

Ontario Respiratory Virus Bulletin | 2015-2016

SURVEILLANCE WEEKS 41 AND 42 (October 11, 2015 – October 24, 2015)

This issue of the Ontario Respiratory Virus Bulletin provides information on the surveillance period from October 11, 2015 to October 24, 2015 (Weeks 41 and 42). Unless otherwise specified, **data presented in this issue of the bulletin is for Weeks 41 and 42** and data extraction occurred on Wednesday, October 28, 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	Lower	There were 24 influenza cases (22 influenza A and 2 influenza B) reported ¹ in Weeks 41 and 42, which was lower than the 36 influenza cases reported in Weeks 39 and 40 (33 influenza A and 3 influenza B).
Respiratory sample percent positivity for influenza ²	Lower	Percent positivity ² of laboratory tests for all influenza types in Weeks 41 and 42 was 1.3%, which was lower than the percent positivity in Weeks 39 and 40 (3.1%).
Influenza outbreaks ³	Similar	There was 1 new influenza outbreak reported in Weeks 41 and 42, which was the same as the number of influenza outbreaks reported in Weeks 39 and 40 (1).
Influenza activity levels reported by health units	Similar	In Week 42, 24 health units reported no activity, 5 reported sporadic activity, and 1 reported localized activity. In Week 41, 29 health units reported no activity, 4 reported sporadic activity, and 1 reported localized activity.
OVERALL ASSESSMENT	Lower	Overall, the indicators show that influenza activity for Weeks 41 and 42 was lower than Weeks 39 and 40.
Measures of severity for influenza		
Hospitalizations among laboratory-confirmed cases of influenza ¹	Similar	There were 10 hospitalized cases reported in Weeks 41 and 42, which was similar to the 8 hospitalized cases reported in Weeks 39 and 40.
Deaths among laboratory-confirmed cases of influenza ¹	Similar	There were no deaths reported in Weeks 41 and 42, which was the same as the number of deaths reported in Weeks 39 and 40 (0).

