

Ontario Respiratory Virus Bulletin | 2013-2014

SURVEILLANCE WEEK 22 (May 25, 2014 – May 31, 2014)

This issue of the Ontario Respiratory Virus Bulletin provides information on the surveillance period from May 25 to May 31, 2014 (Week 22). Unless otherwise specified, **data presented in this issue of the bulletin are for Week 22** and data extraction occurred on Wednesday, June 4, 2014. This is the first abbreviated version of the bulletin for the 2013-14 season. Weekly production of the expanded version of the bulletin will resume in the Fall for the 2014-15 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 55 influenza cases (16 influenza A and 39 influenza B) reported ¹ in Week 22, which was lower than the 98 influenza cases reported in Week 21 (21 influenza A and 77 influenza B).
Respiratory sample percent positivity for influenza ²	Lower	Percent positivity ² of laboratory tests for all influenza types in Ontario was 4.6% for Week 22, which was lower than percent positivity in Week 21 (8.9%).
Influenza outbreaks ³	Similar	There were no new influenza outbreaks reported in Week 22, which was similar to the one influenza outbreak reported in Week 21 (influenza A).
Influenza activity levels reported by health units	Lower	In Week 22, 12 health units reported 'localized', 9 reported 'sporadic', and 14 reported 'no activity' (Figure 4). In Week 21, 17 health units reported 'localized', ten reported 'sporadic', and eight reported 'no activity'.
OVERALL ASSESSMENT	Lower	Overall, the indicators show that influenza activity for Week 22 was lower than Week 21.
Measures of severity for influenza		
Hospitalizations among laboratory-confirmed cases of influenza ¹	Slightly higher	There were 113 hospitalized cases reported in Week 22, which was slightly higher than the 92 hospitalized cases reported in Week 21.
Deaths among laboratory-confirmed cases of influenza ¹	Similar	There were 11 deaths reported in Week 22, which was similar to the 9 deaths reported in Week 21.

