British Columbia (BC) Influenza Surveillance Bulletin

Influenza Season 2019-20, Number 11, Week 18 April 26 to May 2, 2020

Table of Contents:

British Columbia:

Sentinel Physicians
Children's Hospital ER
Medical Services Plan
Laboratory Surveillance
ILI Outbreaks
Page 2
Page 3
Page 3
Page 5
Page 9

Emerging Respiratory Viruses:

2019 Novel Coronavirus, Page 10 "COVID-19"

Canada:

FluWatch Activity levels
NML Strain Characterization
NML Antiviral Resistance
AMMI Anti-Viral Drugs Guideline
Page 11
Page 11
Page 11

International:

USA (CDC)
WHO
Page 12
Page 12

<u>Influenza Vaccine Components</u> (WHO Recommendations)

2019-20 Northern Hemisphere Page 13
2020-21 Northern Hemisphere Page 13

Additional Information:

Explanatory note
List of Acronyms
Page 14
Web Sites
Page 14
Outbreak Report Form
Page 15

Influenza activity remains at very low levels: 2019-20 Influenza Season

Laboratory and clinical indicators of influenza illness in BC have remained low since our last influenza bulletin of week 14. Between weeks 15-18, most clinical indicators were below historical averages for this time of the year, influenza test-positivity rates were below 1%, and no facility influenza outbreaks were reported.

Overall, the 2019-20 influenza season in BC has been comprised of a roughly 60:40 split of cocirculating influenza A and influenza B viruses. Among subtyped influenza A viruses about 60% were A(H1N1)pdm09 and 40% A(H3N2). However, three-quarters of influenza A detections remain unsubtyped due to COVID-19 priorities; the relative contribution by influenza A subtype should therefore be interpreted cautiously.

The cumulative tally of LTCF influenza outbreaks reported this season (n=73) is similar to the 2018-2019 season (n=95). Most with known subtype were due to influenza A(H3N2).

Provincial and national observations related to the COVID-19 epidemic, as of May 7th, are also provided on page 10.

This is the last regular influenza surveillance bulletin for the 2019-20 season. Further bulletins will be issued on an ad hoc basis until the next regular reporting period begins for the 2020-21 season.

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: May 7, 2020





British Columbia

Sentinel Physicians

In week 18, clinical influenza-like illness (ILI) rates among patients presenting to sentinel sites is 0.42%; while this is above the 10-year historical average for this time of the year, rates are subject to change as data become more complete (**Figure 1**). Recognizing that many clinical sites have switched to telehealth approaches, eight out of 19 (42%) sentinel ILI monitoring sites have reported data for week 18.

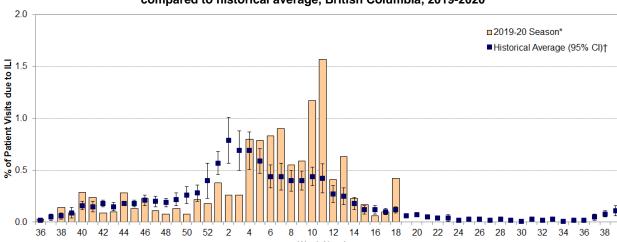


Figure 1: Percent of patient visits to sentinel physicians due to influenza-like illness (ILI) compared to historical average, British Columbia, 2019-2020

^{*} Data are subject to change as reporting becomes more complete.

^{† 10-}year historical average for 2019-20 season based on 2006-07 to 2018-2019 seasons, excluding 2008-09 and 2009-10 due to atypical seasonality; Cl=confidence interval.

BC Children's Hospital Emergency Room

In week 18, as in preceding weeks, the proportion of visits to BC Children's Hospital Emergency Room (BCCH ER) attributed to ILI (2.3%) was substantially below the 5-year historical average (**Figure 2**). Of note, the overall number of ER registrations at BCCH is substantially lower than the similar period last year. This may be due to changes in health seeking behaviour and social distancing during the COVID-19 epidemic.

