

# British Columbia Influenza Surveillance Bulletin

Influenza Season 2017-18, Number 17, Week 10

March 4 to 10, 2018

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## Prolonged Influenza Activity in BC, but Passed Epidemic Peak

During week 10 (March 4 to March 10, 2018), influenza activity persisted at above seasonal levels in most regions, despite a declining trend for the past few weeks following the epidemic peak in early-to-mid January 2018.

Influenza positivity at the BCCDC PHL remained elevated at 35% in week 10, despite an overall downward trend since the epidemic peak followed by a slight increase in weeks 9 and 10. Influenza A and B were detected in approximately equal proportions in week 10. Among influenza A detections, A(H3N2) remains the dominant subtype; however, A(H1N1)pdm09 has also been detected.

Since our last bulletin, 9 new lab-confirmed outbreaks were reported, including 8 from long-term care facilities (LTCFs) and 1 from an acute care hospital. Of these, 3 had influenza B detected and 6 had influenza A detected; of the 3 influenza A outbreaks that had subtype information available, 2 were A(H3N2) and 1 was A(H1N1)pdm09. This is the first outbreak with A(H1N1)pdm09 detected this season. Additionally, 1 school ILI outbreak, with unknown etiology, was reported during week 11.

Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team

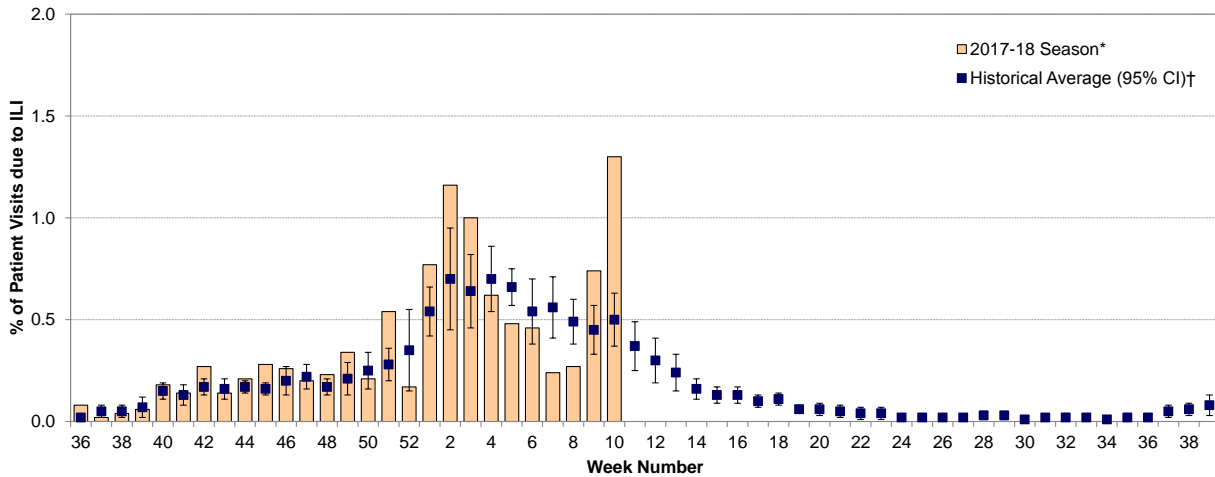
Report Disseminated: March 15, 2018

## British Columbia

### Sentinel Physicians

The proportion of patients with influenza-like illness (ILI), among those presenting to sentinel sites, was significantly above the historical average for the second consecutive week in week 10. Rates are subject to change as reporting becomes more complete. To date, 55% of sentinel sites have reported data for week 10.

**Percent of patient visits to sentinel physicians due to influenza-like illness (ILI) compared to historical average, British Columbia, 2017-18**



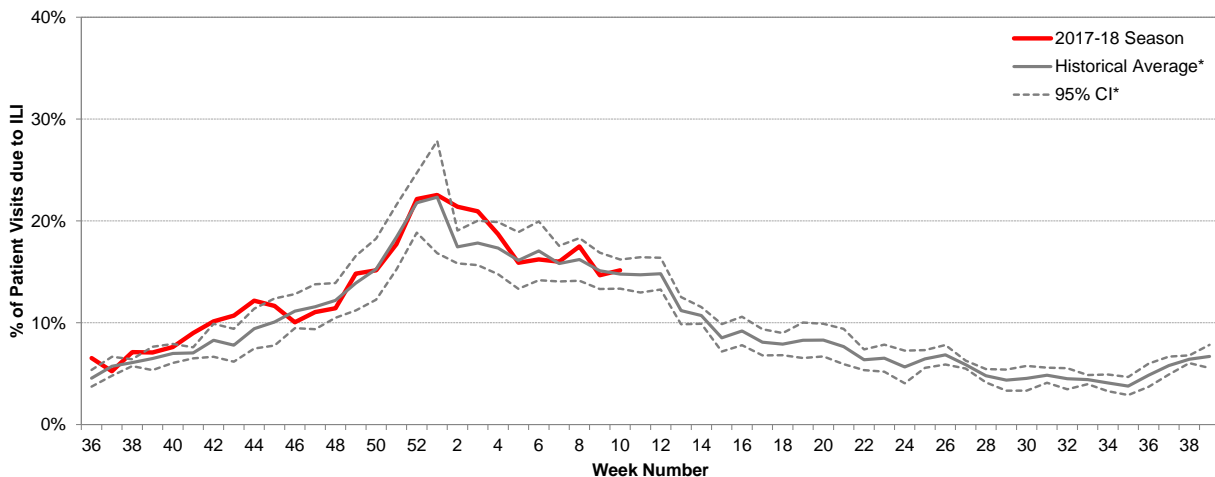
\* Data are subject to change as reporting becomes more complete.

† 10-year historical average for 2017-18 season based on 2005-06 to 2016-2017 seasons, excluding 2008-09 and 2009-10 due to atypical seasonality; CI=confidence interval.

