

**Weekly Update****December 16, 2014**

The purpose of this report is to inform Public Health staff, primary care providers, acute care staff and other community practitioners about recent and historical respiratory virus activity in the province of Alberta. Unless otherwise noted, all data presented are current up to the Saturday prior to the day the report is released.

**Summary of What's New****Alberta**

- Influenza A had the highest percent positivity among specimens tested for respiratory viruses in week 50, followed by rhino-enterovirus ([Figure 1](#)). A shift from sporadic activity to more extensive influenza activity in Alberta has been observed.
- There were 537 new cases of lab confirmed influenza in week 50 in Alberta; 478 A(H3), 0 A(H1N1)pdm09, 45 A(unresolved subtype), and 14 B ([Table 1](#)). So far this season (August 24, 2014 – December 13, 2014), there have been 1471 cases of lab confirmed influenza; 1310 A(H3), 1 A(H1N1)pdm09, 109 A(unresolved subtype) and 51 B.
- In week 50, the overall rate for influenza A in Alberta was 13.1 per 100,000 and for influenza B it was 0.3 per 100,000.
- In week 50, the 65+ years age group had the highest rate of influenza A(H3) in Alberta.
- There were 19 ILI outbreaks reported with onset in week 50 in Alberta; 9 were influenza A(H3), and 10 are awaiting lab confirmation ([Table 2](#)).
- The Health Link Alberta call rate for cough/ILI was 21 calls per 100,000 Albertans in week 50 ([Figure 6](#)).
- There were 505 visits with ILI (4.7% of all visits) to Edmonton zone Emergency Departments/Urgent Care Centres (EDIS/E-triage sites) ([Figure 7](#)) and 886 visits with ILI (9.1% of all visits) to Calgary zone Emergency Departments/Urgent Care Centres (SEC sites) in week 50 ([Figure 8](#)).
- In week 50, 1.12% and 0.51% of patient visits to Alberta sentinel physicians were attributed to ILI (influenza like illness) and LRTI (lower respiratory tract infection), respectively ([Figure 9](#)).
- Public health administered influenza immunization data is available in [Table 3](#), [Table 4](#), [Table 5](#), [Table 6](#) and [Table 7](#).

**North America**

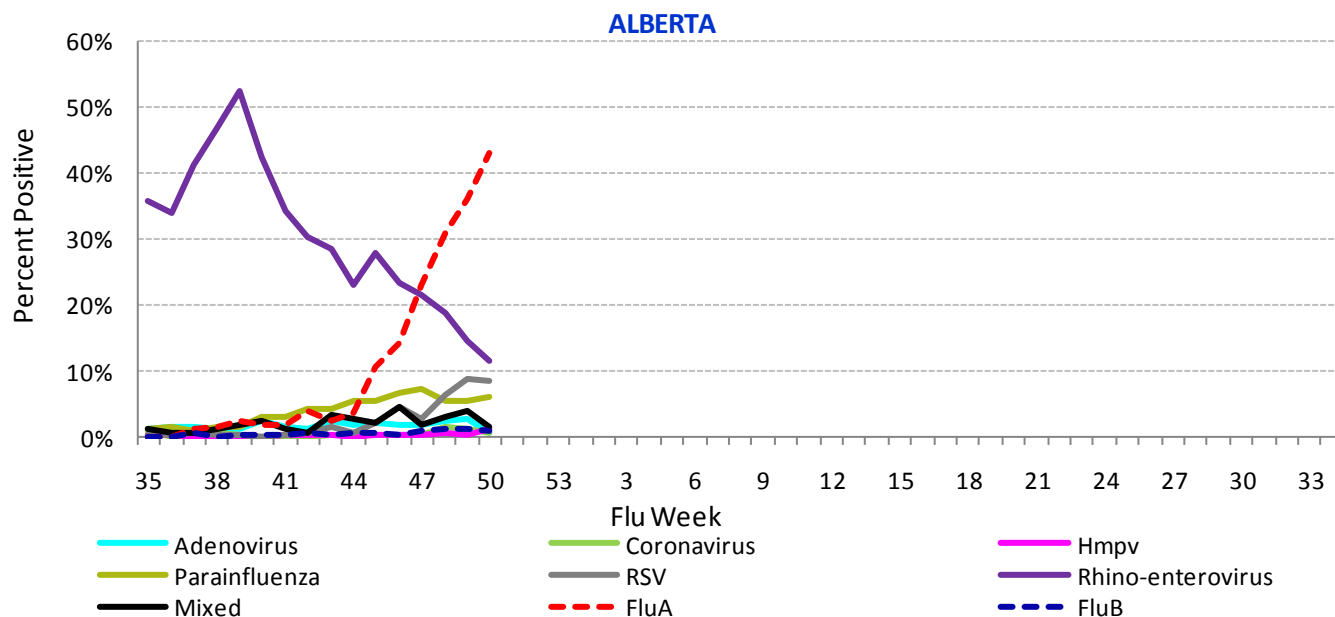
- As per FluWatch (PHAC), influenza activity continued to increase sharply in Canada in week 49 with influenza A(H3N2) predominating.
- As of flu week 49, the National Microbiology Lab (NML) of Canada has antigenically characterized 25 influenza samples – 11 A(H3N2), 0 A(H1N1)pdm09, and 14 B. Two (2) influenza A and eleven (11) influenza B viruses were similar to the WHO strain recommendations for the 2014-15 seasonal influenza vaccine. Twelve (12) virus samples (9 A(H3N2) and 3 B) showed reduced titers to antisera produced against strains recommended for the seasonal influenza vaccine. Additionally, 38 influenza A(H3N2) virus were unable to be tested by hemagglutination inhibition assay, however sequence analysis showed that they belong to a genetic group that typically shows reduced titers to A/Texas/50/2012, which was recommended by the WHO for this year's vaccine.
- There were 74 viruses tested for antiviral resistance to oseltamivir and zanamivir and all were sensitive. There were 70 influenza A(H3N2) virus samples tested for resistance to amantadine; all were resistant.
- According to the week 49 FluView (US CDC) update, influenza activity in the US continued to increase. One hundred thirty-three (67.5%) of the 197 viruses tested showed either reduced titers with antiserum produced against A/Texas/50/2-12 or belonged to a genetic group that typically shows reduced titers to A/Texas/50/2012 .

**International**

- As per the most recent WHO influenza update (December 1, 2014), influenza activity has remained low at inter-seasonal levels in the northern hemisphere with slight increases being observed in North America.
- Among the tropical countries, influenza activity remained low.
- In the southern hemisphere, influenza activity remained low with the exception of some Pacific islands where influenza activity remained high.

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Hemisphere Vaccine  
Recommendations](#)**Current Global Information**[FluWatch \(PHAC\)](#)[FluView \(US CDC\)](#)[HPA \(UK\)](#)[WHO](#)**Surveillance and Reporting  
Public Health Surveillance and Infrastructure**

If you have questions about the Alberta Respiratory Virus Surveillance Report, or any of the indicators, please contact:  
[AHS.PublicHealthSurveillance@albertahealthservices.ca](mailto:AHS.PublicHealthSurveillance@albertahealthservices.ca)

**Laboratory Data**
**Figure 1: Alberta weekly respiratory specimen percent positivity, by virus type**


[Click here for ZONE figures of respiratory virus specimen percent positivity](#)

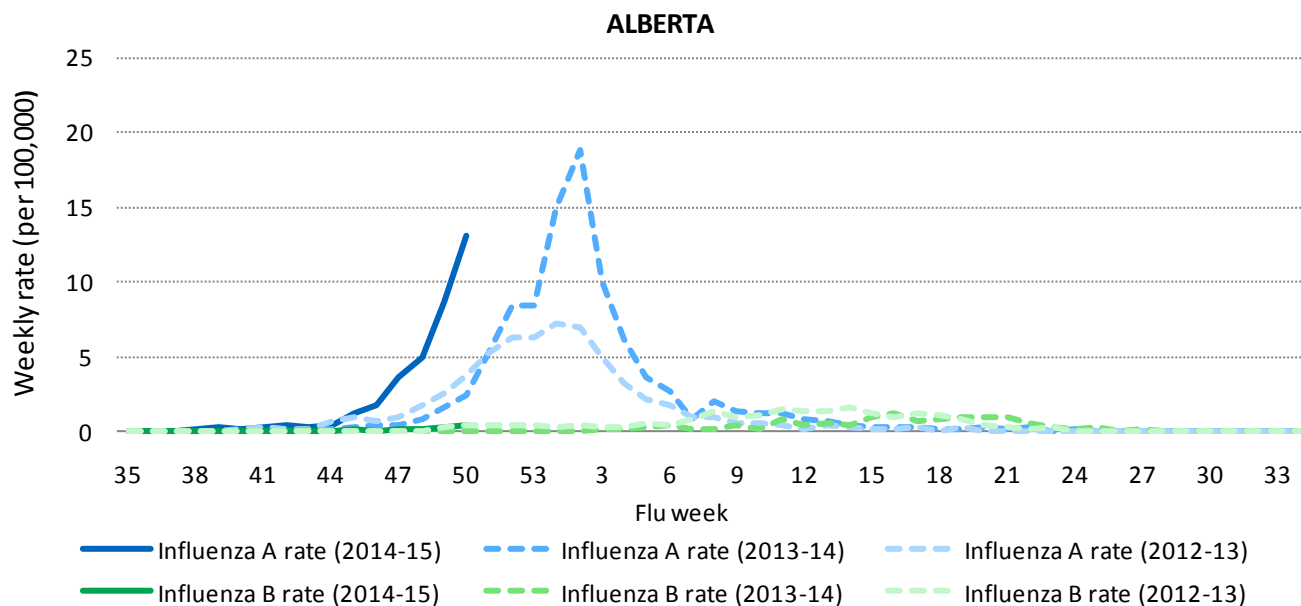
Source: DIAL – Provincial Laboratory specimens, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#). “Percent positive” is the number of positive specimens for that virus as a percent of the total number of specimens tested for respiratory viruses.

**Table 1: New and cumulative laboratory confirmed influenza cases, by subtype, Alberta and Zones**

Zones	Week 50 (07Dec2014 - 13DEC2014)					Cumulative (24Aug2014 - 13DEC2014)				
	Influenza A				Influenza B	Influenza A				Influenza B
	A(H3)	A(H1N1) pdm09	A (unresolved type due to low viral load)	A (total)		A(H3)	A(H1N1) pdm09	A (unresolved type due to low viral load)	A (total)	
South	15	0	2	17	0	40	0	5	45	1
Calgary	151	0	15	166	6	341	0	31	372	17
Central	71	0	2	73	2	120	0	6	126	12
Edmonton	140	0	23	163	4	593	1	58	652	16
North	101	0	3	104	2	216	0	9	225	5
<b>Alberta Total</b>	<b>478</b>	<b>0</b>	<b>45</b>	<b>523</b>	<b>14</b>	<b>1310</b>	<b>1</b>	<b>109</b>	<b>1420</b>	<b>51</b>

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

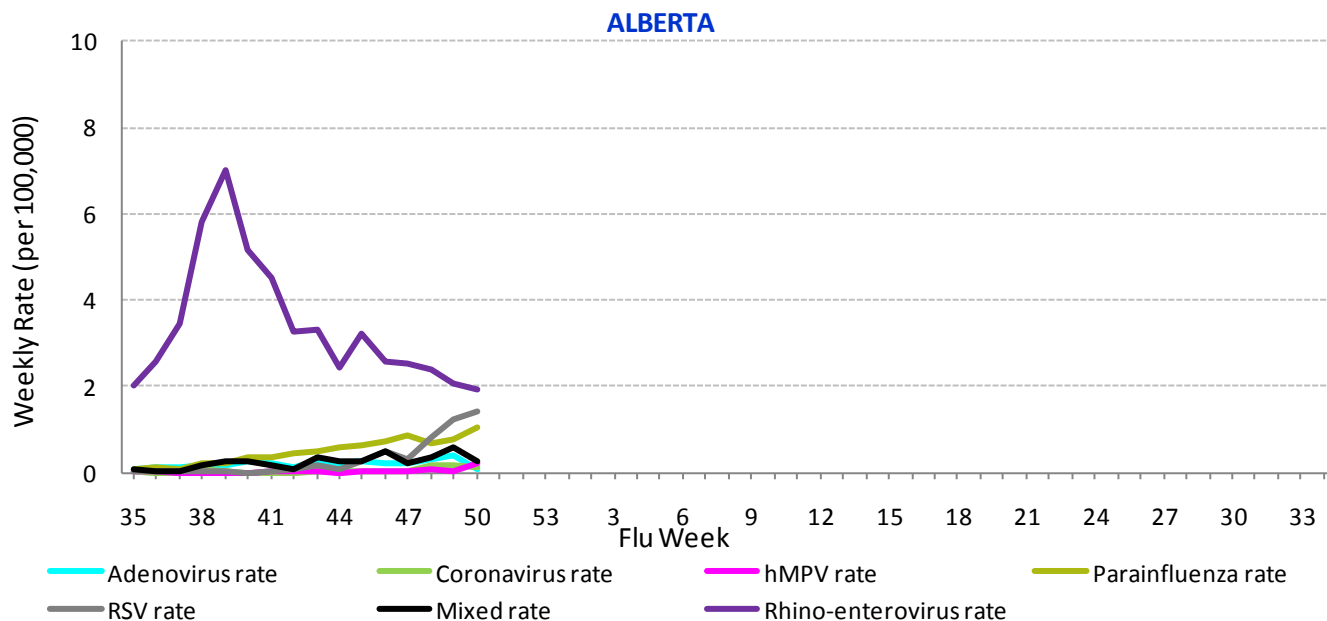
**Figure 2: Alberta weekly rates (per 100,000) of lab confirmed influenza, by subtype**



[Click here for ZONE figures - rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 9, 2014. For more information on data definitions and sources, see [Data Notes](#).

