

British Columbia (BC) Influenza Surveillance Bulletin

2021-22 Influenza Season

Week 42: October 17 to 23, 2021

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Sporadic influenza virus detections in BC

Since our last bulletin ([week 40 - October 3-9, 2021](#)), four influenza viruses have been detected in BC (3 influenza A and 1 influenza B), including one adult and two children (one age unknown). Two cases were travel-associated, including an A(H1N1)pdm09 and influenza B. Travel link was not reported for two other cases of influenza A(H3N2) and A(unknown). These are the first influenza virus detections in BC since week 10, 2021 (travel-associated).

All four influenza viruses were detected in weeks 41 (n=1) and 42 (n=3) among 4,430 specimens tested (0.09%). By way of comparison, in weeks 41-42 of 2019 there were 38 detections among 1,244 specimens tested (3%) but none in 2020. Across Canada during weeks 41-42 of 2021, 12 influenza viruses have been reported (7 influenza A and 5 influenza B) as follows: BC (4), Ontario (2), Quebec (3), Manitoba (1), and Yukon (2).

During weeks 41 and 42 of 2021, most non-influenza respiratory virus (NIRV) detections were enterovirus/rhinoviruses (EV/RV) (201/438; 46%), followed by parainfluenza (120/438; 27%) and respiratory syncytial virus (RSV) (105 /438; 24%). Most NIRVs have been among young children <9 years. RSV positivity remains above but EV/RV positivity remains below the historical average ([Figure 2](#)).

Visits to BC Children’s Hospital Emergency Room for influenza-like illness (ILI) as a percentage of all visits has exceeded the 5-year historical average since week 33 (mid-August). Acknowledging the ongoing COVID-19 pandemic, changes in healthcare seeking behaviours and circulation of other respiratory viruses likely contribute.

Recent influenza A and B detections in BC warrant ongoing monitoring for signs of potential community circulation.

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: October 28, 2021

A. Laboratory Surveillance

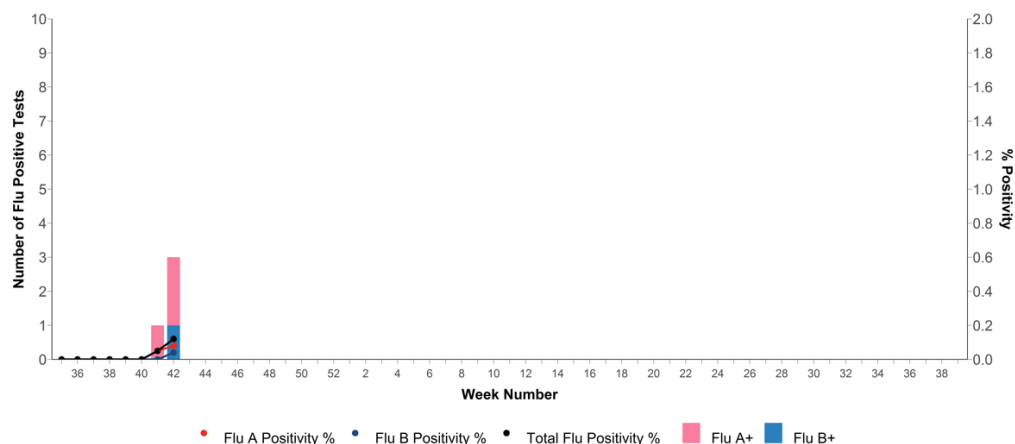
Since the beginning of the 2021-22 season in week 40 (commencing October 3, 2021) to the end of week 42 (October 23, 2021), four (0.07%) influenza viruses were detected among the 6,163 specimens tested in BC ([Figure 1](#)). All four detections were reported during weeks 41 (n=1) and 42 (n=3) (spanning October 10 - 23, 2021), representing 0.09% of the 4,430 specimens tested in weeks 41-42. One case is an adult and two are children with age unknown for the fourth. Three of the influenza viruses were influenza A, including one A(H1N1)pdm09 in week 41, one A(H3N2), and one A(subtype unknown); one was influenza B. Two of the detections were directly or indirectly travel-associated including the A(H1N1)pdm09 and the influenza B. Two had no travel link reported. These four reports represent the first influenza virus detections in BC since week 10 (March 7-13) of 2021 (a travel-associated case).

