

# British Columbia (BC) Influenza Surveillance Bulletin

2020-21 Influenza Season

**Week 46**: November 8 to 14, 2020

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## Despite increased testing, still no indication of seasonal influenza virus in BC

There is still no indication of seasonal influenza virus in BC, an ongoing absence since July. Since week 40 (September 27) start of the 2020-21 influenza surveillance season, the only sporadic (3) influenza detections have followed live attenuated influenza vaccine (LAIV) receipt, which is not unexpected and likely represents vaccine- rather than wild-type virus.

The lack of influenza virus detection otherwise across BC laboratories is not for lack of trying. Between weeks 40 and 46 of 2020-21, over 10,000 influenza tests were performed, which is more than double the number tested (4541) during the same period of 2019-20 when 154 influenza viruses were detected. For the same week 40-46 period of the past 5 (2015-2019) seasons, there were 2,268 tests and 143 influenza detections on average per season (range 79-253).

No long-term care facility influenza outbreaks have yet been reported in 2020-21. Conversely between weeks 40-46 of 2019-20, three had been reported.

Enteroviruses (EV/RV), a prominent cause of the common cold at this time of year, have been detected in 499/3158 (16%) specimens tested in weeks 40-46 of 2020-21, also lower than the detection rate in weeks 40-46 of 2019-20 (491/1570; 31%).

Canada's first human case of H1N2 variant (H1N2v) of swine origin influenza virus was reported in Alberta in October, with summary details provided on [page 9](#).

**A special message related to influenza/RSV testing guidance for the 2020-21 season is provided from the BCCDC Public Health Laboratory (PHL) on [page 2](#).**

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: November 19, 2020

## A. Laboratory Surveillance

### Special message from the BC Centre for Disease Control (BCCDC) Public Health Laboratory (PHL)

#### Updated BCCDC PHL Influenza/RSV Testing Guidelines – Fall/Winter 2020/21

Due to high operational demands related to COVID-19 testing, influenza A/B/RSV nucleic acid testing (NAT) and multiplex respiratory panel testing at the BCCDC PHL will only be performed if clearly indicated on the requisition or by request.

Note that the current BCCDC PHL requisition includes a tick box to specifically request influenza A/B/RSV testing. See: <http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Labs/VI%20Req.pdf>

Influenza and other non-COVID-19 respiratory virus testing are currently recommended only for patients with clinical indications who meet **at least one** of the following criteria:

- (1) in a Long Term Care (LTC) facility; or
- (2) part of an outbreak investigation; or
- (3) hospitalized or sick enough to be hospitalized; or
- (4) pregnant; or
- (5) <5 years of age.

For a limited time, while influenza virus detections remain low and manageable, samples in which influenza A is detected may be reflexed to the multiplex respiratory panel for hemagglutinin (HA) subtyping (e.g. to determine if H1 or H3). However, overall this season HA subtyping will not be routinely performed.

The exception is for participants in the Sentinel Practitioner Surveillance Network (SPSN) who will get routine influenza A/B/RSV NAT and reflex multiplex respiratory panel testing as part of the provincial surveillance program.

Please note, only one sample needs to be collected for all respiratory virus testing.

For other testing details, please refer to the BCCDC Public Health Laboratory test menu: <http://www.elabhandbook.info/phsa/>

Sincerely,

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## Laboratory findings

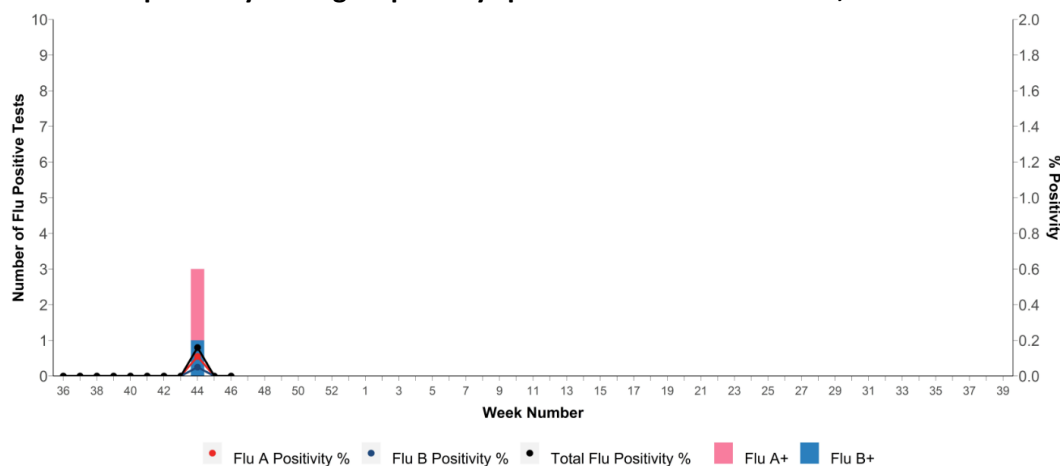
Since the last influenza bulletin issued in week 41 (October 4-10) to the end of week 46 (November 8-14), there have been 2 influenza A and 1 influenza B viruses detected among 9,342 specimens tested between October 11 and November 14 (**Figure 1**). However, these three influenza detections, all in week 44, were known to be associated with recent live attenuated influenza vaccine (LAIV) receipt in 2 individuals (one influenza A H1/H3 dual infection and one influenza A/B dual infection), and likely represent vaccine-type virus rather than community circulation of seasonal influenza viruses. Such detection following LAIV receipt is not unexpected.