### BC Children's Hospital Emergency Room

In week 10, the proportion of visits to BC Children's Hospital Emergency Room (ER) attributed to ILI remained within expected levels for this period.

**Percent of patients presenting to BC Children's Hospital ER attributed to influenza-like illness (ILI), British Columbia, 2017-18**



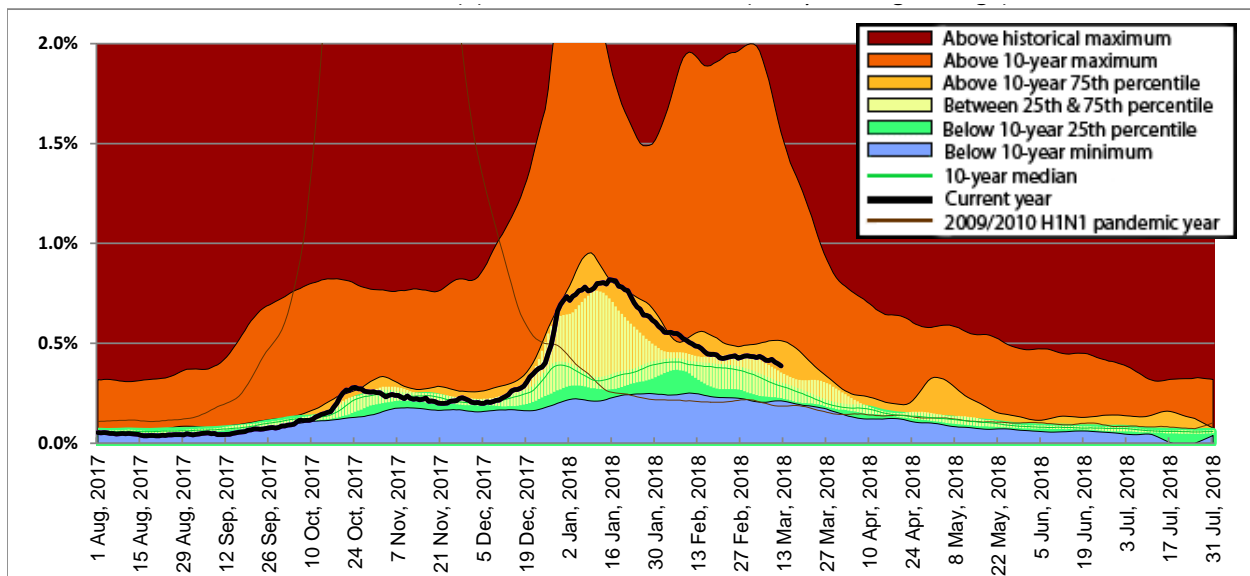
Source: BCCH Admitting, Discharge, Transfer database (ADT). Data includes records with a triage chief complaint of "flu" or "influenza" or "fever/cough."

\* 5-year historical average for 2017-18 season based on 2012-13 to 2016-17 seasons; CI=confidence interval.

### Medical Services Plan

In week 10, BC Medical Services Plan (MSP) general practitioner claims for influenza illness (II), as a proportion of all submitted MSP claims, declined slightly in the province overall but remained above expected seasonal levels with varying trends across the regional health authorities. In week 10, rates for the province overall, FHA and VCHA were above the 10-year 75<sup>th</sup> percentile, while rates in IHA, VIHA and NHA were at expected levels for this time of year.

**Service claims submitted to MSP for influenza illness (II)\* as a proportion of all submitted general practitioner service claims, British Columbia, 2017-18**

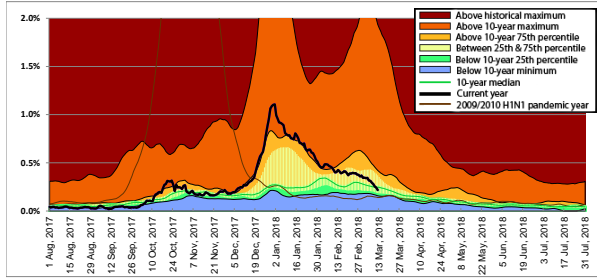


\* Influenza illness is tracked as the percentage of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza).

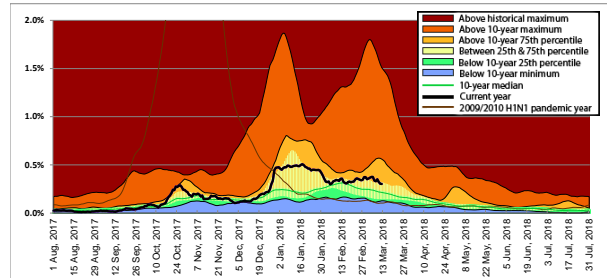
Data for the period August 1, 2009 to July 31, 2010 have been excluded from the 10-year median calculation due to atypical seasonality during the 2009/2010 H1N1 pandemic year. MSP data beginning August 1, 2017 corresponds to sentinel ILI week 31; data are current to March 12, 2018.