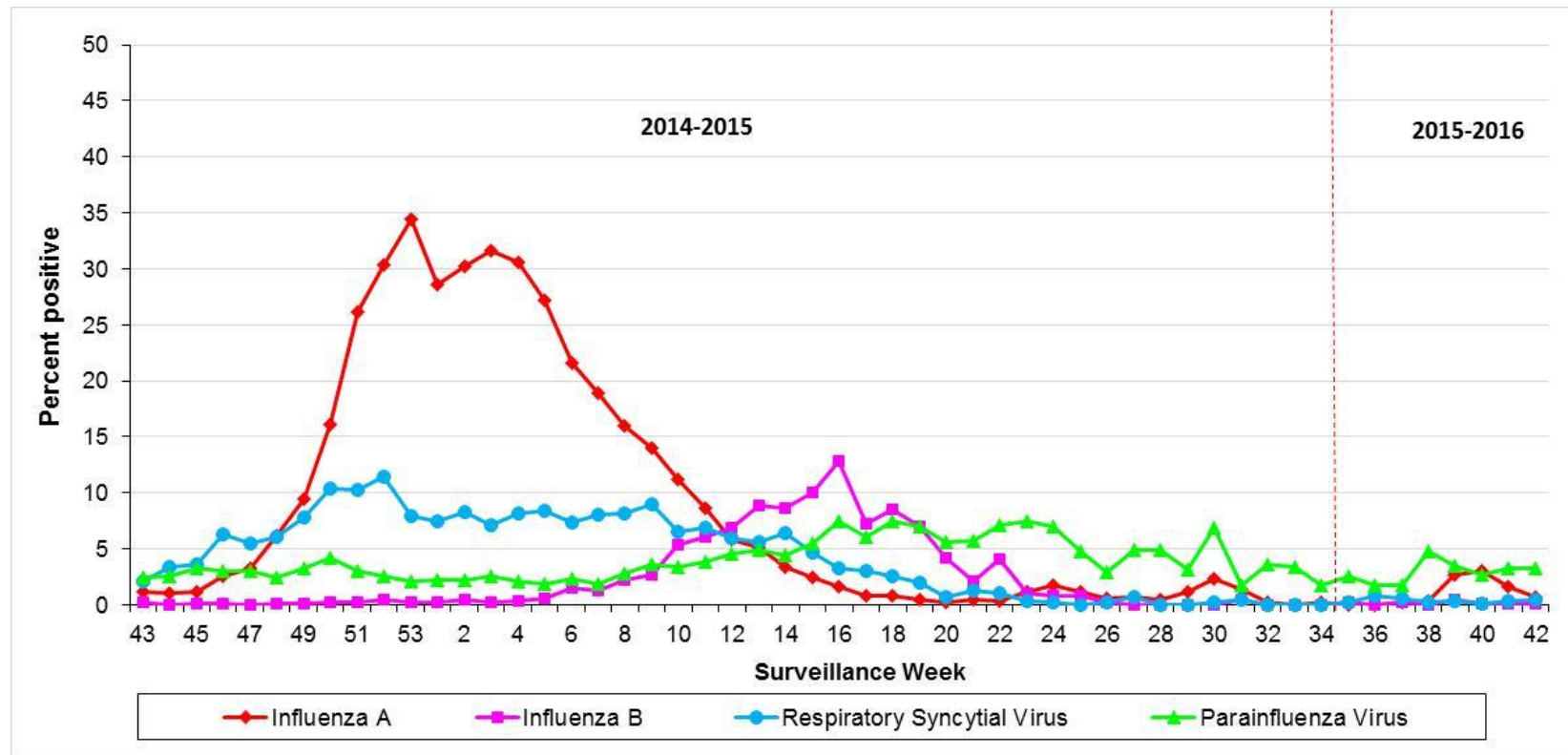
¹ The number of **reported** cases needs to be interpreted with caution because there is a lag between the onset of illness, hospital admission or death and when this information is reported to public health. ² Positivity among specimens submitted for testing to Ontario laboratories reporting to the 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 lower compared to the previous two weeks, and remained at low levels.
 - Influenza B percent positivity was 0.1% in Weeks 41 and 42, which was similar to Weeks 39 and 40 (0.3%); influenza A percent positivity was 1.2% in Weeks 41 and 42, which was lower than Weeks 39 and 40 (2.9%).
 - For the 2015-2016 surveillance season to date, 68¹ laboratory-confirmed influenza cases have been reported, and most were influenza A (89.7%, 61/68). Among the influenza A cases, 47.1% (32/68) had subtype information available and of those, 78.1% (25/32) were H3 and 21.9% were H1 (7/32).
 - For the season to date, 24² hospitalizations and no deaths have been reported among laboratory-confirmed influenza cases. The majority of hospitalizations (95.8%, 23/24) occurred among influenza A cases.
 - Of the 162 institutional respiratory infection outbreaks reported to date, two were influenza outbreaks (both influenza A).
- Among other circulating non-influenza respiratory viruses identified through laboratory testing:
 - Rhinovirus was the dominant circulating virus in Weeks 41 and 42; the percent positivity for rhinovirus was 22.9% in Weeks 41 and 42, which was lower than Weeks 39 and 40 (44.2%).
 - Parainfluenza was the second most common circulating non-influenza virus in Weeks 41 and 42; the percent positivity for parainfluenza was 3.2% in Weeks 41 and 42, which was similar to Weeks 39 and 40 (2.9%).

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 19, 2014 to October 24, 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 28, 2015; they are based on data submitted to PHAC from 16 laboratories in Ontario.

