






Weekly Influenza News

Week 46: November 13 to November 19, 2016

Week in Review:

Influenza Activity Indicator	Assessment of Indicator*	Interpretation
 <u>Reported cases</u>	Higher	1 local lab-confirmed case reported in week 46 – first case for 2016/17
 <u>Percent Positive of Flu Specimens[†]</u>	Similar	Simcoe Muskoka: no change; Ontario: slight increase for flu A
 <u>Local Institutional Outbreaks</u>	Similar	No institutional influenza outbreaks declared in the 2016/17 season
 <u>Influenza Strains</u>	Higher	Predominant strains: Influenza A (H3N2)
 <u>Local Emergency Department respiratory visits: week 46</u>	Similar	Percentage of visits similar to previous week and lower than same period of 2015/16 season
Week 46 Overall Assessment November 13 to November 19, 2016	Slightly Higher	Reported Activity Level: Sporadic Flu A activity has increased compared to previous week with first confirmed influenza case reported in SMDHU. No Flu B activity in SMDHU.

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

*Compared to previous [surveillance week](#)

† Reported for week 45

Reported Local Influenza Cases

In Simcoe Muskoka, there has been 1 **lab-confirmed influenza cases reported** as of 22 November 2016.

- This is the **first reported influenza case for the 2016/17 influenza season**.
 - o Subtyping of this initial case is H3.

🔗 Figure 1 and Figure 2 below provide historic comparisons

Table 1: Summary of influenza cases for 2016/17 season

Lab-confirmed Influenza Cases	Week 46		Season-to-Date	
	N	%	N	%
Influenza A	1	100%	1	100%
Influenza B	0	0%	0	0%
Influenza A & B	0	0%	0	0%
Total	1	100%	1	100%
Notes: Data source: Communicable Disease Intake Database, extracted on November 21, 2016				

