






Weekly Influenza News

Week 50: December 8 to December 14, 2019

Week in Review:

Influenza Activity Indicator	Assessment of Indicator*	Interpretation
 <u>Reported cases</u>	Higher	38 local lab-confirmed case reported in week 50 ; 18 cases reported in week 49
 <u>Percent Positive of Flu Specimens[†]</u>	Similar	Simcoe Muskoka - flu A: 0.0%; flu B: 3.8% Ontario - flu A: 3.8%; flu B: 0.8%
 <u>Local Institutional Outbreaks</u>	Higher	One influenza outbreak reported for the 2019-20 season to date.
 <u>Local Emergency Department respiratory visits: week 50</u>	Similar	Percentage of visits is similar to previous week and to same period for the 2018-19 season.
Week 50 Overall Assessment December 8 to December 14, 2019	Similar	Reported Activity Level: Sporadic
		Seven cases of Flu A reported in SMDHU 31 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 49

Reported Local Influenza Cases

In Simcoe Muskoka, there has been **104 lab-confirmed influenza cases reported** as of 17 December 2019 - 38 cases (37%) of influenza were reported in week 50.

Of the 31 reported influenza A cases, seven have been subtyped:

- 5/7 (71%) are influenza A, H3 strain
- 2/7 (29%) 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 50		Season-to-Date	
	N	%	N	%
Influenza A	7	18%	31	30%
Influenza B	31	82%	73	70%
Influenza A & B	0	0%	0	0%
Total	38	100%	104	100%

Notes:
Data source: Communicable Disease Intake Database, extracted on **December 17, 2019**.

