British Columbia Influenza Surveillance Bulletin

Influenza Season 2018-19, Number 21, Week 16 April 14 to April 20, 2019

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General decline in the late-season influenza A(H3N2) wave, but some influenza indicators still above expected for this time of year

Most surveillance indicators show general decline in the late-season wave of influenza A(H3N2), although some influenza indicators remain marginally elevated above seasonal averages for this time of the year.

Among influenza viruses typed since week 40, virtually all have been influenza A. Influenza A(H1N1)pdm09 viruses predominated from October to mid-February, and have accounted for just over 60% of subtyped A viruses overall since season start. However, since week 7, A(H3N2) viruses have comprised a greater share of influenza A detections, accounting for 67% of subtyped A viruses in week 16. There is currently very little influenza B circulation compared to previous seasons.

Two laboratory-confirmed long-term care facility (LTCF) outbreaks of influenza A (unknown subtype) were reported in week 16, comparable to that observed in the prior week, and a marked decrease from the peak number observed in week 13 (n=13).

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

Report Disseminated: April 25, 2019





British Columbia

Sentinel Physicians

In week 16, the rate of influenza-like illness (ILI) among patients presenting to sentinel sites decreased to within expected levels for this time of the season (at 0.1%). Eleven (42%) sentinel sites reported data for week 16; rates are subject to change as reporting becomes more complete (**Figure 1**).

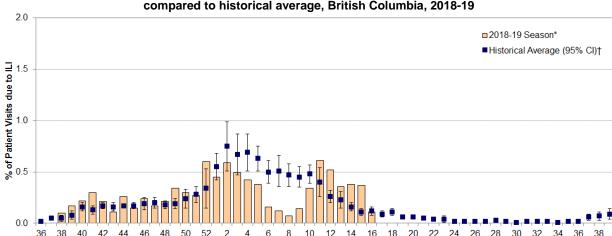


Figure 1: Percent of patient visits to sentinel physicians due to influenza-like illness (ILI) compared to historical average, British Columbia, 2018-19

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

^{† 10-}year historical average for 2015-19 season based on 2005-06 to 2017-2018 seasons, excluding 2008-09 and 2009-10 due to atypical seasonality; CI=confidence interval.

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

BC Children's Hospital Emergency Room

Following a primary peak in week 52 and a secondary peak between weeks 9 and 12, the proportion of visits to BC Children's Hospital Emergency Room (ER) attributed to ILI remained stable in week 16 (11%). Rates continue to trend above the historical average for this time of year (**Figure 2**).

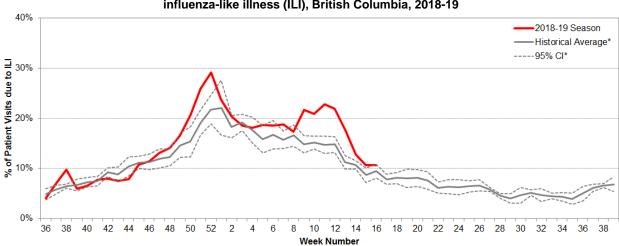


Figure 2: Percent of patients presenting to BC Children's Hospital ER attributed to influenza-like illness (ILI), British Columbia, 2018-19

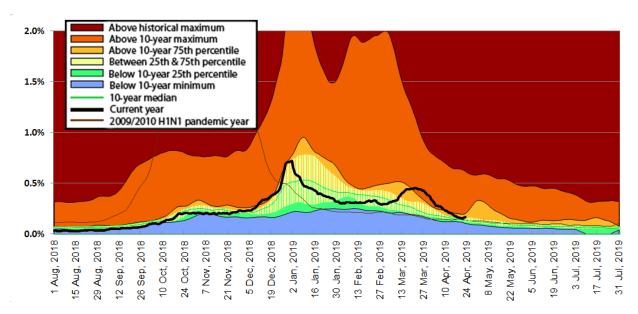
Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough." * 5-year historical average for 2018-19 season based on 2012-13 to 2017-18 seasons; CI=confidence interval.

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

Medical Services Plan

The Medical Services Plan (MSP) indicator monitors general practitioner claims for influenza illness (II) as a percentage of all submitted MSP claims. Following a provincial peak around week 52 and a secondary peak around week 12, this indicator has remained stable overall in week 16, but continues to trend above the 10-year 75th percentile overall for this time of year (**Figure 3**). Some regional variation has been observed (**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 April 23, 2019.

