

# British Columbia (BC) Influenza Surveillance Bulletin

2021-22 Influenza Season

**Week 47**: November 21 to 27, 2021

## Table of Contents

<b>A. Laboratory surveillance</b>	
Laboratory findings	<a href="#">2</a>
<b>B. Clinical Indicators</b>	
BC Children's Hospital Emergency Room	<a href="#">7</a>
Medical Service Plan	<a href="#">8</a>
<b>C. Influenza outbreak reports</b>	<a href="#">9</a>
<b>D. National</b>	
FluWatch Activity levels	<a href="#">10</a>
NML Strain Characterization	<a href="#">10</a>
NML Antiviral Resistance	<a href="#">10</a>
<b>E. International</b>	
USA (CDC)	<a href="#">11</a>
WHO	<a href="#">11</a>
<b>F. Influenza Vaccine Components (WHO Recommendations)</b>	
2019-20 Northern Hemisphere	<a href="#">12</a>
2021 Southern Hemisphere	<a href="#">12</a>
<b>G. Additional Information</b>	
Explanatory note	<a href="#">13</a>
List of Acronyms	<a href="#">13</a>
Web Sites	<a href="#">13</a>

## Influenza activity remains below average in BC

Since our last bulletin for week 45, 51 influenza viruses were reported among 8,534 specimens tested (0.6%) in weeks 46-47. Detections include those likely associated with recent live attenuated influenza vaccine receipt. In 2021, influenza virus testing is higher but the detection rate is far lower than the 5-year (pre-COVID-19 pandemic) historical average for weeks 46-47 (54 (8%) of 692 tests on average).

During weeks 46 and 47 of 2021, most detections were non-influenza respiratory viruses (NIRVs), predominantly RSV (778/1,248; 62%), followed by entero-/rhinoviruses (EV/RV, 254/1,248; 20%) and parainfluenza (216/1,248; 17%). Most NIRVs have been among young children <9 years. RSV positivity remains above but EV/RV positivity remains below the historical average.

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

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.

Elsewhere in Canada, influenza virus detection during weeks 46-47 was also low: Ontario (13), Quebec (5), Manitoba (2), Nova Scotia (2) and Yukon (1).

Recent influenza activity remains low but warrants ongoing monitoring alongside RSV and other NIRV.

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: December 2, 2021

## A. Laboratory Surveillance

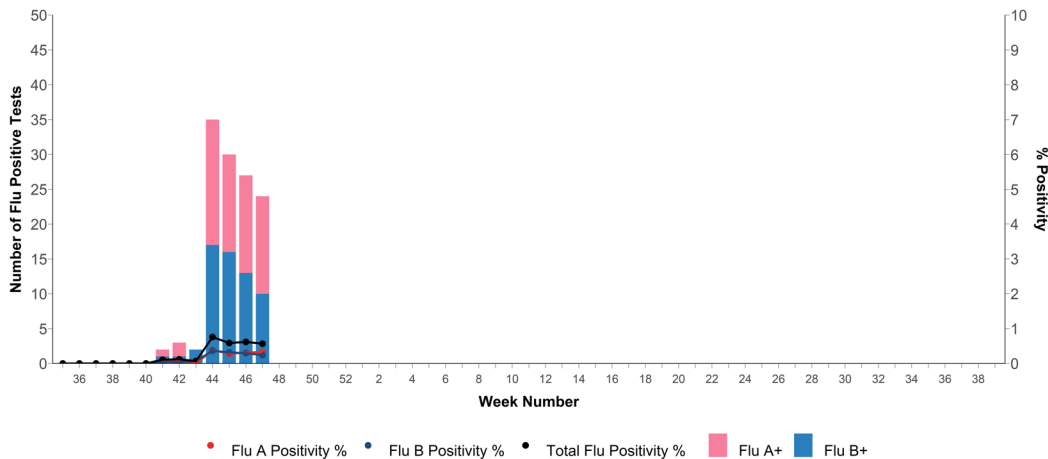
Since the beginning of the 2021-22 season, commencing October 3, 2021 (week 40), 123 (0.4%) influenza viruses have been detected among the 27,300 specimens tested in BC (Figure 1). Of these, 51 detections were reported during weeks 46 (n=27) and 47 (n=24) (spanning November 14 – November 27, 2021), representing 0.6% of the 8,534 specimens tested in weeks 46-47. There were four influenza A and B co-detections in children <15 years old which are more likely to represent recent live attenuated influenza vaccine (LAIV) receipt than wild-type infection, with 43 single detections of influenza A (n=24) and influenza B (n=19). Among 38 detections with known patient age information, 21 (55%) were under the age of 19 (range 0-18) and 17 (45%) were 20 years of age and older (range 20-98).

