

Ontario Respiratory Virus Bulletin | 2014-2015

SURVEILLANCE WEEKS 19 AND 20 (May 10, 2015 – May 23, 2015)

This issue of the Ontario Respiratory Virus Bulletin provides information on the surveillance period from May 10, 2015 to May 23, 2015 (Weeks 19 and 20). Unless otherwise specified, **data presented in this issue of the bulletin is for Weeks 19 and 20** and data extraction occurred on Wednesday, May 27, 2015. Weekly production of the expanded version of the bulletin will resume in the fall for the 2015-16 season.

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 106 influenza cases (8 influenza A and 98 influenza B) reported ¹ in Weeks 19 and 20, which was lower than the 232 influenza cases reported in Weeks 17 and 18 (21 influenza A and 211 influenza B).
Respiratory sample percent positivity for influenza ²	Lower	Percent positivity ² of laboratory tests for all influenza types in Weeks 19 and 20 was 5.8%, which was lower than the percent positivity in Weeks 17 and 18 (8.6%).
Influenza outbreaks ³	Similar	There was 1 new influenza outbreak reported in Weeks 19 and 20, which was the same as in Weeks 17 and 18, when one influenza outbreak was reported.
Influenza activity levels reported by health units	Lower	In Week 20, 16 health units reported no activity, 13 reported sporadic activity, and 6 reported localized activity. In Week 19, 15 health units reported no activity, 13 reported sporadic activity, and 7 reported localized activity.
OVERALL ASSESSMENT	Lower	Overall, the indicators show that influenza activity for Weeks 19 and 20 was lower than Weeks 17 and 18.
Measures of severity for influenza		
Hospitalizations among laboratory-confirmed cases of influenza ¹	Lower	There were 91 hospitalized cases reported in Weeks 19 and 20, which was lower than the 186 hospitalized cases reported in Weeks 17 and 18.
Deaths among laboratory-confirmed cases of influenza ¹	Similar	There were 7 deaths reported in Weeks 19 and 20, which was similar to the 9 deaths reported in Weeks 17 and 18.

