

Ontario Respiratory Virus Bulletin | 2013-2014

SURVEILLANCE WEEK 10 (March 2, 2014 – March 8, 2014)

This issue of the Ontario Respiratory Virus Bulletin provides information on the surveillance period from March 2 to March 8, 2014 (Week 10). Unless otherwise specified, **data presented in this issue of the bulletin are for Week 10** and data extraction occurred on Wednesday, March 12, 2014. Weekly production of this expanded version of the bulletin will continue throughout the influenza season until May 2014, and then an abbreviated version will be published on alternate weeks.

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 ^{1,2}	Slightly higher	There were 258 influenza cases (100 influenza A and 158 influenza B) reported ¹ in Week 10 (Table 1), which was slightly higher than the 232 influenza cases reported in Week 9 (115 influenza A and 117 influenza B). Percent positivity ² of laboratory tests for all influenza types in Ontario was 11.9% for Week 10 (Table 3), which was slightly higher than percent positivity in Week 9 (10.5%).
Influenza outbreaks ³	Similar	There were two new influenza outbreaks reported in Week 10 (one influenza A outbreak and one influenza B outbreak), which was similar to the three influenza outbreaks reported in Week 9 (Table 4).
Influenza activity levels reported by health units	Higher	In Week 10, 13 health units reported 'localized', 15 reported 'sporadic', and eight reported 'no activity' (Figure 6). In Week 9, six health units reported 'localized', 19 reported 'sporadic', and 10 reported 'no activity'.
OVERALL ASSESSMENT	Slightly higher	Overall, the indicators show that influenza activity for Week 10 was slightly higher as compared to Week 9.
Measures of severity for influenza		
Hospitalizations among lab confirmed cases of influenza ¹	Higher	There were 157 hospitalized cases reported in Week 10, which was higher than the 101 hospitalized cases reported in Week 9 (Table 2).
Deaths among lab confirmed cases of influenza ¹	Slightly lower	There were 6 deaths reported in Week 10, which was slightly lower than the 8 deaths reported in Week 9 (Table 2).

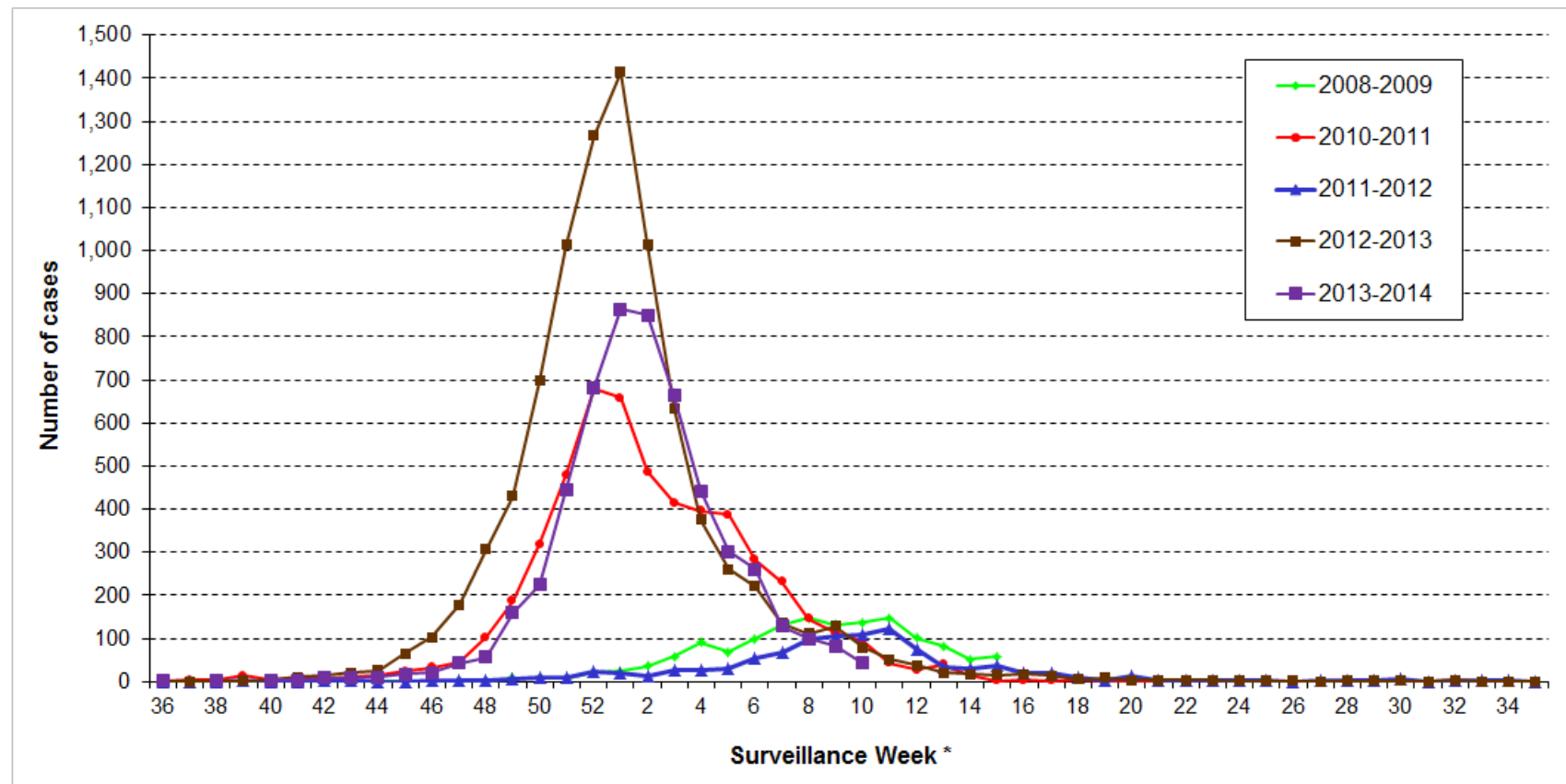
¹ The number of **reported** cases needs to be interpreted with caution because there is a lag between the onset of illness, hospital admission or death and when this information is reported to public health. ² Positivity among specimens submitted for testing to Ontario laboratories reporting to the 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 slightly higher as compared to the previous week. Based on laboratory findings¹, influenza B is currently the dominant circulating influenza type.
 - Influenza percent positivity for the season has been declining since Week 2; however, a slight increase in percent positivity was observed in Week 10. Influenza A percent positivity was 4.7% in Week 10, which was slightly lower compared to Week 9 (5.5%); influenza B percent positivity was 7.3% in Week 10, which was higher compared to Week 9 (4.9%). This is the first week in the 2013-2014 season in which percent positivity for influenza B was higher than influenza A.
 - For the 2013-2014 surveillance season to date, 6,040 confirmed influenza cases have been reported. Among these cases, the majority (89.8%, 5,426/6,040) were influenza A (Table 1).
 - For the season to date, 2,147 hospitalizations and 137 deaths have been reported among laboratory-confirmed influenza cases (Table 2). The majority of hospitalizations have occurred among influenza A cases (93.4%, 2,005/2,147).
- Among all other circulating viruses in the current surveillance week of the 2013-2014 season (Table 3):
 - Percent positivity for both respiratory syncytial virus (RSV) and coronavirus was higher than percent positivity for influenza B in Week 10 (Table 3).
 - Coronavirus is the dominant circulating respiratory virus with the highest percent positivity (13.1%), which was similar as compared to the previous week (12.3%).
 - RSV had the second highest percent positivity (10.8%), which was slightly lower as compared to the previous week (13.3%).