By way of comparison for the same week 40-42 period, there were no influenza detections among 3,874 specimens tested in 2020, and 63 detections among 1,790 tested in 2019 (3.5% positivity). For weeks 41-42 of 2019, there were 38 detections among 1,244 specimens tested (3%). Influenza virus testing is higher but detection is lower than the 5-year historical (pre-pandemic) average ([Figure 2](#)). Historically in week 42, 291 influenza tests were conducted on average with 19 (6.5%) detections (range 2 to 38 detections) reported (source: [RVDSS Report](#)).

The BCCDC Public Health Laboratory (PHL) and some local health authority (HA) laboratories also conduct testing for other non-influenza respiratory viruses (NIRV), including RSV +/- other multiplex testing (beyond SARS-CoV-2 which is not addressed in this report). Recent weekly RSV percent positivity has increased, ranging above the 5-year historical average (2014-15 to 2018-2019) for 7 weeks. Weekly EV/RV positivity remains below the historical average for this time of year and is currently trending downward ([Figure 2](#)).

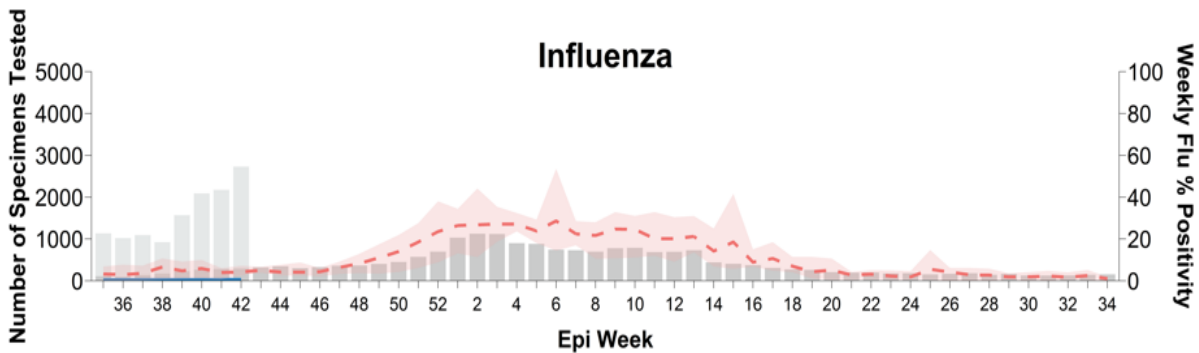
During weeks 41-42, 105 RSV positive specimens were identified among 4,340 tested (2.4%) compared to three among 2,493 tested (0.1%) in 2020. Among specimens additionally subjected to multiplex testing between weeks 41 and 42, entero/rhinoviruses (EV/RV) were found in 21% (201/970), their again being the most commonly detected NIRV (201/438; 46%). The second most commonly detected NIRV was parainfluenza, which comprised 27% (120/438) of NIRV detections. 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}

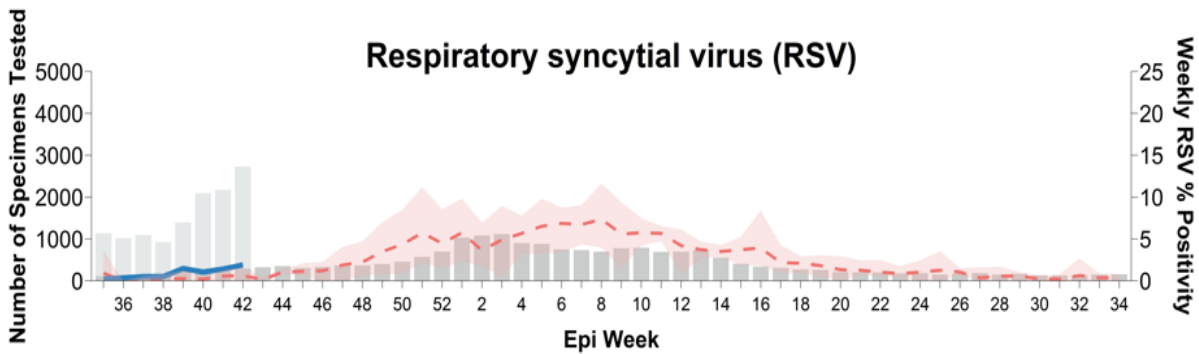


- The percentage influenza positivity is presented by influenza type based on primary specimens submitted for influenza testing at the BCCDC Public Health Laboratory (PHL) and other external sites that share complete testing data with the BCCDC PHL. Reporting sites include: BC Children's and Women's 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, Vancouver Coastal Health, BCCDC PHL, Interior Health Authority sites, and Northern Health Authority.
- Rates are subject to change with subsequent data reconciliation.
- Week of sample based on the sample collection date.

