

WEEKLY NEW BRUNSWICK INFLUENZA REPORT

Reporting period: May 21 to June 17, 2023 (week 21-24)

Summary In New Brunswick, influenza activity is low

New Brunswick:

- There have been 5 positive influenza cases in weeks 21 to 24. Since the beginning of the season, 4379 cases have been reported, 139 influenza A(H3) viruses, 15 influenza A(H1N1) pdm09, 4200 influenza A (unsubtyped) and 25 influenza B.
- There has been 1 new influenza associated hospitalization during weeks 21 to 24. Since the beginning of the season, 882 hospitalizations have been reported and 67 deaths.
- The ILI consultation rate was 0.0 and 20.8 per 1,000 patients visits for week 21 and 22 respectively and 0.0 and 33.3 per 1,000 patients visits for weeks 23 and 24. The ILI rate was below the expected levels for this time of the year for weeks 21 and 23, and above the expected levels for this time of the year for weeks 22 and 24.
- No new influenza outbreaks and one new ILI school outbreaks were reported in weeks 21 to 24. So far this season, 36 influenza outbreaks were reported, and 250 ILI school outbreaks were reported.

Canada:

- At the national level, influenza activity has been stable and remains at interseasonal levels. Sporadic influenza activity continues to be reported in many regions across Canada.
- In week 24, a total of 135 laboratory detections (70 influenza A and 65 influenza B) were reported. Among detections for which age information was reported (97), 73 (75%) of detections were in individuals under the age of 65 years.
- The percentage of FluWatchers reporting fever and cough was 0.9 % in week 24. The percentage of FluWatchers reporting cough and fever is below seasonal levels.

International:

Seasonal influenza:

Globally, influenza detections remained low, but in the southern hemisphere, some countries reported variable changes in influenza detections in recent weeks while detections in other countries seemed to have peaked. In Oceania, influenza activity continued to increase with influenza A viruses predominant. In South Africa, influenza activity decreased but remained at a moderate level in pneumonia and decreased to a low level in influenza-like illness (ILI) surveillance with influenza A viruses predominately detected. In temperate South America, influenza activity appeared to decrease with A(H1N1)pdm09 viruses most frequently detected followed by B viruses, mainly reflecting an apparent decrease in Chile. Variable activity was reported in other countries. In the Caribbean countries, influenza activity remained low overall. In the Central American countries, increased influenza activity was reported in a few countries with A(H1N1)pdm09 most frequently detected followed by B/Victoria lineage viruses. In tropical countries of South America, overall influenza activity decreased with detections of predominantly A(H1N1)pdm09 and B viruses. In tropical Africa, influenza detections were low in reporting countries. Influenza A(H1N1)pdm09 viruses predominated among reported detections. In Southern Asia, influenza activity remained low with all seasonal subtypes detected. In South-East Asia, influenza activity remained stable in most reporting countries, with continued reporting of predominantly A(H1N1)pdm09 and A(H3N2) virus detections. In the temperate zones of the northern hemisphere, influenza activity was reported at low levels or below seasonal threshold in most reporting countries. All seasonal influenza subtypes were detected in similar proportions overall.

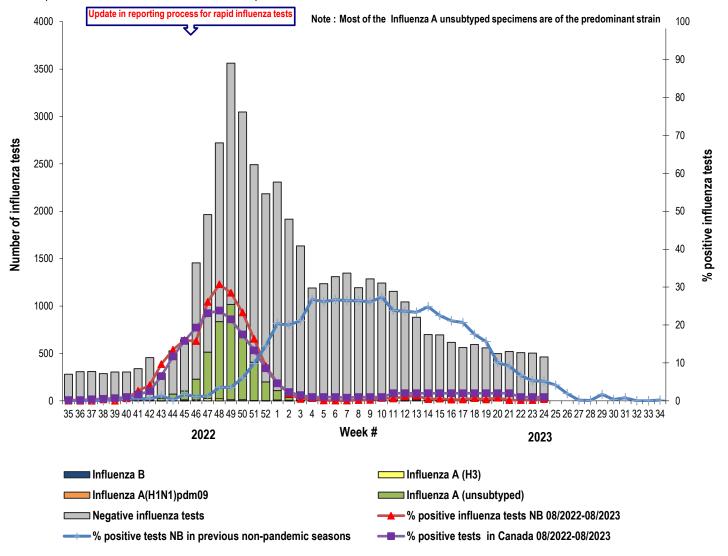
Emerging Respiratory Viruses:

- <u>COVID-19</u>: On December 31, 2019, a cluster of cases of pneumonia was reported in Wuhan, China, and the cause was confirmed as a new coronavirus that had not previously been identified in humans (COVID-19). As of June 27, 2023, 4,688,830 cases of COVID-19 infection in Canada have been identified with 52,860 deaths. Since August 28, 2022, sixteen thousand and five cases have been identified in New Brunswick with 255 deaths. As of June 21, the WHO reported globally 768 187 096 confirmed cases and 6 945 714 deaths.
 - For more timely updates, please visit the following websites:
 - WHO: https://www.who.int/emergencies/diseases/novel-coronavirus-2019
 - o PHAC: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html
 - NB: https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/respiratory_diseases/coronavirus.html
- MERS CoV:
 - WHO: WHO EMRO | MERS outbreaks | MERS-CoV | Health topics
 - CDC: http://www.cdc.gov/coronavirus/mers/
- Avian Influenza:
 - WHO: WHO EMRO | Avian influenza | Avian influenza | Health topics

1) Influenza Laboratory Data¹

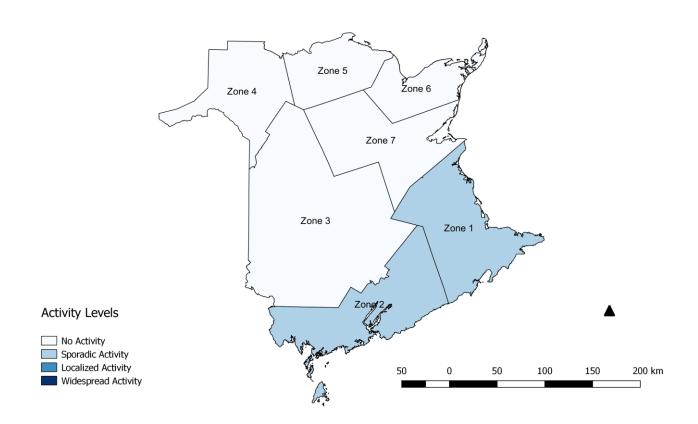
- Influenza activity is low in weeks 21-24.
- Five influenza cases were reported during weeks 21 to 24, two influenza A (unsubtyped) and three influenza B.
- Since the beginning of the season, 4379 cases have been reported, 139 influenza A(H3) viruses, 15 influenza A(H1N1) pdm09, 4200 influenza A (unsubtyped) and 25 influenza B.

<u>Graph 1</u>: Number and percent of positive influenza specimens in New Brunswick by week, up to June 17, 2023 (data source: G. Dumont Lab results)



¹ Surveillance specimens are submitted by recruited New Brunswick Sentinel Practitioner Influenza Network (NB SPIN) practitioners, which are comprised of sites in Emergency Rooms, in Family Practice, in First Nations communities, in Nursing Home, in Universities and in Community Health Centers. Diagnostic specimens are submitted by physicians in the community/hospital setting. Influenza laboratory data is comprised of results from surveillance and diagnostic specimens. All laboratory specimens are tested using a real-time PCR assay, which is a rapid detection method designed for detection of all known variants of influenza A and B. All laboratory-confirmed cases are reported for the week when laboratory confirmation was received.

Figure 2: Influenza/ILI activity levels² by Health Zones, in New Brunswick, for week 24, season 2022/2023.



² <u>No activity</u> is defined as no laboratory-confirmed influenza detections in the reporting week, however, sporadically occurring ILI may be reported. <u>Sporadic activity</u> is defined as sporadically occurring ILI and lab confirmed influenza detection(s) with no outbreaks detected within the influenza surveillance region.

Localized activity is defined as evidence of increased ILI with lab confirmed influenza detection(s) and outbreaks in schools, hospitals, residential institutions and/or other types of facilities occurring in less than 50% of the influenza surveillance region.

Widespread activity is defined as evidence of increased ILI with lab confirmed influenza detection(s) and 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.