Historical Comparison

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

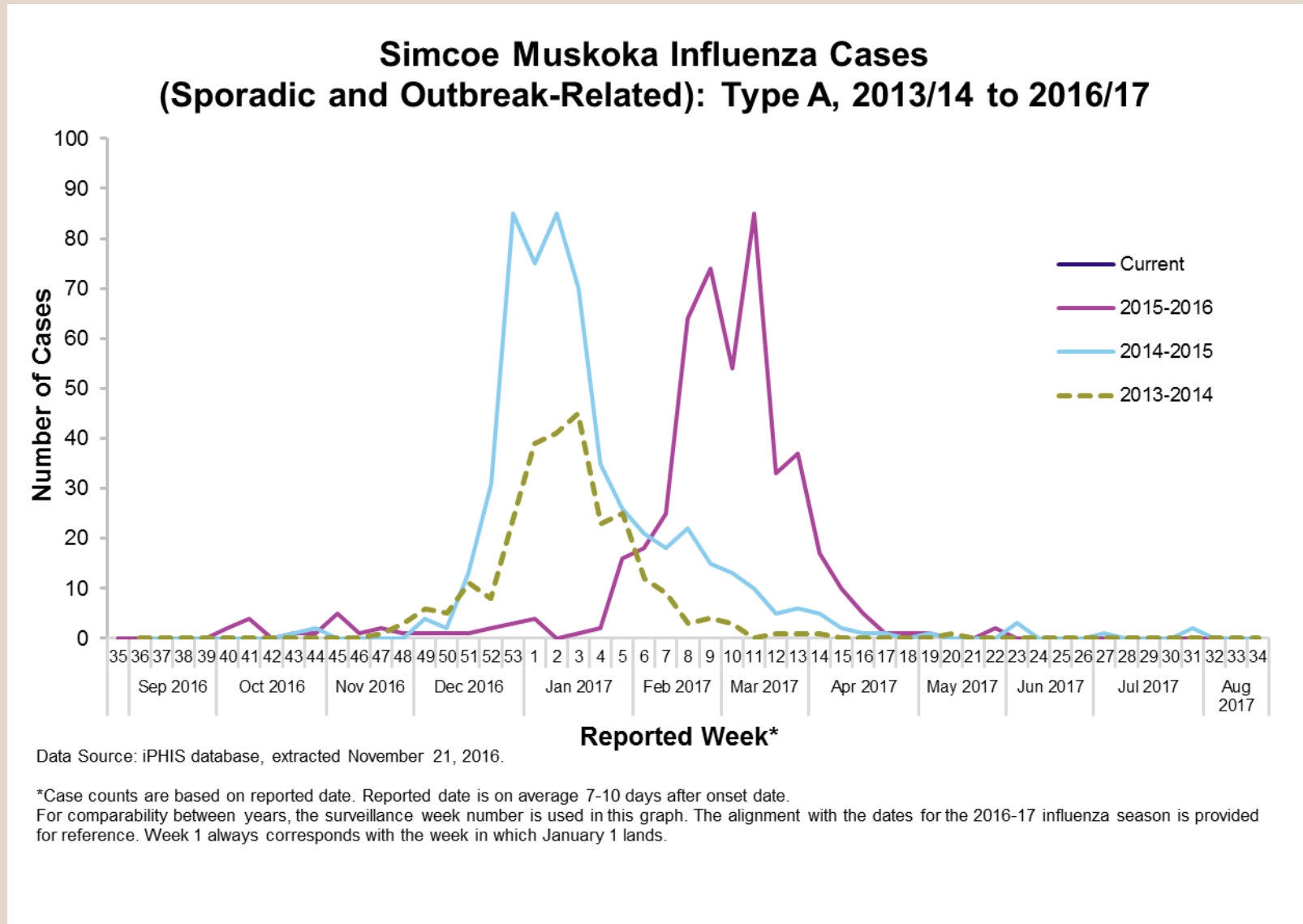
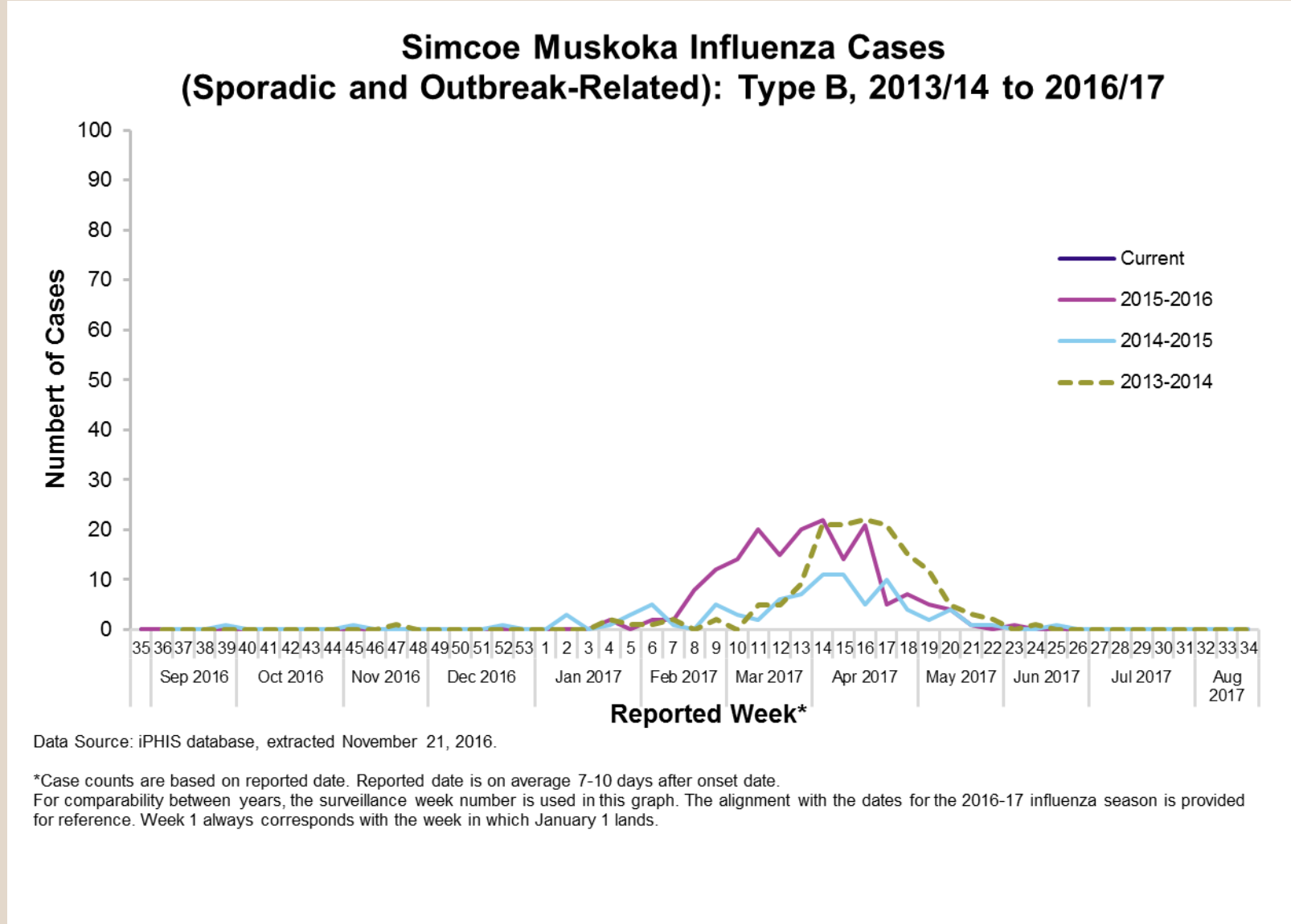


