






Weekly Influenza News

Week 52: December 22 to December 28, 2019

Week in Review:

Influenza Activity Indicator	Assessment of Indicator*	Interpretation
 <u>Reported cases</u>	Higher	61 local lab-confirmed case reported in week 52 ; 44 cases reported in week 51
 <u>Percent Positive of Flu Specimens[†]</u>	Data Not Available	Simcoe Muskoka - Data Not Available Ontario - Data Not Available
 <u>Local Institutional Outbreaks</u>	Similar	Five influenza outbreaks reported for the 2019-20 season to date.
 <u>Local Emergency Department respiratory visits: week 52</u>	Higher	Percentage of visits is higher compared to previous week and similar to same period for the 2018-19 season.
Week 52 Overall Assessment December 22 to December 28, 2019	Higher	Reported Activity Level: Localized
		22 cases of Flu A reported in SMDHU 39 cases of Flu B reported in SMDHU
 <u>Predominant Influenza Strains:</u> Not available		

Notes: Reported activity level is based on the weekly submissions to Public Health Ontario. Definition available [here](#).

*Compared to previous [surveillance week](#); based on provincial percent positivity

† Reported for week **50**

Reported Local Influenza Cases

In Simcoe Muskoka, there has been **180 lab-confirmed influenza cases reported** as of 31 December 2019 - 61 cases (34%) of influenza were reported in week 52.

Of the 56 reported influenza A cases, 11 have been subtyped:

- 9/11 (75%) are influenza A, H3 strain
- 2/11 (25%) are influenza A, H1 strain/ H1N1 pdm09.

🔗 Figure 1 and Figure 2 below provide historic comparisons

Table 1: Summary of influenza cases for 2019-20 season

Lab-confirmed Influenza Cases	Week 52		Season-to-Date	
	N	%	N	%
Influenza A	22	36%	56	31%
Influenza B	39	64%	124	69%
Influenza A & B	0	0%	0	0%
Total	61	100%	180	100%
Notes: Data source: Communicable Disease Intake Database, extracted on December 31, 2019 .				

Historical Comparison

Figure 1: Reported Influenza Cases, Type A, Current Influenza Season with Historical Comparison, Simcoe Muskoka