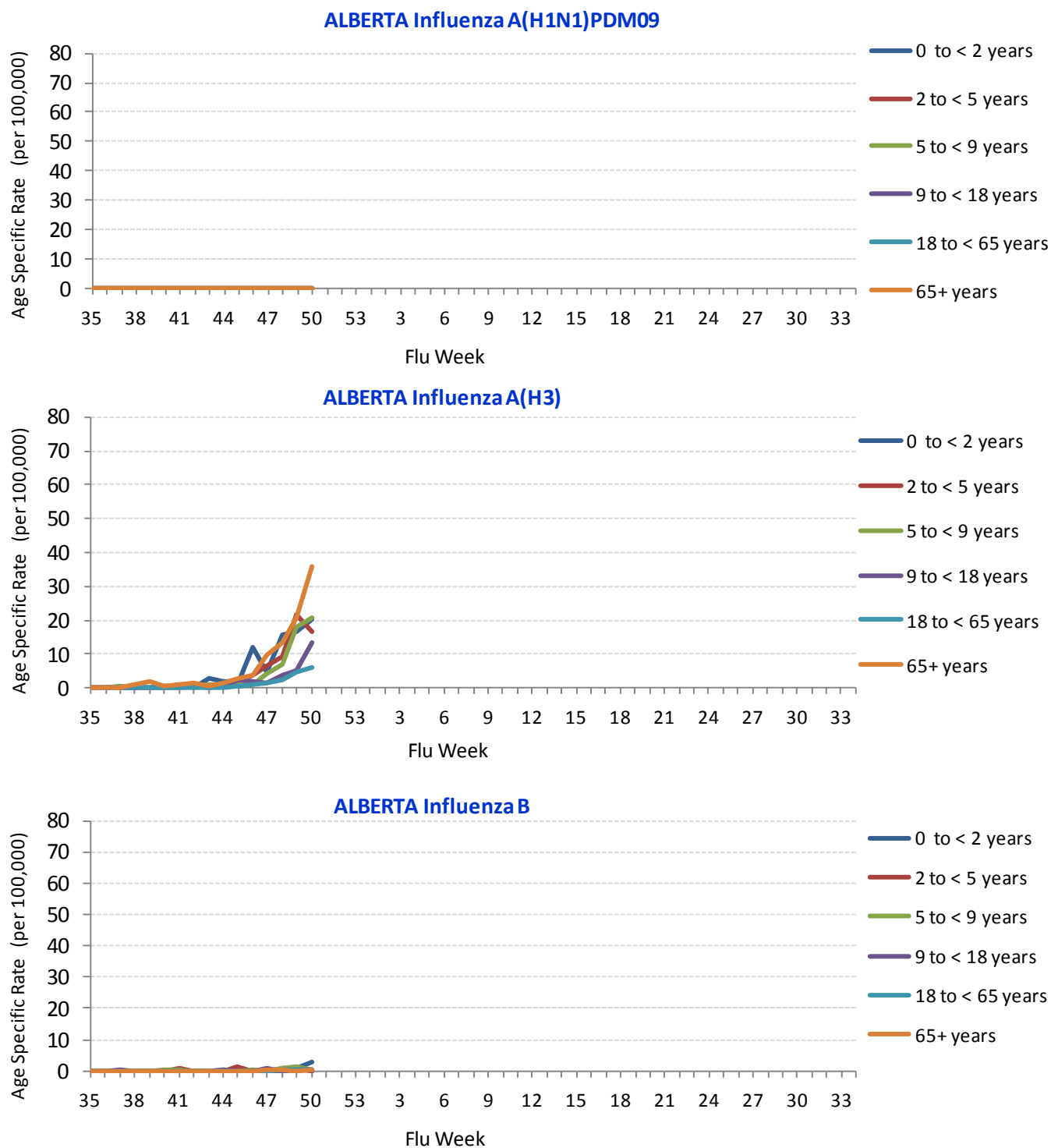
**Figure 3: Alberta weekly rates (per 100,000) of lab confirmed respiratory viruses (excluding influenza), by virus type**



[Click here for ZONE figures - rates of lab confirmed respiratory viruses](#)

Source: DIAL – Provincial Laboratory specimens, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

**Figure 4: Alberta weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype**

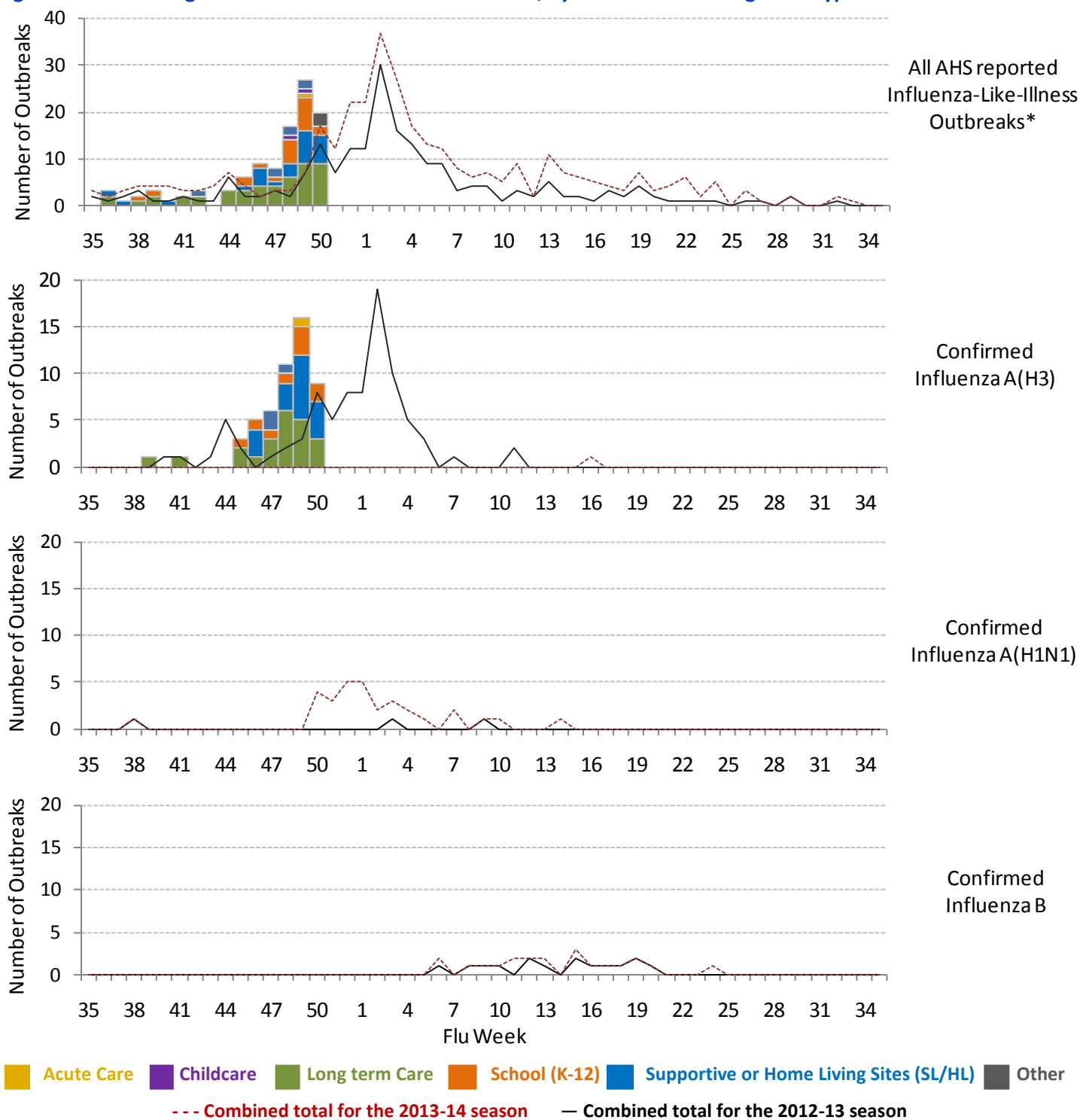


[Click here for ZONE figures - age specific rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

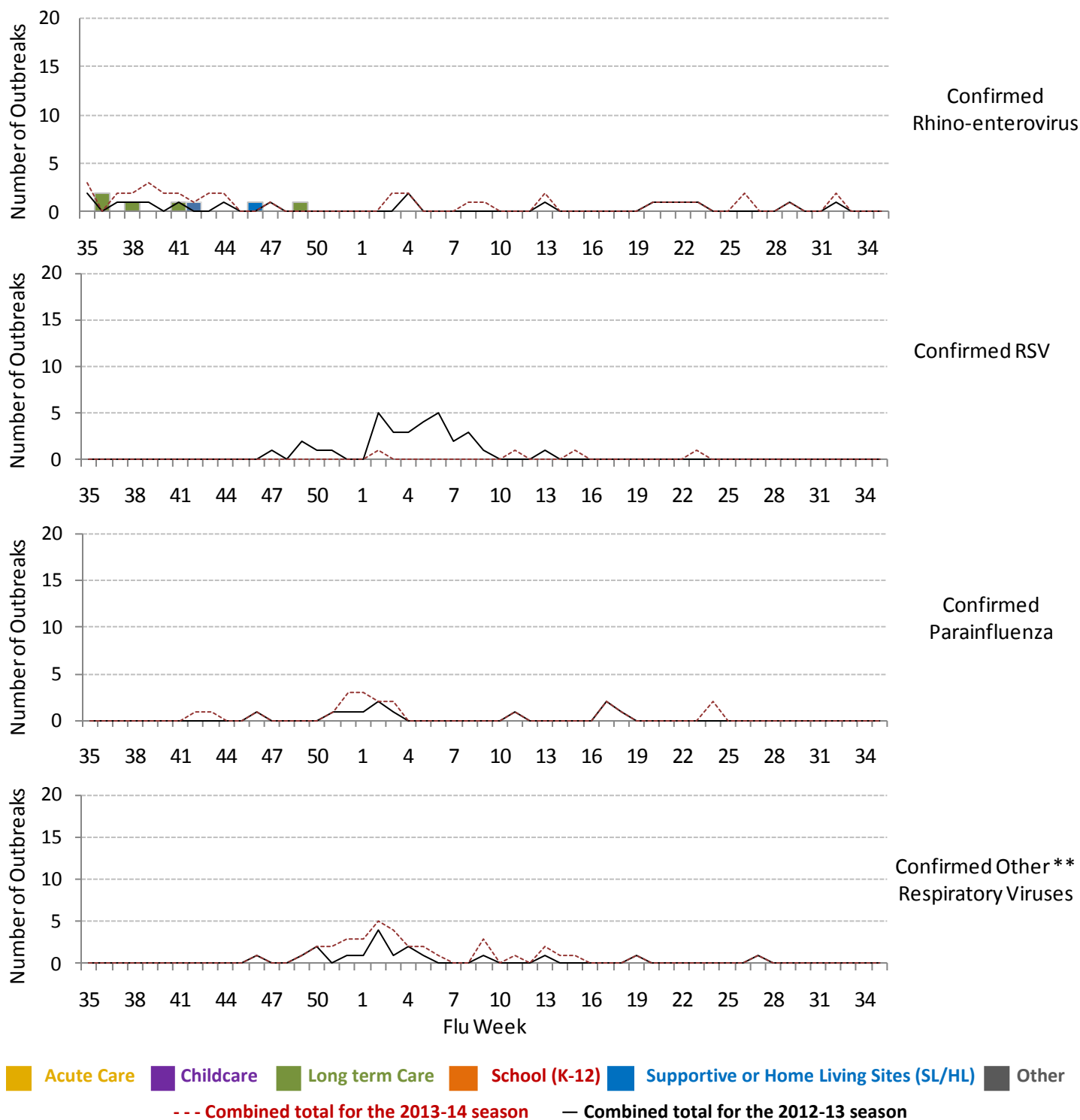
**Influenza-Like-Illness (ILI) Outbreak Investigations**

**Figure 5: AHS investigated ILI outbreaks in Alberta facilities, by onset week and organism type**



Source: CDRS data extracted on December 16, 2014 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#). Note: Some outbreaks may involve more than one pathogen.

**Figure 5 continued: AHS investigated ILI outbreaks in Alberta facility types, by onset week and organism type**



\*\* Other confirmed respiratory viruses include influenza A (unresolved type), adenovirus, coronavirus, and hMPV.

Source: CDRS data extracted on December 16, 2014 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#). Note: Some outbreaks may involve more than one pathogen.

**Table 2: New and cumulative AHS investigated ILI outbreaks, by onset date and by organism, Alberta and Zones**

ALBERTA													
Organism	Week 50 (07Dec2014 - 13DEC2014)						Cumulative (24Aug2014 - 13DEC2014)						
	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
Confirmed Flu A(H3)	3	4	2	-	-	-	22	17	9	1	-	3	52
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed RSV	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	5	1	-	-	-	1	7
Confirmed other** respiratory viruses	-	-	-	-	-	-	-	-	-	-	-	-	0
Initial report only (lab results pending)	6	1	-	-	-	3	10	1	3	-	-	6	20
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	10	5	8	-	2	-	25
<b>Total</b>	<b>9</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>47</b>	<b>24</b>	<b>20</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>104</b>
SOUTH													
Organism	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
Confirmed Flu A(H3)	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed RSV	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed other** respiratory viruses	-	-	-	-	-	-	-	-	-	-	-	-	0
Initial report only (lab results pending)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	-	2	3	-	-	-	5
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
CALGARY													
Organism	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
Confirmed Flu A(H3)	2	1	-	-	-	-	9	4	1	-	-	-	14
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed RSV	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	2	-	-	-	-	-	2
Confirmed other** respiratory viruses	-	-	-	-	-	-	-	-	-	-	-	-	0
Initial report only (lab results pending)	-	-	-	-	-	1	2	-	1	-	-	3	6
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	2	-	1	-	-	-	3
<b>Total</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>15</b>	<b>4</b>	<b>3</b>	<b>-</b>	<b>0</b>	<b>3</b>	<b>25</b>

\*\* Other confirmed respiratory viruses include influenza A (unresolved type), adenovirus, coronavirus, and hMPV.