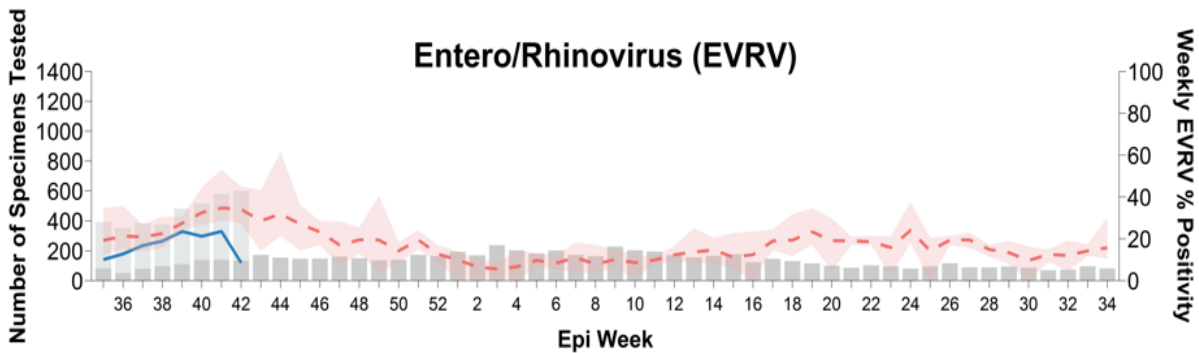
Figure 2. Laboratory influenza and other respiratory virus detections across BC with 5-season historical data*



■ 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

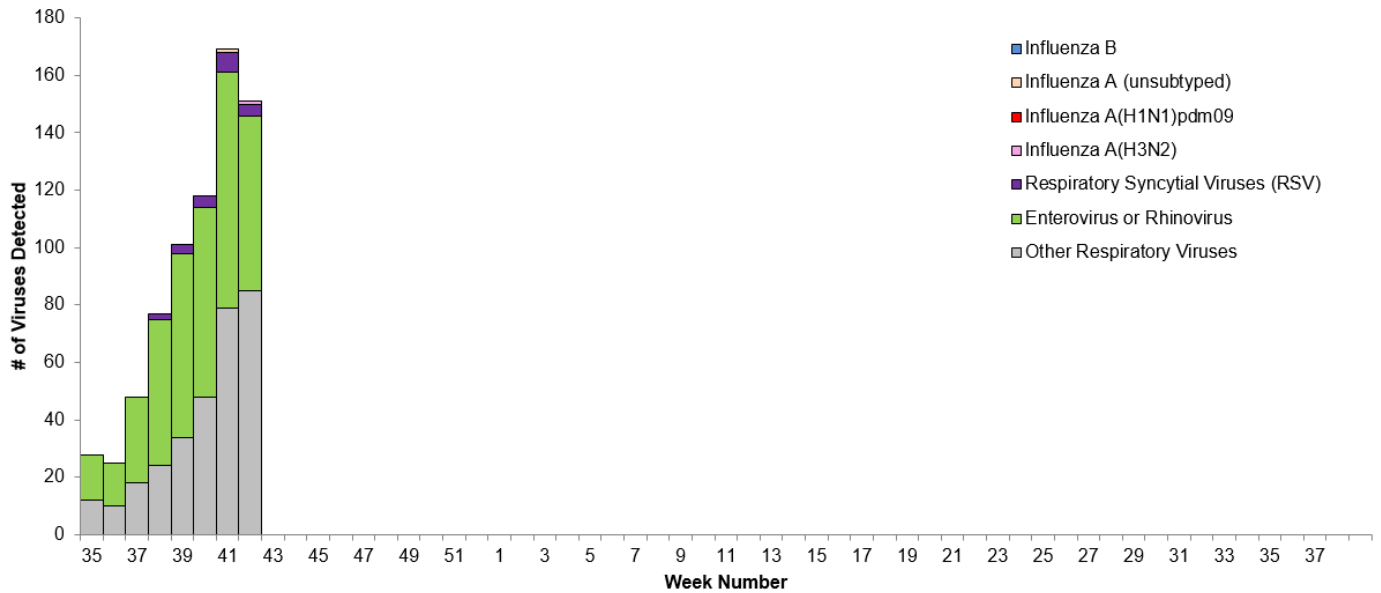


— EVRV Positivity (2014-2018 Average) — EVRV Positivity 2021-22 ■ EVRV Tests (2014-2018 Average) ■ EVRV Tests 2021-22

