

British Columbia (BC) Influenza Surveillance Bulletin

2021-22 Influenza Season

Week 1: January 2 to 8, 2022

Table of Contents

A. Laboratory surveillance

Laboratory findings [2](#)

B. Clinical Indicators

BC Children's Hospital Emergency Room [7](#)

Medical Service Plan [8](#)

C. Influenza outbreak reports

[9](#)

D. National

FluWatch Activity levels [10](#)

NML Strain Characterization [10](#)

NML Antiviral Resistance [10](#)

E. International

USA (CDC) [11](#)

WHO [11](#)

F. Influenza Vaccine Components (WHO Recommendations)

2019-20 Northern Hemisphere [12](#)

2021 Southern Hemisphere [12](#)

G. Additional Information

Explanatory note [13](#)

List of Acronyms [13](#)

Web Sites [13](#)

Influenza activity remains low in BC; non-influenza respiratory virus (NIRV) detections show decrease

Since our last bulletin for week 49, 77 influenza viruses were reported in BC among 48,302 specimens tested (0.2%) in weeks 50-1. In the current 2021-22 season, influenza virus testing is higher but the detection rate is far below the 5-year (pre-COVID-19 pandemic) average for weeks 50-1 (958 (35%) of 2,757 tests on average).

During weeks 50-1, most detections were non-influenza respiratory viruses (NIRVs) in children <9 years old, predominantly RSV (3,876/4,683; 83%), followed by entero-/rhinoviruses (EV/RV, 427/4,683; 9%). RSV percent positivity, which had ranged above pre-pandemic historical averages earlier in the season, has been declining since weeks 48-49 and remained within expected levels for weeks 50-1.

Visits to BC Children's Hospital Emergency Room for influenza-like illness (ILI) as a percentage of all visits, also previously exceeding 5-year historical averages, remained within expected levels in weeks 50-1.

BC Medical Service Plan (MSP) general practitioner claims for influenza illness (weekly counts) remain below the 10-year historical minimum.

Elsewhere in Canada, influenza virus detection during weeks 50-1 was also low: Nova Scotia (n=7), New Brunswick (n=4), Quebec (n=28), Ontario (n=27), Manitoba (n=13), Saskatchewan (n=6), Alberta (n=16) and Yukon (n=1). To week 52 of the current season, influenza A(H3N2) has accounted for most (>95%) of subtyped influenza A viruses (n=86) in Canada.

The influence of potential changes in healthcare seeking and other behaviours, notably during the holiday period, warrant consideration when interpreting recent data and trends.

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: January 13, 2022

A. Laboratory Surveillance

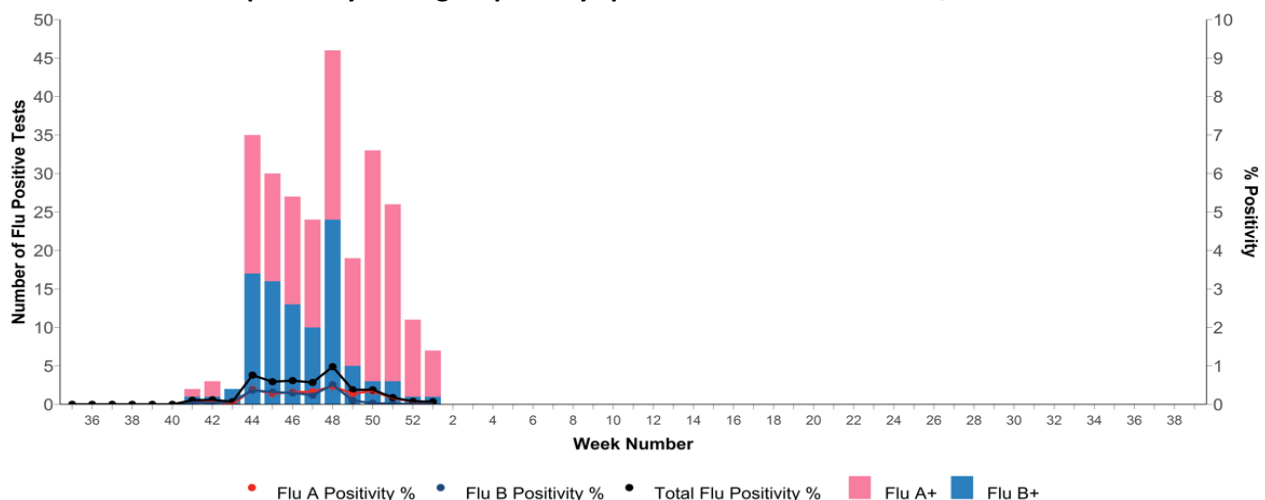
Since the beginning of the 2021-22 season, commencing October 3, 2021 (week 40), 265 (0.3%) influenza viruses have been detected among the 85,255 specimens tested in BC (Figure 1). Of these, 77 detections were reported during weeks 50 (n=33), 51 (n=26), 52 (n=11) and 1 (n=7) (spanning December 12, 2021 – January 8, 2022), representing 0.2% of the 48,302 specimens tested in weeks 50-1. These 77 detections exclude those considered by the BCCDC Public Health Laboratory (PHL) as likely to have been associated with live attenuated influenza vaccine (LAIV). Among 50 detections with known patient age information, 8 (16%) were under the age of 20 (range 3-19) and 42 (84%) were 20 years of age or older (range 20-89).

By way of comparison for the same period (weeks 50-1) in 2020-21 season, there were no influenza detections among 11,736 specimens tested, and 300 detections among 4,596 tested during the 2019-20 season (7% positivity). In the current 2021-22 season, influenza virus testing is higher but detection is far below the 5-year historical (pre-pandemic) average (Figure 2). In the historical seasons prior to the COVID-19 pandemic, an average of 2,757 influenza tests were conducted between weeks 50 to 1, with 958 (35%) influenza virus detections (range 17 to 819 detections per week) reported (source: RVDSS Report).

The BCCDC PHL and some local health authority (HA) laboratories also conduct testing for other non-influenza respiratory viruses (NIRV), including RSV and other pathogens beyond SARS-CoV-2 which is not addressed in this report. RSV percent positivity, which had been ranging above the 5-year historical average (2014-15 to 2018-2019) earlier in the season, has declined starting week 48 and remained within expected levels for weeks 50-1. EV/RV positivity also remained within expected levels for weeks 50-1 (Figure 2).

