

Ontario Respiratory Virus Bulletin | 2015-2016

SURVEILLANCE WEEKS 39 AND 40 (September 27, 2015 – October 10, 2015)

This issue of the Ontario Respiratory Virus Bulletin provides information on the surveillance period from September 27, 2015 to October 10, 2015 (Weeks 39 and 40). Unless otherwise specified, **data presented in this issue of the bulletin is for Weeks 39 and 40** and data extraction occurred on Wednesday, October 14, 2015. As of November 6, 2015 the Ontario Respiratory Virus Bulletin will become the Ontario Respiratory Pathogen Bulletin (ORPB) and will be released weekly until May 2016. The new ORPB has been designed to enable the reader to easily navigate to areas of interest within the Bulletin, and contains additional interpretative text throughout the document and at the beginning of each section. The ORPB also includes added information from the Public Health Ontario Laboratories.

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	There were 36 influenza cases (33 influenza A and 3 influenza B) reported ¹ in Weeks 39 and 40, which was higher than the 6 influenza cases reported in Weeks 37 and 38 (5 influenza A and 1 influenza B).
Respiratory sample percent positivity for influenza ²	Higher	Percent positivity ² of laboratory tests for all influenza types in Weeks 39 and 40 was 3.1%, which was higher than the percent positivity in Weeks 37 and 38 (0.4%).
Influenza outbreaks ³	Higher	There was 1 new influenza outbreak reported in Weeks 39 and 40, which was higher than the number of influenza outbreaks reported in Weeks 37 and 38 (0).
Influenza activity levels reported by health units	Higher	In Week 40, 21 health units reported no activity, 11 reported sporadic activity, and 1 reported localized activity. In Week 39, 28 health units reported no activity and 5 reported sporadic activity.
OVERALL ASSESSMENT	Higher	Overall, the indicators show that influenza activity for Weeks 39 and 40 was higher than Weeks 37 and 38.
Measures of severity for influenza		
Hospitalizations among laboratory-confirmed cases of influenza ¹	Similar	There were 8 hospitalized cases reported in Weeks 39 and 40, which was similar to the 5 hospitalized cases reported in Weeks 37 and 38.
Deaths among laboratory-confirmed cases of influenza ¹	Similar	There were no deaths reported in Weeks 39 and 40, which was the same as the number of deaths reported in Weeks 37 and 38 (0).

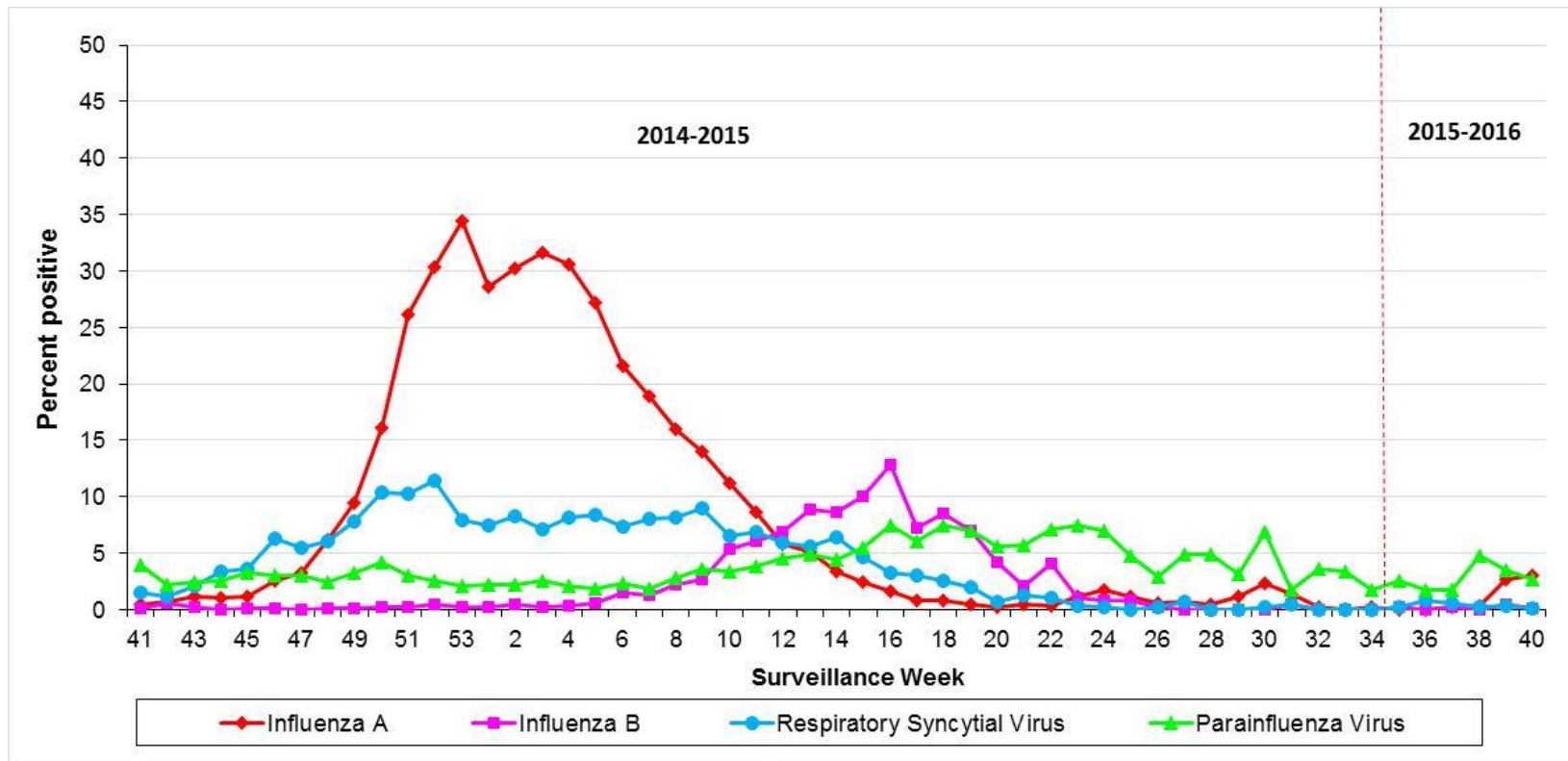
¹ The number of **reported** cases needs to be interpreted with caution because there is a lag between the onset of illness, hospital admission or death and when this information is reported to public health. ² Positivity among specimens submitted for testing to Ontario laboratories reporting to the Centre for Immunization and Respiratory Infectious Diseases (CIRID). ³ The number of new outbreaks reported for the current week is based on the onset date of illness for the first case in an outbreak.