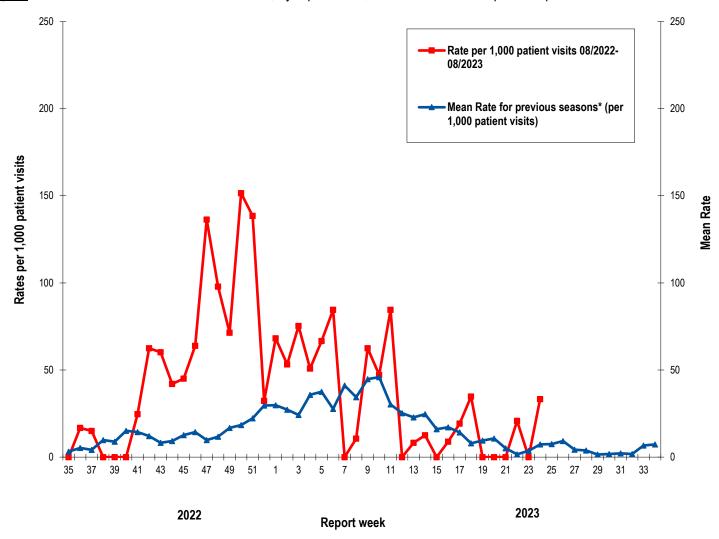
<u>Table 1</u>: Positive influenza cases by Health Region, in New Brunswick for reporting week, cumulative current and season 2019-2020. (data source: G. Dumont lab results up to June 17, 2023)

	Reporting period:						Cumulative: (2022/2023 season)					Cumulative: (2021/2022 season)						
	May/21/2023-June/17/2023						Aug./28/2022 – June/17/2023						(2021/2022 Season) Aug./29/2021 –Aug./27/2022					
Zone	А				В	A & B co- infection	А				В	A & B co- infection	А				В	A & B co- infection
	A(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total	A(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total	(H3)	(H1N1) pdm09	Unsubty ped/ Other	A Total	Total	Total
Zone 1	0	0	1	1	0	0	80	0	1162	1242	10	0	124	0	115	239	0	0
Zone 2	0	0	0	0	2	0	28	2	800	830	5	0	11	0	60	71	0	0
Zone 3	0	0	1	1	0	0	9	0	825	834	4	0	33	0	55	88	1	0
Zone 4	0	0	0	0	1	0	7	12	371	390	3	0	4	0	10	14	0	0
Zone 5	0	0	0	0	0	0	5	0	135	140	1	0	1	0	7	8	0	0
Zone 6	0	0	0	0	0	0	8	1	596	605	0	0	5	0	13	18	0	0
Zone 7	0	0	0	0	0	0	2	0	311	313	2	0	1	0	2	3	0	0
Total NB	0	0	2	2	3	0	139	15	4200	4354	25	0	179	0	262	441	1	0

ILI Consultation Rates³

- The ILI consultation rate was 0.0 and 20.8 per 1,000 patients visits for week 21 and 22 respectively and 0.0 and 33.3 per 1,000 patients visits for weeks 23 and 24. The ILI rate was below the expected levels for this time of the year for weeks 21 and 23, and above the expected levels for this time of the year for weeks 22 and 24.
- During weeks 21 to 24, the sentinel response rates varied between 8% and 17% for both the FluWatch sentinel physicians and the NB SPIN practitioners.

Graph 2: ILI Consultation Rates in New Brunswick, by report week, season 2022/23 compared to previous seasons*



^{*} The mean rate was based on data from the 1996/97 to 2021/2022 seasons and excludes the Pandemic season (2009/10, 2020/21).

³ A total of 23 practitioner sites (14 FluWatch sentinel physicians and 9 NB SPIN sites) are recruited this season to report the number of ILI patients and total patient consultations one day during a reporting week.

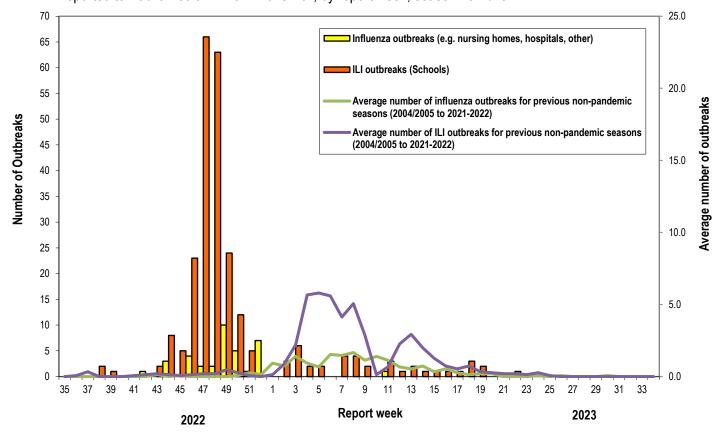
3) ILI and Laboratory-Confirmed Outbreak Data

<u>Table 2</u>: New ILI activity/outbreaks in New Brunswick nursing homes and schools* for the reporting week and current season.

