

# British Columbia Influenza Surveillance Bulletin

Influenza Season 2018-19, Number 9, Week 3

January 13 to January 19, 2019

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## **Influenza A(H1N1)pdm09 activity continues to decline following epidemic peak**

During week 3, influenza A(H1N1)pdm09 activity continued to decrease with most surveillance indicators suggesting activity peaked around weeks 52 and 1. However, influenza activity remains elevated in BC as expected following the epidemic peak and as per seasonal norm.

Among influenza viruses typed at the BCCDC PHL since week 40, virtually all have been influenza A and, among those subtyped, more than 90% this season so far have been A(H1N1)pdm09.

Children less than 10 years of age and non-elderly adults comprise 75% of all A(H1N1)pdm09 detections to date, with children in particular disproportionately affected. Conversely, elderly adults are over-represented among A(H3N2) detections in BC, accounting for 64% of A(H3N2) detections thus far.

Since our last bulletin, 1 laboratory-confirmed influenza A outbreak (of unknown subtype) in a long term care facility (LTCF) has been reported.

Interim estimates from Canada for the 2018-19 influenza season indicate substantial vaccine effectiveness of 72% (95% confidence interval: 60-81%) against influenza A(H1N1)pdm09 illness. Considerable protection has been observed across all age groups, notably in young children. The full report can be accessed at the following link: <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2019.24.4.1900055>

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

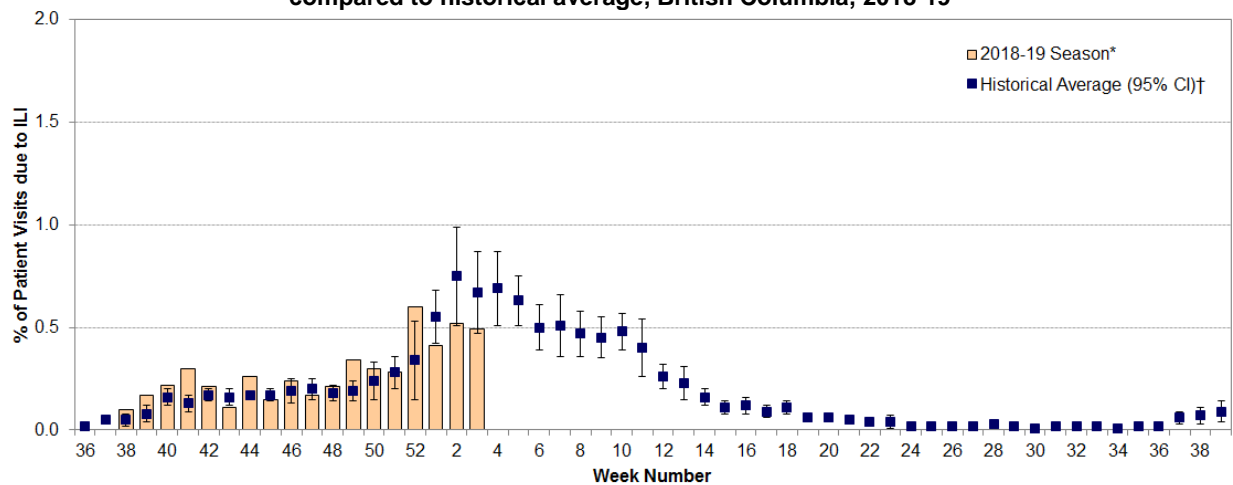
Report Disseminated: January 24, 2019

## British Columbia

### Sentinel Physicians

In week 3, influenza-like illness (ILI) rates among patients presenting to sentinel sites decreased slightly in comparison to week 2 and remains within expected levels for this time of the year (**Figure 1**). Sixteen (59%) sentinel sites reported data for week 3. Rates are subject to change as reporting becomes more complete.

**Figure 1: Percent of patient visits to sentinel physicians due to influenza-like illness (ILI) compared to historical average, British Columbia, 2018-19**



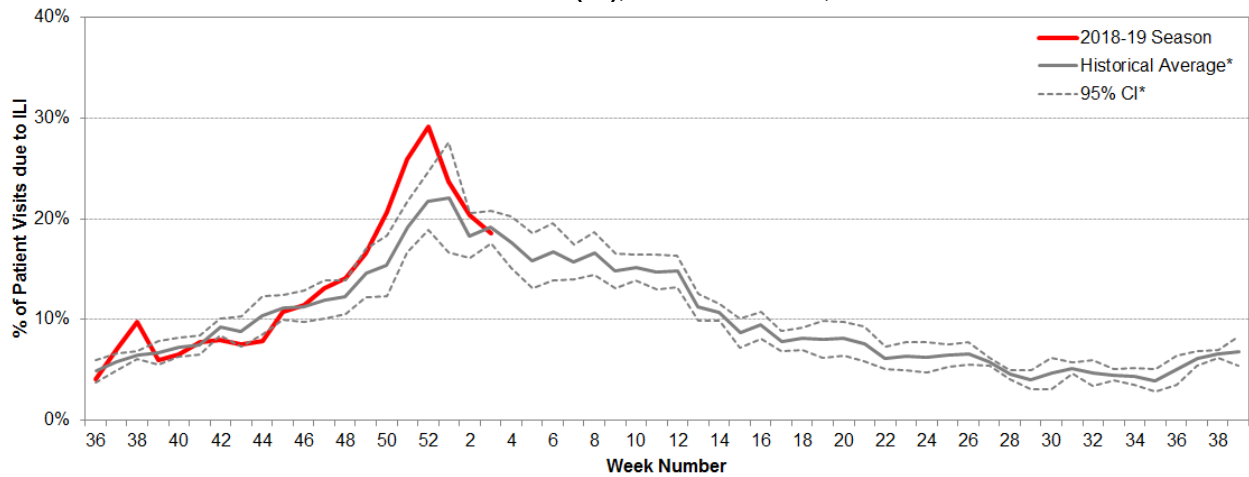
\* Data are subject to change as reporting becomes more complete.

† 10-year historical average for 2018-19 season based on 2005-06 to 2017-2018 seasons, excluding 2008-09 and 2009-10 due to atypical seasonality; CI=confidence interval.

**BC Children’s Hospital Emergency Room**

The proportion of visits to BC Children’s Hospital Emergency Room (ER) attributed to ILI continues to decline after peaking in week 52. Rates remain within expected levels for this time of the year (**Figure 2**).