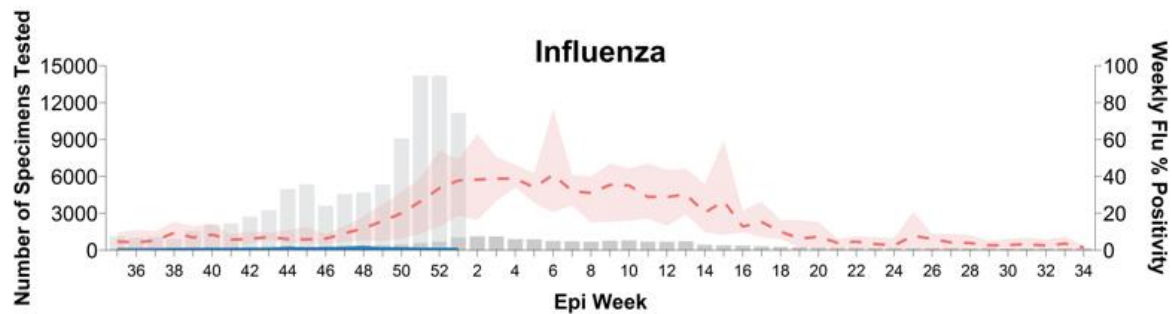
Among specimens additionally subjected to multiplex testing between weeks 50 and 1, RSV, entero/rhinoviruses (EV/RV) and parainfluenza were the first (3,876/4,683; 83%), second (427/4,683; 9%) and third (154/4,683; 3%) most commonly detected NIRVs, respectively. In weeks 50, 51, 52 and 1, 3,876 RSV positive specimens were identified among 48,081 tested (8%) compared to 1 detection among 9,167 specimens tested (<1%) during the same weeks in 2020-21 season and 442 detections out of 4,575 tested (10%) in 2019-20 season. EV/RV and parainfluenza were found in 15% (427/2,758) and 5% (154/2,810) of specimens tested, respectively. Most NIRV detections (at the BCCDC PHL) were among children under the age of 9 years. (Figures 2, 3, 4, 5; Table 1).

Figure 1. Influenza virus positivity among respiratory specimens tested^a across BC, 2021-2022^{a,b,c}

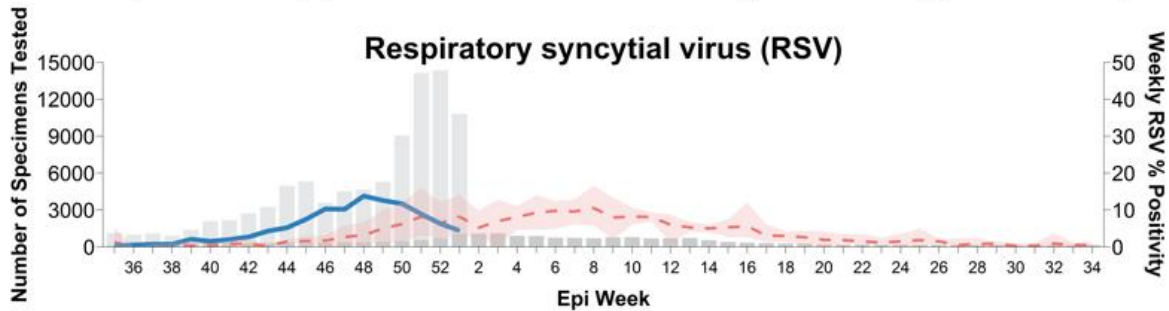


- a. The percentage influenza positivity is presented by influenza type based on primary specimens submitted for influenza testing at the BCCDC Public Health Laboratory (PHL) and other external sites that share complete testing data with the BCCDC PHL. Reporting sites include: BC Children’s and Women’s Hospital, Children’s and Women’s Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital, St. Paul’s Hospital, Vancouver General Hospital, Victoria General Hospital, BCCDC PHL, Interior Health Authority sites, and Northern Health Authority.
- b. Rates are subject to change with subsequent data reconciliation.
- c. Week of sample based on the sample collection date.

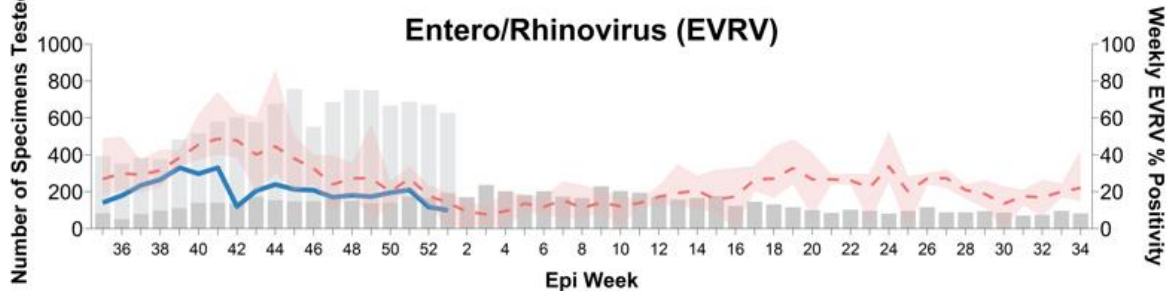
Figure 2. Laboratory influenza and other respiratory virus detections across BC with 5-season historical data*



■ Flu Tests (2014-2018 Average) ■ Flu Tests 2021-22 — Flu Positivity (2014-2018 Average) — Flu Positivity 2021-22



— RSV Positivity (2014-2018 Average) — RSV Positivity 2021-22 ■ RSV Tests (2014-2018 Average) ■ RSV Tests 2021-22

