NOVA SCOTIA
Health Promotion and Protection

RESPIRATORY WATCH

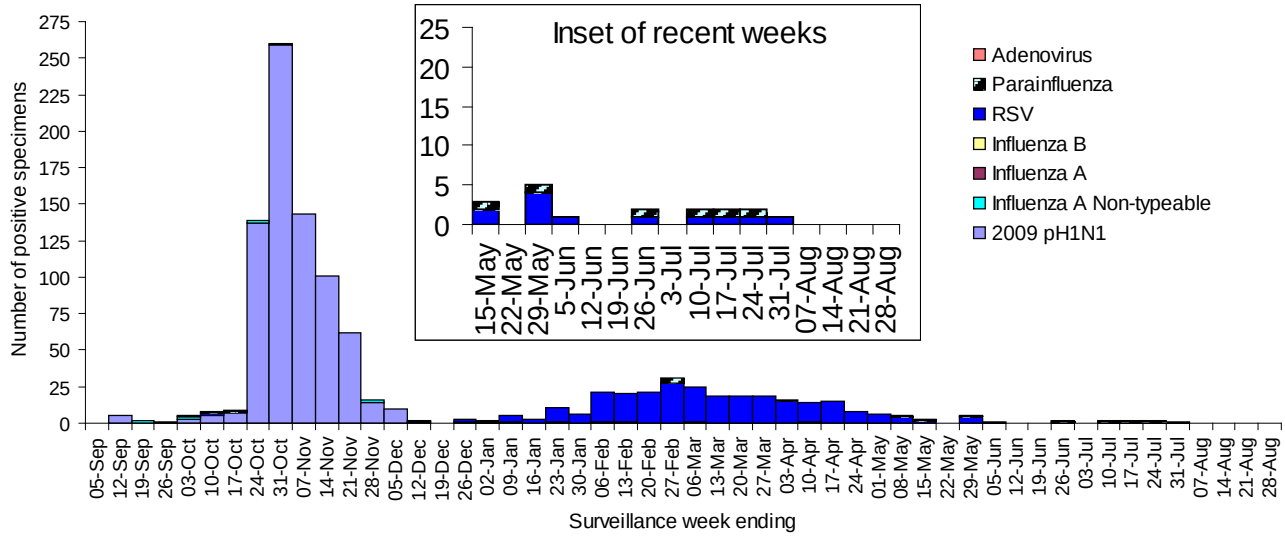
Weeks 29 & 30 (July 18, 2010 – July 31, 2010)

Summary of Nova Scotia surveillance findings, 2 week period ending July 31, 2010:

- No influenza activity was reported in Nova Scotia during weeks 29 & 30. There have been 752 lab-confirmed cases of pH1N1 to date for the 2009–2010 influenza season. No lab-confirmed cases of pH1N1 were reported during weeks 29 & 30. The first (and only) case of influenza B for this season reported symptom onset during week 9.
- There have been 277 hospitalizations and six deaths due to pH1N1 reported so far this season. There has been one hospitalization and death due to influenza B reported so far this season. No hospitalizations were reported in weeks 29 & 30.
- All DHAs reported no influenza activity during surveillance weeks 29 & 30.
- The percentage of ER visits with ILI was 0.6% (0.6% in weeks 27 and 28).
- The percentage of visits with ILI from sentinel physicians was 0% (0% in weeks 27 & 28).
- In surveillance week 29, one specimen was positive for RSV and one specimen was positive for parainfluenza virus type 3. In week 30, one specimen was positive for RSV.
- Specimens have tested positive for human metapneumovirus this season. This is a reminder that there are respiratory pathogens circulating that are not covered by routine testing algorithms.

Figure 1 summarizes all laboratory detected respiratory pathogens for the 2009-2010 season. Some influenza A viruses are not typeable (as seasonal versus pandemic). These non-typeable influenza A cases are included for the 2009-2010 season and presented in Figure 1 below.