**Figure 2: Percent of patients presenting to BC Children’s Hospital ER attributed to influenza-like illness (ILI), British Columbia, 2018-19**

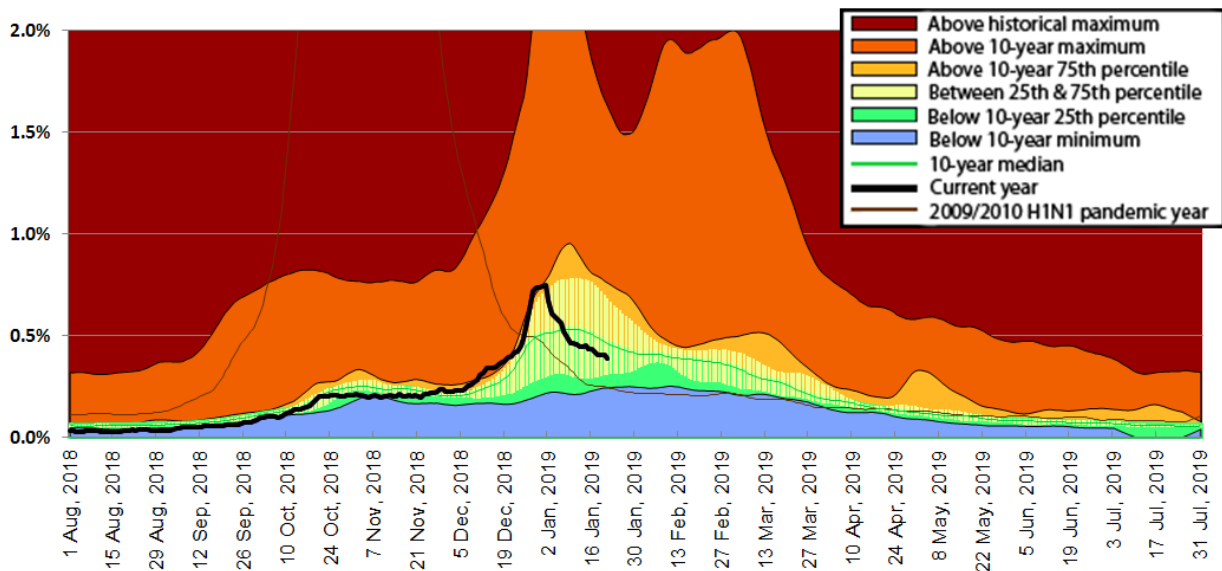


Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."  
 \* 5-year historical average for 2018-19 season based on 2012-13 to 2017-18 seasons; CI=confidence interval.

## Medical Services Plan

In week 3, BC Medical Services Plan (MSP) general practitioner claims for influenza illness (II), as a proportion of all submitted MSP claims, continued to decline following a peak around weeks 52 and 1 (**Figure 3**). Rates for the province overall and by region were within expected levels for this time of the year (**Figure 4**).

**Figure 3: Service claims submitted to MSP for influenza illness (II)\* as a proportion of all submitted general practitioner service claims, British Columbia, 2018-19**

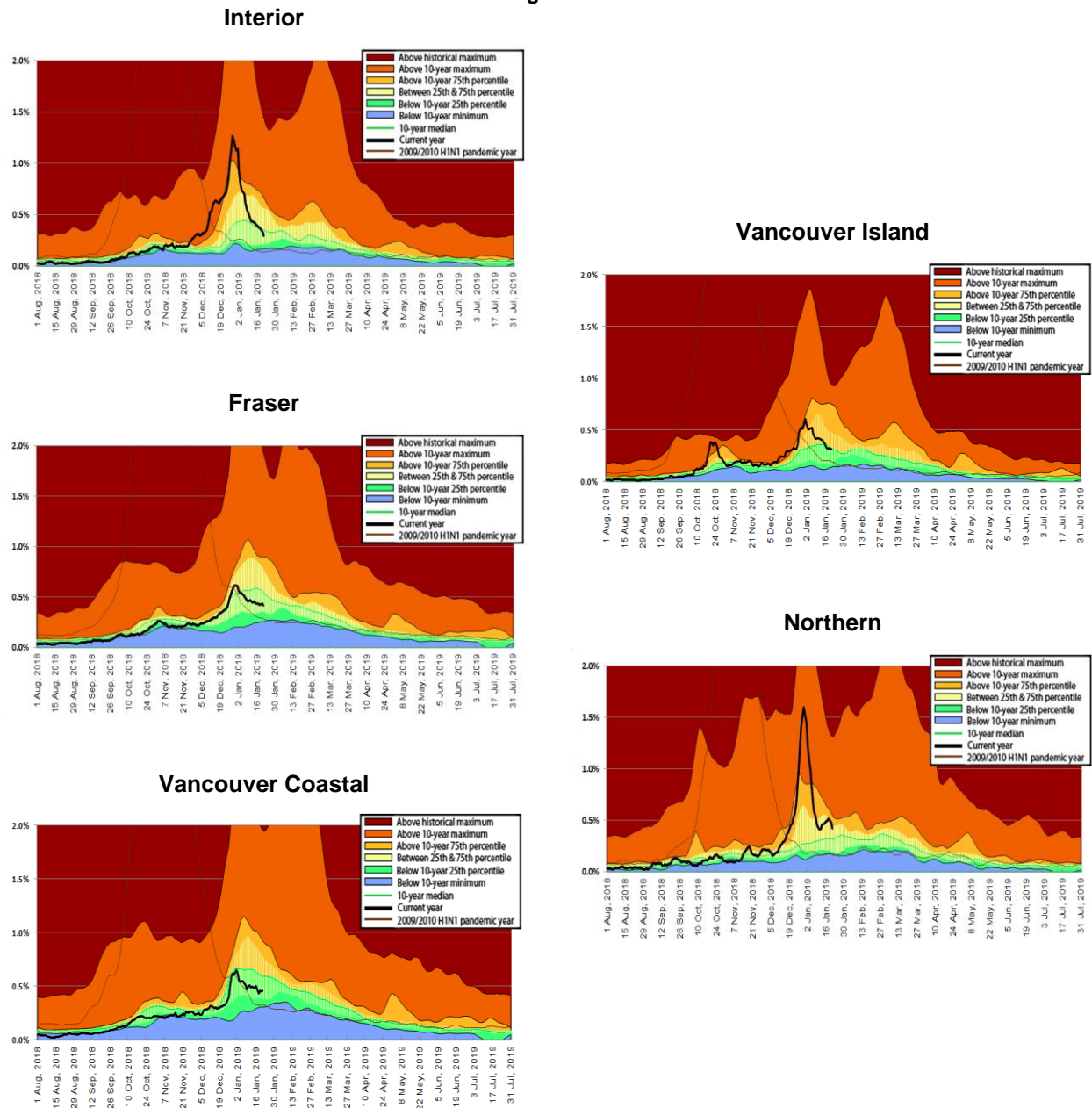


\* Influenza illness is tracked as the percentage of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza).