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

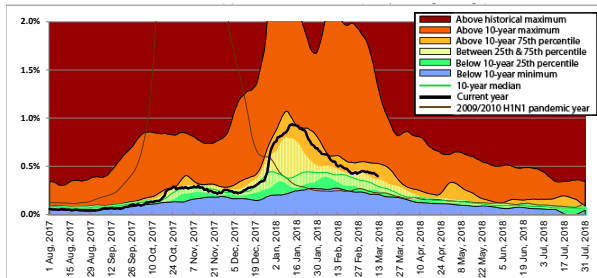
### Interior



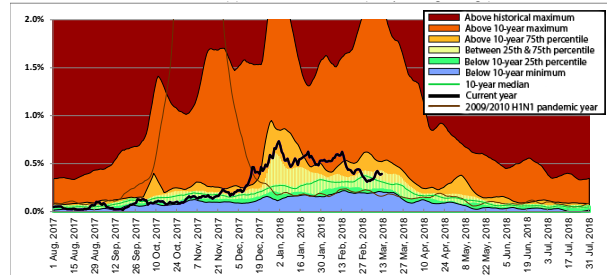
### Vancouver Island



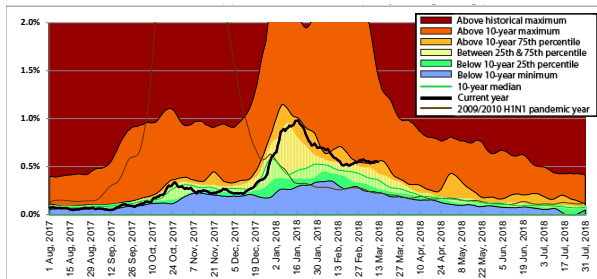
### Fraser



### Northern



### Vancouver Coastal



## Laboratory Reports

### BCCDC Public Health Laboratory

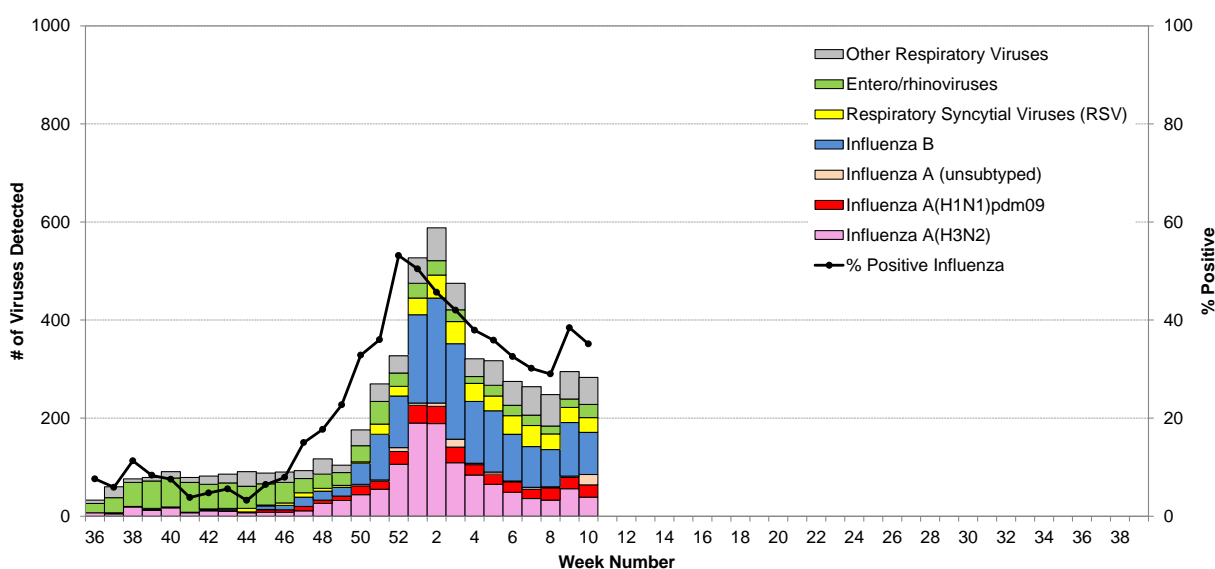
In week 10, 487 patients were tested for respiratory viruses at the BCCDC Public Health Laboratory (PHL). Of these, 170 (35%) tested positive for influenza; 84 (49%) had influenza A detected [38 A(H3N2), 25 A(H1N1)pdm09 and 21 subtype pending], 85 (50%) had influenza B detected and 1 had influenza A(H3N2) and B detected. Influenza positivity at the BCCDC PHL continued an overall downward trend since week 52 when influenza positivity peaked above 50% to less than 30% in week 8, but increasing slightly to above 35% in weeks 9 and 10. Influenza A and B were detected in approximately equal proportions in week 10. Based on national surveillance reports, B(Yamagata) is the predominant influenza B lineage circulating in BC and elsewhere in Canada this season. Influenza A(H3N2) remains the dominant subtype among influenza A detections; however, A(H1N1)pdm09 has also been detected.

Cumulatively during the 2017-18 season (since week 40, starting October 1, 2017), 3194 (33%) patients tested positive for influenza at the BCCDC PHL, including 1600 (50%) with influenza A [1169 A(H3N2), 352 A(H1N1)pdm09, 79 subtype pending], 1579 (49%) with influenza B and 15 patients with both influenza A [13 with A(H3N2) and two with A(H1N1)pdm09] and B detected.

More than half (59%) of A(H3N2) cases have been detected among elderly adults  $\geq 65$  years old, with 8% <20 years old, 18% 20-49 years old, and 15% 50-64 years old. Conversely, 38% of influenza B cases have been detected among elderly adults  $\geq 65$  years old, with 17% <20 years old, 24% 20-49 years old, and 20% 50-64 years old. Among A(H1N1)pdm09 cases, only 17% have been detected among elderly adults  $\geq 65$  years old, with 29% <20 years old, 38% 20-49 years old, and 16% 50-64 years old.