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. Number of reported confirmed cases of **influenza A** by surveillance week: Ontario, September 1, 2008 to March 8, 2014



Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/03/12].

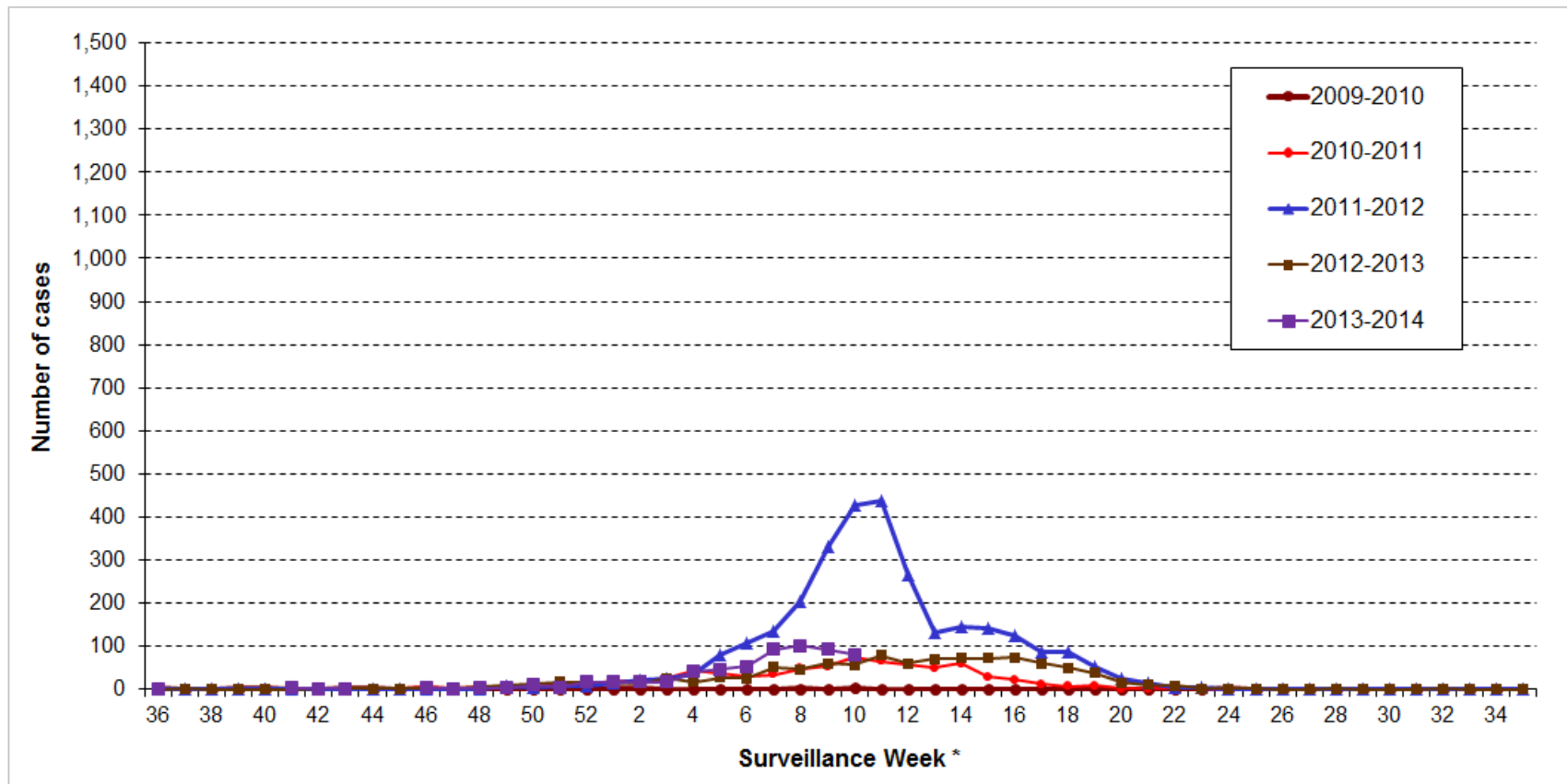
Notes:

Interpret most recent case counts for the current season with caution due to reporting lags.

*Case counts above are based on 'Reported Date', which was the date the health unit was notified of the case; however, cases are assigned to a particular surveillance week based on the episode date entered in iPHIS for the case. Episode date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date). Cases are excluded from these counts if the episode date is based on reported date, and the reported date occurs after the latest surveillance week.

Cases with an episode date after Week 15 in the 2008-2009 season, as well as all cases from the 2009-2010 influenza season, were excluded from this graph based on the assumption that the influenza burden during the pandemic period is not comparable to a regular influenza season. Week 53 of the 2008-2009 season has been removed for continuity in displaying trends.

Figure 2. Number of reported confirmed cases of **influenza B** by surveillance week: Ontario, September 1, 2009 to March 8, 2014



Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/03/12].

Notes:

Interpret most recent case counts for the current season with caution due to reporting lags.

*Case counts above are based on 'Reported Date', which was the date the health unit was notified of the case; however, cases are assigned to a particular reporting week based on the episode date entered in iPHIS for the case. Episode date for a case corresponds to the earliest date on record for the case according to the iPHIS hierarchy (Symptom Date > Clinical Diagnosis Date > Specimen Collection Date > Lab Test Date > Reported Date). Cases are excluded from these counts if the episode date is based on reported date, and the reported date occurs after the latest surveillance week.