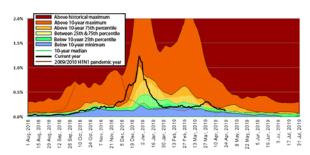
Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services.

BC Centre for Disease Control

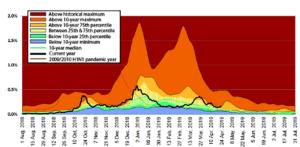
An agency of the Provincial Health Services Authority

Figure 4

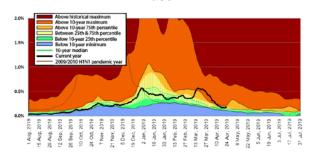
Interior



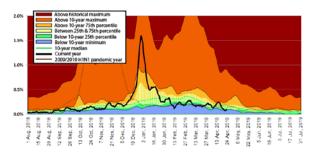
Vancouver Island



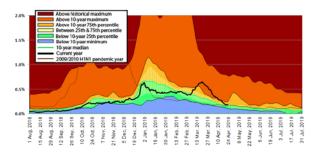
Fraser



Northern



Vancouver Coastal



British Columbia Laboratory Reports

Methodological explanation

With expanded influenza testing by additional laboratories across British Columbia (BC), adjustments to data analysis methods have been required in order to reliably interpret trends in laboratory findings. Derivation of the percentage of respiratory specimens testing influenza positive has been revised to enable more reliable comparison from week to week. The percentage influenza positivity is now 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. It should be recognized that this report does not include data from all influenza testing sites across the province.

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 is requested of the BCCDC PHL.

Laboratory surveillance observations

To date (since week 40, starting October 1, 2018), of 16,020 specimens tested for influenza across BC, 3965 (25%) tested positive for influenza A and just 161 (1%) tested positive for influenza B. Virtually all (96%) influenza detections have therefore been influenza A so far this season.

In week 16, 65/414 (16%) specimens tested positive for influenza A, which represents a decrease in comparison to the percent positivity observed in week 15 (115/616; 19%). Influenza B positivity remained comparable to the prior week (3%; 20/616) at 2% (7/414), maintaining the unusually low levels of influenza B observed this season (**Figure 5**).

Since week 40, among influenza A viruses successfully subtyped at the BCCDC PHL, 2934/4819 (61%) were A(H1N1)pdm09. Since week 40, 4 influenza A/B co-infections have been detected (2 A(H1N1)pdm09, 1 A(H3N2), and 1 subtype pending). Of the 49 influenza viruses typed in week 16, 40 (82%) were influenza A and 9 (18%) were influenza B. In week 16, among the influenza A viruses, 10 (25%) were identified as A(H3N2), 5 (12%) as A(H1N1)pdm09, and for 25 (63%), subtype was still pending. Among subtyped influenza A viruses in week 16, therefore, the majority (10/15; 67%) were A(H3N2). These findings continue the trend of greater A(H3N2) contribution relative to A(H1N1)pdm09 observed since week 7 (**Figure 6**). However, note that subtype remains pending for over half (63%) of influenza A specimens in week 16; therefore, these proportions may change as subtyping becomes more complete.

Since week 40, approximately half (52%) of A(H1N1)pdm09 detections were among adults 20-64 years of age (**Figures 7 and 8**). Twenty-one percent of A(H1N1)pdm09 detections were observed among children ≤ 9 years who comprise about 10% of the BC population¹. Children aged 10-19 years comprised a smaller proportion of cases (5%). Twenty-two percent of A(H1N1)pdm09 detections have been among elderly adults ≥ 65 years of age. Conversely, the majority (57%) of A(H3N2) detections have been among elderly adults ≥ 65 years of age, despite comprising about 18% of the population in BC¹.

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. Among ORV testing at the BCCDC PHL during week 16, entero/rhinoviruses (n=29) were again the most commonly detected (excluding influenza). Last week (week 15) was the first week since week 51 that respiratory syncytial viruses (RSV) were not the most numerous of the other respiratory viruses detected (**Figure 6**).

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

Number of Flu A Positives ■Number of Flu B Positives -Flu B Positivity 350 60.00 300 50.00 Number of Flu Positive Tests 250 40.00 200 30.00 Sitivity 150 20.00 100 10.00 50 0.00 35 37 39 41 43 45 47 49 51 1 3 9 11 13 15 17

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

Week Number

*Note: Rates are subject to change with subsequent data reconciliation. Findings support trend analysis but data do not include all testing sites in British Columbia. Source: Summary provided by the BCCDC Public Health Laboratory.