By way of comparison for the same week 46-47 period, there were 2 influenza detections among 4,952 specimens tested in 2020 (<0.01% positivity), and 48 detections among 1,504 tested in 2019 (3% positivity). In 2021, influenza virus testing is higher but detection is lower than the 5-year historical (pre-pandemic) average (Figure 2). In the historical seasons prior to the COVID-19 pandemic, an average of 692 influenza tests were conducted in weeks 46 and 47, with 54 (8%) influenza virus detections (range 35 to 74 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 and other pathogens beyond SARS-CoV-2 which is not addressed in this report. RSV percent positivity that was steadily increasing and ranging above the 5-year historical average (2014-15 to 2018-2019), may have plateaued in recent weeks at 10%. Weekly EV/RV positivity remains below the historical average for this time of year (Figure 2).

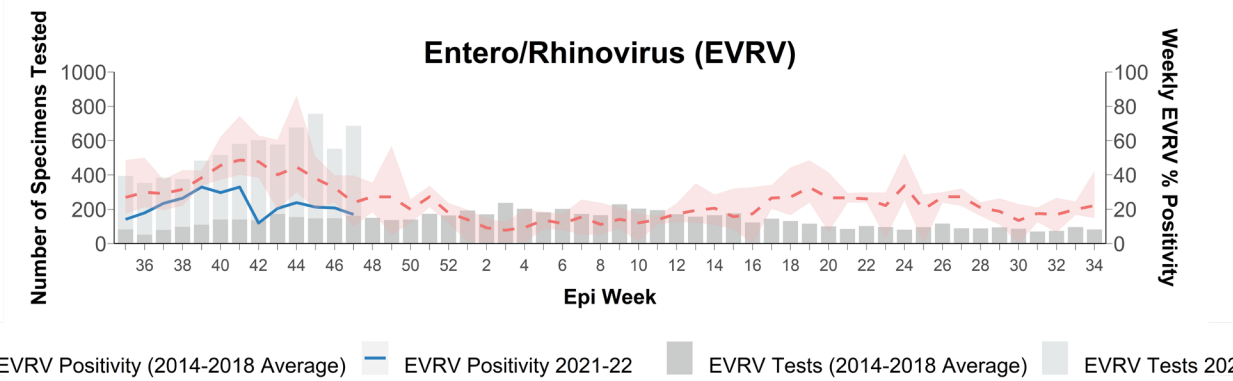
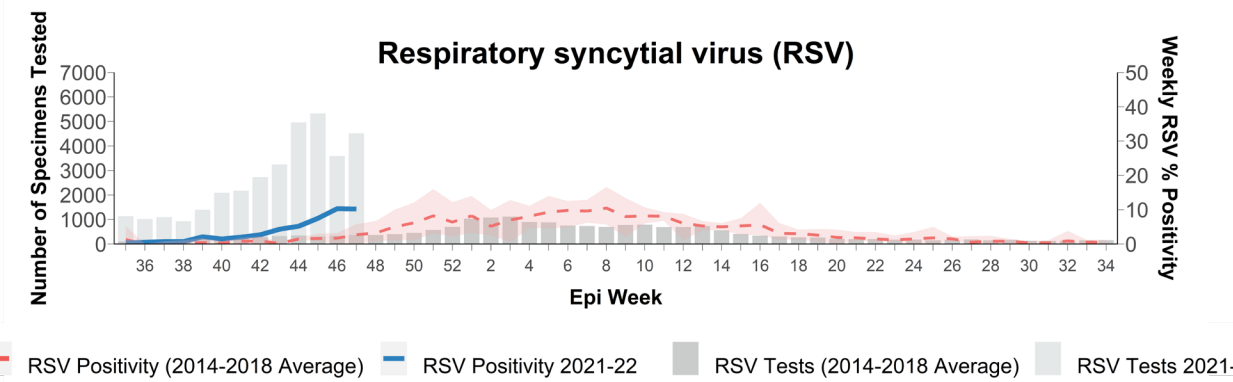
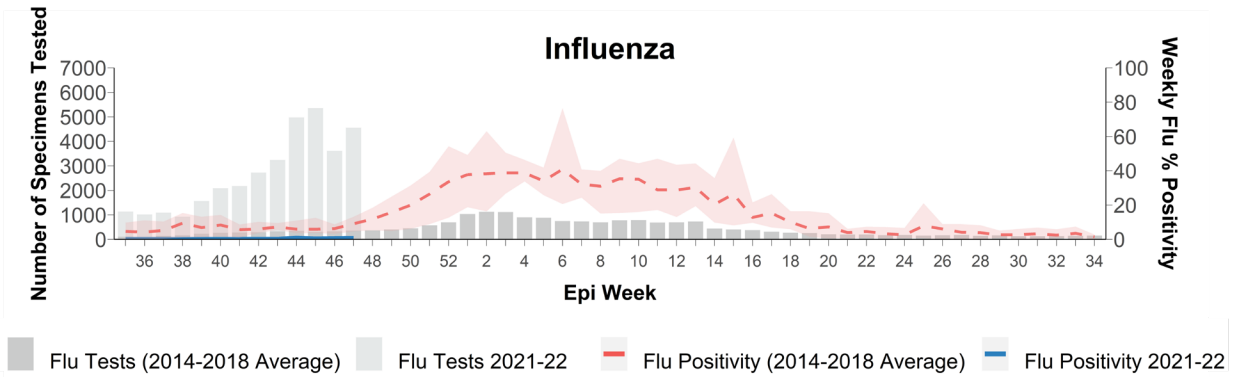
Among specimens additionally subjected to multiplex testing in weeks 46 and 47, RSV, entero/rhinoviruses (EV/RV) and parainfluenza were the first (778/1,248; 62%), the second (254/1,248; 20%) and the third (216/1,248; 17%) most commonly detected NIRV. In weeks 46-47, 778 RSV positive specimens were identified among 8,467 tested (9%) compared to no detections among 4,962 specimens tested in 2020 and 48 detections out of 1,500 tested (3%) in 2019. EV/RV and parainfluenza were found in 20% (254/1,268) and of 17% (216/1,296) 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<sup>a</sup> across BC, 2021-2022<sup>a,b,c</sup>