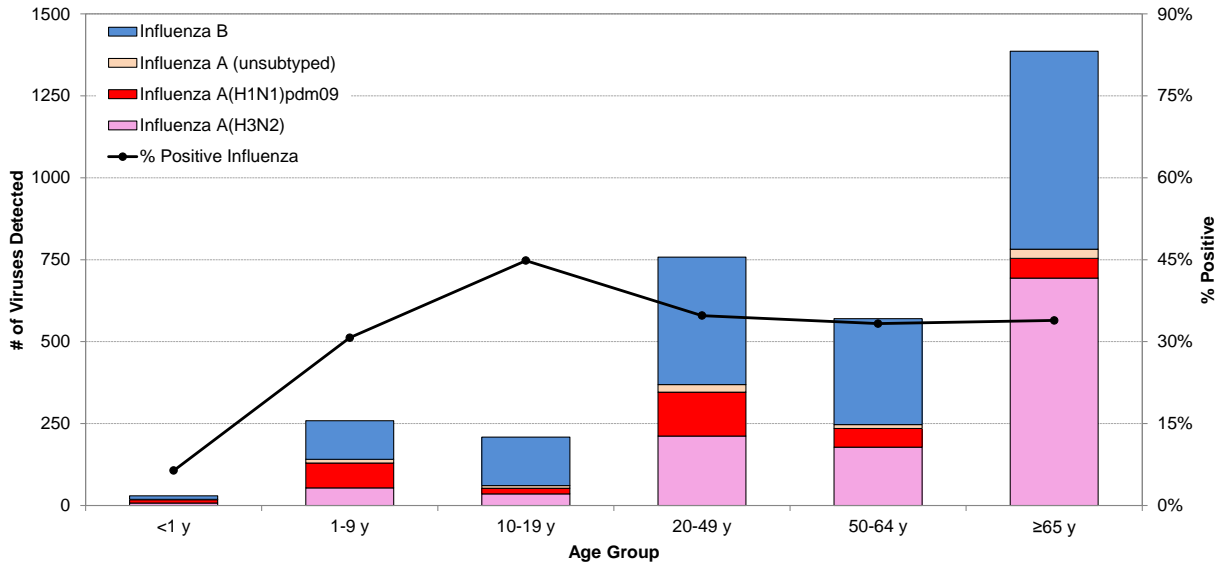
Respiratory syncytial virus (RSV) and entero/rhinoviruses were the most commonly detected non-influenza respiratory viruses during this period. RSV detections overall have been less frequent to date this season than in the 2016-17 season (445 vs. 1,395, respectively, between weeks 40 and 10).

**Influenza and other virus detections among respiratory specimens submitted to BCCDC Public Health Laboratory, 2017-18**



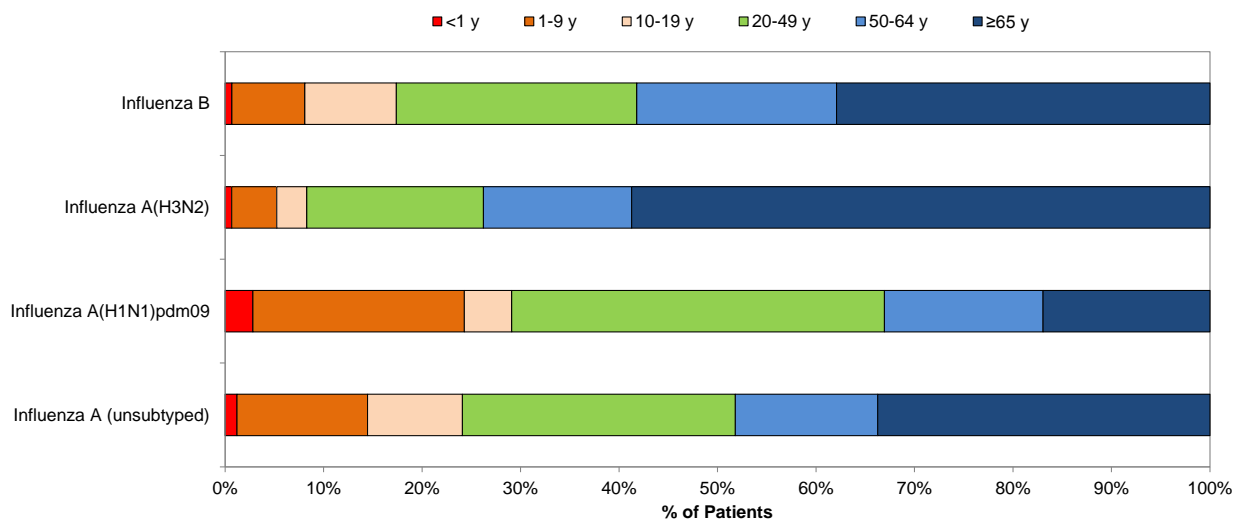
Source: BCCDC Public Health Laboratory (PHDRW); Data are current to March 14, 2018.

**Cumulative number (since week 40) of influenza detections by type subtype and age group, BCCDC Public Health Laboratory, 2017-18**



Source: BCCDC Public Health Laboratory (PHDRW); Data are current to March 14, 2018; figure includes cumulative influenza detections for specimens collected from weeks 40-10.

**Age distribution of influenza detections (cumulative since week 40), BCCDC Public Health Laboratory, 2017-18**

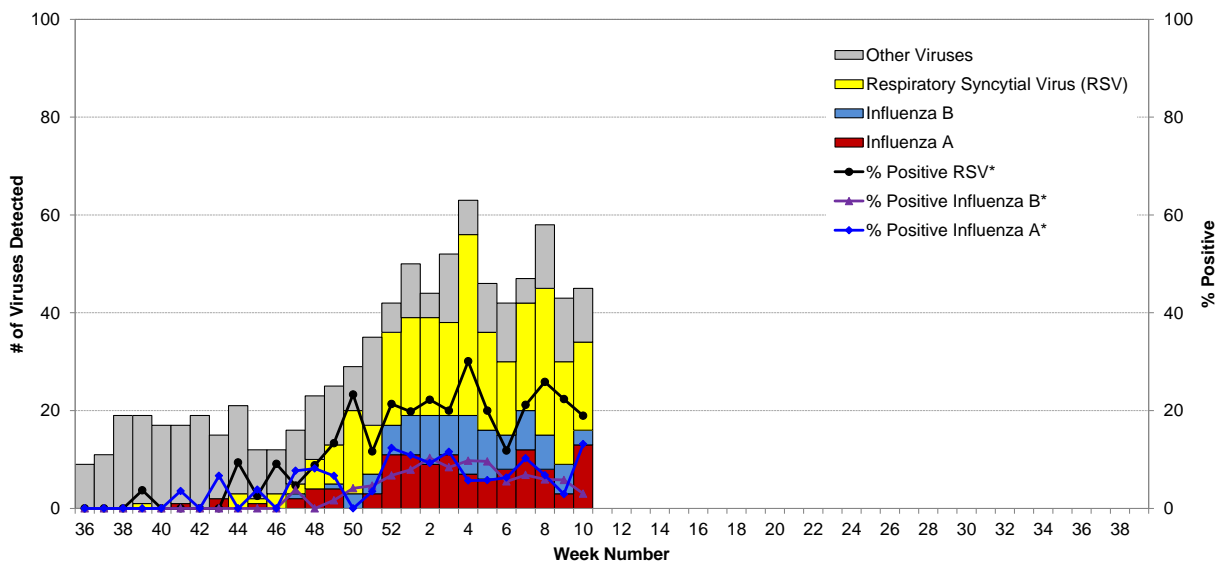


Source: BCCDC Public Health Laboratory (PHDRW); Data are current to March 14, 2018; figure includes cumulative influenza detections for specimens collected from weeks 40-10.