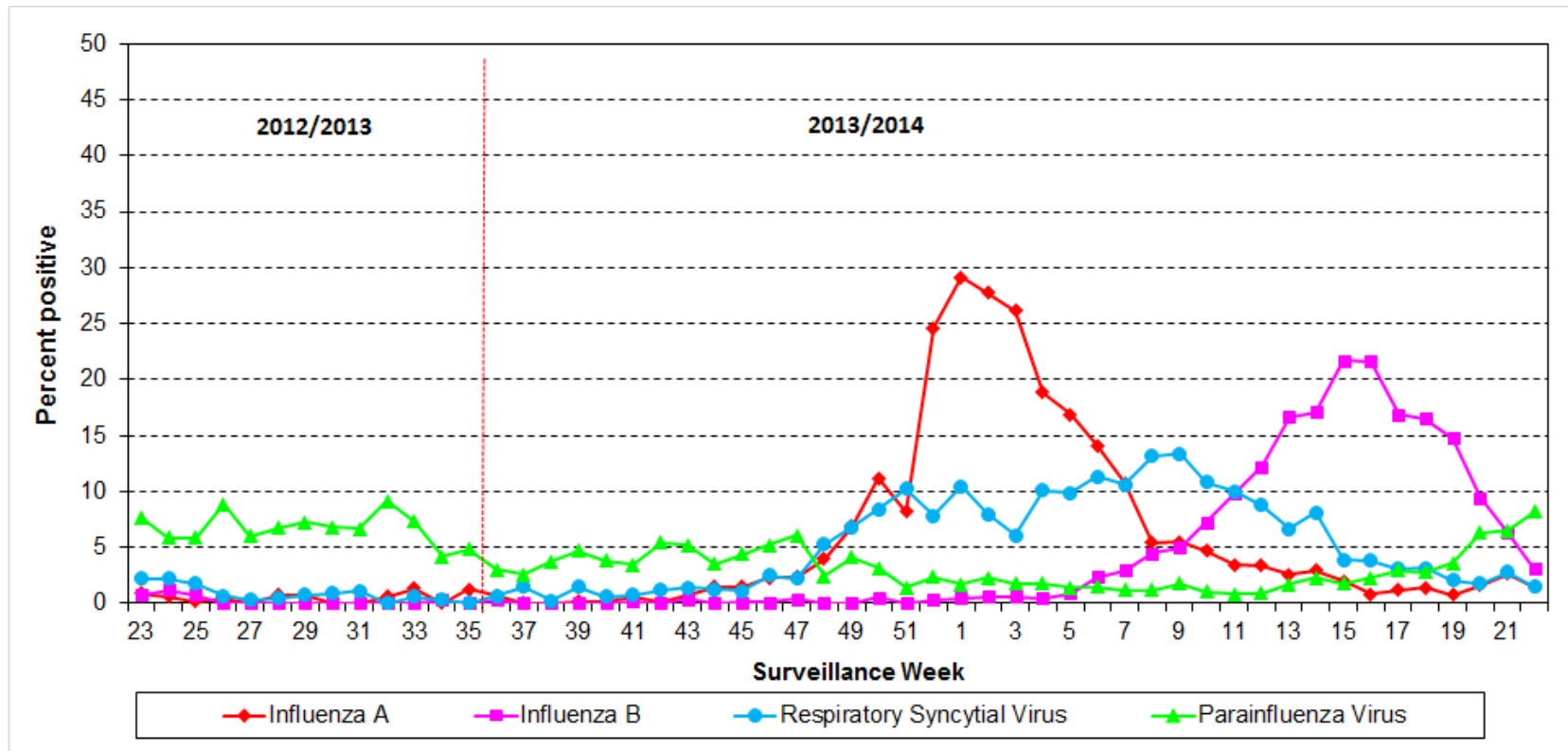
¹ The number of **reported** cases needs to be interpreted with caution because there is a lag between the onset of illness, hospital admission or death and when this information is reported to public health. ² Positivity among specimens submitted for testing to Ontario laboratories reporting to the 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 week was lower than the previous week and is returning to levels typically expected for this time of year.
 - Based on laboratory findings¹, influenza B is currently the dominant circulating influenza type.
 - Influenza percent positivity for the season declined from Week 2 to Week 9, then gradually increased from Weeks 10 to 15 as a result of increasing influenza B activity (Figure 1).
 - Influenza B percent positivity was 3.1% in Week 22, which was lower than Week 21 (6.3%); influenza A percent positivity was 1.5% in Week 22, which was higher than Week 21 (2.7%) (Figure 1). The percent positivity for influenza B has been higher than influenza A since Week 10; however, it has been decreasing steadily since Week 15.
 - For the 2013-2014 surveillance season to date, 9,851 laboratory-confirmed influenza cases have been reported, and the majority have been influenza A (59.0%, 5,811/9,851). However, in Week 22, 70.9% (39/55) of reported influenza cases were influenza B.
 - For the season to date, 3,456 hospitalizations and 234 deaths have been reported among laboratory-confirmed influenza cases. The majority of hospitalizations (63.7%, 2,202/3,456) and deaths (62.8%, 147/234) have occurred among influenza A cases.
- Among other circulating non-influenza respiratory viruses identified through laboratory testing:
 - Rhinovirus was the dominant circulating virus in Week 22; the percent positivity for rhinovirus increased from 16.3% in Week 21 to 17.4% in Week 22.
 - Parainfluenza virus (PIV) was the second most common circulating virus in Week 22; the percent positivity for PIV increased from 6.5% in Week 21 to 8.2% in Week 22.

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, June 2, 2013 to May 31, 2014



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 June 4, 2014; they are based on data submitted to PHAC from 16 laboratories in Ontario.

