

# British Columbia Influenza Surveillance Bulletin

Influenza Season 2014-15, Number 21, Weeks 13-17

March 29 to May 2, 2015

## Table of Contents:

### British Columbia:

Sentinel Physicians	<a href="#">Page 2</a>
Children's Hospital ER	<a href="#">Page 2</a>
Medical Services Plan	<a href="#">Page 3</a>
Laboratory Surveillance	<a href="#">Page 5</a>
ILI Outbreaks	<a href="#">Page 7</a>
Historical ILI Outbreaks in LTCF	<a href="#">Page 8</a>
Influenza Hospitalizations	<a href="#">Page 9</a>

### Canada:

FluWatch Activity levels	<a href="#">Page 10</a>
NML Strain Characterization	<a href="#">Page 10</a>
NML Antiviral Resistance	<a href="#">Page 11</a>
Influenza Vaccine Effectiveness	<a href="#">Page 11</a>

### International:

USA (CDC) Surveillance	<a href="#">Page 12</a>
WHO	<a href="#">Page 12</a>

### Influenza Vaccine Components (WHO Recommendations)

2014-15 Northern Hemisphere	<a href="#">Page 13</a>
2015-16 Northern Hemisphere	<a href="#">Page 13</a>

### Additional Information:

List of Acronyms	<a href="#">Page 14</a>
Web Sites	<a href="#">Page 14</a>
Outbreak Report Form	<a href="#">Page 15</a>

## **Low-level influenza B circulation continues in BC following 2014-15 season of dominant A(H3N2) activity: End-of-season summary**

This will be the final regular influenza surveillance bulletin of the 2014-15 season for which we provide an overall summary report. Further bulletins will be issued on an as needed basis until the next regular reporting period begins for the 2015-16 season.

The 2014-15 season was characterized by early and intense A(H3N2) activity, followed by low-level, late-season influenza B circulation. In the most recent weeks 13-17 (March 29 to May 2, 2015), influenza B continued to be the predominant influenza virus, albeit at low levels.

At the BC provincial laboratory, influenza positivity this season peaked from week 52 to week 2 (exceeding 40%), with influenza A(H3N2) comprising >97% of influenza detections during that period. Elderly adults (≥65 years of age) comprised the majority of influenza detections, driven in part by a record number of influenza facility outbreaks this season (see Figures, pages 7 and 8).

Findings from severe outcome surveillance (SOS), piloted in BC for the 2014-15 season, mirrored trends seen in other surveillance indicators with the majority of severe cases due to A(H3N2) predominantly affecting elderly adults (see Figure, page 9).

**Prepared by BCCDC Influenza & Emerging Respiratory Pathogens Team**

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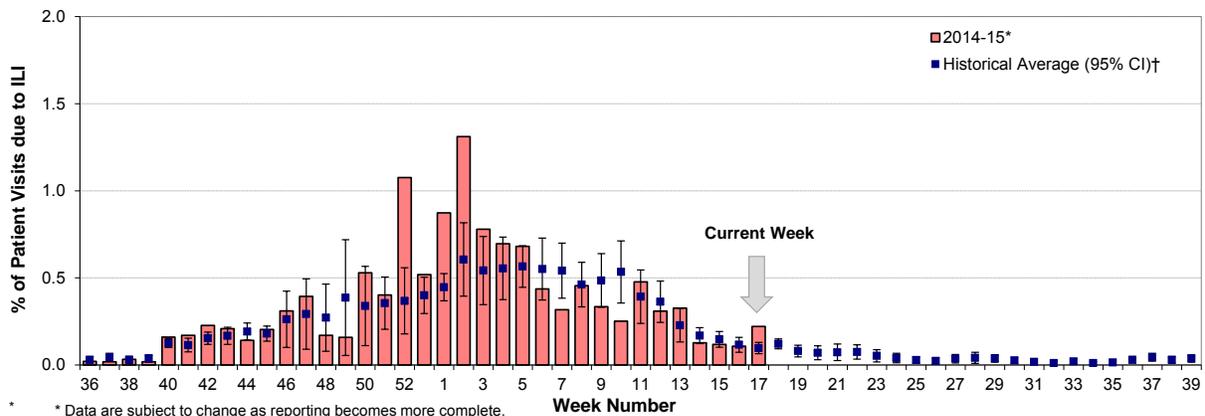
*Report Disseminated: May 8, 2015*

## British Columbia

### Sentinel Physicians

During the 2014-15 influenza season, the proportion of patients with influenza-like illness (ILI) among those presenting to sentinel physicians was higher than or within expected historical ranges throughout the influenza season until week 5, after which proportions were generally at or below historical averages. Similarly, in weeks 13-16, the proportion of ILI visits to sentinel physicians remained within expected ranges for this time of year but increased to significantly above the historical average in week 17.

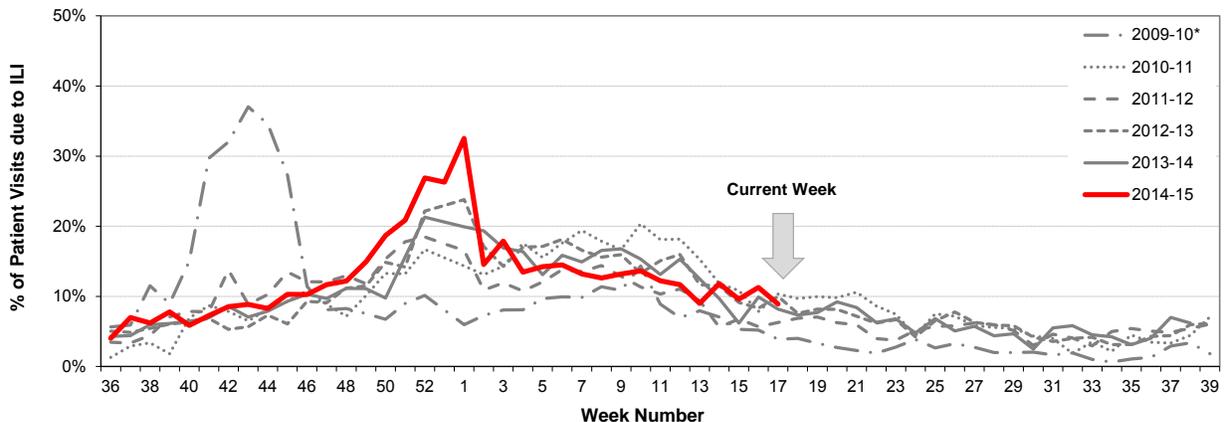
Percent of patient visits to sentinel physicians due to influenza-like illness (ILI) compared to historical average, British Columbia, 2014-15



### BC Children's Hospital Emergency Room

During the 2014-15 influenza season, the proportion of visits to BC Children's Hospital Emergency Room (ER) attributed to ILI increased sharply from week 48 to week 1 and was above rates observed in previous seasons. Rates peaked at >30% in week 1 and returned to expected seasonal levels thereafter. In weeks 13-17, rates remained stable at expected levels for this time of year at around 9-12%.

