

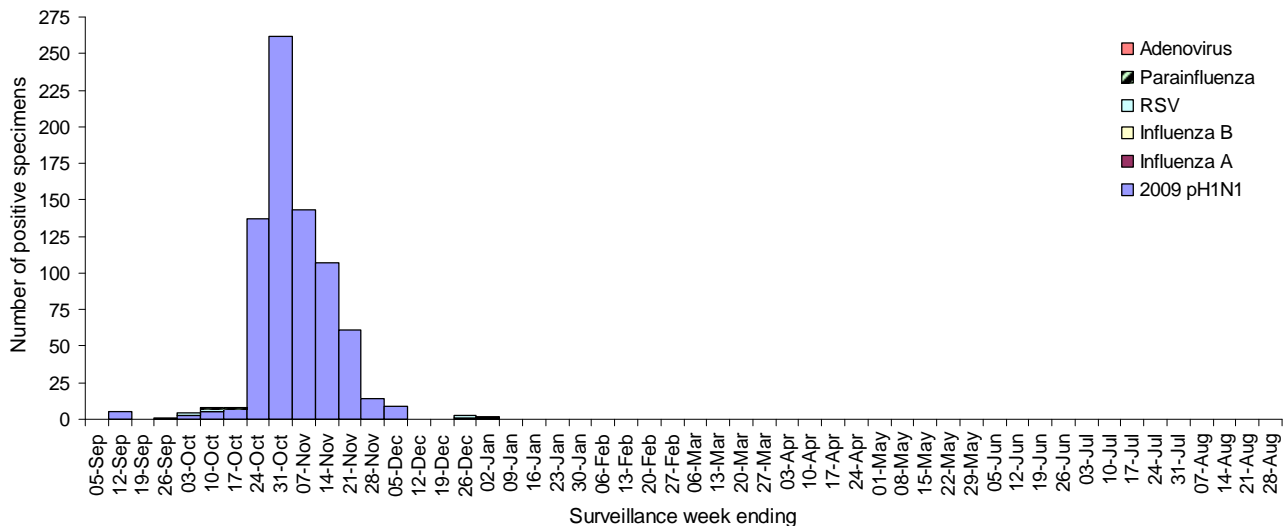
# RESPIRATORY WATCH

Week 52 (December 27, 2009 to January 2, 2010)

## Summary of Nova Scotia surveillance findings, week ending January 2, 2010:

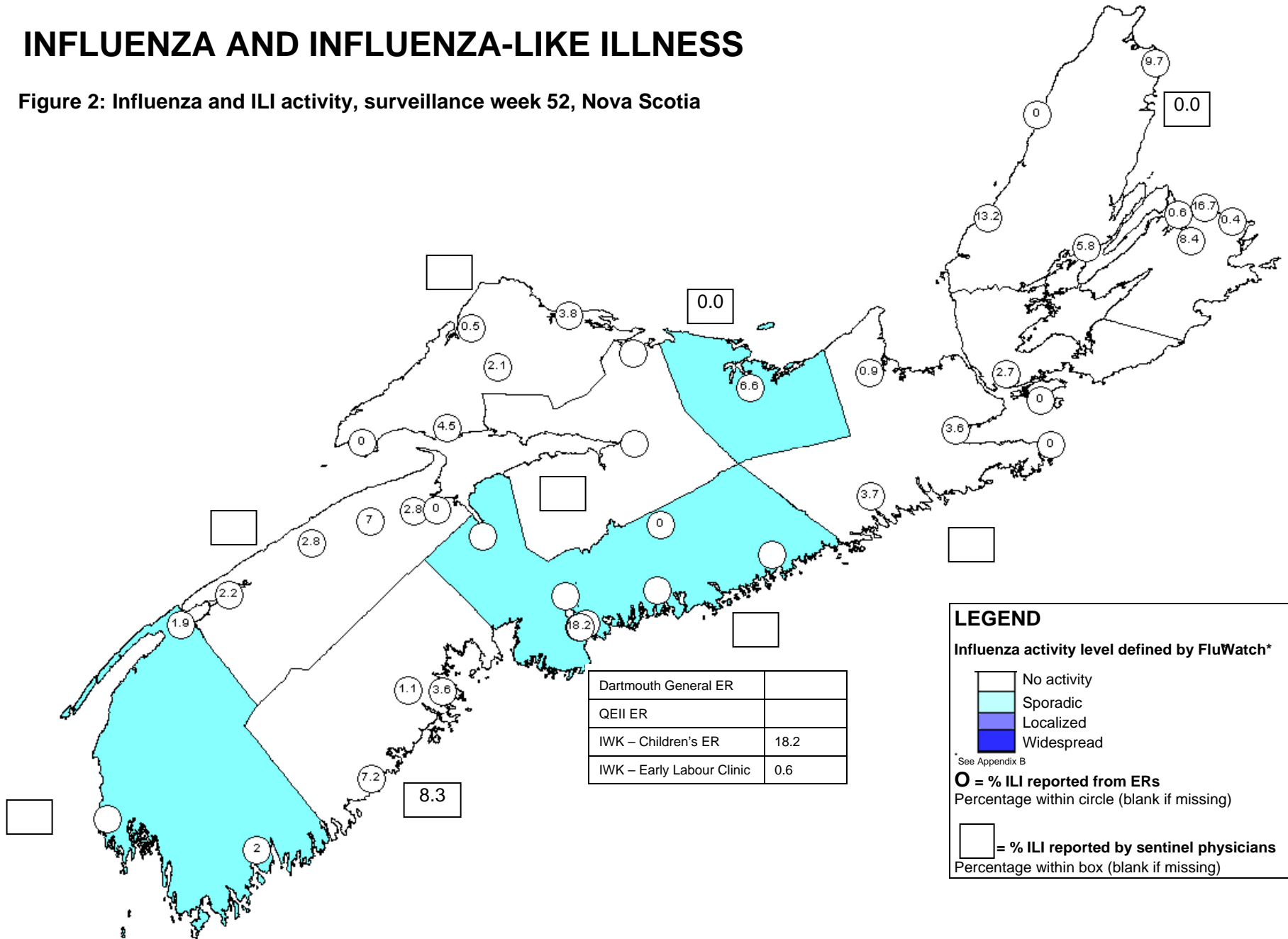
- 2009 pH1N1 activity remains very low in Nova Scotia. There have been 754 lab-confirmed cases to date for the 2009–2010 influenza season. No lab-confirmed cases were reported during week 52.
- Most DHAs reported no influenza activity during surveillance week 52; however DHAs 2, 6 and 9 reported sporadic influenza activity for week 52.
- The percentage of ER visits with ILI remained at 5% (same in week 51).
- ILI from sentinel physicians increased slightly to 2% (less than 1% in week 51).
- There have been 269 hospitalizations and six deaths due to pH1N1 reported so far this season. No hospitalizations were reported in week 52.
- This season all age groups continue to be affected, with the highest laboratory detections and ILI reports in those less than 20 years of age and the lowest in those 65 years and older.
- During the current surveillance week, circulating viruses detected by laboratory testing included RSV and adenovirus.
- Please see Appendix A for data overlapping 2008–2009 and 2009–2010 influenza seasons.