Since the start of the 2020-21 influenza surveillance season in week 40 (September 27-October 3) to week 46 (November 8-14), there have been no seasonal influenza virus detections otherwise despite more than 10,000 influenza tests conducted across BC laboratories (**Table 1**). The week 40-46 tally of influenza tests is more than double the 4541 tests during the same period of 2019-20 when 154 influenza viruses were detected and is also substantially higher than the average tally of 2,268 influenza tests across the past 5 (2015-2019) seasons, with 143 influenza detections on average per season (range 79-253) during that week 40-46 period (source: **RVDSS Report**).

During the most recent week 46 of the 2020-21 season, there were 2,164 specimens screened for influenza by laboratories across BC which is nearly three times the 741 tests conducted in week 46 of 2019-20. There were no influenza detections in week 46 of 2020-21 but 30 influenza viruses detected in week 46 of 2019-20.

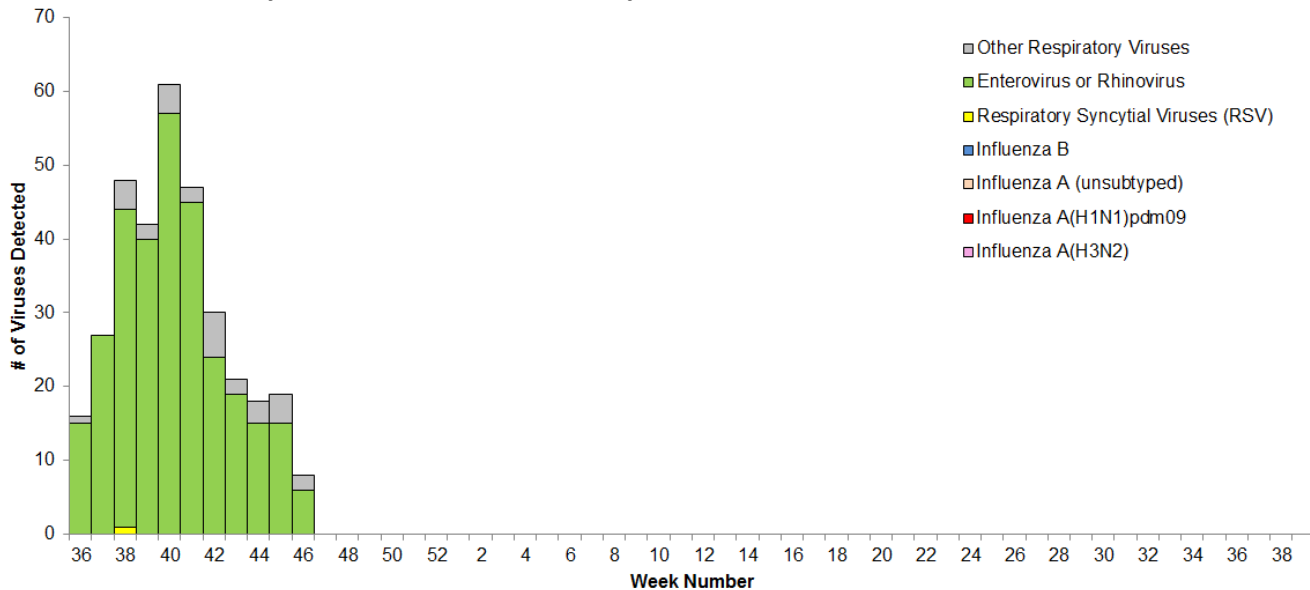
The BCCDC PHL and some local HA laboratories also conduct testing for other non-influenza respiratory viruses (NIRV), including RSV +/- other multiplex testing (beyond SARS-CoV-2 which is not addressed in this report). Of 2,164 respiratory specimens in week 46 that were tested for RSV, none were positive. Of week 46 specimens additionally subjected to multiplex testing, entero/rhinoviruses (EV/RV) were found in 14% (84/599), making them the most commonly detected NIRV (84/86; 98%). EV/RV is a prominent seasonal cause of the common cold at this time of year. This continues a pattern observed across weeks 40-46 of 2020-21 during which EV/RV was detected in 499/3158 (16%) specimens tested, lower than 2019-20 (491/1570; 31%) and representing 499/535 (93%) of NIRV detections thus far in 2020-21. Most EV/RV detections have been in young children with median age of 3 years. (**Figures 2-4, Table 1**).

**Figure 1. Influenza virus positivity among respiratory specimens tested<sup>a</sup> across BC, 2020-2021<sup>b,c,d</sup>**