40% 2019-20 Season Historical Average^a -----95% CI* of Patient Visits due to ILI 10% 40 42 50 52 2 6 8 10 12 14 16 18 20 48 Week Number

Figure 2: Percent of patients presenting to BC Children's Hospital ER attributed to influenza-like illness (ILI), British Columbia, 2019-2020

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 2019-20 season based on 2014-15 to 2018-19 seasons; Cl=confidence interval.

Medical Services Plan

BC Medical Services Plan (MSP) general practitioner claims for influenza illness as a proportion of all submitted MSP claims have been below the 10-year minimum for this time of year in BC overall and in all 5 health regions. This pattern has been maintained since about mid-April following sharp decrease in rates that began around mid-March (**Figure 3 and 4**). Of note, claims for influenza made through telehealth are not incorporated in these figures.

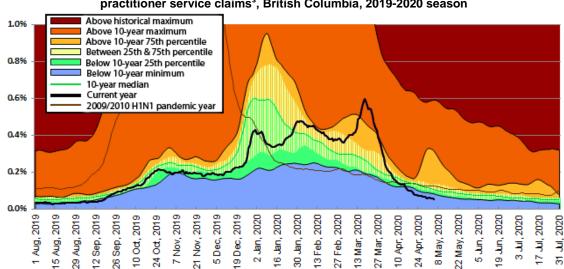
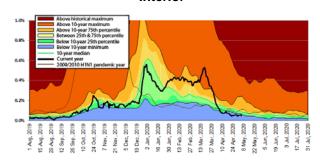


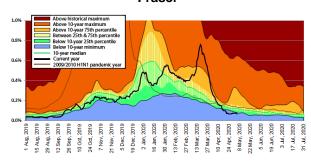
Figure 3: Service claims submitted to MSP for influenza illness as a proportion of all submitted general practitioner service claims[§], British Columbia, 2019-2020 season

Figure 4

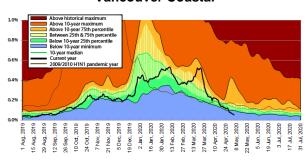
Interior

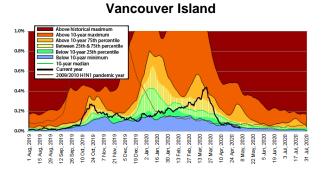


Fraser

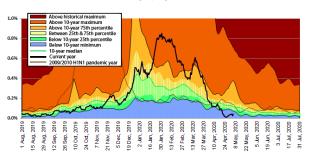


Vancouver Coastal





Northern



[§] Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Influenza illness (II) 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, 2019 corresponds to sentinel ILI week 31; data are current to May 5, 2020.

British Columbia Laboratory Reports

Changes in testing recommendations and practices for febrile respiratory illness over time in relation to the SARS-CoV-2 epidemic may be influencing influenza detection and trends, requiring cautious interpretation.

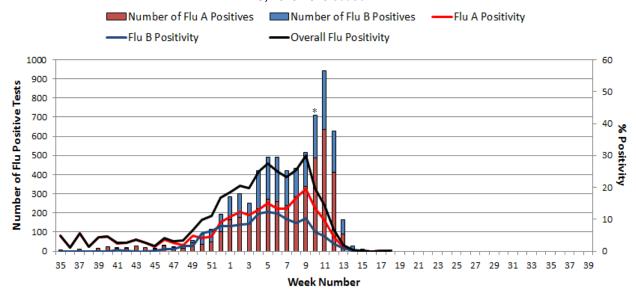
Influenza virus test-positivity

In week 18, 0.1% (4/4872) of specimens tested for influenza at laboratories across BC¹ were positive, of which 0.06% (3) were influenza A and 0.02% (1) were influenza B.

Both the absolute number and the proportion of respiratory specimens that were test-positive for influenza viruses have continued to decrease and are now at very low levels. Since week 14, overall influenza and influenza A and B positivity rates have remained below 1% (Figure 5).

Cumulatively since week 40 (starting September 29, 2019), of the 75,318 specimens tested for influenza at laboratories across BC, 4,141 (5%) tested positive for influenza A and 2,595 (3%) tested positive for influenza B. Throughout the season, influenza A has comprised 61% and influenza B has comprised 39% of total influenza virus detections.

