

Weekly Update**August 30, 2016**

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.

Alberta

- Rhino-enterovirus had the highest positivity among specimens tested for respiratory viruses in weeks 31 - 34 ([Figure 1](#)).
- There were 14 new cases of lab confirmed influenza in weeks 31 - 34 in Alberta; 10 A(H3), 0 A(H1N1)pdm09, 3 A(unresolved subtype), 1 B ([Table 1](#)). So far this season (August 30, 2015 – August 27, 2016), there have been 5,322 cases of lab confirmed influenza; 188 A(H3), 3,384 A(H1N1)pdm09, 138 A(unresolved subtype), 1,612 B.
- In weeks 31 - 34, the overall weekly rates for both influenza A and influenza B in Alberta were below 0.1 per 100,000 Albertans.
- In weeks 31 - 34, the 5-9 years age group (week 31), 65+ years age group (week 32) and 18 to <65 years age group (week 33) had the highest rate of influenza A(H3) in Alberta.
- There were 5 ILI outbreaks reported with onset in weeks 31 - 34 in Alberta ([Table 2](#)).
- The Health Link Alberta weekly call rate for cough/ILI ranged was on average as 4 calls per 100,000 Albertans in weeks 31 - 34 ([Figure 6](#)).
- There were 828 visits with ILI (2.0% of all visits) to Edmonton zone Emergency Departments/Urgent Care Centres (EDIS/E-triage sites) ([Figure 7](#)) and 806 visits with ILI (2.3% of all visits) to Calgary zone Emergency Departments/Urgent Care Centres (SEC sites) in weeks 31 - 34 ([Figure 8](#)).
- In weeks 31 - 34, 0.00% to 0.03% and 0.08% to 0.17% were the percentage ranges of patient visits to Alberta sentinel physicians attributed to ILI (influenza like illness) and LRTI (lower respiratory tract infection), respectively ([Figure 9](#)).
- Public health administered influenza immunization data are available in [Table 3](#), [Table 4](#), [Table 5](#), [Table 6](#) and [Table 7](#).

North America

- As per the FluWatch (PHAC) report for week 29-32, influenza activity is at intersectional levels across Canada with low to no influenza activity; the most common influenza virus circulating was influenza A; no influenza outbreaks have been reported since week 22 and 9 influenza associated hospitalizations were reported in weeks 29-32.
- During the 2015-16 influenza season, the National Microbiology Lab (NML) of Canada has antigenically characterized 2,987 influenza samples – 250 A(H3N2), 1,487 A(H1N1)pdm09, and 1,250 B.

- During the 2015-16 influenza season, the National Microbiology Laboratory tested 2,195 viruses for antiviral resistance to oseltamivir and 2,196 for resistance to zanamivir; all were sensitive to zanamivir, and all were sensitive to oseltamivir except ten (10) viruses with H275Y mutation. There were 1,754 influenza A virus samples tested for resistance to amantadine; all but two were resistant.
- According to the week 33 FluView (US CDC) update, influenza activity was low in the United States.
- The WHO released the recommended composition of the northern hemisphere influenza vaccine for the 2016-2017 season (http://www.who.int/influenza/vaccines/virus/recommendations/2016_17_north/en/).