Historical Comparison

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

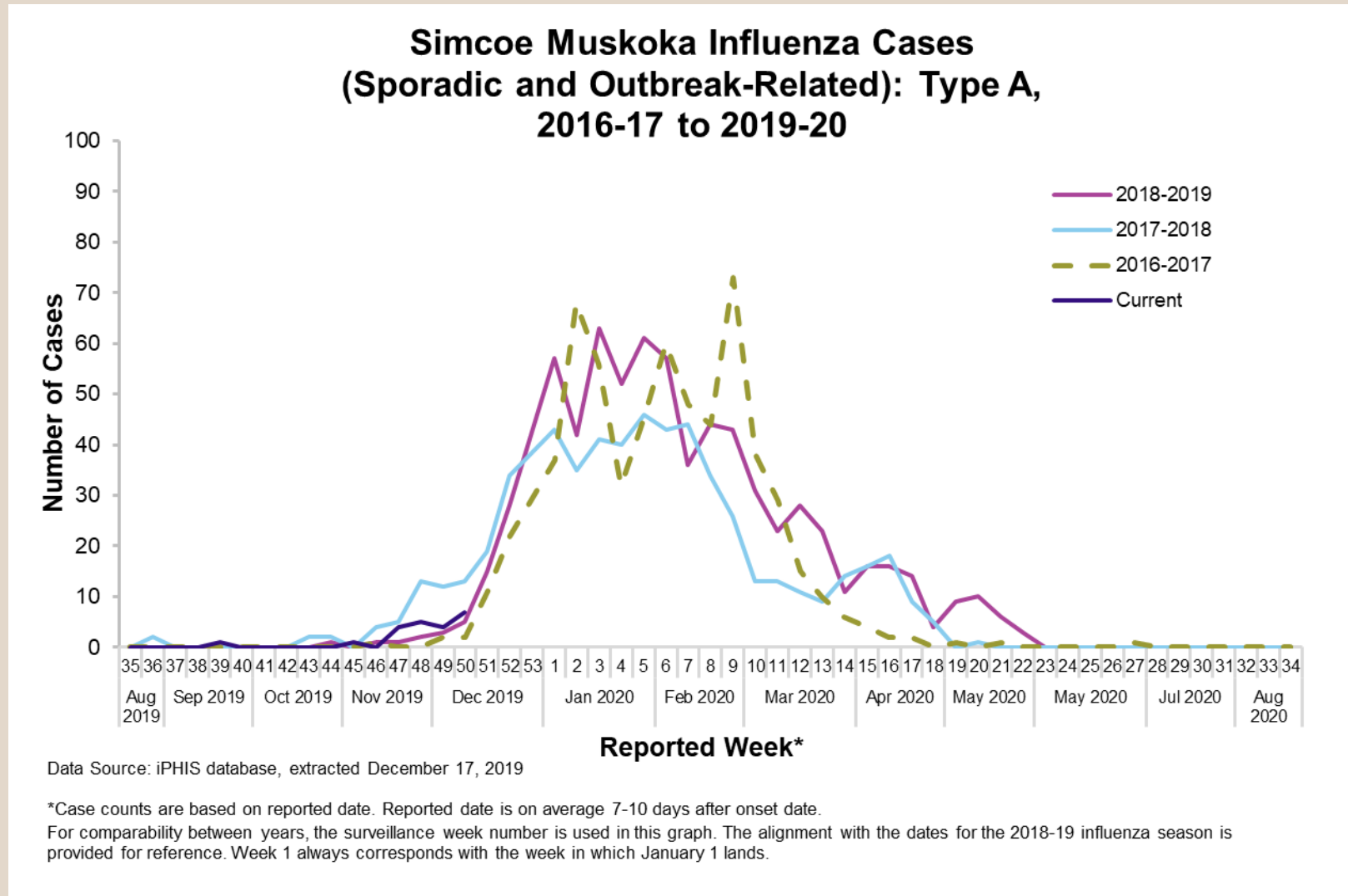
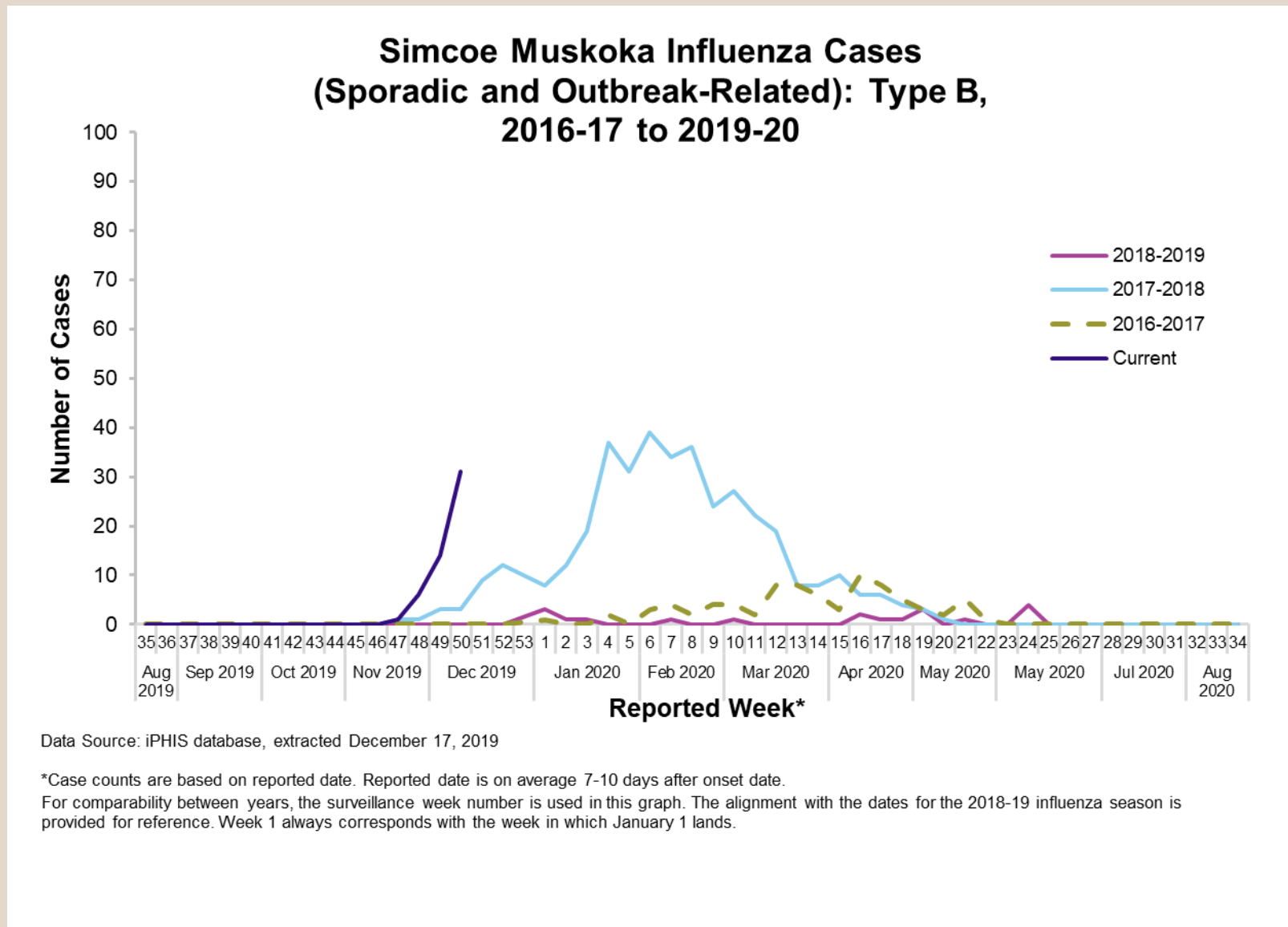


