

# British Columbia (BC) Influenza Surveillance Bulletin

2020-21 Influenza Season

**Week 50**: December 6 to 12, 2020

## Table of Contents

### A. Laboratory surveillance

Laboratory findings [2](#)

### B. Clinical Indicators

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

Medical Service Plan [7](#)

### 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](#)

### As we enter the holiday period, still no indication of seasonal influenza viruses in BC

There is still no indication of seasonal influenza viruses in BC, an ongoing absence since July 2020. Since the last influenza bulletin posted for week 46 (November 8-14), 5 influenza virus detections have been reported in BC; however, each had known link to recent live attenuated influenza vaccine (LAIV) receipt. A total of 8 LAIV-related influenza detections have been reported so far this season. Such detection is not unexpected following recent LAIV receipt and suggests vaccine- rather than wild-type virus.

Between weeks 40 and 50 (September 27 – December 12) of the 2020-21 season, more than 20,000 influenza tests have been performed, which is more than double the number tested (7,775) during the same period of 2019-20 when 337 influenza viruses were detected. For the same week 40-50 period of the past 5 (2015-2019) seasons, there were 4,639 tests and 383 influenza detections on average per season (range 142-594).

No long-term care facility influenza outbreaks have yet been reported in 2020-21. Conversely, during the 2019-20 season, 6 long-term care facility outbreaks were reported between week 40 and 50.

Enteroviruses (EV/RV), prominent causes of the common cold at this time of year, have been detected in 772/6392 (12%) specimens tested in weeks 40-50 of 2020-21, also lower than the detection rate in weeks 40-50 of 2019-20 (561/2165; 26%).

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: December 17, 2020

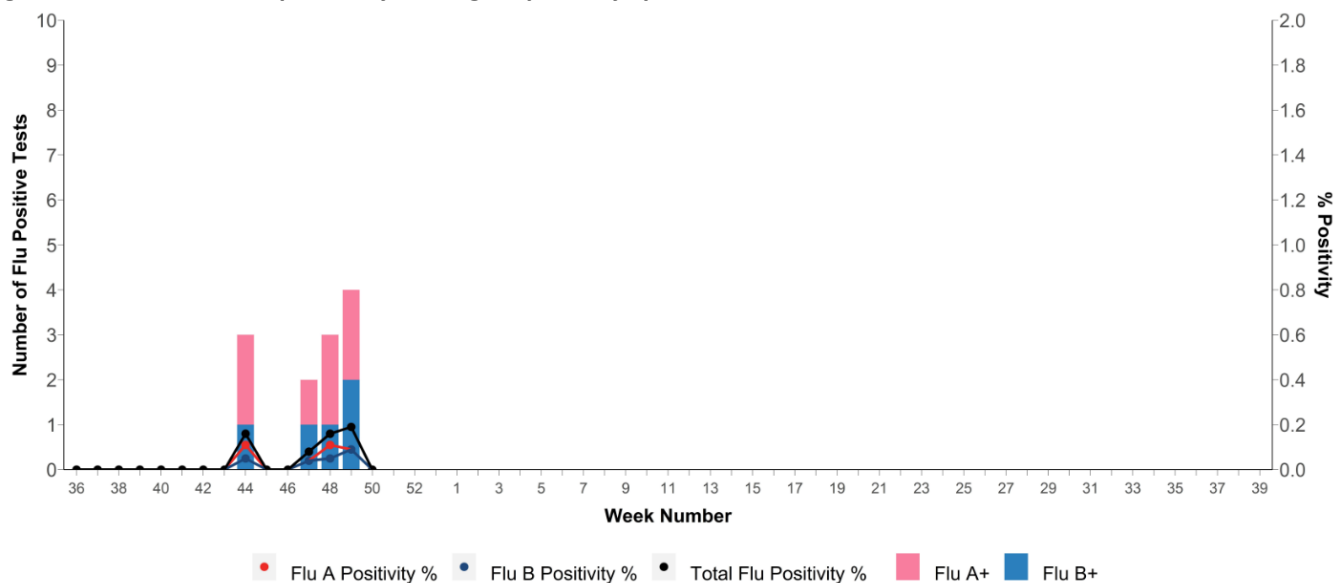
## A. Laboratory Surveillance

Since the last influenza bulletin issued for week 46 (November 8-14), there have been 5 influenza A and 4 influenza B viruses detected among 8,580 specimens tested between week 47 (beginning November 15) and week 50 (ending December 12) (Figure 1). However, these influenza detections, two in week 47, three in week 48, and four in week 49, were each known to be associated with recent live attenuated influenza vaccine (LAIV) receipt involving 5 individuals (1 influenza A(subtype unknown) and 4 influenza A/B dual infections). Such detection following LAIV receipt is not unexpected and accordingly, these observations likely represent vaccine-type virus rather than community circulation of seasonal influenza viruses.