Source: CDRS data extracted on December 16, 2014 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#). Note: Some outbreaks may involve more than one pathogen.

## Surveillance and Reporting Public Health Surveillance and Infrastructure

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**Table 2 continued: New and cumulative AHS investigated ILI outbreaks, by onset date and by organism, Alberta and Zones**

CENTRAL													
Organism	Week 50 (07Dec2014 - 13DEC2014)						Cumulative (24Aug2014 - 13DEC2014)						
	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
Confirmed Flu A(H3)	-	1	-	-	-	-	-	4	1	-	-	-	5
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed RSV	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed other** respiratory viruses	-	-	-	-	-	-	-	-	-	-	-	-	0
Initial report only (lab results pending)	3	1	-	-	-	-	3	1	1	-	-	-	5
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	2	-	-	-	-	-	2
<b>Total</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>
EDMONTON													
Organism	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
	Confirmed Flu A(H3)	1	1	-	-	-	-	11	7	2	1	-	2
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed RSV	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	3	1	-	-	-	1	5
Confirmed other** respiratory viruses	-	-	-	-	-	-	-	-	-	-	-	-	0
Initial report only (lab results pending)	2	-	-	-	-	2	2	-	1	-	-	3	6
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	6	3	4	-	2	-	15
<b>Total</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>22</b>	<b>11</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>49</b>
NORTH													
Organism	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
	Confirmed Flu A(H3)	-	1	2	-	-	.	2	2	5	-	-	1
Confirmed A(H1N1)pdm09	-	-	-	-	-	.	-	-	-	-	-	.	0
Confirmed Flu B	-	-	-	-	-	.	-	-	-	-	-	.	0
Confirmed RSV	-	-	-	-	-	.	-	-	-	-	-	.	0
Confirmed Parainfluenza	-	-	-	-	-	.	-	-	-	-	-	.	0
Confirmed Rhino-enterovirus	-	-	-	-	-	.	-	-	-	-	-	.	0
Confirmed other** respiratory viruses	-	-	-	-	-	.	-	-	-	-	-	.	0
Initial report only (lab results pending)	1	-	-	-	-	.	3	-	-	-	-	.	3
Unknown (none confirmed or no specimen available)	-	-	-	-	-	.	-	-	-	-	-	.	0
<b>Total</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>13</b>

\*\* Other confirmed respiratory viruses include influenza A (unresolved type), adenovirus, coronavirus, and hMPV.

Source: CDRS data extracted on December 9, 2014 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#). Note: Some outbreaks may involve more than one pathogen.

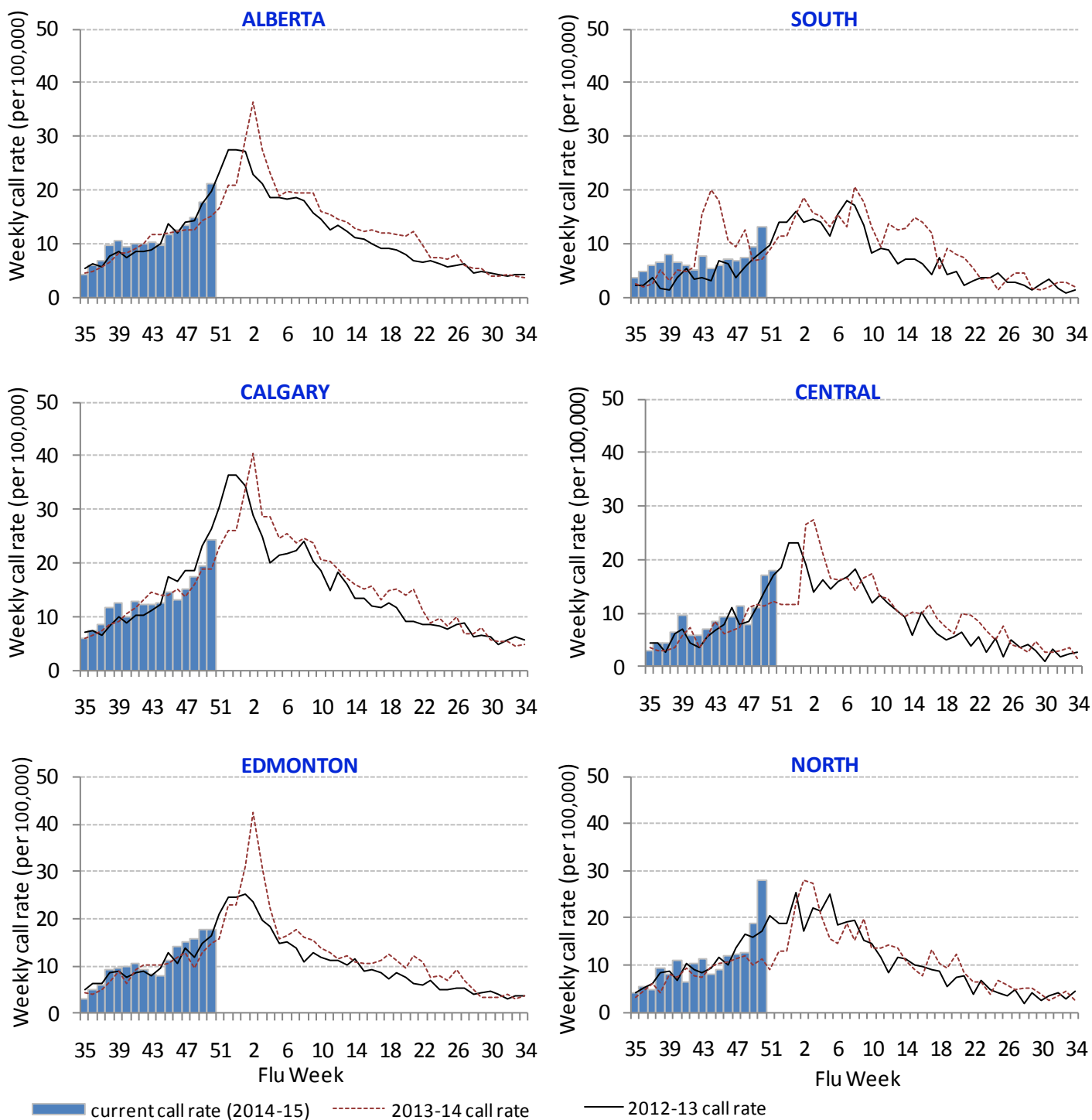
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**Calls to Health Link Alberta**

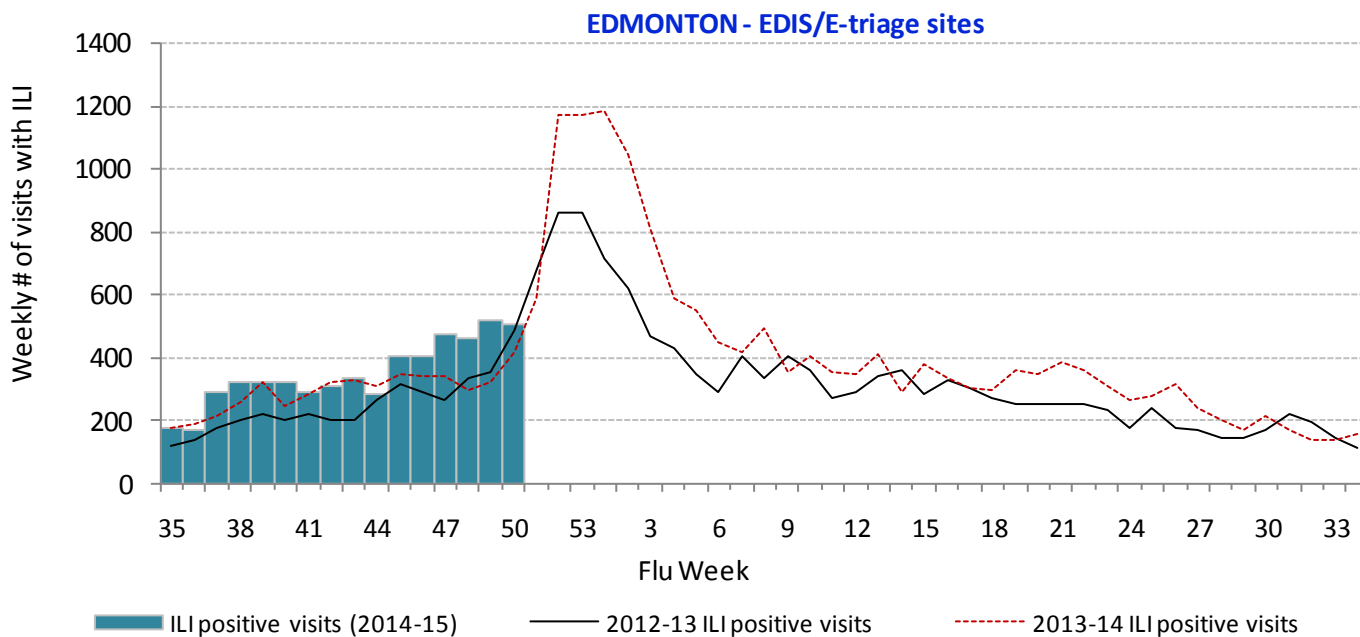
**Figure 6: Weekly call rate (per 100,000) for cough or influenza-like illness, Alberta and Zones**



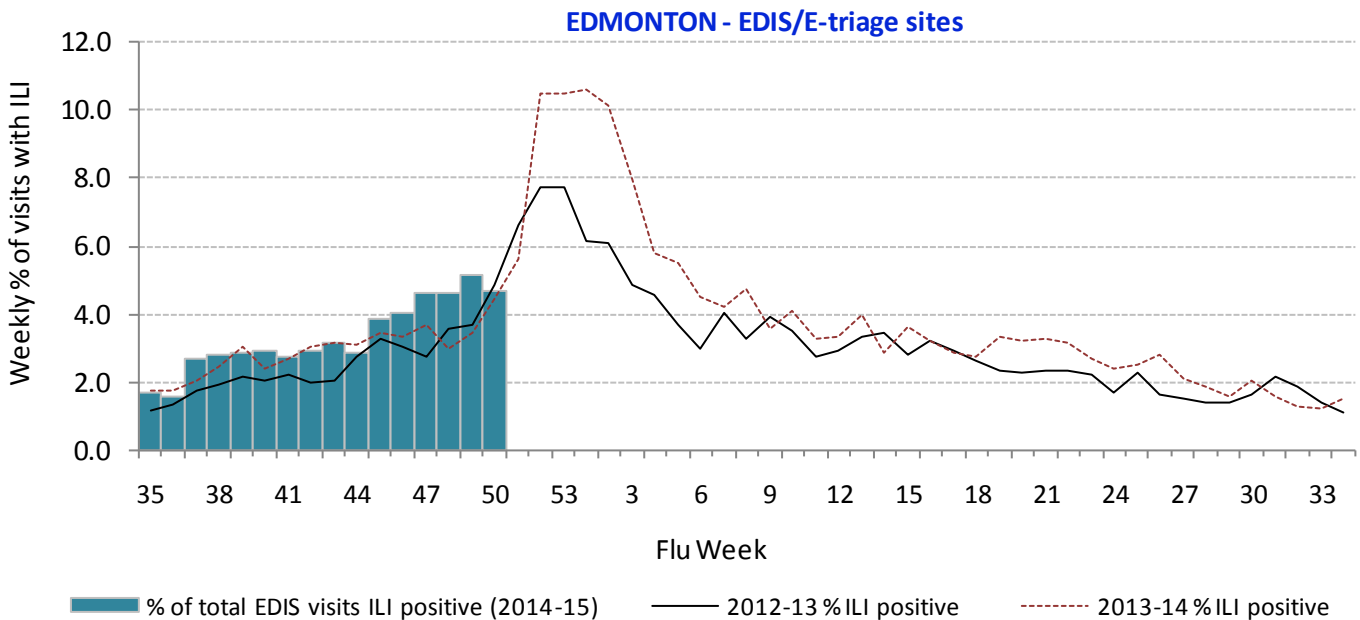
Source: Sharp Focus - Health Link Alberta calls, data extracted on December 16, 2014 via the Alberta Real Time Syndromic Surveillance Net (ARTSSN). For more information on data definitions and sources, see [Data Notes](#).