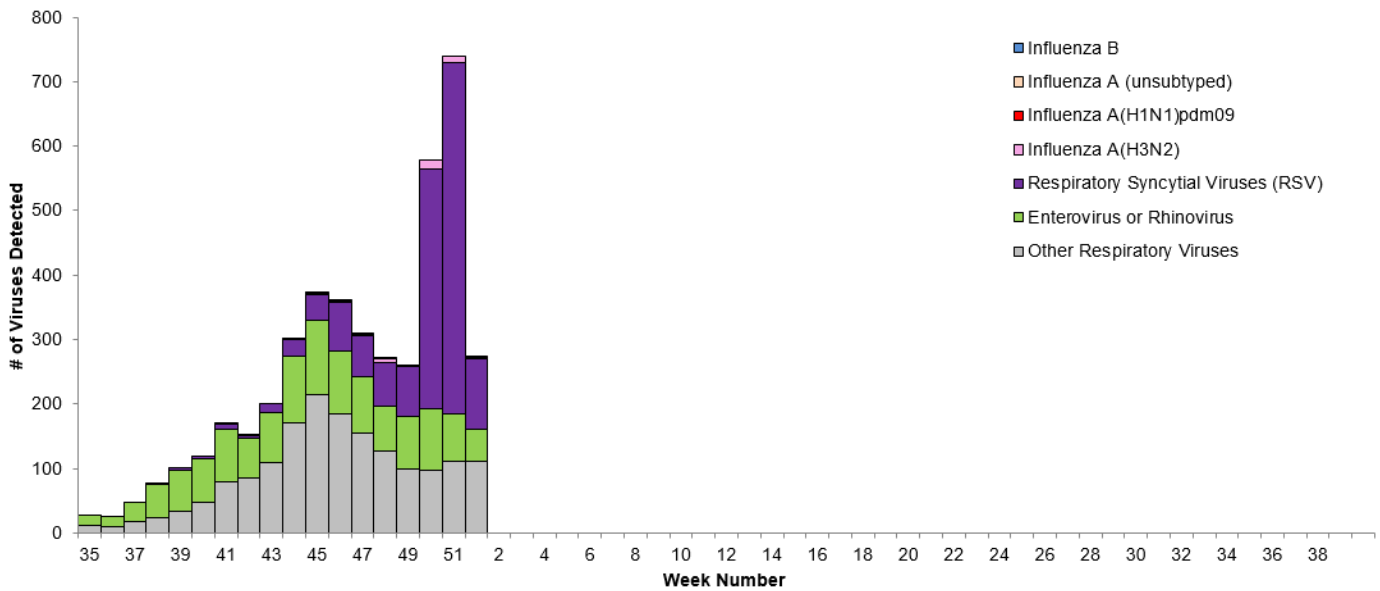


— EVRV Positivity (2014-2018 Average) — EVRV Positivity 2021-22 ■ EVRV Tests (2014-2018 Average) ■ EVRV Tests 2021-22

* The shaded area (red) represents the maximum and minimum percentage of influenza positivity reported by week from seasons 2014-2015 to 2018-2019.

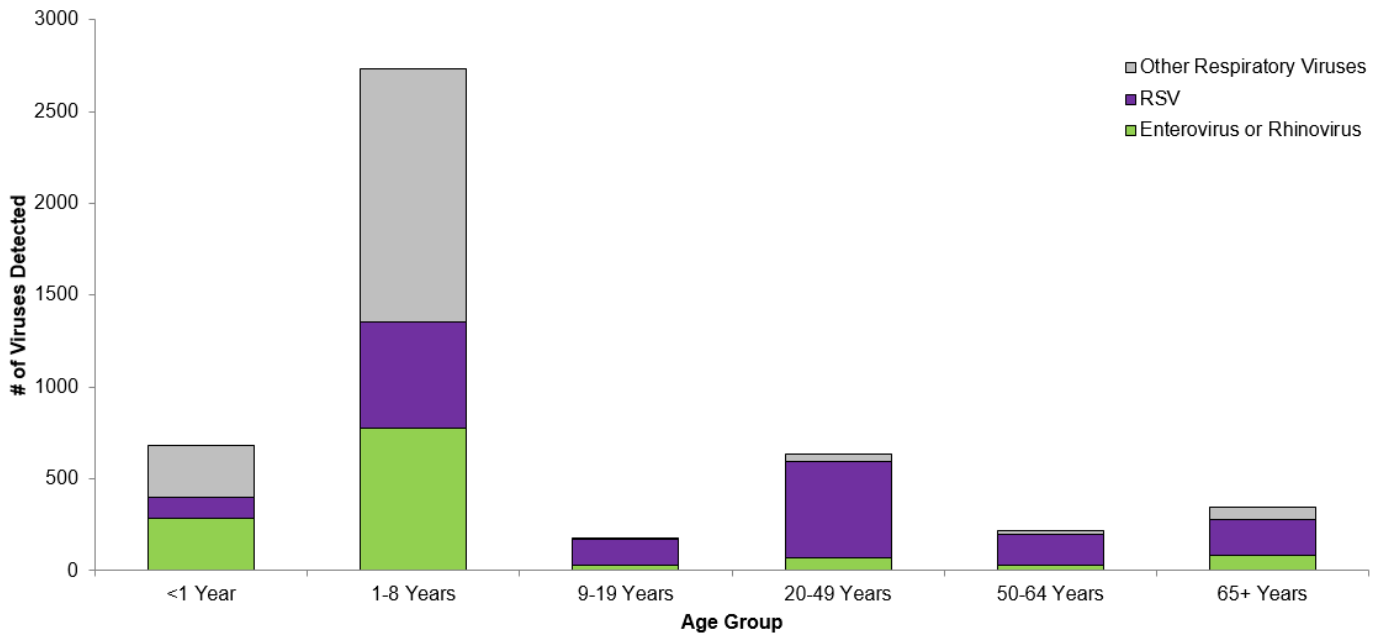
Source: Respiratory Virus Detections Surveillance System (RVDSS) weekly report; data includes seasons 2014-2015, 2015-16, 2016-17, 2017-18, 2018-19, 2021-2022 (2019-20 & 2020-21 are excluded from the historical average calculations due to the COVID-19 pandemic).