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

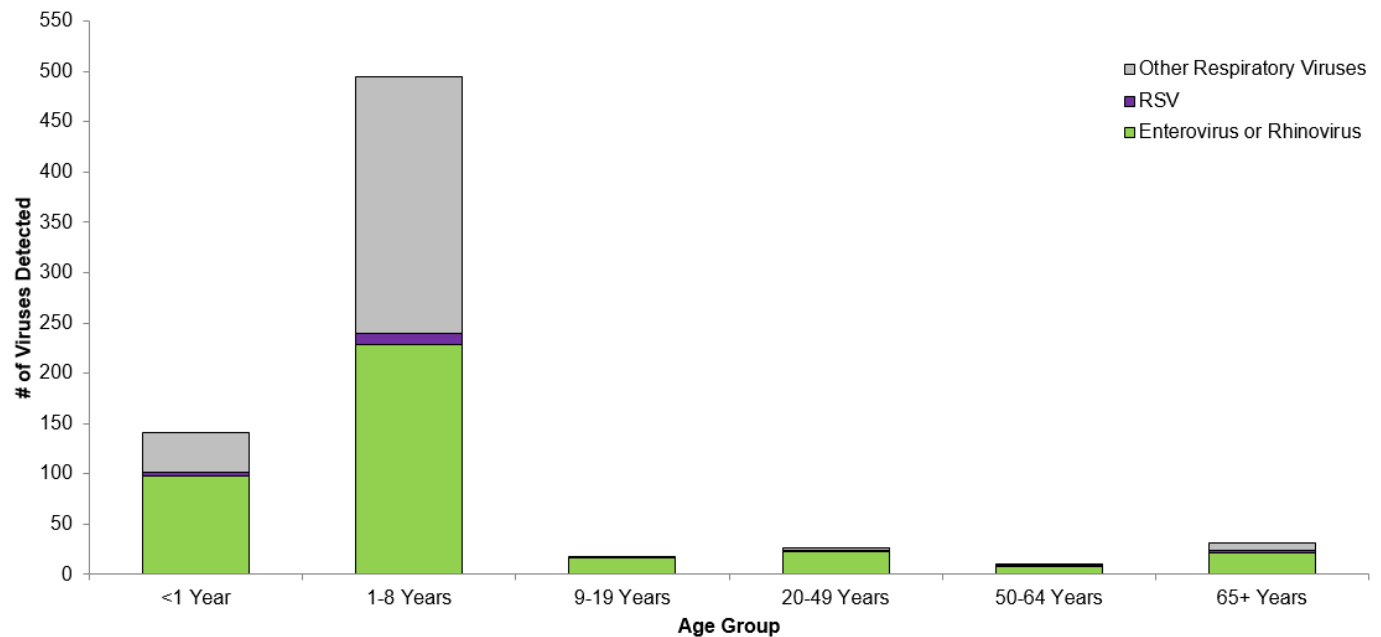
Source: Respiratory Virus Detections Surveillance System (RVDSS) weekly report; data includes seasons 2014-2015, 2015-16, 2016-17, 2017-18, 2021-2022 (2019-20 & 2020-21 are excluded from the historical average calculations due to the COVID-19 pandemic).