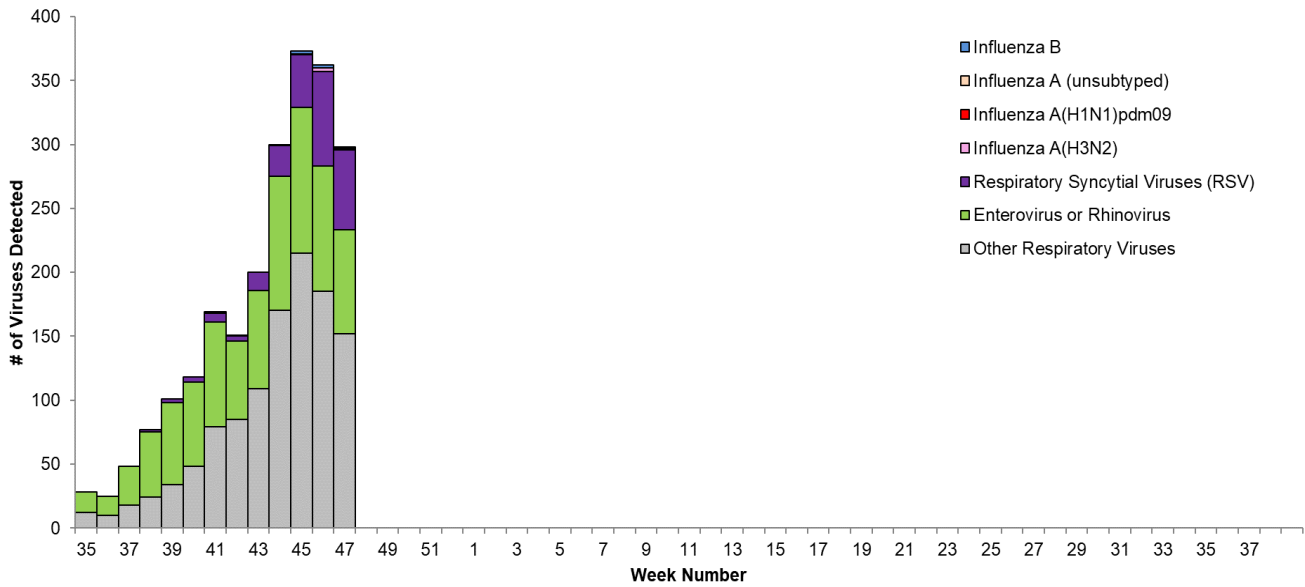
- a. The percentage influenza positivity is presented by influenza type based on primary specimens submitted for influenza testing at the BCCDC Public Health Laboratory (PHL) and other external sites that share complete testing data with the BCCDC PHL. Reporting sites include: BC Children’s and Women’s 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, 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\*