Figure 3. Influenza and non-influenza respiratory virus (NIRV) detections among specimens submitted to BCCDC Public Health Laboratory and Island Health Laboratories, 2021-2022*



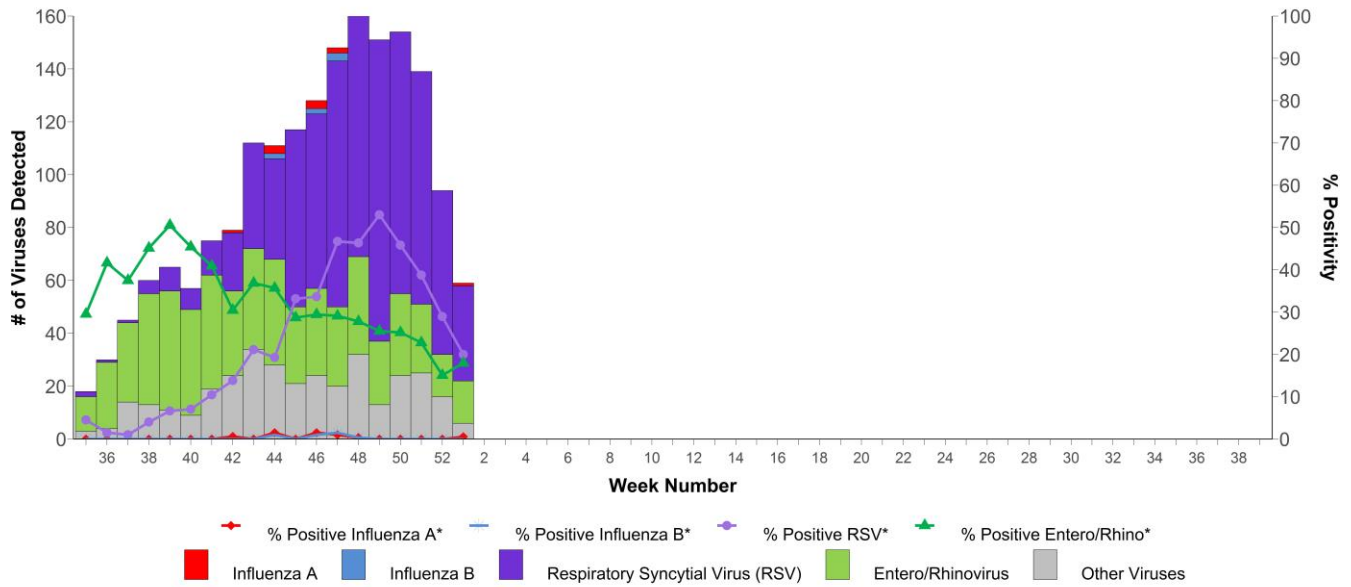
* The BCCDC Public Health Laboratory (PHL) conducts the majority of influenza subtype characterization for the province, including for primary specimens submitted directly to the BCCDC PHL for influenza diagnosis, as well as for specimens that have tested positive for influenza at other external sites and for which secondary subtyping was requested. Influenza A(H1N1)pdm09 and influenza A(subtype unknown) weekly case counts as directly typed/subtyped on primary specimens by Island Health Authority are also incorporated into the influenza counts in the graph and narrative summary above.

Figure 4. Cumulative number (since week 35) of non-influenza respiratory virus detections (NIRV) by type and age group, BCCDC Public Health Laboratory, 2021-22



Source: BCCDC Public Health Laboratory (PHDRW); Data are current to January 13, 2022; figure includes cumulative influenza detections for specimens collected from weeks 35-1.

Figure 5. Influenza and NIRV detections among respiratory specimens submitted to BC Children’s and Women’s Health Centre Laboratory, 2020-2021^{a,b,c}



- a. Positive rates were calculated using aggregate data. The denominators for each rate represent the total number of tests; multiple tests may be performed for a single specimen and/or patient.
- b. Week of sample based on the sample collection date.
- c. From week 35 to week 1 (August 29, 2021 – January 8, 2022), 3,173 specimens were submitted for influenza virus testing at the BC Children’s and Women’s Health Centre laboratory. Amongst detected viruses, the most common viruses were RSV (892/1,822; 49%) and entero/rhinoviruses (590/1,822; 19%).

Table 1. Influenza and non-influenza respiratory viruses (NIRV) detected among primary patient specimens by health authority of test site

Count (% positive from total screened)	Health authority ^{a,b} where specimen tested ^c , BC Cases							Total
	FHA	IHA	VIHA	NHA	VCHA	BCCDC	CW	
Current report Week 1	[January 2 - 8, 2022]							
Influenza, Total ^d	2/1847 (<1)	0/1563	0/856	2/490 (<1)	2/2094 (<1)	0/4681	1/180 (1)	7/11711 (<1)
Influenza A total	2 (<1)	0	0	1 (<1)	2 (<1)	0	1 (1)	6 (<1)
A(H3N2) ^e	1	0	0	0	0	---	---	1
A(H1N1)pdm09 ^e	0	0	0	0	0	---	---	0
Influenza B total	0	0	0	1 (<1)	0	0	0	1
NIRV, Total ^c	175	154	94	65	75	58	58	679
RSV	175/1847 (9)	130/1563 (8)	89/856 (10)	65/490 (13)	68/1731 (4)	0/4681	36/180 (20)	563/11348 (5)
Enterovirus/Rhinovirus	--- ^f	8/110 (7)	3/45 (7)	--- ^f	3/79 (4) ^g	21/221 (10)	16/89 (18)	---
Other ^h	--- ^f	16/110 (15)	2/45 (4)	--- ^f	4/93 (4) ^g	37/221 (17)	6/89 (7)	---
Cumulative total to date, Week 40 to 1	[October 3, 2021 – January 8, 2022]							
Influenza Total ^d	32/15274 (<1)	12/11977 (<1)	11/9510 (<1)	8/2261 (<1)	156/14127 (1)	27/29399 (<1)	19/2707 (1)	265/85255 (<1)
Influenza A total	21 (<1)	10 (<1)	5 (<1)	5 (<1)	95 (1)	21 (<1)	11 (<1)	168 (<1)
A(H3N2) ^e	10	14	1	0	26	---	---	51
A(H1N1)pdm09 ^e	0	0	0	0	0	---	---	0
Influenza B total	11 (<1)	2 (<1)	6 (<1)	3 (<1)	61 (<1)	6 (<1)	8 (<1)	97 (<1)
NIRV, Total ^c	1924	1055	785	108	1279	3599	1604	10354
RSV	1924/15274 (13)	692/11977 (6)	694/9810 (7)	108/2261 (5)	1134/13418 (8)	1501/29399 (5)	874/2707 (32)	6927/84846 (8)
Enterovirus/Rhinovirus	--- ^f	174/916 (19)	59/585 (10)	--- ^f	94/1030 (9) ^g	1083/5228 (21)	435/1488 (29)	---
Other ^h	--- ^f	189/916 (21)	32/585 (5)	--- ^f	51/1216 (4) ^g	1015/5228 (19)	295/1488 (20)	---

