

Week 4 (January 19 to January 25, 2014)

Summary of Nova Scotia surveillance findings, for the period ending January 25, 2014:

- Influenza activity continues to increase. Fifteen positive results were received this week. There have been 67 lab confirmed* cases of influenza this season (41 pH1N1, 4 influenza A non pH1N1, and 22 influenza A not subtyped).
- Positive results were received for bocavirus, coronavirus, metapneumovirus, mycoplasma pneumonia, rhinovirus and RSV.
- There have been 15 ICU admissions of laboratory confirmed influenza for the 2013-2014 influenza season (13 pH1N1 and 2 Influenza A not subtyped). Age range 6 – 76 years of age, median age 54 years. 10 males and 5 females.
- There have been 2 influenza deaths** for the 2013-2014 influenza season.
- The ILI rate for Nova Scotia for this reporting period was 1.8% (1.3% in week 3).
- **Ninety-percent** of emergency departments reported ILI rates for this reporting week. This is the highest reporting rate since the beginning of this surveillance program in 2009. Special thanks to our Emergency Rooms and Infection Control Practitioners for making this program such a success.

*Lab confirmed cases of influenza are only the 'tip of the iceberg', representing a fraction of individuals infected. Laboratory testing is reserved for patients admitted to hospital with respiratory infection. Because we do not routinely test community specimens, the number of laboratory confirmed cases is an underestimation of the true number of infections.

**Deaths include individuals with a positive influenza test result. For some individuals with pre-existing conditions, influenza may not have been the major contributing cause of death or hospitalization.

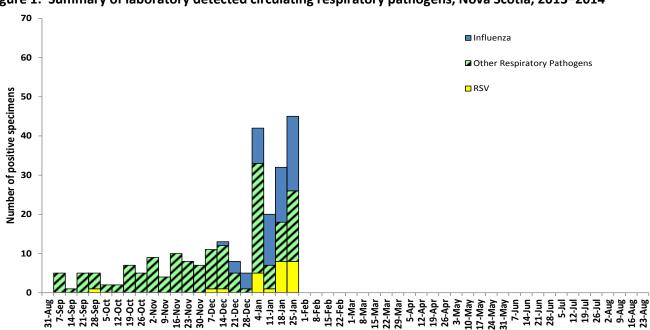
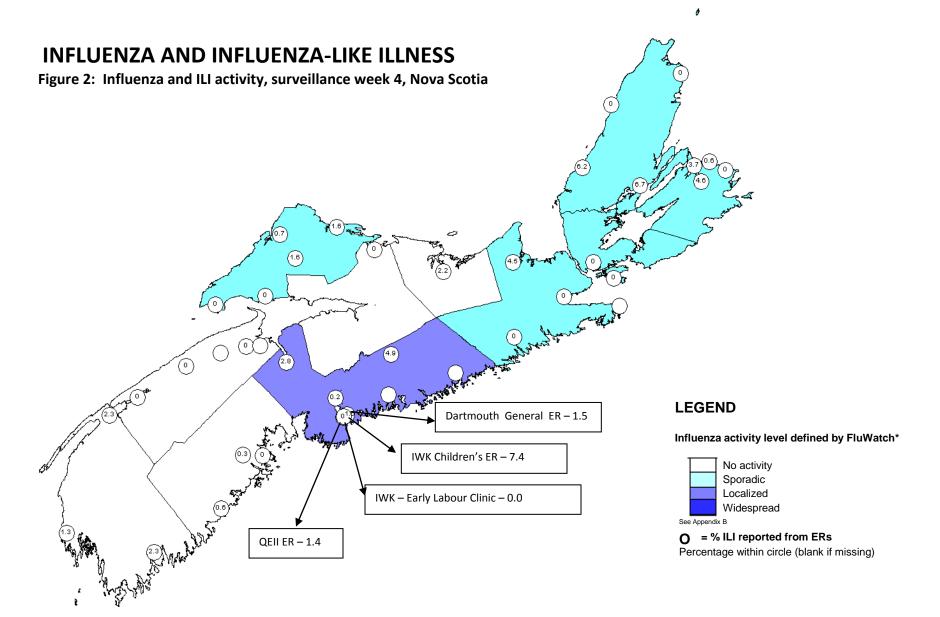