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



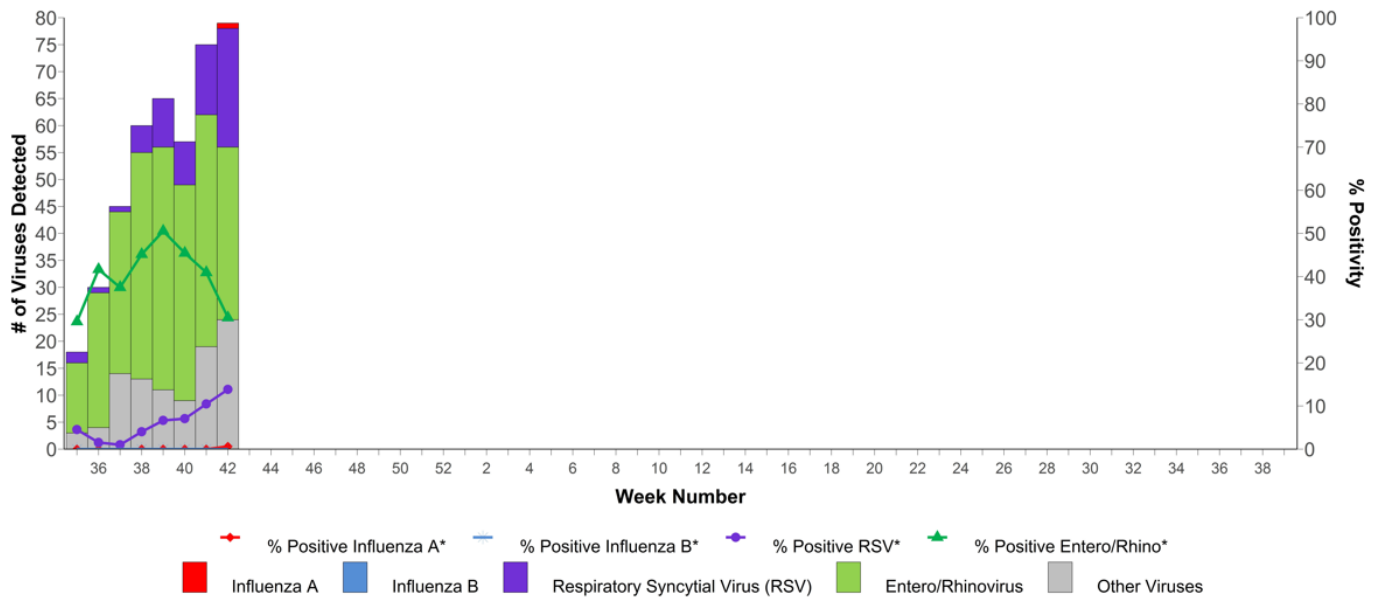
* The BCCDC Public Health Laboratory (PHL) conducts the majority of influenza subtype characterization for the province, including for primary specimens submitted directly to the BCCDC PHL for influenza diagnosis, as well as for specimens that have tested positive for influenza at other external sites 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 October 27, 2021; figure includes cumulative influenza detections for specimens collected from weeks 35-42.

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 (August 29-September 4, 2021) to week 42 (October 17-23, 2021), among the 862 specimens submitted for influenza virus testing at the BC Children’s and Women’s Health Centre laboratory, most that were found positive for non-influenza respiratory viruses were entero/rhinoviruses (270/428= 63%). 61 specimen were positive for RSV.

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 42 [October 17 - 23, 2021]							
Influenza, Total ^d	1/253 (0.4)	0/167 (0)	0/528 (0)	0/155 (0)	1/866 (0.1)	1/468 (0.2)	3/2437 (0.1)
Influenza A total	0	0	0	0	1 (0.1)	1 (0.2)	2 (0.1)
A(H3N2) ^e	0	0	0	0	1	0	1
A(H1N1)pdm09 ^e	0	0	0	0	0	0	0
Influenza B total	1 (0.4)	0	0	0	0	0	1 (<0.01)
NIRV, Total ^c	20	26	19	0	22	78	165
RSV	20/253 (7.9)	0/167 (0)	7/528 (1.3)	0/155 (0)	18/866 (2.1)	22/468 (4.7)	67/2437 (2.7)
Enterovirus/Rhinovirus	--- ^f	16/57 (28.1)	6/51 (11.8)	--- ^f	2/61 (3.3) ^g	32/299 (10.7)	---
Other ^h	--- ^f	10/57 (17.5)	6/51 (11.8)	--- ^f	2/77 (2.6) ^g	24/299 (8)	---
Cumulative total to date, Week 40 to 42 [October 3 - October 23, 2021]							
Influenza Total ^d	1/640 (0.2)	0/591 (0)	0/1799 (0)	0/544 (0)	2/1547 (0.1)	1/1042 (0.1)	4/6163 (0.1)
Influenza A total	0	0	0	0	2 (0.1)	1 (0.1)	3 (0)
A(H3N2) ^e	0	0	0	0	1	---	1
A(H1N1)pdm09 ^e	0	0	0	0	1	---	1
Influenza B total	1 (0.2)	0	0	0	0	0	1 (<0.01)
NIRV, Total ^c	37	68	33	0	57	418	613
RSV	37/640 (5.8)	0/591 (0)	14/1799 (0.8)	0/544 (0)	28/1547 (1.8)	55/1042 (5.3)	134/6163 (2.2)
Enterovirus/Rhinovirus	--- ^f	47/181 (26)	13/118 (11)	--- ^f	22/211 (10.4) ^g	231/975 (23.7)	---
Other ^h	--- ^f	21/181 (11.6)	6/118 (5.1)	--- ^f	7/244 (2.9) ^g	132/975 (13.5)	---

