



Ontario Respiratory Virus Bulletin | 2012-2013

SURVEILLANCE WEEKS 20 and 21 (May 12, 2013 – May 25, 2013)

This issue of the Ontario Respiratory Virus Bulletin provides information on the surveillance period from May 12, 2013 to May 25, 2013 (weeks 20 and 21). Unless otherwise specified, **data presented are for week 20 and 21**; data extraction and analysis for this issue occurred on Wednesday, May 29, 2013. In order to enable our readers to better assess influenza activity in Ontario, we have combined various sources of information in the following table.

Please note that Public Health Ontario is now publishing abbreviated versions of the Ontario Respiratory Virus Bulletin on alternating weeks until November 2013. Influenza Activity Maps are available on the weeks that the Bulletin is not published.

Assessment of Influenza Activity in Ontario

Measure of activity	Assessment of measure compared to previous assessment period (Lower, Similar, Higher)	Reasoning behind assessment
Laboratory confirmed influenza cases	Lower	There were 63 influenza cases (79% were influenza B) reported ¹ in weeks 20 and 21, compared to 120 cases reported in weeks 18 and 19. Percent positivity ² of laboratory tests for all influenza types in Ontario was 4.3% (1.0% influenza A; 3.3% influenza B) for weeks 20 and 21 combined, compared to 6.6% in weeks 18 and 19 combined.
Influenza outbreaks	Lower	No new influenza outbreaks were reported ³ in weeks 20 and 21. Three outbreaks for which no aetiological agent was identified were also reported (Figure 2).
Influenza activity levels reported by health units	Lower	One health unit reported 'localized' levels of influenza activity in week 21 (Figure 3), compared to six health units reporting 'localized' activity in week 19.
ILI consultation rate reported by sentinel physicians	Lower	The average provincial influenza-like-illness (ILI) consultation rate ⁴ in weeks 20 and 21 (18.23 per 1,000 patient visits) was lower than the average rate in weeks 18 and 19 (23.65 per 1,000 patient visits).
OVERALL ASSESSMENT	Lower	In weeks 20 and 21, overall the indicators show that influenza activity was lower than in weeks 18 and 19, with influenza B as the current predominant circulating influenza virus type.
Measures of severity for influenza		
Hospitalizations among lab confirmed cases of influenza	Higher	There were 87 hospitalized cases reported ¹ in weeks 20 and 21, which was higher than the number (75) reported in weeks 18 and 19.
Deaths among lab confirmed cases of influenza	Higher	There were 7 deaths reported ¹ in weeks 20 and 21, which was higher than the number (3) reported in weeks 18 and 19.

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 reflects positive specimens reported to Public Health Ontario by 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. 4. Small numbers of sentinels reporting can make the ILI rates unstable. Please interpret these data correspondingly.