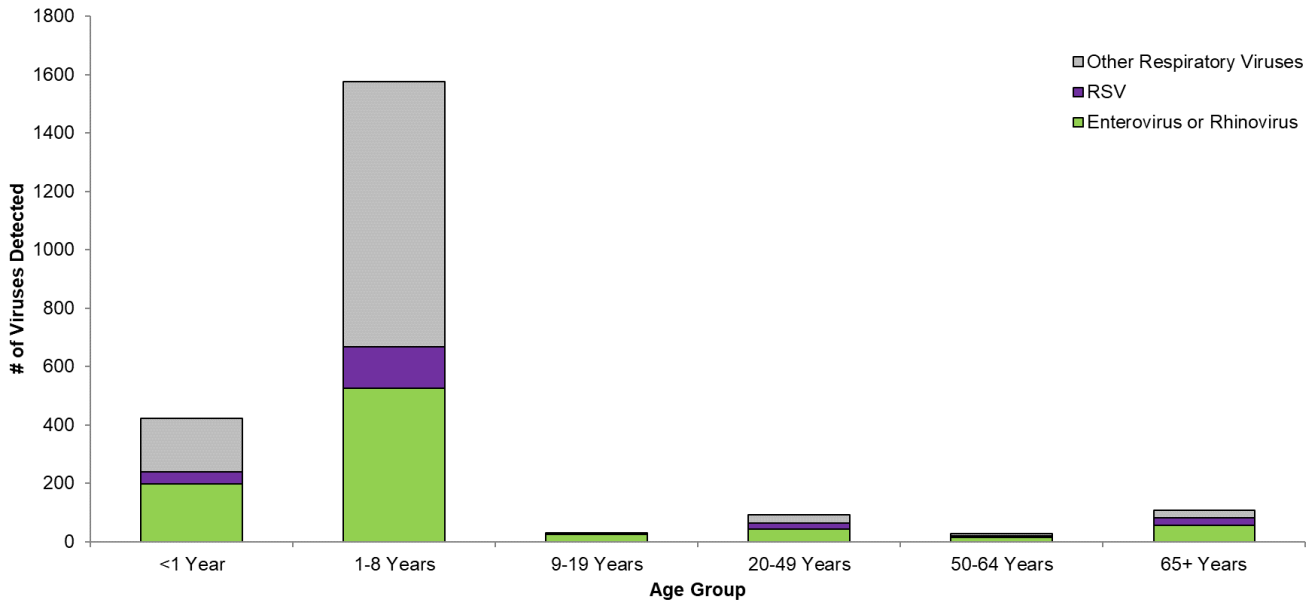
\* The shaded area (red) represents the maximum and minimum percentage of influenza positivity reported by week from seasons 2014-2015 to 2018-2019.  
Source: Respiratory Virus Detections Surveillance System (RVDSS) weekly report; data includes seasons 2014-2015, 2015-16, 2016-17, 2017-18, 2018-19, 2021-2022 (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\***



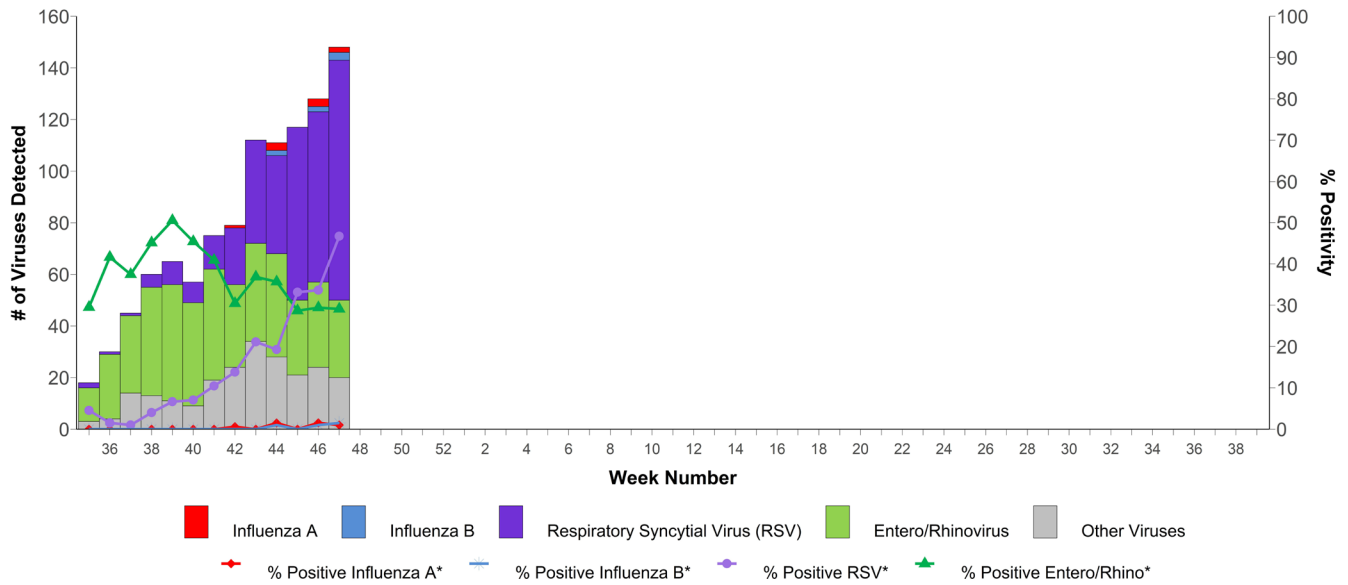
\* The BCCDC Public Health Laboratory (PHL) conducts the majority of influenza subtype characterization for the province, including for primary specimens submitted directly to the BCCDC PHL for influenza diagnosis, as well as for specimens that have tested positive for influenza at other external sites 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 December 1, 2021; figure includes cumulative influenza detections for specimens collected from weeks 35-47.