**Figure 1: Summary of laboratory detected circulating respiratory pathogens, Nova Scotia, 2009–2010**

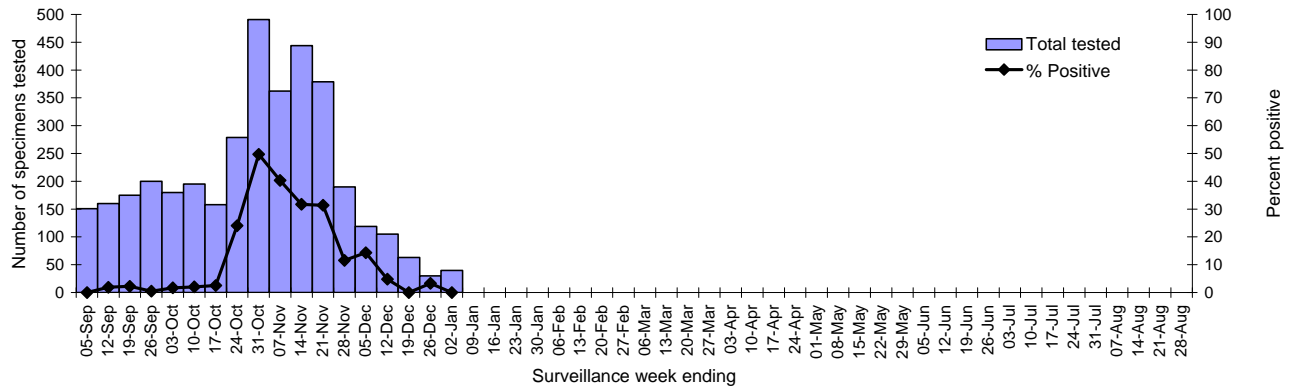


# INFLUENZA AND INFLUENZA-LIKE ILLNESS

Figure 2: Influenza and ILI activity, surveillance week 52, Nova Scotia

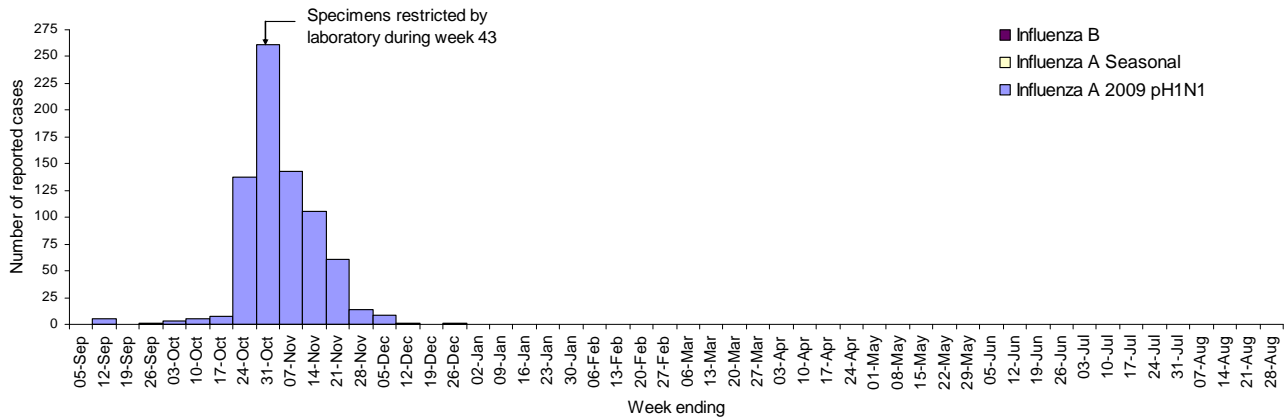


**Figure 3: Number of specimens tested for influenza and percent positive, Nova Scotia Provincial Public Health Laboratory Network and IWK, 2009–2010\***



