

# 2014/2015 INFLUENZA REPORT

## Overview

- ⇒ There were 695 laboratory-confirmed cases during the 2014/15 season. Of these cases, there were 334 hospitalizations, 54 ICU admissions and 24 influenza-related deaths (Figure 1). The season peaked in late-December to early-January and ended in late-June.
- ⇒ Nearly half of the cases were in Eastern Health (49.6%), followed by Western Health (23.0%), Central Health (22.0%), and Labrador-Grenfell Health (5.3%) (Figure 2).

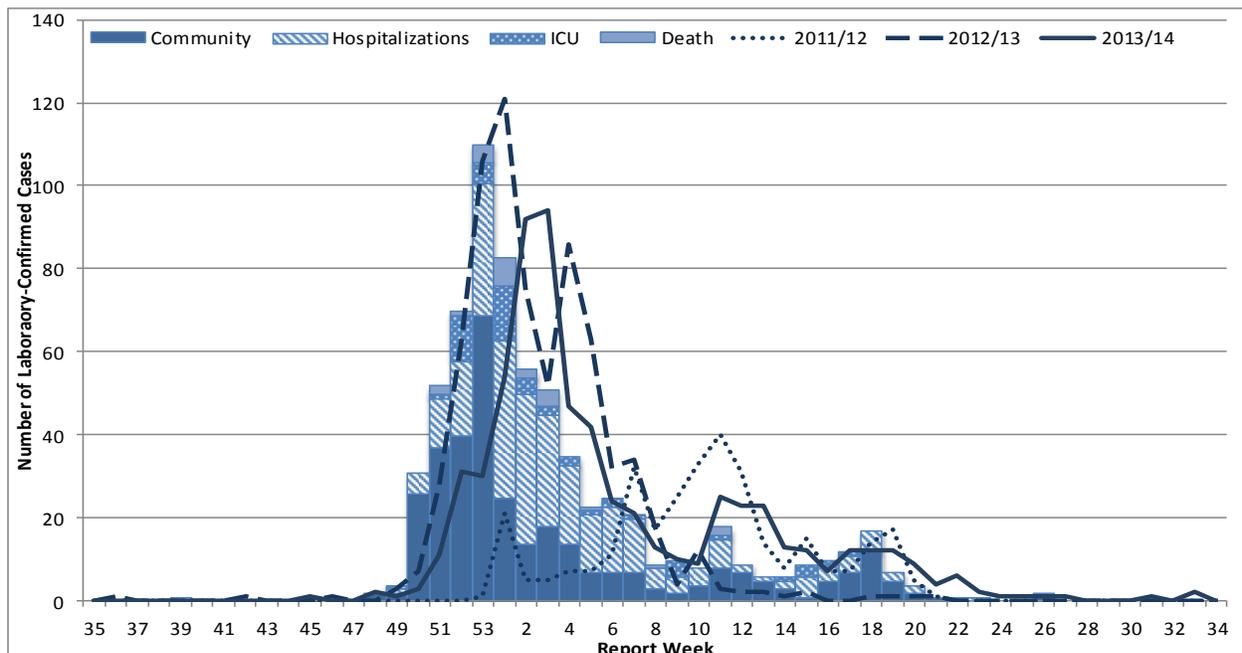


Figure 1: Number of cases, hospitalizations, ICU admissions and deaths, by week virus identified, 2014/2015 season

- ⇒ The average age of laboratory-confirmed cases was highest for those hospitalized (Figure 3):
  - ⇒ Cases, mean: 64.4 years
  - ⇒ Hospitalizations, mean: 69.2 years
  - ⇒ ICU admissions, mean: 61.2 years
- ⇒ Over half (58.0%) of laboratory-confirmed cases were female, and they accounted for 54.8% of hospitalizations, 50.0% of ICU admissions and 75% of deaths. (Table 1).
- ⇒ Twenty-four influenza-related deaths were reported during this influenza season (Table 1).
- ⇒ Compared to the national data, NL reported similar proportions of hospitalizations attributed to those aged 65 and older (~70%). Additionally, the majority of influenza-related deaths across the country were 65 years of age or older (91%).

