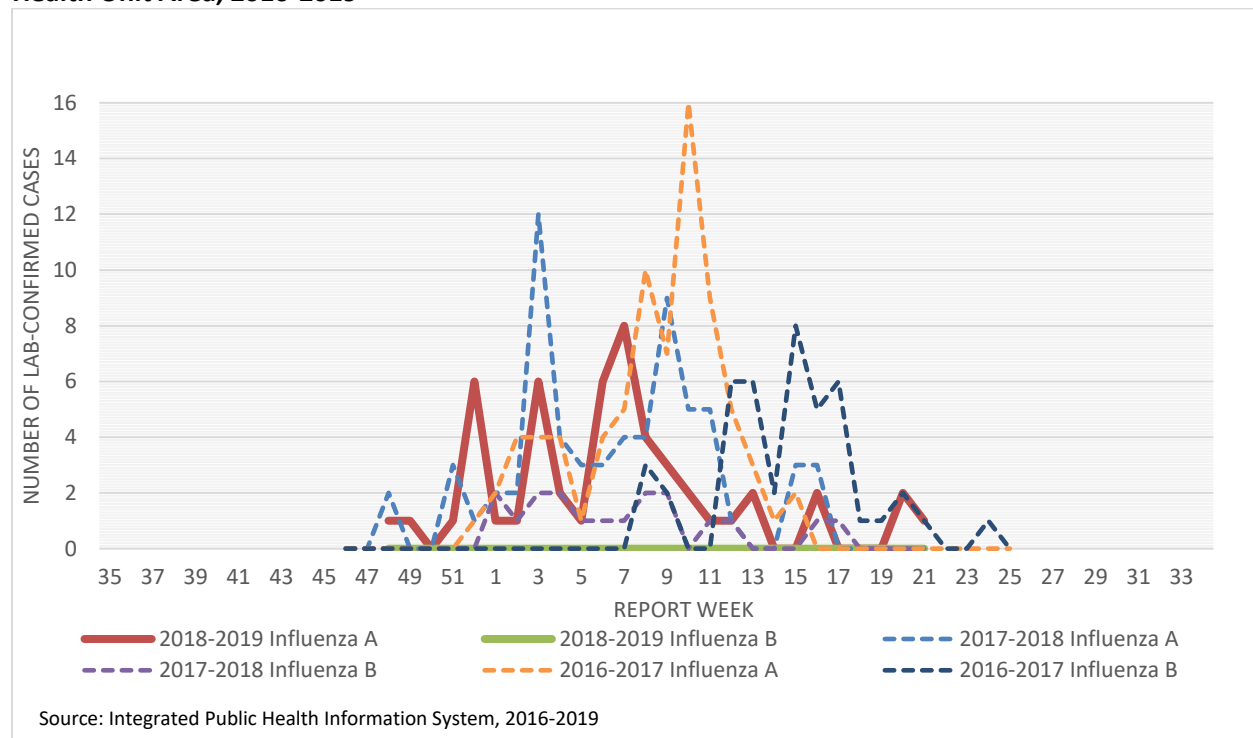


The Porcupine Health Unit¹ monitors and analyzes diseases of public health significance including influenza. This report will provide information for the 2018-2019 influenza season on lab confirmed cases, influenza vaccine, healthcare worker immunization rates and outbreak activity for the Porcupine Health Unit area.

Lab-Confirmed Case Summary

- A total of 52 cases of influenza were reported within the Porcupine Health Unit area this season.
- While influenza was circulating within the Porcupine Health Unit area, only hospitalized patients were tested for influenza.
- Laboratory testing for influenza was conducted as per Public Health Laboratory Respiratory Virus Testing Algorithm (November 2018).

Figure 1. Number of Lab-Confirmed Influenza Cases, by type, season and reported week, Porcupine Health Unit Area, 2016-2019



- In the 2018-2019 season, the first case of influenza was reported in November.
- The two identified influenza strains circulating in the Porcupine Health Unit area were H1N1 and H3.
- The dominant strain of influenza circulating this season was influenza A (H1N1).
- Influenza B had an unusual season. No cases were reported in the 2018-2019 season.
- Most cases were reported between January 7th and March 17th (weeks 2 to 11).

¹ The Porcupine Health Unit is located in Northeastern Ontario, serving the entire Cochrane District and Hornepayne, in Algoma District. The main office is located in Timmins, Ontario, with branch offices in Cochrane, Hearst, Hornepayne, Iroquois Falls, Kapuskasing, Matheson, Moosonee and Smooth Rock Falls.

Table 1. Lab-confirmed cases in the Porcupine Health Unit area, by age group, 2018 - 2019

Age Group	0-4	5-19	20-44	45-64	≥ 65
Case Count	7	7	5	16	17

Source: integrated Public Health Information System, 2018-2019

- Individuals who were most affected by the influenza virus in the 2018-2019 season were 45 years of age or older. The median age of cases was 56 years old. The median age was lower than in both the 2017-2018 season (median: 73 years) and 2016-2017 season (median: 64 years).