Table 1. Number of reported confirmed influenza cases by health unit and health region: Ontario, Week 10 and cumulative total (in parentheses) for the 2013-2014 season

Health Unit and Region	Influenza A				Influenza A & B	Influenza B	TOTAL
	(H1N1) pdm09	No subtype available*	Other*	H3			
Northwestern	1 (8)	0 (57)	0 (0)	0 (0)	0 (0)	2 (3)	3 (68)
Thunder Bay District	1 (42)	1 (73)	0 (0)	0 (0)	0 (0)	1 (2)	3 (117)
TOTAL NORTH WEST	2 (50)	1 (130)	0 (0)	0 (0)	0 (0)	3 (5)	6 (185)
Algoma	0 (31)	0 (43)	0 (0)	0 (0)	0 (0)	0 (0)	0 (74)
North Bay Parry Sound District	0 (38)	1 (158)	0 (0)	0 (0)	0 (0)	1 (9)	2 (205)
Porcupine	0 (11)	0 (44)	0 (0)	0 (0)	0 (0)	0 (1)	0 (56)
Sudbury & District	0 (19)	1 (103)	0 (0)	0 (0)	0 (0)	2 (5)	3 (127)
Timiskaming	0 (4)	0 (7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (11)
TOTAL NORTH EAST	0 (103)	2 (355)	0 (0)	0 (0)	0 (0)	3 (15)	5 (473)
City of Ottawa	0 (42)	2 (200)	0 (0)	0 (10)	0 (0)	3 (8)	5 (260)
Eastern Ontario	0 (21)	1 (44)	0 (1)	0 (9)	0 (0)	0 (2)	1 (77)
Hastings & Prince Edward Counties	0 (11)	0 (12)	0 (0)	0 (0)	0 (0)	0 (1)	0 (24)
Kingston, Frontenac, Lennox & Addington	0 (54)	1 (51)	0 (0)	0 (21)	0 (0)	1 (15)	2 (141)
Leeds, Grenville And Lanark District	0 (27)	1 (35)	0 (0)	0 (1)	0 (0)	0 (17)	1 (80)
Renfrew County And District	0 (13)	0 (35)	0 (0)	0 (4)	0 (0)	0 (0)	0 (52)
TOTAL EASTERN	0 (168)	5 (377)	0 (1)	0 (45)	0 (0)	4 (43)	9 (634)
Durham Region	1 (79)	0 (99)	0 (0)	0 (5)	0 (0)	7 (18)	8 (201)
Haliburton, Kawartha, Pine Ridge	0 (28)	1 (60)	0 (0)	0 (2)	0 (0)	1 (7)	2 (97)
Peel Region	0 (195)	13 (305)	0 (1)	0 (24)	0 (0)	21 (89)	34 (614)
Peterborough County-City	0 (35)	0 (29)	0 (1)	0 (0)	0 (0)	0 (1)	0 (66)
Simcoe Muskoka District	2 (107)	1 (129)	0 (0)	0 (1)	0 (0)	0 (9)	3 (246)
York Region	1 (119)	5 (154)	0 (0)	0 (6)	0 (0)	21 (59)	27 (338)
TOTAL CENTRAL EAST	4 (563)	20 (776)	0 (2)	0 (38)	0 (0)	50 (183)	74 (1,562)
Toronto	7 (673)	14 (356)	0 (0)	2 (92)	1 (1)	45 (198)	69 (1320)
TOTAL TORONTO	7 (673)	14 (356)	0 (0)	2 (92)	1 (1)	45 (198)	69 (1,320)
Chatham-Kent	0 (30)	0 (35)	0 (0)	0 (0)	0 (1)	0 (3)	0 (69)
Elgin-St. Thomas	0 (22)	0 (23)	0 (0)	0 (0)	0 (0)	0 (0)	0 (45)
Grey Bruce	0 (20)	2 (62)	0 (0)	0 (0)	0 (0)	1 (2)	3 (84)
Huron County	0 (8)	0 (11)	0 (0)	0 (0)	0 (0)	0 (0)	0 (19)
Lambton County	0 (24)	1 (16)	0 (0)	0 (0)	0 (0)	0 (3)	1 (43)
Middlesex-London	0 (35)	7 (150)	0 (0)	0 (0)	0 (0)	6 (16)	13 (201)
Oxford County	1 (9)	0 (17)	0 (0)	0 (4)	0 (0)	0 (1)	1 (31)
Perth District	0 (14)	1 (17)	0 (0)	0 (5)	0 (0)	5 (9)	6 (45)
Windsor-Essex County	0 (110)	0 (65)	0 (0)	0 (1)	0 (0)	1 (1)	1 (177)
TOTAL SOUTH WEST	1 (272)	11 (396)	0 (0)	0 (10)	0 (1)	13 (35)	25 (714)
Brant County	0 (12)	1 (35)	0 (0)	0 (2)	0 (0)	2 (4)	3 (53)
City Of Hamilton	0 (16)	10 (249)	0 (0)	0 (3)	0 (0)	12 (59)	22 (327)
Haldimand-Norfolk	0 (9)	1 (28)	0 (0)	0 (4)	0 (0)	0 (2)	1 (43)
Halton Region	4 (49)	9 (144)	0 (0)	0 (6)	0 (0)	11 (31)	24 (230)
Niagara Region	0 (56)	3 (107)	0 (0)	0 (4)	0 (0)	8 (18)	11 (185)
Waterloo Region	0 (36)	2 (146)	0 (0)	0 (5)	0 (0)	3 (15)	5 (202)
Wellington-Dufferin-Guelph	0 (41)	0 (64)	0 (0)	0 (1)	0 (0)	4 (6)	4 (112)
TOTAL CENTRAL WEST	4 (219)	26 (773)	0 (0)	0 (25)	0 (0)	40 (135)	70 (1,152)
TOTAL ONTARIO	18 (2,048)	79 (3,163)	0 (3)	2 (210)	1 (2)	158 (614)	258 (6,040)

Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/03/12].

Notes: Case counts above are based on 'Reported Date', which was the date the health unit was notified of the case. The cumulative count (in parentheses) includes laboratory-confirmed cases with a 'Reported Date' between September 1, 2013 and the last day of the current surveillance week.

* The 'Other' influenza A category includes any other influenza A subtypes identified; 'No subtype available' includes influenza A isolates that were classified as not subtyped, untypeable, or indeterminate.