Percent of patients presenting to BC Children's Hospital ER with triage chief complaint of "flu," "influenza" or "fever/cough," British Columbia, 2014-15



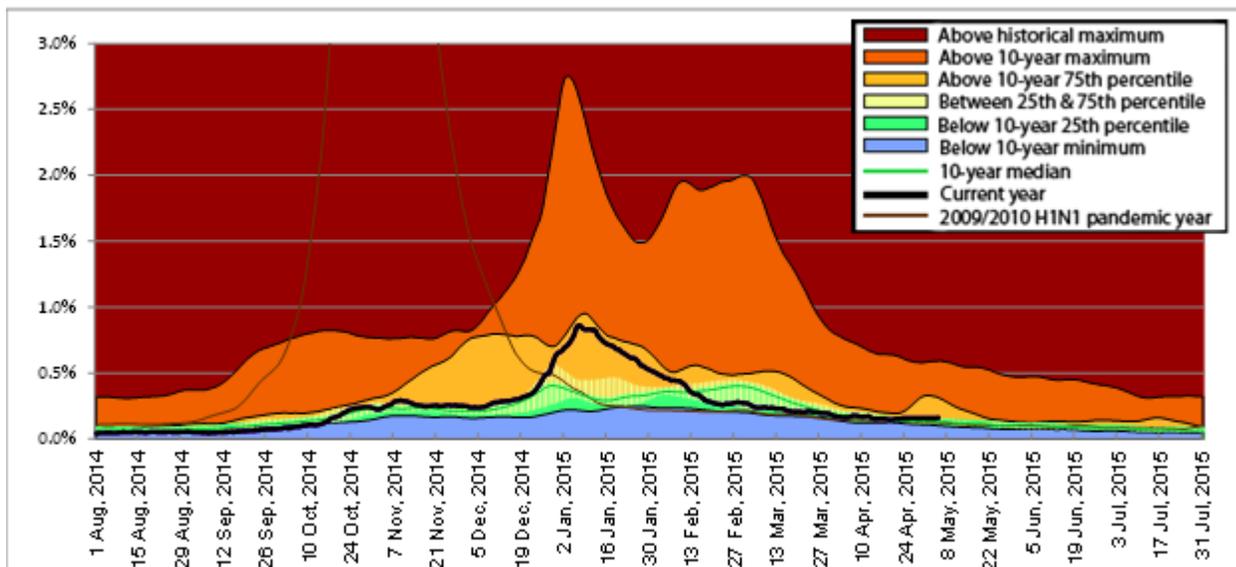
Source: BCCH Admitting, discharge, transfer database, ADT

\* Data from 2010-11 to 2014-15 are based on new variable (Triage Chief Complaint) for capturing ILI symptoms and are not directly comparable to data for 2009-10. In week 9 of the 2011-12 season, the BCCH ER implemented a new data collection system, the National Ambulatory Care Reporting System (NACRS); data are not directly comparable to data collected using old system.

**Medical Services Plan**

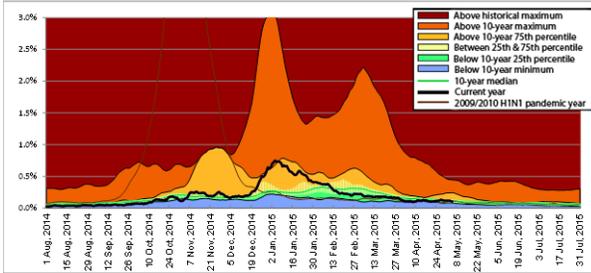
During the 2014-15 influenza season, BC Medical Services Plan (MSP) general practitioner claims for influenza illness (II), as a proportion of all submitted MSP claims, showed a sharp rise beginning in week 52, exceeding 10-year 75<sup>th</sup> percentiles until week 6 and gradually returning to expected seasonal levels thereafter. Provincial rates peaked in weeks 1-2, with some expected regional variation observed across Health Authorities. In weeks 13-17, rates remained stable at inter-seasonal levels across the province.

**Service claims submitted to MSP for influenza illness (II)\* as a proportion of all submitted general practitioner service claims, British Columbia, 2014-15**

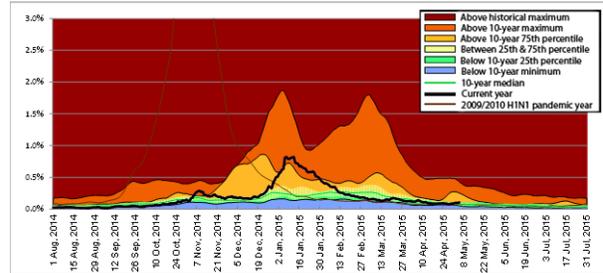


\* Influenza illness is tracked as the percentage of all submitted MSP general practitioner claims with ICD-9 code 487 (influenza). Data provided by Population Health Surveillance and Epidemiology, BC Ministry of Health Services. Note: MSP week beginning 3 August 2014 corresponds to Sentinel ILI week 32; data current to May 5, 2015.