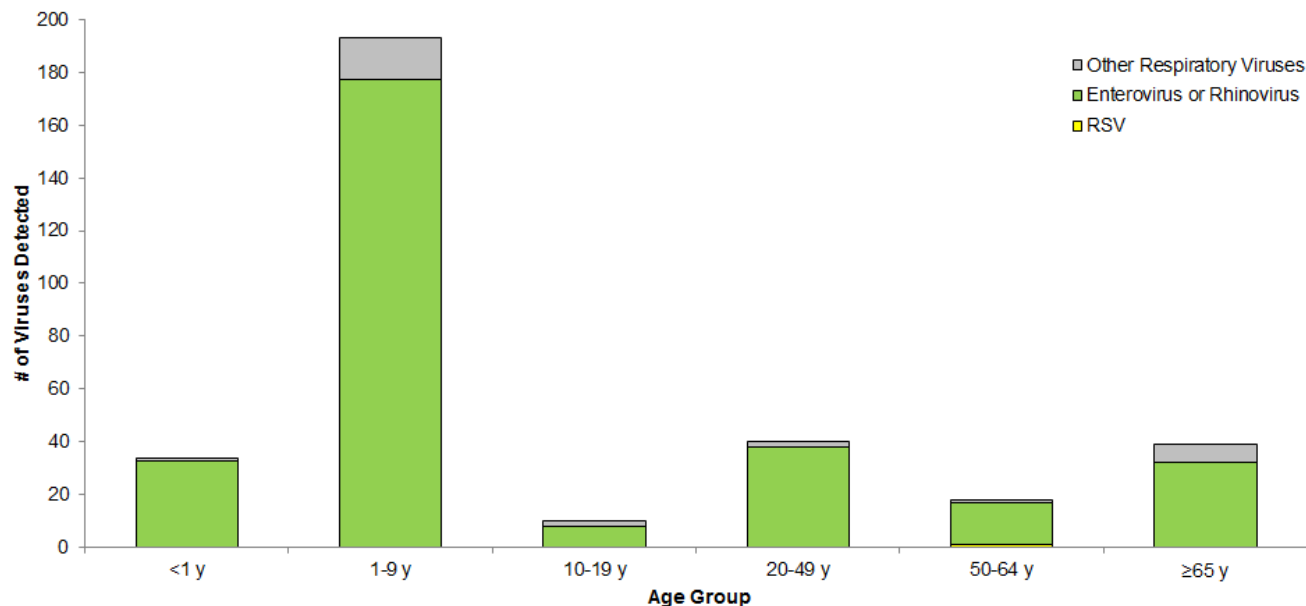
- The percentage influenza positivity is presented by influenza type based on primary specimens submitted for influenza testing at the BCCDC Public Health Laboratory (PHL) and other external sites that share complete testing data with the BCCDC PHL. Reporting sites include: BC Children's and Women's 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, Victoria 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.
- The positive influenza A and influenza B viruses detected in week 44 were associated with live attenuated influenza vaccine (LAIV) receipt in an individual, and likely represent vaccine-type virus rather than community circulation of seasonal influenza virus.

**Figure 2. Influenza and non-influenza respiratory virus (NIRV) detections among specimens submitted to BCCDC Public Health Laboratory and Island Health Laboratory, 2020-2021\***



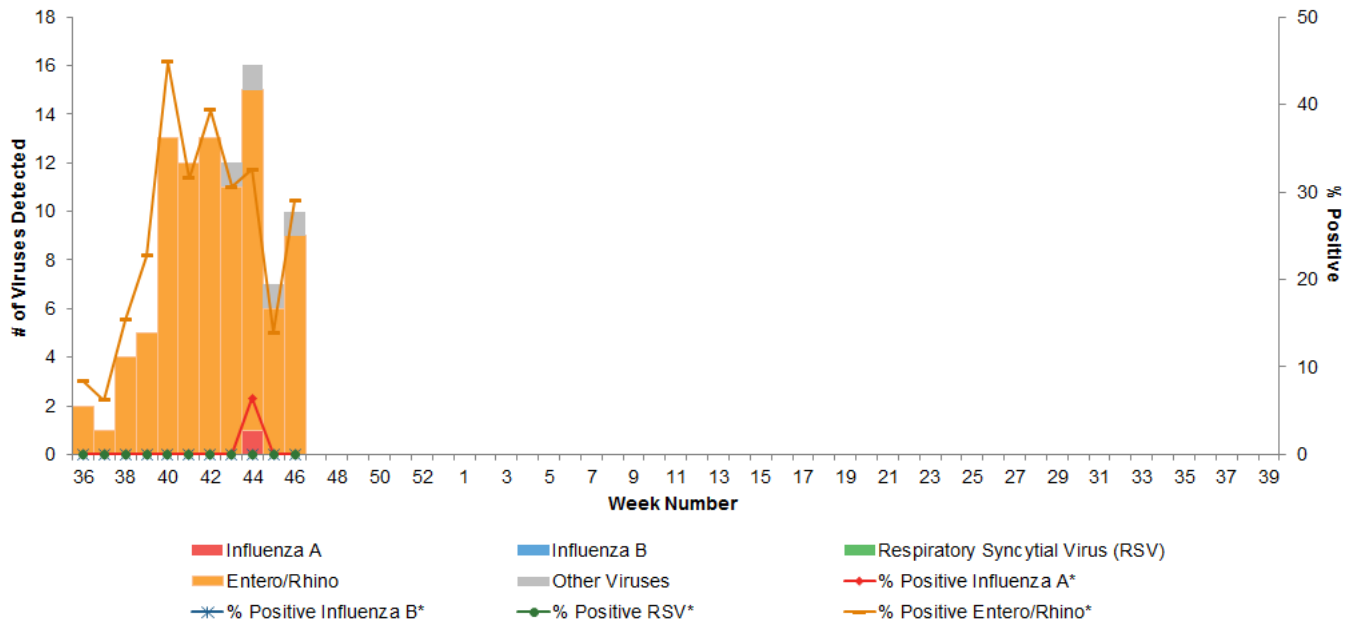
\* The BCCDC Public Health Laboratory (PHL) conducts the majority of influenza subtype characterization for the province, including for primary specimens submitted directly to the BCCDC PHL for influenza diagnosis, as well as for specimens that have tested positive for influenza at other external sites 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 3. Cumulative number (since week 36) of non-influenza respiratory virus detections (NIRV) by type and age group, BCCDC Public Health Laboratory, 2020-21**



Source: BCCDC Public Health Laboratory (PHDRW); Data are current to November 17, 2020; figure includes cumulative influenza detections for specimens collected from weeks 36-46.