Summary of current and season-to-date respiratory virus activity in Ontario

- Influenza activity in the current surveillance weeks was higher compared to the previous two weeks, but remained at low levels.
 - Influenza B percent positivity was 0.3% in Weeks 39 and 40, which was similar to Weeks 37 and 38 (0.1%); influenza A percent positivity was 2.9% in Weeks 39 and 40, which was higher than Weeks 37 and 38 (0.3%).
 - For the 2015-2016 surveillance season to date, 44¹ laboratory-confirmed influenza cases have been reported, and most were influenza A (90.9%, 40/44). Among the influenza A cases, 27.5% (11/40) had subtype information available and of those 72.7% (8/11) were H3 and 27.3% were H1 (3/11).
 - For the season to date, 14² hospitalizations and no deaths have been reported among laboratory-confirmed influenza cases. All hospitalizations occurred among influenza A cases.
 - Of the 102 institutional respiratory infection outbreaks reported to date, one was an influenza outbreak (influenza A).
- Among other circulating non-influenza respiratory viruses identified through laboratory testing:
 - Rhinovirus was the dominant circulating virus in Weeks 39 and 40; the percent positivity for rhinovirus was 44.2% in Weeks 39 and 40, which was higher than Weeks 37 and 38 (22.2%).
 - Parainfluenza was the second most common circulating non-influenza virus in Weeks 39 and 40; the percent positivity for parainfluenza was 2.9% in Weeks 39 and 40, which was similar to Weeks 37 and 38 (3.2%).

¹ Based on percent positivity among specimens submitted for testing to laboratories reporting to the Public Health Agency of Canada's Centre for Immunization and Respiratory Infectious Diseases (CIRID). ² The cumulative count includes laboratory-confirmed cases with a 'Reported Date' between September 1, 2015 and the last day of the current surveillance week.

Figure 1. Percentage of respiratory viral pathogens (influenza A, influenza B, respiratory syncytial virus, and parainfluenza virus) detected among specimens tested by all methods: Ontario, October 5, 2014 to October 10, 2015



Source: These data have been obtained from the Public Health Agency of Canada’s (PHAC) Centre for Immunization and Respiratory Infectious Diseases (CIRID) respiratory virus detection tables as of October 14, 2015; they are based on data submitted to PHAC from 16 laboratories in Ontario.