Source: National data is from the FluWatch Report, weeks 27/28 (2014/15). Note: Influenza-associated hospitalizations are not reported to PHAC by the following Provinces and Territory: BC, NU, and QC. Only hospitalizations that require intensive medical care are reported by Saskatchewan. ICU admissions are not distinguished among hospital admissions reported from Ontario.

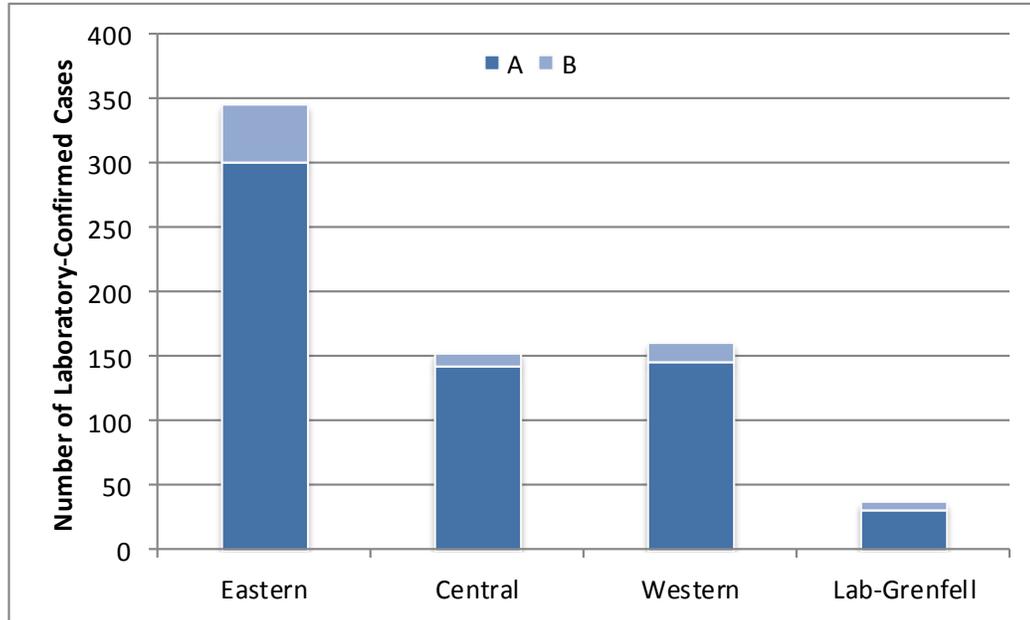


Figure 2: Number of laboratory-confirmed influenza A and B cases in NL, by Regional Health Authority, 2014/2015 season