**BC Children's and Women's Health Centre Laboratory**

In week 10, 99 tests for influenza viruses were conducted at the BC Children's and Women's Health Centre (CWHC) laboratory. Of these, 13 (13%) were positive for influenza A and 3 (3%) were positive for influenza B. RSV was the most commonly detected respiratory virus during this period.

**Influenza and other virus detections among respiratory specimens submitted to BC Children's and Women's Health Centre Laboratory, 2017-18**



\* 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

Since our last bulletin, 9 new lab-confirmed outbreaks were reported, including 8 from long-term care facilities (LTCFs) and 1 from an acute care hospital. Of the 9 newly reported outbreaks, 1 had onset in week 8 in VCHA, 3 had onset in week 9 (1 in FHA, 1 in NHA, 1 in VIHA) and 5 had onset in week 10 (2 in FHA, 1 in VCHA, 2 in VIHA). Of the 9 outbreaks, 3 had influenza B detected and 6 had influenza A detected; of the 3 influenza A outbreaks that had subtype information available, 2 were A(H3N2) and 1 was A(H1N1)pdm09. This is the first outbreak with A(H1N1)pdm09 detected this season. Outbreaks due to A(H1N1)pdm09 in LTCFs are atypical due to underlying pre-existing immunity to A(H1N1) subtype viruses among elderly populations.

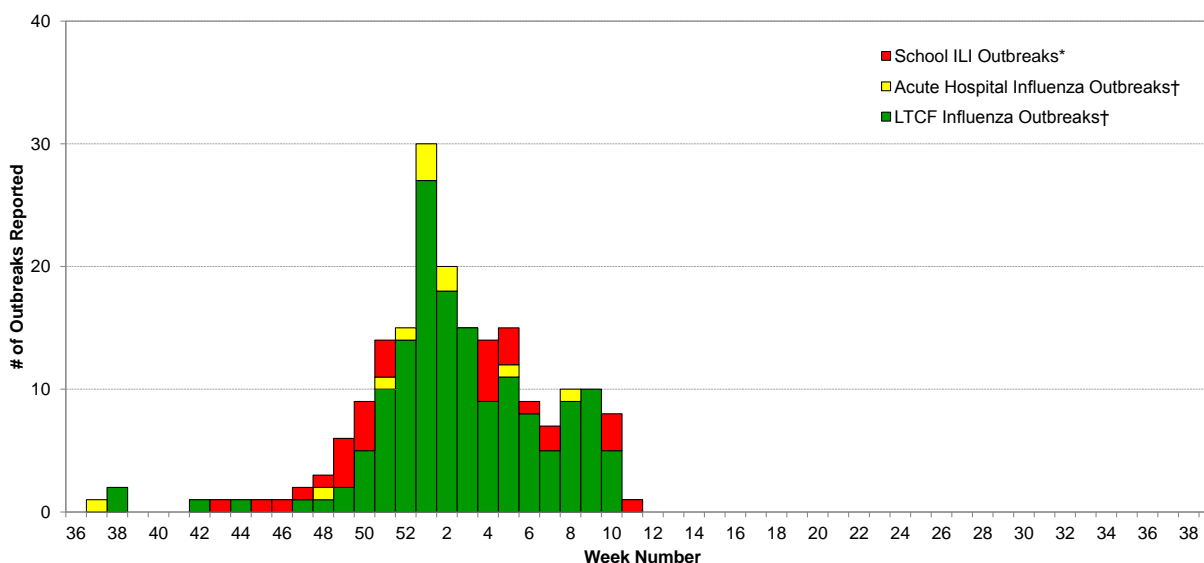
Additionally, 1 school ILI outbreak, with unknown etiology, was reported during week 11. This outbreak occurred in IHA, currently the only health authority routinely reporting school ILI outbreaks to BCCDC.

Consistent with other surveillance indicators, provincial influenza outbreak reports have persisted in recent weeks, despite an overall decline following a peak in week 1

Cumulatively during the 2017-18 season (since week 37, starting September 10, 2017), 165 lab-confirmed influenza outbreaks have been reported, including 59 with influenza A detected [30 A(H3N2), 1 A(H1N1)pdm09 and 28 subtype unknown], 94 with influenza B, 3 with influenza A (H3N2) and influenza B, and 9 with influenza A (unspecified subtype) and influenza B; of these, 154 were reported in LTCFs and 11 were reported from an acute care facility. Additionally, 31 school ILI outbreaks have occurred without etiologic agent identified.

So far during this season of mixed A(H3N2) and influenza B co-circulation, the number of long term care facility outbreaks reported since week 40 (n=152) is lower than the tally for the same period during recent A(H3N2) dominant epidemics in 2014-15 (n=159) and 2016-17 (n=179) but higher than during recent A(H1N1)pdm09 dominant epidemics in 2013-14 (n=8) and 2015-16 (n=22), bearing in mind variation in the timing of seasonal epidemics that may influence final end-of-season comparisons.