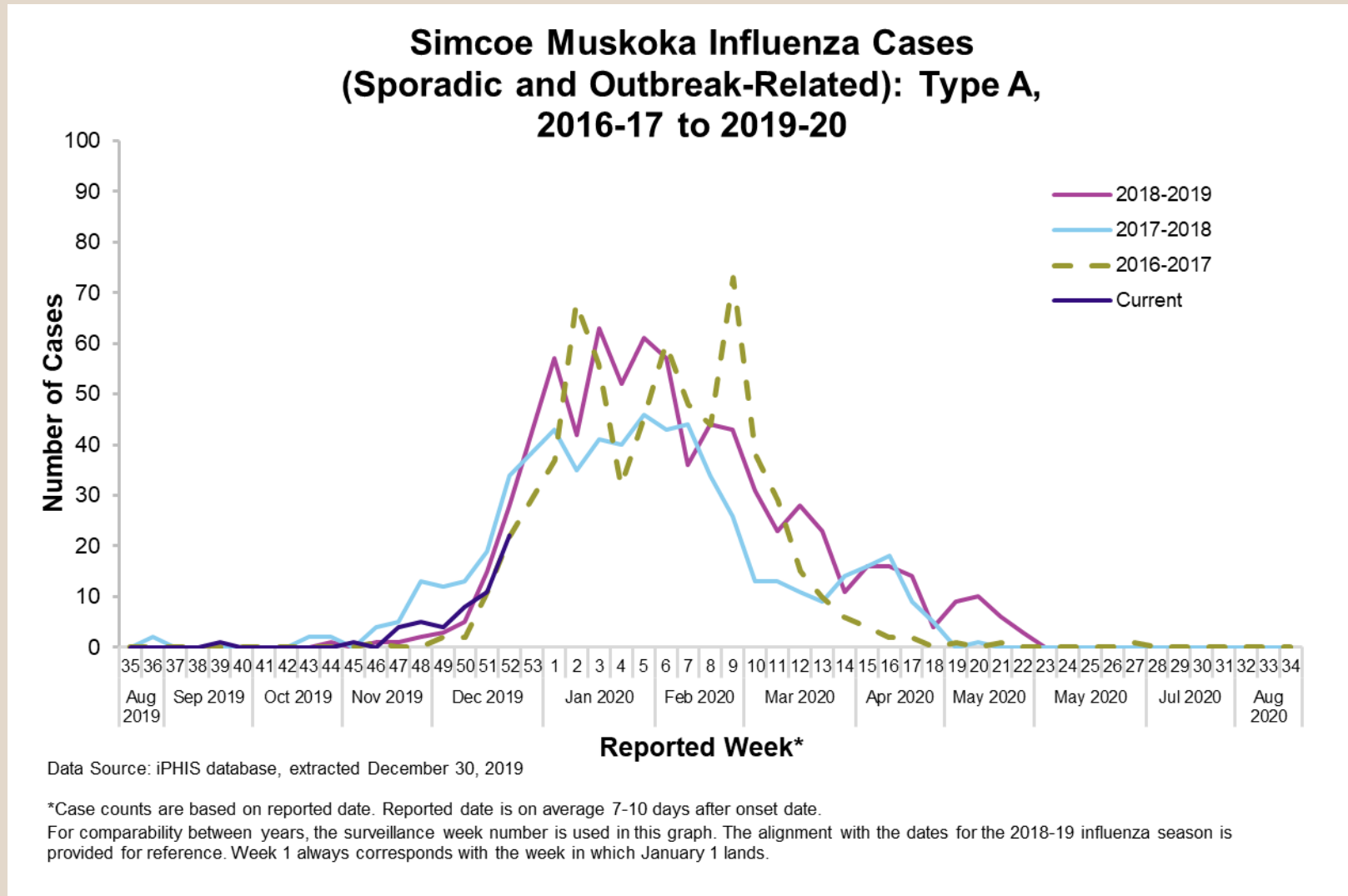
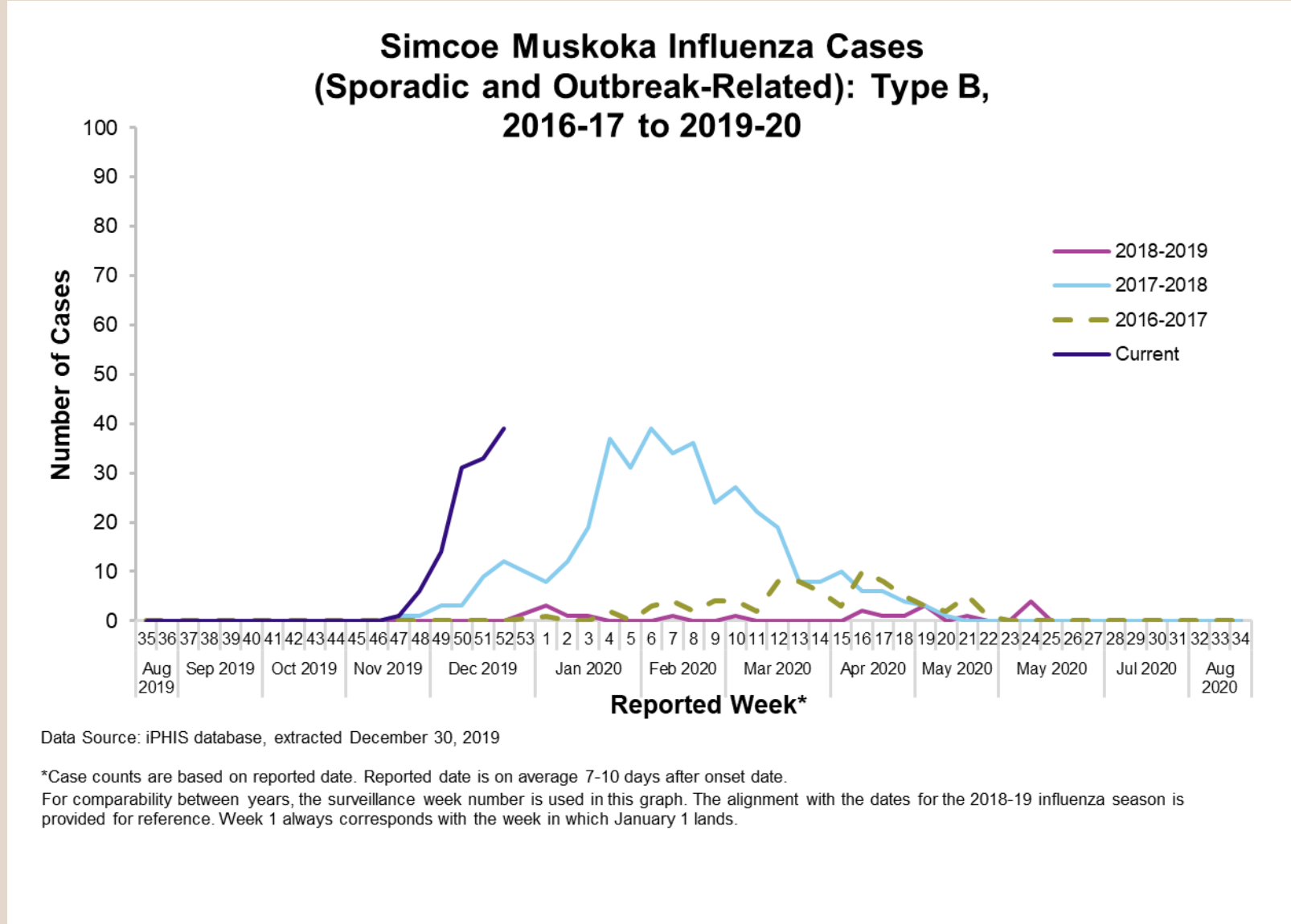