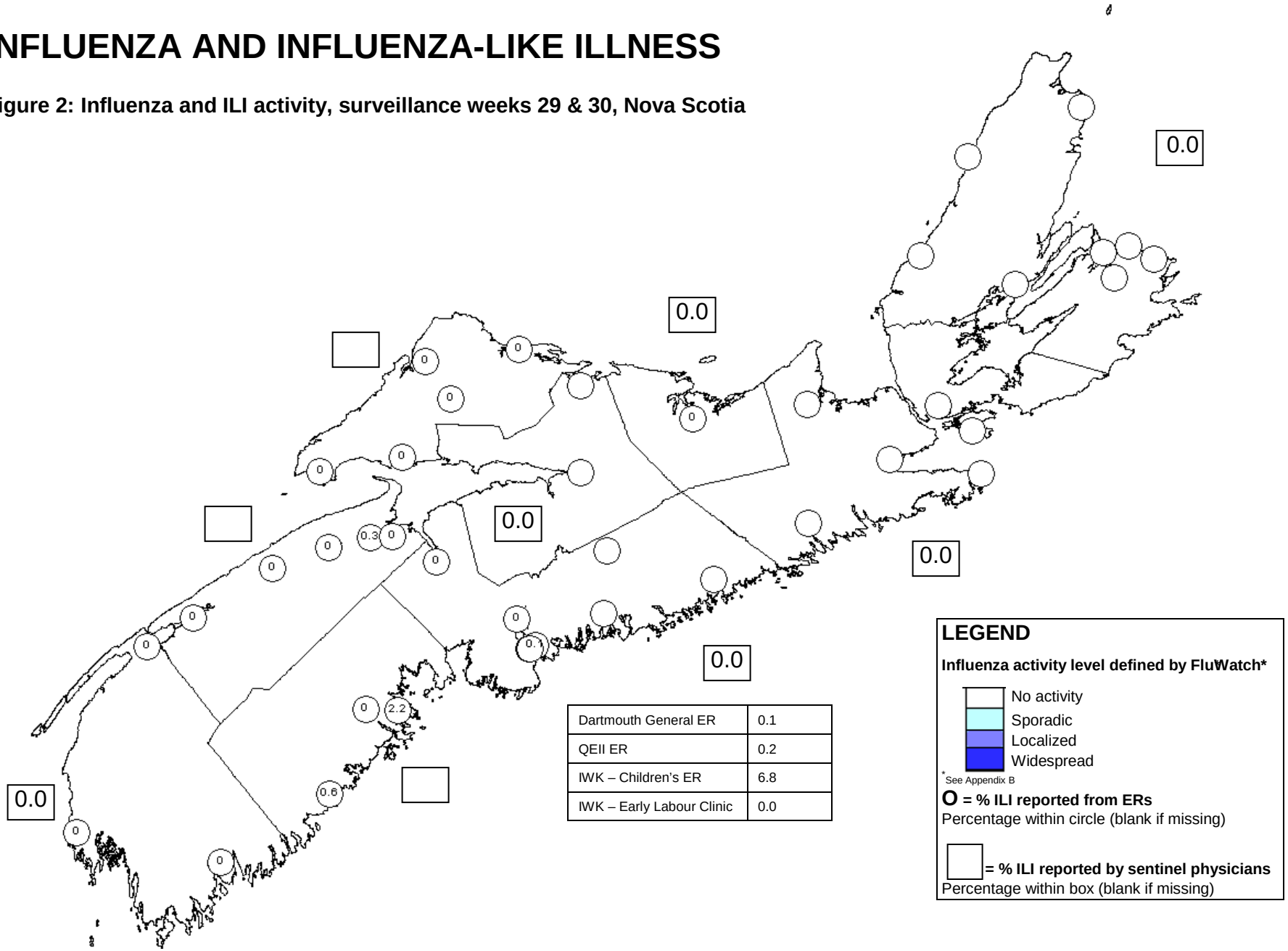
Figure 1: Summary of laboratory detected circulating respiratory pathogens, Nova Scotia, 2009–2010*



*Includes respiratory pathogens detected through routine laboratory testing practices in Nova Scotia.