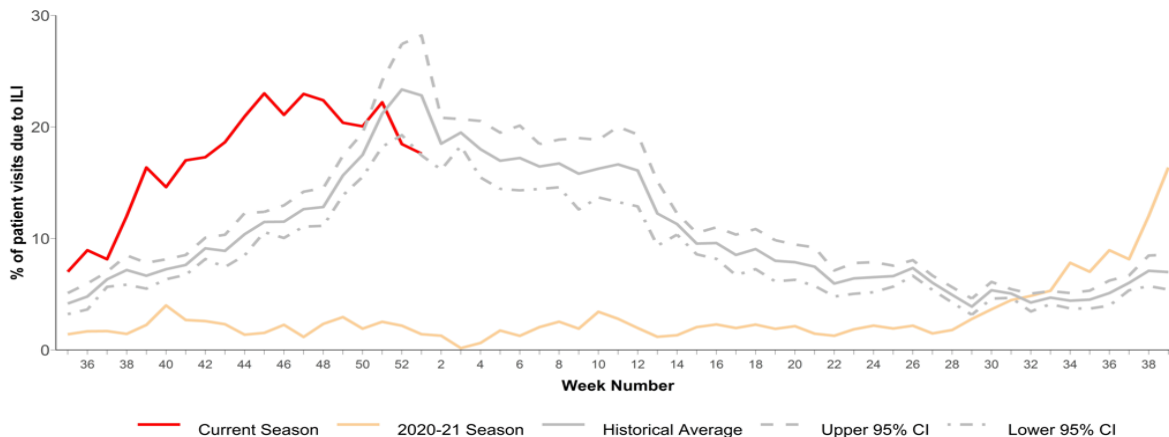
- FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA= Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority; BCCDC= primary patient specimens screened at BCCDC Public Health Laboratory; CW=Children’s and Women’s Health Centre Laboratory
- The HA associated with each subtyped sample is based on patient’s health authority. If patient health authority information is missing, the ordering physician’s health authority is used.
- The number of influenza A, influenza B, RSV, Enterovirus/Rhinovirus, and other non-influenza respiratory viruses (NIRV) detected are based on specimens submitted for influenza screening/testing to various labs across FHA, VCHA (including Providence Health), VIHA, IHA and NHA. Samples sent to Children’s & Women’s Laboratory (CW) and BCCDC Public Health Laboratory for primary diagnostic purposes are displayed separately here (i.e. excluding those already screened at another site and submitted for secondary testing or characterization).
- Influenza co-infections (influenza A and B virus positive) not accounted for in data source (PLOVER).
- The BCCDC PHL conducts the majority of influenza subtype characterization for the province, including for primary specimens submitted directly to the BCCDC PHL for influenza diagnosis, as well as for specimens that have tested positive for influenza at other external sites and for which secondary subtyping was requested. Influenza A(H1N1)pdm09 and influenza A(H3N2) are directly typed/subtyped on primary specimens by IHA and are also incorporated into the influenza A subtype counts above.
- Not tested by Fraser Health Microbiology Laboratories and Northern Health laboratory sites.
- Enterovirus/Rhinovirus and Coronavirus not tested by Providence Health.
- Other non-influenza respiratory viruses (NIRV) included on multiplex panels are parainfluenza, adenovirus, human metapneumovirus (HMPV), and seasonal coronaviruses (does not include SARS-CoV-2).

B. Clinical Indicators

BC Children’s Hospital Emergency Room

The proportion of visits to BC Children’s Hospital Emergency Room (ER) attributed to ILI that had previously been trending above the 5-year historical average since beginning of the season has declined in recent weeks to within expectation and tracking the lower confidence boundary in week 1 (Figure 6). Acknowledging the ongoing COVID-19 pandemic, changes in healthcare seeking behaviours and circulation of other respiratory viruses likely contribute (Figure 5).

Figure 6. Percent of patients presenting to BC Children’s Hospital ER

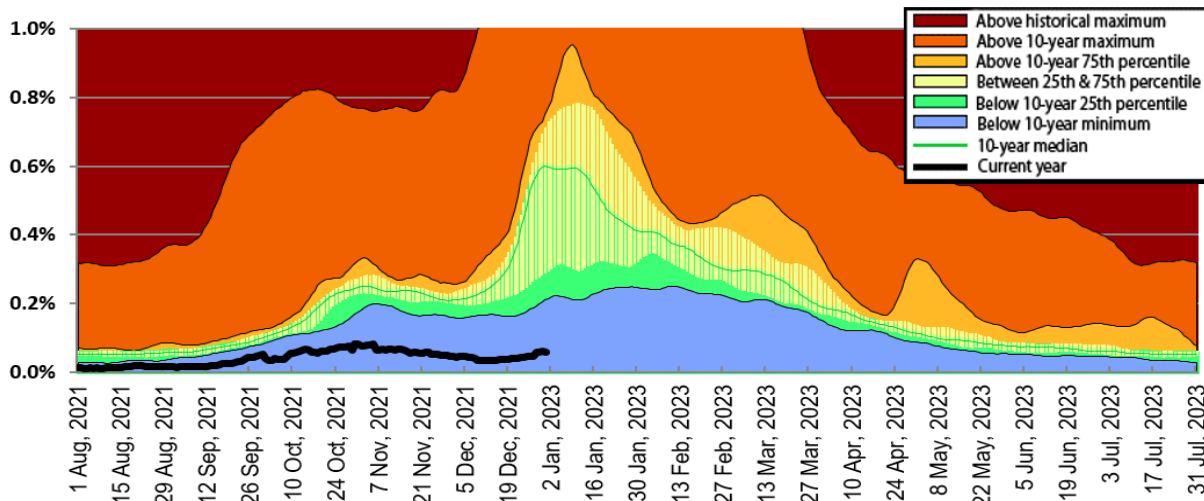


Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."
*5-year historical average for 2021-22 season based on 2014-15 to 2018-19 seasons (excluded 2019-20 & 2020-21 seasons); CI=confidence interval.