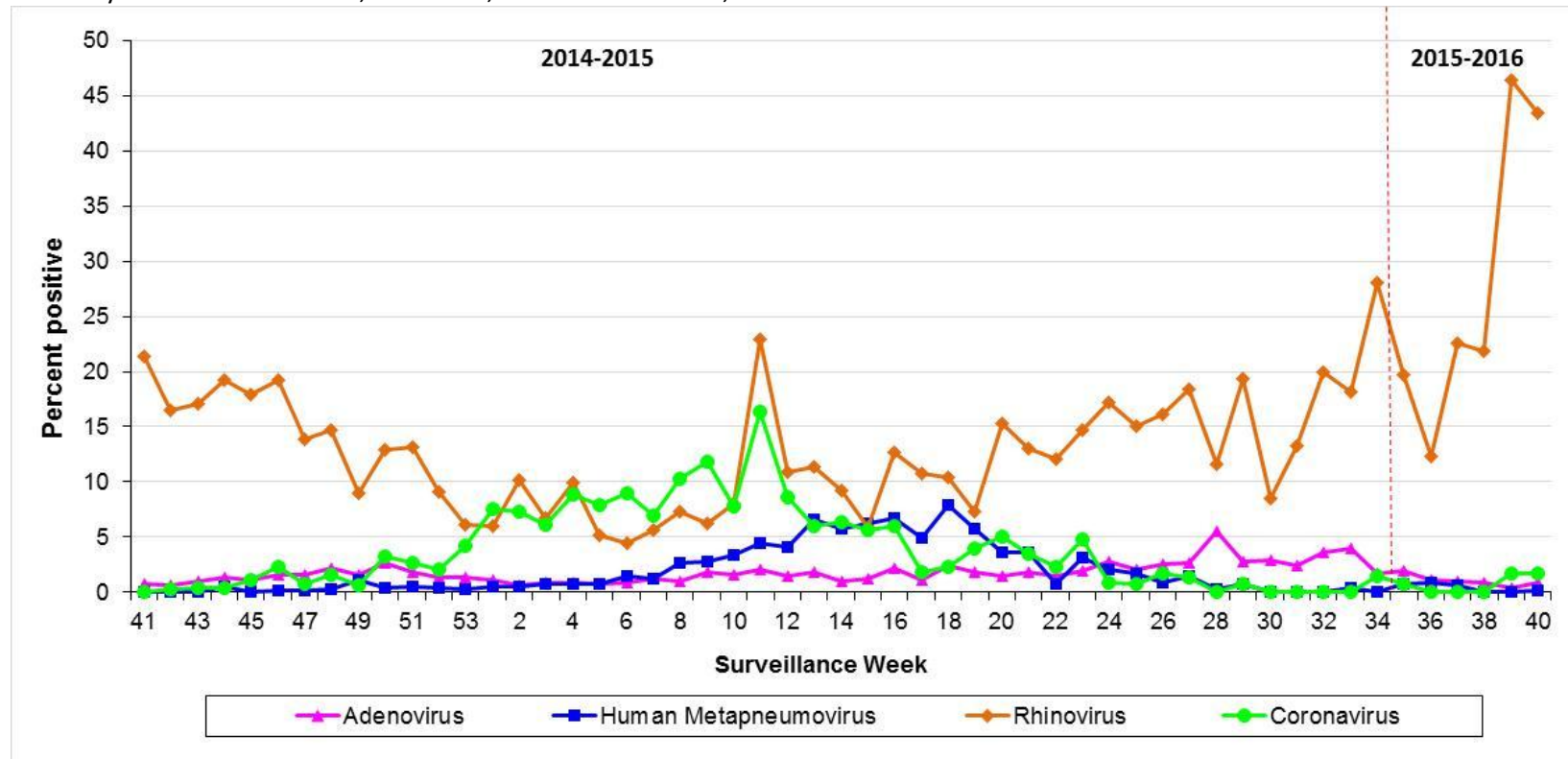
Notes:

The numbers reported in this figure represent results submitted to the CIRID by 16 participating laboratories in Ontario, including 11 Public Health Ontario Laboratories (PHOLs) and five hospital-based laboratories.

Interpret results for Week 51 with caution as only four laboratories in Ontario, three of which were hospital-based laboratories, submitted results to the CIRID. Results above 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: <http://www.phac-aspc.gc.ca/fluwatch/>

Figure 2. Percentage of respiratory viral pathogens (adenovirus, human metapneumovirus, rhinovirus and coronavirus) detected among specimens tested by all methods: Ontario, October 5, 2014 to October 10, 2015



Source: These data have been obtained from the Public Health Agency of Canada's (PHAC) Centre for Immunization and Respiratory Infectious Diseases (CIRID) respiratory virus detection tables as of October 14, 2015; they are based on data submitted to PHAC from 16 laboratories in Ontario.