Table 2. Hospitalizations and deaths among confirmed influenza cases by age group: Ontario, Week 10 and cumulative for the 2013-2014 influenza season

Age Group	HOSPITALIZATIONS		DEATHS	
	Weekly Count	Cumulative count (rate per 100,000)	Weekly count	Cumulative count (rate per 100,000)
<1	11	165 (116.6)	0	2 (1.4)
1 – 4	14	245 (42.5)	0	2 (0.3)
5 – 14	14	102 (6.9)	0	2 (0.1)
15 – 24	3	59 (3.2)	0	2 (0.1)
25 – 44	17	275 (7.4)	1	13 (0.4)
45 – 64	45	635 (16.7)	1	53 (1.4)
65+	53	666 (33.7)	4	63 (3.2)
Total	157	2,147 (15.9)	6	137 (1.0)

Sources:

Case data: Ontario Ministry of Health and Long-Term Care (MOHLTC), integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/03/12].

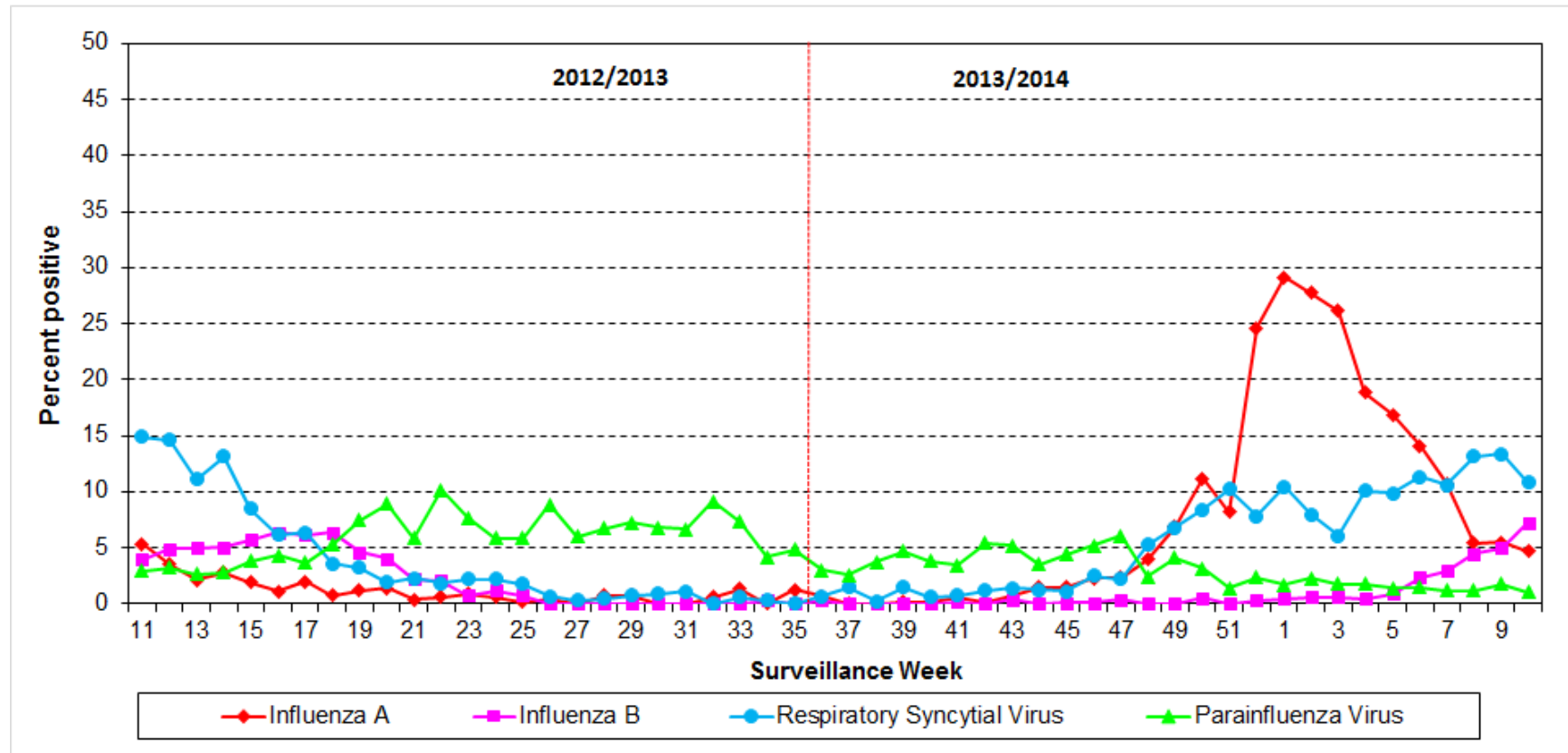
Population data: Population Estimates 2012, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO, extracted by Public Health Ontario [2013/09/16].

Notes:

The numbers of hospitalizations and deaths provided in iPHIS need to be interpreted with caution due to delays between the onset of illness, hospital admission or death, and when this information is reported to public health. During periods of increased influenza activity, there may be additional delays in the reporting of hospitalizations and deaths beyond the expected reporting time lag.

Deaths in any influenza case are included; death attribution is not considered. In addition, the numbers of hospitalizations and deaths reported in iPHIS are believed to be an underestimation of the true experience in the Ontario population for many reasons, including underreporting because of ill persons not seeking medical care and therefore not getting tested.

Figure 3. Percentage of respiratory viral pathogens (influenza A, influenza B, respiratory syncytial virus, and parainfluenza virus) detected among specimens tested by all methods: Ontario, March 10, 2013 to March 8, 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 March 12, 2014; they are based on data submitted to PHAC from 16 laboratories in Ontario.

Notes:

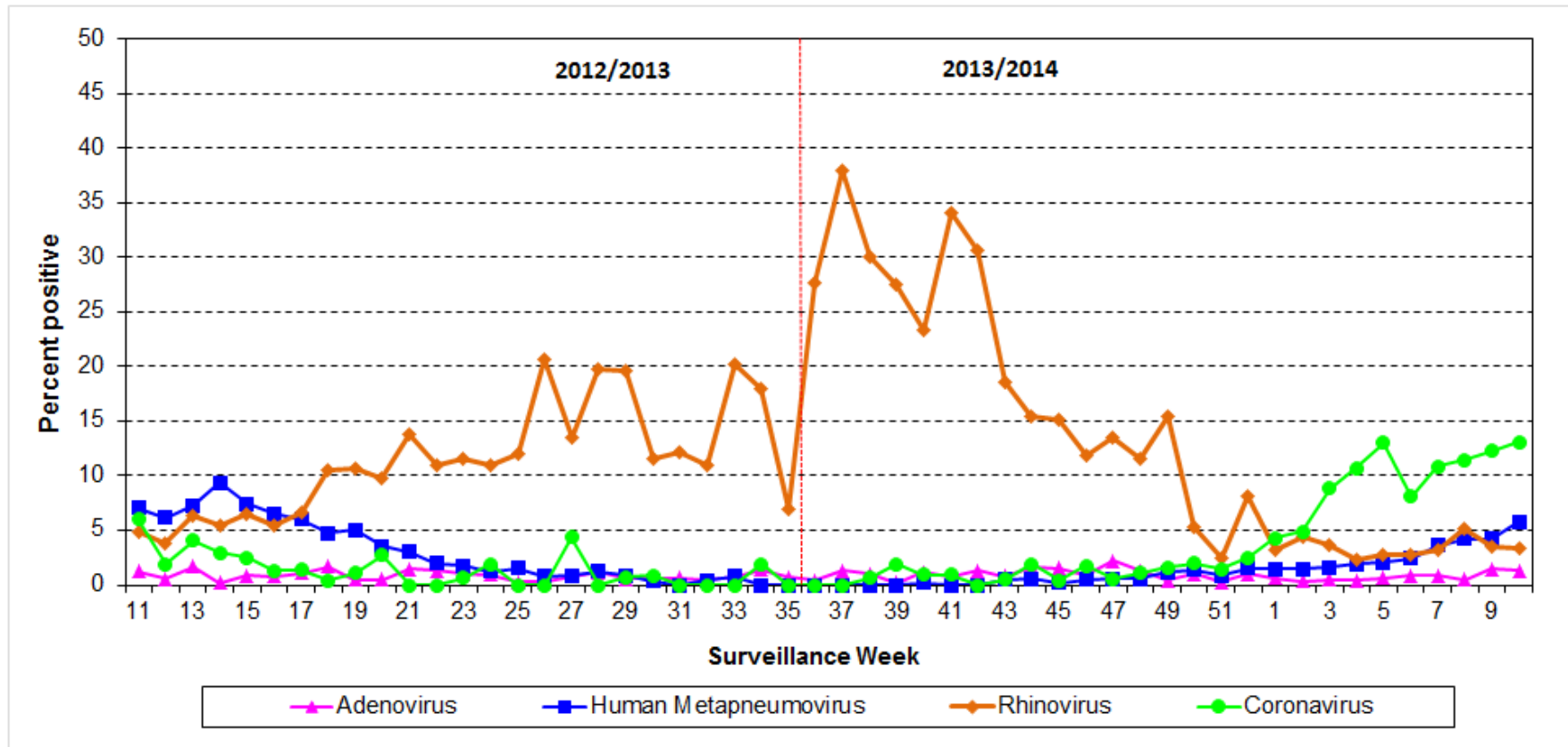
The numbers reported in this figure represent results submitted to the CIRID by 16 participating laboratories in Ontario, including 11 Public Health Ontario Laboratories (PHOLs) and five hospital-based laboratories.

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 4. Percentage of respiratory viral pathogens (adenovirus, human metapneumovirus, rhinovirus and coronavirus) detected among specimens tested by all methods: Ontario, March 10, 2013 to March 8, 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 March 12, 2014; they are based on data submitted to PHAC from 16 laboratories in Ontario.

Notes:

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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/>

Table 3. Number and percent positivity of respiratory specimens tested by all methods for influenza and other respiratory viruses: Ontario, Week 10 and cumulative for the 2013-2014 season

Detected viruses	Current Surveillance Week			Cumulative for Season*		
	Number positive	Number tested	Percent positive	Number positive	Number tested	Percent positive
Influenza (All)	210	1,759	11.9%	5,956	40,873	14.6%
Influenza A	82	1,759	4.7%	5,433	40,873	13.3%
Influenza B	128	1,759	7.3%	523	40,873	1.3%
Parainfluenza virus	15	1,486	1.0%	807	34,011	2.4%
Adenovirus	19	1,486	1.3%	279	34,011	0.8%
Respiratory syncytial virus	182	1,687	10.8%	3,112	38,360	8.1%
Rhinovirus	20	583	3.4%	1,070	13,367	8.0%
Human metapneumovirus	84	1,458	5.8%	601	32,559	1.8%
Coronavirus	46	351	13.1%	444	7,992	5.6%

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 March 12, 2014; they are based on data submitted to PHAC from 16 participating laboratories in Ontario.

Notes:

*Cumulative numbers include counts from August 25, 2013 (surveillance week 35) because PHAC's CIRID data include Week 35 as part of the 2013-2014 season.

The data in this table are based on the date on which test results are reported. Cumulative counts reported include late reports from previous weeks; however, the current week will not include data from laboratories that submit late reports. Therefore, weekly counts from previous weeks may not equal the cumulative count.

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/>

Table 4. Institutional respiratory infection outbreaks: Ontario, Week 10 and total for the 2013-2014 season to date¹

Institutional Respiratory Infection Outbreaks		
New outbreaks (Week 10) ²	Number of outbreaks	Percentage (%) of total
Influenza A	1	11.1
Influenza B	1	11.1
Influenza A and B	0	0.0
Enterovirus/rhinovirus	0	0.0
Parainfluenza (All types)	1	11.1
Respiratory Syncytial Virus (RSV)	1	11.1
Combined outbreaks ³	0	0.0
Other organisms ⁴	1	11.1
No organism identified	4	44.4
TOTAL	9	100.0
Cumulative outbreaks (season to date) ¹		
Influenza A	78	16.0
Influenza B	23	4.7
Influenza A and B	1	0.2
Enterovirus/rhinovirus	114	23.3
Parainfluenza (All types)	34	7.0
Respiratory Syncytial Virus (RSV)	49	10.0
Combined outbreaks ³	31	6.3
Other organisms ⁴	61	12.5
No organism identified	98	20.0
TOTAL	489	100.0
Types of institutions for cumulative outbreaks		
Long-Term Care Homes	314	64.2
Hospitals	36	7.4
Retirement Homes	64	13.1
Other ⁵	2	0.4
Unknown	73	14.9
TOTAL	489	100.0

Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/03/12].

Notes:

¹ Season to date includes all outbreaks in which the date of onset of illness for the first case associated with the outbreak occurred between September 1, 2013 (Week 36) and the current reporting week, as well as outbreaks in which the date of onset of illness for the first case is missing.