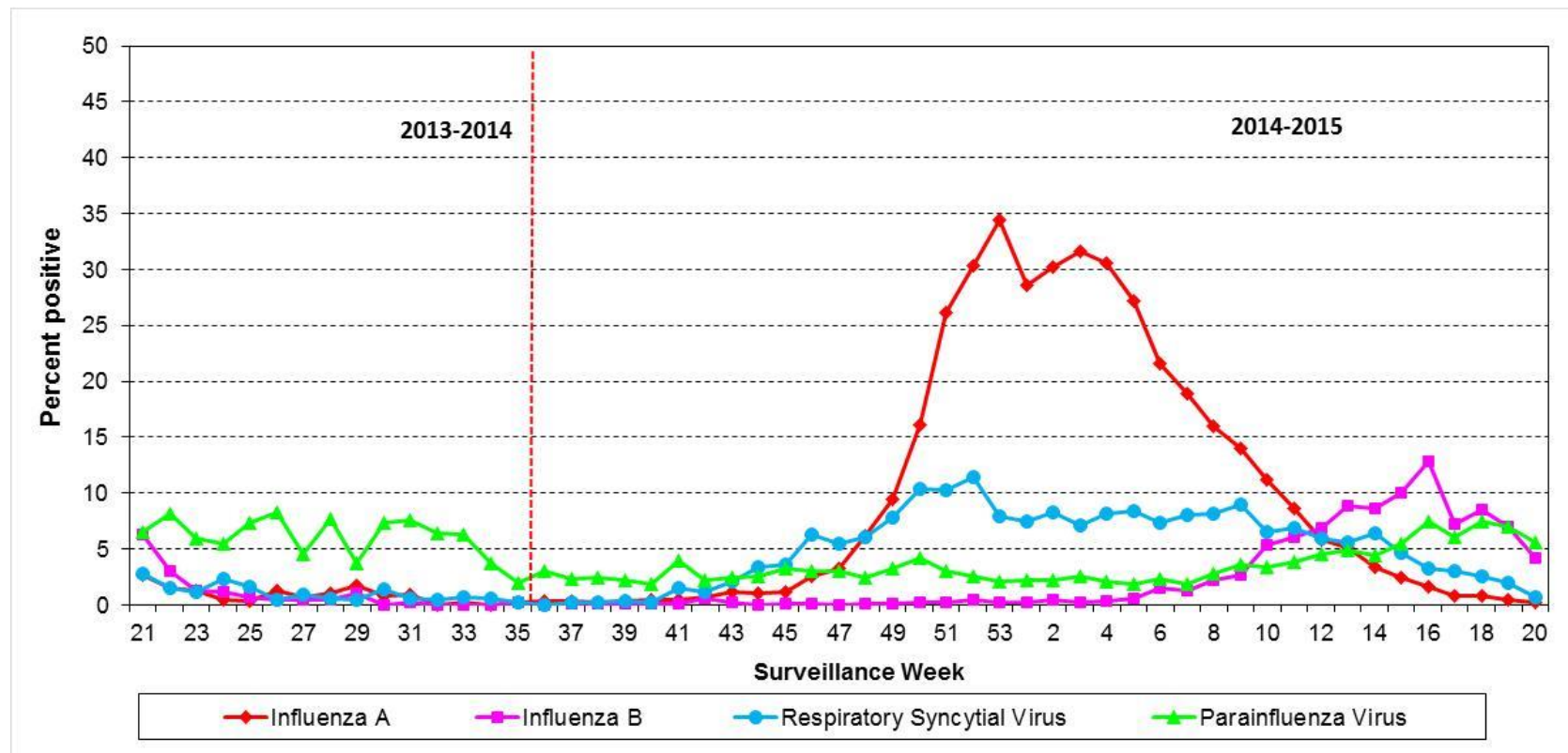
¹ The number of **reported** cases needs to be interpreted with caution because there is a lag between the onset of illness, hospital admission or death and when this information is reported to public health. ² Positivity among specimens submitted for testing to Ontario laboratories reporting to the 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 weeks and at levels typically expected for this time of year.
 - Influenza B percent positivity was 5.5% in Weeks 19 and 20, which was lower than Weeks 17 and 18 (7.8%); influenza A percent positivity was 0.3% in Weeks 19 and 20, which was lower than Weeks 17 and 18 (0.8%).
 - For the 2014-2015 surveillance season to date, 12,665 laboratory-confirmed influenza cases have been reported, and the majority have been influenza A (87.3%, 11,061/12,665). However, in weeks 19 and 20, 92.5% (98/106) of reported influenza cases were influenza B.
 - For the season to date, 4,109 hospitalizations and 335 deaths have been reported among laboratory-confirmed influenza cases. The majority of hospitalizations (90.7%, 3,727/4,109) and deaths (95.2%, 319/335) have occurred among influenza A cases.
 - Of the 1,656 institutional respiratory infection outbreaks reported to date, 67.0% (1,109/1,656) were influenza outbreaks.
- Among other circulating non-influenza respiratory viruses identified through laboratory testing:
 - Rhinovirus was the dominant circulating virus in Weeks 19 and 20; the percent positivity for rhinovirus was 10.6% in Weeks 19 and 20, which was the same as Weeks 17 and 18 (10.6%).
 - Parainfluenza virus (PIV) was the second most common circulating virus in Weeks 19 and 20; the percent positivity for PIV was 6.4% in Weeks 19 and 20 compared to 6.7% in Weeks 17 and 18.

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).

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, May 18, 2014 to May 23, 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 May 27, 2015; they are based on data submitted to PHAC from 16 laboratories in Ontario.