Overall since the start of the 2020-21 influenza surveillance season in week 40 (beginning September 27) to week 50 (ending December 12), there have been no seasonal influenza virus detections otherwise despite more than 20,000 influenza tests conducted across BC laboratories (Table 1). This week 40-50 tally of influenza tests is more than double the 7,775 tests during the same period of 2019-20 when 337 influenza viruses were detected and is also substantially higher than the average tally of 4,639 influenza tests and 383 influenza detections (range 142 to 594 detections) during the same week 40-50 period across the past 5 (2015-2019) seasons (source: RVDSS Report).

During the most recent week 50 (December 6-12) of the 2020-21 season, there were 1,891 specimens screened for influenza by laboratories across BC, which is double the 915 tests conducted in week 50 of 2019-20. There were no influenza detections in week 50 of 2020-21 but 84 detections in week 50 of 2019-20. Compared to prior seasons, current weekly influenza positivity rate is trending much below the 5-year historical average (Figure 2).

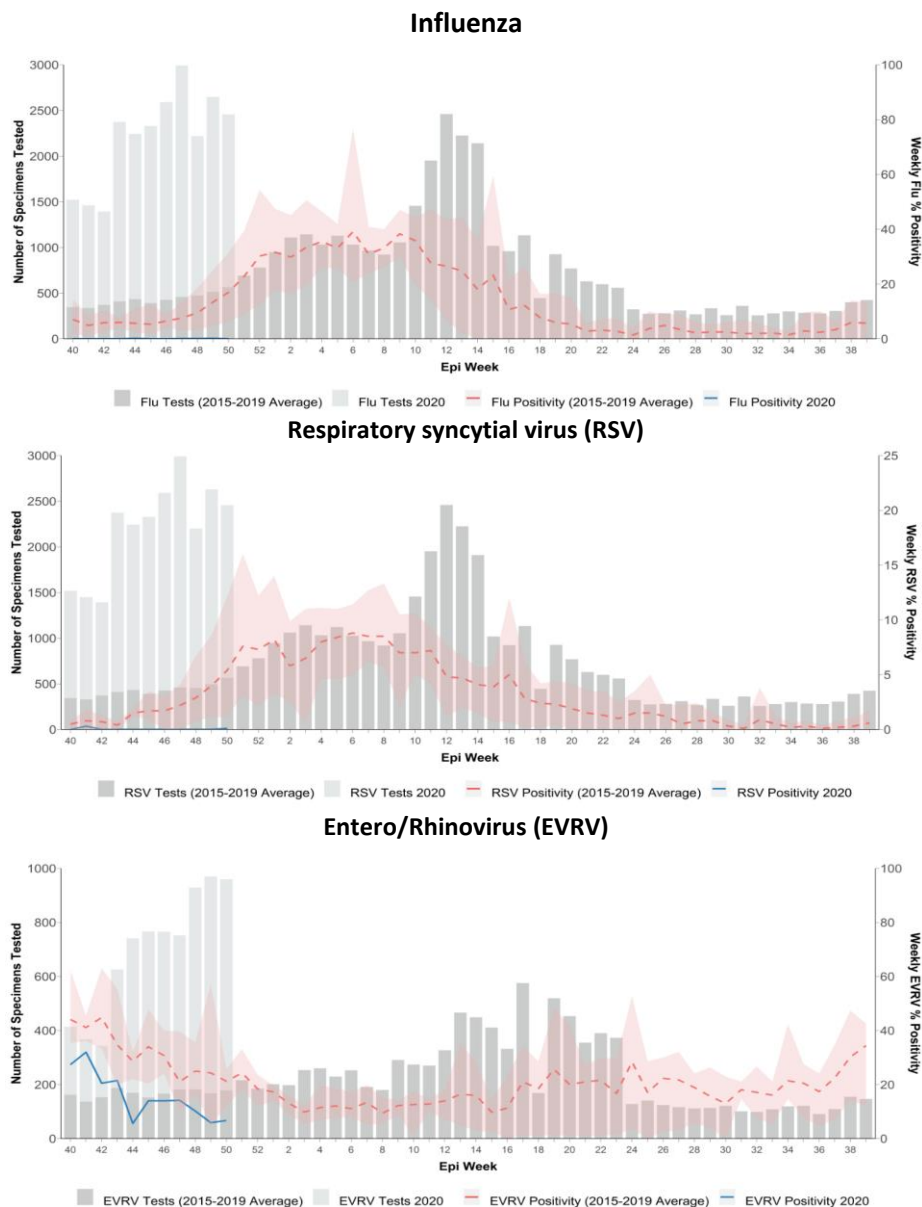
**Figure 1. Influenza virus positivity among respiratory specimens tested<sup>a</sup> across BC, 2020-2021<sup>b,c,d</sup>**