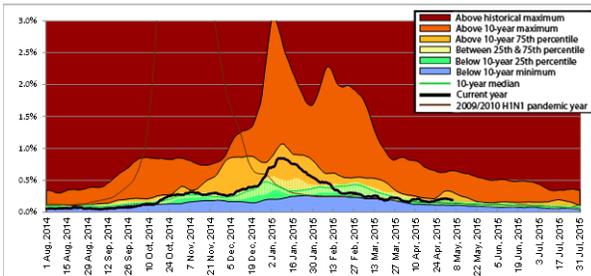
**Interior**



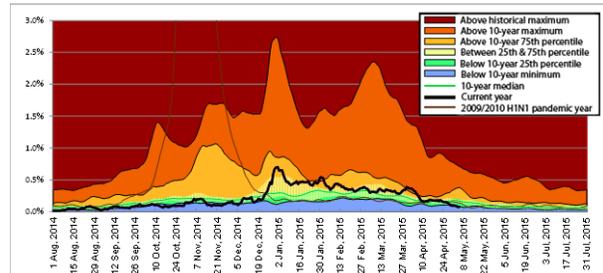
**Vancouver Island**



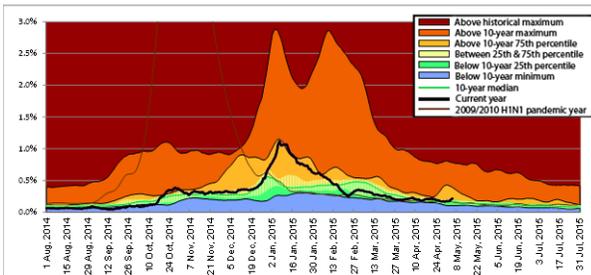
**Fraser**



**Northern**



**Vancouver Coastal**



## Laboratory Reports

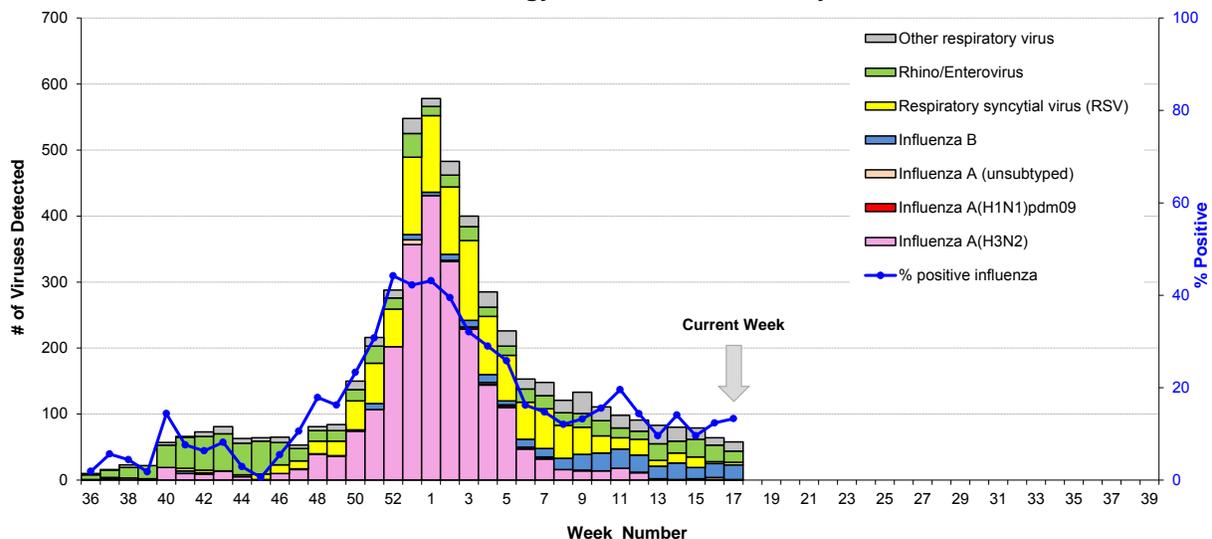
### BC Public Health Microbiology & Reference Laboratory (PHMRL)

Cumulatively, during the 2014-15 influenza season (since week 40, starting September 28, 2014), the BC Public Health Microbiology & Reference Laboratory (PHMRL) tested 9,946 patients for respiratory viruses. Of these, 2,624 (26%) were positive for influenza, including 2,307 (88%) with influenza A [2,278 A(H3N2), 16 A(H1N1)pdm09, 2 A(H7N9), and 11 subtype pending], 315 (12%) with influenza B, and two additional patients, both elderly adults, who had two laboratory-confirmed influenza infections during the course of the influenza season, one due to influenza A(H3N2) and one due to influenza B.

Influenza A(H3N2) was the dominant subtype throughout most of the 2014/15 season, with some low-level influenza B activity observed late in the season and continuing into week 17. Influenza positivity exceeded 40% from week 52 to week 2, with influenza A(H3N2) comprising >97% of influenza detections during this peak period. Elderly adults (≥65 years of age) comprised the majority of influenza detections during the 2014-15 influenza season, driven in part by a record number of influenza outbreaks reported in long-term care facilities (LTCFs) (see [page 7](#)).

In weeks 13-17, 964 patients were tested for respiratory viruses at the BC PHMRL. Of these, 113 (12%) tested positive for influenza, including 10 (9%) influenza A [5 A(H3N2), 1 A(H1N1)pdm09 and 4 with subtype pending] and 103 (91%) influenza B. Influenza positivity remained stable around 10-14% over this period, driven by low-level influenza B activity.

**Influenza and other virus detections among respiratory specimens submitted to BC Public Health Microbiology & Reference Laboratory, PHSA, 2014-15**



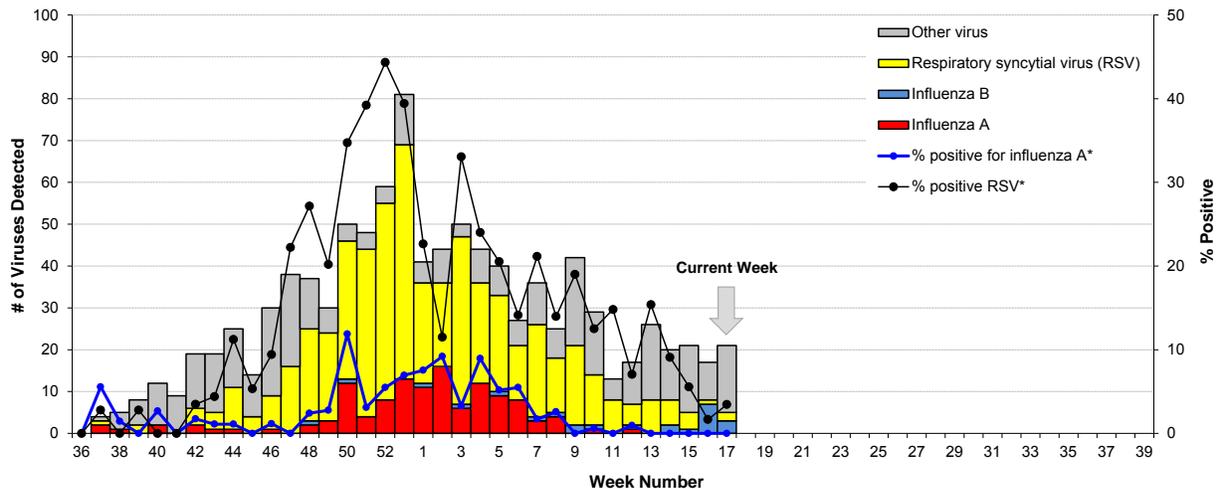
Note: Data current to May 6, 2015.