Notes:

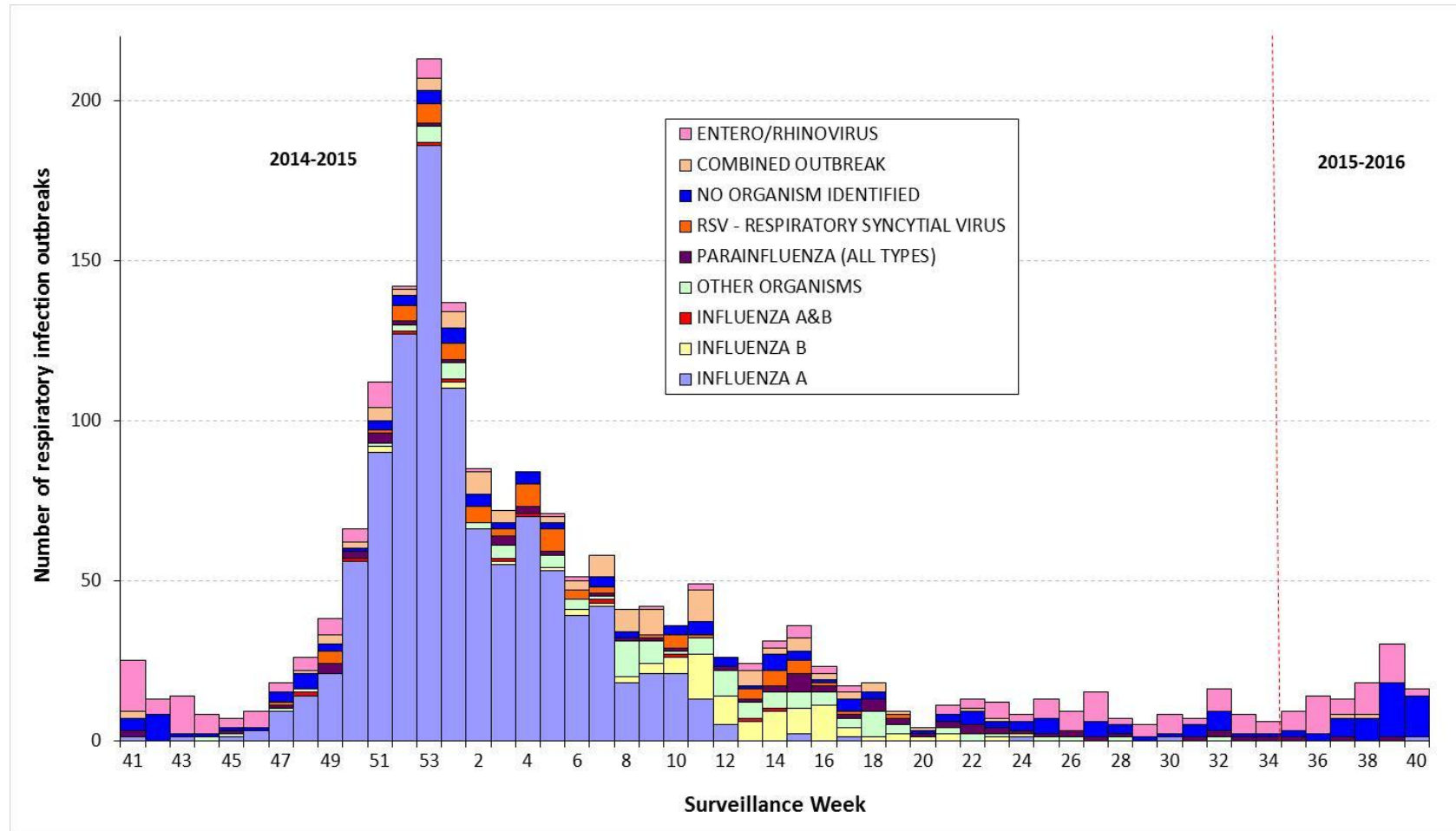
The numbers reported in this figure represent results submitted to the CIRID by 16 participating laboratories in Ontario, including 11 Public Health Ontario Laboratories and five hospital-based laboratories.

Interpret results for Week 51 with caution as only four laboratories in Ontario, three of which were hospital-based laboratories, submitted results to the CIRID.