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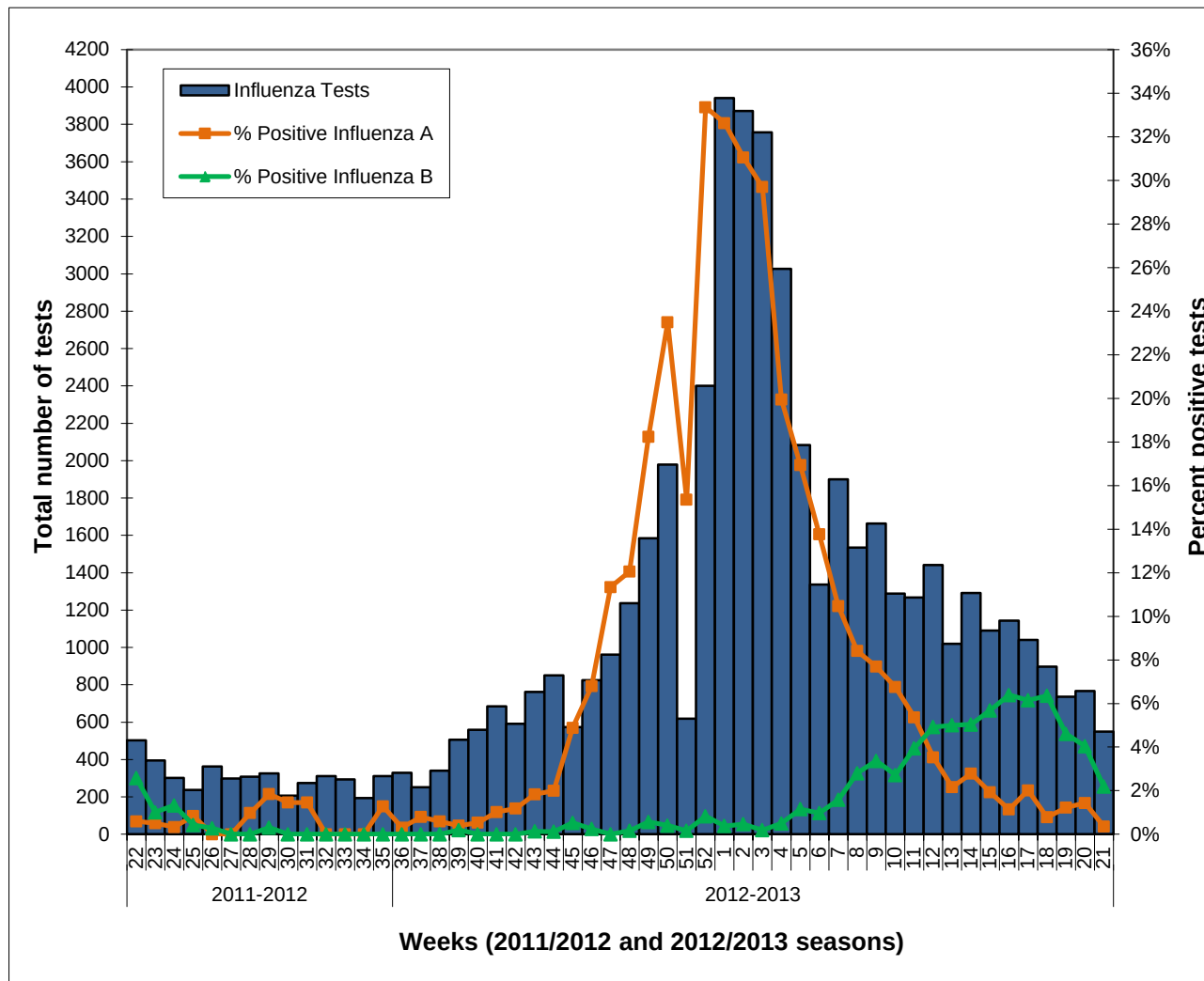
Highlights of all other respiratory virus activity in Ontario

For weeks 20 and 21 compared to weeks 18 and 19

- Among all other circulating respiratory viruses, entero/rhinovirus had the highest percent positivity (11.2%) in weeks 20 and 21 combined, which was higher compared to weeks 18 and 19 combined (10.6%).¹
- Parainfluenza virus had the second highest percent positivity (7.6%) in weeks 20 and 21 combined, which was higher than weeks 18 and 19 combined (6.3%).¹
- In weeks 20 and 21, a total of eleven new institutional respiratory infection outbreaks were reported, including three outbreaks of entero/rhinovirus, three outbreaks of parainfluenza, two outbreaks in which other organisms² were identified, and three outbreaks with no organisms reported (Figure 4). For the 2012-2013 season to date, a total of 1,272 institutional respiratory infection outbreaks have been reported.

1. Positivity among specimens submitted for testing to laboratories reporting to the Centre for Immunization and Respiratory Infectious Diseases (CIRID). 2. Other organisms include outbreaks involving pathogens such as human metapneumovirus, adenovirus, and coronavirus.

Figure 1. Total number of influenza tests performed and percent of positive tests by report week: Ontario, May 27, 2012 to May 25, 2013



Source: Public Health Agency of Canada (PHAC). These data have been obtained from the PHAC Respiratory Virus Detection tables from 16 labs in Ontario and do not include data from late reports to PHAC. Please note that the last version received from PHAC as of 11:00 a.m. on May 29, 2013 was used.

Notes:

The data in the figure is based on when test results are reported.

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

The numbers reported in this table represent respiratory viruses identified in both Public Health Ontario Laboratories and other microbiology laboratories in Ontario.

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.

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Table 1. Number and percent positivity (in brackets) of respiratory specimens tested by all methods for influenza and other respiratory viruses: Ontario, weeks 20 and 21 and cumulative for the 2012-2013 season

Detected viruses	Number and percent positive specimens			Total number of specimens tested		
	Week 20 n (%)	Week 21 n (%)	Cumulative n (%)	Week 20 n	Week 21 n	Cumulative n
Influenza (All)	42 (5.49)	14 (2.55)	9,194 (16.58)	766	549	55,467
Influenza A	11 (1.44)	2 (0.36)	8,270 (14.91)	766	549	55,467
Influenza B	31 (4.05)	12 (2.19)	924 (1.67)	766	549	55,467
Parainfluenza virus	57 (8.89)	28 (5.85)	1,322 (2.99)	641	479	44,250
Adenovirus	3 (0.47)	7 (1.46)	287 (0.65)	641	479	44,084
Respiratory syncytial virus	14 (1.89)	13 (2.28)	4,069 (8.30)	741	569	49,011
Enterovirus	24 (9.72)	20 (13.79)	1,448 (7.23)	247	145	20,035
Human metapneumovirus	22 (3.53)	14 (3.02)	1,106 (2.72)	623	464	40,711
Coronavirus	6 (2.71)	0 (0.00)	602 (3.91)	221	121	15,405

Source: Centre for Immunization and Respiratory Infectious Diseases, Public Health Agency of Canada (PHAC). These data have been obtained from the Respiratory Virus Detection tables of Public Health Agency of Canada from 16 labs in Ontario and do not include data from late reports to PHAC for the current season: Weeks 20 and 21, 2013. Please note that the last version received from PHAC as of 11:00 a.m. on May 29, 2013 was used.