Data for the period August 1, 2009 to July 31, 2010 have been excluded from the 10-year median calculation due to atypical seasonality during the 2009/2010 H1N1 pandemic year. MSP data beginning August 1, 2018 corresponds to sentinel ILI week 31; data are current to January 21, 2019.

Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services.

Figure 4



## British Columbia Laboratory Reports

In recognition of expanded influenza testing by additional laboratories across British Columbia, this section of the bulletin now includes respiratory specimens tested at sites beyond the BCCDC Public Health Laboratory (PHL) in deriving the test-positivity indicator. This change was implemented in the bulletin issued week 48 and represents a change from earlier bulletins of this and previous seasons. Type and subtype distribution will continue to be derived from the BCCDC PHL.

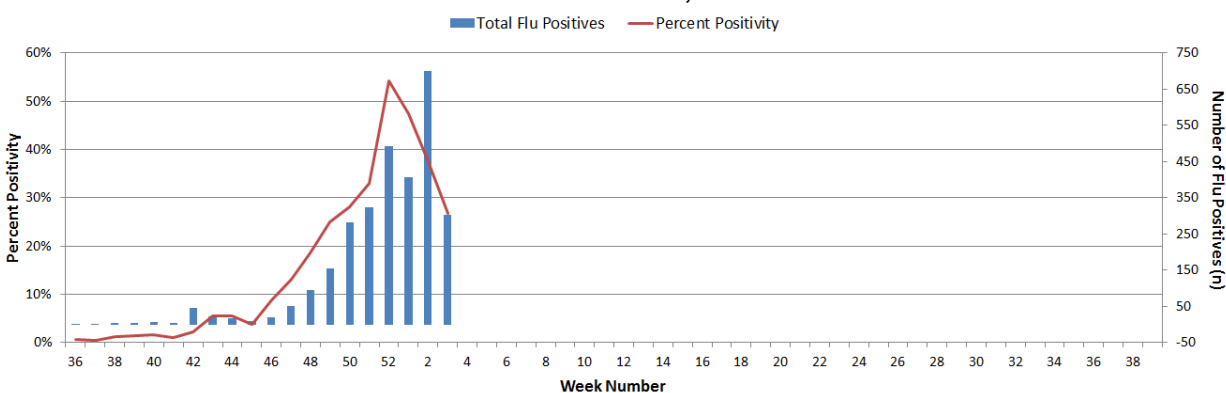
Cumulatively, during the 2018-19 season (since week 40, starting October 1, 2018), 2937/12266 (24%) specimens tested positive for influenza at participating laboratories across British Columbia (BC) (as submitted to FluWatch). In week 3, 302/1129 (27%) specimens tested positive for influenza at these laboratories, continuing the steep downward trend observed since week 52 (**Figure 5**).

Cumulatively, during the 2018-19 season (since week 40, starting October 1, 2018), 2086 patients tested positive for influenza at the BCCDC PHL, of which 2079 (99.7%) were typed as influenza A [112 (5%) A(H3N2), 1745 (84%) A(H1N1)pdm09, 222 (11%) subtype unknown] and 7 (0.3%) as influenza B. Among influenza A viruses subtyped, 1745/1857 (94%) were A(H1N1)pdm09. In week 3, all 223 typed viruses were influenza A [17 (8%) A(H3N2), 172 (77%) A(H1N1)pdm09, 34 (15%) subtype unknown] and among subtyped influenza A viruses, 172/189 (91%) were influenza A(H1N1)pdm09 (**Figure 6**).

Since week 40, approximately half (52%) of A(H1N1)pdm09 detections were among adults 20-64 years of age (**Figure 8**). Twenty-three percent of A(H1N1)pdm09 detections were observed among children  $\leq 9$  years who comprise about 10% of the BC population, suggesting they have been disproportionately affected. Children aged 10-19 years comprised a smaller proportion of cases (5%). Twenty percent of A(H1N1)pdm09 detections have been elderly adults  $\geq 65$  years of age. Conversely, the majority (64%) of A(H3N2) detections have been among elderly adults  $\geq 65$  years of age, despite comprising just about 18% of the population in BC<sup>1</sup>.

Respiratory syncytial viruses (n=52) were the most commonly detected other respiratory virus (excluding influenza) at the BCCDC in week 3 (**Figure 6**).

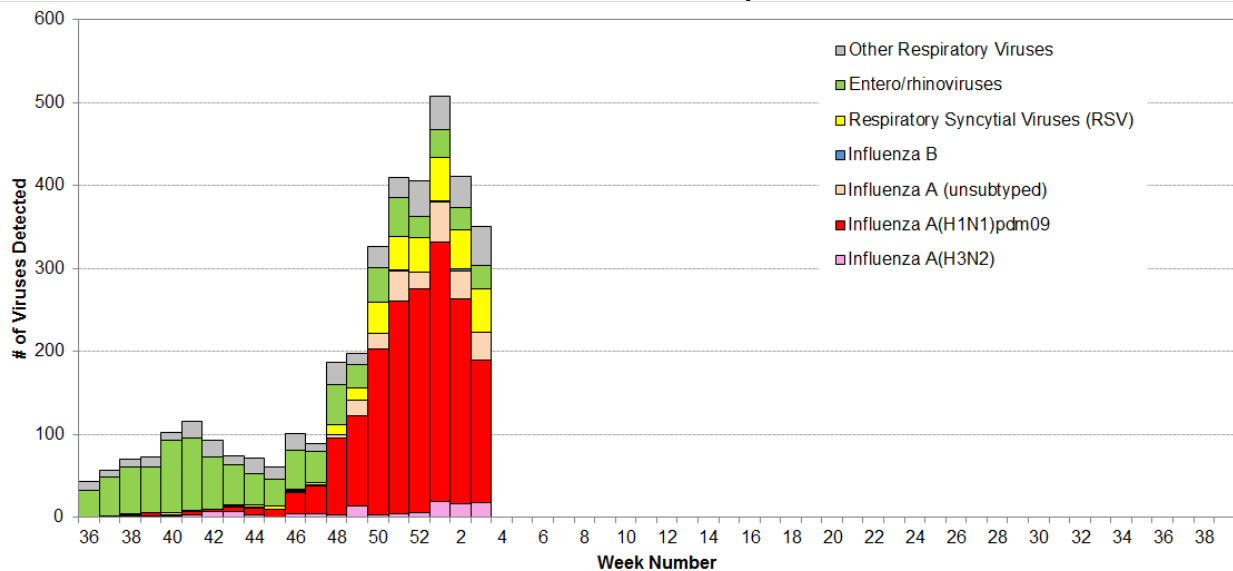
**Figure 5: Flu positivity derived from influenza specimens submitted to participating laboratories across BC, 2018-19\***