Results above 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: <http://www.phac-aspc.gc.ca/fluwatch/>

Figure 3. Institutional respiratory infection outbreaks by week of illness onset in the first case: Ontario, October 5, 2014 to October 10, 2015

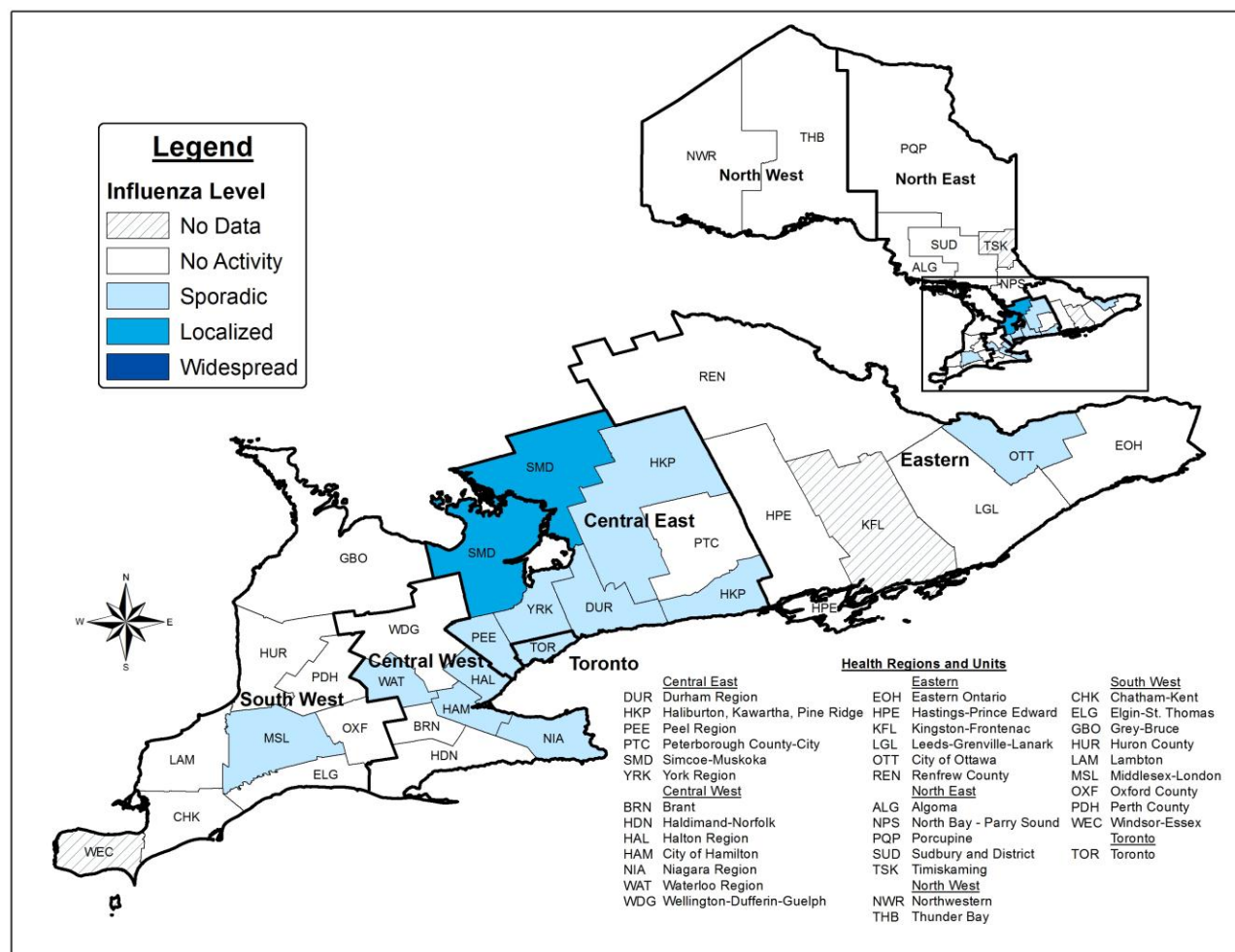


Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2015/10/14].

Notes:

Institutional respiratory infection outbreaks for which the date of onset of illness for the first case is missing are excluded in this figure.

Figure 4. Influenza activity levels reported by public health units: Ontario, October 4, 2015 to October 10, 2015 (Week 40)



Source: Public Health Ontario [Provincial Influenza Activity Report (Appendix C) Database]

Notes:

Influenza activity levels are assigned by local public health units and reported to Public Health Ontario by the Tuesday following the end of each surveillance week at 4:00 p.m. 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 2015-2016 season for more information](#).

Activity levels reported for a particular surveillance week may not necessarily correspond to the number of new outbreaks reported in the same week because ongoing outbreaks from previous weeks, as well as laboratory confirmed outbreaks in schools, may be included in the assessment of the activity level.