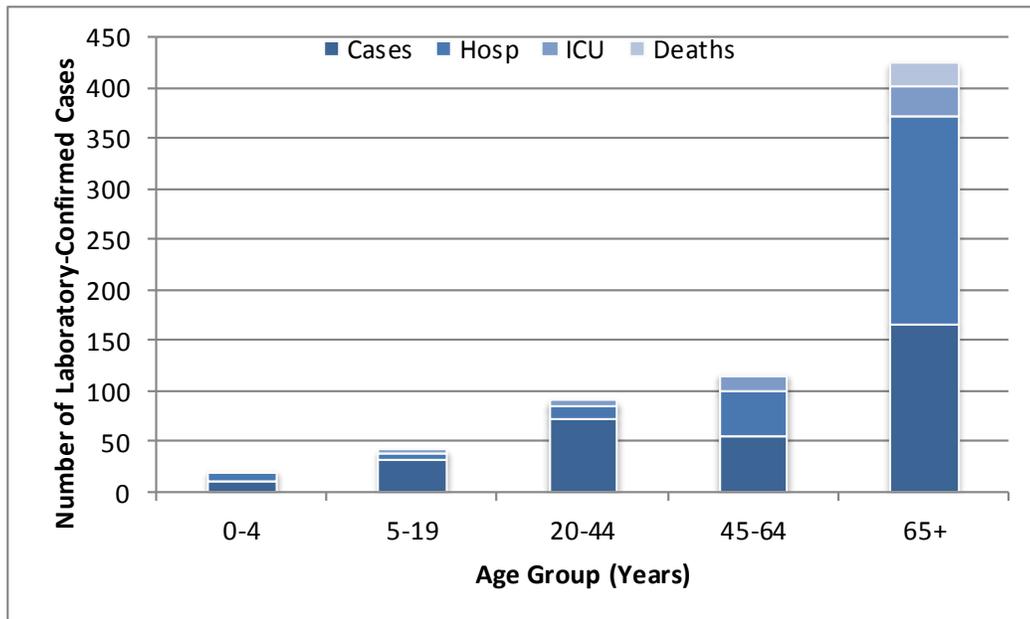


Figure 3: Number of laboratory-confirmed influenza cases in NL, by age group, 2014/2015 season

Table 1: Number and percent of influenza cases, hospitalizations, ICU admissions and deaths, by sex, 2014/2015 season

Sex	Cases		Hosp.		ICU		Deaths	
	N	%	N	%	N	%	N	%
Male	292	42.0	151	45.2	27	50.0	6	25
Female	403	58.0	183	54.8	27	50.0	18	75
<b>Total</b>	<b>695</b>	<b>100</b>	<b>334</b>	<b>100</b>	<b>54</b>	<b>100</b>	<b>24</b>	<b>100</b>

## Influenza Strain

- ⇒ Influenza A was the predominant strain during the 2014/2015 season in NL and accounted for 89.1% of cases (Table 2). Influenza B (10.9% of cases) appeared later in the season.
- ⇒ The proportion of hospitalizations for influenza A (49.1%) was higher than that of influenza B (39.5%) (Table 2).
- ⇒ Across Canada, approximately 80% of laboratory-confirmed influenza was influenza A.
- ⇒ Over the 2014/2015 season, the National Microbiology Laboratory tested influenza A and B isolates for antiviral resistance. All viruses were sensitive to zanamivir; two influenza viruses were resistant to oseltamivir. All but one A isolate was resistant to amantadine.

Table 2: Number and percent of influenza cases, hospitalizations, ICU admissions and deaths, by type, 2014/2015 season

Flu Type	Cases		Hosp.		ICU		Deaths	
	N	%	N	%	N	%	N	%
A	619	89.1	304	49.1	47	7.6	24	100
B	76	10.9	30	39.5	7	9.7	0	0

## Immunization Status

- ⇒ Since the 2009/2010 influenza season, influenza immunization history is collected (when available) for laboratory-confirmed cases, hospitalizations, and deaths.
- ⇒ Of the laboratory-confirmed influenza cases in NL, 23.2% reported receiving the 2014/2015 influenza seasonal vaccine, 20.4% reported no immunization, and 56.4% had unknown immunization status (Table 3).
- ⇒ In NL, influenza vaccine is offered to all individuals six months of age and older. The flu vaccine is especially important for those who are at high risk of complications from the flu such as individuals with underlying health conditions. For more information visit [http://www.health.gov.nl.ca/health/publichealth/cdc/infoforpros\\_edu.html](http://www.health.gov.nl.ca/health/publichealth/cdc/infoforpros_edu.html)
- ⇒ The National Microbiology Laboratory (NML) antigenically characterized 1,127 influenza viruses that were received from Canadian laboratories during the 2014/2015 influenza season. Analysis completed by the NML indicates the majority of A (H3N2) were not optimally matched to the vaccine strain.