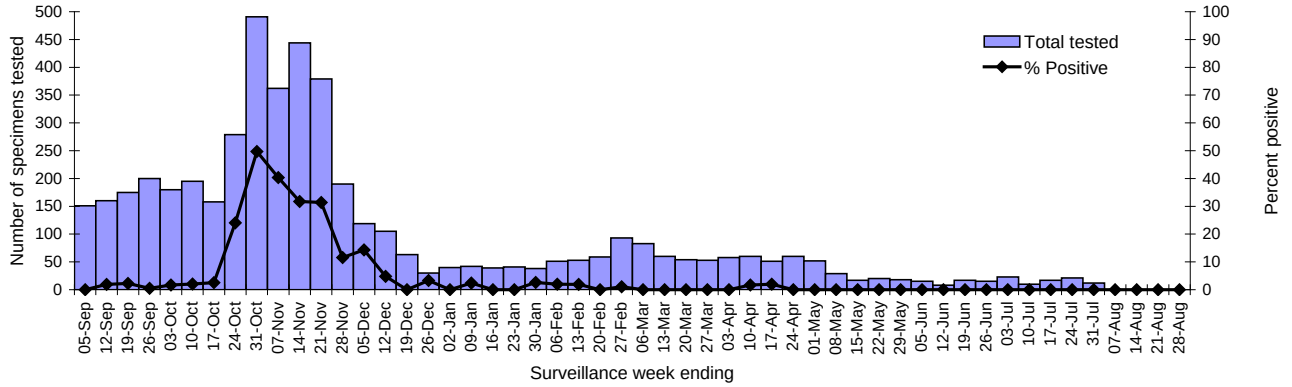
INFLUENZA AND INFLUENZA-LIKE ILLNESS

Figure 2: Influenza and ILI activity, surveillance weeks 29 & 30, Nova Scotia



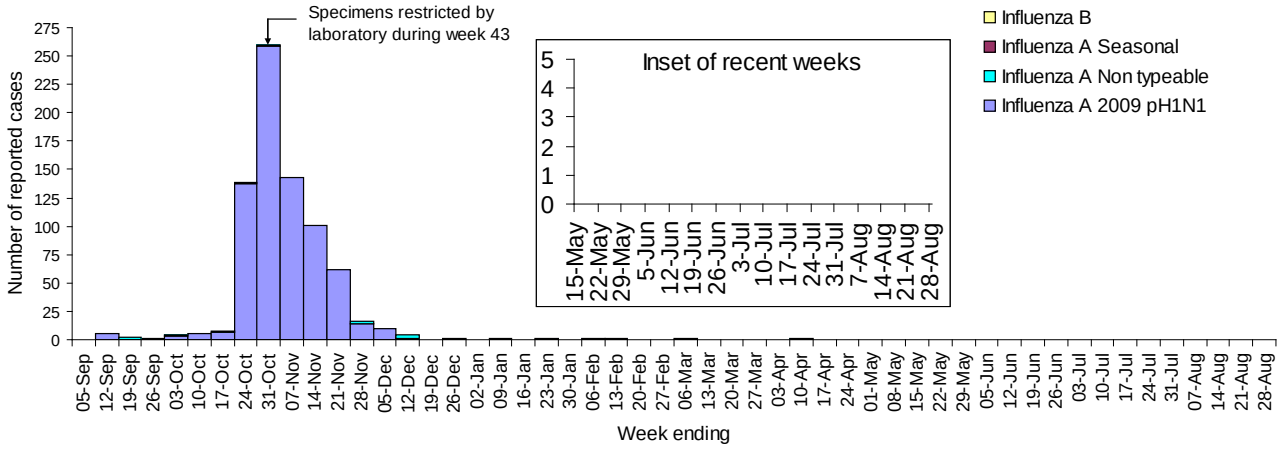
Dartmouth General ER	0.1
QEII ER	0.2
IWK – Children's ER	6.8
IWK – Early Labour Clinic	0.0

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



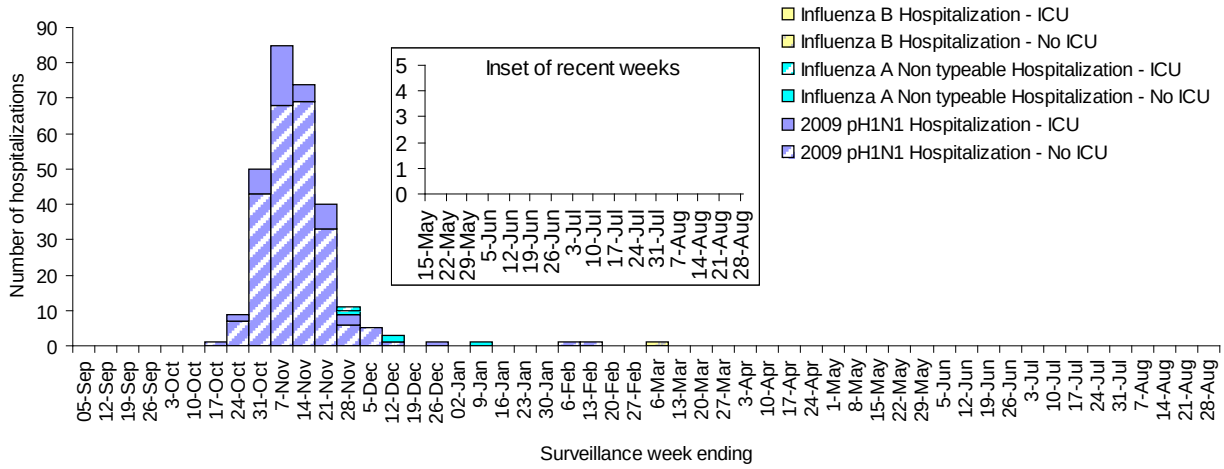
*Data presented in this figure refers to week specimen was tested. All other data in report refers to onset date of symptoms. Due to a dramatic increase in the number of specimens submitted for influenza testing, the PPHLN restricted testing to hospitalized patients only during week 43 (October 27, 2009). One positive influenza A pH1N1 specimen was detected in Week 16 (ending April 17), but is not reflected in the remainder of the report as the specimen was not from a Nova Scotia resident.