- 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, Vancouver Coastal Health, 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.
- d. The positive influenza A and influenza B viruses detected in weeks 44, 47, 48, and 49 are all associated with live attenuated influenza vaccine (LAIV) receipt in 7 individuals, and likely represent vaccine-type virus rather than community circulation of seasonal influenza.

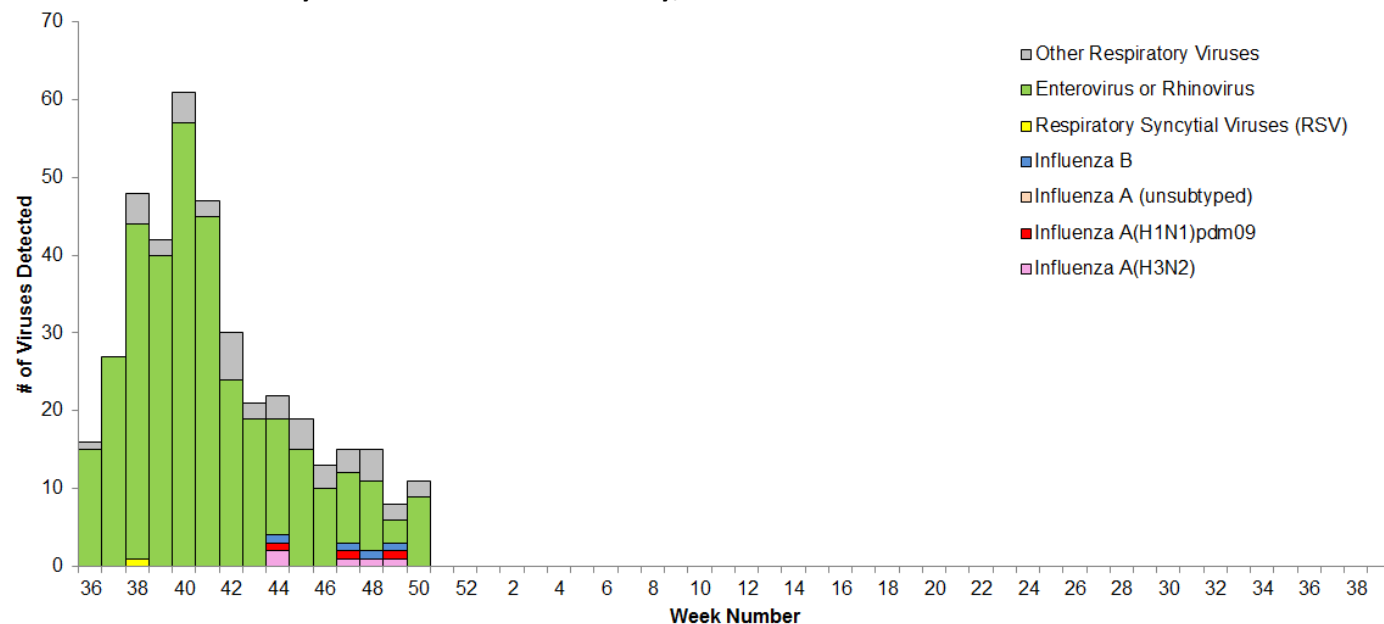
The BCCDC PHL and some local HA laboratories are also conduct testing for other non-influenza respiratory viruses (NIRV), including RSV +/- other multiplex testing (beyond SARS-CoV-2 which is not addressed in this report). Of 1,891 respiratory specimens in week 50 that were tested for RSV, none were positive. Of week 50 specimens additionally subjected to multiplex testing, entero/rhinoviruses (EV/RV) were found in 6.7% (52/781), making them the most commonly detected NIRV (52/58; 90%). Weekly RSV and EV/RV positivity rates are trending below the 5-year historical average (seasons 2015-16 to 2019-2020) and in most weeks, below the 5-year minimum as well (Figure 2). EV/RV is a prominent seasonal cause of the common cold at this time of year. This continues a pattern observed across weeks 40-50 of 2020-21 during which EV/RV was detected in 772/6392 (12%) specimens tested, lower than 2019-20 (561/2165; 26%) and representing 772/829 (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, 3, 4, 5; Table 1).