Table 3: Number and percent of immunization status of influenza cases, hospitalizations, ICU admissions and deaths, 2014/2015 season

Immunization Status	Cases		Hosp.		ICU		Deaths	
	N	%	N	%	N	%	N	%
Yes	161	23.2	75	22.5	11	20.4	10	38.5
No	142	20.4	66	19.8	17	31.5	7	26.9
Unk/Not Asked	392	56.4	193	57.8	26	48.1	7	26.9
<b>Total</b>	<b>695</b>	<b>100</b>	<b>334</b>	<b>100</b>	<b>54</b>	<b>100</b>	<b>24</b>	<b>100</b>

**Outbreak Reports (CNPHI: Outbreak Summaries)**

- ⇒ There were 58 confirmed influenza outbreaks reported during the 2014/2015 influenza season. The majority occurred in December and January (Figure 4).
- ⇒ During the 2014/2015 influenza season, there were eight reported outbreaks of respiratory syncytial virus (RSV) and three outbreaks of enterovirus.
- ⇒ Other respiratory outbreaks include parainfluenza (8), Human metapneumovirus (2), rhinovirus (1) and parvovirus (1).
- ⇒ Outbreaks occurred in all regions; the majority of which were during the winter (Figure 5).

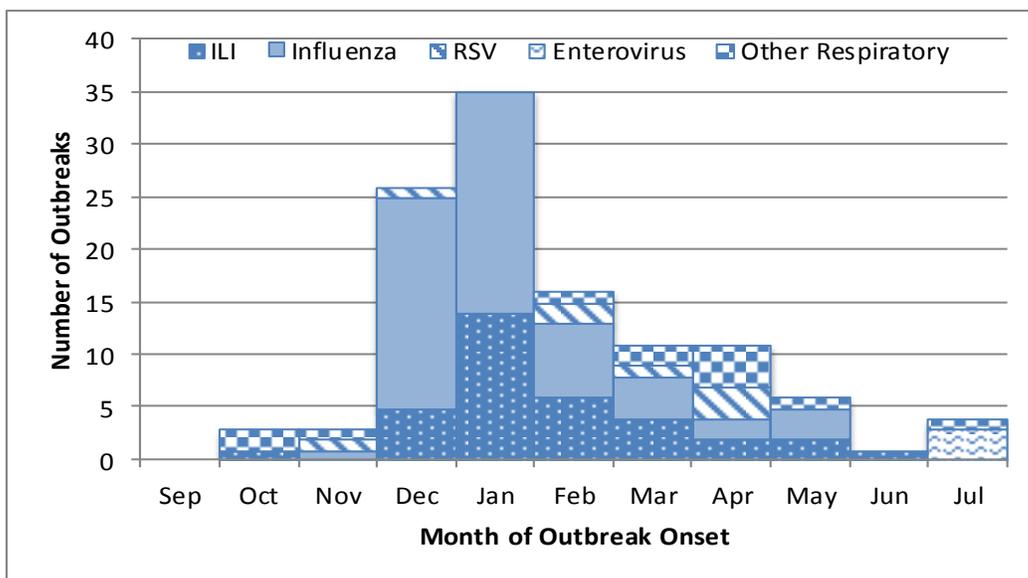


Figure 4: Number of respiratory outbreaks reported in Canadian Network for Public Health Intelligence (CNPHI) Outbreak Summaries by month of onset of outbreak, by virus type, 2014/2015 season