Number of influenza-like illness (ILI) outbreaks reported, British Columbia 2017-18

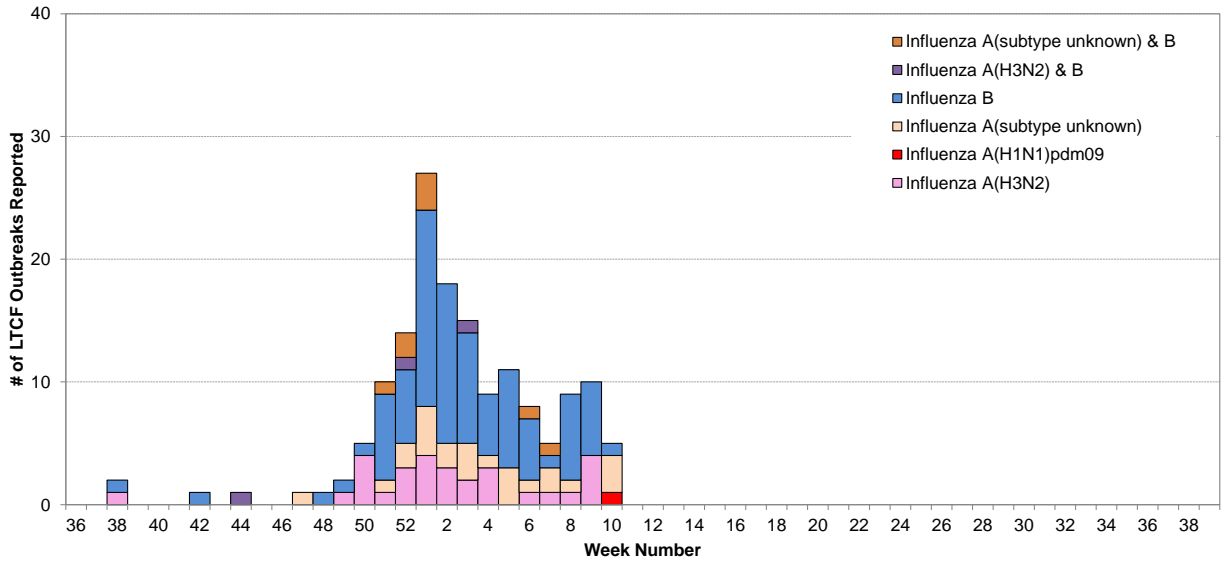


\* School-based ILI outbreak defined as >10% absenteeism on any day, most likely due to ILI.

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



**Number of influenza-like illness (ILI) outbreaks by Influenza Subtype in long-term care facilities (LTCF), British Columbia 2017-18†**



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

## National

### **FluWatch (week 9, February 25 to March 3, 2018)**

Laboratory data suggests that the influenza season peaked in week 7 but influenza activity in Canada remains high. Influenza activity is slowly decreasing in many parts of the country. Detections of influenza B continue to be greater than those of influenza A. To date this season, the majority of laboratory-confirmed cases, hospitalizations and deaths with influenza have been among adults 65 years of age and older. Details are available at: [www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.html](http://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, 2017 to March 15, 2018, the National Microbiology Laboratory (NML) received 2,367 influenza viruses from Canadian laboratories for antigenic characterization.

**Influenza A(H3N2):** Of the 1139 influenza A(H3N2) viruses, only 271 (24%) had sufficient haemagglutination titre for antigenic characterization by haemagglutination inhibition (HI) assay. Of the 271 viruses characterized by HI assay, 226 (83%) were considered antigenically similar to a cell culture-propagated A/Hong Kong/4801/2014-like virus, the WHO-recommended A(H3N2) component for the 2017-18 northern hemisphere influenza vaccine, while 45 (17%) viruses (all belonging to genetic clade 3C.3a) showed reduced titre with ferret antisera raised against cell culture-propagated A/Hong Kong/4801/2014. Of the 262 out of 271 viruses that were antigenically characterized with available sequencing information, 196 belonged to genetic clade 3C.2a, 21 belonged to subclade 3C.2a1 and 45 belonged to clade 3C.3a; sequencing is pending for the 9 remaining isolates. Of the 868 viruses genetically characterized, 779 (90%) were reported to belong to genetic clade 3C.2a, which includes the A/Hong Kong/4801/2014 vaccine strain, while 87 (10%) belonged to subclade 3C.2a1 and 2 belonged to clade 3C.3a.

**Influenza A(H1N1)pdm09:** All of the 155 A(H1N1)pdm09 viruses characterized were antigenically similar to an A/Michigan/45/2015-like virus, the WHO-recommended influenza A(H1N1) component for the 2017-18 northern hemisphere influenza vaccine.

**Influenza B:** Of the 1073 influenza B viruses characterized, 47 (4%) belonged to the B(Victoria) lineage and 1026 (96%) belonged to the B(Yamagata) lineage. Among the 47 B(Victoria) viruses, 10 (21%) were characterized as antigenically similar to a B/Brisbane/60/2008(Victoria)-like virus, the WHO-recommended influenza B component for the 2017-18 northern hemisphere trivalent influenza vaccine, while 37 (79%) viruses showed reduced titre with ferret antisera produced against cell-propagated B/Brisbane/60/2008. Sequence analysis showed that 36 viruses that showed reduced titre had a two-amino acid deletion in the hemagglutinin (HA) gene; sequence is pending for the remaining isolate. Among the 1026 B(Yamagata) viruses, all were antigenically similar to a B/Phuket/3073/2013(Yamagata lineage)-like virus, the WHO-recommended influenza B component for the 2017-18 northern hemisphere quadrivalent influenza vaccine containing two influenza B strains.

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

From September 1, 2017 to March 15, 2018, the NML received influenza viruses from Canadian laboratories for drug susceptibility testing.

**Amantadine:** Of the 1137 influenza A viruses [1036 A(H3N2) and 101 A(H1N1)pdm09] tested against amantadine, all were resistant except two A(H3N2) viruses which were sensitive.

**Oseltamivir:** Of the 989 influenza viruses [454 A(H3N2), 113 A(H1N1)pdm09, and 422 B] tested against oseltamivir, all were sensitive except one A(H1N1)pdm09 virus with a H275Y mutation which was resistant.