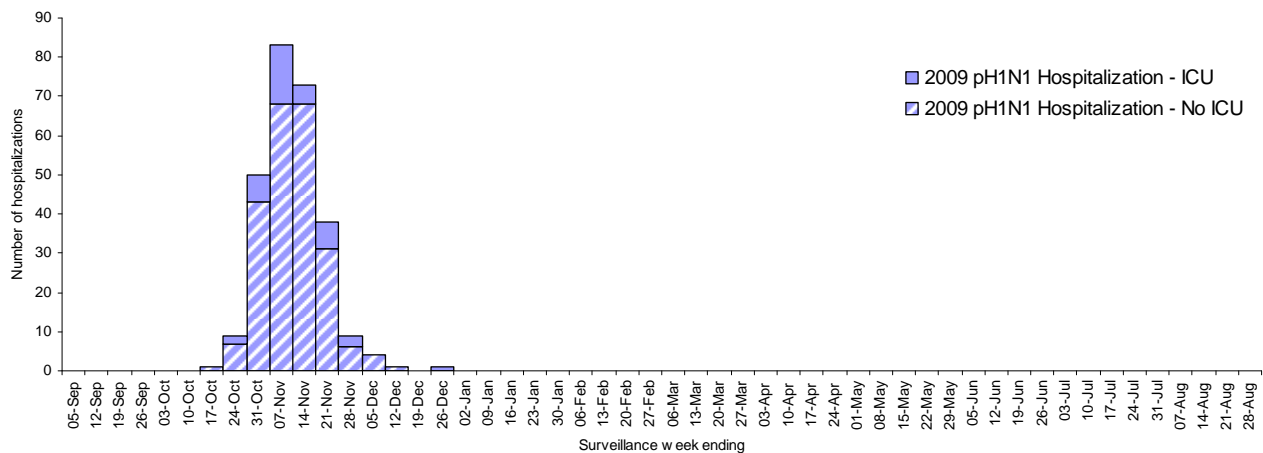
\*Data presented in this figure refers to week specimen was tested. All other data in report refers to onset date of symptoms. Due to a dramatic increase in the number of specimens submitted for influenza testing, the PPHLN restricted testing to hospitalized patients only during week 43 (October 27, 2009).

**Figure 4: Number of reported lab-confirmed influenza cases by type and report week, Nova Scotia, 2009–2010 (n=754)**



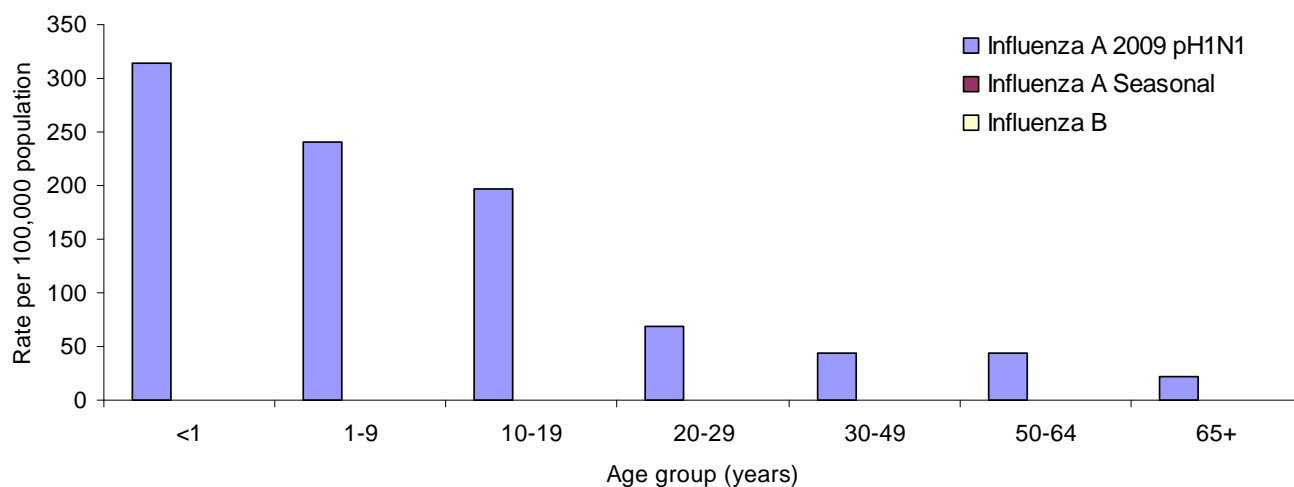
Source: Application for Notifiable Disease Surveillance System (ANDS), December 15, 2009

**Figure 5: Number of influenza hospitalizations by type and report week, Nova Scotia, 2009–2010 (n=269)\***

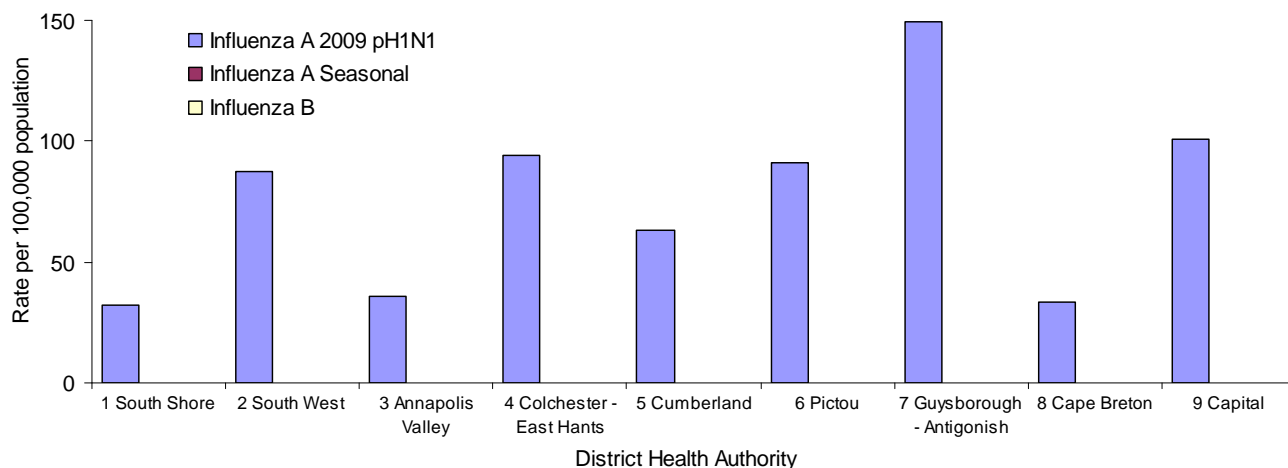


\*Note that this does not represent individuals currently admitted to hospital; patients may be discharged home by time of report to NSHPP. Hospitalizations for influenza A and B will be added as they are reported.