Figure 2: Reported Influenza Cases, Type B, Current Influenza Season with Historical Comparison, Simcoe Muskoka



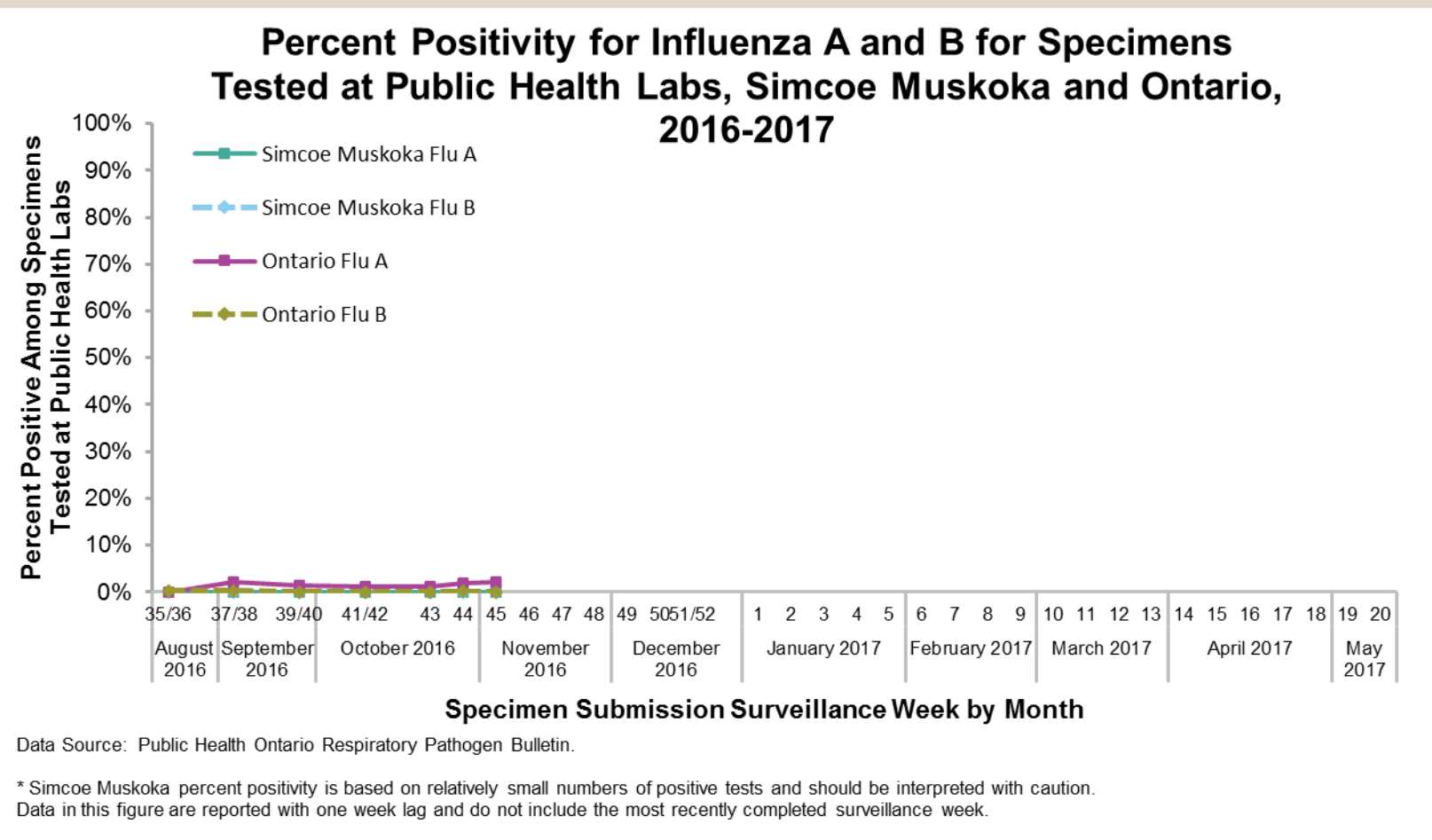
Percent positivity

The percentage of flu specimens that are positive (percent positivity) for Influenza A has increased slightly over the past several weeks. The provincial percent positivity for influenza A in week 45 was