**Emergency Department Visits**

**Figure 7A: Weekly emergency department/urgent care centre (ED/UCC) visits with ILI during screening at triage, Edmonton zone (EDIS and E-triage sites)**

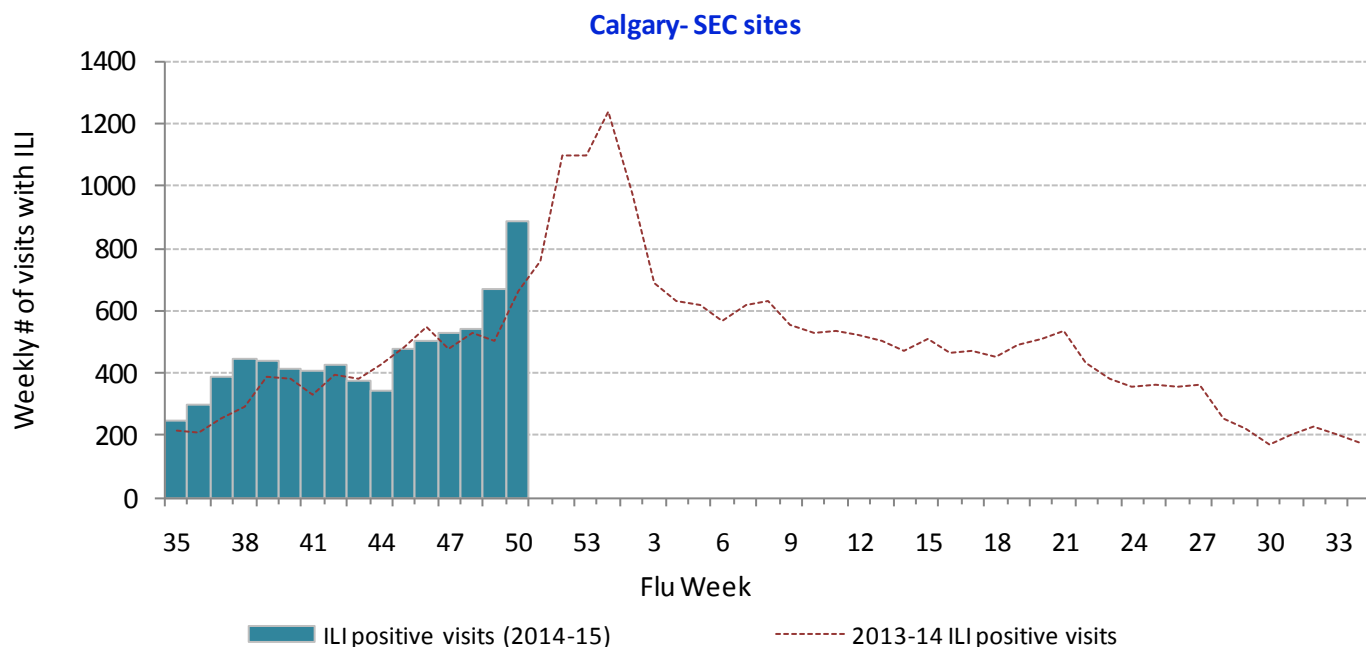


**Figure 7B: Weekly percentage of all ED/UCC visits with ILI during screening at triage, Edmonton zone (EDIS and E-triage sites)**

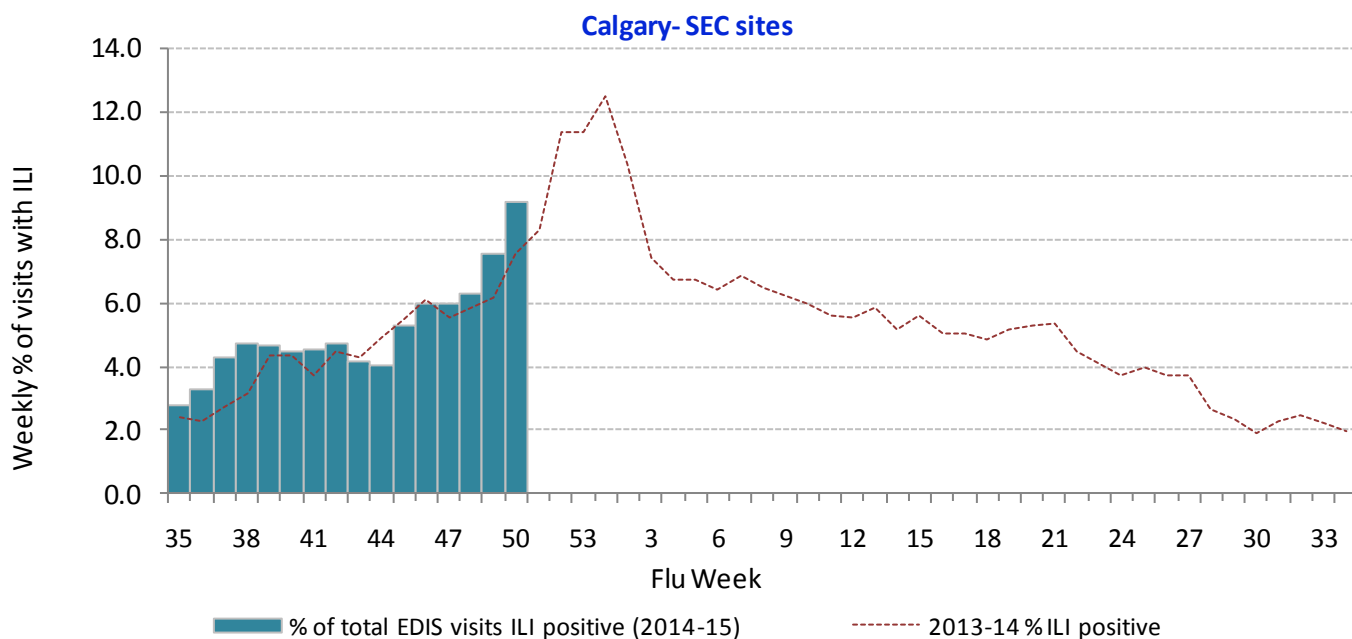


Source: EDIS and E-triage emergency department visits, data extracted on December 16, 2014 via the Alberta Real Time Syndromic Surveillance Net (ARTSSN). For more information on data definitions and sources, see [Data Notes](#).

**Figure 8A: Weekly ED/UCC visits with ILI during screening at triage, Calgary zone (SEC sites)**



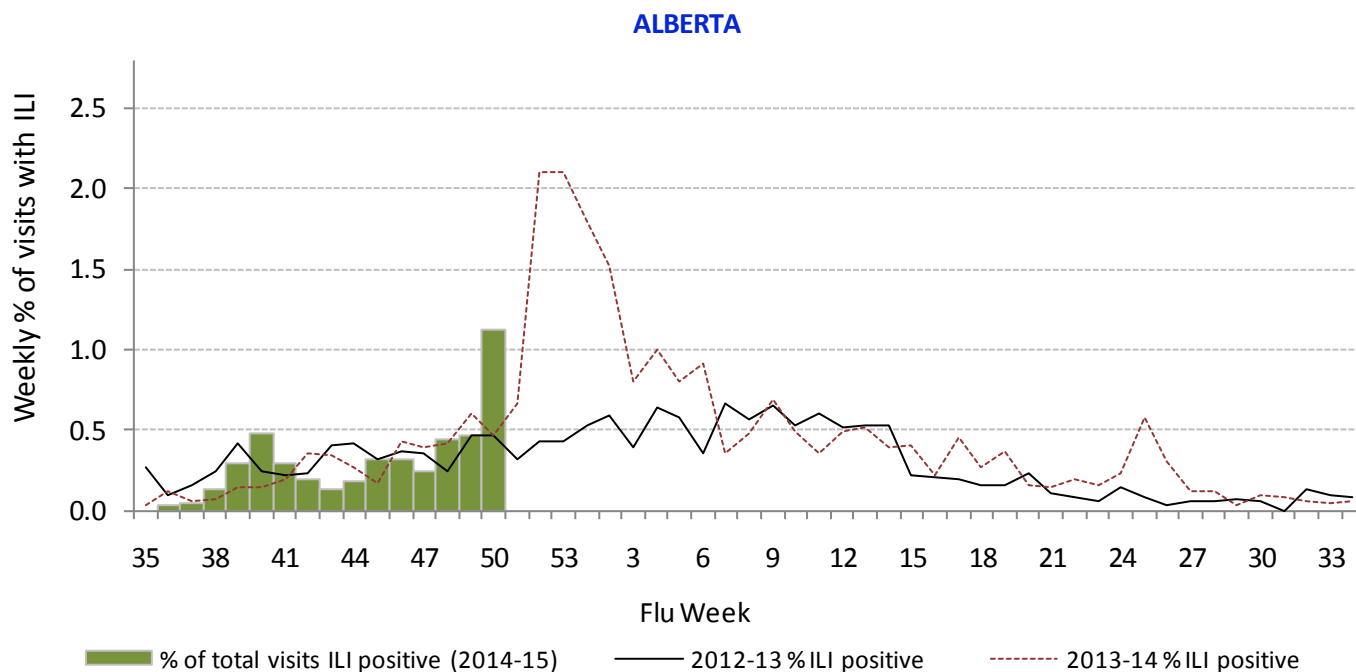
**Figure 8B: Weekly percentage of all ED/UCC visits with ILI during screening at triage, Calgary zone (SEC sites)**



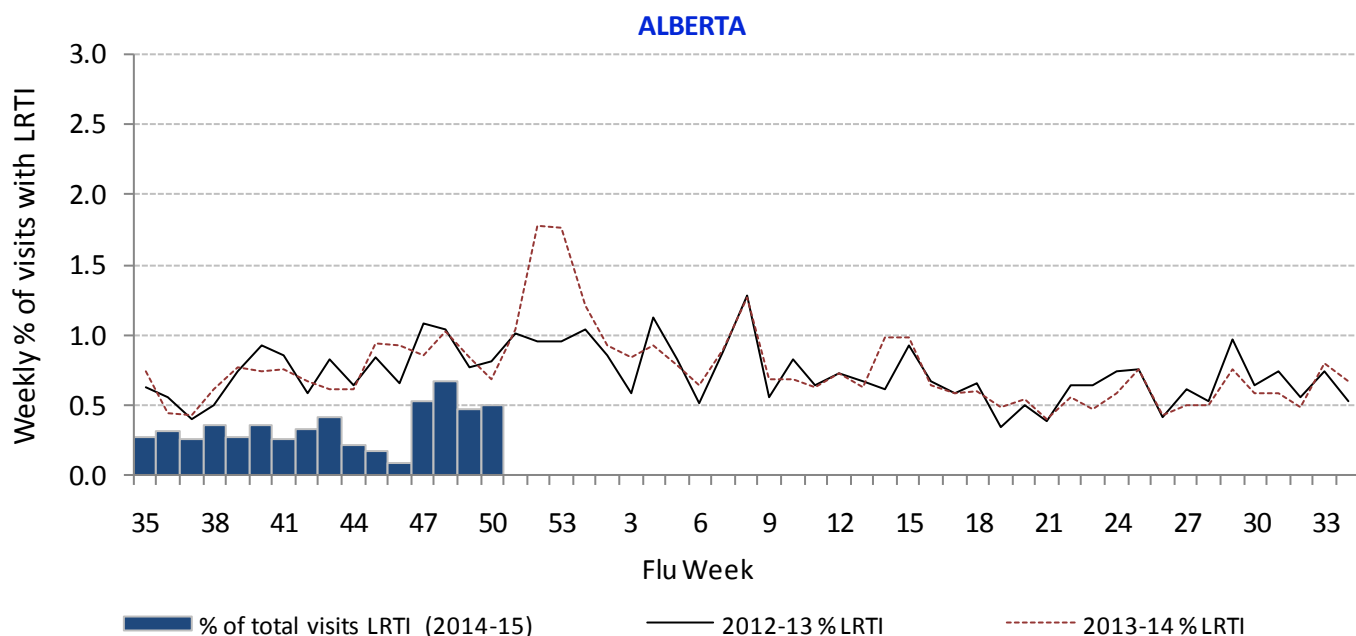
Source: SEC emergency department visits, data extracted on December 16, 2014 via the Alberta Real Time Syndromic Surveillance Net (ARTSSN). For more information on data definitions and sources, see [Data Notes](#).

**TARRANT Sentinel Physician Office Visits**

**Figure 9A: Alberta weekly sentinel physician patient visits (%) with ILI (Influenza Like Illness)**



**Figure 9B: Alberta weekly sentinel physician patient visits (%) with LRTI (Lower Respiratory Tract Infection)**



Source: Tarrant Viral Watch program – [www.tarrantviralwatch.ca](http://www.tarrantviralwatch.ca), data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

**Table 3: New AHS (Public Health) delivered influenza immunizations, by risk group for week 50**

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Health care workers AHS/Covenant		9	35	16	24	37	121
Health care workers Total		19	73	26	63	62	243
Pregnant women		8	34	22	23	20	107
65 years of age and over		32	131	21	86	63	333
All children 6 months up to and including 23 months*	Dose #1	82	511	104	344	129	1,170
	Dose #2	73	429	75	412	126	1,115
	Annual	36	146	52	101	39	374
All children 24 months up to and including 59 months*	Dose #1	20	72	22	62	31	207
	Dose #2	26	112	35	143	34	350
	Annual	61	272	69	243	92	737
High risk: 5 years up to and including 8 years*	Dose #1	0	5	2	2	2	11
	Dose #2	0	3	2	9	2	16
	Annual	3	23	7	25	19	77
High risk: 9 years up to and including 64 years		17	104	29	101	135	386
Healthy: 5 years up to and including 8 years*	Dose #1	10	27	15	32	71	155
	Dose #2	12	68	17	56	20	173
	Annual	56	240	53	206	323	878
Healthy: 9 years up to and including 64 years		221	824	232	982	931	3,190
<b>Total number of clients who have received Dose 1 of 2</b>		<b>112</b>	<b>615</b>	<b>143</b>	<b>440</b>	<b>233</b>	<b>1,543</b>
<b>Total number of clients who have received Dose 2 of 2</b>		<b>111</b>	<b>612</b>	<b>129</b>	<b>620</b>	<b>182</b>	<b>1,654</b>
<b>Total number of clients who have received an Annual Dose</b>		<b>453</b>	<b>1,847</b>	<b>511</b>	<b>1,830</b>	<b>1,684</b>	<b>6,325</b>
<b>Total Doses Administered</b>		<b>676</b>	<b>3,074</b>	<b>783</b>	<b>2,890</b>	<b>2,099</b>	<b>9,522</b>

Source: AHS Zones (doses do not include those delivered by community providers). For more information on data definitions and sources, see [Data Notes](#).