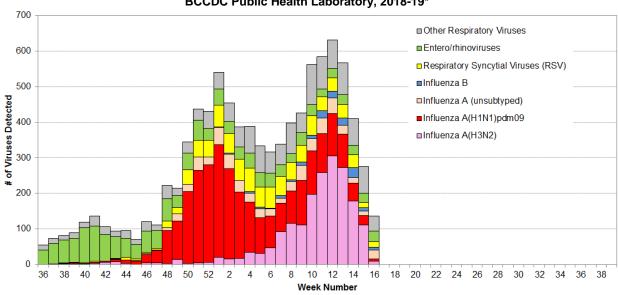
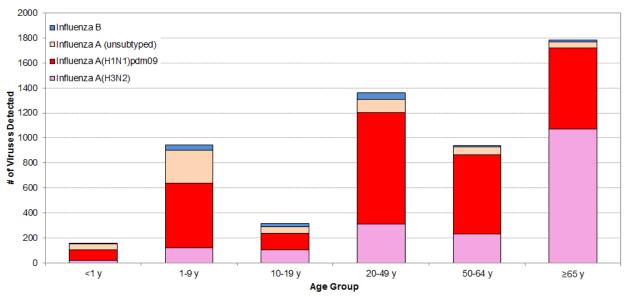


Figure 6: Influenza and other virus detections among respiratory specimens submitted to BCCDC Public Health Laboratory, 2018-19*

*Results are subject to change as more data become available, particularly for the most recent reporting weeks. Source: BCCDC Public Health Laboratory (PHDRW); Data are current to April 24, 2019.

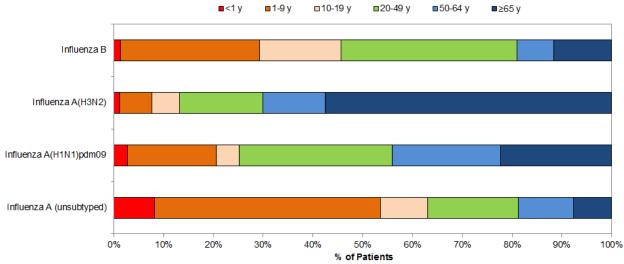
Figure 7: Cumulative number (since week 40) of influenza detections by type, subtype, and age group, **BCCDC Public Health Laboratory, 2018-19***



*Results are subject to change as more data become available.

Source: BCCDC Public Health Laboratory (PHDRW); Data are current to April 24, 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*



*Results are subject to change as more data become available.

Source: BCCDC Public Health Laboratory (PHDRW); Data are current to April 24, 2019; figure includes cumulative influenza detections for specimens collected since week 40.

BC Children's and Women's Health Centre Laboratory

In week 16, 65 tests for influenza and 59 tests for respiratory syncytial virus (RSV) were conducted at the BC Children's and Women's Health Centre laboratory. Of these, 7 (11%) were positive for influenza A (not subtyped), 1 (2%) was positive for influenza B, and 2 (3%) were positive for RSV. Compared to the prior week, influenza B, and RSV test positivity have remained relatively stable in week 16 (**Figure 9**).

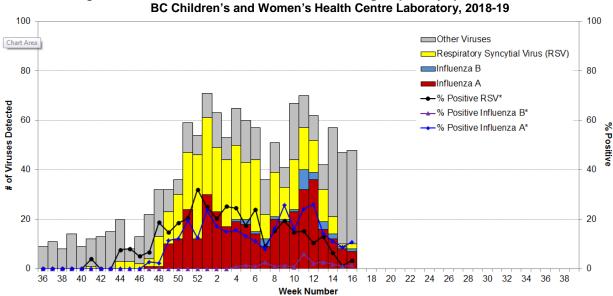


Figure 9: Influenza and other virus detections among respiratory specimens submitted to

^{*} 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

As in week 15, two laboratory-confirmed long-term care facility (LTCF) outbreaks of influenza A (subtype unknown) and one school ILI outbreak were reported in week 16. Since week 40, a total of 92 LTCF outbreaks (37 A(H3N2), 18 A(H1N1)pdm09, 35 subtype unknown, and 2 B), 20 acute care facility outbreaks, 34 school outbreaks, 1 correctional facility outbreak, and 1 mental health facility outbreak have been reported (Figures 10 and 11). The number of LTCF outbreaks reported in week 16 represents a marked decrease in comparison to the peak number reported in week 13 (n=13).