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

Cumulatively, during the 2014-15 influenza season (since week 40, starting September 28, 2014), the BC Children's and Women's Health Centre Laboratory conducted 3,506 tests for influenza A and 2,785 tests for influenza B. Of these, 120 (3%) tests were positive for influenza A and 24 (1%) tests were positive for influenza B. As with laboratory surveillance at the BC PHMRL, influenza A was the predominant influenza virus detected, followed by sporadic late-season influenza B activity. Respiratory syncytial virus (RSV) was the most commonly detected virus among the non-influenza respiratory viruses during the 2014-15 season.

Of the 308 tests for influenza A and B conducted by the BC Children's and Women's Health Centre Laboratory in weeks 13-17, 13 (4%) were positive for influenza B. None were positive for influenza A.

**Influenza and other virus detections among respiratory specimens submitted to BC Children's and Women's Health Centre Laboratory, 2014-15**

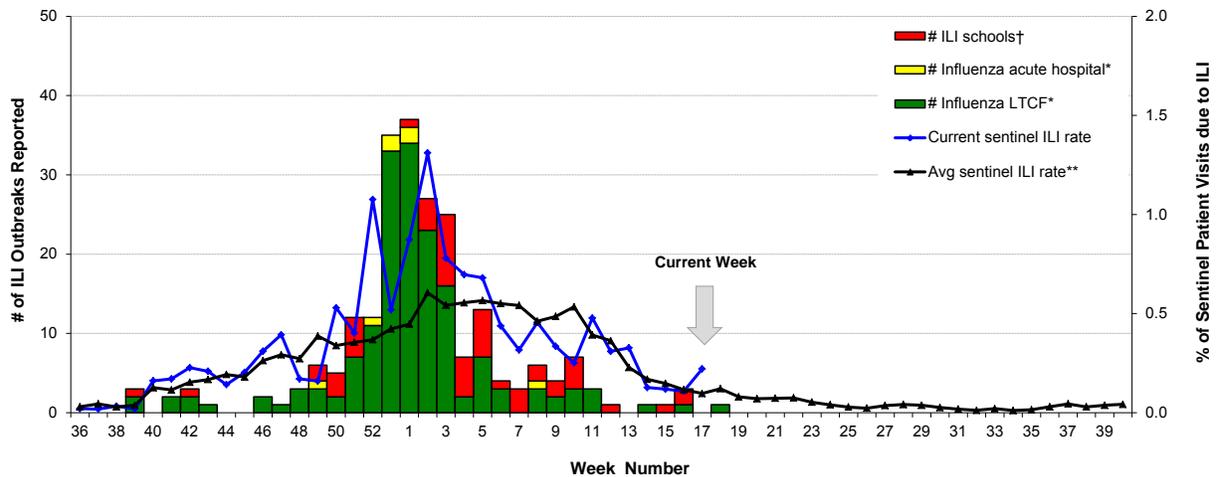


\* Positive rates were calculated using aggregate data. The denominators for each rate represent the total number of tests; multiple tests may be performed for a single specimen and/or patient.

### Influenza Outbreaks

Cumulatively, since week 39 (starting September 21, 2014), 175 facility outbreaks due to laboratory-confirmed influenza have been reported, including 167 from LTCFs, 7 from acute care, and 1 from an assisted living facility. All but 14 of these outbreaks were due to influenza A [all A(H3N2) where subtype information is available]; 14 were due to influenza B or both influenza A and B. Since our last bulletin issued 5 weeks ago, 3 new laboratory-confirmed influenza B outbreaks were reported, including 2 in LTCFs and 1 in an assisted living facility. Outbreaks were reported from VCHA, FHA and VIHA, with symptom onset in weeks 14, 16 and 18, respectively.

**Number of influenza-like illness (ILI) outbreaks reported, compared to current sentinel ILI rate and historical average sentinel ILI rate, British Columbia, 2014-15**



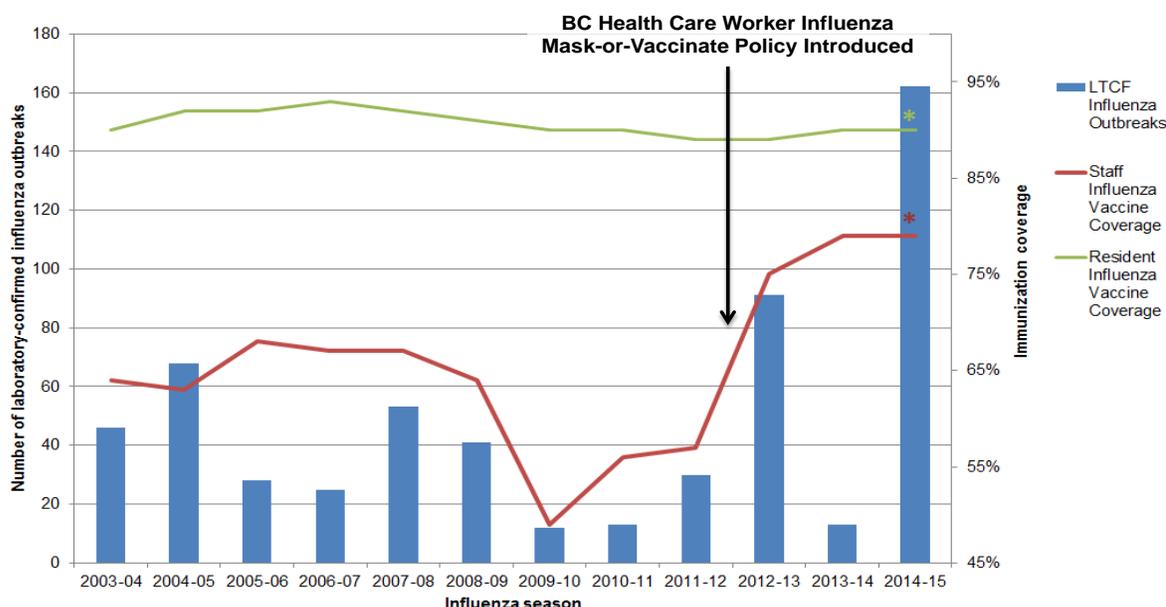
\* Facility-based influenza outbreaks defined as 2 or more ILI cases within 7-day period, with at least one laboratory-confirmed case of influenza.  
† School-based ILI outbreak defined as >10% absenteeism on any day, most likely due to ILI.  
\*\* Historical values exclude 2008-09 and 2009-10 seasons due to atypical seasonality.