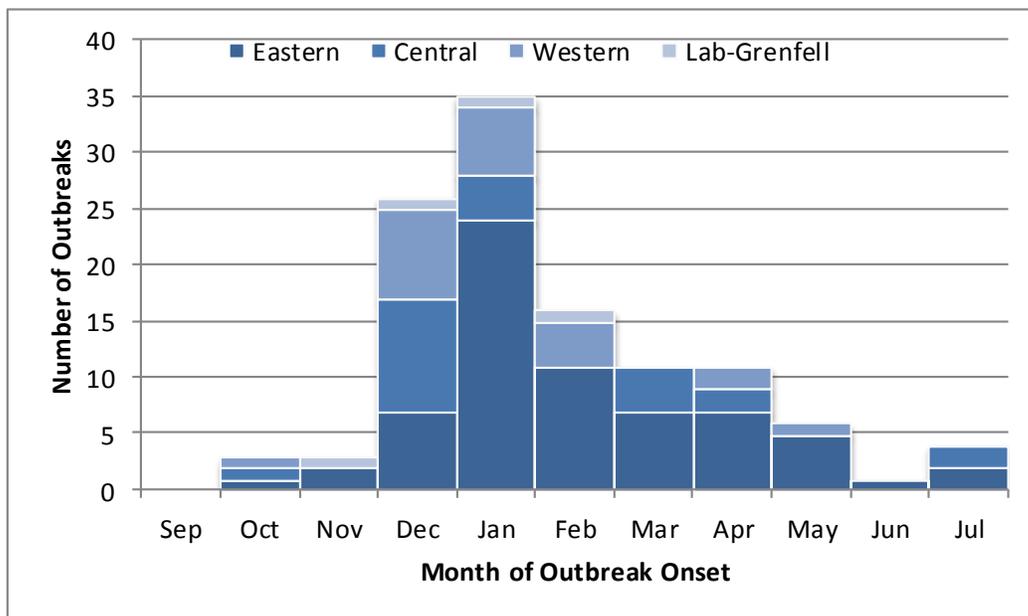


Figure 5: Number of respiratory outbreaks reported in Canadian Network for Public Health Intelligence (CNPHI) Outbreak Summaries by month of onset of outbreak, by Regional Health Authority, 2014/2015 season

### Syndromic Surveillance (HealthLine, GoogleFlu)

- ⇒ Influenza-related HealthLine calls are consistent with the peak of the 2014/2015 influenza season (Figure 6).
- ⇒ Most callers to HealthLine were advised to see their family physician or to care for themselves at home.
- ⇒ There were more influenza-related HealthLine calls this season during December to February than the average of the previous four influenza seasons.
- ⇒ Influenza-related Google Searches increased in the late fall and peaked during the 2014/2015 influenza season in January (Figure 7).