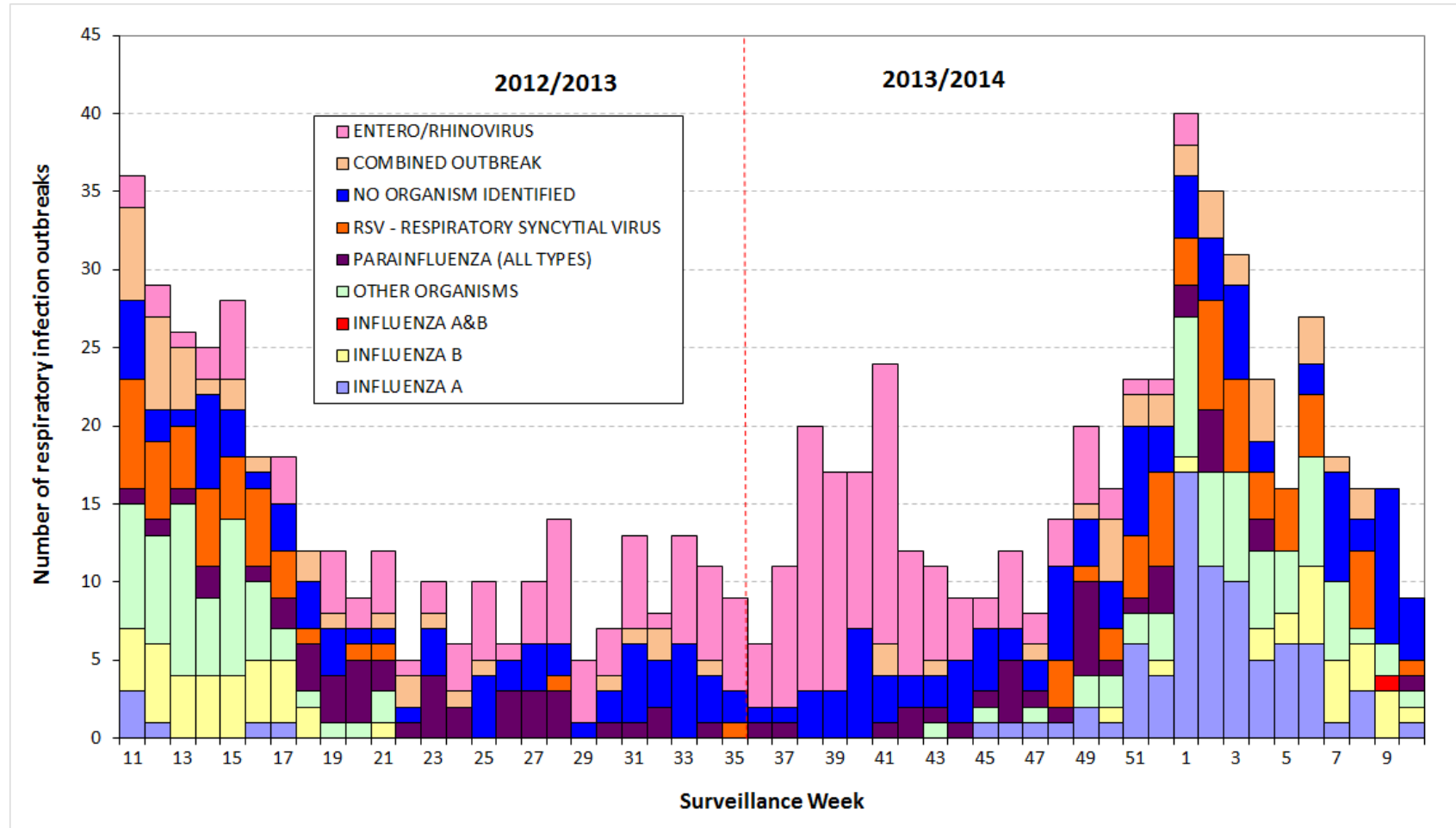
² New outbreaks are those in which the date of onset of illness in the first case occurred and was recorded in iPHIS in the current surveillance period; i.e. March 2 – March 8, 2014 (Week 10).

³ Combined outbreaks include outbreaks in which more than one non-influenza organism has been identified (e.g. RSV, parainfluenza, rhinovirus, etc.).

⁴ Other organisms include outbreaks involving other aetiological agents, such as human metapneumovirus, adenovirus, and coronavirus.

⁵ Other types of institutions include: correctional facilities, group homes, shelters, and facilities operating under the *Developmental Services Act*. Note that school-based and child care centre respiratory outbreaks are not captured in this table.

Figure 5. Institutional respiratory infection outbreaks by week of illness onset in the first case: Ontario, March 10, 2013 to March 8, 2014