reported at 2.2%. Influenza B percent positivity was reported at 0% for week 45.

Local percent positivity for both influenza A and influenza B remained at 0.0% for week 45.

Note: Percent positivity is reported with one week lag and does not include week 46.

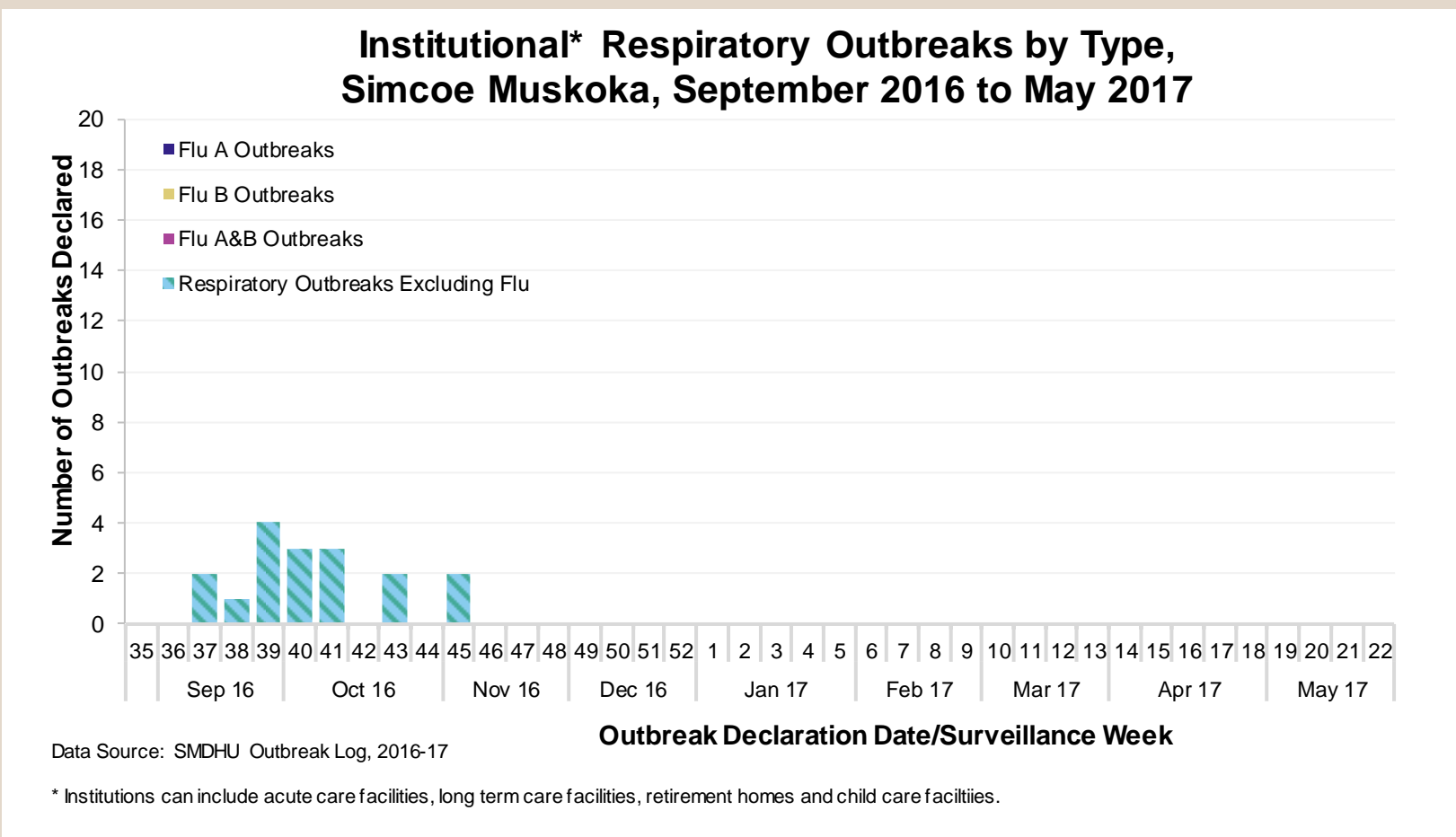
Figure 3: Percent Positivity, Influenza A & B, Simcoe Muskoka & Ontario, 2016/17