Source: Based on respiratory specimens tested by laboratories in BC and reported to FluWatch.  
\*Note: Rates are subject to change upon retrospective reconciliation of data

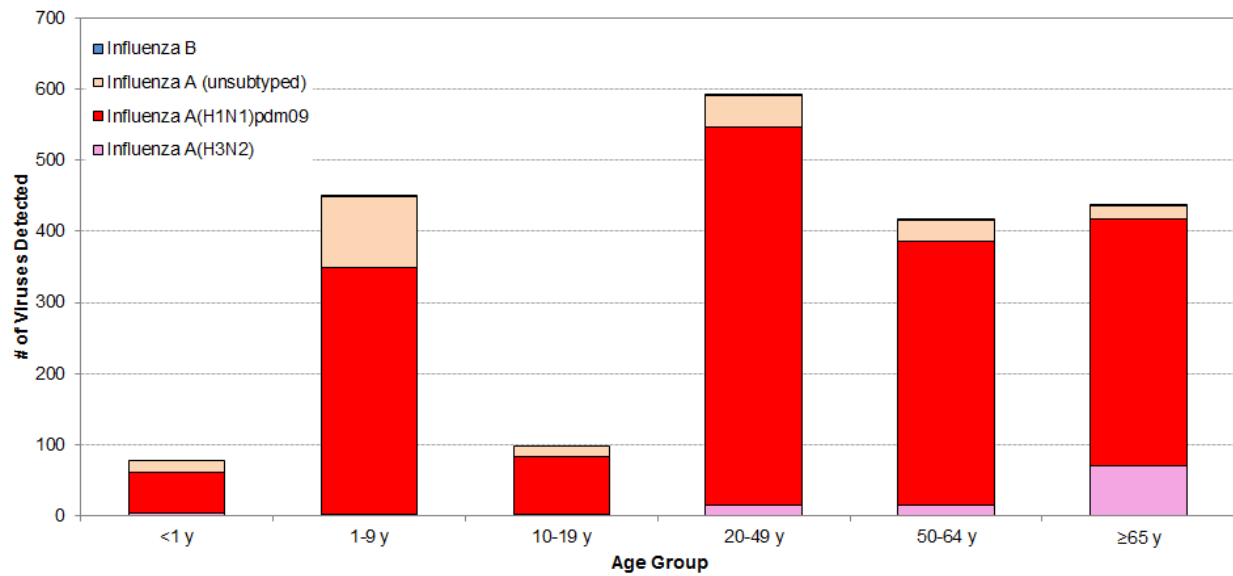
<sup>1</sup> Government of British Columbia, BC Stats. Population Estimates 2017. URL: <https://www.bcstats.gov.bc.ca/apps/PopulationEstimates.aspx>. Date accessed: December 13, 2018.

**Figure 6: Influenza and other virus detections among respiratory specimens submitted to BCCDC Public Health Laboratory, 2018-19**



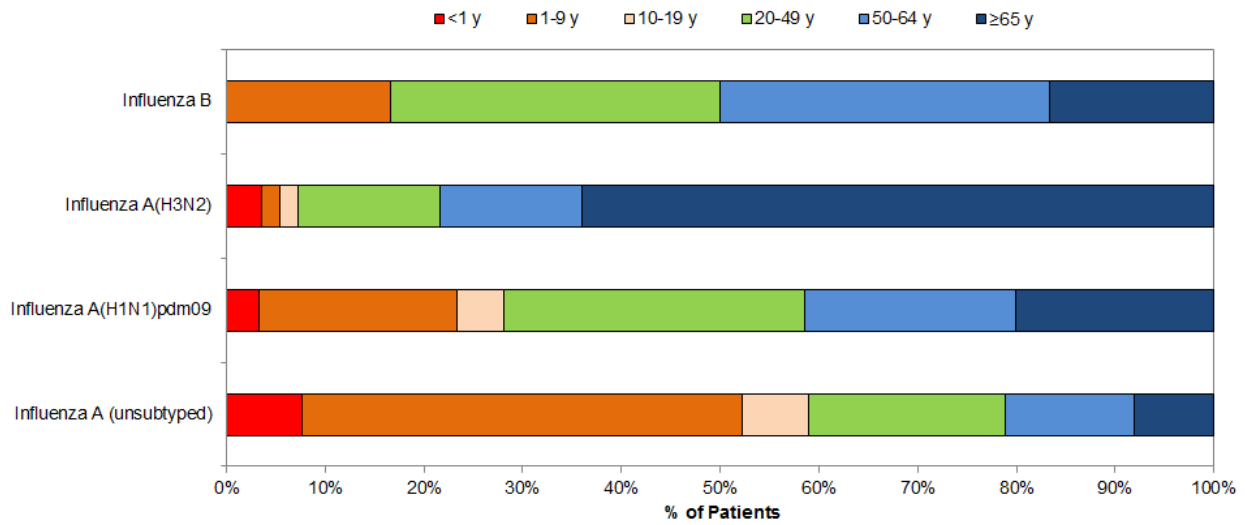
Source: BCCDC Public Health Laboratory (PHDRW); Data are current to January 23, 2019.

**Figure 7: Cumulative number (since week 40) of influenza detections by type, subtype, and age group, BCCDC Public Health Laboratory, 2018-19**



Source: BCCDC Public Health Laboratory (PHDRW); Data are current to January 23, 2019; figure includes cumulative influenza detections for specimens collected since week 40.