Figure 2: Reported Influenza Cases, Type B, Current Influenza Season with Historical Comparison, Simcoe Muskoka

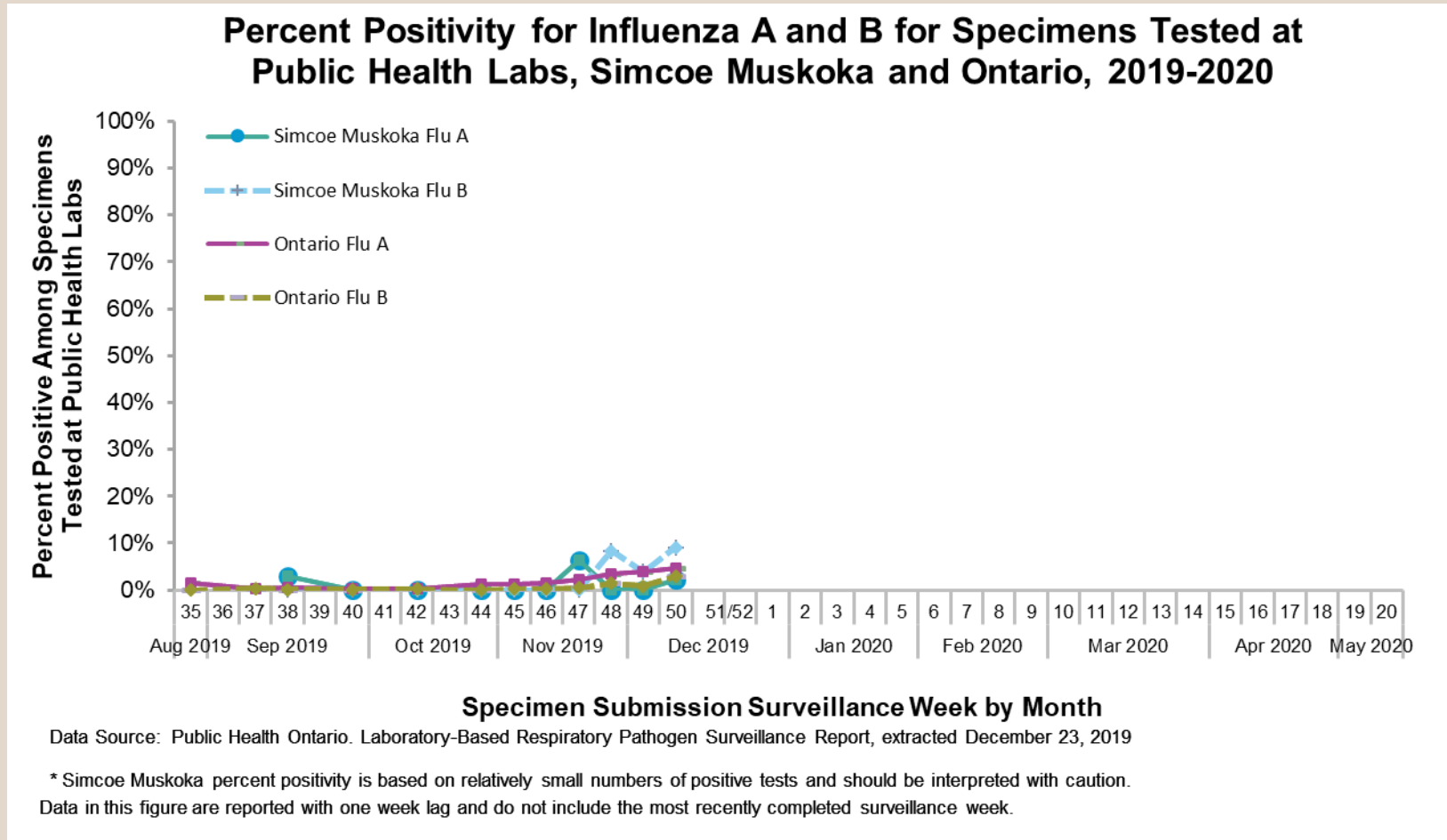


Percent positivity

Note: Percent positivity is reported with one week lag and does not include week 52.

Percent positivity data is not available for week 51. The graph below is current to week 50.