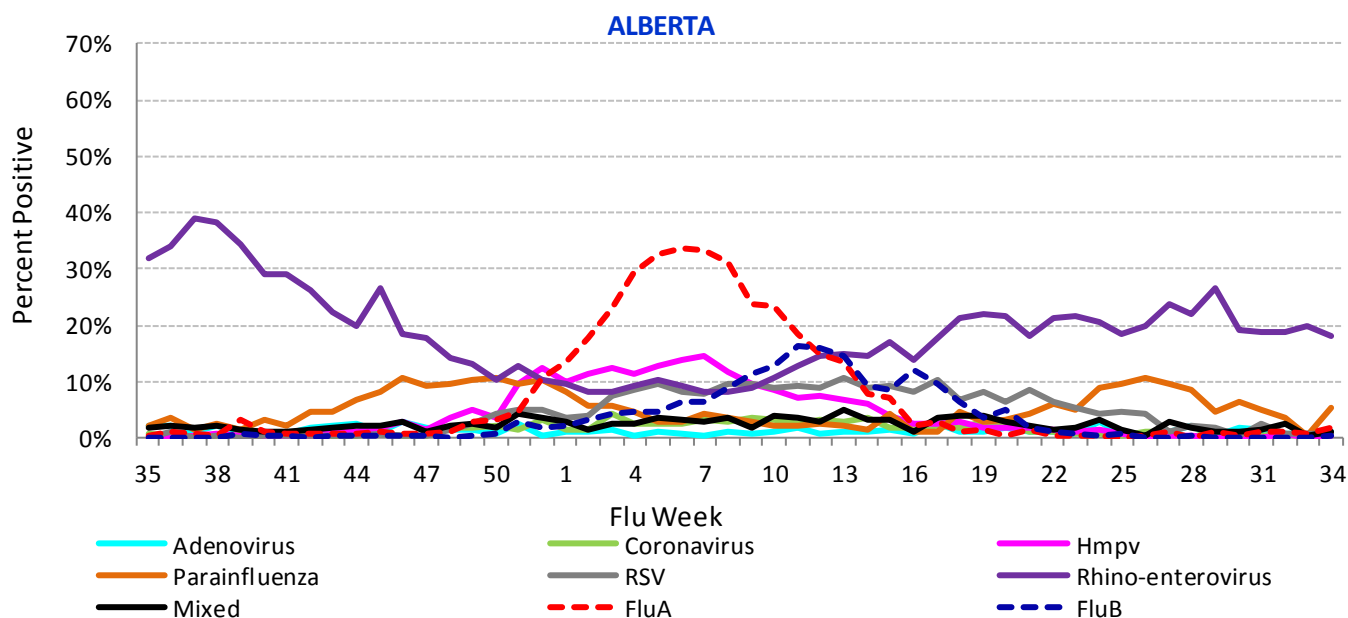
International

- On August 11, 2016 China reported 5 additional lab confirmed avian influenza A (H7N9) cases to the WHO, including 1 death; onset dates ranged from June 24 to July 29, 2016; Two (2) cases reported poultry exposure history.
- As per the most recent WHO influenza update (August 22, 2016), influenza activity was at inter-seasonal levels in the North Hemisphere, with a predominance of influenza B activity being reported in most of the northern hemisphere with the exception of West Africa where influenza A (H3N2) was predominant.
- In the tropical zone, influenza activity was mostly low and/or decreasing with the exception of Peru which had elevated influenza B.
- In the southern hemisphere, influenza activity increased steadily in South America with influenza A (H1N1)pdm09 predominant and South Africa with influenza A (H3N2) predominant, but remained low overall.

Quick Links[Laboratory Data](#)[ILI Outbreaks](#)[Calls to Health Link Alberta](#)[Emergency Department](#)[Visits](#)[TARRANT Sentinel](#)[Physician Visits](#)[Immunization Data](#)[Data Notes](#)[2015-16 Northern](#)[Hemisphere Vaccine](#)[Recommendations](#)**Current Global Information**[FluWatch \(PHAC\)](#)[FluView \(US CDC\)](#)[HPA \(UK\)](#)[WHO](#)[Travel Advisories](#)**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