Figure 1: Summary of laboratory detected circulating respiratory pathogens, Nova Scotia, 2013–2014

Surveillance week ending



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Figure 3: Number of reported lab-confirmed influenza cases by type and report week, Nova Scotia, 2013–2014

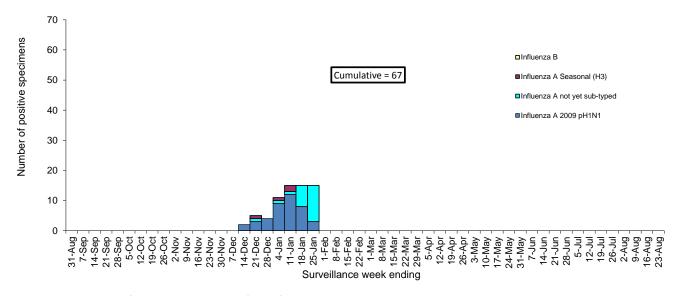
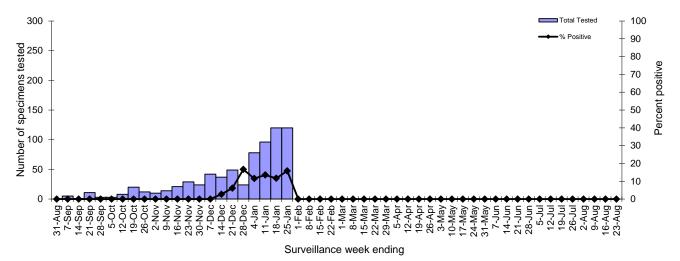


Figure 4: Number of specimens tested for influenza and percent positive, Nova Scotia Provincial Public Health Laboratory Network, 2013–2014*



^{*}Data presented in this figure refers to week specimen was tested.

Table 1: Influenza case counts by DHA, current surveillance week and cumulative, Nova Scotia, 2013–2014

	,	•								
	DHA 1	DHA 2	DHA 3	DHA 4	DHA 5	DHA 6	DHA 7	DHA 8	DHA 9	Nova Scotia
Influenza A 2009 pH1N1										
Current Week	0	0	0	0	0	0	0	1	2	3
Cumulative 2013 - 2014	2	1	1	2	2	2	5	5	21	41
Influenza A (not yet sub-typed)										
Current Week	0	0	0	0	1	0	2	2	7	12
Cumulative 2013 - 2014	0	0	0	1	1	1	3	5	11	22
Influenza A Seasonal (H3)										
Current Week	0	0	0	0	0	0	0	0	0	0
Cumulative 2013 - 2014	0	3	1	0	0	0	0	0	0	4
Influenza B										
Current Week	0	0	0	0	0	0	0	0	0	0
Cumulative 2013 - 2014	0	0	0	0	0	0	0	0	0	0

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Figure 5: Influenza rate per 100,000 population by type and age group, cumulative, Nova Scotia, 2013–2014

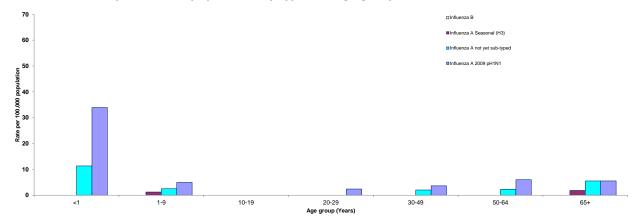


Figure 6: Influenza rate per 100,000 population by type and DHA, cumulative, Nova Scotia, 2013–2014