Figure 5: Influenza virus positivity among respiratory specimens tested by participating laboratories across BC, 2019-2020 season^{2,}



¹ 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. From week 40, reporting sites include: BC Children's and Women's Hospital, Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital, St. Paul's Hospital, Vancouver General Hospital, Victoria General Hospital, Victoria Coastal Health, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites

² Rates are subject to change with subsequent data reconciliation. Findings support trend analysis but note data for week 35-39 do not include all testing sites in BC. Data from week 35-38 were derived manually from weekly FluWatch's Respiratory Virus Detection Surveillance System (RVDSS) report data and the Flu Data Mart. Influenza positivity data for week 39 came exclusively from the FluWatch's RVDSS Week 39 Report. Source: Summary provided by the BCCDC Public Health Laboratory.

^{*} Starting week 10, influenza testing has been applied to all samples submitted for COVID-19 testing at the BCCDC PHL.
** Week of sample based on the sample collection date.

BC Centre for Disease Control An agency of the Provincial Health Services Authority

Influenza virus type/subtype characterization

Due to the high volume of respiratory testing related to COVID-19, the BCCDC PHL has temporarily suspended influenza A subtyping. As a result, starting week 4 the influenza and other virus detection graph (Figure 6) has an increased number considered influenza A(subtype unknown). Starting week 10, all respiratory-related samples sent to the PHL were dually tested for SARS-CoV-2 and influenza viruses. This may explain the large increase in the number of influenza viruses detected shortly thereafter. Further changes to this laboratory protocol, however, including recent return to more typical influenza testing practices currently show very low levels of influenza detection.

In week 18, among influenza viruses subjected to further characterization*, just 2 influenza A(unsubtyped) viruses were detected. No subtyping of influenza A viruses were done for week 18. Since week 40, among influenza A viruses successfully subtyped at the BCCDC PHL, 437/768 (57%) were A(H1N1)pdm09 and 331/768 (43%) were A(H3N2). Out of the total 3,011 influenza A viruses detected, 2,243 (74%) remain unsubtyped. During the 2019-20 season (cumulatively since week 40, starting September 29, 2019), 4,841 patients tested positive for influenza at the BCCDC Public Health Laboratory (PHL), including 2,998 (62%) with influenza A, 1,830 (38%) with influenza B, and 13 (<1%) with influenza A and influenza B co-infections.

The BCCDC PHL also conducts testing for other respiratory viruses (ORV) among specimens from select sites across the province. Other external sites perform their own ORV testing and this report does not include data from all sites across the province. During week 18, among ORV testing at the BCCDC PHL, coronavirus group (n=202), inclusive of SARS-CoV-2 (n=199), was most commonly detected. Like influenza, detection of entero/rhinoviruses, RSV, and other respiratory viruses all remained low (n < 10).

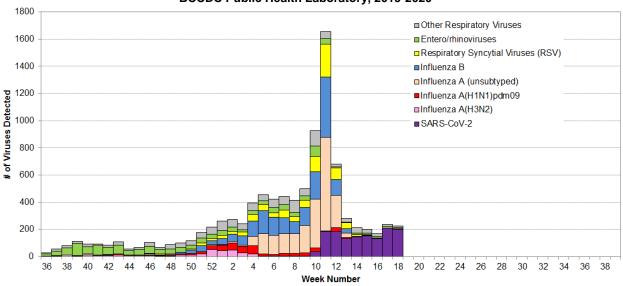


Figure 6: Influenza and other virus detections among respiratory specimens submitted to BCCDC Public Health Laboratory, 2019-2020[†]

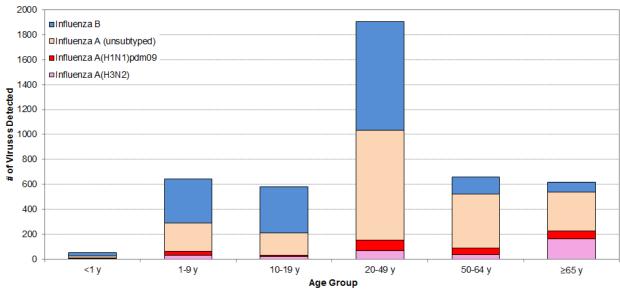
Source: BCCDC Public Health Laboratory (PHDRW); Data are current to May 7th, 2020.