### Historical Laboratory-confirmed Influenza Outbreaks in Long-term Care Facilities (LTCFs)

As shown in the figure below of laboratory-confirmed influenza outbreaks in LTCFs by season alongside influenza vaccination coverage in residents and staff, the 2014-15 season was associated with the highest number of outbreak reports over the period spanning 2003-04 to the current 2014-15 season.

Variation in influenza diagnosis and outbreak reporting protocols should be acknowledged across the extended 12-year period displayed, particularly in comparing the most distant to most recent seasons. In general, however, seasons during which influenza A(H3N2) subtype viruses comprised a greater proportion of community influenza detections (such as 2004-05, 2012-13 and 2014-15) were associated with the greatest number of LTCF influenza outbreak reports. Conversely, seasons of dominant A(H1N1) activity (such as 2009-10 and 2013-14) were associated with the fewest reports. Seasons with a greater mix of influenza subtypes/types had tallies within these extremes. Over this period, a consistent pattern was not evident in comparing outbreak tallies to influenza vaccine coverage among residents or staff.

**Number of reported laboratory-confirmed influenza outbreaks in long-term care facilities (LTCFs) and influenza vaccine coverage among residents and staff, British Columbia, week 40 to week 17, 2003-04 to 2014-15 seasons**



Proportionate community influenza detections in BC by subtype/type and season

% A/H3	100	89	49	56	34	20	0	21	59	63	7	82
% A/H1	0	0	3	35	28	44	100	30	20	13	72	2
% B	0	11	48	9	38	36	0	48	21	24	21	17

\* Influenza vaccination coverage among care facility residents and staff adapted from: [www.bccdc.ca/imm-vac/BCImmunizationCov/flucoverage/default.htm](http://www.bccdc.ca/imm-vac/BCImmunizationCov/flucoverage/default.htm). Estimates for 2013-14 and 2014-15 have not yet been posted.

Proportionate influenza subtype/type distributions for BC were adapted from archived summary reports published in the Canada Communicable Disease Report for the 2003-04 to 2006-07 seasons and from publications of the Canadian Sentinel Physician Surveillance Network (SPSN) [BC-specific] for the 2007-08 to 2013-14 seasons. Preliminary data are shown for 2014-15.

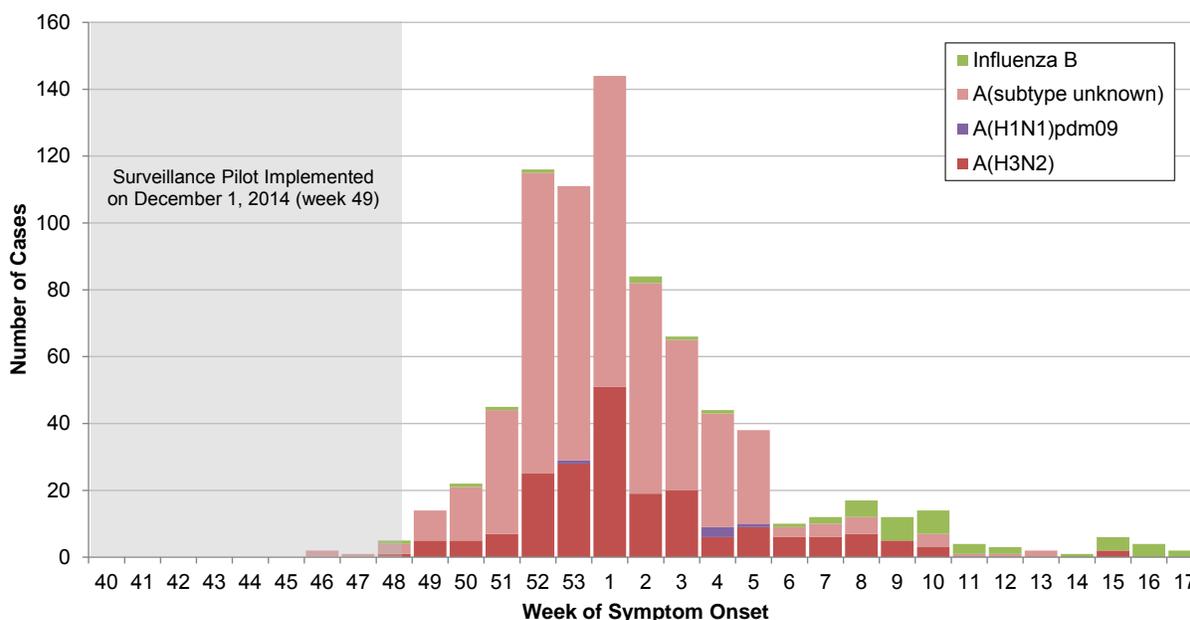
Historic outbreak tallies are from the BC Annual Summary of Reportable Diseases: [www.bccdc.ca/NR/rdonlyres/D8C85F70-804C-48DB-8A64-6009C9FD49A3/0/2013CDAnnualReportFinal.pdf](http://www.bccdc.ca/NR/rdonlyres/D8C85F70-804C-48DB-8A64-6009C9FD49A3/0/2013CDAnnualReportFinal.pdf). Tallies for 2014-15 are preliminary and may be adjusted with final data reconciliation. Influenza outbreaks are defined according to the national FluWatch case definition of two or more cases of influenza-like illness within a 7 day period including at least one laboratory-confirmed case: [www.phac-aspc.gc.ca/fluwatch/14-15/def14-15-eng.php](http://www.phac-aspc.gc.ca/fluwatch/14-15/def14-15-eng.php).