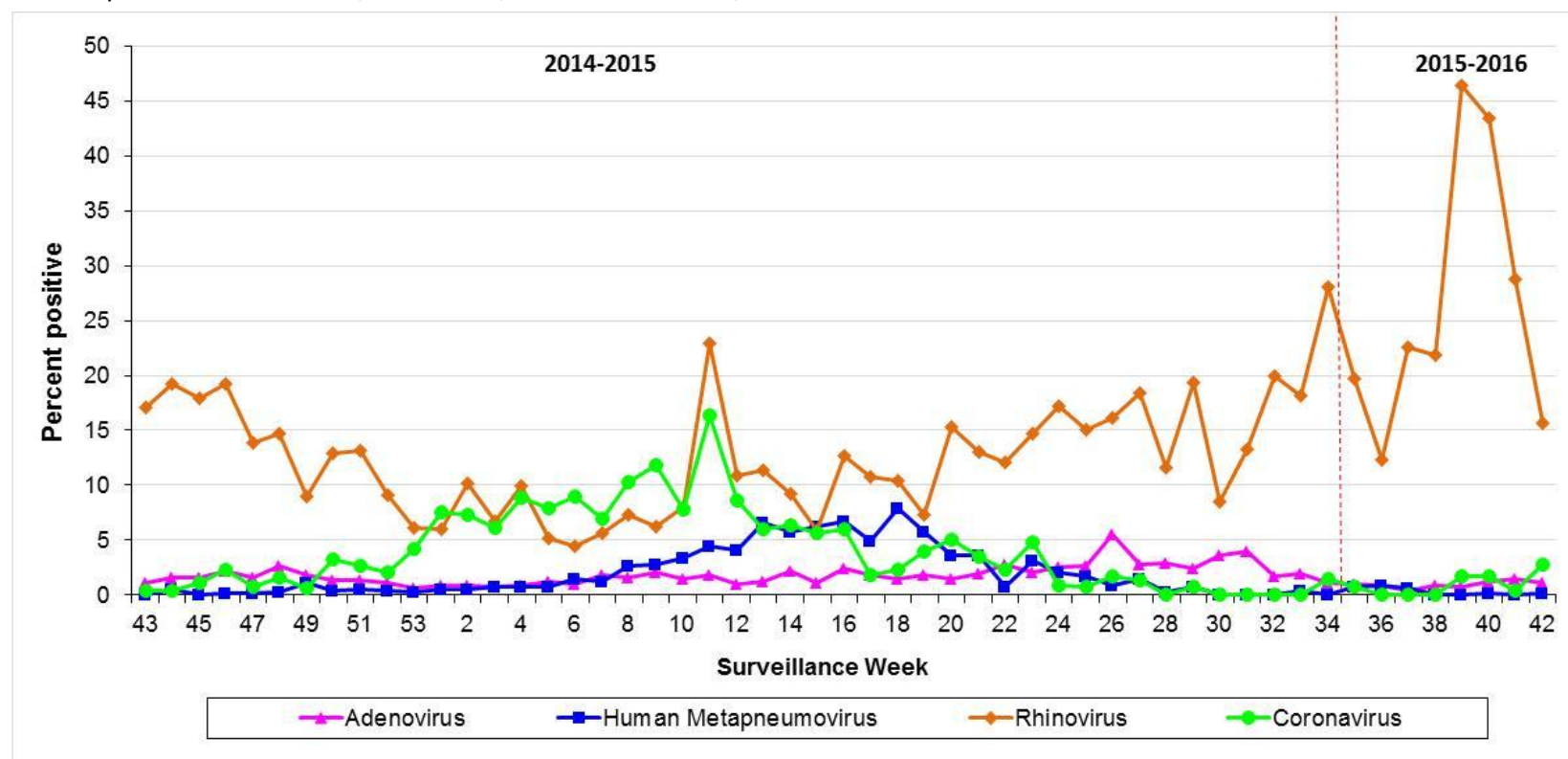
Notes:

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 19, 2014 to October 24, 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 28, 2015; they are based on data submitted to PHAC from 16 laboratories in Ontario.