Among typed/subtyped viruses with age information since week 40, median age of A(H1N1)pdm09 cases was 46 years and of A(H3N2) detections was 64 years. Median age was substantially younger for influenza B at 25 years (Figures 7 and 8). Overall, 747/1833 (41%) influenza B detections have been children <20 years of age whereas that age group comprises <20% of the population of British Columbia (source: PEOPLE 2019 Population Projections).

[†] 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.

^{**} Week of sample based on the sample collection date.

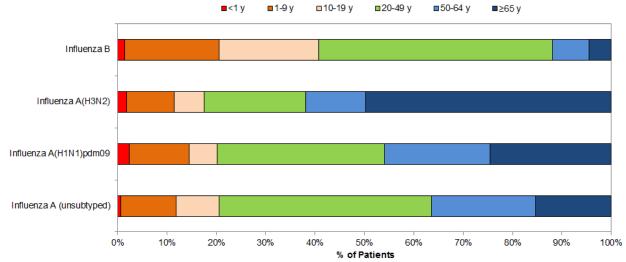
Figure 7: Cumulative number (since week 40) of influenza detections by type, subtype, and age group, BCCDC Public Health Laboratory, 2019-2020*



Source: BCCDC Public Health Laboratory (PHDRW); Data are current to May 7^m, 2020; figure includes cumulative influenza detections for specimens collected from weeks 40-

18. *Influenza A(H1N1)pdm09 and influenza A(subtype unknown) weekly case counts as directly typed/subtyped on primary specimens by Island Health Authority, are not incorporated into Figure 7 and 8 because age information is not available.

Figure 8: Age distribution of influenza detections (cumulative since week 40), BCCDC Public Health Laboratory, 2019-2020*



Source: BCCDC Public Health Laboratory (PHDRW); Data are current to May 7^m, 2020; figure includes cumulative influenza detections for specimens collected from weeks 40-18.

*Influenza A(H1N1)pdm09 and influenza A(subtype unknown) weekly case counts as directly typed/subtyped on primary specimens by Island Health Authority, are not incorporated into Figure 7 and 8 because age information is not available.

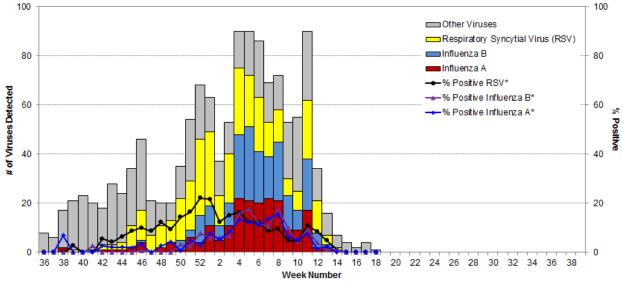
BC Centre for Disease Control An agency of the Provincial Health Services Authority

BC Children's and Women's Health Centre Laboratory

In week 18, among 23 specimens tested for influenza at the BC Children's and Women's Health Centre laboratory, none were positive for influenza A, influenza B, or RSV (Figure 9).

Figure 9: Influenza and other virus detections among respiratory specimens submitted to

BC Children's and Women's Health Centre Laboratory, 2019-2020* Other Viruses Respiratory Syncytial Virus (RSV) Influenza B



^{*} 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.

** Week of sample based on the sample collection date.

Influenza-like Illness (ILI) Outbreaks

In week 18, no laboratory-confirmed influenza outbreaks were reported from long-term care facilities (LTCF). No school ILI outbreaks were reported (Figures 10 and 11).

Since week 40, a total of 73 laboratory-confirmed LTCF influenza outbreaks (17 A(H3N2), 5 A(H1N1)pdm09, 36 subtype unknown, 8 B, and 7 mixed), 9 acute care facility outbreaks, 37 school outbreaks, and 1 mental health facility outbreak were reported. This tally of LTCF outbreaks for the 2019-2020 season from week 40 to date (n=73) is lower than the tally reported to the BCCDC for the same period during the 2018-19 (n=95), 2017-18 (n=182), and 2016-17 (n=201) seasons.