**Figure 8: Age distribution of influenza detections (cumulative since week 40),  
BCCDC Public Health Laboratory, 2018-19**



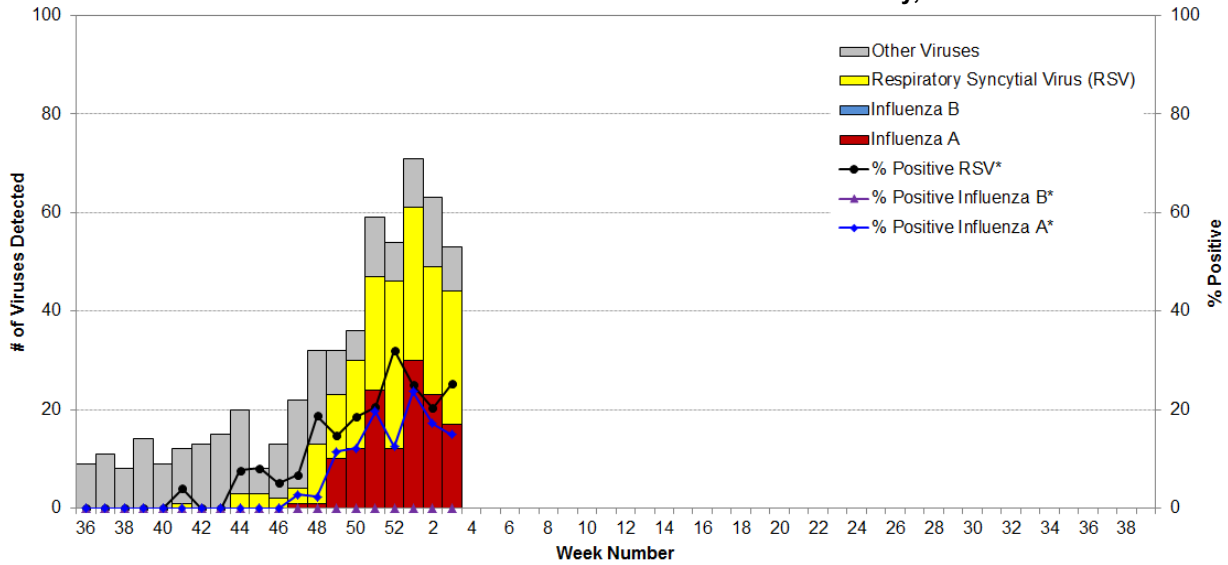
Source: BCCDC Public Health Laboratory (PHDRW); Data are current to January 23, 2019; figure includes cumulative influenza detections for specimens collected since week 40.



BC Children's and Women's Health Centre Laboratory

In week 3, 114 tests for influenza and 107 tests for respiratory syncytial virus (RSV) were conducted at the BC Children's and Women's Health Centre laboratory. Of these, 17 (15%) were positive for influenza A (not subtyped), none were positive for influenza B, and 27 (25%) were positive for RSV. Compared to week 2, influenza A positivity has decreased (17% versus 15%), while RSV test positivity has increased (20% versus 25%) (**Figure 9**).

**Figure 9: Influenza and other virus detections among respiratory specimens submitted to BC Children's and Women's Health Centre Laboratory, 2018-19**



\* 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.

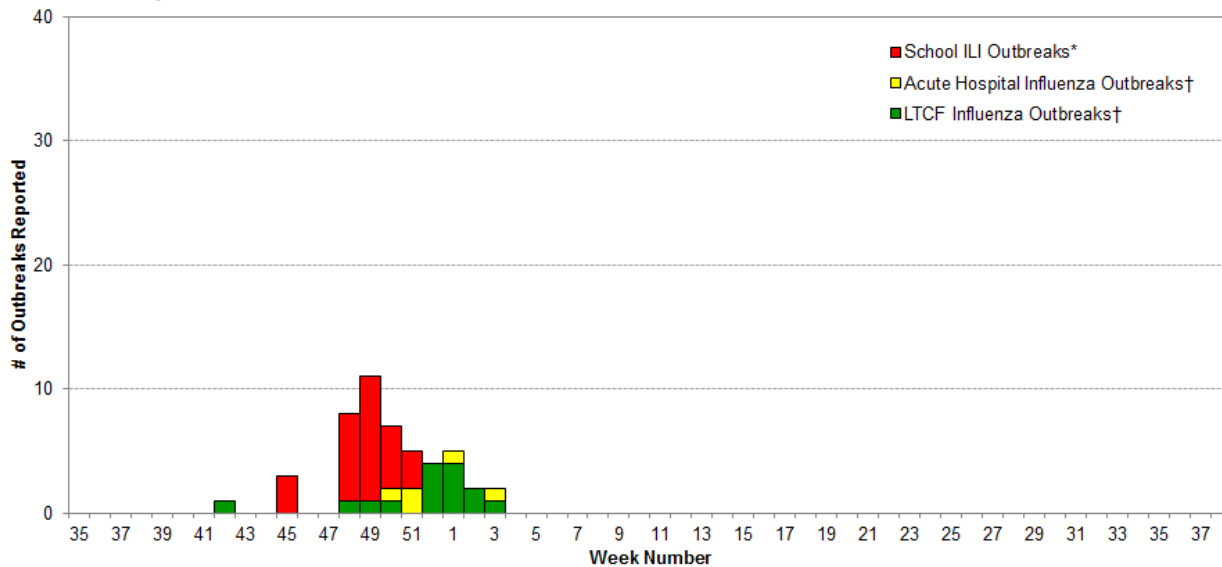
### Influenza-like Illness (ILI) Outbreaks

In week 3, one laboratory-confirmed outbreak of influenza A was reported in a long-term care facility (LTCF) and one in an acute care facility setting. Both were of unknown subtype.

Since week 40, a total of 15 LTCF outbreaks (3 A(H3N2), 4 A(H1N1)pdm09, and 8 subtype unknown), 5 acute care facility outbreaks, and 28 school outbreaks have been reported (**Figures 10 and 11**).