Figure 4: Number of reported lab-confirmed influenza cases by type and report week, Nova Scotia, 2009–2010 (n=767)



Source: Application for Notifiable Disease Surveillance System (ANDS), May 3, 2010. Data provisional and subject to updates.

Figure 5: Number of influenza hospitalizations by type and report week, Nova Scotia, 2009–2010 (n=283)*



*ICU admission to be updated as information is available. 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 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

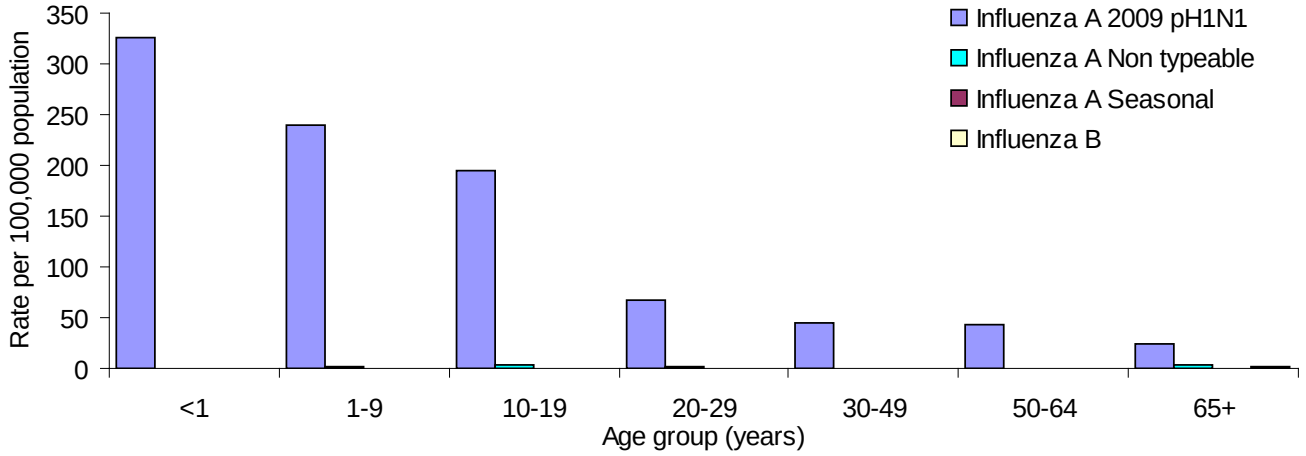


Figure 7: Influenza rate per 100,000 population by type and DHA, cumulative, Nova Scotia, 2009–2010