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



\* The shaded area (red) represents the maximum and minimum percentage of influenza positivity reported by week from seasons 2015-2016 to 2019-2020. Source: Respiratory Virus Detections Surveillance System (RVDSS) weekly report; data includes seasons 2015-16, 2016-17, 2017-18, 2019-20, 2020-21.

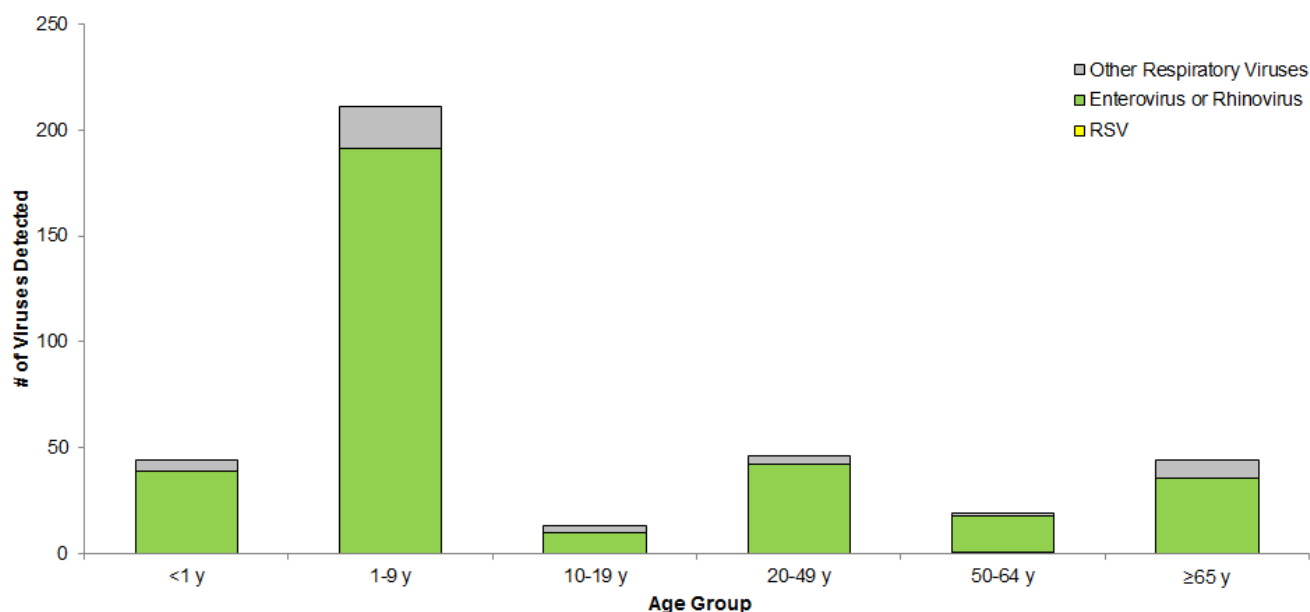
**Figure 3. Influenza and non-influenza respiratory virus (NIRV) detections among specimens submitted to BCCDC Public Health Laboratory and Island Health Laboratory, 2020-2021\***



\* 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.