Figure 2: Reported Influenza Cases, Type B, Current Influenza Season with Historical Comparison, Simcoe Muskoka



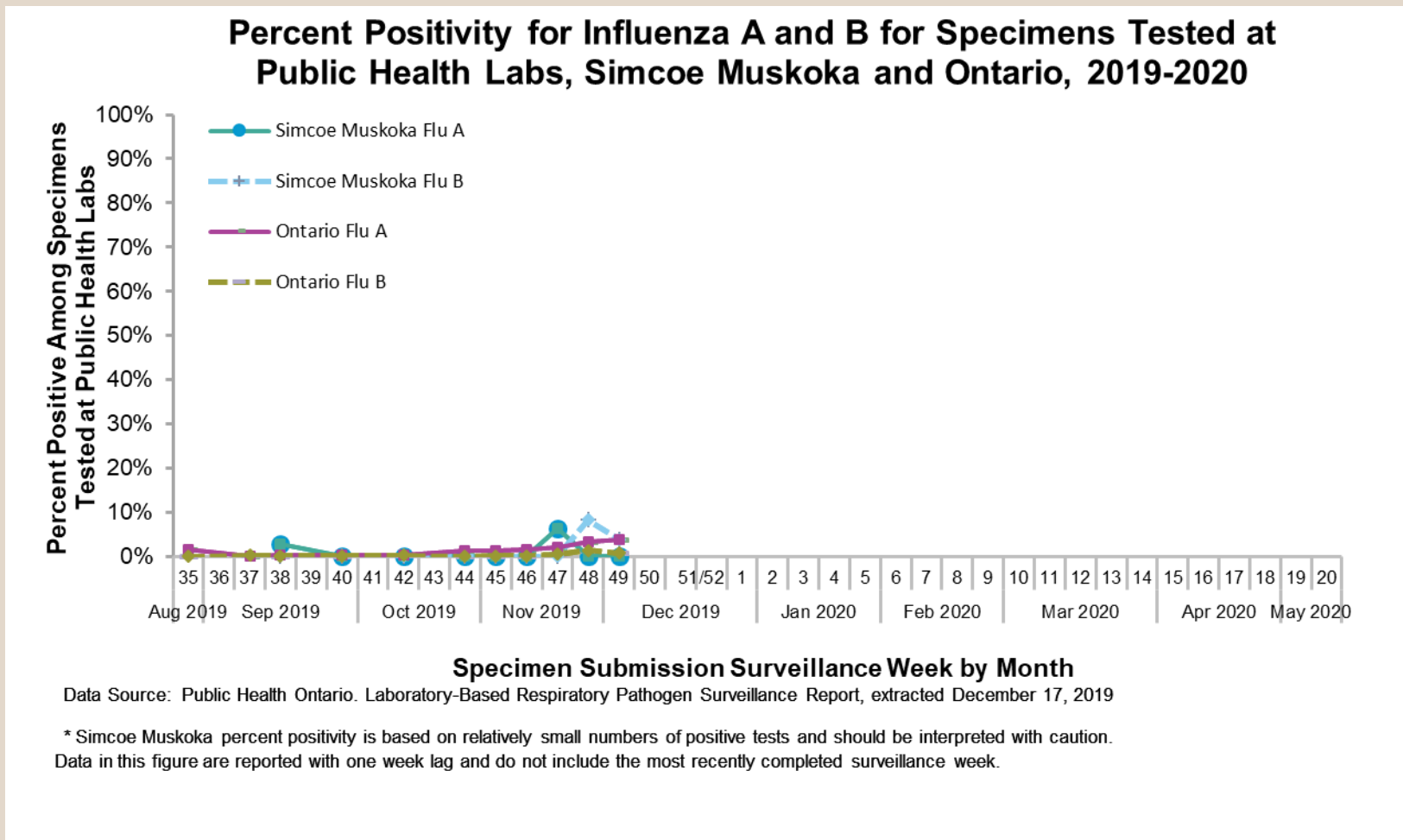
Percent positivity

Note: Percent positivity is reported with one week lag and does not include week 50.

The percentage of flu specimens that are positive (percent positivity) for Influenza A and Influenza B remains low. The provincial percent positivity for influenza A in week 49 was reported at 3.8%, which is similar when compared to week 48. Influenza B percent positivity was reported at 0.8% for week 49.