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


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

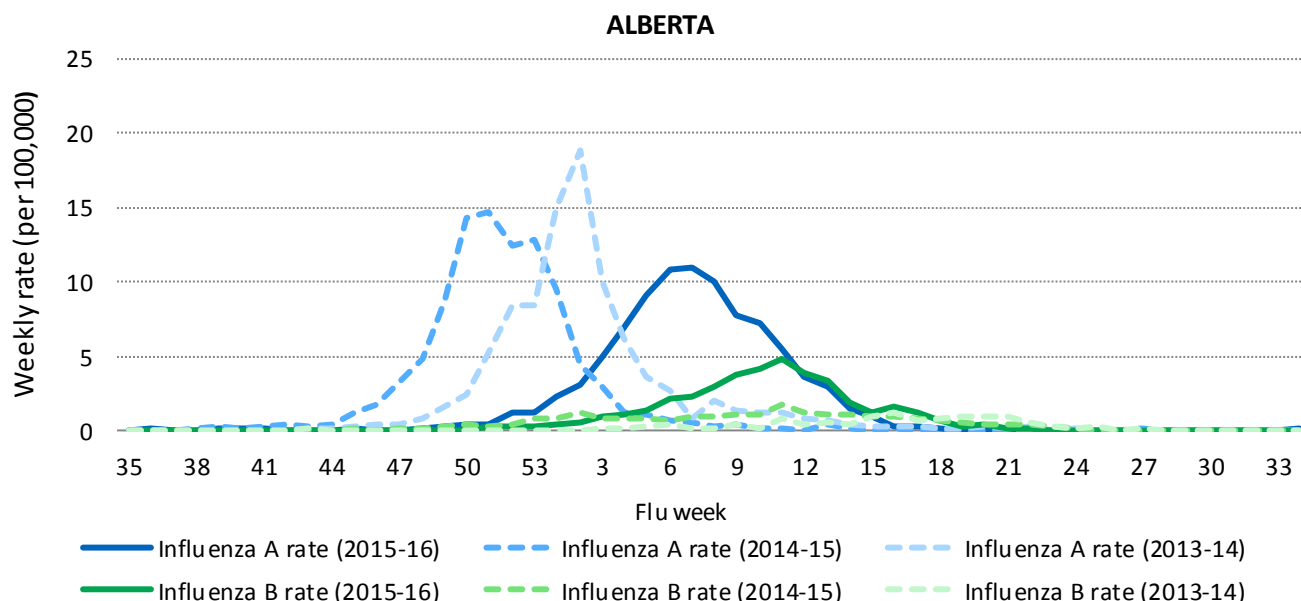
Source: DIAL – Provincial Laboratory specimens, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#). “Percent positive” is the number of positive specimens for that virus as a percent of the total number of specimens tested for respiratory viruses.

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

Zones	Week 34 (21Aug2016 - 27AUG2016)						Cumulative (30Aug2015 - 27AUG2016)					
	Influenza A			Influenza B	Unknown subtype		Influenza A			Influenza B	Unknown subtype	
	A(H3)	A(H1N1) pdm09	A (unresolved subtype: result pending or low viral load)				A (total)	A(H3)	A(H1N1) pdm09			A (unresolved subtype: result pending or low viral load)
South	0	0	0	0	0	0	13	251	6	270	154	0
Calgary	1	0	1	2	0	0	74	1052	44	1170	535	0
Central	1	0	0	1	0	0	18	481	25	524	251	0
Edmonton	0	0	1	1	1	0	62	1065	35	1162	411	0
North	1	0	1	2	0	0	21	535	28	584	261	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Alberta Total	3	0	3	6	1	0	188	3384	138	3710	1612	0

Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

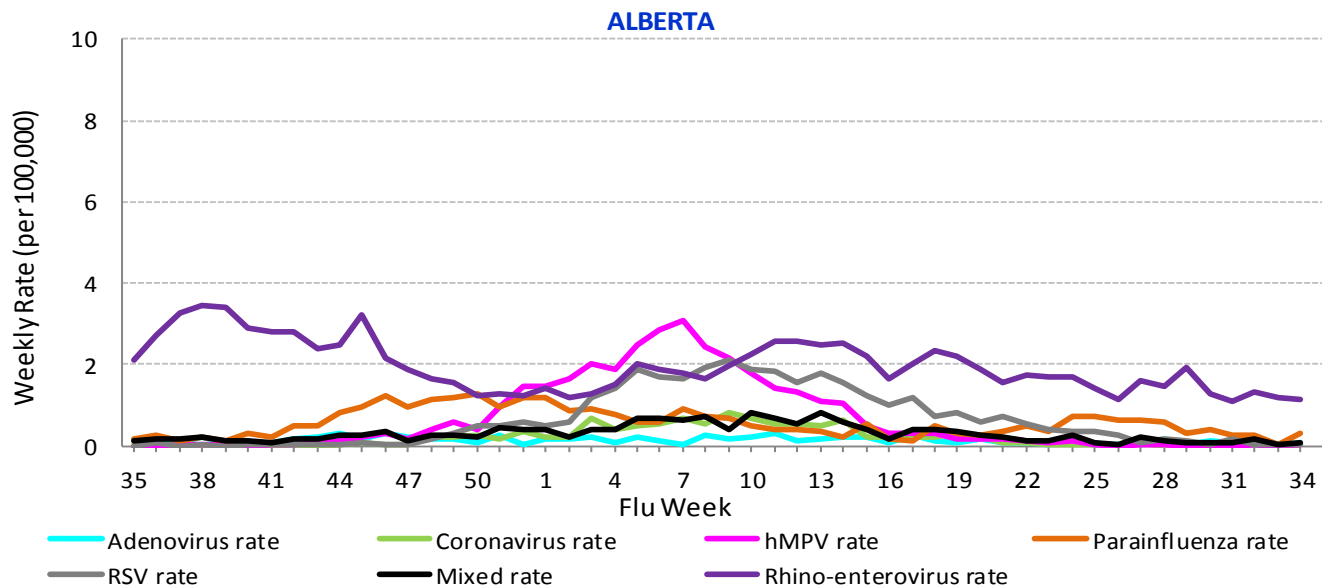
Figure 2: Alberta weekly rates (per 100,000) of lab confirmed influenza, by subtype



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

Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

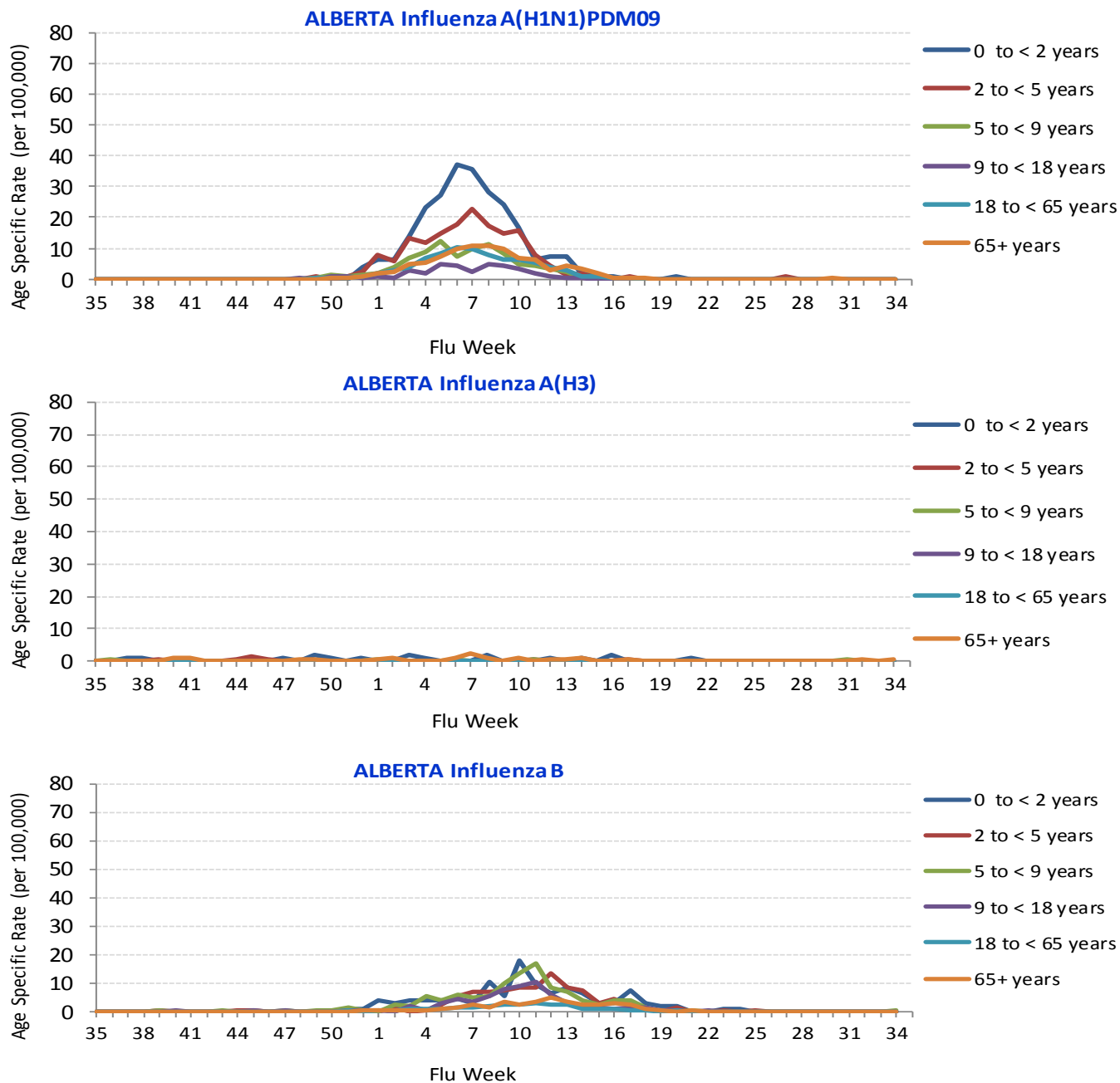
Figure 3: Alberta weekly rates (per 100,000) of lab confirmed respiratory viruses (excluding influenza), by virus type