**Zanamivir:** Of the 985 influenza viruses [450 A(H3N2), 113 A(H1N1)pdm09, and 422 B] tested against zanamivir, all were sensitive except one B virus which was resistant.

## Mid-season 2017-18 Vaccine Effectiveness Estimates

### Canada

On February 1, 2018, Canadian researchers published the first estimates of mid-season influenza vaccine effectiveness (VE) for the 2017-18 season. Adjusted VE against A(H3N2) was low at 17% (95%CI: -14 to 40%). Higher adjusted VE was observed for influenza B at 55% (95%CI: 38 to 68%), despite prominent use of lineage-mismatched B(Victoria) trivalent vaccine in most regions. The full report is available as an open-access publication from *EuroSurveillance*:

<http://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2018.23.5.18-00035>

### United States

On February 15, 2018, the US CDC published interim estimates of influenza vaccine effectiveness (VE) for the 2017-18 season. Adjusted VE against A(H3N2) was 25% (95% CI: 13 to 36%), comparable to Canadian estimates with both suggesting low protection against the dominant circulating strain. Adjusted VE against influenza B was 42% (95% CI: 25 to 56%), somewhat lower than previous Canadian findings despite the more prominent use of quadrivalent vaccines. The full report is available from *Morbidity and Mortality Weekly Report (MMWR)*:

[https://www.cdc.gov/mmwr/volumes/67/wr/mm6706a2.htm?s\\_cid=mm6706a2\\_e](https://www.cdc.gov/mmwr/volumes/67/wr/mm6706a2.htm?s_cid=mm6706a2_e)

### Spain (Navarre)

On February 15, 2018, Spanish researchers published interim estimates of influenza vaccine effectiveness (VE) for the 2017-18 season. The adjusted VE against influenza B, predominantly B(Yamagata), was 52% (95% CI: 12 to 74%) in the outpatient setting. This finding suggests moderate, cross-lineage protection against influenza B. The full report is available from *Eurosurveillance*:

<https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2018.23.7.18-00057>

### Hong Kong

On February 22, 2018, Hong Kong researchers published interim estimates of influenza vaccine effectiveness (VE) among hospitalized children for the 2017-18 season. The 2017-18 season in Hong Kong has been characterized by influenza B(Yamagata) activity. VE among children aged 6 months to 17 years of age was 65% (95% CI: 40 to 80) for influenza B. Differences in study design, patient populations and other epidemiological factors, as well as the use of predominantly quadrivalent influenza vaccine, which includes the B(Yamagata) lineage virus, should be taken into account in comparing these findings to other studies. The full report is available from *Eurosurveillance*:

<https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2018.23.8.18-00062>

### Europe (I-MOVE Group)

On March 1, 2018, European researchers from the I-MOVE multicentre case-control study published interim estimates of influenza vaccine effectiveness (VE) for the 2017-18 season. The 2017-18 season in I-MOVE countries has been characterised by predominant circulation of influenza B, with a greater proportion of A(H1N1)pdm09 than A(H3N2) among influenza A detections.

Adjusted VE against A(H3N2) was -16% (95% CI: -96 to 31) for all ages suggesting no protection, and consistent with Canadian findings of low VE. Despite predominant use of trivalent influenza vaccine containing lineage-mismatched influenza B(Victoria) antigen, adjusted VE against influenza B, that was predominantly B(Yamagata), was 39% (95% CI: 19 to 54) for all ages and 49% (95% CI: 19 to 67) when restricted to mismatched B(Yamagata) specimens. This finding suggests moderate, cross-lineage protection against influenza B, which has been observed previously for influenza B and is also consistent with Canadian findings. The full report is available from *Eurosurveillance*:

<https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2018.23.9.18-00086>

### **Updated Antiviral Guidelines**

The Association of Medical Microbiology and Infectious Disease Canada (AMMI Canada) previously released guidance on the use of antiviral drugs in anticipation of the low vaccine effectiveness for the 2017-18 influenza season. These guidelines are available at: <https://www.ammi.ca/Update/79.ENG.pdf>.

## **International**

### **USA (week 9, February 25 to March 3, 2018)**

During week 9, influenza activity decreased in the United States. Overall, influenza A(H3N2) viruses have predominated this season. However, in recent weeks the proportion of influenza A viruses has declined, and during week 9, the numbers of influenza A and influenza B viruses reported were similar. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased. The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System. Five influenza-associated pediatric deaths were reported. A cumulative rate of 86.3 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The proportion of outpatient visits for influenza-like illness (ILI) was 3.7%, which is above the national baseline of 2.2%. The geographic spread of influenza in Puerto Rico and 34 states was reported as widespread; Guam and 12 states reported regional activity; the District of Columbia and four states reported local activity; and the U.S. Virgin Islands reported no activity. Details are available at: [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/).

### **WHO**

There have been no WHO influenza updates since our last bulletin. Previous updates are available at: [www.who.int/influenza/surveillance\\_monitoring/updates/en/](http://www.who.int/influenza/surveillance_monitoring/updates/en/).

## **WHO Recommendations for Influenza Vaccines**

### **WHO Recommendations for 2017-18 Northern Hemisphere Influenza Vaccine**

On March 2, 2017, the WHO announced the recommended strain components for the 2017-18 northern hemisphere influenza vaccine:\*

- an A/Michigan/45/2015 (H1N1)pdm09-like virus;†
- an A/Hong Kong/4801/2014 (H3N2)-like virus;
- a B/Brisbane/60/2008 (Victoria-lineage)-like virus;
- a B/Phuket/3073/2013 (Yamagata-lineage)-like virus (quadrivalent vaccines only).

\* These recommended strains are the same as those recommended for the 2017 southern hemisphere vaccine and represent a change for one of the four components used for the 2016-17 northern hemisphere vaccine.

† Recommended strain represents a change from an A/California/7/2009-like virus, which had been retained as the A(H1N1)pdm09 component since the 2009 pandemic, to an A/Michigan/45/2015-like virus belonging to the phylogenetic subclade 6B.1.