**Figure 6: Influenza rate per 100,000 population by type and age group, cumulative, Nova Scotia, 2009–2010**



**Figure 7: Influenza rate per 100,000 population by type and DHA, cumulative, Nova Scotia, 2009–2010**



**Table 1: Influenza case counts by DHA, surveillance week 52 and cumulative, Nova Scotia, 2009–2010**

	DHA 1	DHA 2	DHA 3	DHA 4	DHA 5	DHA 6	DHA 7	DHA 8	DHA 9	Nova Scotia
<b>2009 pH1N1</b>										
Week 52	0	0	0	0	0	0	0	0	0	0
Cumulative	19	54	29	69	20	42	66	42	413	754
2008–2009 season	7	15	26	17	4	4	12	47	450	582
<b>Influenza A</b>										
Week 52	0	0	0	0	0	0	0	0	0	0
Cumulative	0	0	0	0	0	0	0	0	0	0
2008–2009 season	6	4	7	5	0	1	7	13	56	99
<b>Influenza B</b>										
Week 52	0	0	0	0	0	0	0	0	0	0
Cumulative	0	0	0	0	0	0	0	0	0	0
2008–2009 season	3	5	5	6	2	1	4	8	30	64

Note: Given the influenza situation in the province, the QE II Health Sciences Centre has streamlined laboratory practices and is not currently testing community specimens for influenza B.

**Table 2: Influenza case demographics, surveillance week 52 and cumulative, Nova Scotia, 2009–2010**

	n	Rate (CI)*	% Male	Mean age	Median age	Age range
<b>Week 52</b>						
<b>2009 pH1N1</b>						
Cases	0	–	–	–	–	–
Total hospitalizations	0	–	–	–	–	–
Non-ICU	0	–	–	–	–	–
ICU	0	–	–	–	–	–
Deaths**	0	–	–	–	–	–
<b>Influenza A</b>						
Cases	0	–	–	–	–	–
Total hospitalizations	0	–	–	–	–	–
Non-ICU	0	–	–	–	–	–
ICU	0	–	–	–	–	–
Deaths	0	–	–	–	–	–
<b>Influenza B</b>						
Cases	0	–	–	–	–	–
Total hospitalizations	0	–	–	–	–	–
Non-ICU	0	–	–	–	–	–
ICU	0	–	–	–	–	–
Deaths	0	–	–	–	–	–
<b>Cumulative 2009–2010 season</b>						
<b>2009 pH1N1</b>						
Cases	754	80.8 (75.0–86.6)	49.1	24.1	16.5	2 wks–91 yrs
Total hospitalizations	269	28.8 (25.4–32.3)	50.2	29.1	23.0	2 wks–91 yrs
Non-ICU	229	24.5 (21.4–27.7)	51.1	26.8	16.0	2 wks–91 yrs
ICU	40	4.3 (2.98–5.6)	44.7	42.7	47.5	7–66 yrs
Deaths**	6	0.6 (0.1–1.1)	33.3	50.5	44.5	40+
<b>Influenza A</b>						
Cases	0	–	–	–	–	–
Total hospitalizations	0	–	–	–	–	–
Non-ICU	0	–	–	–	–	–
ICU	0	–	–	–	–	–
Deaths	0	–	–	–	–	–
<b>Influenza B</b>						
Cases	0	–	–	–	–	–
Total hospitalizations	0	–	–	–	–	–
Non-ICU	0	–	–	–	–	–
ICU	0	–	–	–	–	–
Deaths	0	–	–	–	–	–

\*Rate per 100,000 population; CI = confidence interval for rate.

\*\*Age group rather than age presented for deaths due to small numbers.

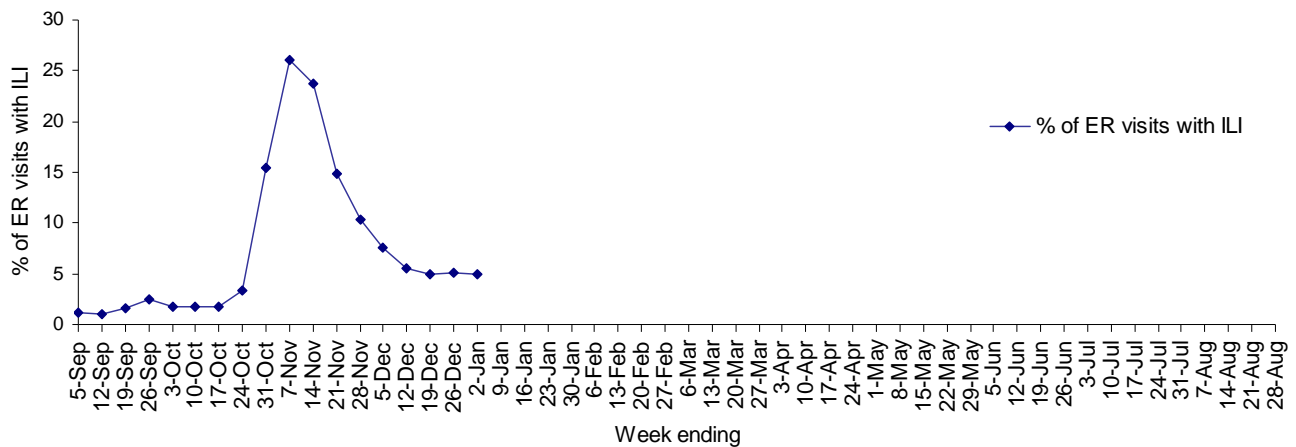
**Table 3: Surveillance week 52 ILI reporting from emergency departments, FluWatch sentinel physicians and provincial sentinel physicians, Nova Scotia**