Notes:

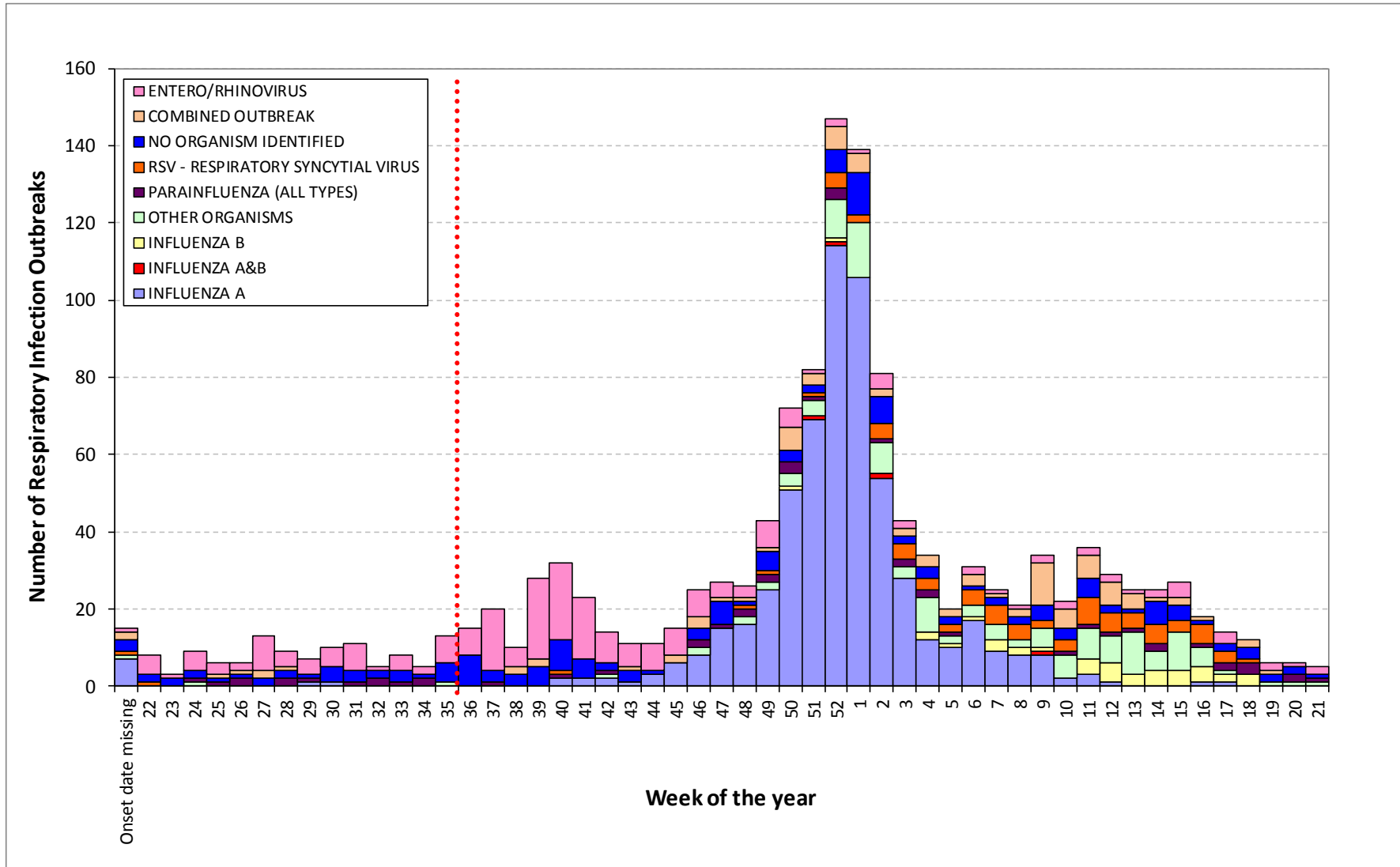
The data in this table is based on when test results are reported. Total numbers reported include late reports from previous weeks; therefore, totals may not be equal to the sum of the weekly numbers.