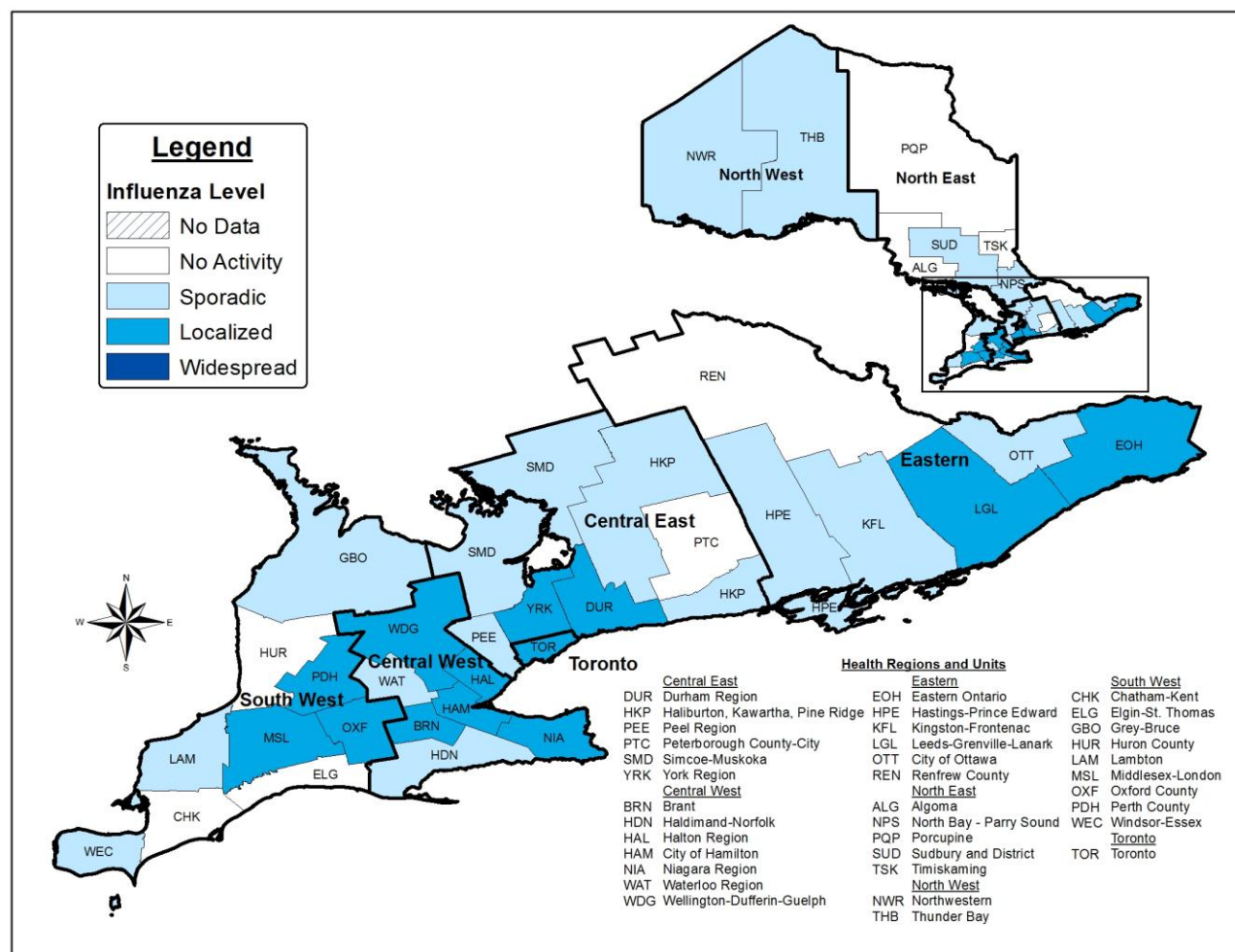


Source: Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted by Public Health Ontario [2014/03/12].

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 6. Influenza activity levels reported by public health units: Ontario, March 2, 2014 to March 8, 2014 (Week 10)



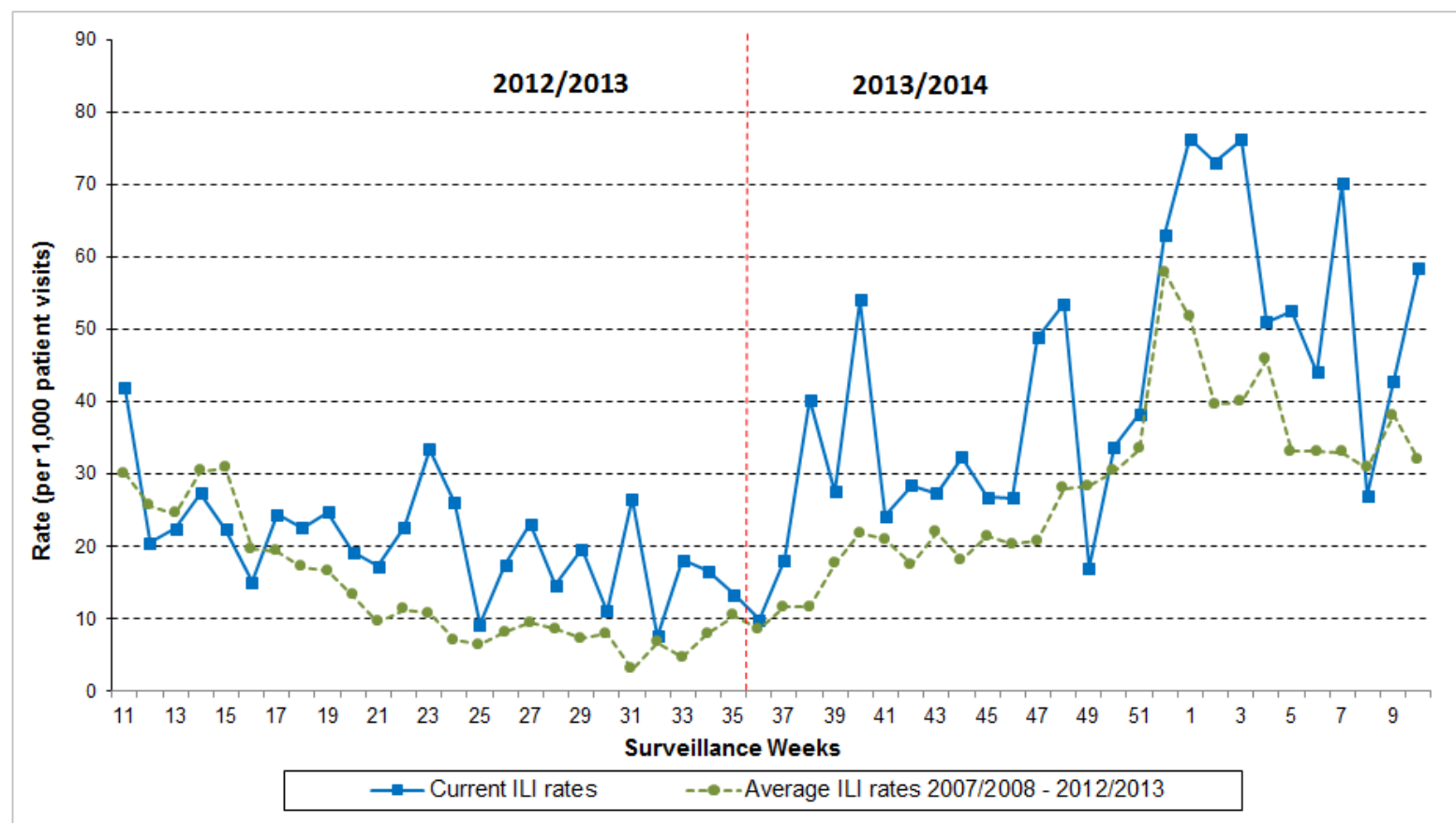
Source: Public Health Ontario [Provincial Influenza Activity Report (Appendix C) Database]

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.

Figure 7. Influenza-like-illness (ILI) consultation rate (per 1,000 patient visits) reported by sentinels by surveillance week compared to historical average (2007/2008 - 2012/2013 seasons): Ontario, March 10, 2013 to March 8, 2014



Source: Public Health Agency of Canada, FluWatch ILI sentinel surveillance reporting

Notes:

Sentinel information is reported to the Public Health Agency of Canada; 56 sentinel sites reported in Week 10. Due to the small number of sentinel sites reporting each week, readers are advised to consider overall trends and place less emphasis on week-to-week fluctuations.

Ontario average ILI rates include data from the 2007-2008 to the 2012-2013 seasons, excluding ILI rates during the time period of the influenza pandemic in Ontario (April 2009 to January 2010) due to the incomparability of those rates to a regular influenza season.