### Laboratory-confirmed Influenza Hospitalizations

On December 1, 2014, the BC Centre for Disease Control and the regional Health Authorities implemented an influenza severe outcome surveillance (SOS) pilot in BC for monitoring laboratory-confirmed influenza hospitalizations. An epidemic curve of hospitalized influenza cases by week of symptom onset is shown below, mirroring trends observed in other surveillance indicators. Of note, reporting delays should be taken into account in interpreting trends, particularly for the most recent weeks of the epidemic curve displayed.

The vast majority of severe influenza cases during the 2014-15 season were due to influenza A, predominately A(H3N2) where subtype information is available; however, an increasing proportion of cases in later weeks were influenza B, consistent with provincial surveillance indicators showing low-level, late season influenza B activity. Elderly adults were disproportionately represented among influenza-related hospitalizations this season, as is typically observed during A(H3N2)-dominant seasons. While individuals  $\geq 65$  years of age comprise  $< 20\%$  of the BC population, they comprised  $> 70\%$  of influenza hospitalizations reported. Similarly, while individuals  $\geq 80$  years old make up  $< 5\%$  of the BC population, they comprised about half of all influenza-related hospitalizations. The median age of cases overall was 79 years (range:  $< 1$  year to  $> 100$  years). The majority of cases ( $> 80\%$ ) have had one or more pre-existing chronic comorbidity.

**Number of laboratory-confirmed influenza hospitalizations by week of symptom onset, British Columbia, 2014-15**



Data are subject to change as reporting becomes more complete; includes influenza SOS case report forms received as of May 7, 2015.

Symptom onset date was imputed as hospital admission date minus two days where symptom onset was unknown.

Only severe cases of laboratory-confirmed influenza admitted to an intensive care unit (ICU) are reported in FHA; in all other Health Authorities, both hospitalizations and ICU admissions are reported.

## National

### **FluWatch (week 16)**

Influenza B continues to be the most common influenza virus circulating in Canada, although detections of influenza B appear to have peaked in week 12. In week 16, 525 (13%) influenza viruses were detected, including 53 (10%) influenza A [23 A(H3N2), 3 A(H1N1)pdm09, and 27 unsubtype] and 472 (90%) influenza B. Influenza B is having a greater impact on adults less than 65 years of age, compared to influenza A(H3N2), which predominated earlier in the season. Although overall influenza activity in Canada continued to decline, elevated activity was still reported in week 16, mostly in the Central and Atlantic provinces. Fewer influenza hospitalizations were reported in week 16 compared to the previous week. The majority of hospitalizations in week 16 were due to influenza A and in adults  $\geq 65$  years of age. Details are available at: [www.phac-aspc.gc.ca/fluwatch/14-15/index-eng.php](http://www.phac-aspc.gc.ca/fluwatch/14-15/index-eng.php).

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

From September 1, 2014 to May 7, 2015, the NML has antigenically characterized 750 influenza viruses [185 A(H3N2), 15 A(H1N1)pdm09, and 550 influenza B] and genetically characterized 1,105 influenza A(H3N2) viruses that were received from Canadian laboratories.

Influenza A(H3N2): Of the 1,290 A(H3N2) viruses characterized so far this season by the NML, 1,287 (~100%) showed antigenic or genetic evidence of antigenic drift (i.e. vaccine mismatch). Of the 185 A(H3N2) viruses antigenically characterized by haemagglutinin inhibition (HI) assay: 179 (97%) were similar to A/Switzerland/9715293/2013, the WHO-recommended A(H3N2) component for the 2015-16 Northern Hemisphere influenza vaccine; one (1%) was similar to A/Texas/50/2012, the WHO-recommended A(H3N2) component for the 2014-15 Northern Hemisphere influenza vaccine used this season; and 5 (3%) showed reduced titres to A/Texas/50/2012 but could not be further characterized in relation to A/Switzerland/9715293/2013 due to insufficient titres. Genetic characterization was performed on 1,105 A(H3N2) viruses that did not grow to sufficient titres for antigenic characterization by HI assay. Of the 1,105 A(H3N2) viruses genetically characterized, 1,103 (~100%) belonged to a genetic group that typically shows reduced titres to A/Texas/50/2012 due to amino acid mutations at antigenic sites. The remaining two (<1%) viruses belonged to a genetic group that does not show reduced titres to A/Texas/50/2012.

Influenza A(H1N1)pdm09: Of the 15 A(H1N1)pdm09 viruses characterized, all were antigenically similar to A/California/7/2009, the WHO-recommended A(H1N1)pdm09 component for the 2014-15 Northern Hemisphere influenza vaccine.

Influenza B: Of the 550 influenza B viruses characterized, 523 (95%) viruses were antigenically similar to B/Massachusetts/2/2012 (Yamagata-lineage), the WHO-recommended influenza B vaccine component for the 2014-15 Northern Hemisphere influenza vaccine; 3 (1%) viruses showed reduced titres with antiserum produced against B/Massachusetts/2/2012, signalling antigenic drift from the vaccine strain; and 24 (4%) were antigenically similar to B/Brisbane/60/2008 (Victoria-lineage), the WHO-recommended influenza B/Victoria vaccine component for the quadrivalent 2014-15 Northern Hemisphere influenza vaccine.

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

From September 1, 2014 to May 7, 2015, the NML received influenza viruses from Canadian laboratories for drug susceptibility testing. Of the 1,352 influenza A viruses [1,338 A(H3N2) and 14 A(H1N1)pdm09] tested against amantadine, all but one were resistant; one A(H3N2) virus was sensitive to amantadine. Of the 1,382 influenza viruses [876 A(H3N2), 10 A(H1N1)pdm09, and 496 B] tested against oseltamivir, all but one was sensitive; one A(H3N2) virus was resistant to oseltamivir. Of the 1,379 influenza viruses [874 A(H3N2), 10 A(H1N1)pdm09, and 495 B] tested against zanamivir, all were sensitive.