**Figure 4. Influenza and NIRV detections among respiratory specimens submitted to BC Children’s and Women’s Health Centre Laboratory, 2020-2021<sup>a,b,c,d</sup>**



- 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 36 (August 30, 2020) to week 46 (November 14, 2020), among the 341 specimens submitted for influenza virus testing at the BC Children’s and Women’s Health Centre laboratory, majority of the detections were enterovirus/rhinoviruses (90/95= 95%). The last detection of influenza A was in week 13 (March 22-28, 2020) and influenza B was in week 14 (March 29-April 4, 2020).
- d. The positive influenza A virus detected in week 44 was associated with live attenuated influenza vaccine (LAIV) receipt, and likely represent vaccine-type virus rather than community circulation of seasonal influenza viruses.

**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 <sup>a,b</sup> where specimen tested <sup>c</sup> , BC Cases						Total
	FHA	IHA	VIHA	NHA	VCHA	BCCDC/ CW	
<b>Current report Week 46 [November 8, 2020 – November 14, 2020]</b>							
<b>Influenza, Total<sup>d</sup></b>	0/168 (0)	0/606 (0)	0/552 (0)	0/1 (0)	0/235 (0)	0/602 (0)	0/2164 (0)
Influenza A total	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A(H3N2) <sup>e</sup>	0	0	0	0	0	----	0
A(H1N1)pdm09 <sup>e</sup>	0	0	0	0	0	----	0
Influenza B total	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<b>NIRV, Total<sup>c</sup></b>	0	71	3	0	0	12	86
RSV	0/168 (0)	0/606 (0)	0/552 (0)	0/1 (0)	0/235 (0)	0/602 (0)	0/2164 (0)
Entero/Rhinovirus	--- <sup>f</sup>	71/466 (15.2)	2/33 (6.1)	--- <sup>f</sup>	0/22 (0) <sup>g</sup>	11/78 (14.1)	---
Other <sup>h</sup>	--- <sup>f</sup>	0/0	1/33 (3.0)	--- <sup>f</sup>	0/28 (0) <sup>g</sup>	1/78 (1.3)	---
<b>2020-21 Season: Cumulative total to date, Week 40 to 46 [September 27, 2020 – November 14, 2020]</b>							
<b>Influenza Total<sup>d</sup></b>	0/663 (0)	0/2441 (0)	2/4271 (0) <sup>i</sup>	0/63 (0)	0/1491 (0)	1/3129 (0) <sup>i</sup>	3/12058 (0) <sup>i</sup>
Influenza A total	0 (0)	0 (0)	1 (0) <sup>i</sup>	0 (0)	0 (0)	1 (0) <sup>i</sup>	2 (0) <sup>i</sup>
A(H3N2) <sup>e</sup>	0	0	0	0	0	----	0
A(H1N1)pdm09 <sup>e</sup>	0	0	0	0	0	----	0
Influenza B total	0 (0)	0 (0)	1 (0) <sup>i</sup>	0 (0)	0 (0)	0 (0)	1 (0) <sup>i</sup>
<b>Cumulative influenza incidence (/100,000)<sup>j</sup></b>	0	0	0.2	0	0	---	0
<b>NIRV, Total<sup>c</sup></b>	0	222	31	0	6	276	535
RSV	0/663 (0)	0/2441 (0)	0/4271 (0)	0/62 (0)	0/1492 (0)	0/3129 (0)	0/12058 (0)
Entero/Rhinovirus	--- <sup>f</sup>	221/1625 (13.6)	17/184 (9.2)	--- <sup>f</sup>	4/130 (3.1) <sup>g</sup>	257/1219 (21.1)	---
Other <sup>h</sup>	--- <sup>f</sup>	1/1159 (0.1)	14/184 (7.6)	--- <sup>f</sup>	2/235 (0.9) <sup>g</sup>	19/1219 (1.6)	---