Locally for week 49, percent positivity for influenza A was reported at 0.0%, while influenza B was 0.8%.

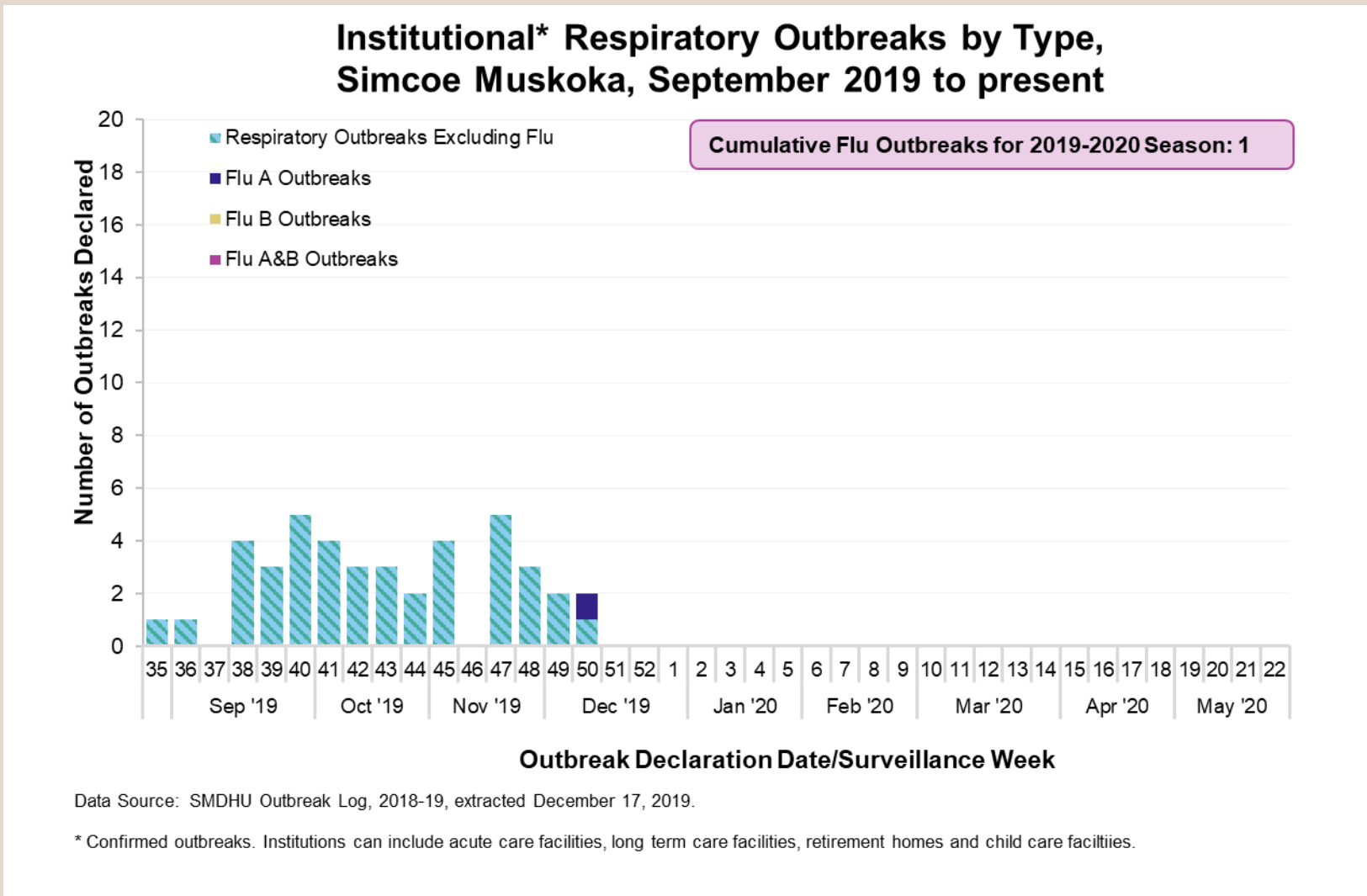
Figure 3: Percent Positivity, Influenza A & B, Simcoe Muskoka & Ontario, 2019-20