Figure 3: Percent Positivity, Influenza A & B, Simcoe Muskoka & Ontario, 2019-20

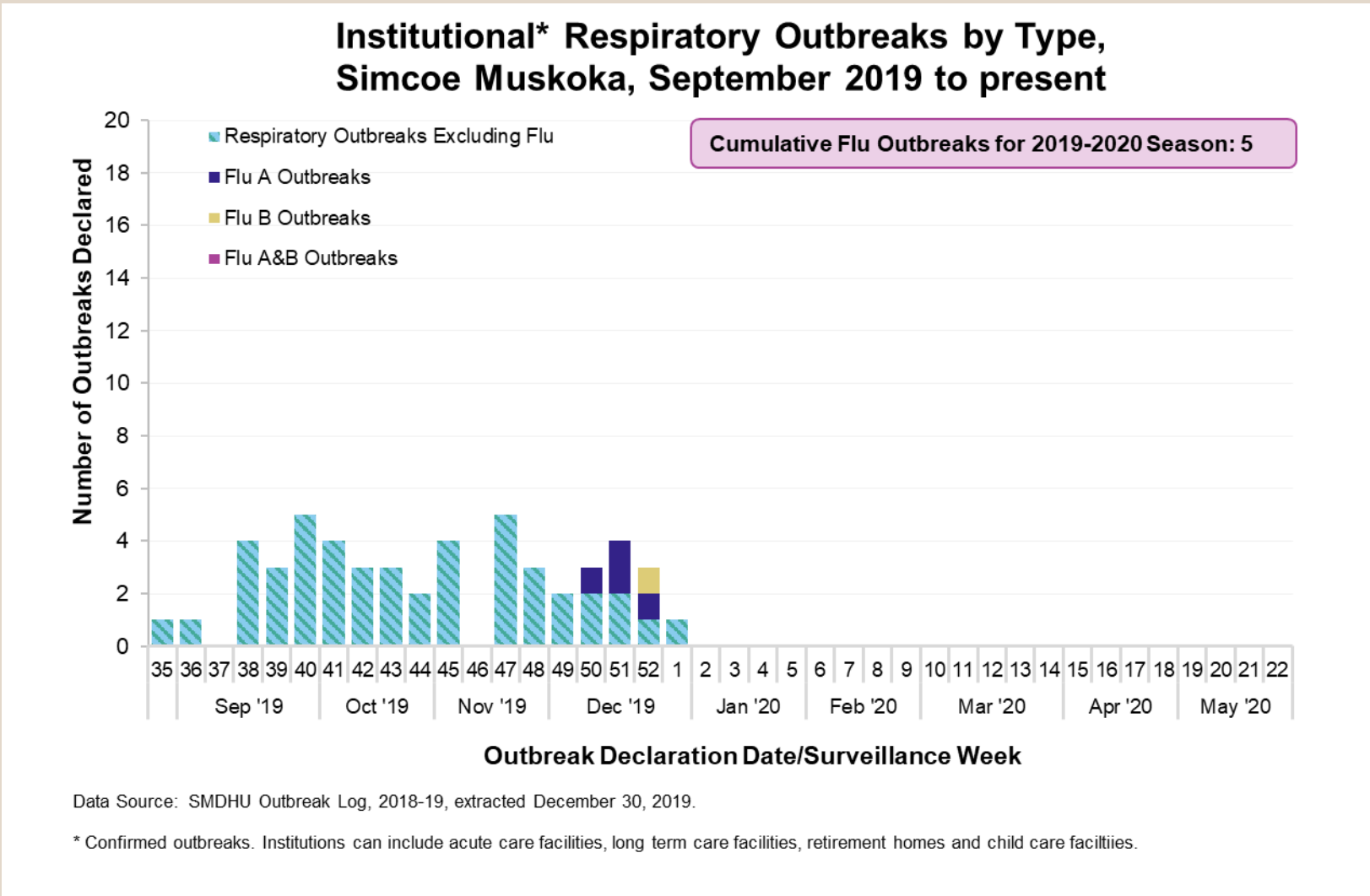


Institutional Respiratory Outbreaks

There has been five *lab-confirmed institutional flu outbreaks* in