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

Source: DIAL – Provincial Laboratory specimens, data extracted on August 30, 2016. 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

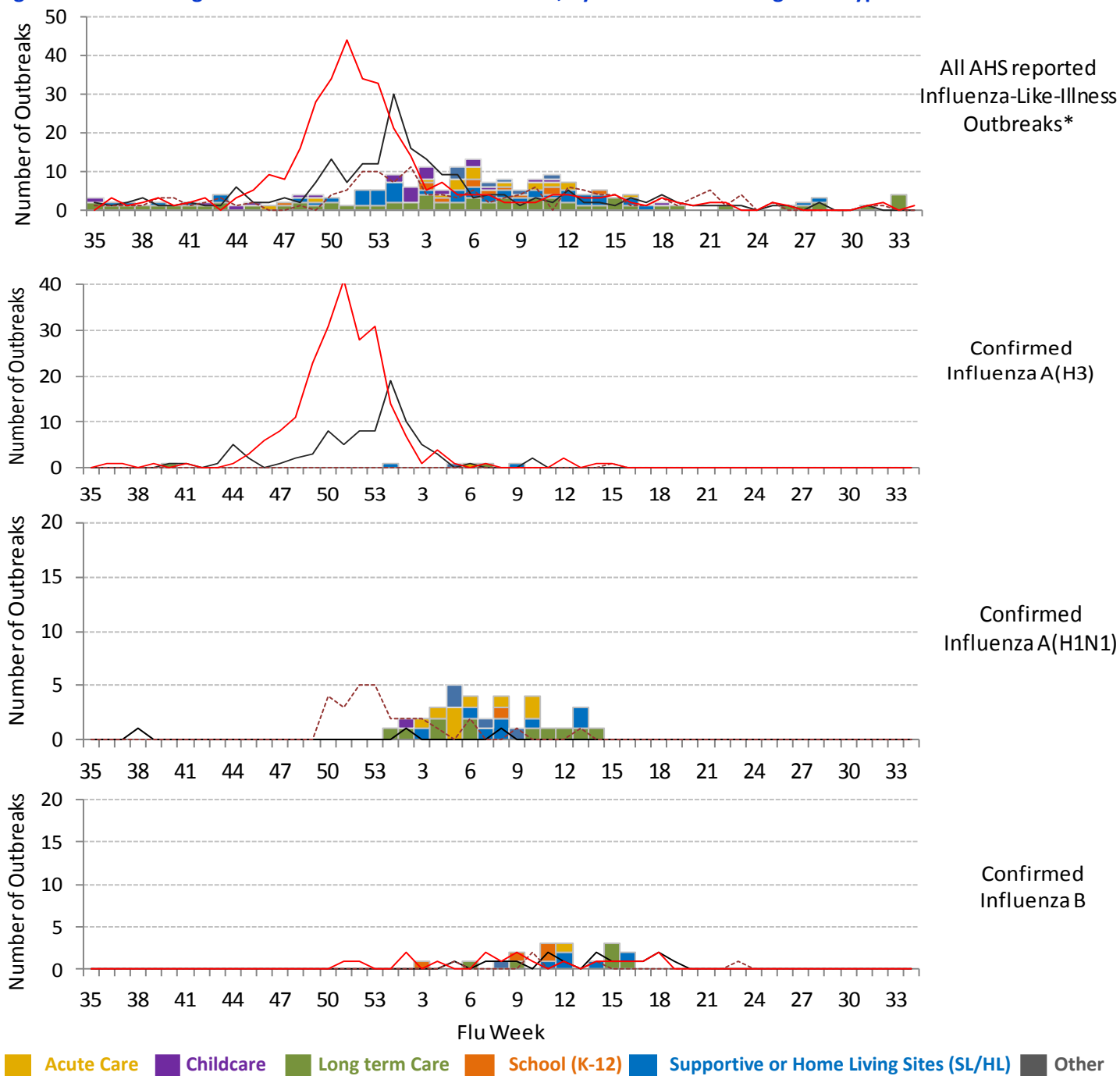


[Click here for ZONE figures - age specific rates of lab confirmed influenza](#)

Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

Influenza-Like-Illness (ILI) Outbreak Investigations

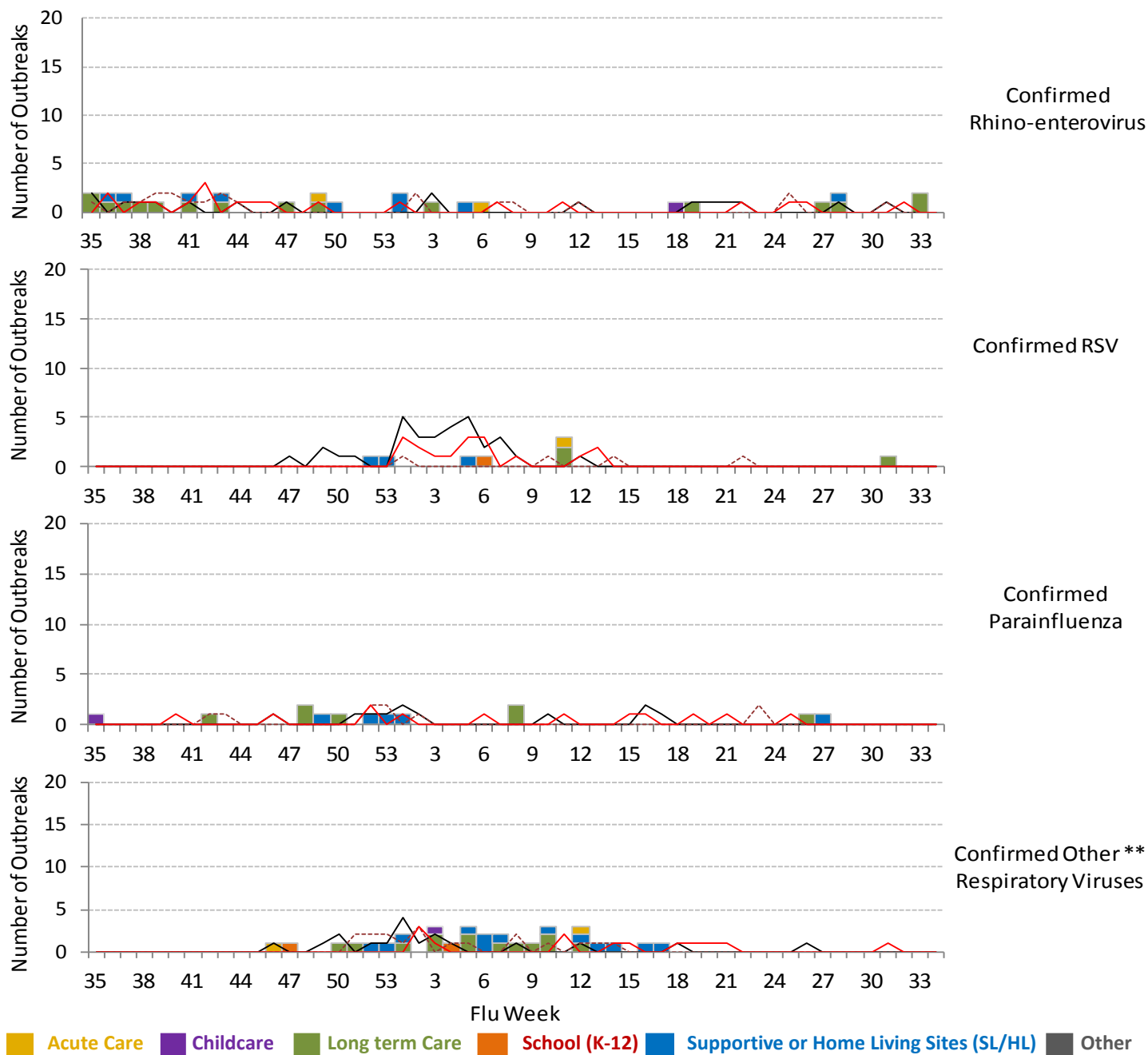
Figure 5: AHS investigated ILI outbreaks in Alberta facilities, by onset week and organism type