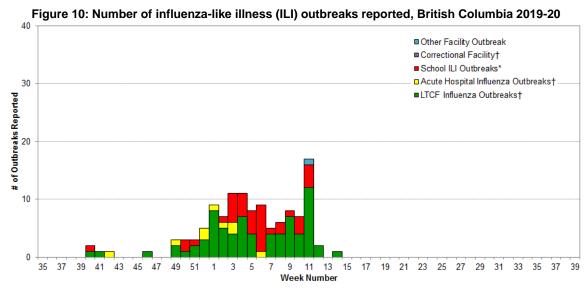
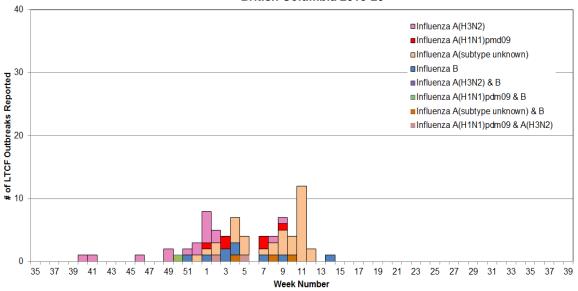


Figure 11: Number of influenza outbreaks by type/subtype in long-term care facilities (LTCF),
British Columbia 2019-20[†]



^{*} 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.

Emerging Respiratory Viruses: 2019 Novel Coronavirus, "COVID-19"

As of May 7, 2020, 11:00 AM PT, there have been 3,884,680 confirmed COVID-19 cases reported globally, of which more than 30% (n=1,278,485) are from the United States, and among them 26% (n=337,011) are from the state of New York alone. Outside of the United States, countries of Europe have reported the most cases, including Spain (n= 256,855), Italy (n= 215,858), and the United Kingdom (n= 206,715). Russia currently reports the fifth-most cases (n= 177,160). On a per capita basis, Spain (5,494 cases per million), the United States (3,862 cases per million), and Italy (3,570 cases per million) report the highest global rates.

To date, 268,793 COVID-19 associated deaths have been reported (7% of reported cases). The United States has contributed 28% of the global death count (n=76,101). Deaths in the state of New York alone (n= 26,359) are comparable to total deaths in Spain (n= 26,070) and France (n=25,987). Following the United States, the United Kingdom (n= 30,615; 11% of deaths) and Italy (n= 29,958; 11% of deaths) have the highest reported death counts.

In Canada, 64,849 confirmed cases have been reported, with 4,406 (7%) associated deaths (Figure 12). In BC, 2,288 confirmed cases have been reported, with 126 (6%) deaths. Of the cases in BC, 52% have been female, and median age is 52 years. Overall, there have been 49 outbreaks declared by local health authorities in relation to COVID-19. Declared outbreak settings include care facilities (long term care and acute care facilities, assisted living, and independent living residences) and other settings such as correctional facilities, work camps, and food processing facilities. Of the total BC COVID-19 cases, 819 (36%) cases have been linked to such outbreaks (402 residents or patients; 417 staff), with 82 associated deaths (81 residents or patients; 1 staff). More details related to the COVID-19 pandemic are available from the resources provided below:

A new BC COVID-19 dashboard with the latest case counts and information on recoveries, deaths, hospitalizations, and testing, as well as detailed situation reports: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/data

Daily national updates are also now provided by the Public Health Agency of Canada here: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html.

Canadian travel health notices remain at Level 3 (avoid non-essential travel) advisories applied to all countries: https://travel.gc.ca/travelling/health-safety/travel-health-notices

Daily global situation reports and technical guidance (public health and infection control measures) are available on the WHO website at www.who.int/emergencies/diseases/novel-coronavirus-2019/.