\*Children under 9 years of age who have not received at least one dose in past years require two doses, given at least 4 weeks apart.

**Table 4: Cumulative AHS (Public Health) delivered influenza immunizations, by risk group (to December 13, 2014)**

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Health care workers AHS/Covenant		714	2,190	1,387	2,658	5,195	12,144
Health care workers Total		2,389	5,802	2,790	6,705	6,815	24,501
Pregnant women		218	1,337	501	1,223	441	3,720
65 years of age and over		9,233	23,572	13,081	33,887	13,910	93,683
All children 6 months up to and including 23 months*	Dose #1	1,195	7,968	1,643	6,036	1,859	18,701
	Dose #2	379	1,544	529	2,018	548	5,018
	Annual	718	4,347	892	3,471	1,038	10,466
All children 24 months up to and including 59 months*	Dose #1	336	2,394	506	1,874	631	5,741
	Dose #2	128	381	135	538	157	1,339
	Annual	2,329	12,781	2,732	10,724	3,182	31,748
High risk: 5 years up to and including 8 years*	Dose #1	20	180	42	111	50	403
	Dose #2	2	13	6	21	8	50
	Annual	268	1,451	363	1,545	575	4,202
High risk: 9 years up to and including 64 years		1,697	9,923	2,851	9,286	5,038	28,795
Healthy: 5 years up to and including 8 years*	Dose #1	222	2,149	272	819	615	4,077
	Dose #2	73	171	56	216	58	574
	Annual	2,413	13,656	2,918	11,845	4,399	35,231
Healthy: 9 years up to and including 64 years		11,225	63,358	15,251	64,745	26,366	180,945
<b>Total number of clients who have received Dose 1 of 2</b>		<b>1,773</b>	<b>12,691</b>	<b>2,463</b>	<b>8,840</b>	<b>3,155</b>	<b>28,922</b>
<b>Total number of clients who have received Dose 2 of 2</b>		<b>582</b>	<b>2,109</b>	<b>726</b>	<b>2,793</b>	<b>771</b>	<b>6,981</b>
<b>Total number of clients who have received an Annual Dose</b>		<b>30,490</b>	<b>136,227</b>	<b>41,379</b>	<b>143,431</b>	<b>61,764</b>	<b>413,291</b>
<b>Total Doses Administered</b>		<b>32,845</b>	<b>151,027</b>	<b>44,568</b>	<b>155,064</b>	<b>65,690</b>	<b>449,194</b>

Source: AHS Zones (doses do not include those delivered by community providers). For more information on data definitions and sources, see [Data Notes](#).

\*Children under 9 years of age who have not received at least one dose in past years require two doses, given at least 4 weeks apart.

**Table 5: Community provider\* delivered influenza immunizations by risk group (excluding FNIHB\*\*) - September 1 to December 13, 2014 \*\*\***

Priority Group		South	Calgary	Central	Edmonton	North	Unassigned Zone	Alberta
Health care workers AHS/Covenant		3,981	19,417	3,616	21,730	438	0	49,182
Health care workers Total		6,039	30,989	7,089	28,581	608	0	73,306
Pregnant women		620	1,930	74	477	53	0	3,154
65 years of age and over		3,181	24,270	3,107	16,177	324	0	47,059
All children 6 months up to and including 23 months	Dose #1	2	310	0	140	0	0	452
	Dose #2	0	43	0	20	0	0	63
	Annual	6	683	1	245	1	0	936
All children 24 months up to and including 59 months	Dose #1	6	179	0	61	2	0	248
	Dose #2	0	25	0	6	0	0	31
	Annual	19	910	1	521	37	0	1,488
High risk: 5 years up to and including 8 years	Dose #1	1	63	0	11	0	0	75
	Dose #2	0	2	0	2	0	0	4
	Annual	14	345	2	153	1	0	515
High risk: 9 years up to and including 64 years		1,304	10,936	507	7,394	268	0	20,409
Healthy: 5 years up to and including 8 years	Dose #1	0	271	0	27	1	0	299
	Dose #2	0	25	0	1	0	0	26
	Annual	66	1,914	1	715	3	0	2,699
Healthy: 9 years up to and including 64 years		5,023	43,897	1,915	22,823	4,659	0	78,317
<b>Total number of clients who have received Dose 1 of 2</b>		<b>9</b>	<b>823</b>	<b>0</b>	<b>239</b>	<b>3</b>	<b>0</b>	<b>1,074</b>
<b>Total number of clients who have received Dose 2 of 2</b>		<b>0</b>	<b>95</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>124</b>
<b>Total number of clients who have received an Annual Dose</b>		<b>16,272</b>	<b>115,874</b>	<b>12,697</b>	<b>77,086</b>	<b>5,954</b>	<b>0</b>	<b>227,883</b>
<b>Physician administered Doses (Physician's claims)****</b>		<b>99</b>	<b>1,304</b>	<b>100</b>	<b>674</b>	<b>41</b>	<b>1</b>	<b>2,219</b>
<b>Total Doses Administered</b>		<b>16,380</b>	<b>118,096</b>	<b>12,797</b>	<b>78,028</b>	<b>5,998</b>	<b>1</b>	<b>231,300</b>

\*Includes physicians, AHS non-public health and non-AHS community providers.

\*\* FNIHB = First Nation Inuit Health Branch.

\*\*\* Includes data from Public Health zones from Sep 1 to Nov 30 and data from Alberta Health Physician's claims files from Nov 30-Dec 13, 2014.

\*\*\*\* Data from Alberta Health Physician's claims files for weeks 49 (Nov 30 to Dec 6) and 50 (Dec 7 to 13)

**Table 6: Cumulative influenza immunizations delivered by AHS public health (September 29 to December 13, 2014) + community providers\* (September 1 to December 13, 2014) \*\* by risk group**

Priority Group		South	Calgary	Central	Edmonton	North	Unassigned Zone	Alberta
Health care workers AHS/Covenant		4,695	21,607	5,003	24,388	5,633	0	61,326
Health care workers Total		8,428	36,791	9,879	35,286	7,423	0	97,807
Pregnant women		838	3,267	575	1,700	494	0	6,874
65 years of age and over		12,414	47,842	16,188	50,064	14,234	0	140,742
All children 6 months up to and including 23 months*	Dose #1	1,197	8,278	1,643	6,176	1,859	0	19,153
	Dose #2	379	1,587	529	2,038	548	0	5,081
	Annual	724	5,030	893	3,716	1,039	0	11,402
All children 24 months up to and including 59 months*	Dose #1	342	2,573	506	1,935	633	0	5,989
	Dose #2	128	406	135	544	157	0	1,370
	Annual	2,348	13,691	2,733	11,245	3,219	0	33,236
High risk: 5 years up to and including 8 years*	Dose #1	21	243	42	122	50	0	478
	Dose #2	2	15	6	23	8	0	54
	Annual	282	1,796	365	1,698	576	0	4,717
High risk: 9 years up to and including 64 years		3,001	20,859	3,358	16,680	5,306	0	49,204
Healthy: 5 years up to and including 8 years*	Dose #1	222	2,420	272	846	616	0	4,376
	Dose #2	73	196	56	217	58	0	600
	Annual	2,479	15,570	2,919	12,560	4,402	0	37,930
Healthy: 9 years up to and including 64 years		16,248	107,255	17,166	87,568	31,025	0	259,262
<b>Total number of clients who have received Dose 1 of 2</b>		<b>1,782</b>	<b>13,514</b>	<b>2,463</b>	<b>9,079</b>	<b>3,158</b>	<b>0</b>	<b>29,996</b>
<b>Total number of clients who have received Dose 2 of 2</b>		<b>582</b>	<b>2,204</b>	<b>726</b>	<b>2,822</b>	<b>771</b>	<b>0</b>	<b>7,105</b>
<b>Total number of clients who have received an Annual Dose</b>		<b>46,762</b>	<b>252,101</b>	<b>54,076</b>	<b>220,517</b>	<b>67,718</b>	<b>0</b>	<b>641,174</b>
<b>Physician administered Doses (Physician's claims)***</b>		<b>99</b>	<b>1,304</b>	<b>100</b>	<b>674</b>	<b>41</b>	<b>1</b>	<b>2,219</b>
<b>Total Doses Administered</b>		<b>49,225</b>	<b>269,123</b>	<b>57,365</b>	<b>233,092</b>	<b>71,688</b>	<b>1</b>	<b>680,494</b>

\*Includes physicians, AHS non-public health and non-AHS community providers.

\*\* Includes data from Public Health zones from Sep 1 to Nov 30 and data from Alberta Health Physician's claims files from Nov 30-Dec 13, 2014.

\*\*\* Data from Alberta Health Physician's claims files for weeks 49 (Nov 30 to Dec 6) and 50 (Dec 7 to 13)



**Table 7: Influenza immunization doses as of December 6, 2014 administered by zone and provider type**

Provider Type	South	Calgary	Central	Edmonton	North	Unassigned Zone	Alberta
Public Health	32,845	151,027	44,568	155,064	65,690	0	449,194
Pharmacist <sup>1</sup>	38,284	198,400	49,464	149,906	28,256	0	464,310
Physician <sup>2</sup>	6,984	64,465	3,507	33,774	376	0	109,106
Physician <sup>3</sup>	99	1,304	100	674	41	1	2,219
AHS non-Public Health <sup>2</sup>	4,609	24,732	6,874	20,152	764	0	57,131
Other non-AHS <sup>2</sup>	4,688	27,595	2,316	23,428	4,817	0	62,844
<b>Total Doses Administered</b>	<b>87,509</b>	<b>467,523</b>	<b>106,829</b>	<b>382,998</b>	<b>99,944</b>	<b>1</b>	<b>1,144,804</b>

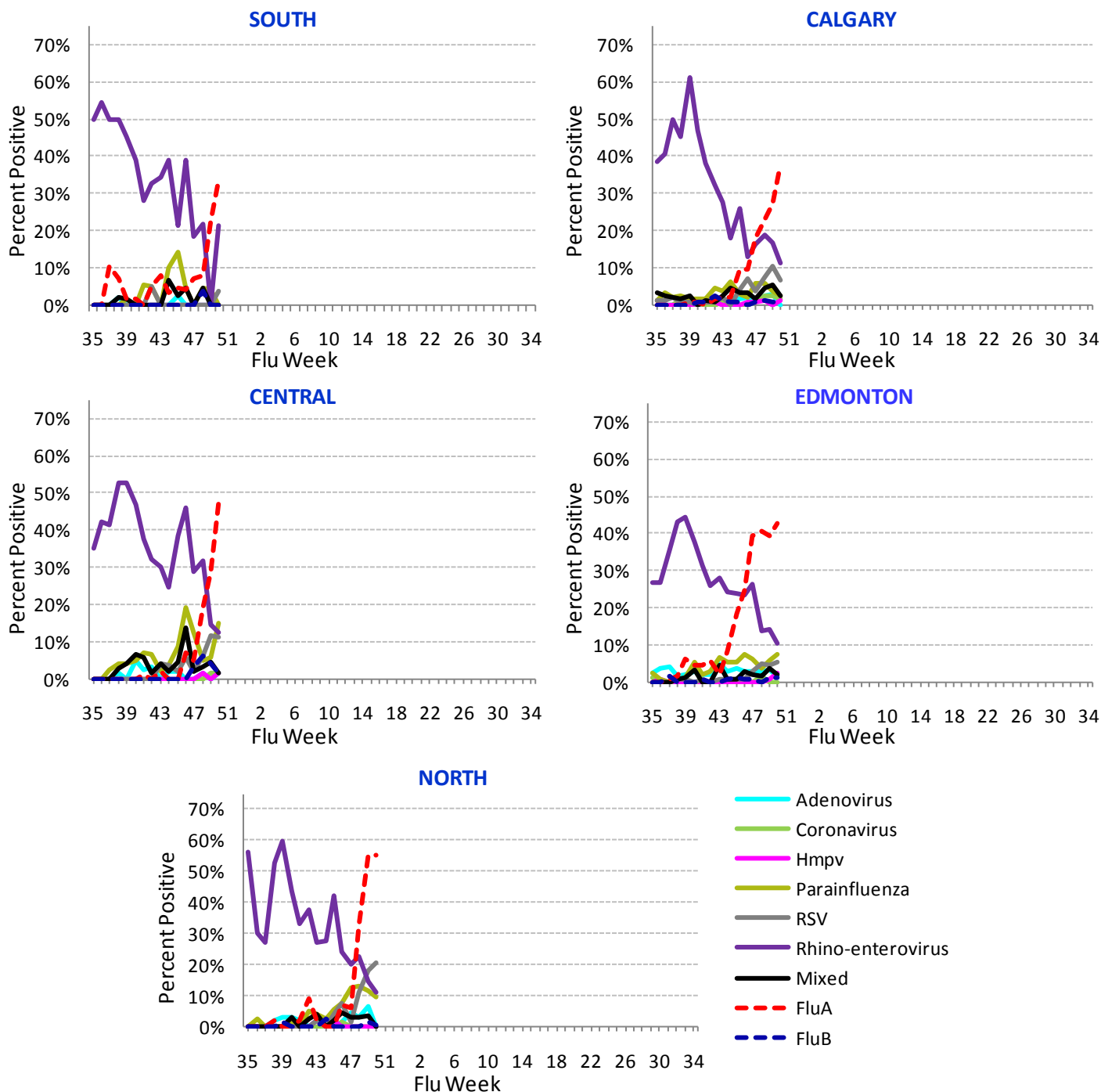
<sup>1</sup> Data provided by Alberta Health, for doses administered up to December 13, 2014.