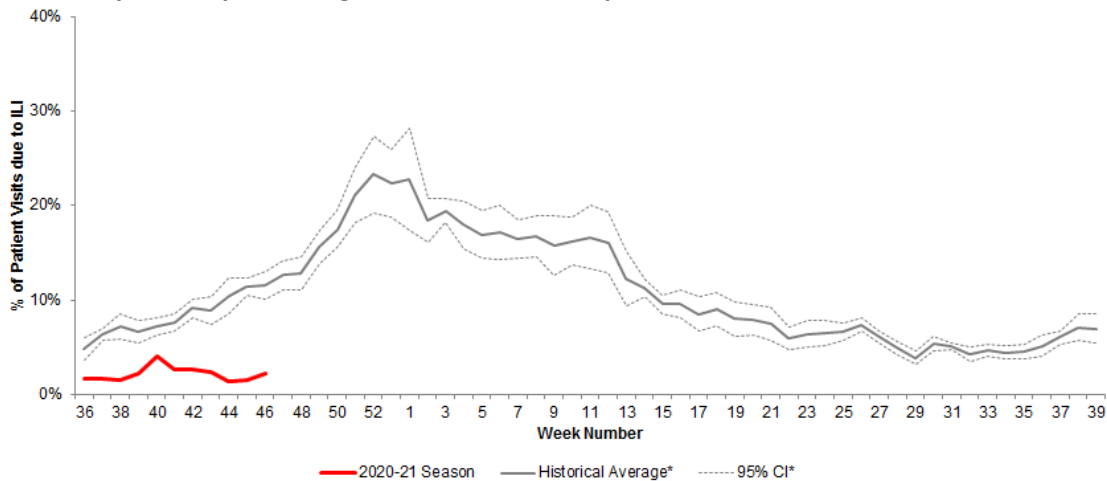
- a. FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA= Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority; BCCDC= primary patient specimens screened at BCCDC Public Health Laboratory; CW=Children’s and Women’s Health Centre Laboratory
- b. 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.
- c. The number of influenza A, influenza B, RSV, Entero/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).
- d. Influenza co-infections (influenza A and B virus positive) not accounted for in data source (PLOVER).
- e. 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.
- f. Not tested by Fraser Health Microbiology Laboratories and Northern Health laboratory sites.
- g. Entero/Rhinovirus and Coronavirus not tested by Providence Health.
- h. 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). In weeks 40 and 41, NIRV detected in BC include 1 adenovirus and 6 human metapneumoviruses in VIHA, 1 adenovirus in VCHA and 4 adenoviruses detected by the BCCDC PHL.
- i. In week 44, Children’s & Women’s Laboratory (CW) detected 1 influenza A (dual H1/H3) and Island Health Authority detected 1 influenza A and 1 influenza B virus (a dual detection in the same individual). These 3 influenza detections were known to be associated with recent live attenuated influenza vaccine (LAIV) receipts in 2 individuals.
- j. Cumulative incidence of influenza is calculated from dividing total influenza cases (starting week 40) by the total population size of each health authority and BC (PEOPLE2019 population estimates).

## B. Clinical Indicators

### BC Children’s Hospital Emergency Room

The proportion of visits to BC Children’s Hospital Emergency Room (BCCH ER) in week 46 attributed to ILI (2.3%) remains substantially below the 5-year historical average (11.4%) (**Figure 5**). Of note, the overall number of ER registrations at BCCH is substantially lower than the similar period last year. This may be due to changes in health seeking behaviour and social distancing during the COVID-19 epidemic.

**Figure 5. Percent of patients presenting to BC Children’s Hospital ER**

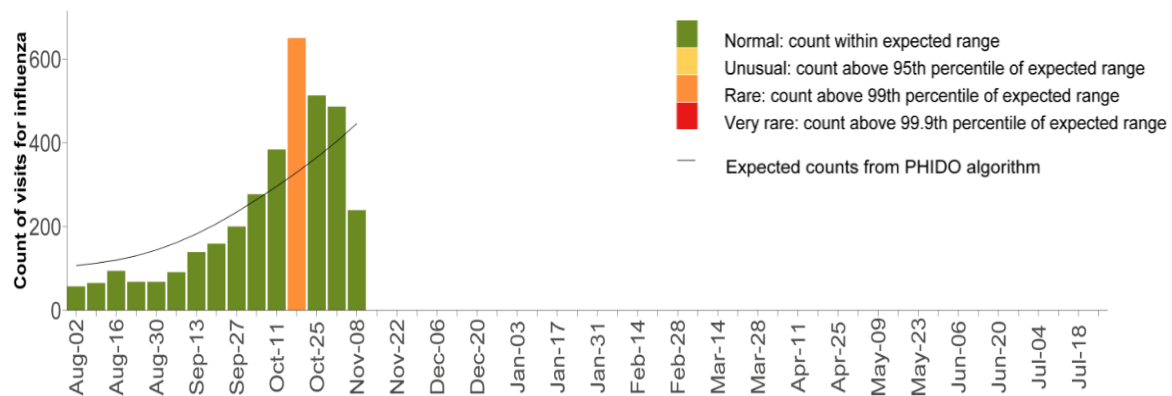


Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."  
\*5-year historical average for 2020-21 season based on 2014-15 to 2018-19 seasons (excluded 2019-20 season); CI=confidence interval.