**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</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 35 to week 47 (August 29 - November 27, 2021), among the 1845 specimens submitted for influenza virus testing at the BC Children’s and Women’s Health Centre laboratory, the most common non-influenza respiratory viruses detected were entero/rhinoviruses (440/1,029; 43%) and RSV (365/1,029; 35%).

**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 47 [November 21 - 27, 2021]</b>								
Influenza, Total <sup>d</sup>	0/1333 (0)	0/1015 (0)	0/459 (0)	0/112 (0)	18/886 (2)	1/191 (0.5)	5/199 (2.5)	24/4195 (0.6)
Influenza A total	0 (0)	0 (0)	0 (0)	0 (0)	12 (1.4)	0 (0)	2 (1)	14 (0.3)
A(H3N2) <sup>e</sup>	0	0	0	0	1	---	---	1
A(H1N1)pdm09 <sup>e</sup>	0	0	0	0	0	---	---	0
Influenza B total	0 (0)	0 (0)	0 (0)	0 (0)	6 (0.7)	1 (0.5)	3 (1.5)	10 (0.2)
NIRV, Total <sup>c</sup>	155	51	45	0	116	104	143	614
RSV	155/1333 (11.6)	32/1015 (3.2)	38/459 (8.3)	0/112 (0)	105/846 (12.4)	0/191 (0)	93/199 (46.7)	423/4155 (10.2)
Enterovirus/Rhinovirus	--- <sup>f</sup>	4/54 (7.4)	5/40 (12.5)	--- <sup>f</sup>	5/80 (6.3) <sup>g</sup>	45/248 (18.1)	30/103 (29.1)	---
Other <sup>h</sup>	--- <sup>f</sup>	15/54 (27.8)	2/40 (5)	--- <sup>f</sup>	6/95 (6.3) <sup>g</sup>	59/248 (23.8)	20/103 (19.4)	---
<b>Cumulative total to date, Week 40 to 47 [October 3 – November 27, 2021]</b>								
Influenza Total <sup>d</sup>	13/5799 (0.2)	3/4936 (0.1)	8/5622 (0.1)	0/1212 (0)	79/6031 (1.3)	4/2321 (0.2)	16/1379 (1.2)	123/27300 (0.5)
Influenza A total	7 (0.1)	1 (0)	3 (0.1)	0 (0)	43 (0.7)	0 (0)	9 (0.7)	63 (0.2)
A(H3N2) <sup>e</sup>	3	0	1	0	4	---	---	8
A(H1N1)pdm09 <sup>e</sup>	0	0	0	0	0	---	---	0
Influenza B total	6 (0.1)	2 (0)	5 (0.1)	0 (0)	36 (0.6)	4 (0.2)	7 (0.5)	60 (0.2)
NIRV, Total <sup>c</sup>	571	255	259	0	500	1384	811	3780
RSV	571/5799 (9.8)	71/4936 (1.4)	194/5622 (3.5)	0/1212 (0)	413/5921 (7)	90/2321 (3.9)	347/1379 (25.2)	1686/27190 (6.2)
Enterovirus/Rhinovirus	--- <sup>f</sup>	99/433 (22.9)	41/369 (11.1)	--- <sup>f</sup>	63/617 (10.2) <sup>g</sup>	635/2646 (24)	285/829 (34.4)	---
Other <sup>h</sup>	--- <sup>f</sup>	85/433 (19.6)	24/369 (6.5)	--- <sup>f</sup>	24/719 (3.3) <sup>g</sup>	659/2646 (24.9)	179/829 (21.6)	---

