

ONTARIO RESPIRATORY PATHOGEN BULLETIN | 2019-20

Surveillance Week 1: (December 29, 2019 – January 4, 2020)

Current Highlights and Assessment of Influenza Activity in Ontario

Measure of Activity	Assessment of Measure Compared to the Previous Week (Lower, Similar, Higher)	Reasoning Behind Assessment
Laboratory-confirmed Influenza Cases ¹	Higher	Total influenza: 1522 cases Influenza A: 1291 cases Influenza B: 231 cases The 1522 influenza cases reported in Week 1 was higher than the number reported in Week 52 (751).
Percent Positivity for Influenza ²	Higher	Total influenza: 24.5% (807/3288) Influenza A: 20.4% (671/3288) Influenza B: 4.1% (136/3288) The total percent positivity means that 24.5% of tests that were performed for influenza were positive for influenza in Week 1, which was higher than the percent positivity in Week 52 (20.9%).
Institutional Influenza Outbreaks ³	Higher	Total outbreaks: 36 Influenza A: 34 outbreaks Influenza B: 2 outbreaks There were 36 new influenza outbreaks reported in Week 1, which was higher than the number of influenza outbreaks reported in Week 52 (15).
Influenza Activity Levels Reported by Public Health Units	Higher	Influenza activity levels reported by public health units (n=35) Widespread activity: 1 Localized activity: 21 Sporadic activity: 11 No activity: 1 Did not report: 1
OVERALL ASSESSMENT	Higher	Influenza activity in Ontario for Week 1 was higher when compared to Week 52.

Notes:

¹ Based on the date the case was reported to the public health unit.

² Positivity among viral respiratory specimens tested by Ontario laboratories that submit results to the Centre for Immunization and Respiratory Infectious Diseases (CIRID). Due to rounding, percentages presented here may not add up to the overall influenza percent positivity.

³ The number of new outbreaks reported for the current week is based on the date the outbreak was reported to the public health unit; when reported date is unavailable, the date the outbreak was created in iPHIS is used.

Influenza Strain Characterization and Antiviral Resistance/Sensitivity Information

Influenza strain characterization and antiviral resistance/sensitivity information for Ontario can be found in the [Laboratory Respiratory Pathogen Surveillance Reports](#).

Outbreak Supplement

Measures of influenza outbreak activity and severity in Ontario

Seventy-two influenza A outbreaks and four influenza B outbreaks were reported as occurring by the end of week 1 of the 2019-20 season.

Cases and severity:

To the end of week 1 during the 2019-20 season, there were 472 cases in the 72 reported influenza A outbreaks, of which six had pneumonia, 31 were hospitalized and four died. There were 27 cases associated with the four reported influenza B outbreaks, of which one had pneumonia, two were hospitalized and zero died.

Data Sources for this Report

Data for assessment of influenza activity:

- **Integrated Public Health Information System (iPHIS):** provides information on laboratory-confirmed cases of influenza reported to local public health units, and institutional outbreaks of influenza and other respiratory pathogens reported to local public health units. iPHIS is administered by the Ontario Ministry of Health; data for this issue was extracted by Public Health Ontario on January 8, 2020.

Cases of influenza A and B are included in the report based on the 'Reported Date', which was the date the public health unit was notified of the case. Cases are assigned to a particular surveillance week based on the episode date entered in iPHIS to better reflect influenza activity. Episode date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Onset Date > Specimen Collection Date > Lab Test Date > Reported Date). Cases are excluded from these counts if the episode date is based on reported date, and the reported date occurs after the latest surveillance week.

- **Centre for Immunization and Respiratory Infectious Diseases (CIRID) of the Public Health Agency of Canada (PHAC):** provides information on the number of influenza tests and number that are positive based on submissions from 16 participating laboratories in Ontario including 11 Public Health Ontario Laboratories (PHOLs) and five hospital-based laboratories. The results are assigned to a particular surveillance week based on when test results are reported to PHAC; these data are not updated when results are submitted late for previous surveillance weeks. These data represent the number of specimens tested, which may not necessarily correspond with the number of patients as more than one specimen may have been submitted per patient. Cumulative numbers for the season to date are also available through FluWatch.
- **Public Health Ontario from public health units:** Public health units provide Public Health Ontario with weekly reports of influenza activity levels in their areas [Provincial Influenza Activity Report (Appendix C) Database]. Influenza activity levels are assigned by local public health units and reported to Public Health Ontario by 4:00 pm on the Tuesday following the end of each surveillance week. Activity levels are assigned based on laboratory confirmations, ILI reports from various sources, and laboratory-confirmed institutional respiratory infection outbreaks. Please refer to the detailed definitions for the 2019-2020 season for more information.
- Any outbreak where influenza was identified is reported under the appropriate influenza category ("Influenza A" or "Influenza B") regardless of whether any non-influenza viruses were also identified in the outbreak.
 - Combined influenza A and B outbreaks have been included with influenza A outbreaks in all counts and calculations.
- The date of onset of illness for the first case is used to determine which week to attribute an outbreak to.
- The data for outbreaks and cases includes both open and closed records in iPHIS. Outbreak records that are open in iPHIS may not have complete summary case and severity information entered. Case data on open outbreaks is subject to change.
 - Public health units have 15 business days from when an outbreak is declared over to complete their data entry for that outbreak in iPHIS.

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