<sup>2</sup> Data from Public Health zones for doses administered up to Nov 30, 2014.

<sup>3</sup> Data from Alberta Health Physician's claims files for week 49 (Nov 30- Dec 6) and week 50 (Dec 7- Dec 13).

**Appendix**

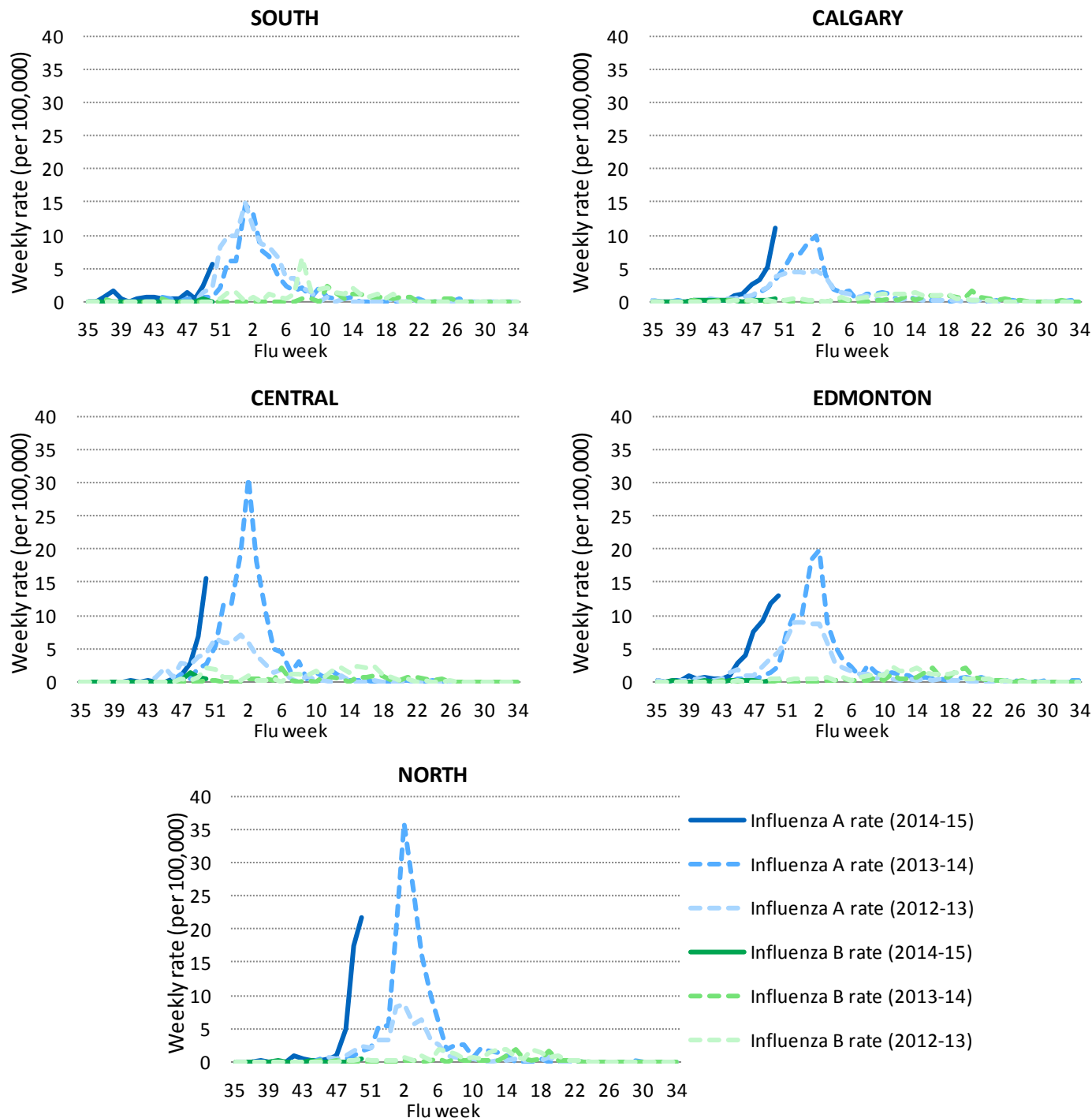
**Zones figure 1: Weekly respiratory specimen percent positivity, by virus type and zone**



[Click here to return to Alberta figure - respiratory virus specimen percent positivity](#)

Source: DIAL – Provincial Laboratory specimens, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).  
“Percent positive” is the number of positive specimens for that virus as a percent of the total number of specimens tested for respiratory viruses.

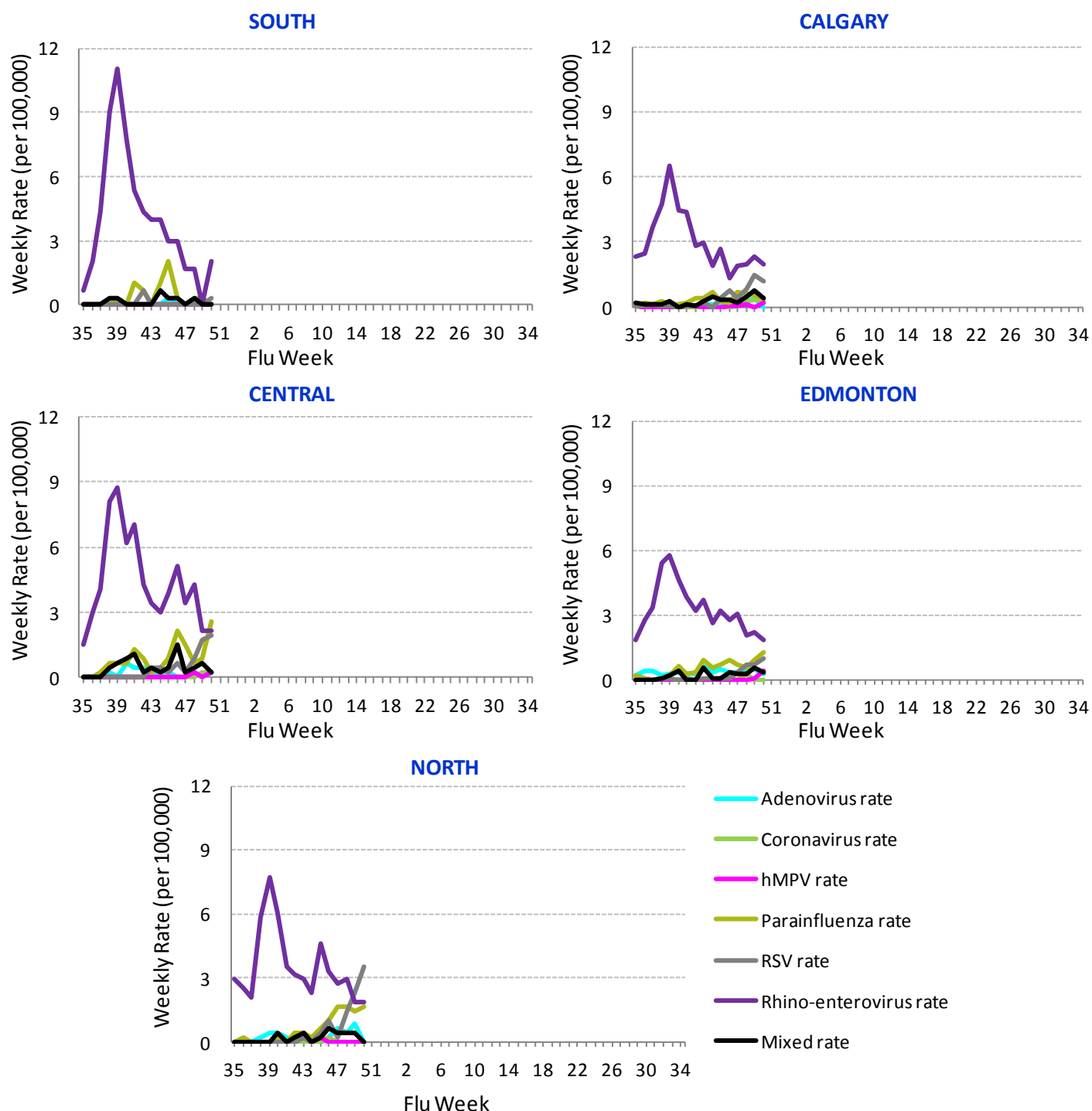
**Zones figure 2: Weekly rates (per 100,000) of lab confirmed influenza, by subtype and Zone**



[Click here to return to Alberta figure – rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

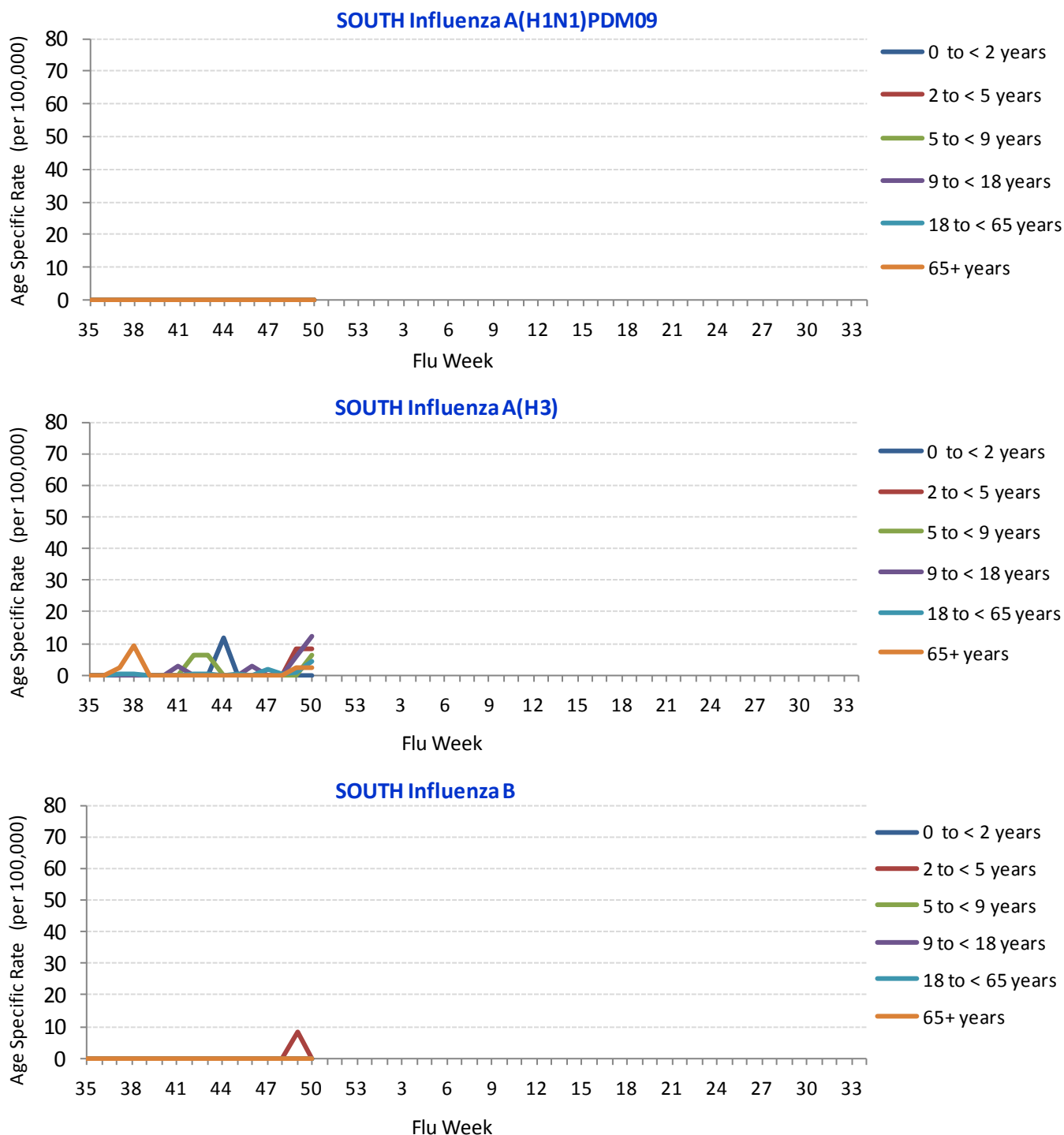
**Zones figure 3: Weekly rates (per 100,000) of lab confirmed respiratory viruses (excluding influenza), by virus type and Zone**



[Click here to return to Alberta figure - rates of lab confirmed respiratory viruses](#)

Source: DIAL – Provincial Laboratory specimens, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

