcoe Muskoka on or after September 17, 2023. This includes vaccine doses administered through all channels (e.g., health unit, pharmacy, physician offices, etc.) and to all individuals regardless of residential address.

Number (and per cent) of the Simcoe Muskoka population receiving a dose of Health Canada approved COVID-19 vaccine on or after September 17, 2023. This includes all individuals with a residential address inside of Simcoe Muskoka, regardless of where the dose was administered.

COVID-19 vaccine doses include all products approved by Health Canada. For the full list of approved vaccines visit: <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines.html>

Cumulative period runs from September 17, 2023, onward. Weeks are based on a Sunday to Saturday basis. Data is limited to complete weeks for comparability.

Technical Notes

Definitions

Influenza vaccine match: Of influenza specimens submitted to the National Microbiology Lab, the proportion that are antigenically or genetically similar to one of the four flu components in the current season's influenza vaccine for the Northern Hemisphere.

Percent positivity: The number of positive influenza or COVID-19 cases divided by the number of specimens tested. For influenza this is limited to specimens tested at Public Health Ontario Labs. For COVID-19, it is limited to PCR testing.

Reported activity level: The level of influenza activity that is reported to Public Health Ontario by Simcoe Muskoka, based on influenza cases and outbreaks. Definitions available [here](#).

Reported community risk level: The level of COVID-19 risk based on the Simcoe Muskoka [COVID-19 Community Risk Level](#).

Surveillance week: The week number corresponding to the week of the year, running Sunday to Saturday, inclusive, for reporting influenza activity. January 1 always falls within week 1. A list of the current season's surveillance weeks can be found [here](#).

Limitations

Case Reporting: Sporadic cases do not accurately describe all cases of influenza and/or COVID-19, as cases reported are skewed towards individuals more likely to seek medical care and be tested. Cases are reported based on where an individual normally lives which may not match where they acquired the illness.

Data Comparison: The indicators used in this report are different from those presented in the [COVID-19 Community Risk Level](#) and cannot be directly compared. Differences may be due to data reporting lag and/or indicator definitions.

Timeliness: Provincial data are lagged by one week compared to all other data presented in this update due to data availability. The number of cases and/or outbreaks and percent positivity reported for a given surveillance week may change as more information becomes available.

Week 49 Provincial Summary

For the 2023-2024 surveillance season to week 49:

Influenza: 2,552 laboratory-confirmed influenza cases have been reported across Ontario, 871 (34%) of which were reported in week 49. Among cumulative cases, 95.5% (2,438/2,552) are influenza A. Of the 486 reported influenza A cases with subtype information available, 22% (106/486) were H3 and 78% (380/486) were (H1N1)pdm09.

COVID-19: 47,185 laboratory-confirmed COVID-19 cases have been reported across Ontario, 3,913 of which were reported in week 49.

Sources: Public Health Ontario's [Ontario Respiratory Virus Tool](#), Surveillance Week 49, extracted December 19, 2023.

Click here to access Public Health Ontario's
Ontario Respiratory Virus Tool

Additional Resources

Simcoe Muskoka

- Influenza – [Fact Sheet](#) and [HealthSTATS](#)
- COVID-19 – [General Information](#), [Community Risk Level](#) and [HealthSTATS](#)

Provincial

- [Integrated Respiratory Virus Risk Indicators](#)
- [COVID-19 Wastewater Surveillance in Ontario](#)

National

- Public Health Agency of Canada – [FluWatch](#), [Respiratory Virus Report](#)
- Public Health Agency of Canada – [COVID-19: Current situation](#)

International Resources

- WHO – [Influenza \(Seasonal\)](#) and [COVID-19 Fact Sheets](#)