Influenza Vaccine

Vaccines utilized in the 2018-2019 season included:

- Fluzone® (Quadrivalent, Split Virion),
- FluLaval Tetra® (Quadrivalent, Split Virion),
- Fluzone High-Dose® (Trivalent, Split Virion) and
- Flumist® (Quadrivalent, live, attenuated).

The quadrivalent vaccine strains in the 2018-2019 season were:

- A/Michigan/45/2015(H1N1) pdm09-like virus,
- A/Singapore/INFIMH-16-0019/2016 (H3N2)- like virus,
- B/Colorado/06/2017- like virus of the B/Victoria/2/87lineage and
- B/Phuket/3073/2013-like virus of the B/Yamagata/16/88 lineage.

The trivalent vaccine strains (high dose) in the 2018-2019 season were:

- A/Michigan/45/2015(H1N1) pdm09-like virus,
- A/Singapore/INFIMH-16-0019/2016 (H3N2)- like virus and
- B/Colorado/06/2017- like virus of the B/Victoria/2/87lineage.

From September 1, 2018 to July 20, 2019, the National Microbiology Laboratory (NML) characterized 2,526 influenza viruses (639 A(H3N2), 1,652 A(H1N1) and 235 B) that were received from Canadian laboratories. ([Fluwatch 2019](#))

Antigenic Characterization ([Fluwatch 2019](#)):

Influenza A (H3N2):

- 207 influenza A(H3N2) virus strains were antigenically characterized as A/Singapore/INFIMH-16-0019/2016-like virus. This was the same antigen found in the 2018-2019 North Hemisphere quadrivalent and trivalent influenza vaccine.

Influenza A(H1N1):

- 1,608 A(H1N1) virus strains were characterized as antigenically similar to A/Michigan/45/2015. This was the influenza A(H1N1) component of the 2018-2019 Northern Hemisphere quadrivalent and trivalent influenza vaccine.

Influenza B:

- 45 influenza B virus strains were characterized as B/Colorado/06/2017, which belong to the Victoria lineage. This component was included in the 2018-19 Northern Hemisphere quadrivalent and trivalent influenza vaccine.
- 26 influenza B virus strains were characterized as B/Phuket/3073/2013-like, which belong to the Yamagata lineage. This component was included in the 2018-2019 Northern Hemisphere quadrivalent influenza vaccine.

Influenza vaccine distribution in Porcupine Health Unit area

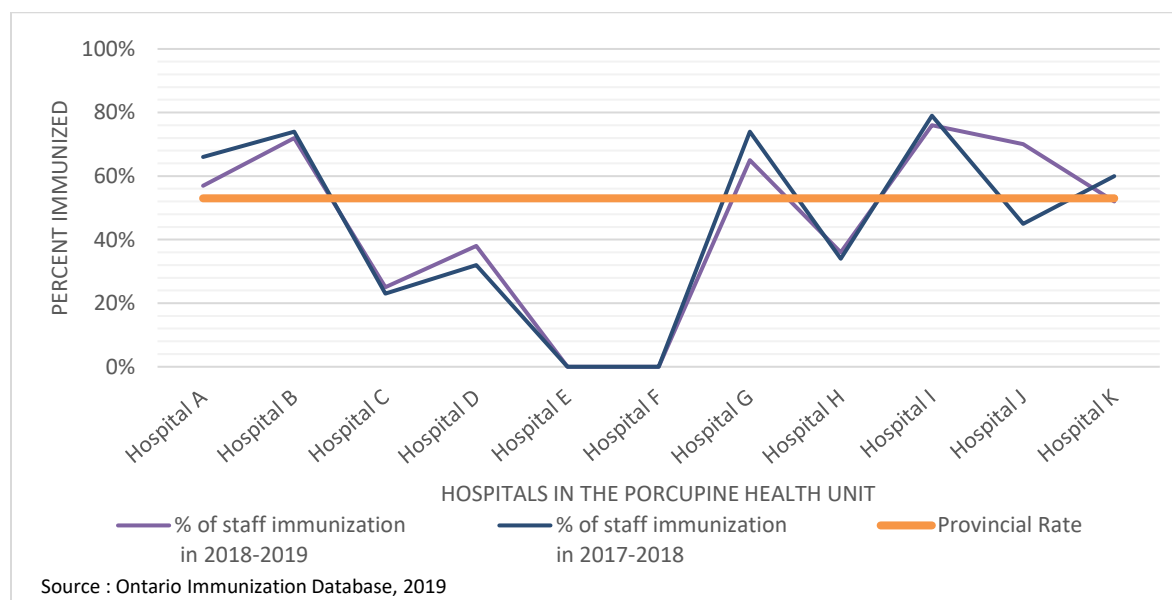
- 4,076 doses of influenza vaccine were administered by the Porcupine Health Unit staff.
- 11,586 doses of influenza vaccine were distributed to health care providers/agencies who participated in the Universal Influenza Immunization Program (UIIP).
- 7,049 doses of the influenza vaccine were distributed to pharmacies who participated in the UIIP.