Notes:

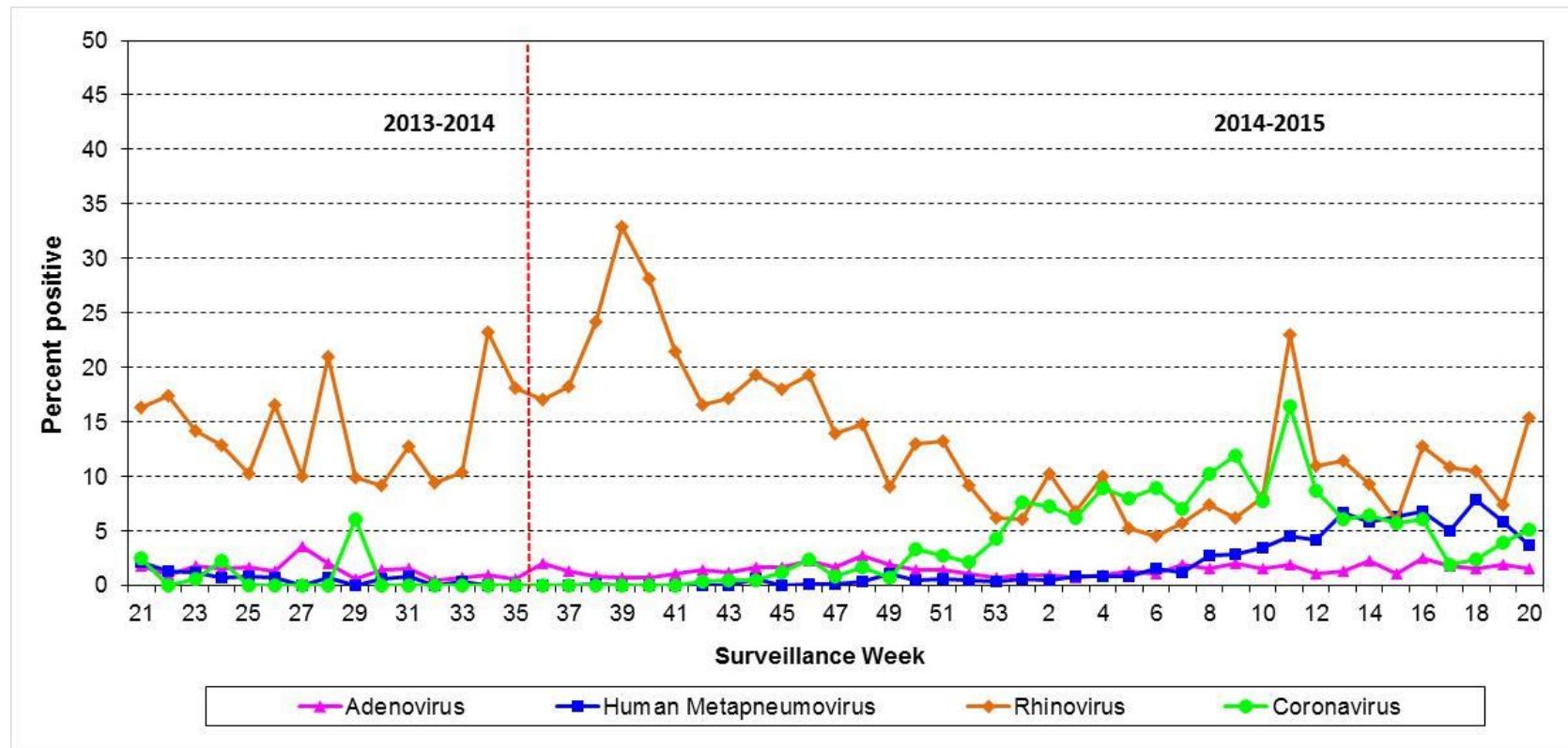
The numbers reported in this figure represent results submitted to the CIRID by 16 participating laboratories in Ontario, including 11 Public Health Ontario Laboratories (PHOLs) and five hospital-based laboratories.

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, May 18, 2014 to May 23, 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 May 27, 2015; they are based on data submitted to PHAC from 16 laboratories in Ontario.