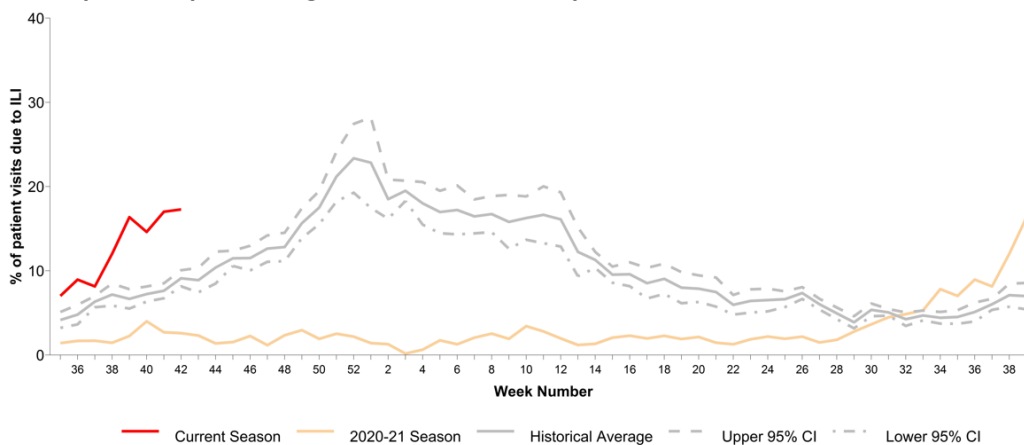
- FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA= Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority; BCCDC= primary patient specimens screened at BCCDC Public Health Laboratory; CW=Children's and Women's Health Centre Laboratory
- 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 is trending around 17% since week 41 (October 10-16, 2021) and remains above the 5-year historical average for this time of the year (~10%) (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

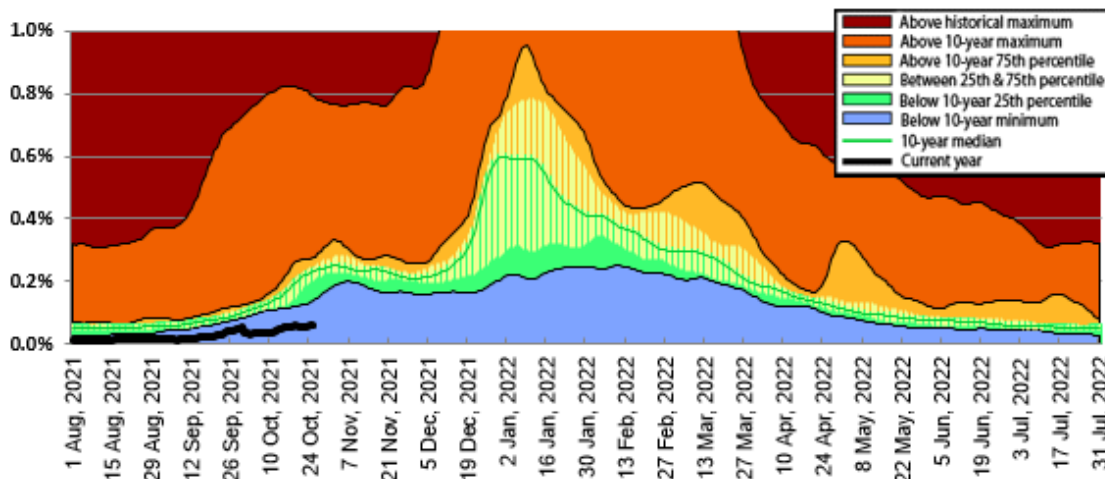


Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."
*5-year historical average for 2021-22 season based on 2014-15 to 2018-19 seasons (excluded 2019-20 & 2020-21 seasons); CI=confidence interval.