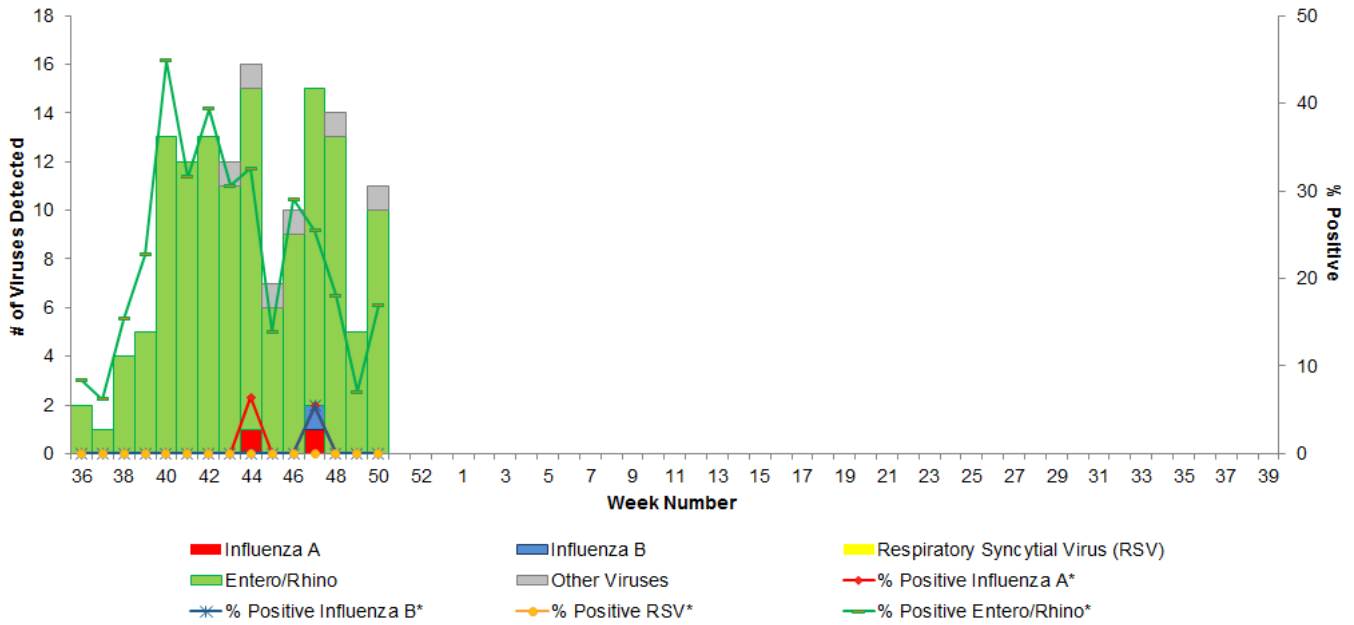
\*\* The positive influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses detected in weeks 44, 47, 48, and 49 are all associated with live attenuated influenza vaccine (LAIV) receipt in 5 individuals. These detections have already been reported by local health authority laboratories (Figure 1, Figure 5, and Table 1) and were sent to BCCDC PHL for further subtyping and analysis.

**Figure 4. 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 December 16, 2020; figure includes cumulative influenza detections for specimens collected from weeks 36-50.

**Figure 5. 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 50 (December 12, 2020), among the 613 specimens submitted for influenza virus testing at the BC Children’s and Women’s Health Centre laboratory, majority of the detections were entero/rhinoviruses (132/141= 94%).
- d. The positive influenza A and influenza B viruses detected in week 44 and 47 are associated with live attenuated influenza vaccine (LAIV) receipt in 2 individuals, 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 50 [December 6, 2020 – December 12, 2020]</b>							
<b>Influenza, Total<sup>d</sup></b>	0/123 (0)	0/765 (0)	0/678 (0)	0/1 (0)	0/218 (0)	0/106 (0)	0/1891 (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	46	0	0	1	11	58
RSV	0/123 (0)	0/765 (0)	0/678 (0)	0/1 (0)	0/218 (0)	0/106 (0)	0/1879 (0)
Enterovirus/Rhinovirus	--- <sup>f</sup>	41/610 (6.7)	0/35 (0)	--- <sup>f</sup>	1/31 (3.2) <sup>g</sup>	10/105 (9.5)	---
Other <sup>h</sup>	--- <sup>f</sup>	5/610 (0.8)	0/35 (0)	--- <sup>f</sup>	0/53 (0) <sup>g</sup>	1/105 (1.0)	---
<b>2020-21 Season: Cumulative total to date, Week 40 to 50 [September 27, 2020 – December 12, 2020]</b>							
<b>Influenza Total<sup>d</sup></b>	0/1236 (0)	5/5186 (0.1) <sup>i</sup>	2/7020 (0) <sup>i</sup>	2/71 (2.8) <sup>i</sup>	0/2220 (0)	3/5037 (0.1) <sup>i</sup>	12/20770 (0.1) <sup>i</sup>
Influenza A total	0 (0)	3 (0.1)	1 (<0.1) <sup>i</sup>	1 (1.4)	0 (0)	2 (<0.1) <sup>i</sup>	7 (<0.1) <sup>i</sup>
A(H3N2) <sup>e</sup>	0	1	1	1	2	----	5
A(H1N1)pdm09 <sup>e</sup>	0	1	1	0	1	----	3
Influenza B total	0 (0)	2 (<0.1)	1 (<0.1) <sup>i</sup>	1 (1.4)	0 (0)	1 (<0.1)	5 (<0.1) <sup>i</sup>
<b>Cumulative influenza incidence (/100,000)<sup>j</sup></b>	0	0.6	0.2	0.7	0	---	0.3
<b>NIRV, Total<sup>c</sup></b>	0	435	32	0	7	357	831
RSV	0/1236 (0)	0/5186 (0)	0/7020 (0)	0/70 (0)	0/2221 (0)	2/5037 (<0.1)	2/20758 (<0.1)
Enterovirus/Rhinovirus	--- <sup>f</sup>	425/3791 (11.2)	17/303 (5.6)	--- <sup>f</sup>	5/231 (2.2) <sup>g</sup>	325/2067 (15.7)	---
Other <sup>h</sup>	--- <sup>f</sup>	10/3325 (0.3)	15/303 (5.0)	--- <sup>f</sup>	2/466 (0.4) <sup>g</sup>	30/2067 (1.5)	---