The latest global tallies, including deaths and recoveries, are also available on other useful websites, such as: https://www.worldometers.info/coronavirus/ or https://coronavirus.jhu.edu/map.html

Figure 12: Geographic distribution of novel coronavirus, COVID-19, May 7, BC and Canada





National

FluWatch (week 14, March 29 to April 4, 2020)

In week 14, the percentage of tests positive for influenza remained below 5% (0.75%), suggesting the end of the influenza season in Canada occurred in week 12 (mid-March) at the national level. Testing for influenza and other respiratory viruses may be influenced by the current COVID-19 pandemic. Data should be interpreted with caution. Since week 35, a total of 55,194 laboratory detections of influenza were reported, of which 59% (32,617) were influenza A. Among subtyped influenza A detections (7,312), A(H1N1) is the predominant subtype this season (68%) and among cases with age information (3,745), 26% were 20-44 years old, 26% were 45-64 years old and 28% were 65 years of age and older. The largest proportion of influenza A(H3N2) cases was in adults 65 years of age and older (46%) and cases of influenza B were primarily in younger age groups with 55% of cases under 19 years of age and 31% between 20 and 44 years of age. The highest cumulative hospitalization rates are among children under 5 years of age (74/100,000 population) and adults 65 years of age and older (78/100,000 population). This is the last weekly FluWatch report for the 2019-2020 season. Monthly reports will be published over the spring and summer.

Full report is available at: https://www.canada.ca/en/public-health/services/diseases/flu-influenza-surveillance/weekly-influenza-reports.html

National Microbiology Laboratory (NML): Strain Characterization

From September 1 to April 9, 2020, the NML has characterized 1484 influenza viruses [208 A(H3N2), 614 A(H1N1) and 662 influenza B] that were received from Canadian laboratories.

Influenza A(H3N2): Nineteen influenza A(H3N2) viruses were antigenically characterized as A/Kansas/14/2017-like, whereas 67 viruses showed reduced titer with ferret antisera raised against egg-propagated A/Kansas/14/2017. Three influenza A (H3N2) viruses characterized belonged to clade 3C.3a and 35 viruses belonged to genetic subclade 3C.2a1b. Sequencing is pending for the remaining isolates.

Influenza A(H1N1)pdm09: 304 A(H1N1) viruses characterized were antigenically similar to A/Brisbane/02/2018. 310 viruses showed reduced titer with ferret antisera raised against egg-propagated A/Brisbane/02/2018.

Influenza B: 19 viruses characterized were antigenically similar to B/Colorado/06/2017, whereas 162 viruses showed reduced titer with ferret antisera raised against cell culture-propagated B/Colorado/06/2017. Genetic characterization was also performed on 481 B/Victoria lineage virus. All these viruses had a three amino acid deletion (162-164) in the HA gene and belong to the genetic subclade V1A-3Del. Two viruses characterized were antigenically similar to B/Phuket/3073/2013.

National Microbiology Laboratory (NML): Antiviral Resistance

From September 1, 2019, to April 9, 2020, the NML received influenza viruses from Canadian laboratories for drug susceptibility testing.

<u>Amantadine</u>: High levels of resistance to amantadine persist among influenza A(H1N1) and influenza A(H3N2) viruses. Resistance results not presented.

Oseltamivir: Of the 733 influenza viruses [164 H3N2, 283 H1N1 and 286 B] tested against oseltamivir. All 164 H3N2 and 286 B viruses were sensitive to oseltamivir. Of the 283 H1N1 viruses tested, 282 were sensitive to oseltamivir and one virus was resistant to oseltamivir with H275Y mutation.

Zanamivir: Of the 733 influenza viruses [164 H3N2, 283 H1N1 and 286 B] tested against zanamivir, all were sensitive.

Updated Antiviral Guidelines

The Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) have released updated guidance on the use of antiviral for the 2019-2020 influenza season. These guidelines are available at: https://www.ammi.ca/Content/AC- %20Guidance%20of%20Antiviral%20Agents%2019-20.pdf.

International

USA (week 17, April 19 to 25, 2020)

In week 17, laboratory confirmed influenza activity as reported by clinical laboratories continued to remain low. Reported ILI activity this week (1.8%) was also below the national baseline (2.4%). The proportion of deaths attributed to pneumonia and influenza was 9.3%, above the epidemic threshold of 6.8%. The increase is due to an increase in pneumonia deaths rather than influenza deaths and may be associated with COVID-19.