	ER SURVEILLANCE		SENTINEL SURVEILLANCE*	
	%ILI	Reporting ERs	%ILI	Reporting Practices
DHA 1	3.6	3 of 3	8.3	1 of 1**
DHA 2	2.0	2 of 3	—	0 of 4
DHA 3	3.6	5 of 5	—	0 of 2**
DHA 4	—	0 of 2	—	—**
DHA 5	1.9	5 of 5	—	0 of 1**
DHA 6	6.6	1 of 1	0.0	1 of 2
DHA 7	1.7	6 of 6	—	0 of 4**
DHA 8	5.1	8 of 8	0.0	1 of 5**
DHA 9	0.0	1 of 7	—	0 of 7
IWK	18.2	1 of 1	—	—
<b>Nova Scotia</b>	<b>4.9</b>	<b>32 of 41 (78%)</b>	<b>1.9</b>	<b>3 of 26 (12%)</b>

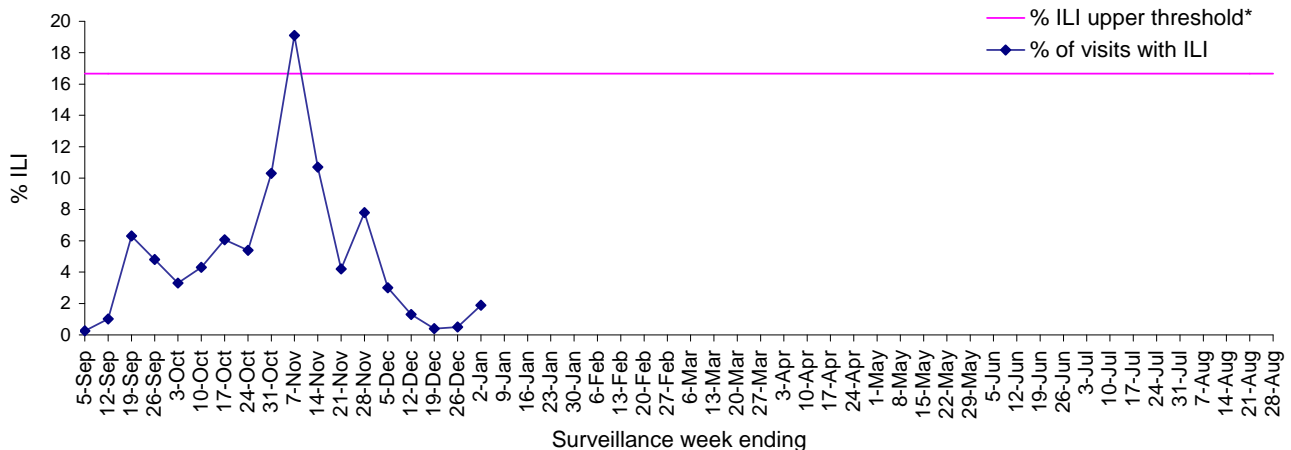
\* Includes Nova Scotia Sentinel Network and Fluwatch sentinels

\*\* Recruitment ongoing. Please call 722-1494 if you are interested in participation in the Nova Scotia Sentinel Network