The cumulative tally of LTCF influenza outbreaks to date this A(H1N1)pdm09-dominant season has been far below that of prior A(H3N2)-dominant seasons in 2017-18 and 2016-17 (92, 180, and 198 outbreaks, respectively), although with the secondary wave of A(H3N2) having recently increased the seasonal tally for 2018-19 compared to earlier in the season.

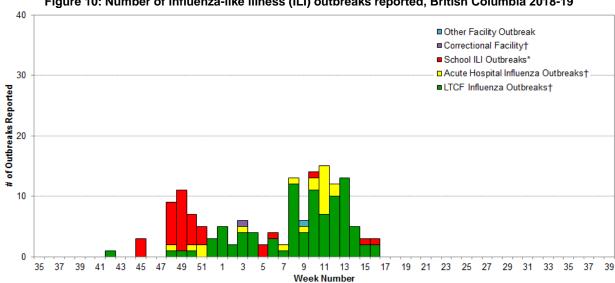


Figure 10: Number of influenza-like illness (ILI) outbreaks reported, British Columbia 2018-19

^{*} School-based ILI outbreak defined as >10% absenteeism on any day, most likely due to ILI. Data are subject to change upon retrospective reconciliation of data. † Facility-based influenza outbreaks defined as 2 or more ILI cases within 7-day period, with at least one laboratory-confirmed case of influenza

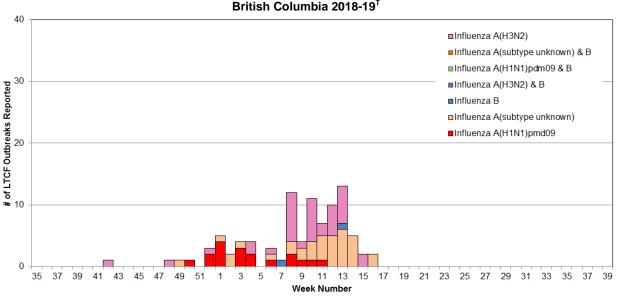


Figure 11: Number of influenza outbreaks by type/subtype in long-term care facilities (LTCF), British Columbia 2018-19[†]

[†] Facility-based influenza outbreaks defined as 2 or more ILI cases within 7-day period, with at least one laboratory-confirmed case of influenza. Data are subject to change upon retrospective reconciliation of data

National

FluWatch (Week 15, April 7 to April 13, 2019)

Note that due to the shortened reporting week, not all data providers were able to report their data in week 15.

A second smaller wave of sustained influenza activity, dominated by A(H3N2), continues to be reported in Canada. In week 15, the proportion of laboratory tests that were positive for influenza remained stable in comparison to the previous week at 20%. To date, influenza A is the most common influenza virus detected in Canada (97%); the vast majority of these viruses are A(H1N1)pdm09 (74% of subtyped influenza A viruses). However, detections of influenza A(H3N2) have been steadily increasing since mid-January and accounted for the majority (83%) of subtyped influenza A detections in week 15. There is currently very little influenza B circulation compared to previous seasons. The majority (83%) of lab-confirmed A(H1N1)pdm09 detections have been reported among individuals under the age of 65. Conversely, the majority (57%) of influenza A(H3N2) detections have been reported among adults 65 years of age and older. 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 April 25, 2019, the National Microbiology Laboratory (NML) has characterized 2006 influenza viruses [353 A(H3N2), 1553 A(H1N1)pdm09 and 100 B (23 Yamagata lineage and 77 Victoria lineage)] received from Canadian laboratories.

Influenza A(H3N2): 111 influenza A(H3N2) viruses were considered antigenically similar to egg-propagated A/Singapore/INFIMH-16-0019/2016, the WHO-recommended A(H3N2) component of the 2018-19 northern hemisphere influenza vaccine. However, 78 viruses showed reduced titer with ferret antisera raised against egg-propagated A/Singapore/INFIMH-16-0019/2016.

Of 329 A(H3N2) viruses successfully characterised (either genetically or antigenically), 38 (12%) belonged to genetic group (clade) 3C.2a, 210 belonged to genetic group 3C.2a1 (64%), and 81 (25%) belonged to genetic group 3C.3a. The 2018-19 northern hemisphere influenza vaccine contains a clade 3C.2a1 virus.

<u>Influenza A(H1N1)pdm09:</u> 1510 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, 43 viruses showed reduced titer with ferret antisera raised against cell culture-propagated A/Michigan/45/2015.

Influenza B: 23 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. 16 influenza B viruses characterized were antigenically similar to B/Colorado/06/2017. 61 viruses showed reduced titer with ferret antisera raised against cell culture-propagated B/Colorado/06/2017.