Notes:

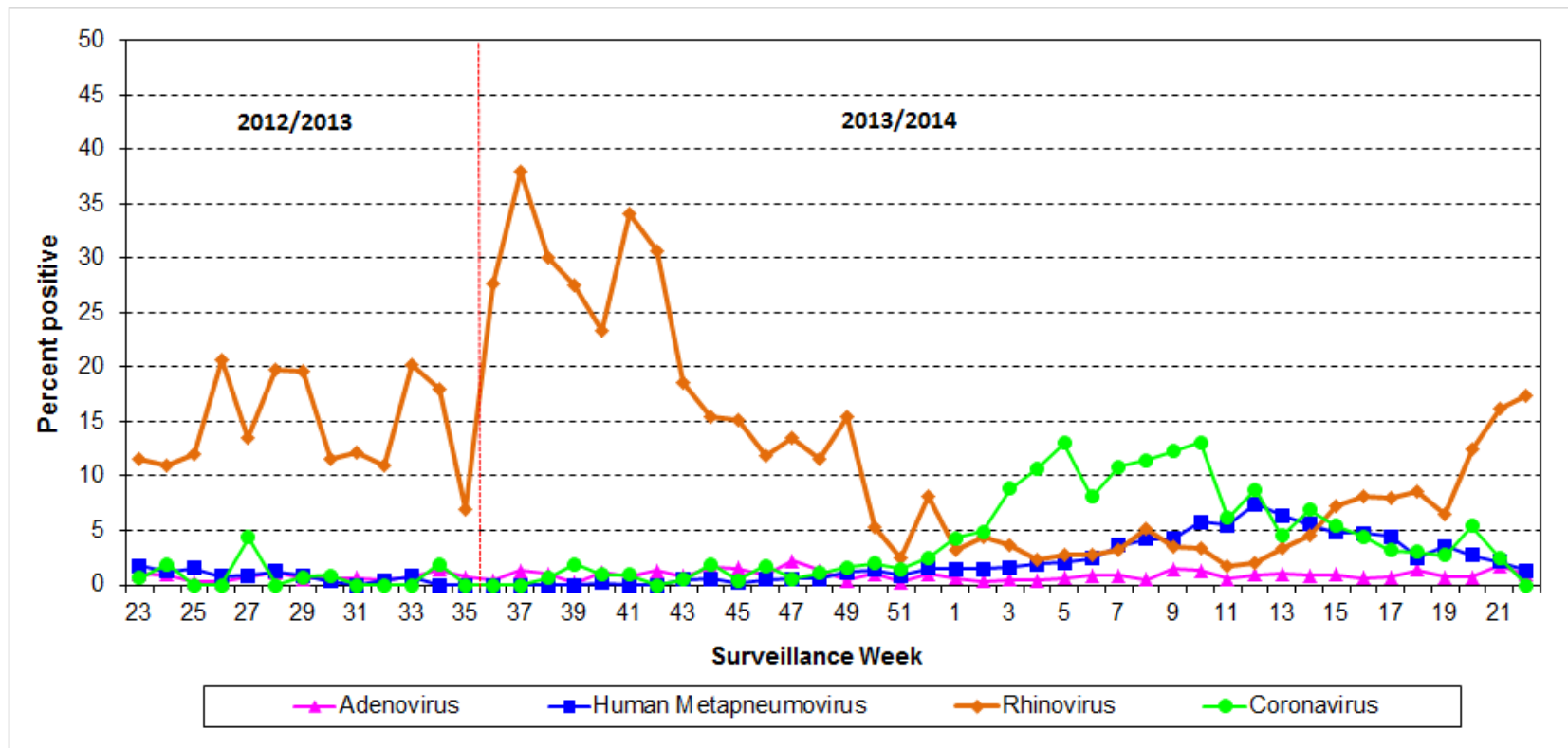
The numbers reported in this figure represent results submitted to the CIRID by 16 participating laboratories in Ontario, including 11 Public Health Ontario Laboratories (PHOLs) and five hospital-based laboratories.

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, June 2, 2013 to May 31, 2014



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 June 4, 2014; they are based on data submitted to PHAC from 16 laboratories in Ontario.