**Figure 8: Percentage of ER visits with ILI, Nova Scotia, 2009–2010**

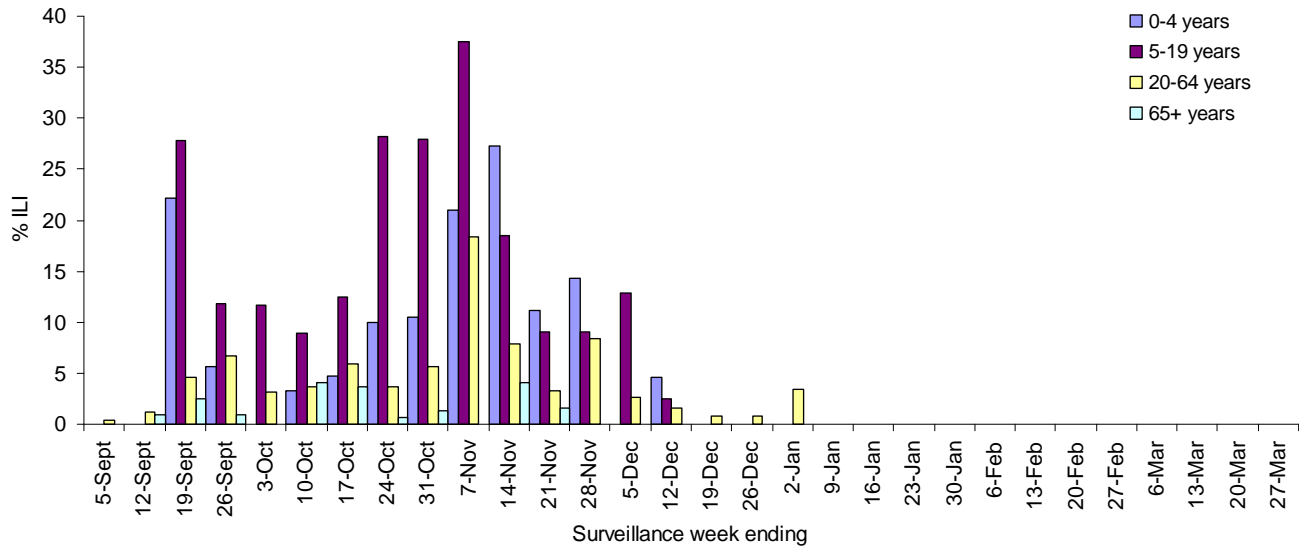


**Figure 9: Percent of patient visits to FluWatch and provincial sentinel physicians with ILI, Nova Scotia, 2009–2010**

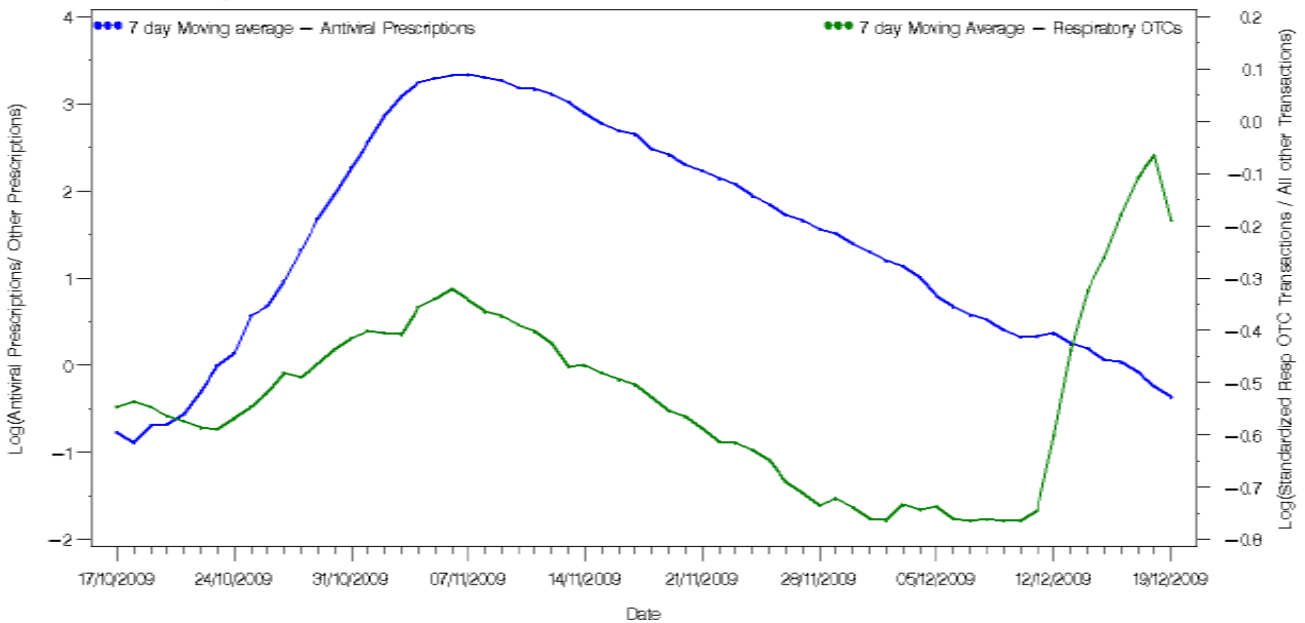


\*Note: Threshold ILI rate of 16.7% represents the highest proportion of patient visits reported with ILI over the past five influenza seasons.

**Figure 10: Percent of patient visits to FluWatch and provincial sentinel physicians with ILI by age group, Nova Scotia, 2009–2010**



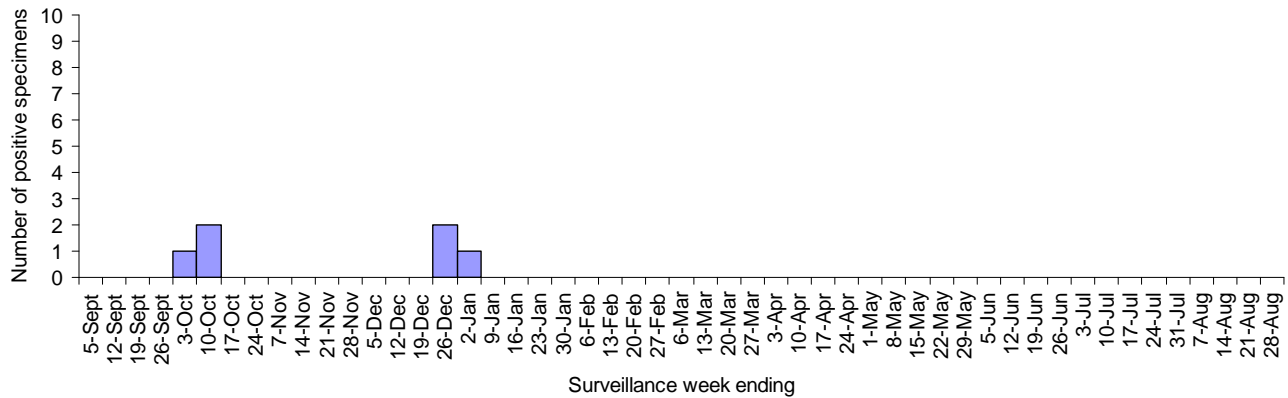
**Figure 11: Seven day moving average of antivirals and respiratory over-the-counter medications dispensed in Nova Scotia**



Reference: H1N1 Antiviral and OTC Surveillance Weekly Report. 2009. Rx Canada.