The overall cumulative hospitalization rate was 69.0 per 100,000 population, which was higher than all recent seasons at this time of year except for the 2017-18 season. A total of 170 influenza-associated pediatric deaths were reported so far this season, 1 of which was reported this week.

In week 17, a total of 11,306 specimens were tested for influenza in the US and of the positive specimens (0.18%), 67% (14) was influenza A and 33% (7) was influenza B viruses. Since week 40, 18% (248,410) of all tested specimens in the US were positive for influenza, of which 54% (132,929) were influenza A and 46% (115,481) were influenza B. Among influenza specimens with subtype or lineage information since week 40, 93% were A(H1N1)pdm09 and almost all were Victoria (98%).

With ongoing declines in influenza activity and the continued effects of the COVID-19 pandemic, FluView reports will be abbreviated for the remainder of the 2019-2020 season.

Full report is available at: https://www.cdc.gov/flu/weekly/index.htm.

WHO (April 27, 2020, based on data up to April 12, 2020)

In the temperate zone of the northern hemisphere, respiratory illness indicators and influenza activity appeared to be low overall.

From March 30 to April 12, 2020, the WHO GISRS laboratories tested more than 122,242 specimens. Of these, 1,249 were positive for influenza viruses, of which 55% were typed as influenza A and 45% as influenza B. Of subtyped influenza A viruses, 298 (78%) were influenza A(H1N1)pdm09 and 85 (22%) were influenza A(H3N2). Of the characterized B viruses, 3 (7%) belonged to the B(Yamagata) lineage and 43 (93%) to the B(Victoria) lineage.

In countries in the temperate zone of the southern hemisphere, influenza activity remains at interseasonal levels.

In countries in the tropical zone, majority of the regions are reporting decreasing or low levels of influenza detection. In the Caribbean and Central American countries, elevated severe acute respiratory infection (SARI) activity was reported by several countries, but influenza detection remained low. In tropical South American, tropical Africa, Southern Asia, and South East Asia regions, influenza detections were low overall. Worldwide, seasonal influenza A and B viruses were detected in similar proportion.

Details are available

at: https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

WHO Recommendations for Influenza Vaccines

WHO Recommendations for 2019-2020 Northern Hemisphere Influenza Vaccine

On February 21, 2019, the WHO announced the recommended strain components for the 2019-2020 northern hemisphere trivalent influenza vaccine (TIV)*:

- an A/Brisbane/02/2018 (H1N1)pdm09-like virus [a clade 6B.1A1 virus]; †
- an A/Kansas/14/2017 (H3N2)-like virus [a clade 3C.3a virus]; ‡
- a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage) [a clade V1A.1, Δ2 virus].

It is recommended that quadrivalent influenza vaccines (QIV) for the 2019-2020 northern hemisphere season contain the above three viruses and a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage) [a clade 3 virus].

- * Recommended strains represent a change for two of the three components used for the 2018-19 northern hemisphere TIV
- † Recommended strain represents a change from the 2018-19 season vaccine which contained an A/Michigan/45/2015 (H1N1)pdm09-like virus [a clade 6B.1 virus]
- ‡ Recommended strain represents a change from the 2018-19 season vaccine which contained an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus [a clade 3C.2a1 virus]

For further details: https://www.who.int/influenza/vaccines/virus/recommendations/2019_20_north/en/

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.1A5 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, ∆3 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 representative virus [also clade 6B.1A5] 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, $\Delta 2$ virus]

For further details: https://www.who.int/influenza/vaccines/virus/recommendations/2020-21 north/en/

Additional Information

Explanatory Note:

The surveillance period for the 2019-20 influenza season is defined starting in week 40. Weeks 36-39 of the 2018-19 season are shown on graphs for comparison purposes.