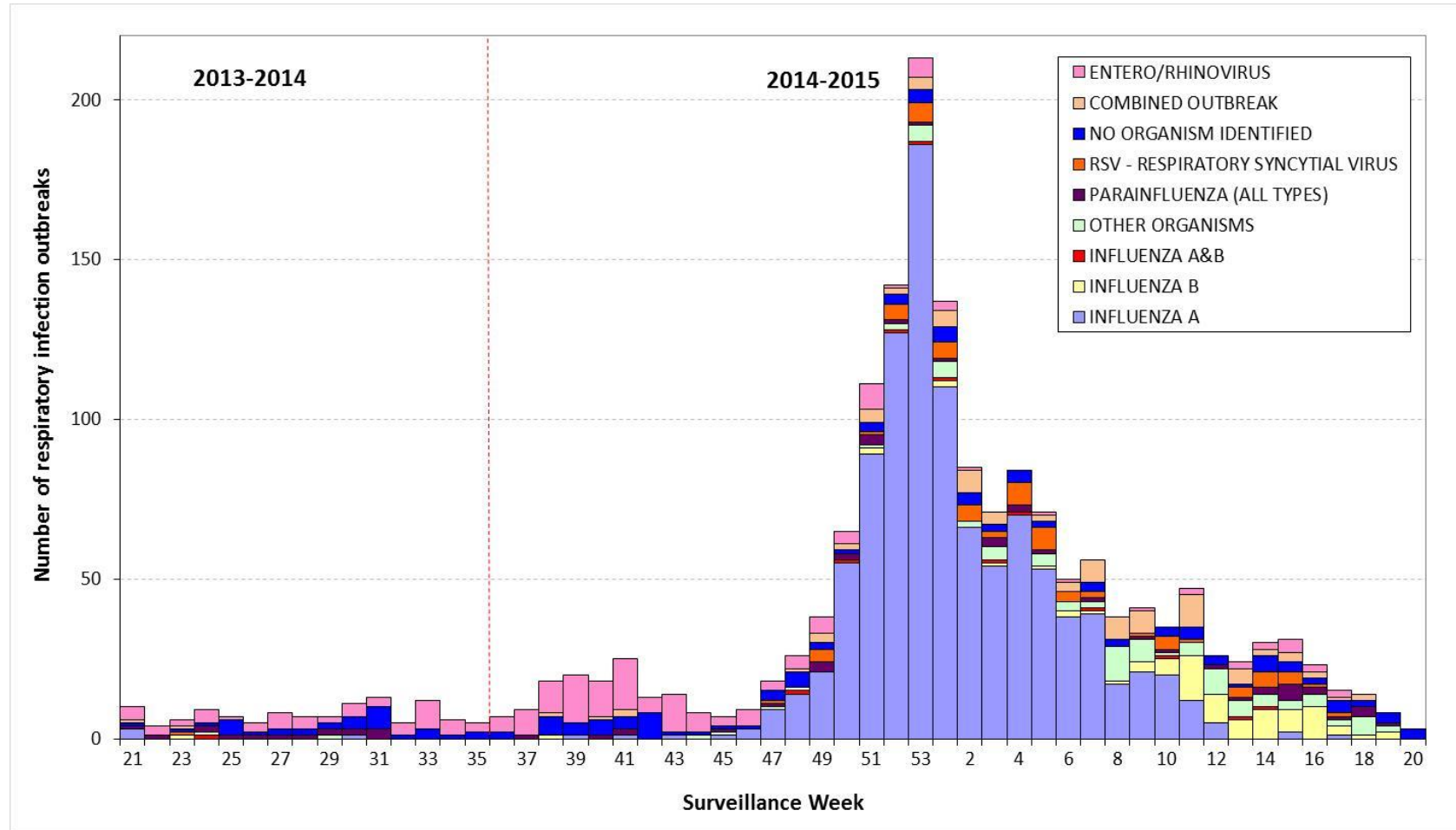
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Interpret results for Week 51 with caution as only four laboratories in Ontario, three of which were hospital-based laboratories, submitted results to the CIRID. Results above are assigned to a particular surveillance week based on when test results 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, May 18, 2014 to May 23, 2015