### Medical Service Plan

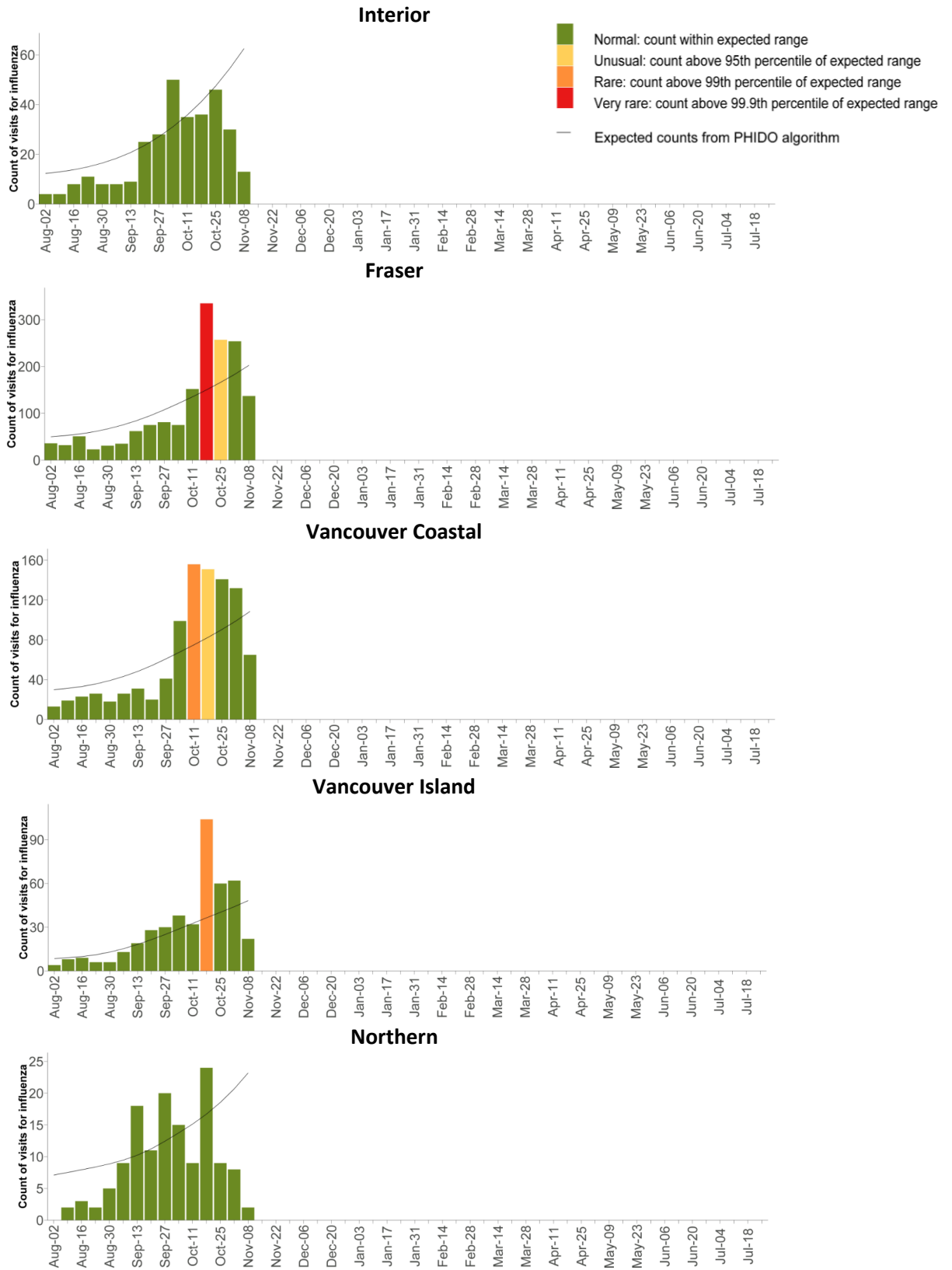
As shown in **Figure 6** and **Figure 7**, in most but not all weeks between week 40 (beginning September 27) and week 46 (beginning November 8), BC Medical Service Plan (MSP) general practitioner claims for influenza illness (weekly counts) were within the expected range in BC and in all 5 health authorities. For weeks that exceeded the expected range, note that there are many non-influenza virus causes of similar clinical influenza-like illness. The clinical diagnosis of "influenza illness" as represented in administrative MSP billing data is non-specific and in the absence of laboratory-confirmed influenza detections in the province for many months more likely reflects these other non-influenza respiratory pathogens such as SARS-CoV-2 or Enteroviruses. See [laboratory findings](#).

**Figure 6. Service claims submitted to MSP for influenza illness<sup>†</sup>, British Columbia, 2020-2021 season**



<sup>†</sup> 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). MSP data beginning August 2, 2020 corresponds to sentinel ILI week 32; data are current to November 14, 2020.

Figure 7.





## C. Influenza outbreak reports

The last influenza outbreak in BC was in March 2020 (week 12) with no influenza outbreaks reported thus far during the 2020-2021 season (since week 40, starting September 27, 2020). By way of comparison, during the same period spanning weeks 40 (from September 29) to 46 (to November 16) of 2019, there were 3 long-term care facility (LTCF) influenza outbreaks reported.

## D. Emerging Respiratory Pathogens Update

### Swine origin influenza A(H1N2)v

The following update is from the Public Health Agency of Canada (PHAC), Human emerging respiratory pathogens bulletin (Issue 46, October 2020).

On October 29, 2020, the Public Health Agency of Canada (PHAC) was notified of a confirmed human case of influenza A(H1N2) variant virus of swine origin, marking the 27th influenza A(H1N2)v case reported to the WHO since 2005 and the first from Canada. The individual developed mild respiratory infection symptoms and presented to an emergency department on October 7, 2020, at which time specimen collection took place. The case was not hospitalized. Testing at the provincial laboratory identified an influenza A(H1N2)v virus of swine origin and the specimen was sent to the National Microbiology Laboratory (NML) for confirmation, viral culture, and additional genetic, antigenic, and antiviral susceptibility testing. The case was isolated at home for 10 days following onset of illness and has since recovered. One household contact had mild symptoms shortly after the case but was not tested, was isolated, and has recovered. No other household contacts reported illness prior to or following the case's illness. Most H1N2v infections result in mild illness. Based on a preliminary investigation, the case has had no known animal or sick human exposure. Epidemiologic, animal health and virological investigations are ongoing and PHAC continues to monitor the situation and provide assistance where needed.