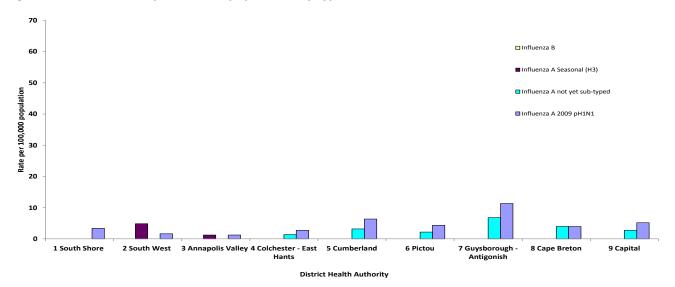


Table 2: ILI reporting from emergency departments and FluWatch sentinel physicians, Nova Scotia, 2013-2014

	ER SURVEILLANCE			SENTINEL SURVEILLANCE*			
	%ILI	Reporting ERs			%ILI	Reporting Sentinels	
DHA 1	0.3	3	of 3		0.00	2 of 6	
DHA 2	1.6	3	of 3		-	0 of 0	
DHA 3	0.0	3	of 5		0.0	1 of 1	
DHA 4	2.2	2	of 2		-	0 of 0	
DHA 5	1.0	5	of 5		0.0	2 of 2	
DHA 6	2.2	1	of 1		-	0 of 2	
DHA 7	1.9	6	of 6		0.0	1 of 1	
DHA 8	3.1	8	of 8		2.8	1 of 4	
DHA 9	1.3	5	of 7		0.0	2 of 14	
_ IWK	5.6	1	of 1				
Nova Scotia (excl. IWK)	1.6	36	of 40	90.0%			
Nova Scotia (incl. IWK)	1.8	37	7 of 41	90.2%	•	9 of 30 30.0%	

^{*}Fluw atch sentinels

†Excludes the children's ER from IWK

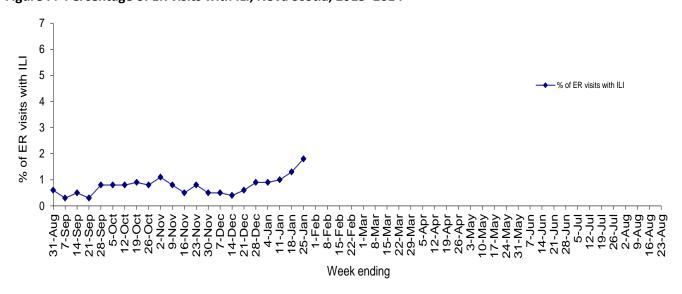
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Table 3: Hospitalizations, ICU Admissions and Deaths for influenza positive patients, Nova Scotia, 2013-2014

	Hospitalized*	ICU	Death
Influenza A 2009 pH1N1			
Current Week	1	1	0
Cumulative 2013 - 2014	20	13	2
Influenza A (not yet sub-typed)			
Current Week	6	1	0
Cumulative 2013 - 2014	14	2	0
Influenza A Seasonal (H3)			
Current Week	0	0	0
Cumulative 2013 - 2014	2	0	0
Influenza B			
Current Week	0	0	0
Cumulative 2013 - 2014	0	0	0
Current Week Total Season Total	7 36	2 15	0 2

^{*} Note: Hospitalized cases exclude ICU admissions

Figure 7: Percentage of ER visits with ILI, Nova Scotia, 2013–2014



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RESPIRATORY SYNCYTIAL VIRUS (RSV)

Figure 8: Number of positive RSV specimens by report week, Nova Scotia, 2013-2014