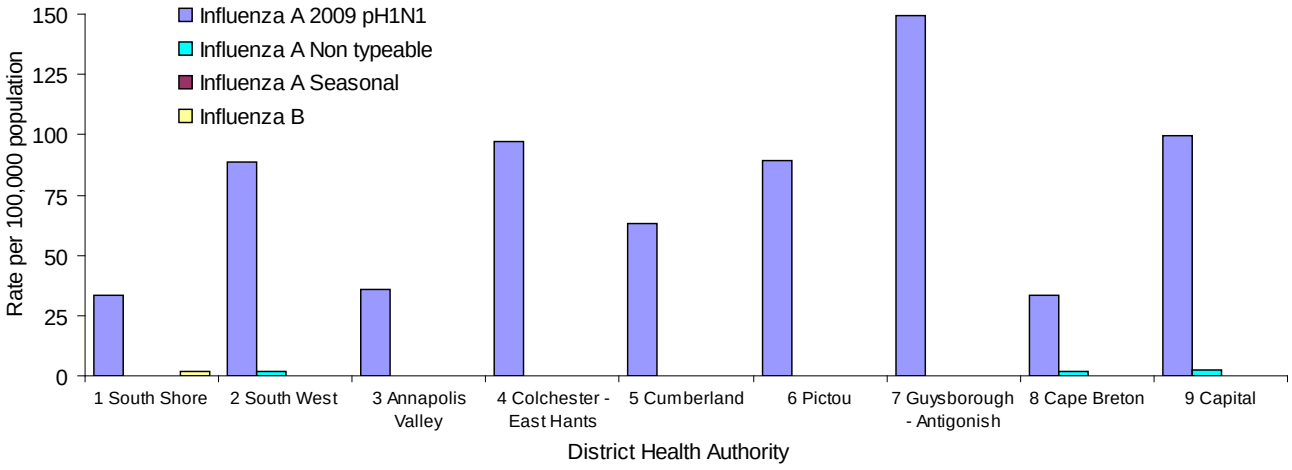


Table 1: Influenza case counts by DHA, surveillance weeks 29 & 30 and cumulative, Nova Scotia, 2009–2010

	DHA 1	DHA 2	DHA 3	DHA 4	DHA 5	DHA 6	DHA 7	DHA 8	DHA 9	Nova Scotia
2009 pH1N1										
Week 29 & 30	0	0	0	0	0	0	0	0	0	0
Cumulative	20	55	29	71	20	41	66	42	408	752
2008–2009 season	7	15	26	17	4	4	12	47	450	582
Influenza A (non-typeable)*										
Week 29 & 30	0	0	0	0	0	0	0	0	0	0
Cumulative	0	1	0	0	0	0	0	2	11	14
Influenza A (seasonal)										
Week 29 & 30	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
Influenza B										
Week 29 & 30	0	0	0	0	0	0	0	0	0	0
Cumulative	1	0	0	0	0	0	0	0	0	1
2008–2009 season	3	5	5	6	2	1	4	8	30	64

*non-typeable influenza A cases presented for 2009-2010 season only

Table 2: Influenza case demographics, surveillance weeks 29 & 30 and cumulative, Nova Scotia, 2009–2010

		n	Rate (CI)*	% Male	Mean age	Median age	Age range
Week 29 & 30							
2009 pH1N1							
Cases		0	–	–	–	–	–
Total hospitalizations		0	–	–	–	–	–
	Non-ICU	0	–	–	–	–	–
	ICU	0	–	–	–	–	–
Deaths**		0	–	–	–	–	–
Influenza A (seasonal)							
Cases		0	–	–	–	–	–
Total hospitalizations		0	–	–	–	–	–
	Non-ICU	0	–	–	–	–	–
	ICU	0	–	–	–	–	–
Deaths		0	–	–	–	–	–
Influenza A (non-typeable)							
Cases		0	–	–	–	–	–
Total hospitalizations		0	–	–	–	–	–
	Non-ICU	0	–	–	–	–	–
	ICU	0	–	–	–	–	–
Deaths		0	–	–	–	–	–
Influenza B							
Cases		0	–	–	–	–	–
Total hospitalizations		0					
	Non-ICU	0	–	–	–	–	–
	ICU	0	–	–	–	–	–
Deaths		0	–	–	–	–	–
Cumulative 2009–2010 season							
2009 pH1N1							
Cases		752	80.6 (74.8–86.4)	48.9	24.3	16.5	2 wks–91 yrs
Total hospitalizations		277	29.7 (26.2–33.2)	50.2	29.3	24.0	2 wks–91 yrs
	Non-ICU	235	25.2 (22.0–28.4)	51.5	26.9	18.0	2 wks–91 yrs
	ICU	42	4.5 (3.1–5.9)	42.9	42.8	47.5	7–67 yrs
Deaths**		6	0.6 (0.1–1.1)	33.3	50.5	44.5	40+
Influenza A (seasonal)							
Cases		0	–	–	–	–	–
Total hospitalizations		0	–	–	–	–	–
	Non-ICU	0	–	–	–	–	–
	ICU	0	–	–	–	–	–
Deaths		0	–	–	–	–	–
Influenza A (non-typeable)							
Cases		14	1.5 (0.7-2.3)	42.9	37.7	29.5	5-74 yrs
Total hospitalizations		5	0.5 (0.1-1.0)	40.0	62.4	65.0	40-74 yrs
	Non-ICU	4	0.4 (0-0.8)	50.0	59.5	64.0	40-70 yrs
	ICU	1	0.1 (0–0.3)	–	–	–	40+
Deaths		0	–	–	–	–	–
Influenza B							
Cases		1	0.1 (0–0.3)	–	–	–	40+
Total hospitalizations		1	0.1 (0–0.3)	–	–	–	40+
	Non-ICU	1	0.1 (0–0.3)	–	–	–	40+
	ICU	0	–	–	–	–	–
Deaths**		1	0.1 (0–0.3)	–	–	–	40+