Health Care Worker Immunization Rates

The Ministry of Health (MOH) has been collecting seasonal influenza immunization rates for Health Care Workers (HCW) of long-term care (LTC) facilities since 1999 and for hospitals since 2000. Seasonal immunization coverage rates for staff of LTC facilities and public hospitals are reportable to the local Medical Officer of Health by December 15th of each year. This information is then reported to the Ministry of Health by January 31st.

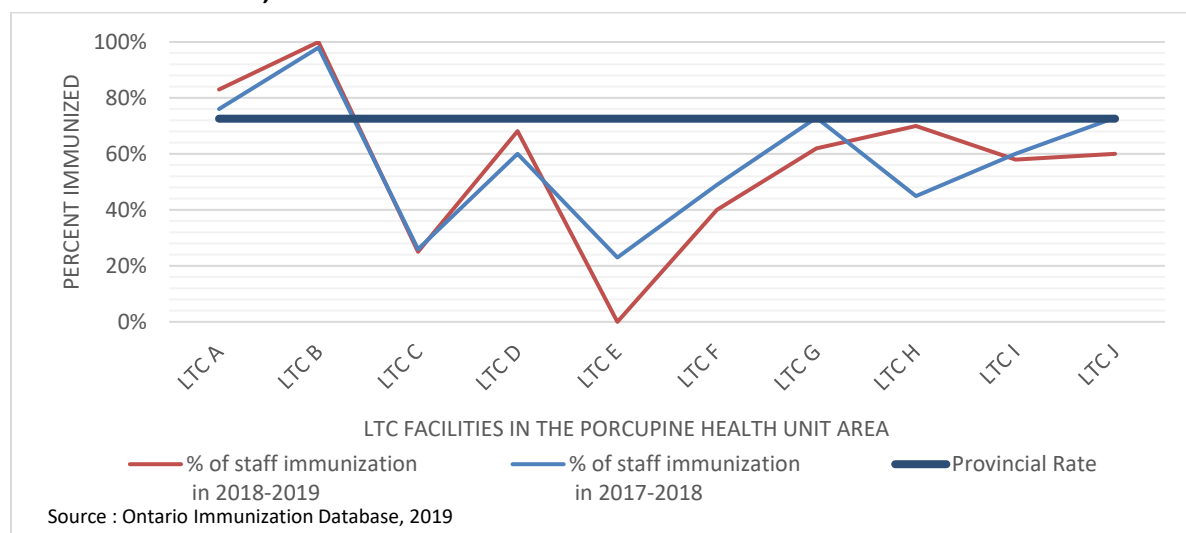
The health unit compares health care worker influenza immunization for all provincial hospitals and long-term care (LTC) facilities in the region to the provincial coverage estimates. This serves to identify institutions that require additional support and strategies from the health unit.

Figure 2. Hospital Health Care Worker Influenza Immunization Coverage Rates, as of December 15th 2018



- The 2018-2019 provincial HCW immunization coverage rate for hospitals was 52.6%. This rate decreased 1.4 % from last season (Ontario Respiratory Virus Bulletin 2018-2019 week 13, Public Health Ontario).
- In the Porcupine Health Unit area, five of the twelve hospitals had influenza immunization rates higher than the provincial average.

Figure 3. Long Term Care (LTC) Facility Health Care Workers Influenza Immunization Coverage Rates, as of December 15th, 2018



- The provincial coverage rate of HCWs in Long Term Care (LTC) facilities was 72.8% this season (Ontario Respiratory Virus Bulletin 2018-2019 week 13, PHO).
- Only two LTC facilities in the Porcupine Health Unit area were above the provincial rate.

Outbreak Activity in Porcupine Health Unit

- A total of 14 institutional outbreaks were reported this season. One of the reported outbreaks were lab-confirmed as Influenza (Table 2).
- As a comparison to the last influenza season, the number of confirmed Influenza A and Influenza B outbreaks have decreased. During the 2018-2019 season, there was one Influenza A outbreak and zero Influenza B outbreaks.

Table 2. 2018-2019 Season Outbreak Summary in the Porcupine Health Unit Area

Influenza A	1
Influenza B	0
Influenza A&B	0
Respiratory Outbreaks other than Influenza	13
TOTAL	14

Source: integrated Public Health Information System, 2018-2019

Surveillance within the Porcupine Health Unit Area

- The Porcupine Health Unit continue to monitor the Acute Care Enhanced Surveillance (ACES) system in emergency departments.
- Two schools and five daycares reported absenteeism rates of 10% or more. All reports indicated that symptoms were related to an acute respiratory infection.

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