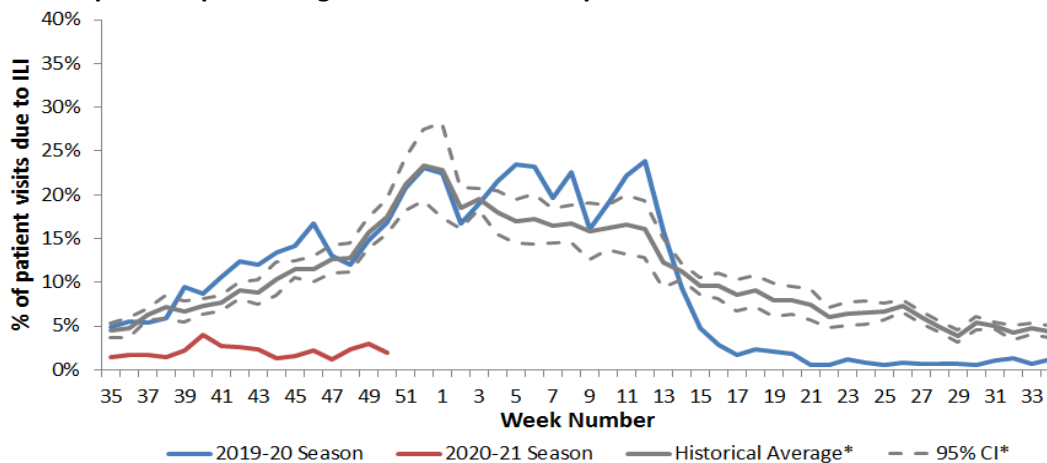
- a. FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA= Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority; BCCDC= primary patient specimens screened at BCCDC Public Health Laboratory; CW=Children’s and Women’s Health Centre Laboratory
- 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, 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).
- 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. Enterovirus/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).
- i. Since the start of the season (week 40), there has been 7 laboratory reported cases known to be associated with recent live attenuated influenza vaccine (LAIV) receipts. The reported LAIV cases correspond with all the influenza A and B virus detections between weeks 44-50; majority of these cases have dual influenza A and B virus detections.
- 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 (PEOPLE2020 population estimates).

## B. Clinical Indicators

### BC Children’s Hospital Emergency Room

Continuing a pattern since week 13 of the 2019-20 season, the proportion of visits to BC Children’s Hospital Emergency Room (BCCH ER) in week 50 of the 2020-21 season attributed to ILI (1.9%) remains substantially below the 5-year historical average (17.5%) (Figure 6). Of note, the overall number of ER registrations at BCCH in week 50 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 6. Percent of patients presenting to BC Children’s Hospital ER