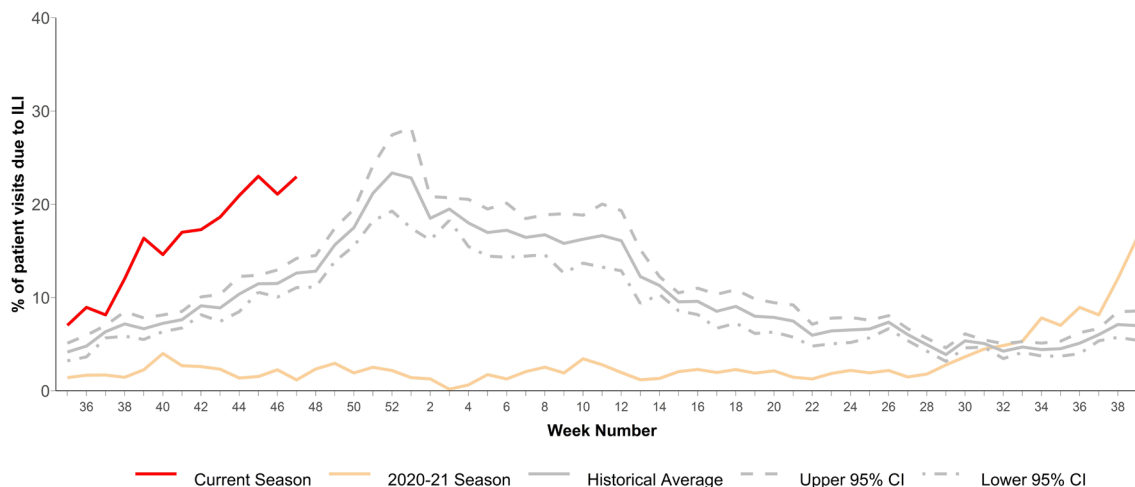
- FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA= Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority; BCCDC= primary patient specimens screened at BCCDC Public Health Laboratory; CW=Children's and Women's Health Centre Laboratory
- 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 above 20% since week 44 (since October 25, 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

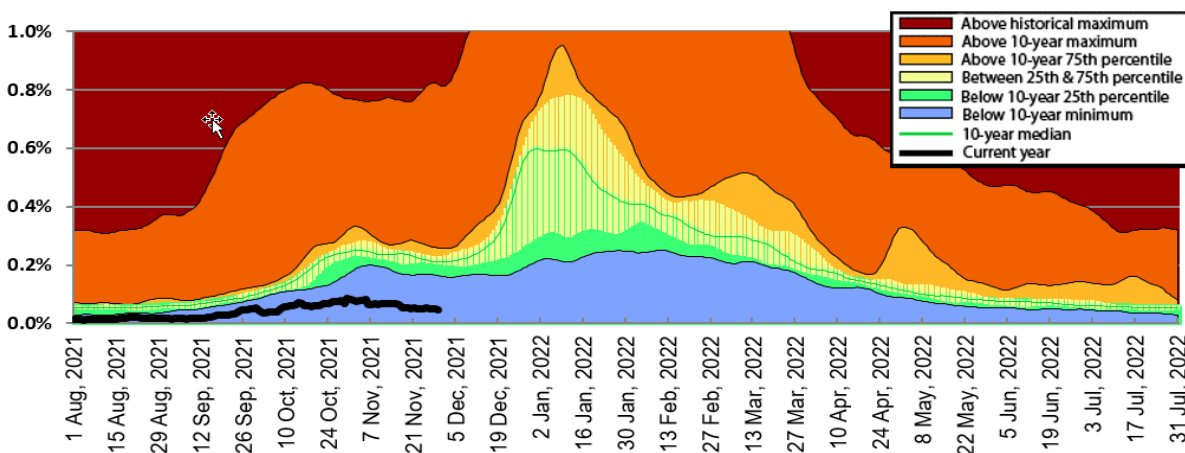


Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."  
\*5-year historical average for 2021-22 season based on 2014-15 to 2018-19 seasons (excluded 2019-20 & 2020-21 seasons); CI=confidence interval.