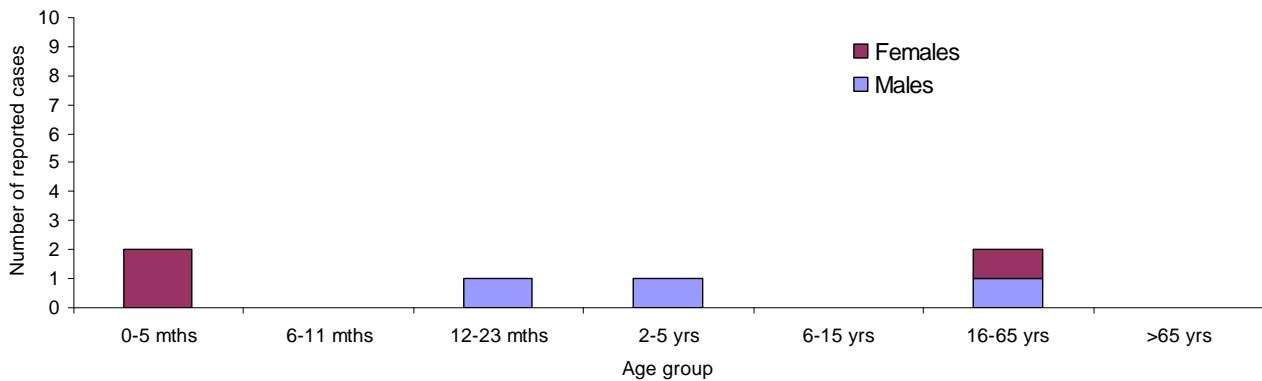
# RESPIRATORY SYNCYTIAL VIRUS (RSV)\*

**Figure 12: Number of positive RSV specimens by report week, Nova Scotia, 2009–2010 (n=6)**



\*Note: Given the influenza situation in the province, the QE II Health Sciences Centre has streamlined laboratory practices and stopped routine RSV testing on April 27<sup>th</sup> 2009.

**Figure 13: Cumulative number of positive RSV specimens by age group and sex, Nova Scotia, 2009–2010 (n=6)**



# PARAINFLUENZA VIRUS (PIV) and ADENOVIRUS

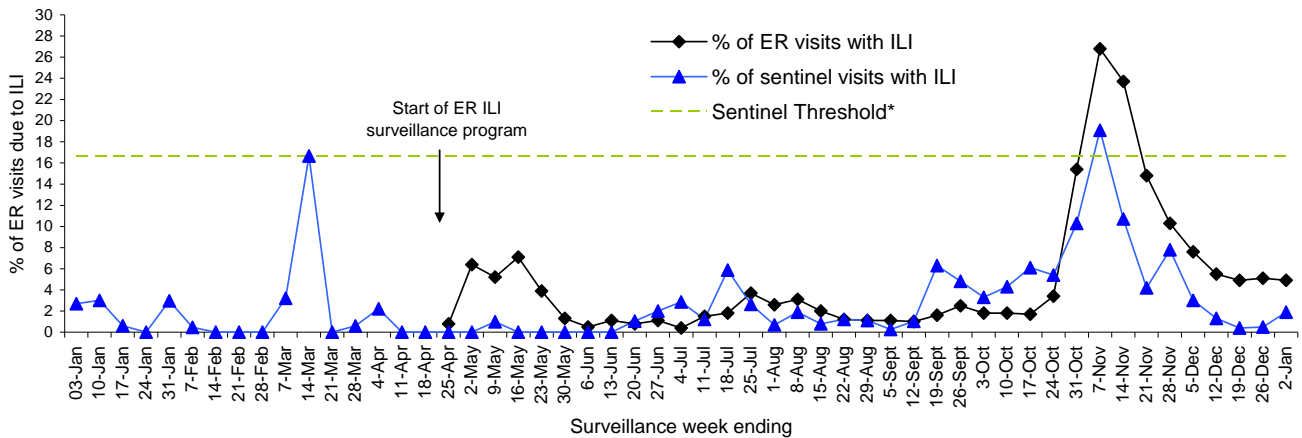
**Table 5: Total number of specimens tested and number (%) positive for parainfluenza and adenovirus by report week and cumulative season, Nova Scotia, 2009–2010**

	Surveillance Week 52 December 27–January 2, 2010		Cumulative Season-to-Date Totals	
	n positive	% positive	n positive	% positive
Number of specimens tested:	7		209	
Number and percent positive for:	n positive	% positive	n positive	% positive
Parainfluenza virus 1	0	0	2	1.0
Parainfluenza virus 2	0	0	0	0.0
Parainfluenza virus 3	0	0	0	0.0
Parainfluenza virus 4	0	0	0	0.0
<b>Total parainfluenza virus</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1.0</b>
<b>Adenovirus</b>	<b>1</b>	<b>14.3</b>	<b>1</b>	<b>0.5</b>

\*Note: Given the influenza situation in the province, the QE II Health Sciences Centre has streamlined laboratory practices and stopped routine parainfluenza and adenovirus testing on April 27<sup>th</sup> 2009.

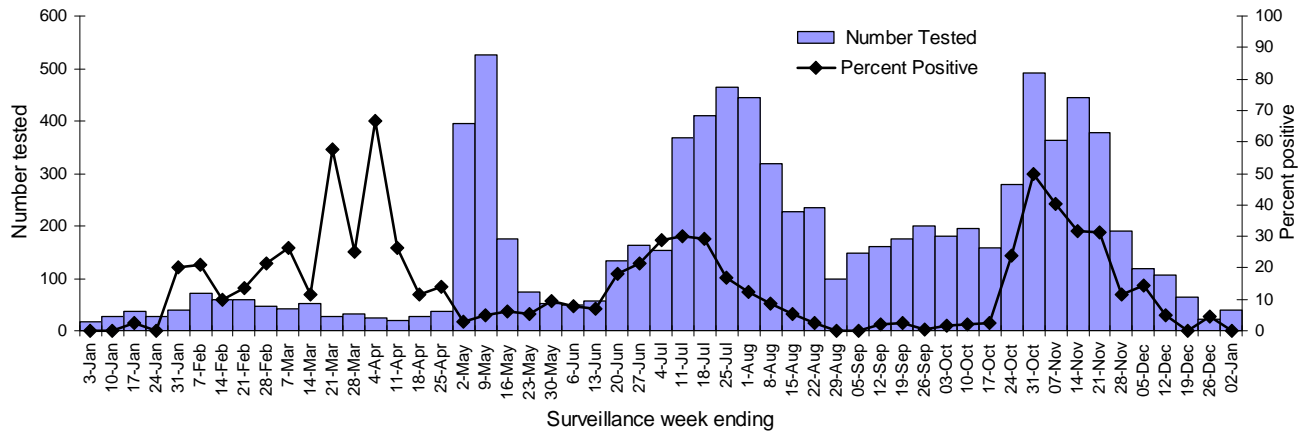
**APPENDIX A: Influenza Data, January 2009 to January 2, 2010**