*Rate per 100,000 population; CI=confidence interval for rate. Dashes used for small numbers.

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

Table 3: Surveillance weeks 29 & 30 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	0.7	3 of 3	–	0 of 1
DHA 2	0.0	3 of 3	0.0	1 of 4
DHA 3	0.1	5 of 5	–	0 of 2
DHA 4	–	0 of 2	–	–
DHA 5	0.0	5 of 5	0.0	1 of 1
DHA 6	0.0	1 of 1	0.0	1 of 2
DHA 7	–	0 of 6	0.0	1 of 4
DHA 8	–	0 of 8	0.0	1 of 5
DHA 9	0.1	4 of 7	0.0	1 of 7
Nova Scotia (excl. IWK)†	**0.2**	**21 of 40 (53%)**	**0.0**	**6 of 26 (23%)**
Nova Scotia (incl. IWK)	**0.6**	**22 of 41 (53%)**		
IWK	3.6	1 of 1		

* Includes Nova Scotia Sentinel Network and Fluwatch sentinels

†Excludes the children's ER from IWK

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

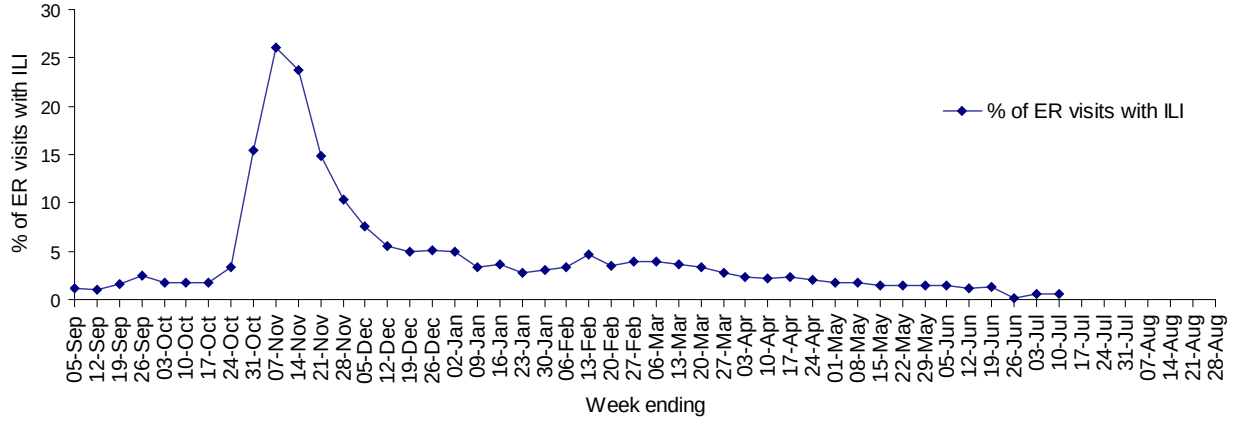
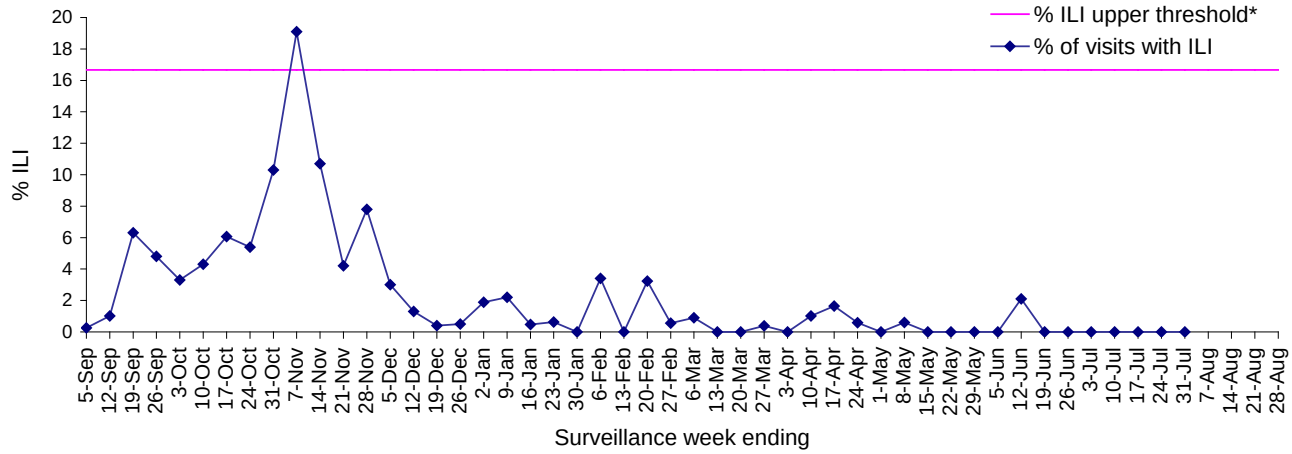
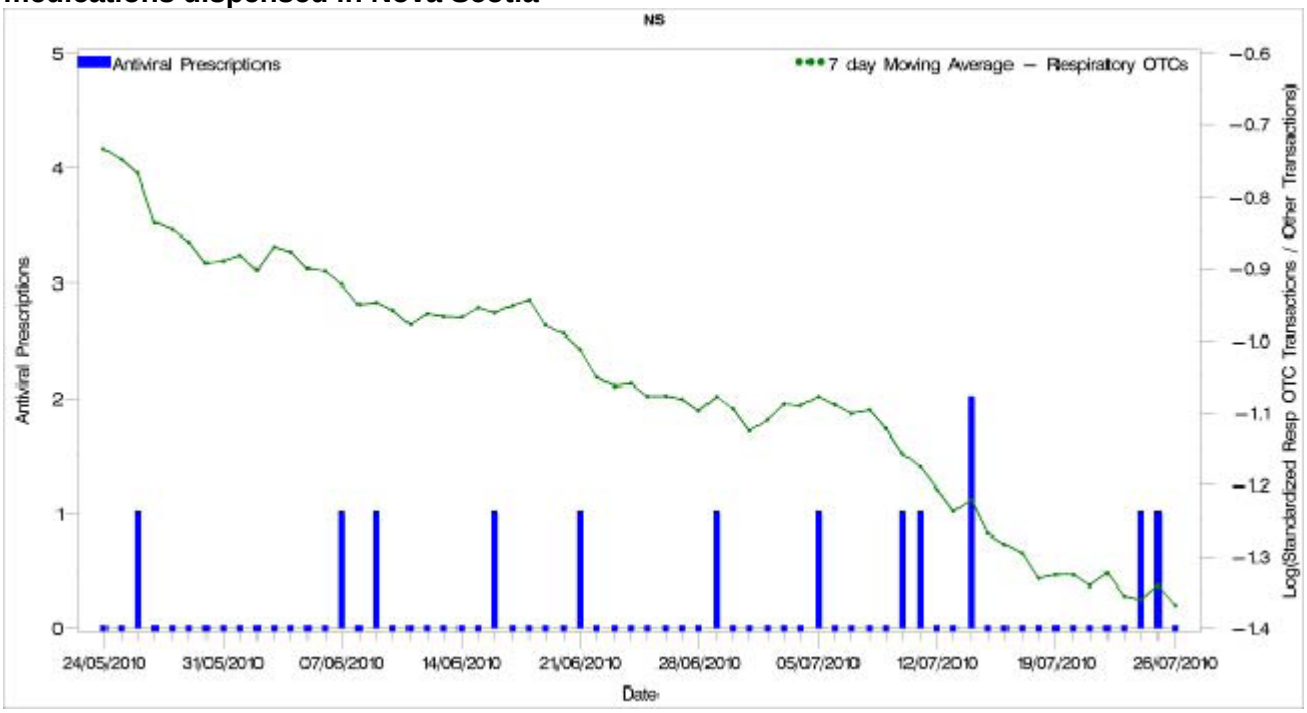


Figure 9: Percent of patient visits to FluWatch and provincial sentinel physicians with ILI, Nova Scotia, 2009–2010



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



Reference: H1N1 Antiviral and OTC Surveillance Weekly Report. 2010. Rx Canada.