Full bulletin, including other emerging respiratory pathogens of interest, is available at:

<https://www.canada.ca/en/public-health/services/surveillance/human-emerging-respiratory-pathogens-bulletin/2020/october.html>

Previous human emerging respiratory pathogen bulletins issued by PHAC are available here:

<https://www.canada.ca/en/public-health/services/surveillance/human-emerging-respiratory-pathogens-bulletin.html>

## E. National

### **FluWatch (week 45, November 1 to November 7, 2020)**

Despite the elevated levels of influenza testing, influenza activity remains below average for this time of the year. In week 45, no influenza/ influenza-like-illness (ILI) activity was reported in Canada. Approximately 12,258 participants reported to FluWatchers and 35 (0.29%) participants reported cough and fever. An average of 9,985 tests for influenza were performed at reporting laboratories, which is 2.2 times the average for this period over the past 6 seasons. The average weekly percentage of tests positive for influenza in week 45 was 0.04%, compared to 4.6% during the past 6 seasons. Four laboratory detections of influenza were reported; two of these detections were associated with recent live attenuated influenza vaccine (LAIV) receipt and likely represent vaccine-type virus rather than community circulation of seasonal influenza viruses.

To date this season, 17 influenza detections have been reported, which is significantly lower than the past six seasons when an average of 818 influenza detections were reported. Between weeks 35-45, 77 ILI outbreaks have been reported; all outbreaks were in schools and/or daycares. One laboratory-confirmed influenza outbreak in a LTCF, have been reported. Outbreaks of ILI are not specific to any one respiratory pathogen and can be due influenza or other respiratory viruses, including rhinovirus and even COVID-19.

FluWatch report (week 45) is available at: <https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.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 2020-21 season.

### **National Microbiology Laboratory (NML): Antiviral Resistance**

The National Microbiology Laboratory has not yet reported antiviral resistance results for influenza viruses collected during the 2020-21 season.

## F. International

### USA (week 45, November 1 to November 7, 2020)

In week 45, influenza activity remained low in the US. The proportion of outpatient visits for ILI was 1.5% that week, which is still below the national baseline (2.6%). Of the 19,439 specimens tested by public health laboratories in week 45, 4 (0.02%) influenza A (subtype unknown) and 2 (0.01%) influenza B viruses were detected. Cumulatively since week 40, a total of 85,746 specimens were tested and 28 (0.03%) were influenza A and 21 (0.02%) were influenza B positive. In clinical laboratories across the US, 15,656 samples were tested for influenza in week 45, 19 (0.1%) were influenza A and 11 (0.07%) were influenza B positive. Influenza virus characterization and influenza-associated hospitalization indicators will be available later this season. The proportion of deaths attributed to pneumonia, influenza, and COVID-19 during week 45 (8.9%) were above the epidemic threshold of 6.1%. No influenza-associated pediatric deaths have been reported to the US CDC in the current influenza season.

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 (November 9, 2020, based on data up to October 25, 2020)

***In the temperate zone of the northern hemisphere***, influenza activity remained at inter-seasonal levels overall. Influenza activity indicators, including percent test positivity, remained at very low levels in the United States and Canada. Reporting European countries continued to report sporadic detections of influenza and slight increases in respiratory illness indicators (likely attributed to SARS-CoV-2 circulation). Rhinovirus activity was reported in some European countries performing surveillance for other respiratory viruses. Sporadic influenza detection reported in Western Asia and no influenza detection reported in Central Asia and Northern Africa. In Southern China (East Asia), ILI activity was reported at a higher level than the previous 3 influenza seasons.

***In countries in the temperate zone of the southern hemisphere***, influenza activity remained low overall. Despite continued testing, ILI and other influenza activity indicators in Oceania remained below usual levels for this time of the year. No influenza viruses were reported in South Africa, but respiratory syncytial virus activity increased in recent weeks. In temperate South America, the number of SARI cases returned below epidemic threshold in Chile and remained at extraordinary level in Paraguay.

***In countries in the tropical zone***, low but increased influenza detection across multiple regions and countries. In Central America, the Caribbean, and South America, sporadic influenza detection increased in multiple countries and regions, while SARS-CoV-2 detection appeared to have decreased. In Tropical Africa and Asia, influenza A(H3N2) was the predominant virus detected in countries that reported influenza activity (eg. Côte d'Ivoire, Bangladesh, India, Cambodia, Lao PDR).

From October 12 to October 25, 2020, the WHO GISRS laboratories tested more than 94,241 specimens. Of these, 140 were positive for influenza viruses including 80 (57.1%) typed as influenza A and 60 (42.9%) as influenza B. Of subtyped influenza A viruses, 2 (5.4%) were influenza A(H1N1)pdm09 and 35 (94.6%) were influenza A(H3N2). Of the characterized B viruses, 1 (6.7%) belonged to the B(Yamagata) lineage and 14 (93.3%) to the B(Victoria) lineage.

Details are available at:

[https://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/).

## G. WHO Recommendations for Influenza Vaccines

### WHO Recommendations for the 2020-21 Northern Hemisphere Influenza Vaccine

On February 28, 2020, the WHO announced recommended strain components for the 2020-21 northern hemisphere trivalent influenza vaccine (TIV):\*

- an A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus [a clade 6B.1A5A virus]; †
- an A/Hong Kong/2671/2019 (H3N2)-like virus [a clade 3C.2a1b/T135K 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 2020-21 northern hemisphere season contain the above three viruses and a B/Phuket/3073/2013-like virus (B/Yamagata lineage) [a clade 3 virus], unchanged from 2019-2020.