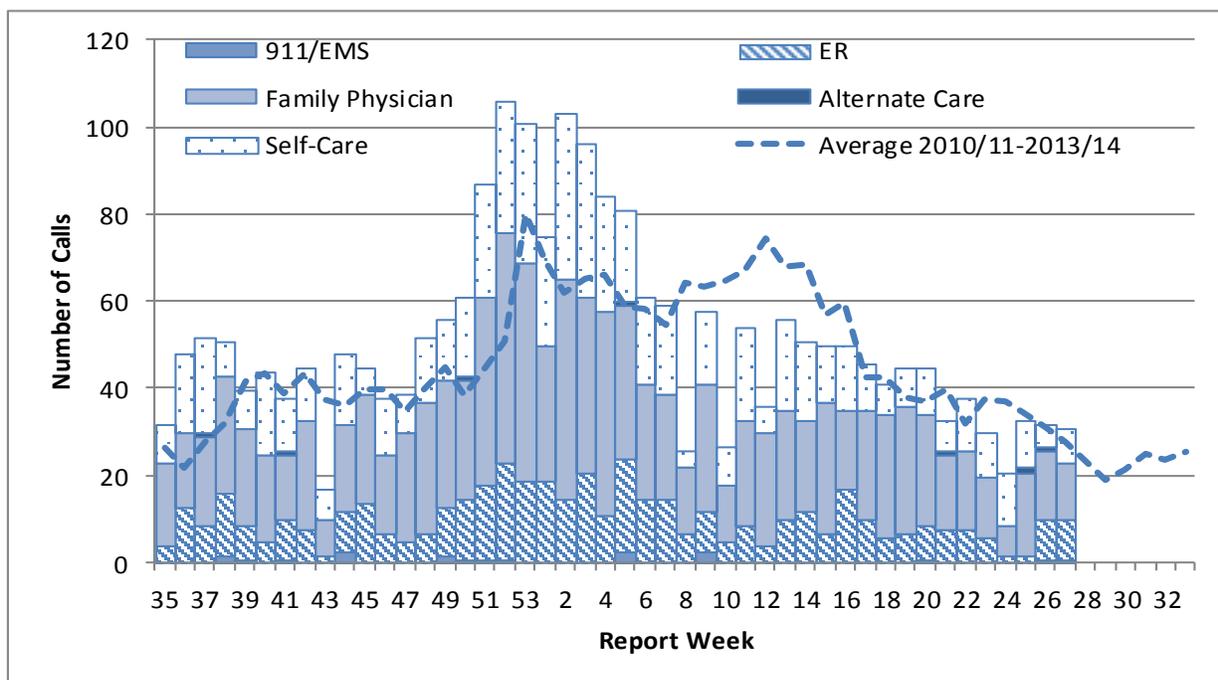


Figure 6: Number of influenza-related HealthLine calls by report week and disposition 2014/2015 season



Figure 7: Number of influenza-related online Google searches by report week, 2014/2015 season, NL

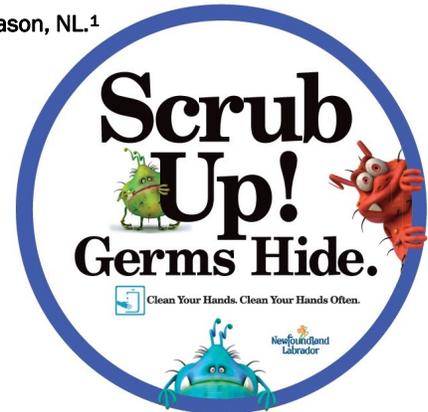
## Other Respiratory Viruses

⇒ In addition to influenza, there were a number of other respiratory viruses circulating during the 2014/2015 season (Table 4). The most predominant virus other than influenza was respiratory syncytial virus (RSV). Laboratory detections of RSV in NL were higher than in previous seasons.

Table 4: Number of positive respiratory virus specimens, by type, 2014/2015 season, NL.<sup>1</sup>

	Total
R.S.V.	287
Parainfluenza virus 1	0
Parainfluenza virus 2	22
Parainfluenza virus 3	84
Adenovirus	18
hMPV	60

<sup>1</sup>Source: Respiratory Virus Detections/Isolations for the period August 24, 2014 - July 25, 2015, PHAC



## Data Sources and Disclaimer

Influenza case data is from the Communicable Disease Control influenza reporting tool: case counts are available from Influenza Weekly Reports, located: <http://www.health.gov.nl.ca/health/publichealth/cdc/informationandsurveillance.html#influenza>.

FluWatch and influenza outbreak data are from the Canadian Network for Public Health Intelligence (CNPHI);

GoogleFlu data are available: <http://www.google.org/flutrends/ca/#CA>;

HealthLine data are from the NL HealthLine: <http://yourhealthline.ca>.

Note: The data presented here are from September 2014 to August 2015 (as of August 6, 2015); report weeks from various sources may not align exactly. Fluctuations in data occur with each report and can be attributed to continuous updating. Death surveillance is passive and may underestimate the true number of influenza-related deaths in NL.

All laboratory-confirmed influenza and severe respiratory illness (SRI) are reported to the Regional Medical Officer of Health (RMOH) or designate responsible for appropriate investigation, treatment, case follow up and provincial reporting.

For more information on influenza in Canada see the Public Health Agency of Canada website: <http://www.phac-aspc.gc.ca/fluwatch/>