Simcoe Muskoka since September 1, 2019.

- Influenza A: 4 outbreaks
- Influenza B: 1 outbreak

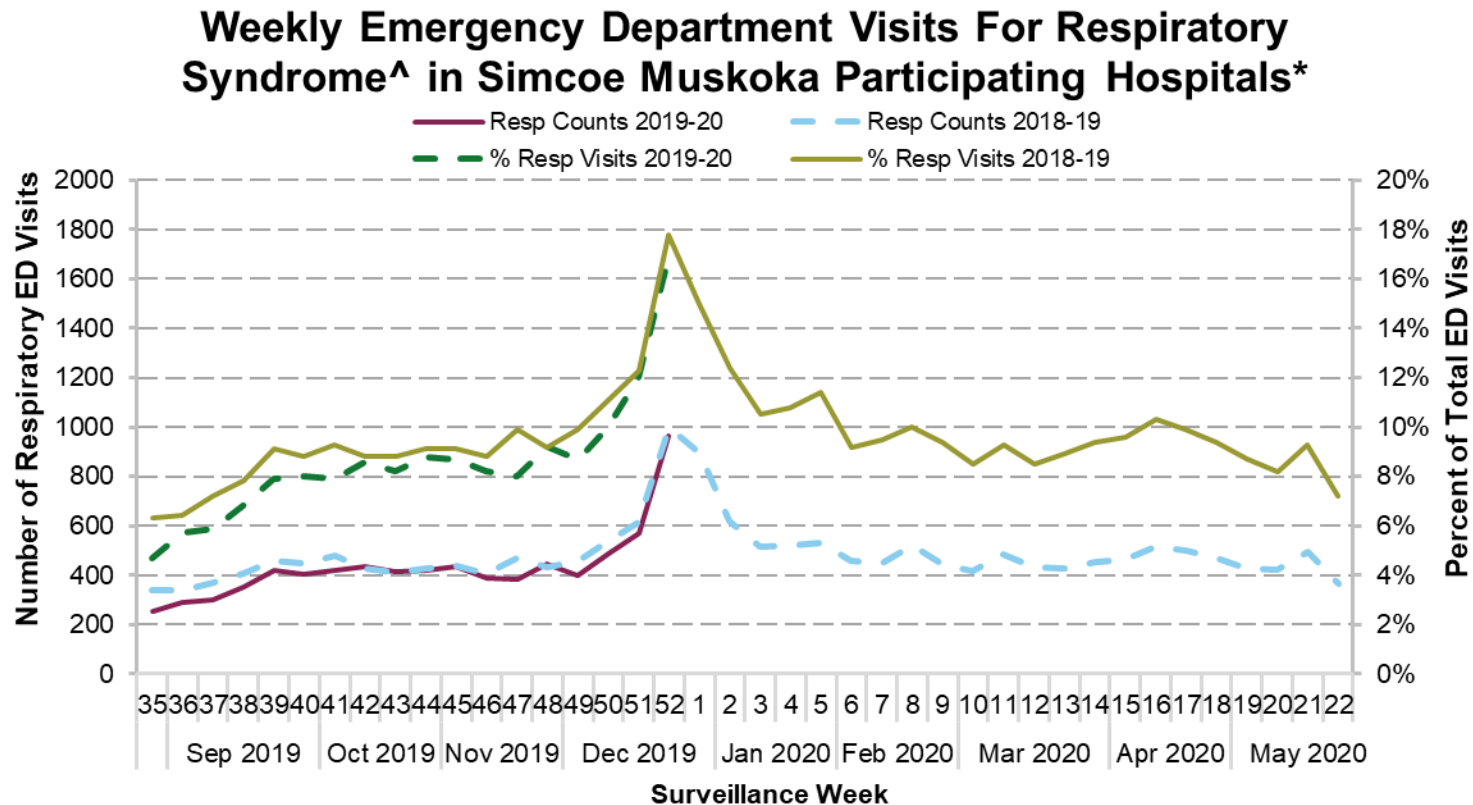
Figure 4: Institutional Outbreaks by Respiratory Pathogen, Simcoe Muskoka, 2019-20