**Figure 14: Percentage of ER and sentinel visits with ILI, Nova Scotia, 2009**

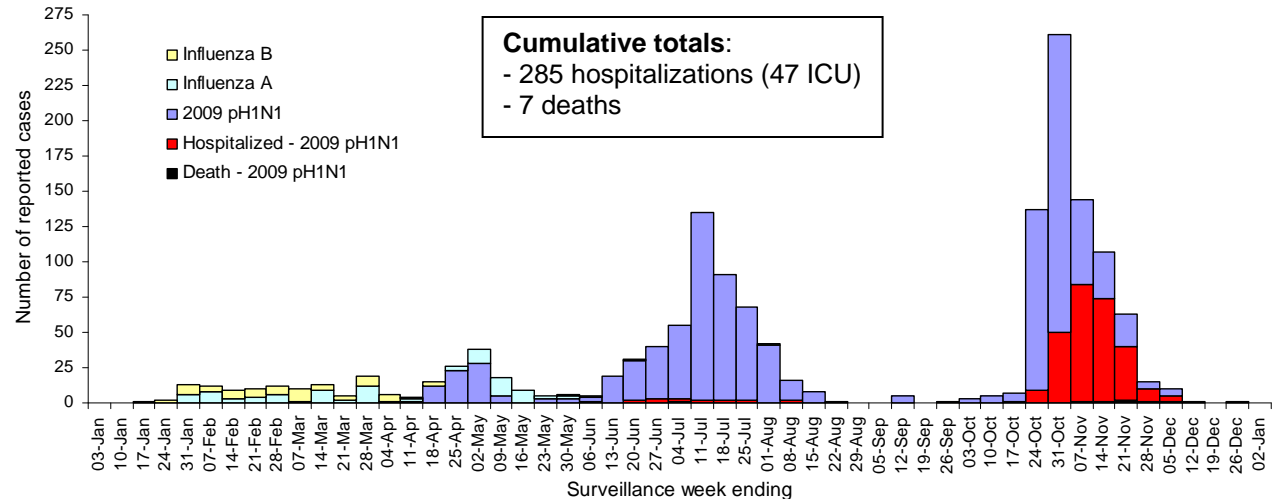


\*The threshold of 16.7% represents the highest proportion of patient visits to sentinel physicians with ILI over the past 5 influenza seasons.

**Figure 15: Number of specimens tested for influenza and percent positive, Nova Scotia Provincial Public Health Laboratory Network, 2009**



**Figure 16: Number of reported influenza cases by type and report week, Nova Scotia, 2009 (n=1497)**



## APPENDIX B: Definitions used in Influenza Surveillance, 2009-2010

### 1) **ILI in the general population:**

Acute onset of respiratory illness with fever and cough and with one or more of the following: sore throat, arthralgia, myalgia or prostration, which could be due to influenza virus. In children under five years, gastrointestinal symptoms may also be present. In patients under five or over 65, fever may not be prominent.

### 2) **Outbreaks of influenza / ILI by setting**

#### Schools and work sites:

Greater than 10% absenteeism on any day that is most likely due to ILI.

#### Residential institutions:

Two or more cases of ILI within a seven-day period, *including at least one laboratory confirmed case*. Institutional outbreaks should be reported within 24-hours of identification.

### 3) **National FluWatch Definitions for Influenza Activity Levels**

#### **Influenza activity levels are defined as:**

- |                                 |  |
|---------------------------------|--|
| <b>1 = No activity Reported</b> | i.e. no laboratory confirmed influenza detections during the past four weeks; however, sporadically occurring ILI may be reported  |
| <b>2 = Sporadic:</b>            | Sporadically occurring <b>ILI and confirmed influenza* with NO outbreaks</b> detected within the influenza surveillance region†  |
| <b>3 = Localized:</b>           | Sporadically occurring <b>ILI and confirmed influenza* together with outbreaks of ILI</b> in schools and worksites or laboratory confirmed influenza in residential institutions occurring <b>in less than 50% of the influenza surveillance region(s)†</b>                |
| <b>4 = Widespread:</b>          | Sporadically occurring <b>ILI and confirmed influenza* together with outbreaks of ILI</b> in schools and worksites or laboratory confirmed influenza in residential institutions occurring <b>in greater than or equal to 50% of the influenza surveillance region(s)†</b> |

\* Confirmation of influenza within the surveillance region at any time within the prior four weeks

† sub-regions within the province or territory as defined by the provincial/territorial epidemiologist

### 4) **District Health Authorities (DHAs), Nova Scotia**

- |  |  |
|--|--|
| 1 – South Shore Health                     | 7 – Guysborough Antigonish Strait Health Authority |
| 2 – South West Health                      | 8 – Cape Breton District Health Authority          |
| 3 – Annapolis Valley Health                | 9 – Capital Health                                 |
| 4 – Colchester East Hants Health Authority |  |
| 5 – Cumberland Health Authority            |  |
| 6 – Pictou County Health Authority         |  |