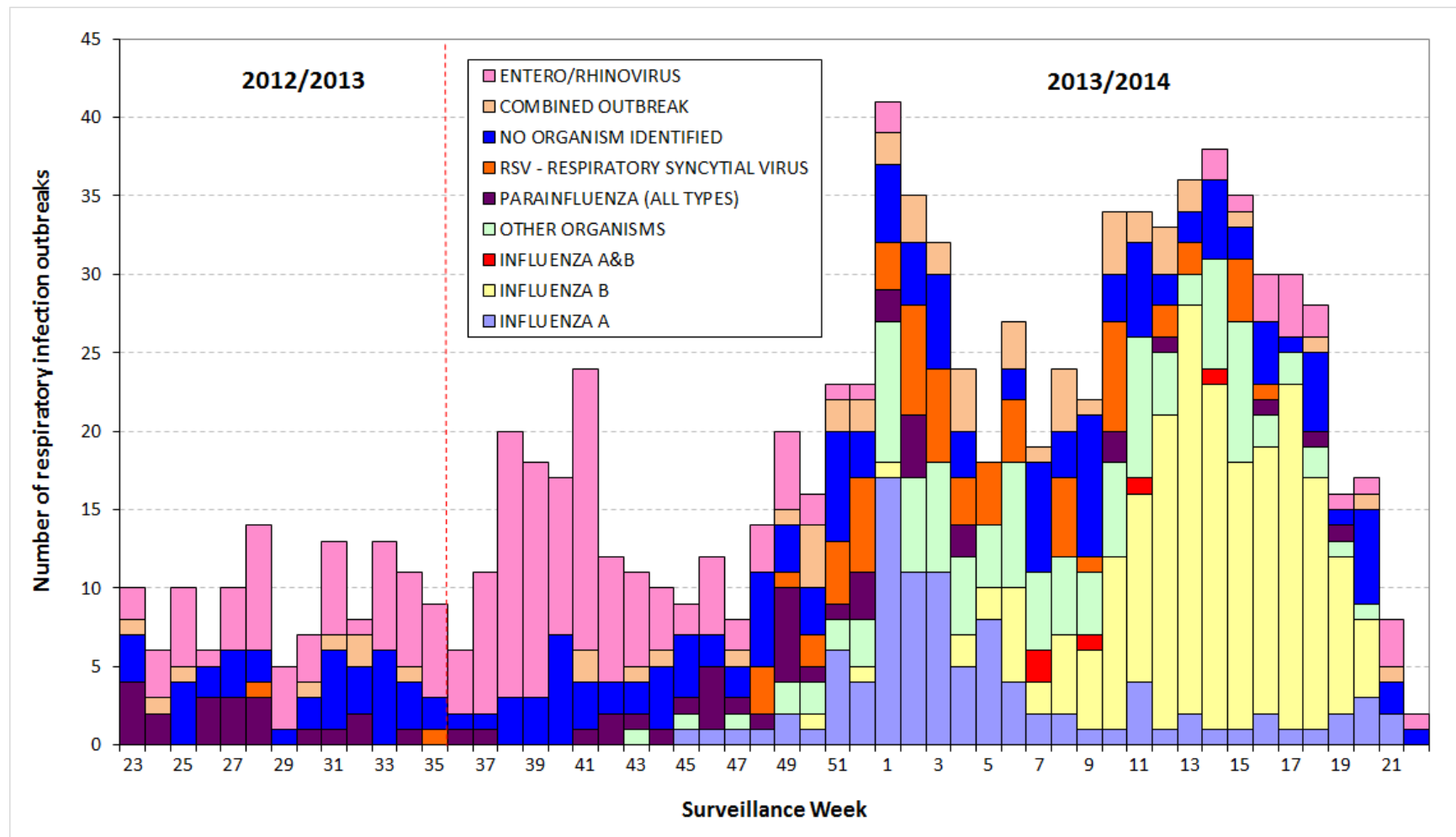
Notes:

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, June 2, 2013 to May 31, 2014