Medical Service Plan

As shown in Figure 7 and Figure 8, between weeks 50 and 52 (spanning December 12 to December 31, 2021), BC Medical Service Plan (MSP) general practitioner claims for influenza illness (weekly counts) remained below the 10-year historical minimum overall in the province and in all five health authorities.

Figure 7. Service claims submitted to MSP for influenza illness*, British Columbia, 2021-2022 season

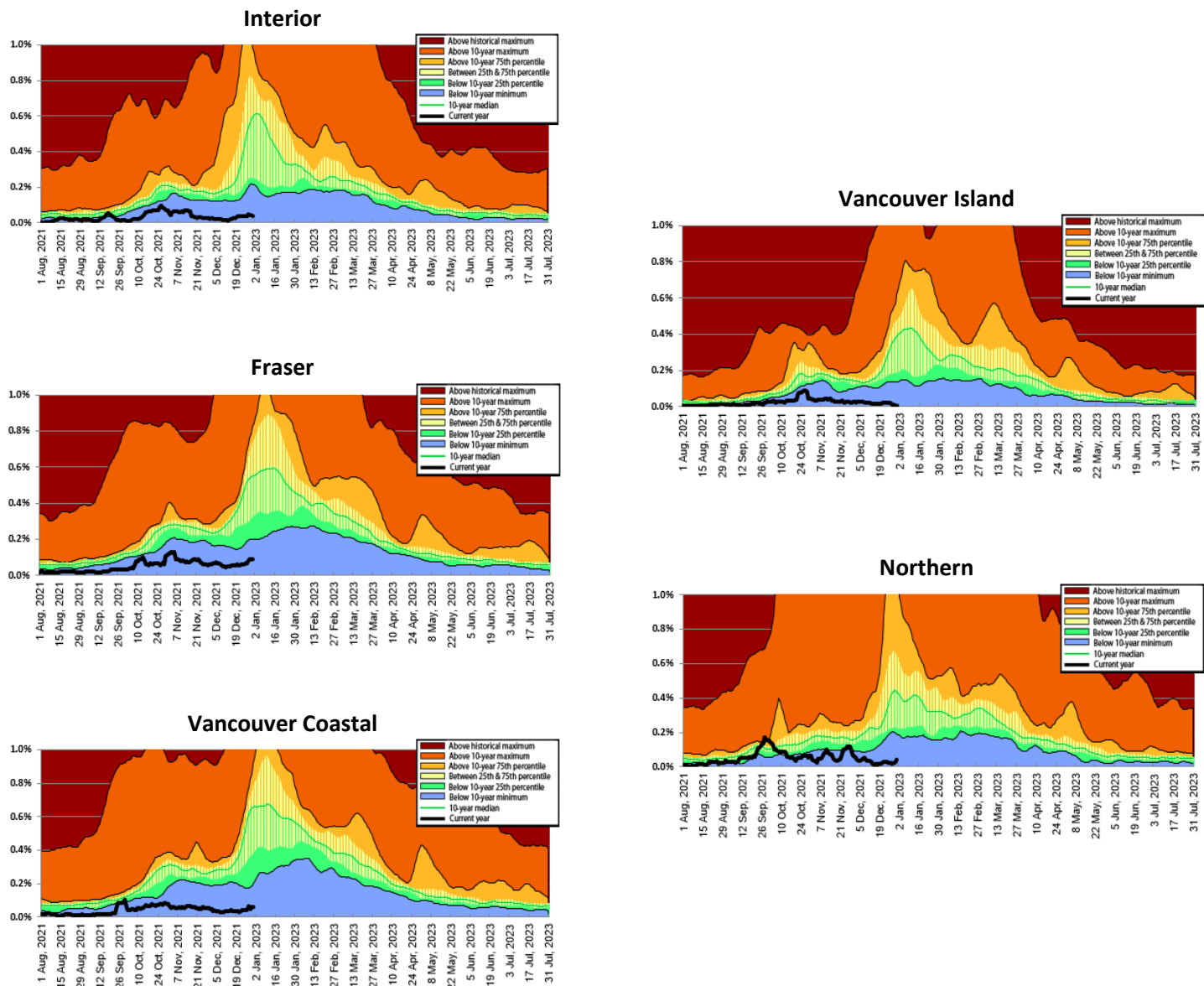


† Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Influenza illness (II) is tracked as the weekly count of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza).

* 10-year historical data was derived from the seasons 2008-09, 2010-11, 2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, and 2018-19. Seasons 2019-20 and 2020-21 were excluded due to the COVID-19 pandemic.

MSP data beginning August 1, 2021 corresponds to sentinel ILI week 31; data are current to December 31, 2021.

Figure 8.



† Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Influenza illness (II) is tracked as the weekly count of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza).

* 10-year historical data was derived from the seasons 2008-09, 2010-11, 2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, and 2018-19.

Seasons 2019-20 and 2020-21 were excluded due to the COVID-19 pandemic.

MSP data beginning August 1, 2021 corresponds to sentinel ILI week 31; data are current to December 31, 2021

C. Influenza outbreak reports

The last influenza outbreak in BC was in March 2020 (week 12) with no influenza outbreaks reported to date in the 2021-22 season.