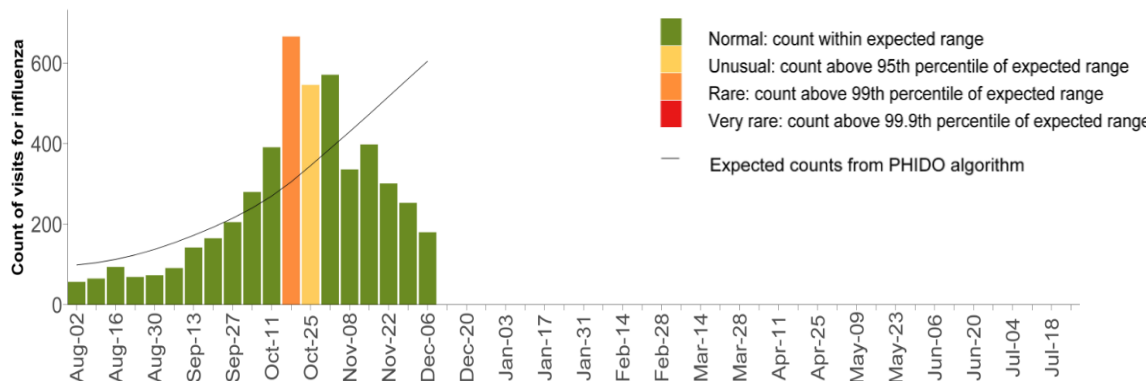


Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."  
\*5-year historical average for 2020-21 season based on 2014-15 to 2018-19 seasons (excluded 2019-20 season); CI=confidence interval.

### Medical Service Plan

As shown in Figure 7 and Figure 8, in all weeks between week 47 (beginning November 15) and week 50 (beginning December 6), 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 Entero/Rhinoviruses. See laboratory findings .

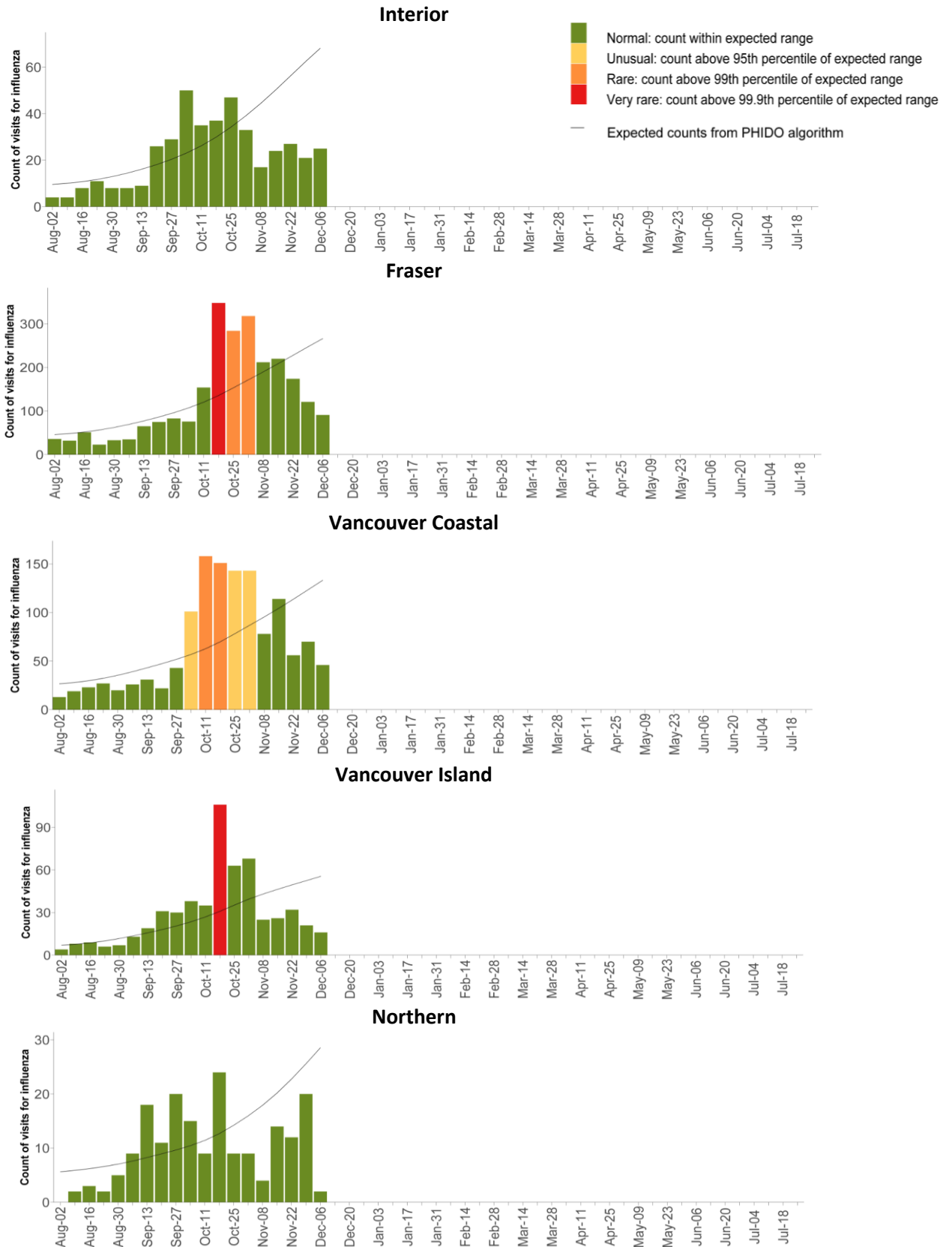
Figure 7. Service claims submitted to MSP for influenza illness<sup>†</sup>, British Columbia, 2020-2021 season