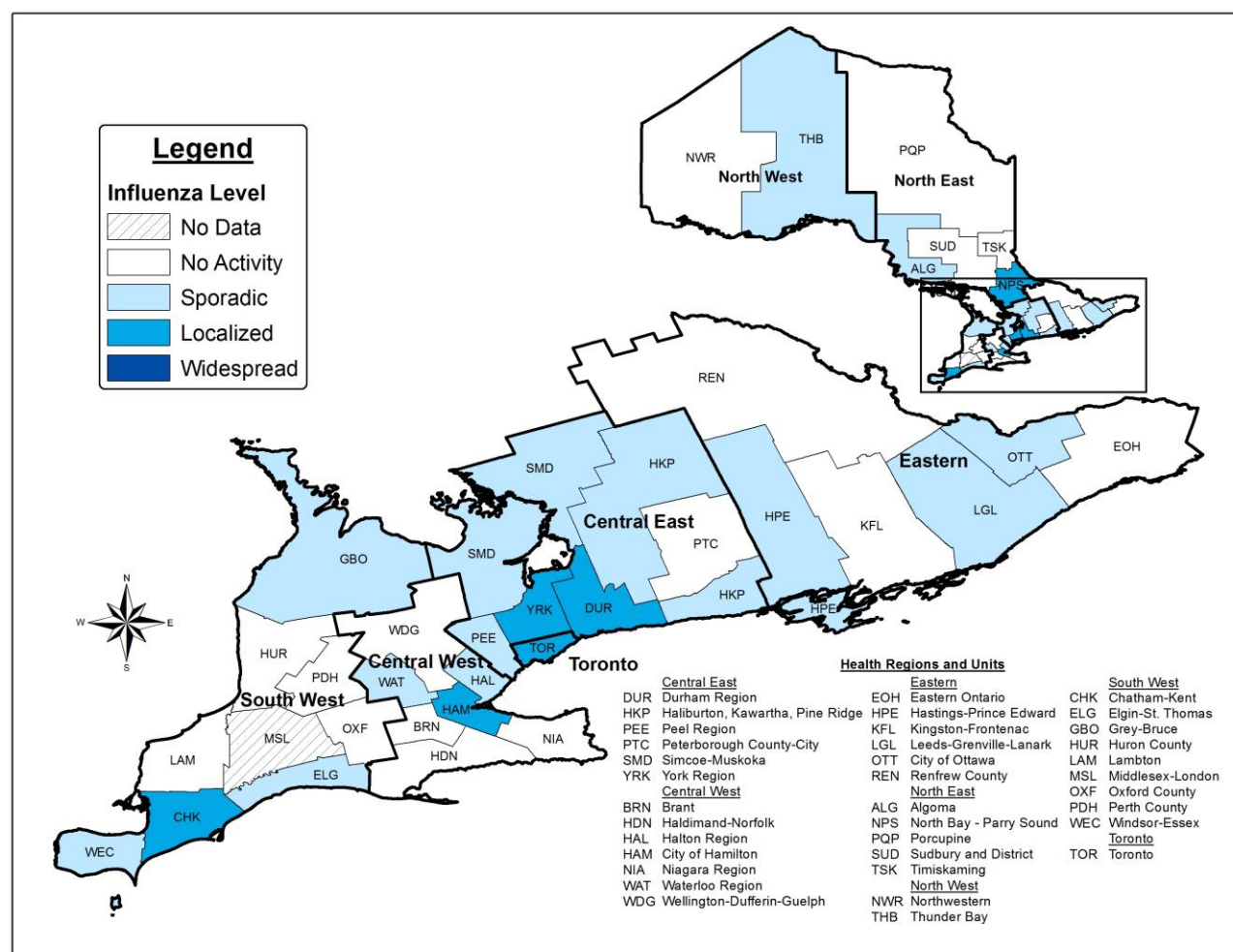


Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2015/05/27].

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, May 17, 2015 to May 23, 2015 (Week 20)



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 2013-2014 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.