D. National

FluWatch (weeks 50 to 52, December 12, 2021 to January 1, 2022)

In weeks 50-52, influenza activity across Canada remained low for this time of year. There continues to be sporadic detections of influenza being reported; however, there remains no evidence of community circulation of influenza. In weeks 50-52, a total of 158 influenza detections (146 influenza A and 12 influenza B) were reported. Overall, the percentage of laboratory tests positive for influenza remains at exceptionally low levels, despite the elevated levels of testing. In week 52, 29,141 tests for influenza were performed at reporting laboratories and the percentage of tests positive for influenza was 0.13%. Compared to the past six pre-pandemic seasons (2014-2015 to 2019-2020), an average of 9,184 tests were performed for this time period, with an average of 24.5% of tests positive for influenza. To date this season, 429 influenza detections (323 influenza A and 106 influenza B) have been reported, which is lower than what we have seen historically in the past six pre-pandemic seasons, where an average of 8,784 influenza detections were reported at this point in the season. Among subtyped influenza A detections (n=86), influenza A(H3N2) accounted for 97% of detections. In weeks 50-52, no outbreaks were reported. From August 29, 2021 to January 1, 2022, 14 ILI outbreaks and no laboratory-confirmed influenza outbreaks have been reported. The most recent laboratory-confirmed influenza outbreak occurred in week 24 (week ending June 13, 2020) of the 2019-2020 season. The percentage visits for influenza-like illness (ILI) has been on an upward trend for the past few weeks and was 2.1% in week 52. The percentage of FluWatchers reporting fever and cough has also been on an upward trend for the past few weeks and was 1.5% in week 52.

FluWatch report (weeks 50-52) is available at:

<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/fluwatch/2021-2022/weeks-50-52-december-12-2021-january-1-2022.html>

National Microbiology Laboratory (NML)

Strain Characterization:

Since September 1, 2021, the National Microbiology Laboratory (NML) has characterized 11 influenza viruses (9 H3N2 and 2 H1N1) received from Canadian laboratories.

Influenza A(H3N2): Nine influenza A (H3N2) viruses were antigenically characterized as A/Cambodia/e0826360/2020 (H3N2)-like virus, 2 viruses were antigenically similar to A/Cambodia/e0826360/2020 (H3N2) -like virus and 7 showed reduced titers with antisera raised against egg-grown A/Cambodia/e0826360/2020 (H3N2)-like virus. A/Cambodia/e0826360/2020 (H3N2) is the influenza A/H3N2 component of the 2021-22 Northern Hemisphere influenza vaccine.

Influenza A(H1N1)pdm09: Two H1N1 virus characterized was antigenically similar to A/Wisconsin/588/2019, and one virus showed reduced titer with ferret antisera produced against cell-propagated A/Wisconsin/588/2019. A/Wisconsin/588/2019 is the influenza A/H1N1 component of the 2021-22 Northern Hemisphere influenza vaccine.

Antiviral Resistance:

The NML conducted drug susceptibility testing on 11 influenza A (9 H3N2 and 2 H1N1) viruses received.

Oseltamivir: All H1N1 influenza virus was sensitive to oseltamivir.

Zanamivir: All H1N1 influenza virus was sensitive to zanamivir.

E. International

USA (week 52, December 26, 2021 to January 1, 2022)

In week 52, influenza activity remained low but continued to increase in the US. The proportion of outpatient visits for ILI is at 5% this week, above the national baseline. The proportion of deaths attributed to pneumonia and influenza during week 52 (13%) is above the epidemic threshold of 7%. No influenza-associated pediatric deaths were reported to CDC during week 52. Of the 36,233 samples tested for influenza from clinical laboratories across the US in week 52, 785 (2%) samples were positive for influenza. Of these, 782 (99.6%) were influenza A and 3 (0.4%) was influenza B positive. During week 52, 185 (1%) of 14,141 reporting LTCFs reported at least one influenza positive test among their residents. The US CDC has posted a summary of influenza activity in the United States and elsewhere, available at: <https://www.cdc.gov/flu/weekly/index.htm>

WHO (January 10, 2022, based on data up to December 26, 2021)

The current influenza surveillance data should be interpreted with caution as the ongoing COVID-19 pandemic has influenced to varying extents health seeking behaviors, staffing/routines in sentinel sites, as well as testing priorities and capacities in WHO Member States. Various hygiene and physical distancing measures implemented to reduce SARS-CoV-2 virus transmission have likely played a role in reducing influenza virus transmission.

In the temperate zone of the northern hemisphere, influenza activity, although remained low overall, has started to increase in some reporting countries. Both influenza A and B were detected but predominately influenza A(H3N2) viruses were reported across the region. In Europe, for two consecutive weeks, more than 10% of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms tested positive for influenza and influenza season was defined as started. A sharp increase of influenza activity was reported in the Russian Federation and in Sweden. In China, influenza B (Victoria lineage) detections increased in both northern and southern provinces and the positivity rate was at levels similar to pre-COVID-19 periods for this time of the year.

In countries in the temperate zone of the southern hemisphere, influenza activity remained low overall but influenza detections, predominantly A(H3N2), were reported in temperate South America in recent weeks. In Oceania, influenza was detected at very low levels. In South Africa, detections of influenza virus continued in all surveillance systems but transmission was below threshold and impact was low.

Among the Caribbean and Central American Countries, influenza activity of predominately influenza A(H3N2) increased in Haiti (influenza A(H3N2) and B) Honduras and Mexico. **In tropical South America**, influenza activity of predominantly A(H3N2) viruses increased in Bolivia, Brazil and Peru. **In tropical Africa**, influenza activity continued on a decreasing trend, with both influenza A and B detected. **In tropical Asia**, influenza detections have declined in Bangladesh, India, Nepal and Maldives, but detections of influenza A(H3N2) viruses have increased in Iran and continued to be reported at low levels in Afghanistan, Pakistan and Sri Lanka. In South-East Asia, few detections of A(H3N2) and B (Victoria lineage where determined) viruses were reported in the Philippines.

From December 6 to December 26, 2021, the WHO GISRS laboratories tested more than 522,595 specimens. Of these, 27,153 were positive for influenza viruses, of which 19,980 (74%) were typed as influenza A and 7,173 (26%) as influenza B. Of the sub-typed influenza A viruses, 352 (4%) were influenza A(H1N1)pdm09 and 7,625 (96%) were influenza A(H3N2). Of the characterized B viruses, 3 (0.04%) belonged to the B(Yamagata) lineage and 6,819 (100%) were of B(Victoria) lineage.