Notes:

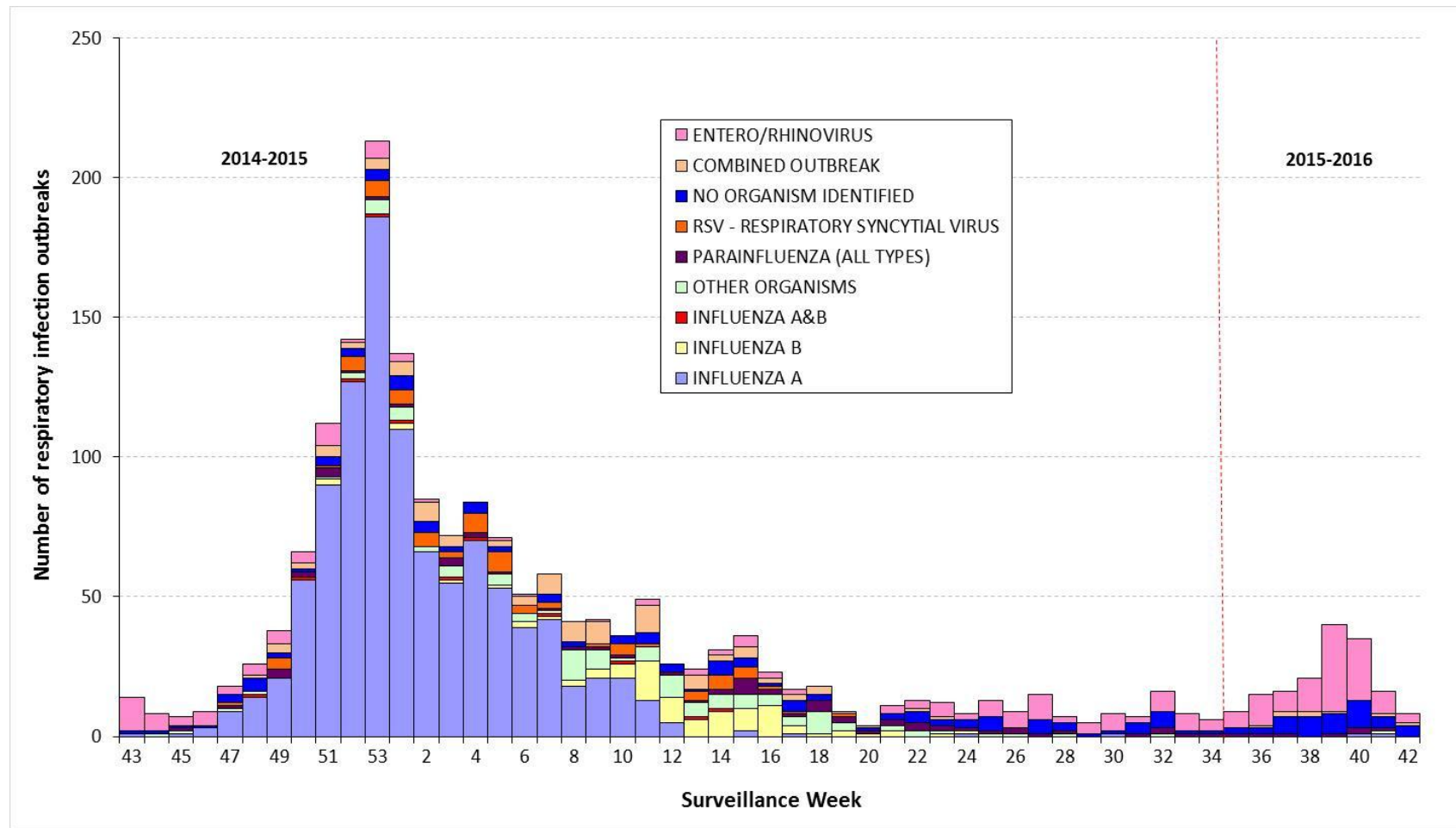
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Cumulative numbers for the season to date are also available through FluWatch: <http://www.phac-aspc.gc.ca/fluwatch/>