Institutional Respiratory Outbreaks

There have been zero *lab-confirmed institutional flu outbreaks* in Simcoe Muskoka since September 1, 2016. There have been 17 respiratory outbreaks (where causative agent is not flu) during this time.

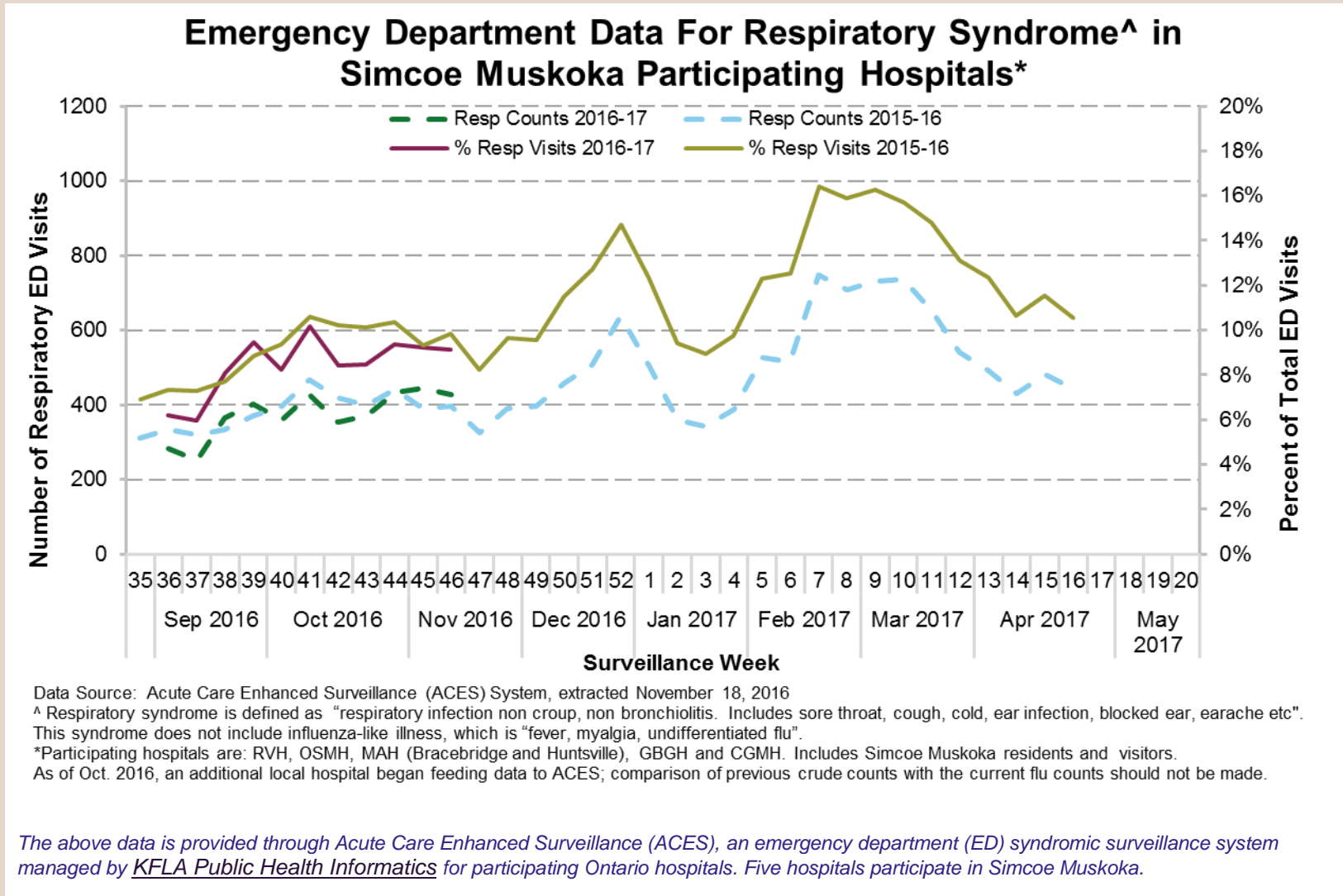
Figure 4: Institutional Outbreaks by Respiratory Pathogen, Simcoe Muskoka, 2016/17