For further details: [www.who.int/influenza/vaccines/virus/recommendations/2017\\_18\\_north/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2017_18_north/en/).

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

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

- 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 (Victoria-lineage)virus.§
- a B/Phuket/3073/2013-like (Yamagata-lineage)virus (quadrivalent vaccines only).§

\* Recommended strains represent a change for two of the four components used for the 2017-18 northern hemisphere vaccines. Recommended strains are similar to the 2018 southern hemisphere vaccine with the exception of the B/Colorado/06/2017-like virus which replaces the B/Brisbane/60/2008-like virus as the B(Victoria-lineage) virus component.

† Recommended strain is the same as recommended for the 2017-18 northern hemisphere and 2018 southern hemisphere vaccines. The A/Michigan/45/2015-like virus belongs to the phylogenetic subclade 6B.1.

‡ Recommended strain for the A(H3N2) component represents a phylogenetic clade-level change from a clade 3C.2a virus to a clade 3C.2a1 virus.

§ Recommended strain for the influenza B component represents a change for the B(Victoria)-lineage component compared to the 2017-18 northern hemisphere and 2018 southern hemisphere vaccines from a B/Brisbane/60/2008-like virus, which had been retained since the 2009-10 season, to a B/Colorado/06/2017-like virus, belonging to the clade 1A antigenic drift variant with a two-amino acid deletion at positions 162-163. The B(Yamagata)-lineage component, B/Phuket/3073/2013-like virus, recommended for quadrivalent vaccine remains unchanged from the 2017-18 northern hemisphere vaccine.

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/).

## Additional Information

### **Explanatory Note:**

The surveillance period for the 2017-18 influenza season is defined starting in week 40. Weeks 36-39 of the 2016-17 season are shown on graphs for comparison purposes.

### **List of Acronyms:**

**ACF:** Acute Care Facility

**AI:** Avian influenza

**FHA:** Fraser Health Authority

**HBoV:** Human bocavirus

**HMPV:** Human metapneumovirus

**HSDA:** Health Service Delivery Area

**IHA:** Interior Health Authority

**ILI:** Influenza-Like Illness

**LTCF:** Long-Term Care Facility

**MSP:** BC Medical Services Plan

**NHA:** Northern Health Authority

**NML:** National Microbiological Laboratory

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

**RSV:** Respiratory syncytial virus

**VCHA:** Vancouver Coastal Health Authority

**VIHA:** Vancouver Island Health Authority

**WHO:** World Health Organization

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

[www.ammi.ca/Update/79.ENG.pdf](http://www.ammi.ca/Update/79.ENG.pdf)

### **Web Sites:**

BCCDC Emerging Respiratory Pathogen Updates:

<http://www.bccdc.ca/health-professionals/data-reports/communicable-diseases/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: <http://www.bccdc.ca/health-professionals/data-reports/communicable-diseases/influenza-surveillance-reports>

# 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.

A	<p><b><u>Reporting Information</u></b> <span style="float: right;">Health unit/medical health officer notified? <input type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Person Reporting: _____ Title: _____</p> <p>Contact Phone: _____ Email: _____</p> <p>Health Authority: _____ HSDA: _____</p> <p>Full Facility Name: _____</p> <p>Is this report: <input type="checkbox"/> First Notification (<i>complete section B below; Section D if available</i>)</p> <p style="margin-left: 20px;"><input type="checkbox"/> Update (<i>complete section C below; Section D if available</i>)</p> <p style="margin-left: 20px;"><input type="checkbox"/> Outbreak Over (<i>complete section C below; Section D if available</i>)</p>															
B	<p><b><u>First Notification</u></b></p> <p>Type of facility: <input type="checkbox"/> LTCF <input type="checkbox"/> Acute Care Hospital <input type="checkbox"/> Senior's Residence  <i>(if ward or wing, please specify name/number: _____)</i></p> <p><input type="checkbox"/> Workplace <input type="checkbox"/> School (grades: _____) <input type="checkbox"/> Other (_____)</p> <p>Date of onset of first case of ILI (dd/mm/yyyy): <u>DD / MMM / YYYY</u></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 25%;">Numbers to date</th> <th style="width: 45%;">Residents/Students</th> <th style="width: 30%;">Staff</th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td></td> <td></td> </tr> <tr> <td><b>With ILI</b></td> <td></td> <td></td> </tr> <tr> <td><b>Hospitalized</b></td> <td></td> <td></td> </tr> <tr> <td><b>Died</b></td> <td></td> <td></td> </tr> </tbody> </table>	Numbers to date	Residents/Students	Staff	<b>Total</b>			<b>With ILI</b>			<b>Hospitalized</b>			<b>Died</b>		
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C	<p><b><u>Update AND Outbreak Declared Over</u></b></p> <p>Date of onset for most recent case of ILI (dd/mm/yyyy): <u>DD / MMM / YYYY</u></p> <p>If over, date outbreak declared over (dd/mm/yyyy): <u>DD / MMM / YYYY</u></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 25%;">Numbers to date</th> <th style="width: 45%;">Residents/Students</th> <th style="width: 30%;">Staff</th> </tr> </thead> <tbody> <tr> <td><b>Total</b></td> <td></td> <td></td> </tr> <tr> <td><b>With ILI</b></td> <td></td> <td></td> </tr> <tr> <td><b>Hospitalized</b></td> <td></td> <td></td> </tr> <tr> <td><b>Died</b></td> <td></td> <td></td> </tr> </tbody> </table>	Numbers to date	Residents/Students	Staff	<b>Total</b>			<b>With ILI</b>			<b>Hospitalized</b>			<b>Died</b>		
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D	<p><b><u>Laboratory Information</u></b></p> <p>Specimen(s) submitted? <input type="checkbox"/> Yes (location: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know</p> <p>If yes, organism identified? <input type="checkbox"/> Yes (specify: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know</p>															