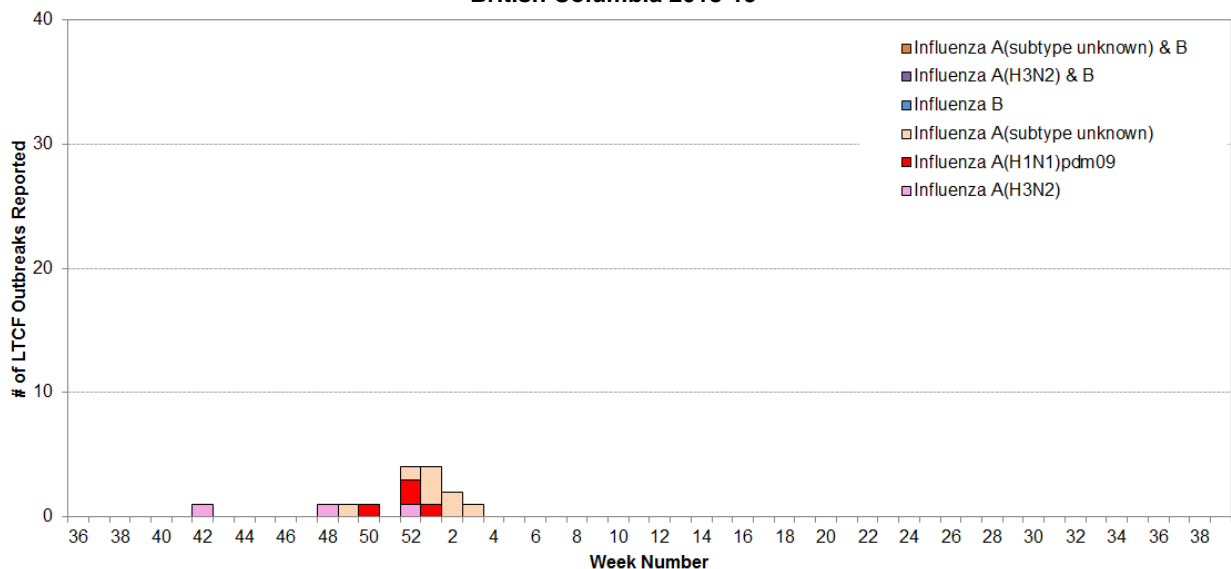
By way of comparison, between weeks 40 and 3 of the 2016-17 and 2017-18 seasons, 132 and 94 lab-confirmed LTCF outbreaks, respectively, were reported.

**Figure 10: Number of influenza-like illness (ILI) outbreaks reported, British Columbia 2018-19**



\* School-based ILI outbreak defined as >10% absenteeism on any day, most likely due to ILI. Onset  
† Facility-based influenza outbreaks defined as 2 or more ILI cases within 7-day period, with at least one laboratory-confirmed case of influenza.

**Figure 11: Number of influenza outbreaks by type/subtype in long-term care facilities (LTCF), British Columbia 2018-19†**



† Facility-based influenza outbreaks defined as 2 or more ILI cases within 7-day period, with at least one laboratory-confirmed case of influenza.

## Emerging Respiratory Viruses

### **Cases of acute flaccid myelitis (AFM) – possibly associated with enterovirus D68 (EV-D68)**

Since September, the US CDC has reported an increase in paediatric cases of acute flaccid myelitis (AFM), a subset of acute flaccid paralysis (AFP) (often referred to as “polio-like illness” in the media).

As of January 18th 2019, the CDC has confirmed 201 cases of AFM across 40 states – predominantly affecting children under 5 years of age. A further 163 reports are currently under investigation. Patients have presented with neurological features, specifically single or multi-limb weakness, with most requiring hospitalization. More than 90% of AFM cases reported a mild respiratory or febrile illness - consistent with a viral infection - in the weeks preceding symptom onset. AFM has a variety of possible causes, including non-polio enterovirus infection. Among 71 confirmed cases tested in 2018, just over half (54%) tested positive for enterovirus or rhinovirus at the time of AFM diagnosis (37% for enterovirus D68 (EV-D68), 29% for enterovirus A71 (EV-A71)).

In the US, the number of confirmed cases has surpassed that of their previous high in 2016 (when 149 confirmed cases were detected), and continues to increase. These reports indicate that 2018 represents another biennial peak, similar to that observed during EV-D68 epidemics in 2014 and 2016. The latter EV-D68 epidemics were noteworthy for including cases with severe respiratory manifestations (less prominently noted in 2018); however, neurological complications were also identified. Accordingly, the US CDC has escalated its response by establishing an AFM task force to aid investigation efforts.

An increase in reported cases of AFP has also been detected outside of North America. Public Health England is currently investigating an apparent increase in reports of AFP in England (28 cases in 2018 as of December 19th, compared to an annual expected number of less than 10). The majority of these cases have been children and have arisen since September 2018. EV-D68 has been implicated in 8 (29%) of these cases.

In Canada, a possible uptick in reports of AFP was also noted in 2018; as of December 31st, 47 confirmed cases have been documented with a further 29 cases under investigation. The annual expected number of cases reported to the Public Health Agency of Canada ranges between 27-51 cases.

While EV-D68 has been detected at low levels in BC this 2018-19 autumn-winter period, we are aware of a single report of laboratory-confirmed EV-D68 infection associated with neurological features. This AFM report (a young child) presented in December 2018 with acute flaccid paralysis of an upper limb following a mild respiratory illness.

General information related to AFP/AFM and EV-D68 is available from the following sources:

US CDC AFM webpage: <https://www.cdc.gov/acute-flaccid-myelitis/index.html>

US CDC factsheet on EV-D68: <https://www.cdc.gov/non-polio-enterovirus/about/ev-d68.html>

PHAC information sheet on AFM in Canada: <https://www.canada.ca/en/public-health/services/diseases/acute-flaccid-myelitis.html>

A summary of the 2014 experience in BC was published in Euro Surveillance, available from: <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2015.20.43.30047>

## National

### **FluWatch (week 2, January 6 to January 12, 2019)**

In week 2, laboratory detections continued to decline sharply from the previous week (21% versus 26%), confirming that influenza activity peaked in the last week of December (week 52). Influenza A is the most common influenza virus circulating in Canada (99%) and among those subtyped, 94% have been A(H1N1)pdm09. The majority (86%) of lab-confirmed A(H1N1)pdm09 detections have been reported among individuals under the age of 65, with the highest estimated rate of hospitalization reported among children under 5 years of age. Overall, the central and eastern regions are reporting higher levels of influenza activity than the rest of the country. Details are 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**

From September 1, 2018 to January 24, 2019, the National Microbiology Laboratory (NML) has characterized 728 influenza viruses [57 A(H3N2), 654 A(H1N1)pdm09 and 17 B] received from Canadian laboratories.