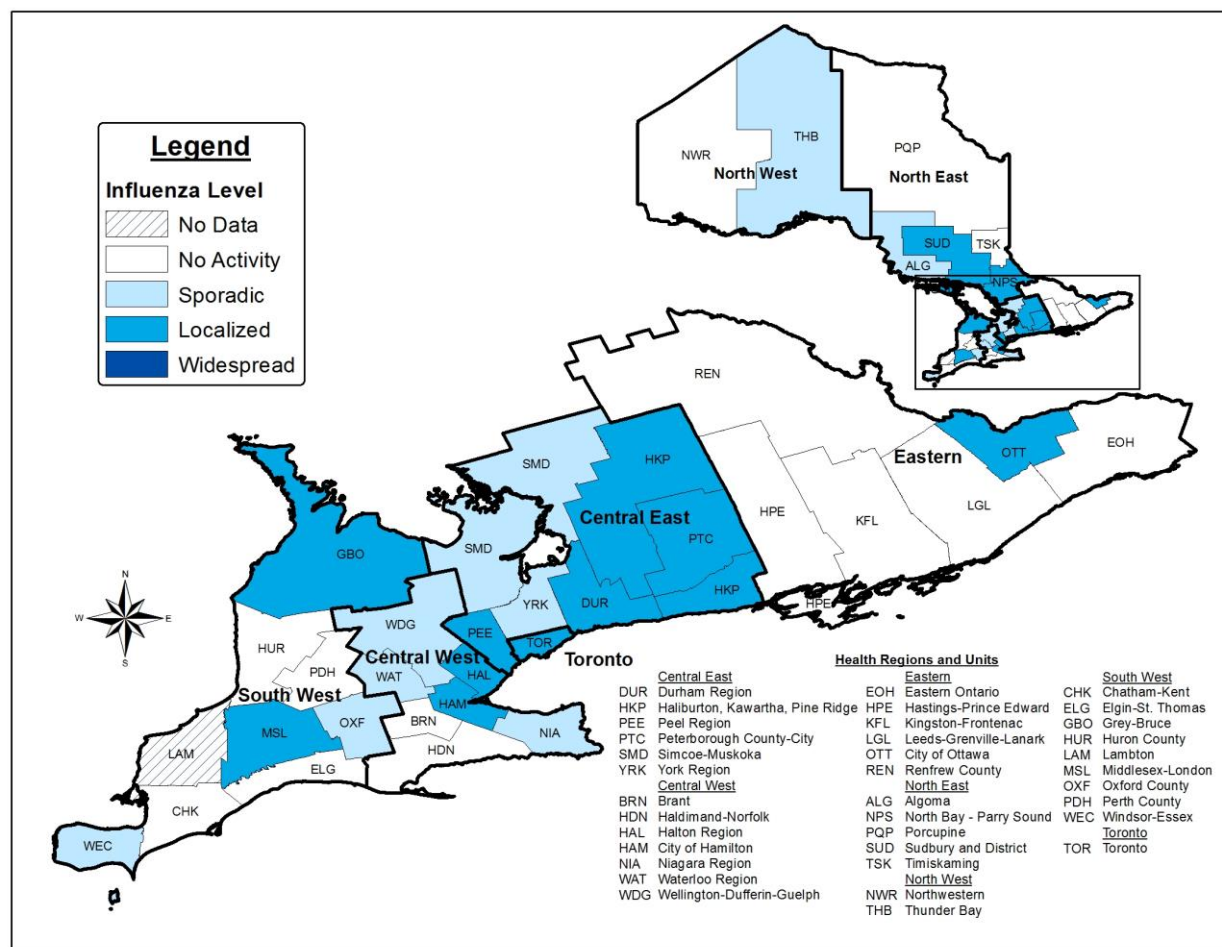


Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/06/04].

Notes:

Institutional respiratory infection outbreaks for which the date of onset of illness for the first case is missing are excluded in this figure. However, these outbreaks are counted in the cumulative outbreaks section of Table 4.

Figure 4. Influenza activity levels reported by public health units: Ontario, May 25, 2014 to May 31, 2014 (Week 22)



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 in Table 3 because ongoing outbreaks from previous weeks, as well as laboratory confirmed outbreaks in schools, may be included in the assessment of the activity level.