Cumulative numbers include reports from week 35, as reporting by PHAC includes week 35 as part of the 2012-2013 season. Cumulative numbers for the season to date are also available through FluWatch: <http://www.phac-aspc.gc.ca/fluwatch/>

The numbers reported in this table represent respiratory viruses identified at both Public Health Ontario Laboratories and other laboratories in Ontario.

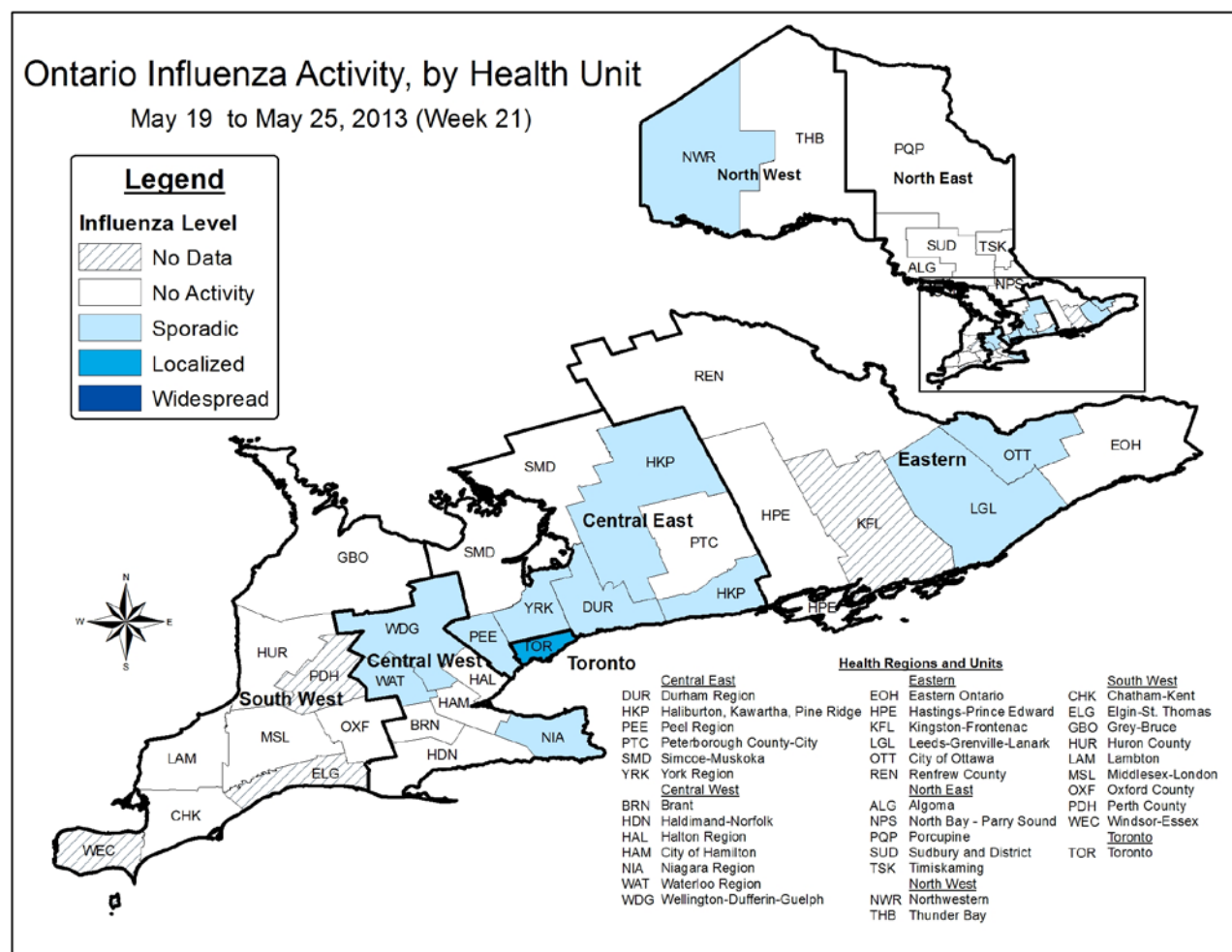
These data represent the number of specimens tested which may not necessarily correspond with the number of patients as more than one specimen may have been submitted per patient.

Figure 2. Institutional respiratory infection outbreaks by week of illness onset in the first case: Ontario, May 27, 2012 to May 25, 2013



Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2013/05/29].

Figure 3. Influenza activity levels by health unit: Ontario, week 21



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

Note: Influenza activity levels are assigned by local public health units and reported to Public Health Ontario by the Tuesday following the end of the 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 click here for [detailed definitions for the 2012-2013 season](#).