Influenza A(H3N2): Seventeen influenza A(H3N2) viruses were considered antigenically similar to A/Singapore/INFIMH-16-0019/2016, the WHO-recommended A(H3N2) component of the 2018-19 northern hemisphere influenza vaccine. Of these, 13 belonged to genetic group 3C.2a1, 2 belonged to genetic group 3C.2a and 2 belonged to genetic group 3C.3a.

Influenza A(H1N1)pdm09: 641 A(H1N1)pdm09 viruses antigenically characterized were found to be similar to the A/Michigan/45/2015 virus: the WHO-recommended influenza A(H1N1) component of the 2018-19 northern hemisphere influenza vaccine. However, 13 viruses showed reduced titer with ferret antisera raised against cell culture-propagated A/Michigan/45/2015.

Influenza B: Fourteen influenza B viruses antigenically characterized were considered similar to the B/Phuket/3073/2013 virus, which belongs to the B Yamagata lineage: the WHO-recommended influenza B component of the 2018-19 northern hemisphere *quadrivalent* influenza vaccine. The WHO-recommended influenza B component of the *trivalent* vaccine is a B/Colorado/06/2017-like virus of the B Victoria lineage. Three influenza B viruses characterized were antigenically similar to B/Colorado/06/2017.

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

From September 1, 2018 to January 24, 2019, the NML received influenza viruses from Canadian laboratories for drug susceptibility testing.

Amantadine: Of the 304 influenza viruses [42 A(H3N2) and 262 A(H1N1)pdm09] tested against amantadine, all were resistant.

Oseltamivir: Of the 539 influenza viruses [48 A(H3N2), 475 A(H1N1)pdm09, and 16 B] tested against oseltamivir, all were sensitive.

Zanamivir: Of the 537 influenza viruses [48 A(H3N2), 473 A(H1N1)pdm09, and 16 B] tested against zanamivir, all were sensitive.

## Canadian Mid-Season 2018-19 Vaccine Effectiveness Estimates

On January 24<sup>th</sup>, 2019, the Canadian Sentinel Practitioner Surveillance Network (SPSN) published the first mid-season estimates of influenza vaccine effectiveness (VE) for the 2018-19 season in the northern hemisphere. To date, the season in Canada has been characterised by dominant influenza A(H1N1)pdm09 activity, with lesser influenza A(H3N2), and little influenza B contribution. The majority (about two-thirds) of participants contributing to VE analyses were working-age adults 20-64 years-old.

Adjusted VE against A(H1N1)pdm09 is substantial at 72% (95% confidence interval (CI): 60-81%). This considerable vaccine protection has been observed across all age groups, notably young children (91%; 95% CI: 67-98), who also appear to have been disproportionately affected by this year's A(H1N1)pdm09-dominant epidemic. To illustrate, children 1-8 years of age accounted for 28% of A(H1N1)pdm09 cases in this analysis, despite comprising approximately 9% of the underlying population and 14% of the study controls. Greater involvement of children <9 years of age has also been observed in other surveillance systems (see page 6 of the current bulletin) and was also reported by Australia during its 2018 A(H1N1)pdm09-dominant epidemic. This finding may reflect a greater proportion of children younger than 9 years in the current epidemic who were not yet born during prior recent H1 epidemics – notably the 2009 pandemic of 9 years ago – with fewer opportunities to have acquired immunity compared to older age groups.

The Canadian interim estimate for 2018-19 is comparable to preliminary estimates of vaccine effectiveness against A(H1N1)pdm09 using the same vaccine component reported from Australia (78%; 95%CI: 51-91%) for their 2018 season. It is substantially higher than reported for Canada during last year's A(H3N2)-dominant epidemic (for which vaccine effectiveness against A(H3N2) viruses was less than 20%).

Consistent with global trends, sequencing analysis of viruses collected by the Canadian SPSN has revealed considerable genetic diversity among circulating clade 6B.1 viruses of A(H1N1)pdm09; however, a dominant drift (immunologic escape) variant has not yet been identified.

The full report is available as an open-access publication in the online journal *Eurosurveillance*: <https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2019.24.4.1900055>

## **International**

### **USA (week 2, January 6 to January 12, 2019)**

Influenza activity remains elevated in the United States (US), with influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continuing to co-circulate. Influenza A(H1N1)pdm09 viruses continue to predominate in most areas of the country; however, influenza A(H3N2) viruses have predominated in the southeastern US. In week 2, the proportion of deaths attributed to pneumonia and influenza was below the system-specific epidemic threshold. Three influenza-associated pediatric deaths were reported during week 2. The proportion of outpatient visits for ILI decreased from 3.5% (in week 1) to 3.1%, but remains above the national baseline of 2.2%. The US CDC has posted a summary of influenza activity in the United States and elsewhere for week 2, available at: <https://www.cdc.gov/flu/weekly/index.htm>

### **WHO (January 21, 2019, based on data up to January 6, 2019)**

In the temperate zone of the northern hemisphere, influenza activity continued to increase slowly. Both A viruses are circulating in Europe, while in North America and East Asia influenza A(H1N1)pdm09 has been most frequently detected. Predominant influenza A(H3N2) activity continues to be reported from Iran and Egypt. In the temperate zones of the southern hemisphere, influenza activity has returned to inter-seasonal levels with the exception of some parts of Australia. Worldwide, seasonal influenza A viruses have accounted for the majority of detections.

From 24 December 2018 to 6 January 2019, the WHO GISRS laboratories tested more than 191,778 specimens. Of these, 39,161 were positive for influenza viruses, of which 38,493 (98.3%) were typed as influenza A and 668 (1.7%) as influenza B. Of the subtyped influenza A viruses, 13,313 (79.4%) were influenza A(H1N1)pdm09 and 3,446 (20.6%) were influenza A(H3N2). Of the characterized B viruses, 45 (38.1%) belonged to the B-Yamagata lineage and 73 (61.9%) to the B-Victoria lineage.

The full report is available at: [https://www.who.int/influenza/surveillance\\_monitoring/updates/en/](https://www.who.int/influenza/surveillance_monitoring/updates/en/)

## WHO Recommendations for Influenza Vaccines

### **WHO Recommendations for 2018-19 Northern Hemisphere Influenza Vaccine**

On February 22, 2018, the WHO announced the recommended strain components for the 2018-19 northern hemisphere trivalent influenza vaccine (TIV)\*:

- an A/Michigan/45/2015 (H1N1)pdm09-like virus;
- an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus; †
- a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage) ‡.