Medical Service Plan

As shown in Figure 7 and Figure 8, between weeks 41 and 42 (beginning October 10-23, 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

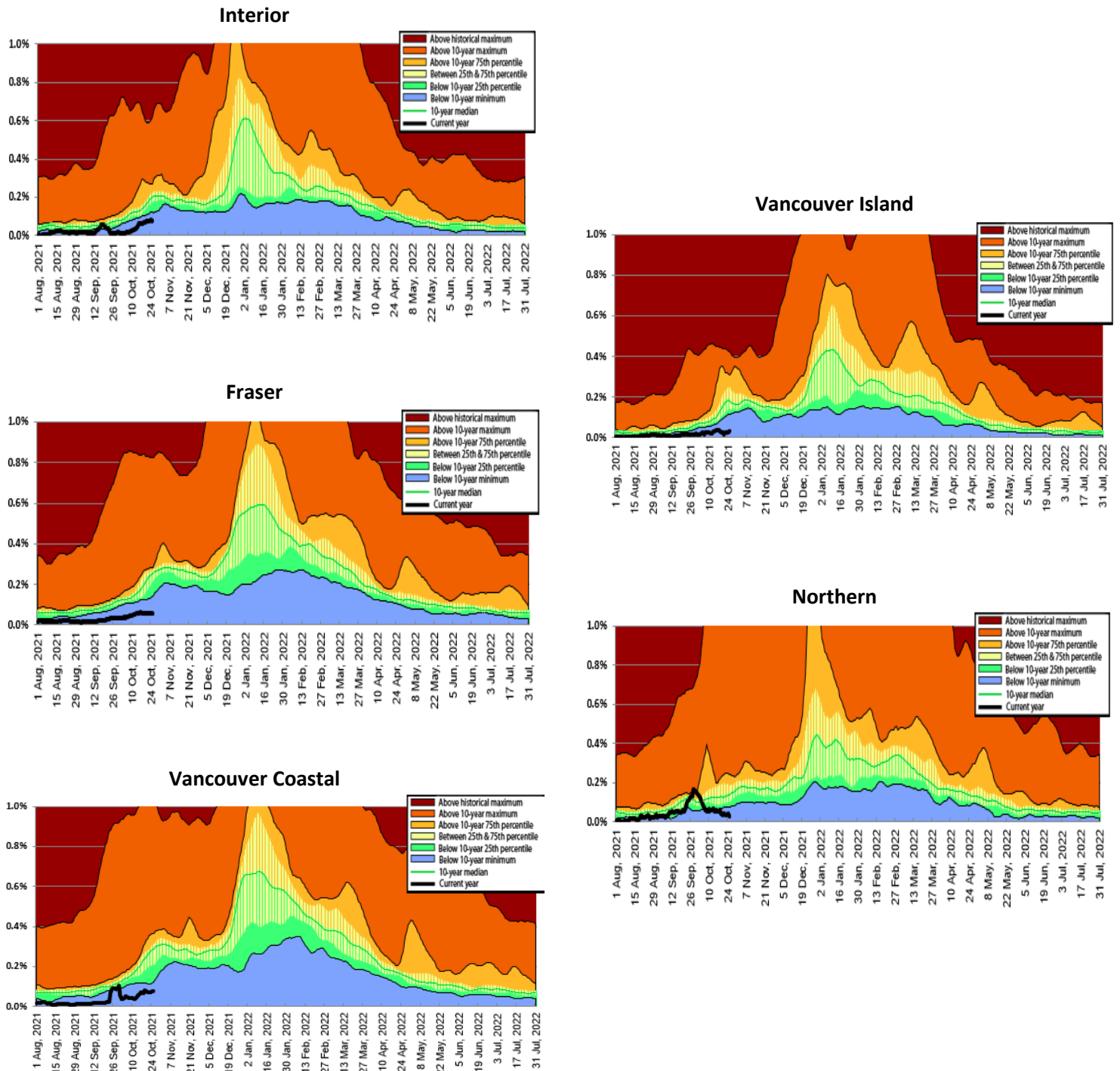


† Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Influenza illness (II) is tracked as the weekly count of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza).