List of Acronyms:

ACF: Acute Care Facility

AI: Avian influenza

MSP: BC Medical Services Plan

NHA: Northern Health Authority

FHA: Fraser Health Authority **NML:** National Microbiological Laboratory **HBoV:** Human bocavirus **NML:** National Microbiological Laboratory **A(H1N1)pdm09:** Pandemic H1N1 influenza

HMPV: Human metapneumovirus (2009)

HSDA: Health Service Delivery Area **RSV**: Respiratory syncytial virus

IHA: Interior Health Authority
 ILI: Influenza-Like Illness
 LTCF: Long-Term Care Facility
 VCHA: Vancouver Coastal Health Authority
 VIHA: Vancouver Island Health Authority
 WHO: World Health Organization

Current AMMI Canada Guidelines on the Use of Antiviral Drugs for

Influenza: 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

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/

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

WHO - Weekly Epidemiological Record: www.who.int/wer/en/

WHO Collaborating Centre for Reference and Research on Influenza

(Australia): www.influenzacentre.org/

Australian Influenza Report:

www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm

New Zealand Influenza Surveillance Reports: www.surv.esr.cri.nz/virology/influenza weekly update.php

Avian Influenza Web Sites

WHO – Influenza at the Human-Animal Interface: www.who.int/csr/disease/avian_influenza/en/ World Organization for Animal Health: www.oie.int/eng/en_index.htm

Contact Us:

Tel: (604) 707-2510 Fax: (604) 707-2516

Email: InfluenzaFieldEpi@bccdc.ca

Communicable Diseases & Immunization Service (CDIS)

BC Centre for Disease Control

655 West 12th Ave, Vancouver BC V5Z 4R4

Online: www.bccdc.ca/health-professionals/data-reports/influenza-surveillance-reports

Link to fillable Facility Outbreak Report Form: http://www.bccdc.ca/resource-

gallery/Documents/Guidelines%20and%20Forms/Forms/Epid/Influenza%20and%20Respiratory/Outbreak

ReportForm_2018.pdf

Influenza-Like Illness (ILI) Outbreak Summary Report Form

Please complete and email to 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.

| Λ | Reporting Information | | | | |
|---|---|---|--------------------------------|-----------------------------------|--|
| A | Person Reporting: | | Title: | | |
| | Contact Phone: | Email: | | | |
| | Health Authority: | HSDA: | | | |
| | Full Facility Name: | | | | |
| | Is this report: | First Notification (| complete section B belo | w; section D if available) | |
| | Outbreak Over (complete section C and section D below) | | | | |
| | Report Date (dd/mm/yyyy): | | | | |
| 7 | First Notification | <u> </u> | | | |
| В | Type of facility*: | Long Term Care Fa | cilities, Nursing Homes | Acute Care Facility | |
| | ,, | Other Setting: | | | |
| | If ward or wing, please specify name/number: | | | | |
| | Date of onset of first case of ILI (dd/mm/yyyy): | | | | |
| | Date outbreak declared (dd/mm/yyyy): | | | | |
| | *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; Acute Care Facility: Publicly funded facilities providing medical and/or surgical treatment and acute nursing care for sick or injured people, through | | | | |
| | management under provincial registation, Actube Care Pacinity: Public Vinded relations provining interesting under declination and mental facilities); Other Setting: 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). | | | | |
| | | 1.0 | | | |
| C | Outbreak Declared Over Date of onset for last case of ILI (dd/mm/yyyy): Date outbreak declared over (dd/mm/yyyy): | | | | |
| | | | | | |
| | Date outbreak declared over (dd/mm/yyyy): | | | | |
| | | Numbers to date | Residents | | |
| | | Total | | | |
| | | With ILI | | _ | |
| | | Hospitalized* Died* | | _ | |
| | ا | *suspected to be linked to case of ILI | | | |
| _ | <u>Laboratory Information</u> | | | | |
| U | Specimen(s) subm | tted? | ion:) | No 🗌 Don't know | |
| | If yes, organism ide | yes, organism identified? Yes No Don't know | | | |
| | Please specify organism/subtype: Influenza A (subtype:) Influenza B | | | | |
| | Parainfluenza | Entero/rhinovi | rus Coronavirus | RSV | |
| | HMPV | Adenovirus | Other: | | |
| | | | | | |