	Ma	O				
	Lab-confirmed outbreaks in Nursing homes ⁴	ILI school outbreaks ⁵ *	Lab-confirmed outbreaks in Other settings ⁵	Cumulative # of outbreaks season 2022-2023*		
Zone 1	0 out of 15	0 out of 74	0	55		
Zone 2	0 out of 16	0 out of 81	0	66		
Zone 3	0 out of 16	1 out of 95	0	94		
Zone 4	0 out of 5	0 out of 22	0	20		
Zone 5	0 out of 2	0 out of 18	0	4		
Zone 6	0 out of 9	0 out of 35	0	38		
Zone 7	0 out of 5	0 out of 27	0	9		
Total NB	0 out of 68	1 out of 352	0	286*		

^{*}During this influenza season, 2022-2023, the number of ILI outbreaks in school (based on greater than 10% absenteeism in school due to ILI symptoms, which for many schools cannot be determined) might be misrepresented due to the ongoing circulation of COVID-19, since distinction between influenza-like-illness and COVID-like illness is not always evident. Therefore, the number of ILI outbreaks in schools should be interpreted with caution.

<u>Graph 3</u>: Number of Influenza Outbreaks (nursing homes, hospitals, other)⁵ and ILI Outbreaks (schools)⁶ reported to Public Health in New Brunswick, by report week, season 2022/23.



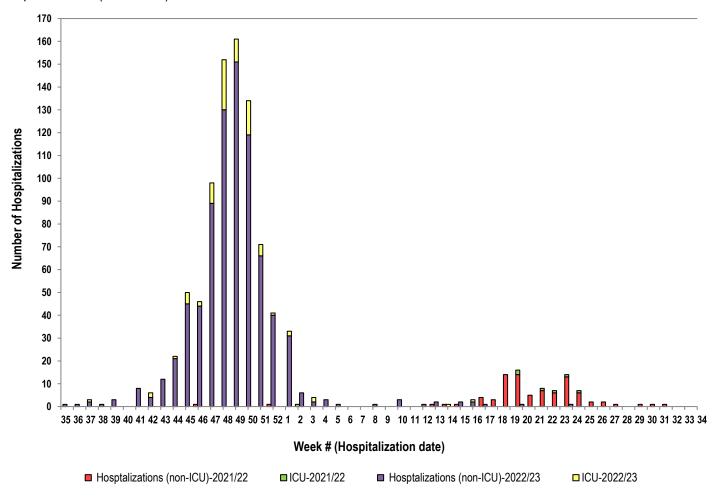
⁴ Two or more ILI cases within a seven-day period, including at least one laboratory-confirmed case of influenza. Outbreaks are reported in the week when laboratory confirmation is received.

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⁵ Schools reporting greater than 10% absenteeism which is likely due to ILI.

4) Influenza associated Hospitalization⁶ and Death⁷ Surveillance⁸

<u>Graph 4</u>: Influenza associated Hospitalizations and ICU admissions in New Brunswick, by week of hospitalization for current and past season (2022-2023).*



^{*}Sixty-seven deaths have been reported so far in season 2022-2023.

National Flu Watch Program - Additional information on influenza activity in Canada and around the world is available on the Public Health Agency of Canada's website at: http://www.phac-aspc.gc.ca/fluwatch/

Other Links:

World-https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates

Europe: http://www.ecdc.europa.eu/en/healthtopics/seasonal_influenza/epidemiological_data/Pages/Weekly_Influenza_Surveillance_Overview.aspx

PAHO:http://new.paho.org/hg/index.php?option=com_content&task=blogcategory&id=805&Itemid=569]

Australia: http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-ozflu-flucurr.htm]

New Zealand: [http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php

Argentina: http://www.msal.gov.ar/
South Africa: http://www.nicd.ac.za/
US: www.cdc.gov/flu/weekly/

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⁶ Hospitalizations (including ICU admissions) are influenza associated; they may or may not be due to influenza.

⁷ Deaths are influenza associated; influenza may not be the direct cause of death.

⁸ In early January 2014, the Office of the Chief Medical Officer of Health implemented a new provincial surveillance system in collaboration with the Regional Health Authorities to monitor influenza-associated hospitalizations, intensive care unit admissions and deaths. A standardized Enhanced Surveillance Form is used to collect data on hospitalizations.