\* Recommended strains represent a change for three of the three components used for the 2019-2020 northern hemisphere TIV.

† Note for cell-based vaccine, the WHO recommends A/Hawaii/70/2019 (H1N1)pdm09-like virus [also clade 6B.1A5A] for the 2020-21 season. Recommended strains represents a change from the 2019-2020 season vaccine which contained an A/Brisbane/02/2018 (H1N1)pdm09-like virus [a clade 6B.1A1 virus].

‡ Recommended strain represents a change from the 2019-2020 season vaccine which contained an A/Kansas/14/2017 (H3N2)-like virus [a clade 3C.3a virus]

§ Recommended strain represents a change from the 2019-2020 season vaccine which contained a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage) [a clade V1A.1, Δ2 virus]

For further details: [https://www.who.int/influenza/vaccines/virus/recommendations/2020-21\\_north/en/](https://www.who.int/influenza/vaccines/virus/recommendations/2020-21_north/en/)

### WHO Recommendations for 2021 Southern Hemisphere Influenza Vaccine

On September 25, 2020, the WHO announced the recommended strain components for the 2021 southern hemisphere trivalent influenza vaccine (TIV)\*:

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus [a clade 6B.1A5A virus]; †
- an A/Hong Kong/2671/2019 (H3N2)-like virus [a clade 3C.2a1b/T135K virus]; ‡
- a B/Washington/02/2019 (B/Victoria lineage)-like virus [a clade V1A.3, Δ3 virus].

It is recommended that quadrivalent influenza vaccines (QIV) for the 2021 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 2020.

\* Recommended strains represent a change for two of the three components used for the 2020 southern hemisphere TIV

† Note for cell-based vaccine, the WHO recommends A/Wisconsin/588/2019 (H1N1)pdm09-like virus [also a clade 6B.1A5A virus] for the 2020-21 season. Recommended strain represents a change from the 2020 season vaccine which contained an A/Brisbane/02/2018 (H1N1)pdm09-like virus [a clade 6B.1A1 virus]

‡ Note for cell-based vaccine, the WHO recommends an A/Hong Kong/45/2019 (H3N2)-like virus [also clade 3C.2a1b/T135K virus] for the 2020-21 season. Recommended strain represents a change from the 2020 season vaccine which contained an A/South Australia/34/2019 (H3N2)-like virus [a clade 3C.2a1b/T131K virus]

For further details: [https://www.who.int/influenza/vaccines/virus/recommendations/2021\\_south/en/](https://www.who.int/influenza/vaccines/virus/recommendations/2021_south/en/)

## H. Additional Information

### **Explanatory Note:**

The surveillance period for the 2020-21 influenza season is defined starting in week 40. Weeks 36-39 of the 2019-20 season are shown on graphs for comparison purposes.

### **List of Acronyms:**

**ACF:** Acute Care Facility

**AI:** Avian influenza

**FHA:** Fraser Health Authority

**HBoV:** Human bocavirus

**HMPV:** Human metapneumovirus

**HSDA:** Health Service Delivery Area

**IHA:** Interior Health Authority

**ILI:** Influenza-Like Illness

**LTCF:** Long-Term Care Facility

**MSP:** BC Medical Services Plan

**NHA:** Northern Health Authority

**NML:** National Microbiological Laboratory

**A(H1N1)pdm09:** Pandemic H1N1 influenza (2009)

**RSV:** Respiratory syncytial virus

**VCHA:** Vancouver Coastal Health Authority

**VIHA:** Vancouver Island Health Authority

**WHO:** World Health Organization

### **Web Sites:**

BCCDC Emerging Respiratory Pathogen Updates:

[www.bccdc.ca/health-professionals/data-reports/emerging-respiratory-virus-updates](http://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/](http://www.cdc.gov/flu/weekly/)

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

WHO – Influenza Updates: [https://www.who.int/influenza/surveillance\\_monitoring/updates/en/](https://www.who.int/influenza/surveillance_monitoring/updates/en/)

WHO – Weekly Epidemiological Record: [www.who.int/wer/en/](http://www.who.int/wer/en/)

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

Australian Influenza Report:

[www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm](http://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](http://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/](http://www.who.int/csr/disease/avian_influenza/en/)

World Organization for Animal Health: [www.oie.int/eng/en\\_index.htm](http://www.oie.int/eng/en_index.htm)

### **Contact Us:**

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Fax: (604) 707-2516

Email: [InfluenzaFieldEpi@bccdc.ca](mailto:InfluenzaFieldEpi@bccdc.ca)

Communicable Diseases & Immunization Service (CDIS)

BC Centre for Disease Control, 655 West 12<sup>th</sup> Ave, Vancouver BC V5Z 4R4

Online: [www.bccdc.ca/health-professionals/data-reports/influenza-surveillance-reports](http://www.bccdc.ca/health-professionals/data-reports/influenza-surveillance-reports)

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

[gallery/Documents/Guidelines%20and%20Forms/Forms/Epid/Influenza%20and%20Respiratory/OutbreakReportForm\\_2018.pdf](http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Epid/Influenza%20and%20Respiratory/OutbreakReportForm_2018.pdf)