Table 5. Influenza-like illness (ILI) consultation rate (per 1,000 patient visits) by age group as reported by sentinel sites: Ontario, Week 10

Age Category	0 – 4	5 – 19	20 – 64	65 +	Unknown	TOTAL
Number of Patients with ILI	10	16	40	7	0	73
Number of Total Consultations	74	125	763	288	0	1,250
<i>ILI Consultation Rate (per 1,000 patient visits)</i>	135.1	128.0	52.4	24.3	0.0	58.4

Source: Public Health Agency of Canada, FluWatch ILI sentinel surveillance reporting

Notes:

Sentinel information is reported to the Public Health Agency of Canada; 56 sentinel sites reported in Week 10. ILI consultation rates presented in Table 5 should be interpreted with caution, as small numbers of sentinel sites reporting can result in unstable ILI rates.

APPENDIX**Table I.** Strain characterization completed on influenza isolates at the National Microbiology Laboratory: Ontario and Canada, September 1, 2013 to March 13, 2014

Influenza strains	Ontario	Canada
Influenza A (H3N2) A/Texas/50/2012-like	47	64
Influenza A (H1N1)pdm09 A/California/07/2009-like	425	1,131
Influenza B B/Brisbane/60/2008-like	1	14
Influenza B B/Massachusetts/02/2012-like	73	192

Source: Influenza and Respiratory Viruses Section, National Microbiology Laboratory (NML).

Notes:

The influenza strains recommended by the World Health Organization (WHO) for the Northern Hemisphere vaccine for the [2013-2014 season](#) were: an A/California/7/2009-like (A H1N1pdm09-like virus), an A/Texas/50/2012-like virus, and a B/Massachusetts/02/2012-like virus (Yamagata lineage).

The WHO recommendations for the [2014-2015](#) trivalent influenza vaccine for the northern hemisphere are: an A/California/7/2009 (H1N1)pdm09-like virus, an A/Texas/50/2012 (H3N2)-like virus, and a B/Massachusetts/2/2012-like virus. WHO also recommends that quadrivalent vaccines containing two influenza B viruses also contain a B/Brisbane/60/2008-like virus.

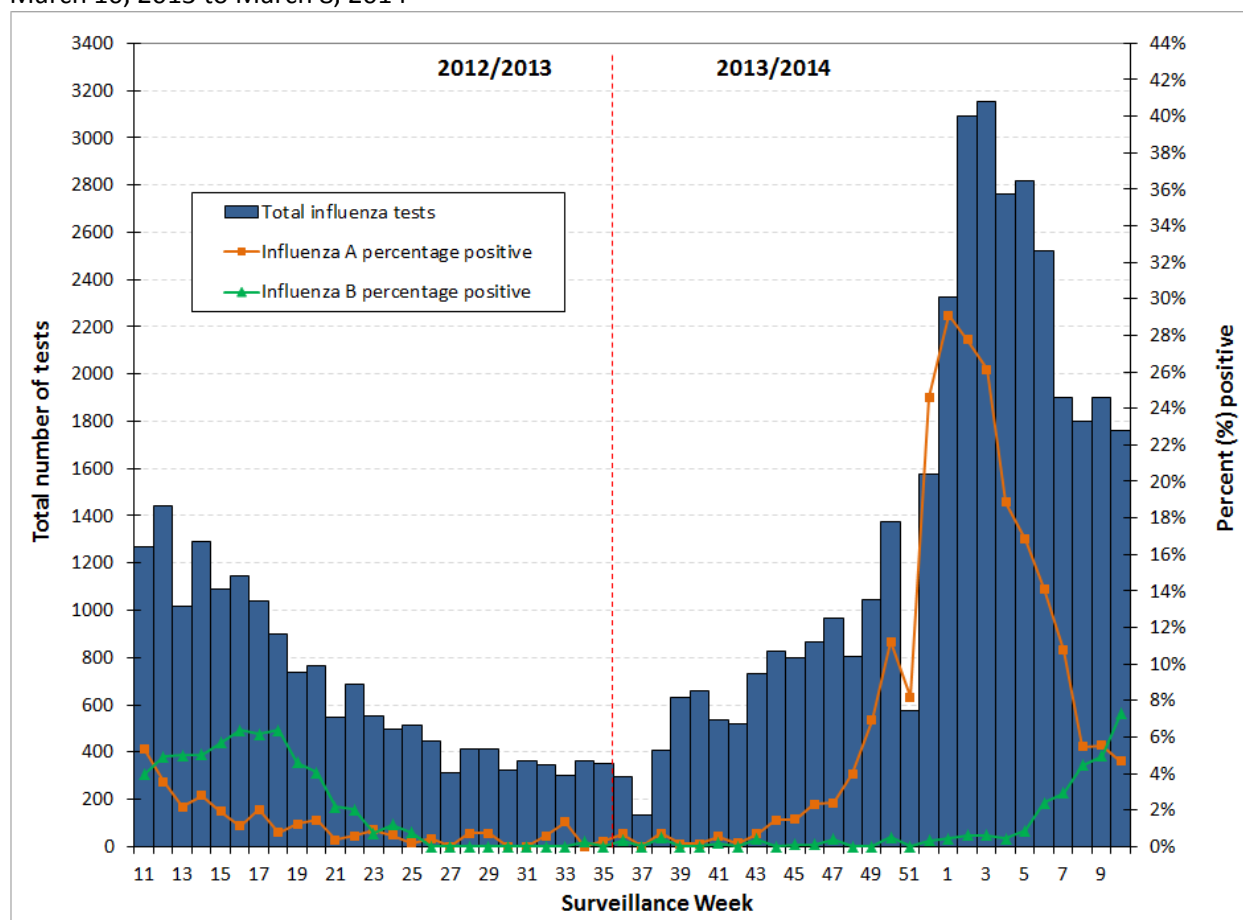
Table II. Amantadine, oseltamivir and zanamivir susceptibility assays completed on influenza isolates at the National Microbiology Laboratory: Ontario and Canada, September 1, 2013 to March 13, 2014

Influenza strains	Amantadine				Oseltamivir				Zanamivir			
	ONTARIO		CANADA		ONTARIO		CANADA		ONTARIO		CANADA	
	R	S	R	S	R	S	R	S	R	S	R	S
Influenza A (H3N2)	66	0	88	0	0	38	0	53	0	38	0	53
Influenza A (H1N1)pdm09	386	0	1,077	0	0	311	0	831	0	309	0	830
Influenza B	NA	NA	NA	NA	0	39	0	110	0	39	0	110

(R = Resistant, S = Susceptible, NA = Not Applicable)

Source: Influenza and Respiratory Viruses Section, National Microbiology Laboratory (NML).

Figure I. Total number of influenza tests performed and percent of positive tests by report week: Ontario, March 10, 2013 to March 8, 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 March 12, 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/>