* 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 October 25, 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 October 25, 20

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 (week 41, October 10 to 16, 2021)

In week 41, influenza activity across Canada was exceptionally low with almost all regions reporting no influenza activity. In the past week, all influenza indicators were at exceptionally low inter-seasonal levels. In week 41, a total of six influenza detections (3 influenza A and 3 influenza B) have been reported*. Among the six detections with detailed age information, all were reported in individuals under the age of 65 years. Overall, the percentage of laboratory tests positive for influenza remains at exceptionally low levels, despite the elevated levels of testing. In week 41, 9,834 tests for influenza were performed at reporting laboratories and the average percentage of tests positive for influenza was 0.06%. Compared to the past six pre-pandemic seasons (2014-2015 to 2019-2020), an average of 3,240 tests were performed for this time period, with an average of 1.7% of tests positive for influenza. To date this season (August 28 to October 16, 2021), 17 influenza detections (12 influenza A and 5 influenza B) have been reported. In week 41, no outbreaks were reported. To date this season (August 28 to October 16, 2021), 11 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) was 1.1% in week 41 and is within expected levels. The percentage of FluWatchers reporting fever and cough was 0.5% in week 41; it remains below expected levels and is stable.

FluWatch report (week 41) is available at: <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/fluwatch/2021-2022/week-41-october-10-october-16-2021.html>

National Microbiology Laboratory (NML): Strain Characterization

The National Microbiology Laboratory has not yet reported influenza strain characterization results for influenza viruses collected during the 2021-2022 season.

National Microbiology Laboratory (NML): Antiviral Resistance

The National Microbiology Laboratory has not yet reported antiviral resistance results for influenza viruses collected during the 2021-2022 season.

**From the RVDSS week 41 report, the six influenza detections were from Quebec (n=3), Ontario (n=1), Manitoba (n=1), and BC (n=1).*

E. International

USA (week 41, October 10 to 16, 2021)

In week 41, influenza activity remained low in the US. The proportion of outpatient visits for ILI is at 1.8% this week, which is below the national baseline (2.5%). The proportion of deaths attributed to pneumonia and influenza during week 41 (17.5%) is above the epidemic threshold of 5.8%. No influenza-associated pediatric deaths were reported to CDC during week 41. Of the 28,629 samples tested for influenza from clinical laboratories across the US in week 41, 17 (0.06%) were influenza A and 19 (0.07%) was influenza B positive.

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 (October 25, 2021, based on data up to October 10, 2021)

In the temperate zone of the northern hemisphere, respiratory illness indicators and influenza activity remained below baseline overall. RSV detections increased in some parts of Canada and the USA. In Europe, influenza detections (influenza A and B) increased in some countries though activity remained at inter-seasonal level. Detections of influenza A (predominated by A(H3N2)) was reported by multiple countries across the regions of Central Asia, Northern Africa, and Western Asia.

In countries in the temperate zone of the southern hemisphere, influenza activity remained at inter-seasonal levels. In Oceania, influenza is being detected at very low levels, even below the already low detection in 2020, despite ongoing testing. In South Africa, there were detections of influenza A(H1N1)pdm09, A(H3N2) and influenza B viruses. In temperate South America no detections of influenza virus were reported. Respiratory syncytial virus (RSV) detection is sporadic across the southern hemisphere region.

In countries in the tropical zone, there were sporadic detections of influenza A(H1N1), influenza A(H3N2), and influenza B(Victoria). No influenza detected in the regions of Tropical South America, Middle Africa, and South East Asia. RSV and SARI activity detected in some countries across the sub-regions well (eg. Belize, Mexico, Jamaica, Nepal etc).

From September 27 to October 10, 2021, the WHO GISRS laboratories tested more than 240,512 specimens. Of these, 2,219 were positive for influenza viruses including 763 (34.4%) typed as influenza A and 1,456 (65.6%) as influenza B. Of subtyped influenza A viruses, 169 (34%) were influenza A(H1N1)pdm09 and 328 (66%) were influenza A(H3N2). Of the characterized B viruses, 2 (0.1%) belonged to the B(Yamagata) lineage and 1,339 (99.9%) to the 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