Local Emergency Department Visits

Emergency department visits for respiratory syndrome in Simcoe Muskoka accounted for 9.1% of visits in week 46. This is similar to week 45.

Figure 5: Emergency Department Visits for Respiratory Syndrome at Participating Simcoe Muskoka Hospital, 2014/15, 2015/16, 2016/17 Seasons



Vaccine Match and Influenza Strains

The trivalent 2016-2017 influenza vaccine contains the following strains:

- A/California/7/2009 (H1N1)pdm09-like virus;
- A/Hong Kong/4801/2014 (H3N2)-like virus;
- B/Brisbane/60/2008-like virus.

Table 2: Local, Provincial and National Matched Flu Specimens and National Match Percent, 2016-17

Influenza Strains	Simcoe Muskoka*	Ontario	Canada	National Match Percent
Influenza A Vaccine Strains				
Influenza A (H3N2) A/Hong Kong/4801/2014-like	0	17	31	39%
Influenza A (H1N1) A/California/07/09-like	0	2	4	5%
Influenza B Vaccine Strains				
B/Brisbane/60/08-like	0	0	7	78%
B/Phuket/3073/13-like (Quad vaccine only)	0	1	2	22%

Data Source: Ontario and Canada Counts: Public Health Ontario Respiratory Pathogen Report, Surveillance week **45**; SMDHU Counts: CD Intake Database, extracted November 22, 2016.

Number of isolates received by National Microbiology Lab (NML). Non-vaccine match strains are not reported. Percent match is based on antigenically similar strains.

*Simcoe Muskoka counts are current to the most recently completed surveillance week. 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](#).

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](#).

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 detailed information on every fifth case of influenza reported to SMDHU, the health unit investigates all hospitalized influenza cases in order to ensure accurate adverse outcomes and subtyping data is available.

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 45 Provincial Summary: For the 2016-2017 surveillance season to week 45, 127 laboratory-confirmed influenza cases have been reported, 40 (31.5%) of which were reported in week 45. Among cumulative cases, 88.2% (112/127) were influenza A. Of the 70 reported influenza A cases with subtype information available, 97.1% (68/70) were H3N2 and 2.9% (2/70) were (H1N1)pdm09. Influenza A activity in week 45 was low and within expected levels for this time of year.

(Source: Public Health Ontario Respiratory Pathogen Bulletin, Surveillance Week 45, extracted November 22, 2016)

National

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

International Resources

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