### **Interim Estimates of 2014/15 Influenza Vaccine Effectiveness, Canada**

#### Canadian Sentinel Physician Surveillance Network (SPSN), Community-based

On January 29, the Canadian Sentinel Physician Surveillance Network (SPSN) published interim estimates of vaccine effectiveness (VE) against medically attended, laboratory-confirmed influenza infection for the 2014/15 influenza vaccine. Of the characterized viruses contributing to VE analysis, virtually all (99%) clustered with phylogenetic clades that are considered antigenically distinct from the vaccine strain. Consistent with this substantial vaccine mismatch in circulating viruses, little to no protection against the dominant circulating A(H3N2) viruses was found by the Canadian SPSN. VE against medically attended laboratory-confirmed A(H3N2) infection was estimated at -8%, with 95% confidence intervals (CIs) spanning -50% to 23%. When analyses were restricted to non-elderly adults 20-64 years old, VE was 2% (95% CI: -49 to 36%). Details are available at: [www.eurosurveillance.org/ViewArticle.aspx?ArticleId=21022](http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=21022).

#### Canadian Immunization Research Network (CIRN), Hospital-based

On February 5, the Serious Outcomes Surveillance Network of the Canadian Immunization Research Network (CIRN) published interim estimates of VE against influenza-associated hospitalizations for laboratory-confirmed influenza for the 2014/15 influenza vaccine. Influenza A(H3N2) was the predominant influenza virus detected among hospitalized cases, accounting for 99% of influenza A viruses with known subtype. Unmatched VE estimates adjusted for age and comorbidity were -17% (95% CI: -56 to 13%) overall and -22% (95% CI: -77 to 16%) for influenza A(H3N2). Among elderly adults ≥65 years old, adjusted VE estimates were -25% (95% CI: -74 to 10%) and -33 (95% CI: -104 to 13%), respectively. Among non-elderly adults <65 years old, VE estimates were 11% (95% CI: -66 to 52%) and 8% (95% CI: -102 to 58%), respectively. Details are available at: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=21024>.

### **Final End-of-season Estimates of 2013/14 Influenza Vaccine Effectiveness, Canada**

#### Canadian Sentinel Physician Surveillance Network (SPSN)

On March 17, the Canadian Sentinel Physician Surveillance Network (SPSN) published final end-of-season estimates of vaccine effectiveness (VE) against medically attended, laboratory-confirmed influenza infection for the 2013/14 influenza vaccine. The 2013/14 influenza season in Canada was characterized by resurgent and dominant A(H1N1)pdm09 activity, followed by a late-season influenza B/Yamagata wave. Adjusted VE against antigenically well-conserved influenza A(H1N1)pdm09 viruses was 71% (95% CI: 58 to 80%). Two phylogenetic clades of influenza B/Yamagata viruses were detected: 83% clustered with the prior 2012-13 season's B/Wisconsin/01/2010-like (clade 3) vaccine strain, while 17% clustered with the current 2013-14 season's B/Massachusetts/02/2012-like (clade 2) vaccine strain. Adjusted VE against influenza B/Yamagata overall was 73% (95% CI: 56 to 83%), with lower VE found against clade-level mismatched B/Wisconsin/01/2010-like (clade 3) viruses. Details are available at: <http://jid.oxfordjournals.org/content/early/2015/03/17/infdis.jiv177.abstract>.

## International

### **USA (week 16)**

During week 16, influenza activity continued to decrease in the United States. Of the 8,294 specimens tested, 542 (7%) were positive for influenza, including 61 (11%) influenza A [24 A(H3N2), 1 A(H1N1)pdm09, and 36 with subtyping not performed] and 481 (89%) influenza B. Of the 1,220 A(H3N2) influenza viruses collected since October 1, 2014 and characterized by HI assay, 243 (20%) were characterized as A/Texas/50/2012-like, the A(H3N2) component of the 2014-15 Northern Hemisphere influenza vaccine, and 977 (80%) either showed reduced titres with antiserum produced against A/Texas/50/2012 or belonged to a genetic group that typically shows reduced titres to A/Texas/50/2012. Among viruses that showed reduced titres with antiserum raised against A/Texas/50/2012, most were antigenically similar to A/Switzerland/9715293/2013, the A(H3N2) virus selected for the 2015-16 Northern Hemisphere influenza vaccine. The proportion of outpatient visits for ILI was 1.4%, below the national baseline of 2%, and the proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold in week 16. Five influenza-associated paediatric deaths were reported. Details are available at: [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/).

### **WHO (as of May 4, 2015)**

Influenza activity declined further in the Northern Hemisphere with mainly influenza B virus circulation and was low in most regions globally. In North America, influenza activity continued to decrease and was close to inter-seasonal levels with influenza B virus predominant in the last weeks. In Europe, influenza activity continued to decline in most countries. Influenza B virus remained predominant in recent weeks. In northern Africa, influenza activity decreased almost to inter-seasonal levels. In western Asia, a decrease in influenza activity mainly associated with A(H1N1)pdm09 virus was observed in the last weeks. In the temperate countries of Asia, influenza activity of mainly influenza B virus was further declining. In tropical countries of the Americas, influenza activity was low in most countries. In tropical Asia, influenza activity and ILI activity continued to decrease in southern Asia, where influenza A(H1N1)pdm09 virus predominated. Influenza activity has continued to decrease from its peak in southern China including Hong Kong Special Administrative Region, China. In the Southern Hemisphere, influenza activity remained at inter-seasonal levels. From April 5 to 18, 2015, the WHO Global Influenza Surveillance Response System (GISRS) laboratories tested more than 65,361 specimens. Of these, 8,249 were positive for influenza viruses: 2,566 (31%) were typed as influenza A and 5,683 (69%) as influenza B. Of the sub-typed influenza A viruses, 670 (38%) were influenza A(H1N1)pdm09 and 1114 (62%) were influenza A(H3N2). Of the characterized B viruses, 1127 (95%) belonged to the B-Yamagata lineage and 59 (5%) to the B-Victoria lineage. Details 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 2014-15 Northern Hemisphere Influenza Vaccine**

On February 20, 2014, the WHO announced the recommended strain components for the 2014-15 Northern Hemisphere trivalent influenza vaccine (TIV):\*

- an A/California/7/2009(H1N1)pdm09-like virus;
- an A/Texas/50/2012(H3N2)-like virus;
- a B/Massachusetts/2/2012-like (Yamagata-lineage) virus.

\* These recommended strains are the same as those used for the 2013-14 Northern Hemisphere vaccine.

For further details: [www.who.int/influenza/vaccines/virus/recommendations/2014\\_15\\_north/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2014_15_north/en/).