It is recommended that quadrivalent influenza vaccines (QIV) containing two influenza B viruses contain the above three viruses and a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage).

\* Recommended strains represent a change for two of the three components used for the 2017-18 northern hemisphere TIV

† Recommended strain represents a change from the 2017-18 season vaccine which contained an A/Hong Kong/4801/2014 (H3N2)-like virus

‡ Recommended strain represents a change from the 2017-18 season vaccine which contained a B/Brisbane/60/2008-like virus.

For further details: [http://www.who.int/influenza/vaccines/virus/recommendations/2018\\_19\\_north/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2018_19_north/en/)

### **WHO Recommendations for the 2019 Southern Hemisphere Influenza Vaccine**

On September 27, 2018, the WHO announced recommended strain components for the 2019 southern hemisphere trivalent influenza vaccine (TIV):\*

- an A/Michigan/45/2015 (H1N1)pdm09-like virus;
- an A/Switzerland/8060/2017 (H3N2)-like virus; ‡
- a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage).§

It is recommended that quadrivalent influenza vaccines (QIV) containing two influenza B viruses contain the above three viruses and a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage).

\* Recommended strains represent a change for two of the three components used for the 2018 southern hemisphere TIV.

‡ Recommended strain represents a change from the 2018 season vaccine which contained an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus

§ Recommended strain for the influenza B component represents a lineage-level change from a B(Yamagata)-lineage virus in the 2018 vaccine to a B(Victoria)-lineage virus in the 2019 vaccine.

For further details: [http://www.who.int/influenza/vaccines/virus/recommendations/2019\\_south/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2019_south/en/)

## Additional Information

### **Explanatory Note:**

The surveillance period for the 2018-19 influenza season is defined starting in week 40. Weeks 36-39 of the 2017-18 season are shown on graphs for comparison purposes.

### **List of Acronyms:**

<b>ACF:</b> Acute Care Facility	<b>MSP:</b> BC Medical Services Plan
<b>AI:</b> Avian influenza	<b>NHA:</b> Northern Health Authority
<b>FHA:</b> Fraser Health Authority	<b>NML:</b> National Microbiological Laboratory
<b>HBoV:</b> Human bocavirus	<b>A(H1N1)pdm09:</b> Pandemic H1N1 influenza (2009)
<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
<b>LTCF:</b> Long-Term Care Facility	

### **Current AMMI Canada Guidelines on the Use of Antiviral Drugs for Influenza:**

[www.ammi.ca/?ID=122&Language=ENG](http://www.ammi.ca/?ID=122&Language=ENG)

### **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>

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 – 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:**

Tel: (604) 707-2510

Fax: (604) 707-2516

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

Communicable Disease Prevention and Control Services (CDPACS)

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)



# Influenza-Like Illness (ILI) Outbreak Summary Report Form

Please complete and email to [ilioutbreak@bccdc.ca](mailto:ilioutbreak@bccdc.ca)

**Note: This form is for provincial surveillance purposes.  
 Please notify your local health unit per local guidelines/requirements.**

**ILI:** Acute onset of respiratory illness with fever and cough and with one or more of the following: sore throat, arthralgia, myalgia, or prostration which *could* be due to influenza virus. In children under 5, gastrointestinal symptoms may also be present. In patients under 5 or 65 and older, fever may not be prominent.  
**Schools and work site outbreak:** greater than 10% absenteeism on any day, most likely due to ILI.  
**Residential institutions (facilities) outbreak:** two or more cases of ILI within a seven-day period.

<b>A</b>	<b><u>Reporting Information</u></b>	
	Person Reporting:	Title:
	Contact Phone:	Email:
	Health Authority:	HSDA:
	Full Facility Name:	
	Is this report:	First Notification ( <i>complete section B below; section D if available</i> ) Outbreak Over ( <i>complete section C and section D below</i> )
	Report Date (dd/mm/yyyy):	

<b>B</b>	<b><u>First Notification</u></b>	
	Type of facility*:	Long Term Care Facilities, Nursing Homes      Acute Care Facility Other Setting:
	<i>If ward or wing, please specify name/number:</i>	
	Date of onset of first case of ILI (dd/mm/yyyy):	
	Date outbreak declared (dd/mm/yyyy):	
	<small>*Long Term Care Facilities, Nursing Homes: Facilities that provide living accommodation for people who require on-site delivery of 24 hour, 7 days a week supervised care, including professional health services, personal care and services such as meals, laundry and housekeeping or other residential care facilities where provincial/territorial public health is responsible for outbreak management under provincial legislation; <b>Acute Care Facility:</b> Publicly funded facilities providing medical and/or surgical treatment and acute nursing care for sick or injured people, through inpatient services. (i.e. hospitals including inpatient rehabilitation and mental facilities); <b>Other Setting:</b> Any locations not otherwise specified here in which outbreaks of influenza or ILI may occur (e.g. retirement homes, assisted living or hospice settings, private hospitals/clinics, correctional facilities, colleges/universities, adult education centres, shelters, group homes, and workplaces).</small>	

<b>C</b>	<b><u>Outbreak Declared Over</u></b>										
	Date of onset for last case of ILI (dd/mm/yyyy):										
	Date outbreak declared over (dd/mm/yyyy):										
	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 50%;">Numbers to date</th> <th style="width: 50%;">Residents</th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td></td> </tr> <tr> <td><b>With ILI</b></td> <td></td> </tr> <tr> <td><b>Hospitalized*</b></td> <td></td> </tr> <tr> <td><b>Died*</b></td> <td></td> </tr> </tbody> </table>		Numbers to date	Residents	<b>Total</b>		<b>With ILI</b>		<b>Hospitalized*</b>		<b>Died*</b>
Numbers to date	Residents										
<b>Total</b>											
<b>With ILI</b>											
<b>Hospitalized*</b>											
<b>Died*</b>											
<small>*suspected to be linked to case of ILI</small>											

<b>D</b>	<b><u>Laboratory Information</u></b>			
	Specimen(s) submitted?	<input type="checkbox"/> Yes (location: _____ )	No	<input type="checkbox"/> Don't know
	If yes, organism identified?	Yes	No	Don't know
	<b>Please specify organism/subtype:</b>	Influenza A (subtype: _____ )	Influenza B	
		Parainfluenza      Enterovirus      Coronavirus      RSV HMPV                  Adenovirus      Other:		