<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 December 12, 2020.



Figure 8.





## **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 50 (to December 14) of 2019, there were 6 long-term care facility (LTCF) influenza outbreaks reported.

## D. National

### **FluWatch (week 49, November 29 to December 5, 2020)**

Since the start of the 2020-21 influenza season, there is no evidence of community circulation of influenza; however, influenza testing continues at elevated levels. In week 49, 12,228 participants reported to FluWatchers and 21 (0.17%) participants reported cough and fever, similar to the previous week. In week 49, 16,396 tests for influenza were performed at reporting laboratories, which is 2.6 times the average for this week over the past six seasons. The percentage of tests positive for influenza in week 49 was 0.04% (7 laboratory detections), compared to 13.0% during the past six seasons.

To date this season, 41 influenza detections have been reported, which is significantly lower than the past six seasons where an average of 3,055 influenza detections were reported between weeks 35-49. Eighty-six influenza-like-illness (ILI) outbreaks have been reported; all outbreaks were in schools and/or daycares. Note 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. For more information on the respiratory viruses currently circulating in Canada, please refer to the [Respiratory Virus Detections in Canada Report](#).

FluWatch report (week 49) 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.

## E. International

### USA (week 49, December 6 to December 12, 2020)

In week 49, influenza activity remained low in the US. The proportion of outpatient visits for ILI was 1.6% that week, which is still below the national baseline (2.6%). Of the 16,550 specimens tested by public health laboratories in week 49, 5 (0.03%) influenza A (subtype unknown) and 11 (0.07%) influenza B viruses were detected. Cumulatively since week 40, a total of 168,660 specimens were tested and 57 (0.03%) were influenza A and 49 (0.03%) were influenza B positive. In clinical laboratories across the US, 22,474 samples were tested for influenza in week 49, 19 (0.08%) were influenza A and 21 (0.09%) 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 49 (14.3%) were above the epidemic threshold of 6.5%. One influenza-associated pediatric death, associated with an influenza B virus, has 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 (December 7, 2020, based on data up to November 22, 2020)

***In the temperate zone of the northern hemisphere***, influenza activity remained below inter-seasonal levels, though sporadic detections of influenza A and B viruses were reported in some countries. Despite increased laboratory testing, influenza percent test positivity remained at very low levels in the United States and Canada. In Europe, sporadic detection of influenza and slight increase in respiratory illness indicators (likely due to SARS-CoV-2) were reported in many countries. Central Asia and Northern Africa reported no influenza detections during the current reporting period. Western and East Asia reported inter-seasonal levels with low influenza activity.

***In countries in the temperate zone of the southern hemisphere***, influenza activity remained at inter-seasonal level. Oceania reported low ILI and influenza activity, but Respiratory syncytial virus (RSV) continues to circulate at high levels in some parts of Australia. No influenza virus detections were reported in South Africa and temperate South America.

***In countries in the tropical zone***, low but increased influenza detection across multiple regions and countries. During this reporting period, the Caribbean and Central America, Western Africa, and Southern and South East Asia regions have all reported sporadic influenza detections. These detections include both influenza A(H1N1) and influenza A(H3N2) and influenza B. No influenza detections were reported in the tropical countries of South America and in the Middle and Eastern regions of Africa.

From November 9 to November 22, 2020, the WHO GISRS laboratories tested more than 192,375 specimens. Of these, 327 were positive for influenza viruses including 162 (49.5%) typed as influenza A and 165 (50.5%) as influenza B. Of subtyped influenza A viruses, 11 (20%) were influenza A(H1N1)pdm09 and 44 (80%) were influenza A(H3N2). Of the characterized B viruses, 2 (10.5%) belonged to the B(Yamagata) lineage and 17 (89.5%) 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/).

## F. 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/)

## G. 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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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)