### **WHO Recommendations for 2015-16 Northern Hemisphere Influenza Vaccine**

On February 26, 2015, the WHO announced the recommended strain components for the 2015-16 Northern Hemisphere trivalent influenza vaccine (TIV):\*

- an A/California/7/2009(H1N1)pdm09-like virus;†
- an A/Switzerland/9715293/2013(H3N2)-like virus;‡
- a B/Phuket/3073/2013-like (Yamagata-lineage) virus.§

\* These recommended strains are the same as those that will be used for the 2015 Southern Hemisphere vaccine.

† Recommended strain has been retained as the A(H1N1) component since the 2009 pandemic and has been included in the Northern Hemisphere vaccine since 2010-11.

‡ A/South Australia/55/2014, A/Norway/466/2014, and A/Stockholm/6/2014 are A/Switzerland/9715293/2013-like viruses. Recommended strain is considered antigenically distinct from the A/Texas/50/2012-like virus recommended for the 2014-15 Northern Hemisphere vaccine and clusters within the emerging phylogenetic clade 3C.3a.

§ Recommended strain is the same influenza B-Yamagata lineage as the B/Massachusetts/2/2012-like virus recommended for the 2014-15 Northern Hemisphere vaccine but represents a phylogenetic clade-level change from clade 2 to clade 3.

For further details: [www.who.int/influenza/vaccines/virus/recommendations/2015\\_16\\_north/en/](http://www.who.int/influenza/vaccines/virus/recommendations/2015_16_north/en/).

## **Additional Information**

### ***List of Acronyms:***

<b>ACF:</b> Acute Care Facility	<b>MSP:</b> BC Medical Services Plan
<b>AI:</b> Avian influenza	<b>NHA:</b> Northern Health Authority
<b>FHA:</b> Fraser Health Authority	<b>NML:</b> National Microbiological Laboratory
<b>HBoV:</b> Human bocavirus	<b>A(H1N1)pdm09:</b> Pandemic H1N1 influenza (2009)
<b>HMPV:</b> Human metapneumovirus	<b>RSV:</b> Respiratory syncytial virus
<b>HSDA:</b> Health Service Delivery Area	<b>VCHA:</b> Vancouver Coastal Health Authority
<b>IHA:</b> Interior Health Authority	<b>VIHA:</b> Vancouver Island Health Authority
<b>ILI:</b> Influenza-Like Illness	<b>WHO:</b> World Health Organization
<b>LTCF:</b> Long-Term Care Facility	

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

[www.ammi.ca/guidelines](http://www.ammi.ca/guidelines)

### **Web Sites:**

BCCDC Emerging Respiratory Pathogen Updates:

[www.bccdc.ca/dis-cond/DiseaseStatsReports/EmergingRespiratoryVirusUpdates.htm](http://www.bccdc.ca/dis-cond/DiseaseStatsReports/EmergingRespiratoryVirusUpdates.htm)

### **Influenza Web Sites**

Canada – Flu Watch: [www.phac-aspc.gc.ca/fluwatch/](http://www.phac-aspc.gc.ca/fluwatch/)

Washington State Flu Updates: [www.doh.wa.gov/Portals/1/Documents/5100/fluupdate.pdf](http://www.doh.wa.gov/Portals/1/Documents/5100/fluupdate.pdf)

USA Weekly Surveillance Reports: [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/)

European Influenza Surveillance Scheme:

[ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL\\_INFLUENZA/EPIDEMIOLOGICAL\\_DATA/Pages/Weekly\\_Influenza\\_Surveillance\\_Overview.aspx](http://ecdc.europa.eu/EN/HEALTHTOPICS/SEASONAL_INFLUENZA/EPIDEMIOLOGICAL_DATA/Pages/Weekly_Influenza_Surveillance_Overview.aspx)

WHO – Weekly Epidemiological Record: [www.who.int/wer/en/](http://www.who.int/wer/en/)

WHO Collaborating Centre for Reference and Research on Influenza (Australia):

[www.influenzacentre.org/](http://www.influenzacentre.org/)

Australian Influenza Report:

[www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm](http://www.health.gov.au/internet/main/publishing.nsf/content/cda-surveil-ozflu-flucurr.htm)

New Zealand Influenza Surveillance Reports: [www.surv.esr.cri.nz/virology/influenza\\_weekly\\_update.php](http://www.surv.esr.cri.nz/virology/influenza_weekly_update.php)

### **Avian Influenza Web Sites**

WHO – Influenza at the Human-Animal Interface: [www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

World Organization for Animal Health: [www.oie.int/eng/en\\_index.htm](http://www.oie.int/eng/en_index.htm)

### **Contact Us:**

Tel: (604) 707-2510

Fax: (604) 707-2516

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

Communicable Disease Prevention and Control Services (CDPACS)

BC Centre for Disease Control

655 West 12<sup>th</sup> Ave, Vancouver BC V5Z 4R4

Online: [www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm](http://www.bccdc.ca/dis-cond/DiseaseStatsReports/influSurveillanceReports.htm)

# 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	<b>Reporting Information</b>		Health unit/medical health officer notified? <input type="checkbox"/> Yes <input type="checkbox"/> No
	Person Reporting: _____	Title: _____	
	Contact Phone: _____	Email: _____	
	Health Authority: _____	HSDA: _____	
	Full Facility Name: _____		
	Is this report:	<input type="checkbox"/> First Notification ( <i>complete section B below; Section D if available</i> ) <input type="checkbox"/> Update ( <i>complete section C below; Section D if available</i> ) <input type="checkbox"/> Outbreak Over ( <i>complete section C below; Section D if available</i> )	

B	<b>First Notification</b>																	
	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>																
		<input type="checkbox"/> Workplace <input type="checkbox"/> School (grades: _____) <input type="checkbox"/> Other (_____ )																
	Date of onset of first case of ILI (dd/mm/yyyy): <u>DD/MMM/YYYY</u>																	
			<table border="1"> <thead> <tr> <th>Numbers to date</th> <th>Residents/Students</th> <th>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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<b>Died</b>																		

C	<b>Update AND Outbreak Declared Over</b>																	
	Date of onset for most recent case of ILI (dd/mm/yyyy): <u>DD/MMM/YYYY</u>																	
	If over, date outbreak declared over (dd/mm/yyyy): <u>DD/MMM/YYYY</u>																	
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D	<b>Laboratory Information</b>		
	Specimen(s) submitted?	<input type="checkbox"/> Yes (location: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know If yes, organism identified? <input type="checkbox"/> Yes (specify: _____) <input type="checkbox"/> No <input type="checkbox"/> Don't know	