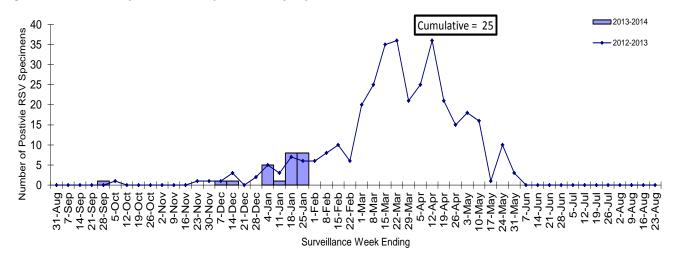
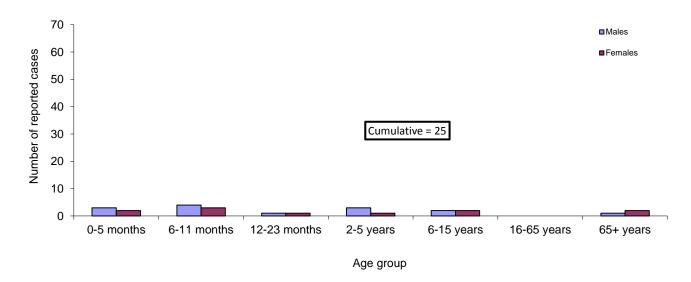


Figure 9: Cumulative number of positive RSV specimens by age group and sex, Nova Scotia, 2013-2014



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OTHER RESPIRATORY PATHOGENS

Table 4: Total number of specimens tested and number (%) positive for other respiratory pathogens, by report week and cumulative season, Nova Scotia, 2013–2014

	Surveillance Week				Cumulative Season-to-Date Totals		
Number and percent positive for:	n tested	n positive	% positive	n tested	n positive	% positive	
Adenovirus	25	0	0.0	466	1	0.2	
Bocavirus	25	1	4.0	466	1	0.2	
Chlamydophila pneumoniae	13	0	0.0	236	2	8.0	
Coronavirus	25	2	8.0	466	5	1.1	
Enterovirus	25	0	0.0	466	0	0.0	
Metapneumovirus	25	3	12.0	466	9	1.9	
Mycoplasma pneumoniae	13	3	23.1	236	44	18.6	
Parainfluenza	25	0	0.0	466	35	7.5	
Pertussis	8	0	0.0	68	2	2.9	
Respiratory syncytial virus A	25	0	0.0	466	0	0.0	
Respiratory syncytial virus B	25	0	0.0	466	2	0.4	
Respiratory syncytial virus not typed	81	8	9.9	280	23	8.2	
Rhinovirus	25	9	36.0	466	59	12.7	

This week's laboratory reporting does not include data from IWK

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APPENDIX: Definitions used in Influenza Surveillance, 2013-2014

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 is likely due to influenza. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.

2) Outbreaks of influenza / ILI by setting:

Schools and Daycares:

Greater than 10% absenteeism (or absenteeism that is higher (e.g. >5-10%) than expected level as determined by school or public health authority) which is likely due to ILI.

Hospitals and 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. Residential institutions include but not limited to long-term care facilities (LTCF) and prisons.

Other Settings:

Two or more cases of ILI within a seven-day period, including at least one laboratory confirmed case; i.e. closed communities.

3) National FluWatch Definitions for Influenza Activity Levels:

Influenza activity levels are defined as:

1 = No activity: i.e. no laboratory-confirmed influenza detections in the reporting week, however,

sporadically occurring ILI* may be reported

2 = Sporadic: sporadically occurring ILI* and lab confirmed influenza detection(s) with no outbreaks

detected within the influenza surveillance region†

3 = Localized: (1) evidence of increased ILI* and

(2) lab confirmed influenza detection(s) together with

(3) outbreaks in schools, hospitals, residential institutions and/or other types of facilities

occurring in less than 50% of the influenza surveillance region †

4 = Widespread: (1) evidence of increased ILI* and

(2) lab confirmed influenza detection(s) together with

(3) outbreaks in schools, hospitals, residential institutions and/or other types of facilities

occurring in greater than or equal to 50% of the influenza surveillance region†

^{*} ILI data may be reported through sentinel physicians, emergency room visits or health line telephone calls.

[†] Sub-regions within the province or territory as defined by the provincial/territorial epidemiologist.

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- 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