National Microbiology Laboratory (NML): Antiviral Resistance

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

Amantadine: Of the 428 influenza A viruses [77 A(H3N2), 351 A(H1N1)pdm09] tested against amantadine, all were resistant.

Oseltamivir: Of the 1183 influenza viruses [134 A(H3N2), 989 A(H1N1)pdm09, and 60 B] tested against oseltamivir, 1179 were sensitive, and 4 A(H1N1)pdm09 viruses with an H275Y mutation were resistant.

Zanamivir: Of the 1182 influenza viruses [134 A(H3N2), 988 A(H1N1)pdm09, and 60 B] tested against zanamivir, all were sensitive.

International

USA (week 15, April 7 to April 13, 2019)

In week 15, influenza activity continued to decrease, but remained elevated, in the United States (US). While influenza A(H1N1)pdm09 predominated from October to mid-February, influenza A(H3N2) has been more frequently reported since late February. Very little influenza B activity has been reported throughout the season. The majority of influenza A(H1N1)pdm09 and influenza B viruses characterized antigenically are considered similar to the cell-grown reference viruses of the 2018-19 northern hemisphere influenza vaccine; however, the majority of influenza A(H3N2) viruses are antigenically distinguishable from the A(H3N2) component of the 2018-19 northern hemisphere influenza vaccine. All tested viruses showed susceptibility to zanamivir, and greater than 99% of the viruses tested showed susceptibility to oseltamivir and peramivir. In week 15, the proportion of deaths attributed to pneumonia and influenza was below the system-specific epidemic threshold. Five influenza-associated pediatric deaths were reported in week 15. The proportion of outpatient visits for ILI decreased from 2.8% in week 14 to 2.4% in week 15, 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, available at: https://www.cdc.gov/flu/weekly/index.htm

WHO (April 15, 2019, based on data up to March 31, 2019)

There have been no new WHO global influenza surveillance updates since our last bulletin. The latest report is available at: https://www.who.int/influenza/surveillance_monitoring/updates/en/

2018-19 Vaccine Effectiveness Estimates

Updated Canadian 2018-19 Vaccine Effectiveness Estimates (unpublished)

Given an atypical late-season wave of influenza A(H3N2), the community-based Canadian Sentinel Practitioner Surveillance Network (SPSN) has undertaken additional interim analyses to assess effectiveness of the 2018-19 influenza vaccine against A(H3N2) illness. Vaccine effectiveness (VE) monitoring methods are as described in prior publications, available at the SPSN website alongside historic and current VE findings.

Based on data collected as of March 30th, 2019, including more than 2800 participants, the 2018-19 northern hemisphere vaccine has provided little or no protection against medically-attended outpatient A(H3N2) illness (VE of 23%; 95% CI: -9-46), including among working age adults 20-64 years-old who comprise the majority of SPSN participants (VE of -16%; 95% CI: -76-23). Consistent with expected patterns, VE estimates for this delayed A(H3N2) wave are considerably lower than reported earlier by the SPSN for the primary A(H1N1)pmd09 epidemic based on data collected as of January 12th, 2019. In that mid-season analysis, VE against A(H1N1)pdm09 was 72% (95% CI: 60-81) overall, with substantial protection observed in all age groups¹. In the most recent analysis spanning March 30th, estimates against A(H1N1)pmd09 have remained stable at approximately 70%.

The SPSN continues to monitor and will further update VE estimates at end-of-season. In the meantime, and while the late-season A(H3N2) epidemic continues, interim VE estimates against influenza A(H3N2) viruses reinforce the importance of adjunct protective measures – such as antiviral medication for high risk or severely ill individuals – regardless of influenza vaccine status.

Hong Kong Early Season Estimates – 2018-19 Vaccine Effectiveness Against Pediatric Hospitalization

On January 31st, 2019, interim VE estimates for the 2018-19 northern hemisphere influenza vaccine were reported from Hong Kong for the prevention of influenza A(H1N1)pdm09 hospitalization in children. Authors report substantial VE of 92% (95%CI: 82-96%) against A(H1N1)pdm09-attributed hospitalisation in children (aged 6 months-17 years). This estimate is comparable to the VE estimate reported earlier by the Canadian SPSN for the prevention of medically attended outpatient A(H1N1)pdm09 illness in children 1-8 years of age (91%; 95%CI: 67-98%). 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.2019.24.5.1900056

United States (US) Interim Estimates of 2018-19 Seasonal Influenza Vaccine Effectiveness