Figure 3. Institutional respiratory infection outbreaks by week of illness onset in the first case: Ontario, October 19, 2014 to October 24, 2015

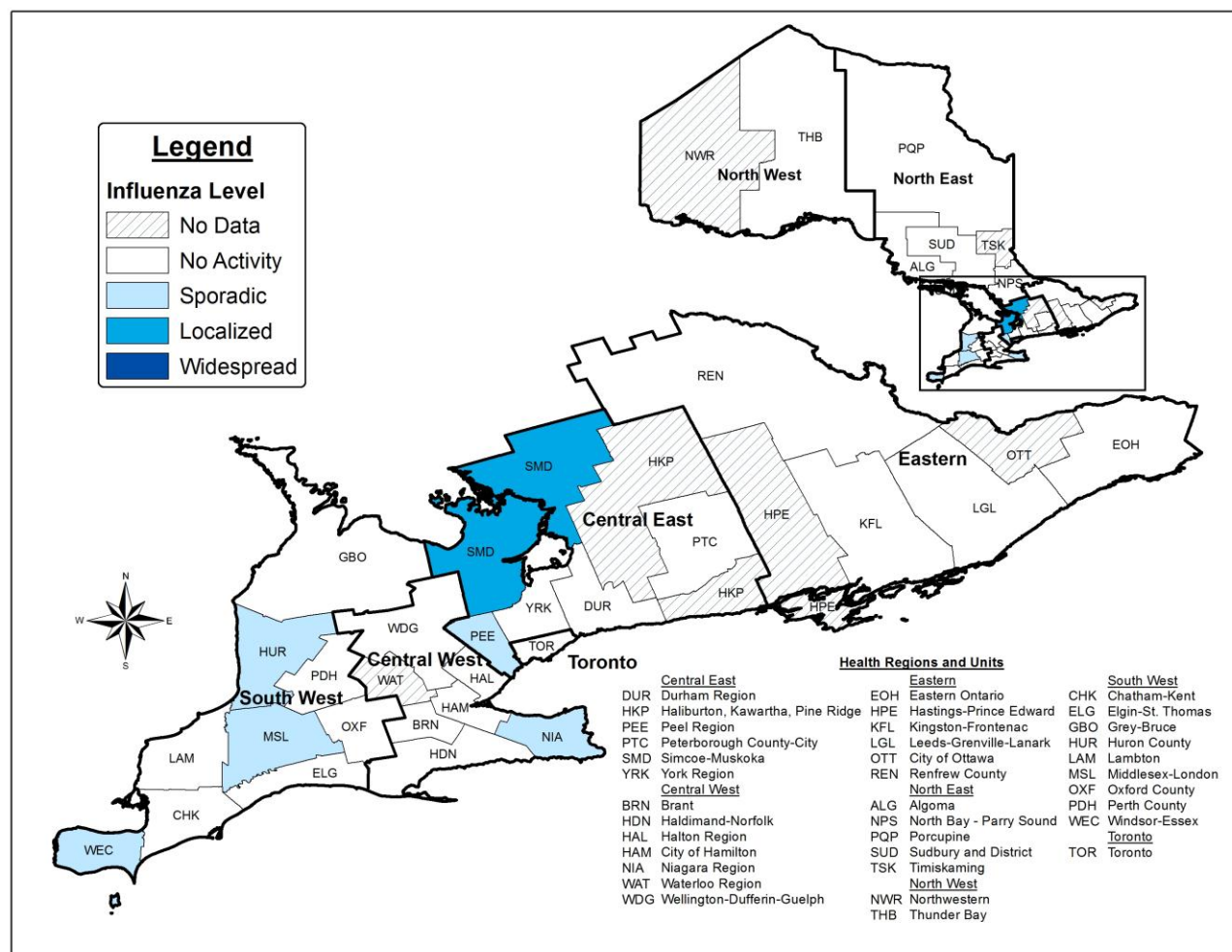


Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2015/10/28].

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 18, 2015 to October 24, 2015 (Week 42)



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.