### Medical Service Plan

As shown in Figure 7 and Figure 8, between weeks 46 and 47 (spanning November 8-21, 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



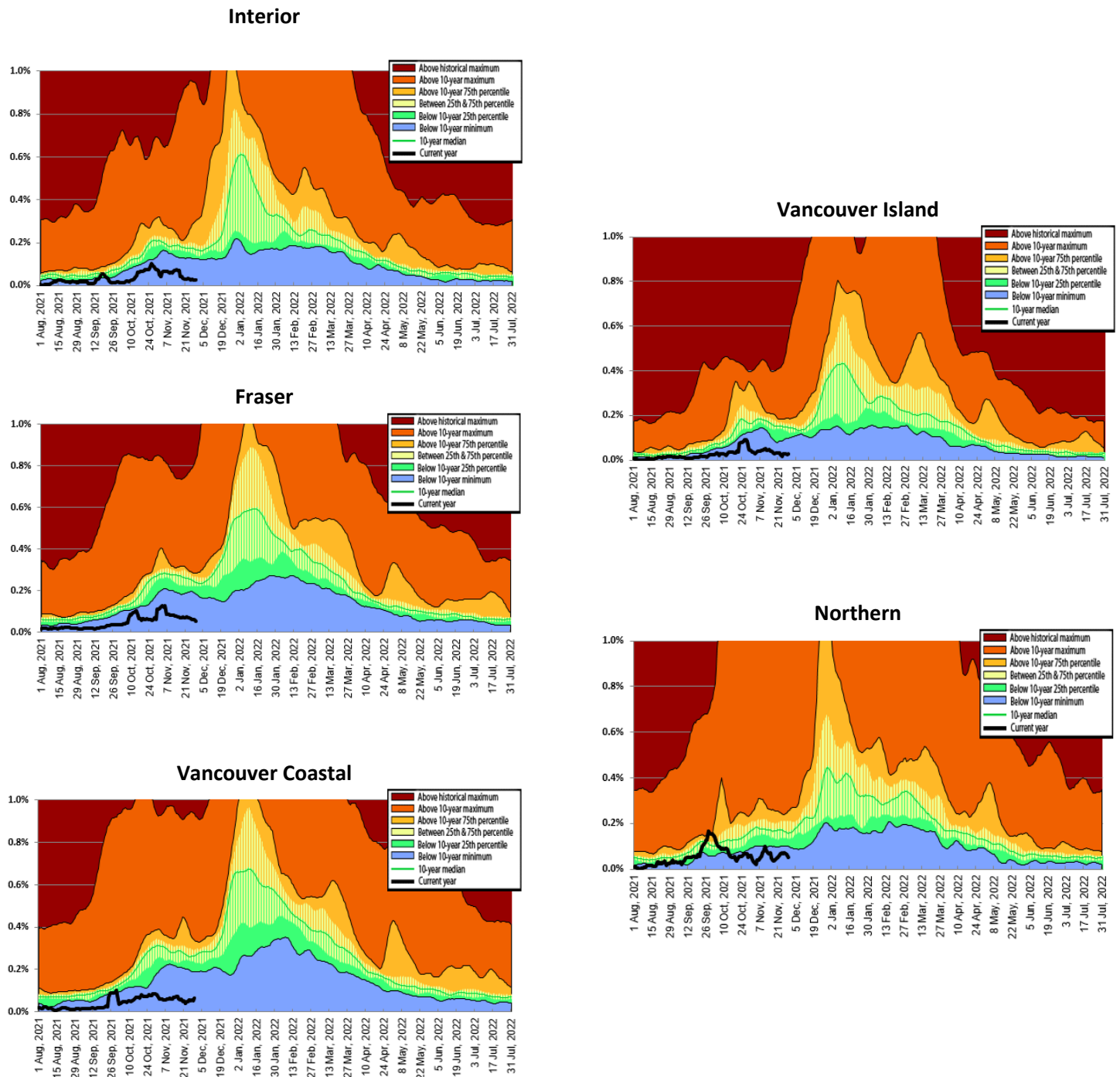
‡ Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Influenza illness (II) is tracked as the weekly count of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza).

\* 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 November 29, 2021.



Figure 8.



† Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Influenza illness (ILI) 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 November 29, 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 (week 46, November 14 to 20, 2021)

In week 46, influenza activity across Canada was low with only 14% of regions reporting any influenza activity. In the past week, all influenza indicators were at low inter-seasonal levels. In week 46, 23 influenza detections (16 influenza A and 7 influenza B) were reported\*. Among the 17 detections with detailed age information, 88% were individuals under the age of 44 years. Overall, the percentage of laboratory tests positive for influenza remains at exceptionally low levels, despite the elevated levels of testing. In week 46, 14,497 tests for influenza were performed at reporting laboratories and the percentage of tests positive for influenza was 0.16%. Compared to the past six pre-pandemic seasons (2014-2015 to 2019-2020), an average of 5,017 tests were performed for this time period, with an average of 6.1% of tests positive for influenza. To date this season (August 28 to November 20, 2021), 110 influenza detections (67 influenza A and 43 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 1,115 influenza detections were reported at this point in the season. In week 46, no outbreaks were reported. From August 28 to November 20, 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% in week 46 and is within expected levels. The percentage of FluWatchers reporting fever and cough was 0.4% in week 46; it remains below expected levels and is stable.

FluWatch report (week 46) is available at:

<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/fluwatch/2021-2022/week-46-november-14-november-20-2021.html>

### National Microbiology Laboratory (NML): Strain Characterization

Since September 1, 2021, the National Microbiology Laboratory (NML) has characterized one H1N1 influenza virus that was received from a Canadian laboratory.

Influenza A(H1N1)pdm09: The one H1N1 virus characterized was antigenically similar to A/Wisconsin/588/2019, which is the influenza A/H1N1 component of the 2021-22 Northern Hemisphere influenza vaccine.

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

Since September 1, 2021, the NML received one H1N1 influenza virus from Canadian laboratories for drug susceptibility testing.

Oseltamivir: The H1N1 influenza virus was sensitive to oseltamivir.

Zanamivir: The H1N1 influenza virus was sensitive to zanamivir.

*\*From the RVDSS week 46 report, the 23 influenza detections were from Quebec (n=1), Ontario (n=4), Manitoba (n=2), BC (n=15, removing dual A/B infections) and Yukon (n=1).*

## E. International

### USA (week 46, November 14 to 20, 2021)

In week 46, influenza activity remained low in the US. The proportion of outpatient visits for ILI is at 2.2% this week, which is below the national baseline (2.5%). The proportion of deaths attributed to pneumonia and influenza during week 46 (9.9%) is above the epidemic threshold of 6.3%. No influenza-associated pediatric deaths were reported to CDC during week 46. Of the 40,167 samples tested for influenza from clinical laboratories across the US in week 46, 415 (1%) samples were positive for influenza. Of which, 389 (94%) were influenza A and 26 (6%) 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 (November 22, 2021, based on data up to November 7, 2021)

***In the temperate zone of the northern hemisphere***, influenza activity remained below baseline overall. RSV activity remained higher than expected in some parts of Canada and decreased in most parts of the USA. In Europe, influenza activity remained low overall though detections appeared to be at levels similar to pre-covid-19-pandemic seasons in some countries. Detections of predominately influenza A(H3N2) viruses reported across the region. SARI rates reported at high level for this time of the year in some countries of Eastern and South-West Europe

***In countries in the temperate zone of the southern hemisphere***, influenza activity remained at inter-seasonal levels, with exception of South Africa where increased influenza activity reported with detections of influenza B, influenza A(H1N1)pdm09, and influenza A(H3N2). While the detection rates for influenza exceeded previous seasonal thresholds, the absolute numbers remained low in comparison with previous years. In South America, there were no influenza virus detections across reporting countries. RSV activity continued to be reported at moderate level in Argentina, Chile and Uruguay.

***Among the Caribbean and Central American Countries***, sporadic influenza A(H3N2) and B virus detections were reported in Mexico and elevated RSV activity was reported in Costa Rica and Mexico. The number of SARI cases continued to decrease, though remained at moderate levels in Mexico. ***In tropical South America***, no influenza detections reported but RSV activity remained elevated in Brazil, Colombia and Peru. ***In tropical Africa***, a few influenza detections of predominately influenza A and some influenza B viruses were reported. Previously increased activity in West African countries appeared to be decreasing. ***In tropical Asia***, the number of influenza virus detections reported was in a similar range to previous seasons with detections of influenza A and B viruses.

From October 25 to November 7, 2021, the WHO GISRS laboratories tested more than 400,727 specimens. Of these, 3,130 were positive for influenza viruses including 1,420 (45%) typed as influenza A and 1,710 (55%) as influenza B. Of subtyped influenza A viruses, 148 (14%) were influenza A(H1N1)pdm09 and 917 (86%) were influenza A(H3N2). Of the characterized B viruses, 0 belonged to the B(Yamagata) lineage and 1493 (100%) 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:**

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