Institutional Respiratory Outbreaks

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

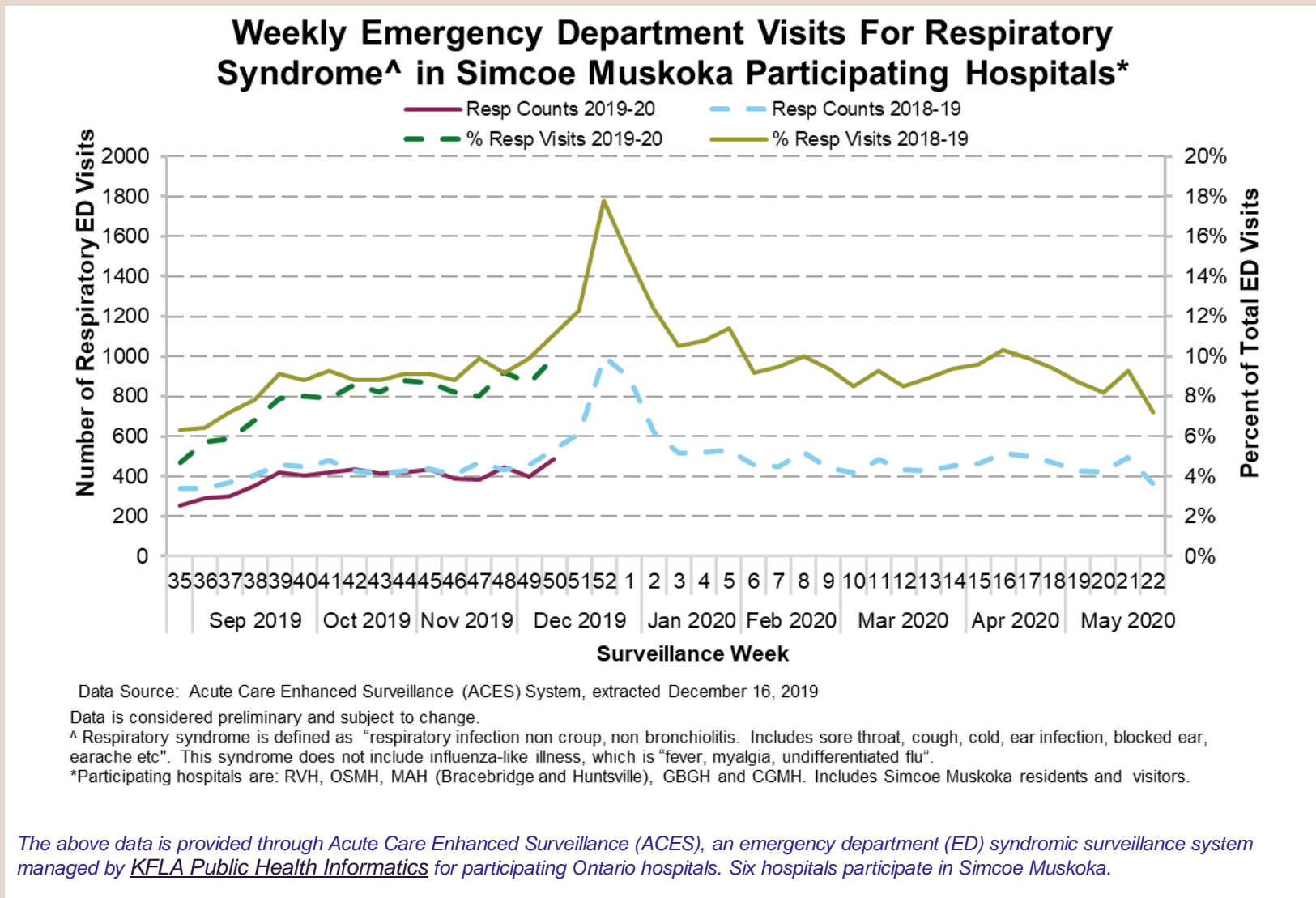
Figure 4: Institutional Outbreaks by Respiratory Pathogen, Simcoe Muskoka, 2019-20



Local Emergency Department Visits

Emergency department visits for respiratory syndrome in Simcoe Muskoka accounted for 10.0% of visits in week 50. This is similar when compared to week 49, 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



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	5	18	18%
Influenza A (H1N1) A/Brisbane/02/2018(H1N1)pdm09-like	4	35	35%
Influenza B Vaccine Strains			
B/Colorado/06/2017-like	7	33	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 49; Public Health Agency of Canada. Flu Watch – Week 49

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 49 Provincial Summary: For the 2019-2020 surveillance season to week 49, 458 laboratory-confirmed influenza cases have been reported across Ontario, 150 (32.8%) of which were reported in week 49. Among cumulative cases, 76.9% (352/458) were influenza A.

(Source: Public Health Ontario Respiratory Pathogen Bulletin, Surveillance Week 49, extracted December 17, 2019)

National

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

International Resources

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