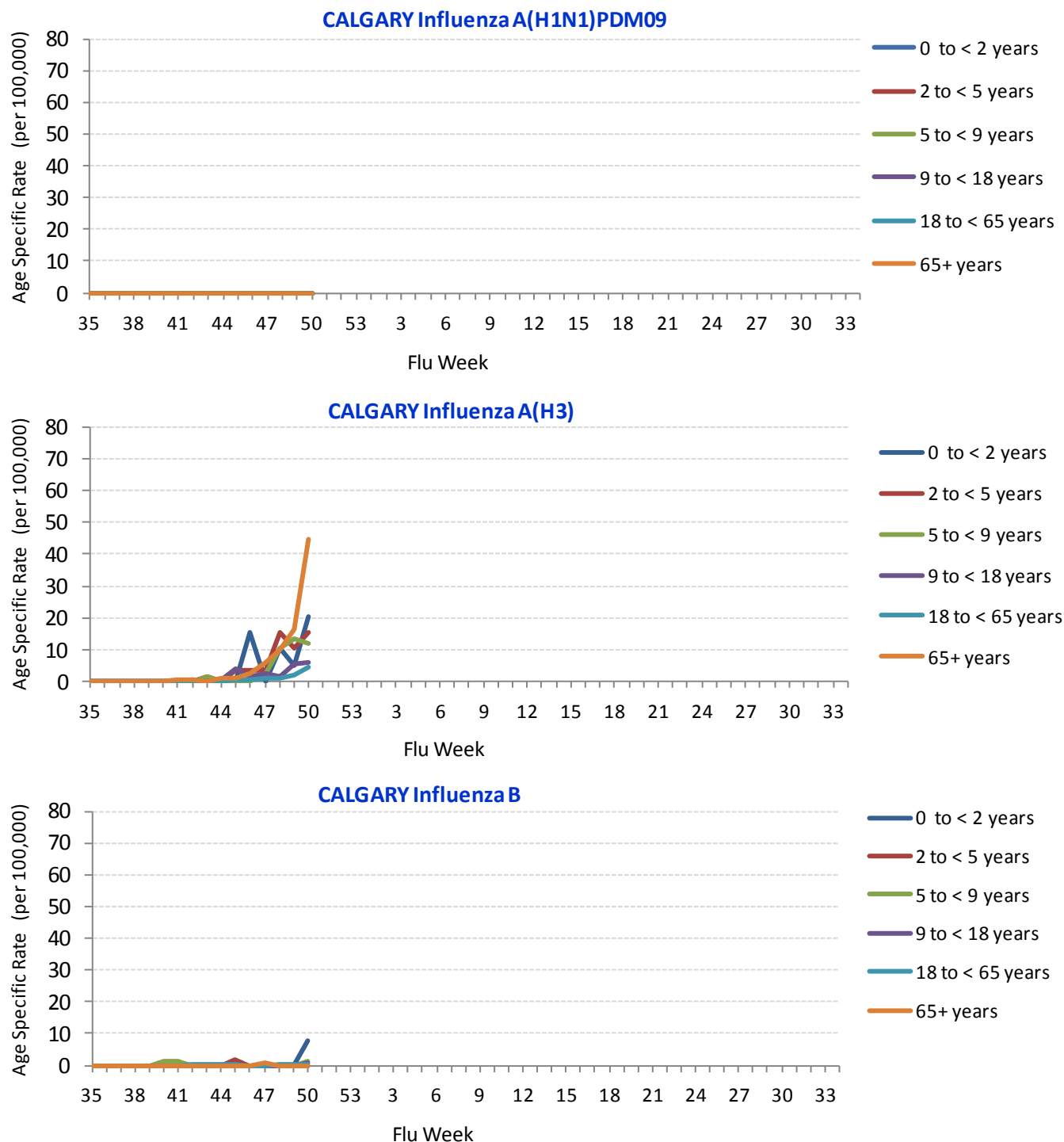
**Zones figure 4: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype, South zone**



[Click here to return to Alberta figure - age specific rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

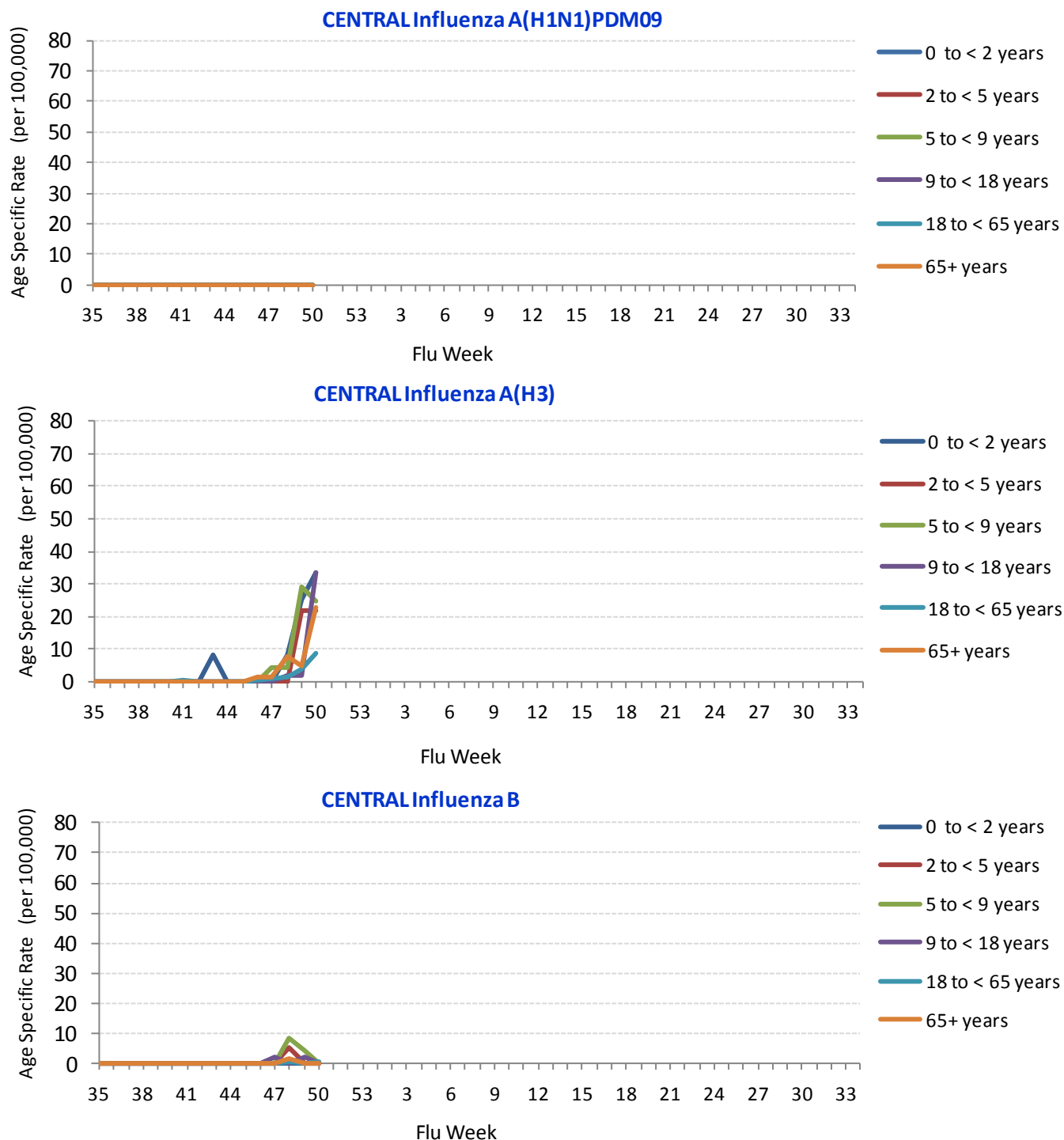
Zones figure 4 continued: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype, Calgary zone



[Click here to return to Alberta figure - age specific rates of lab confirmed influenza](#)

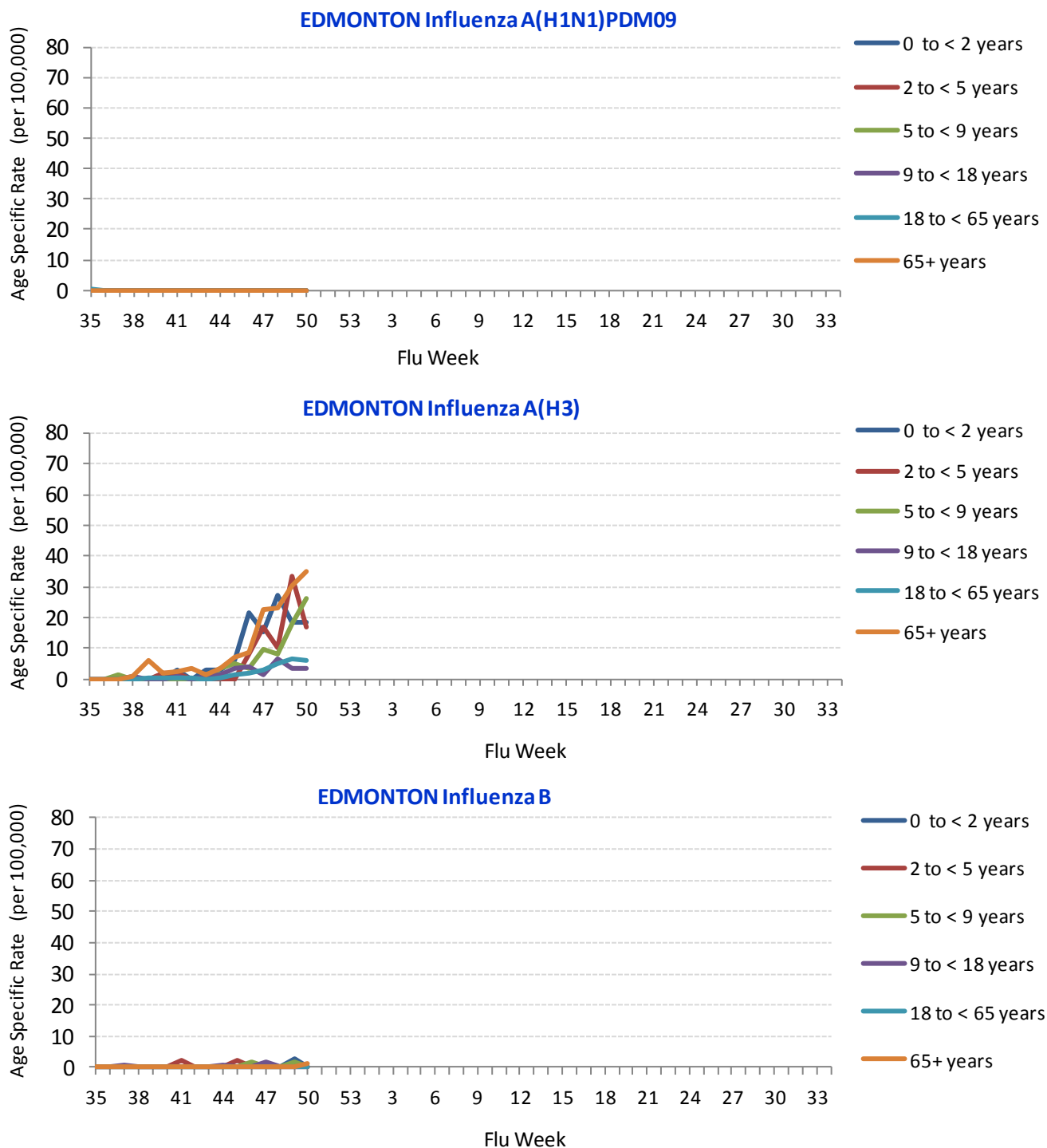
Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

**Zones figure 4: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype, Central zone**



[Click here to return to Alberta figure - age specific rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