Details are available at: <https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update>

F. WHO Recommendations for Influenza Vaccines

WHO Recommendations for the 2021-22 Northern Hemisphere Influenza Vaccine

On February 26, 2021, the WHO announced recommended strain components for the 2021-22 northern hemisphere trivalent influenza vaccine (TIV)*:

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus [a clade 6B.1A5A virus]; †
- an A/Cambodia/e0826360/2020 (H3N2)-like virus [a clade 3C.2a1b/T131K virus]; ‡
- a B/Washington/02/2019-like (B/Victoria lineage) virus [a clade V1A.3, Δ3 virus]. §

It is recommended that quadrivalent influenza vaccines (QIV) for the 2021-22 northern hemisphere season contain the above three viruses and a B/Phuket/3073/2013-like virus (B/Yamagata lineage) [a clade 3 virus], unchanged since 2015-2016.

* Recommended strains represent a change for two of the three components used for the 2020-2021 northern hemisphere TIV.

† Note for cell-based vaccine, the WHO recommends an A/Wisconsin/588/2019 (H1N1)pdm09-like virus [a clade 6B.1A5A virus] for the 2021-22 season. Recommended strains represent a change from the 2020-2021 season vaccine which contained an A/Guangdong-Maonan/SWL1536/2019 [a clade 6B.1A5A virus] for the egg-based vaccine and an A/Hawaii/70/2019 (H1N1)pdm09-like virus [also clade 6B.1A5A] for the cell-based vaccine.

‡ Recommended strain represents a change from the 2020-2021 season vaccine which contained an A/Hong Kong/2671/2019 (H3N2)-like virus [a clade 3C.2a1b/T135K virus].

§ Recommended strain is unchanged from the 2020-2021 season vaccine.

For further details: <https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations/candidate-vaccine-viruses>

WHO Recommendations for 2022 Southern Hemisphere Influenza Vaccine

On September 24, 2021, the WHO announced the recommended strain components for the 2022 southern hemisphere trivalent influenza vaccine (TIV)*:

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus [a clade 6B.1A5A virus]; †
- an A/Darwin/9/2021 (H3N2)-like virus [a clade 3C.2a1b/T131K-A virus]; ‡
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus [a clade V1A.3, Δ3 virus]. §

It is recommended that quadrivalent influenza vaccines (QIV) for the 2022 southern hemisphere season contain the above three viruses and a B/Phuket/3073/2013-like virus (B/Yamagata lineage) [a clade 3 virus], unchanged from 2021.

* Recommended strains represent a change for two of the three components used for the 2021 southern hemisphere TIV

† Note for cell-based vaccine, the WHO recommends A/Wisconsin/588/2019 (H1N1)pdm09-like virus [also a 6B.1A5A virus] for the 2022 season. Both the cell based and egg based vaccine components have not been changed from the 2021 season vaccine.

‡ Note for cell-based vaccine, the WHO recommends an A/Darwin/6/2021 (H3N2)-like virus [also a 3C.2a1b/T131K virus] for the 2022 season. Recommended strain represents a change from the 2021 season vaccine which contained an A/Hong Kong/2671/2019 (H3N2)-like virus [a clade 3C.2a1b/T135K]

§ Note for cell-based vaccine, the WHO recommends a B/Austria/1359417/2021 (B/Victoria lineage)-like virus [a clade V1A.3, Δ3 virus] for the 2022 season. Recommended strain represents a change from the 2021 season vaccine which contained an a B/Washington/02/2019 (B/Victoria lineage)-like virus [a clade V1A.3, Δ3 virus]

For further details: <https://www.who.int/publications/m/item/recommended-composition-of-influenza-virus-vaccines-for-use-in-the-2022-southern-hemisphere-influenza-season>

G. Additional Information

Explanatory Note:

The surveillance period for the 2021-22 influenza season is defined starting in week 40. Weeks 35-39 of the 2020-21 season are shown on graphs for comparison purposes.

List of Acronyms:

ACF: Acute Care Facility	LTCF: Long-Term Care Facility
EV/RV: Enteroviruses/Rhinoviruses	MSP: BC Medical Services Plan
FHA: Fraser Health Authority	NHA: Northern Health Authority
HA: Health authority	NML: National Microbiological Laboratory
HBoV: Human bocavirus	PHL: Public Health Laboratory
HMPV: Human metapneumovirus	RSV: Respiratory syncytial virus
HSDA: Health Service Delivery Area	VCHA: Vancouver Coastal Health Authority
IHA: Interior Health Authority	VIHA: Vancouver Island Health Authority
ILI: Influenza-Like Illness	WHO: World Health Organization

Web Sites:

BCCDC Emerging Respiratory Pathogen Updates:

www.bccdc.ca/health-professionals/data-reports/emerging-respiratory-virus-updates

Influenza Web Sites

Canada – Influenza surveillance (FluWatch): <https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance.html>

Canada – Human Emerging Respiratory Pathogens Bulletins: <https://www.canada.ca/en/public-health/services/surveillance/human-emerging-respiratory-pathogens-bulletin.html>

Washington State Flu Updates: <http://www.doh.wa.gov/portals/1/documents/5100/420-100-fluupdate.pdf>

USA Weekly Surveillance Reports: www.cdc.gov/flu/weekly/

Joint ECDC – WHO/Europe weekly influenza update (Flu News Europe): flunewseurope.org

WHO – Influenza Updates: https://www.who.int/influenza/surveillance_monitoring/updates/en/

WHO – Weekly Epidemiological Record: www.who.int/wer/en/

WHO Collaborating Centre for Reference and Research on Influenza (Australia): www.influenzacentre.org/

Australian Influenza Report:

www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm

New Zealand Influenza Surveillance Reports: www.surv.esr.cri.nz/virology/influenza_weekly_update.php

Avian Influenza Web Sites

WHO – Influenza at the Human-Animal Interface: www.who.int/csr/disease/avian_influenza/en/

World Organization for Animal Health: www.oie.int/eng/en_index.htm

Contact Us:

Tel: (604) 707-2510

Fax: (604) 707-2516

Email: InfluenzaFieldEpi@bccdc.ca

Communicable Diseases & Immunization Service (CDIS)

BC Centre for Disease Control, 655 West 12th Ave, Vancouver BC V5Z 4R4

Online: www.bccdc.ca/health-professionals/data-reports/influenza-surveillance-reports

Link to fillable Facility Outbreak Report Form: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Epid/Influenza%20and%20Respiratory/OutbreakReportForm_2018.pdf