Local Emergency Department Visits

Emergency department visits for respiratory syndrome in Simcoe Muskoka accounted for 17.0% of visits in week 52. This is higher when compared to week 51, and similar when compared to the same point in the 2018-19 season.

Figure 5: Emergency Department Visits for Respiratory Syndrome at Participating Simcoe Muskoka Hospitals, 2018-19, 2019-20 Seasons



Data Source: Acute Care Enhanced Surveillance (ACES) System, extracted December 30, 2019

Data is considered preliminary and subject to change.

^ 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 and CGMH. 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. Six hospitals participate in Simcoe Muskoka.

Vaccine Match and Influenza Strains

The trivalent 2019-2020 influenza vaccine for the northern hemisphere contains the following strains:

- A/Kansas/14/2017(H3N2)-like;
- A/Brisbane/02/2018(H1N1)pdm09-like; and
- B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage).

Table 2: Local, Provincial and National Matched and Mismatched Flu Specimens and National Match Percent, 2019-20

Influenza Strains	Number of Specimens with Strain Characterization Results		National Match Percent [†]
	Ontario	Canada	
Influenza A Vaccine Strains			
Influenza A (H3N2) A/Kansas/14/2017(H3N2)-like	8	20	16%
Influenza A (H1N1) A/Brisbane/02/2018(H1N1)pdm09-like	22	45	37%
Influenza B Vaccine Strains			
B/Colorado/06/2017-like	12	36	100%
B/Phuket/3073/2013-like virus (Quad vaccine only)	0	0	0%

Data Source: Public Health Ontario. Laboratory-Based Respiratory Pathogen Surveillance Report – Week 51; Public Health Agency of Canada. Flu Watch – Week 51

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](#) (pg 9).

[†] Non-vaccine match strains are not reported. Match percent is calculated based on total isolates characterized for each of flu A and flu B. Match percent is based primarily on antigenically similar strains. Antigenic similarity may not be reflective of influenza vaccine effectiveness.

Technical Notes

Definitions

Percentage positivity: the number of positive flu cases divided by the number of specimens tested at Public Health Ontario Labs

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](#) (pg 9).

Surveillance week: The week number corresponding to the week of 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

Timeliness:

The provincial data are from one week previous because that is the most recent data available.

The hospital data, local counts of influenza, and outbreaks are current to date.

The number of cases listed in a given surveillance week may change as more information becomes available

Case-Follow-up and iPHIS Data Entry:

While Public Health Ontario only requires case information as provided by the laboratory report, the health unit investigates all outbreak cases, as information is available, in order to provide a more accurate local picture of adverse outcomes and subtyping.

Case Reporting:

Sporadic cases do not accurately describe all cases of influenza as those cases reported are skewed towards individuals more likely to seek medical care and be tested (e.g. young, elderly and immunocompromised).

Additional Resources

Simcoe Muskoka

- [Influenza Fact Sheet](#)
- [Influenza HealthSTATS page](#)

Provincial

- [Ontario Respiratory Pathogen Bulletin](#)
- [Public Health Ontario Laboratory Respiratory Pathogen Surveillance Reports](#)
- [ILI Mapper](#)

Week 51 Provincial Summary: An update for week 51 is currently not available as the Ontario Respiratory Pathogen Bulletin was not published in the final week of 2018. The following summary is for week 50. For the 2019-2020 surveillance season to week 51, 757 laboratory-confirmed influenza cases have been reported across Ontario, 283 (37.4%) of which were reported in week 51. Among cumulative cases, 75.7% (573/757) were influenza A.

(Source: Public Health Ontario Respiratory Pathogen Bulletin, Surveillance Week 51, extracted December 31, 2019)

National

- [Public Health Agency of Canada FluWatch](#)

International Resources

- [WHO Global Influenza Surveillance and Response System](#)