RESPIRATORY SYNCYTIAL VIRUS (RSV)*

Figure 11: Number of positive RSV specimens by report week, Nova Scotia, 2009–2010 (n=272)

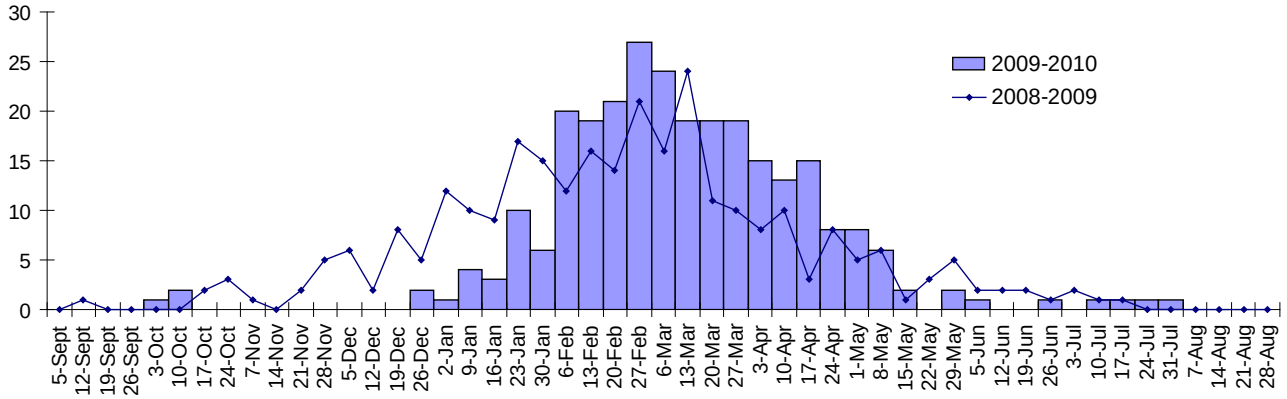
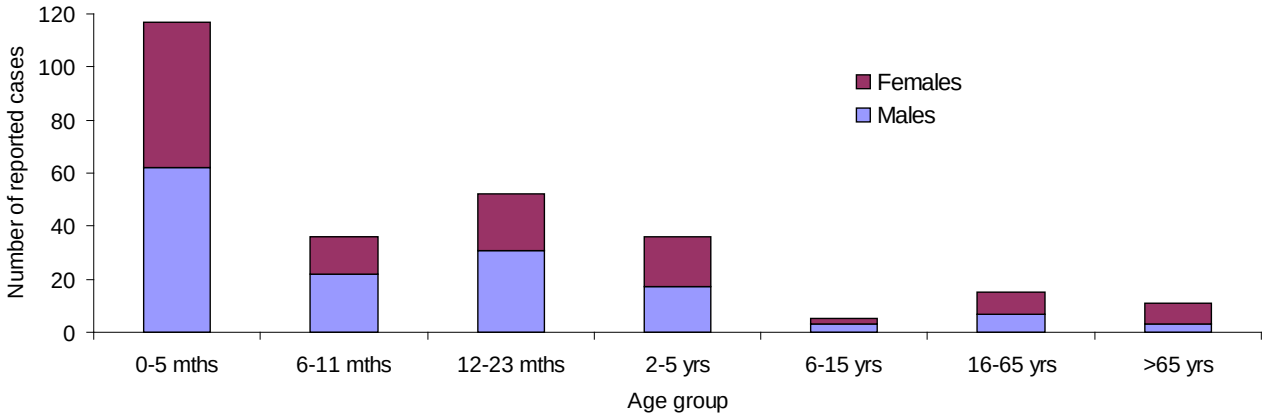


Figure 12: Cumulative number of positive RSV specimens by age group and sex, Nova Scotia, 2009–2010 (n=272)



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 Weeks 29 & 30 July 18–July 31, 2010		Cumulative Season-to-Date Totals	
Number of specimens tested:	28		503	
Number and percent positive for:	n positive	% positive	n positive	% positive
Parainfluenza virus 1	0	0.0	7	1.5
Parainfluenza virus 2	0	0.0	1	0.2
Parainfluenza virus 3	1	3.6	5	1.0
Parainfluenza virus 4	0	0.0	0	0.0
Total parainfluenza virus	1	3.6	13	2.6
Adenovirus	0	0.0	2	0.4

APPENDIX: 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:

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

* 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:

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