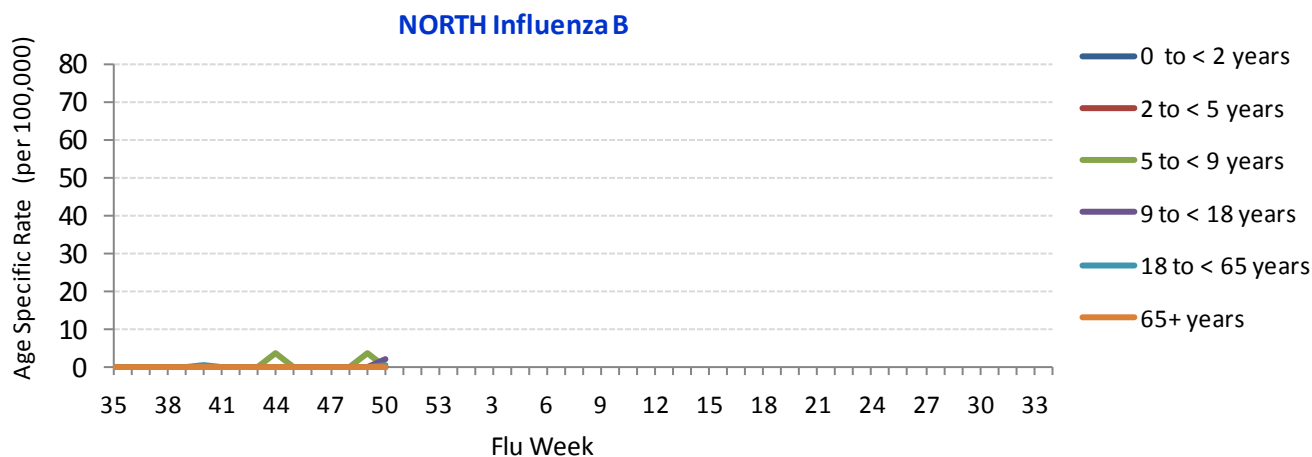
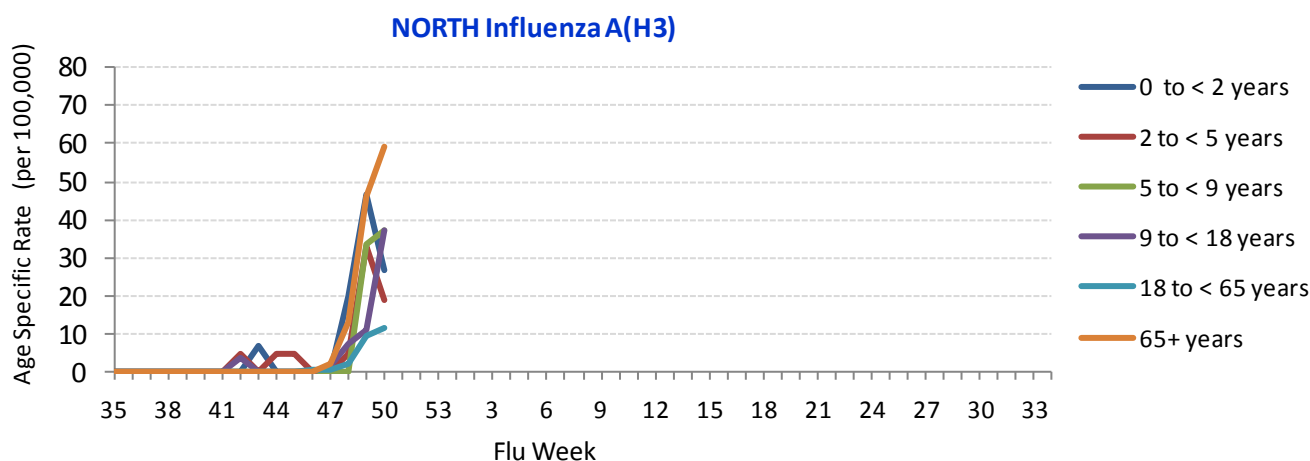
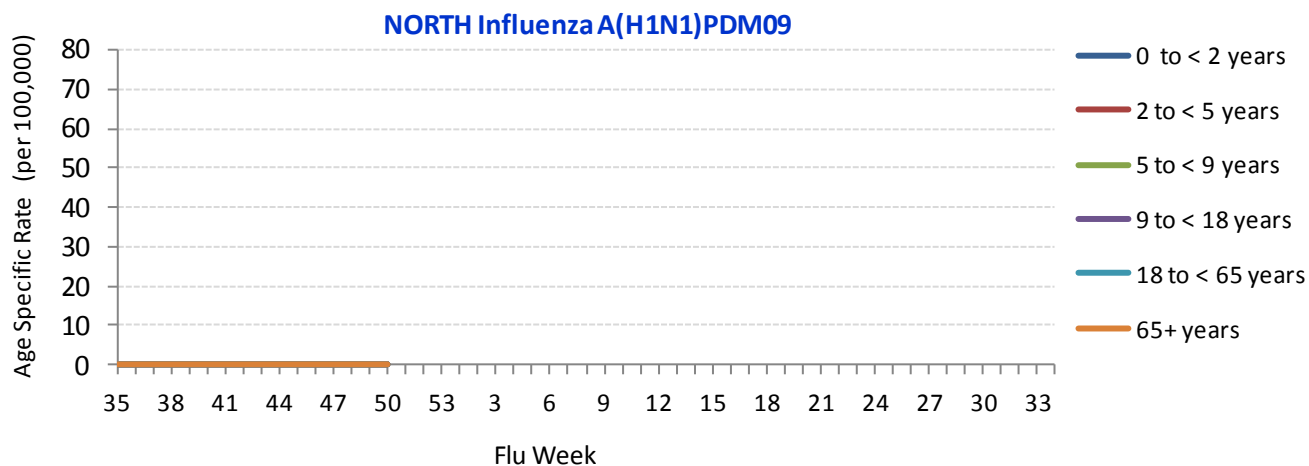
**Zones figure 4: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype and Zone**


[Click here to return to Alberta figure - age specific rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).



**Zones figure 4: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype and Zone**



[Click here to return to Alberta figure - age specific rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on December 16, 2014. For more information on data definitions and sources, see [Data Notes](#).

## Data Notes

### LABORATORY DATA

Laboratory confirmed (non-influenza) respiratory virus activity is based on the Alberta Provincial Public Health Laboratory's DIAL system (Data Integration for Alberta Laboratories) – a specimen based system. Data are based on specimens obtained from residents of Alberta according to the date the sample was received at the Provincial laboratory. Respiratory samples submitted for testing at the Alberta Provincial Laboratory are first tested for influenza A & B. Those with a negative influenza result are then tested using the respiratory virus panel (RVP) which tests for the presence of non-influenza respiratory viruses. Samples from physicians participating in the Tarrant program and patients admitted to intensive or critical care units are tested for both non-influenza and influenza viruses. Definition for “mixed” – a single sample where multiple (non-influenza) viral organisms were isolated.

Laboratory confirmed influenza activity is based on influenza cases entered into CDRS. Data are based on Alberta residents according to the lab report date. Where this date is missing, the date from the NDR or SRI (onset date or case investigation opened date) form is used if available.

### ILI OUTBREAK INVESTIGATIONS

Upon notification of an outbreak, the Alberta Health (AH)/Alberta Health Services (AHS) Outbreak Reporting Form (AORF) is completed by a communicable disease nurse, sent to AH and entered into the CDRS database. Outbreaks reported by First Nations and Inuit Health Branch (FNIHB) to AH are not included in this report. The AORF form includes information about the type and location of the outbreak, the facility, and the causative organism. Note that zone specific outbreaks are those reported by that zone, however specific cases may reside or have been exposed and/or infected outside of that zone. Not all outbreaks result in an organism being confirmed and for those that are confirmed, there may be a delay between reporting and identification of the organism; outbreaks are classified by the organism listed as the ILI Organism Confirmed on the AORF. This report does not include outbreaks suspected or confirmed to be caused by bacteria (i.e. pertussis, invasive pneumococcal disease) or viruses causing rash-like illness such as measles, rubella (German measles) or chickenpox. In this report, outbreaks are reported according to the onset date of the first case; where onset date is not available, the date the investigation is opened is used. The AHS Surveillance and Reporting team obtains the data via CDRS which is housed and maintained by AH.

### CALLS TO HEALTH LINK ALBERTA

Health Link Alberta is a 24 hour a day, 7 day a week nurse-operated service that provides the public with advice and information about health symptoms and concerns. The original data source for calls to Health Link Alberta for cough is the Health Link database called Sharp Focus (obtained via the *Alberta Real Time Syndromic Surveillance Net - ARTSSN*). Note that one individual may place multiple calls.

The Health Link protocols selected for inclusion in this report are as follows: cough/hoarseness/stridor (PED), cough/hoarseness (ADULT), influenza-like illness (a temporary protocol used when surges of influenza occur above normal) and zzzinfluenza-like illness (for historical data only).

Of note, the jump in the South zone call rate in week 43 of the historical data (2013-14) was likely related to a measles outbreak that began around the same time.

### EMERGENCY DEPARTMENT VISITS

Information on Edmonton zone emergency department/urgent care centre visits with ILI screenings at triage are provided by the ARTSSN data repository for facilities using; Emergency Department Information System (EDIS), Electronic triage (E-triage) and Sunrise Emergency Care (SEC) systems. When patients present at emergency departments, they are screened for ILI by the triage nurse. This screening tool is not mandatory for EDIS or E-triage. Compliance for EDIS and SEC sites tends to be consistently high. The e-triage reporting historically has had low compliance but has been improving and represents a relatively small portion of the total emergency department visits for Edmonton facilities.

## Surveillance and Reporting Public Health Surveillance and Infrastructure

If you have questions about the Alberta Respiratory Virus Surveillance Report, or any of the indicators, please contact:  
[AHS.PublicHealthSurveillance@albertahealthservices.ca](mailto:AHS.PublicHealthSurveillance@albertahealthservices.ca)

New facilities are constantly being opened or added to the system as such the facilities included do not all have the same start date for their historical data. For this reason two historical years are included for the EDIS/E-triage figures whereas only one historical year is included for the SEC data. Of note, within the EDIS/E-triage data three facilities do not have the complete 2 year historical and only contribute partially to the historical data. These facilities are Fort Saskatchewan Health Centre, Strathcona Hospital and East Edmonton Health Centre, their data start dates are January 2013, May 2014 and November 2012 respectively.

#### **SENTINEL PHYSICIAN OFFICE VISITS (TARRANT)**

*Tarrant Viral Watch* is an Alberta Health funded program intended to monitor ILI (Influenza-like Illness) and LRTI (Lower Respiratory Tract Infections) in the community. Volunteer sentinel physician offices provide data to the Tarrant program, which in turn provide them to AHS Surveillance and Reporting on a weekly basis. ILI is defined as a respiratory illness with acute onset, fever, and cough, and with 1 or more of sore throat, arthralgia, myalgia or prostration-which may be due to influenza virus (presentation may vary in pediatric and elderly populations). LRTI is defined as any acute infection with significant involvement of the respiratory tract below the larynx, as identified by history, physical signs and/or radiological findings. If a patient has ILI with lower tract involvement, they are coded as LRTI. Note that the definition of ILI may vary from other definitions.

#### **INFLUENZA IMMUNIZATIONS**

Influenza immunization data are reported by AHS zones. Numbers are available to the AHS Public Health Surveillance team at the beginning of the week for the doses administered the previous week (Sunday to Saturday). It includes those doses administered by AHS (Public Health) only. Clients can only exist in one priority group. Immunization coverage rates will be reported at the end of the influenza season.

#### **POPULATION NUMBERS**

Population data values used to calculate rates were estimated by AHS Patient Based Funding reflecting the March 31 populations for each year represented. Historical population values prior to 2012 are interpolations of actual population values (that is, annual values prior to March 31, 2012) from the Alberta Health Care Insurance Plan (AHCIP) Registration File. Forecast values (that is, for points in time after March 31, 2012) are estimated using the March 31, 2012 AHCIP Registration. The annual historical population files provided by Alberta Health (AH) include individuals registered under the Alberta Health Care Insurance Plan for only part of that fiscal year, but not as of March 31. AH marks these records (i.e., about 97,000, or 2.8% in 2006/07, representing residents that have died, moved, opted out, and so forth) as "inactive" and we exclude them. Individuals in the Alberta Health Care Insurance Plan aged 121 years or older have their date of birth (DOB) checked against additional sources and are "corrected", if possible; otherwise they are removed from the database. Finally, an extremely small volume of individuals with a missing or obviously invalid postal code, date of birth, or gender (e.g., about 600, or 0.02% in 2006/07) have been excluded.

Slight differences between values provided at this level of aggregation and data provided at other levels of aggregation may occur because of round-off error. 2013 populations are still considered projections.

#### **2014-15 NORTHERN HEMISPHERE INFLUENZA SEASON VACCINE COMPOSITION RECOMMENDATIONS**

It is recommended that trivalent vaccines for use in the 2014-2015 influenza season (northern hemisphere winter) contain the following:

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

It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and a B/Brisbane/60/2008-like virus.

**FLU WEEKS**

Flu weeks are the same as those defined by the Public Health Agency of Canada's (PHAC) FluWatch:

Week	Start	End
35	Aug 24, 2014	Aug 30, 2014
36	Aug 31, 2014	Sep 6, 2014
37	Sep 7, 2014	Sep 13, 2014
38	Sep 14, 2014	Sep 20, 2014
39	Sep 21, 2014	Sep 27, 2014
40	Sep 28, 2014	Oct 4, 2014
41	Oct 5, 2014	Oct 11, 2014
42	Oct 12, 2014	Oct 18, 2014
43	Oct 19, 2014	Oct 25, 2014
44	Oct 26, 2014	Nov 1, 2014
45	Nov 2, 2014	Nov 8, 2014
46	Nov 9, 2014	Nov 15, 2014
47	Nov 16, 2014	Nov 22, 2014
48	Nov 23, 2014	Nov 29, 2014
49	Nov 30, 2014	Dec 6, 2014
50	Dec 7, 2014	Dec 13, 2014
51	Dec 14, 2014	Dec 20, 2014
52	Dec 21, 2014	Dec 27, 2014
53	Dec 28, 2014	Jan 3, 2015
1	Jan 4, 2015	Jan 10, 2015
2	Jan 11, 2015	Jan 17, 2015
3	Jan 18, 2015	Jan 24, 2015
4	Jan 25, 2015	Jan 31, 2015
5	Feb 1, 2015	Feb 7, 2015
6	Feb 8, 2015	Feb 14, 2015
7	Feb 15, 2015	Feb 21, 2015
8	Feb 22, 2015	Feb 28, 2015

Week	Start	End
9	Mar 1, 2015	Mar 7, 2015
10	Mar 8, 2015	Mar 14, 2015
11	Mar 15, 2015	Mar 21, 2015
12	Mar 22, 2015	Mar 28, 2015
13	Mar 29, 2015	Apr 4, 2015
14	Apr 5, 2015	Apr 11, 2015
15	Apr 12, 2015	Apr 18, 2015
16	Apr 19, 2015	Apr 25, 2015
17	Apr 26, 2015	May 2, 2015
18	May 3, 2015	May 9, 2015
19	May 10, 2015	May 16, 2015
20	May 17, 2015	May 23, 2015
21	May 24, 2015	May 30, 2015
22	May 31, 2015	Jun 6, 2015
23	Jun 7, 2015	Jun 13, 2015
24	Jun 14, 2015	Jun 20, 2015
25	Jun 21, 2015	Jun 27, 2015
26	Jun 28, 2015	Jul 4, 2015
27	Jul 5, 2015	Jul 11, 2015
28	Jul 12, 2015	Jul 18, 2015
29	Jul 19, 2015	Jul 25, 2015
30	Jul 26, 2015	Aug 1, 2015
31	Aug 2, 2015	Aug 8, 2015
32	Aug 9, 2015	Aug 15, 2015
33	Aug 16, 2015	Aug 22, 2015
34	Aug 23, 2015	Aug 29, 2015