On February 14th, 2019, mid-season VE estimates for the prevention of laboratory-confirmed influenza associated with medically-attended acute respiratory illness (ARI) were reported from the US CDC. Authors report an overall VE of 46% (95% CI: 30-58%) against influenza A(H1N1)pdm09, which is lower than the recently reported interim VE estimates against A(H1N1)pdm09 of 72% in Canada during the 2018-19 season and 78% in Australia during the 2018 southern hemisphere influenza season (see above). A higher VE of 62% (95% CI: 40-75%) against A(H1N1)pdm09 among those aged 6 months to 17 years was reported in this study. Discrepancies in VE estimates across studies may be attributed to multiple factors including differences in the stage of the influenza epidemic relative to the initiation of the immunization campaign, variation in circulating viruses, as well as methodological differences including contributing sample sizes (and statistical power), participant profiles, and clinical outcomes assessed. The full report is available as an open-access publication in *Morbidity and Mortality Weekly Report*: https://www.cdc.gov/mmwr/volumes/68/wr/mm6806a2.htm?s.cid=mm6806a2.w

European Interim Estimates of 2018-19 Seasonal Influenza Vaccine Effectiveness

On February 21, 2019, mid-season VE estimates were also reported from Europe, where there has been co-circulation of both influenza A(H1N1)pdm09 and A(H3N2) viruses this season. VE estimates were generally higher against A(H1N1)pdm09 than against A(H3N2) for which no vaccine protection was suggested among 3/4 studies in the outpatient setting. 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.2019.24.1900121

¹ The SPSN mid-season paper 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

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/

WHO Recommendations for the 2019-20 Northern Hemisphere Influenza Vaccine

On February 20, 2019, the WHO announced the recommended strain components for the 2019-20 northern hemisphere trivalent influenza vaccine (TIV):*

- an A/Brisbane/02/2018 (H1N1)pdm09-like virus; †
- an A/Kansas/14/2017 (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 at least one 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
- ‡The A(H3N2) component was announced on March 21 2019. The recommended strain represents a change from the 2018-19 season vaccine which contained an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus.

For further details:

https://www.who.int/influenza/vaccines/virus/recommendations/201902_recommendation.pdf?ua=1

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:

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

HMPV: Human metapneumovirus **RSV**: Respiratory syncytial virus

HSDA: Health Service Delivery Area

IHA: Interior Health Authority
ILI: Influenza-Like Illness

VCHA: Vancouver Coastal Health Authority
VIHA: Vancouver Island Health Authority
WHO: World Health Organization

ILI: Influenza-Like Illness WHO: World Healt LTCF: Long-Term Care Facility

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 Disease Prevention and Control Services (CDPACS)

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/OutbreakRepor

tForm_2018.pdf

Reporting Information

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.

А	Person Reporting: Contact Phone: Health Authority: Full Facility Name:		Title: Email: HSDA:		
	Is this report:	•	mplete section B belo	w; section D if available) ection D below)	
	Report Date (dd/mi	m/yyyy):			
В	First Notification				
D	Type of facility*:	Long Term Care Faci Other Setting:	lities, Nursing Homes	Acute Care Facility	
	If ward or wing, pleas	e specify name/number:			
	Date of onset of first case of ILI (dd/mm/yyyy): Date outbreak declared (dd/mm/yyyy):				
	health services, personal care and servi management under provincial legislation; inpatient services. (i.e. hospitals including	ces such as meals, laundry and housekeeping of Acute Care Facility: Publicly funded facilities pr	r other residential care facilities where provinc oviding medical and/or surgical treatment and r Setting: Any locations not otherwise specified	, 7 days a week supervised care, including professional cial/territorial public health is responsible for outbreak acute nursing care for sick or injured people, through I here in which outbreaks of influenza or ILI may occur centres, shelters, group homes, and workplaces).	
	Outbreak Declar	ed Over			
	Date of onset for la	st case of ILI (dd/mm/yy	yy):		
	Date outbreak decl	ared over (dd/mm/yyyy)			
		Numbers to date	Residents		
		Total With ILI			
		Hospitalized*			
		Died* *suspected to be linked to case of ILI			
	l abovetowy lufov				
D	Laboratory Infor Specimen(s) subm		n·)	No ☐ Don't know	
	If yes, organism ide		No Don't know	No Don't know	
	Please specify orga		enza A (subtype:) Influenza B	
	Parainfluenza	Entero/rhinoviru	,	RSV	
	HMPV	Adenovirus	Other:		