Source: CDRS data extracted on August 30, 2016 (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



--- Combined total for the 2014-15 season --- Combined total for the 2013-14 season — Combined total for the 2012-13 season

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

Source: CDRS data extracted on August 30, 2016 (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 34 (21Aug2016 - 27AUG2016)						Cumulative (30Aug2015 - 27AUG2016)						
	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	2	-	1	-	1	6
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	11	8	1	9	1	4	34
Confirmed Flu B	-	-	-	-	-	-	6	5	4	1	-	1	17
Confirmed RSV	-	-	-	-	-	-	3	2	1	1	-	-	7
Confirmed Parainfluenza	-	-	-	-	-	-	7	4	-	-	1	-	12
Confirmed Rhino-enterovirus	-	-	-	-	-	-	16	9	-	2	1	-	28
Confirmed other** respiratory viruses	-	-	-	-	-	-	13	12	2	2	1	-	30
Initial report only (lab results pending)	-	-	-	-	-	-	2	-	-	-	-	-	2
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	8	5	4	-	18	1	36
Total	0	0	0	0	0	0	68	47	12	16	22	7	172
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)	-	-	-	-	-	-	-	-	-	-	-	1	1
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Flu B	-	-	-	-	-	-	-	3	2	-	-	-	5
Confirmed RSV	-	-	-	-	-	-	-	-	1	-	-	-	1
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	-	3	-	-	-	-	3
Confirmed other** respiratory viruses	-	-	-	-	-	-	1	1	-	-	-	-	2
Initial report only (lab results pending)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	-	-	2	-	-	1	3
Total	0	0	0	0	0	0	1	7	5	0	0	2	15
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)	-	-	-	-	-	-	1	-	-	-	-	-	1
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	4	-	-	3	-	1	8
Confirmed Flu B	-	-	-	-	-	-	5	1	2	1	-	-	9
Confirmed RSV	-	-	-	-	-	-	-	1	-	1	-	-	2
Confirmed Parainfluenza	-	-	-	-	-	-	1	3	-	-	-	-	4
Confirmed Rhino-enterovirus	-	-	-	-	-	-	2	3	-	1	-	-	6
Confirmed other** respiratory viruses	-	-	-	-	-	-	6	5	1	-	-	-	12
Initial report only (lab results pending)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	4	1	1	-	1	-	7
Total	0	0	0	0	0	0	23	14	4	6	1	1	49

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

Source: CDRS data extracted on August 30, 2016 (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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Table 2 continued: New and cumulative AHS investigated ILI outbreaks, by onset date and by organism, Alberta and Zones

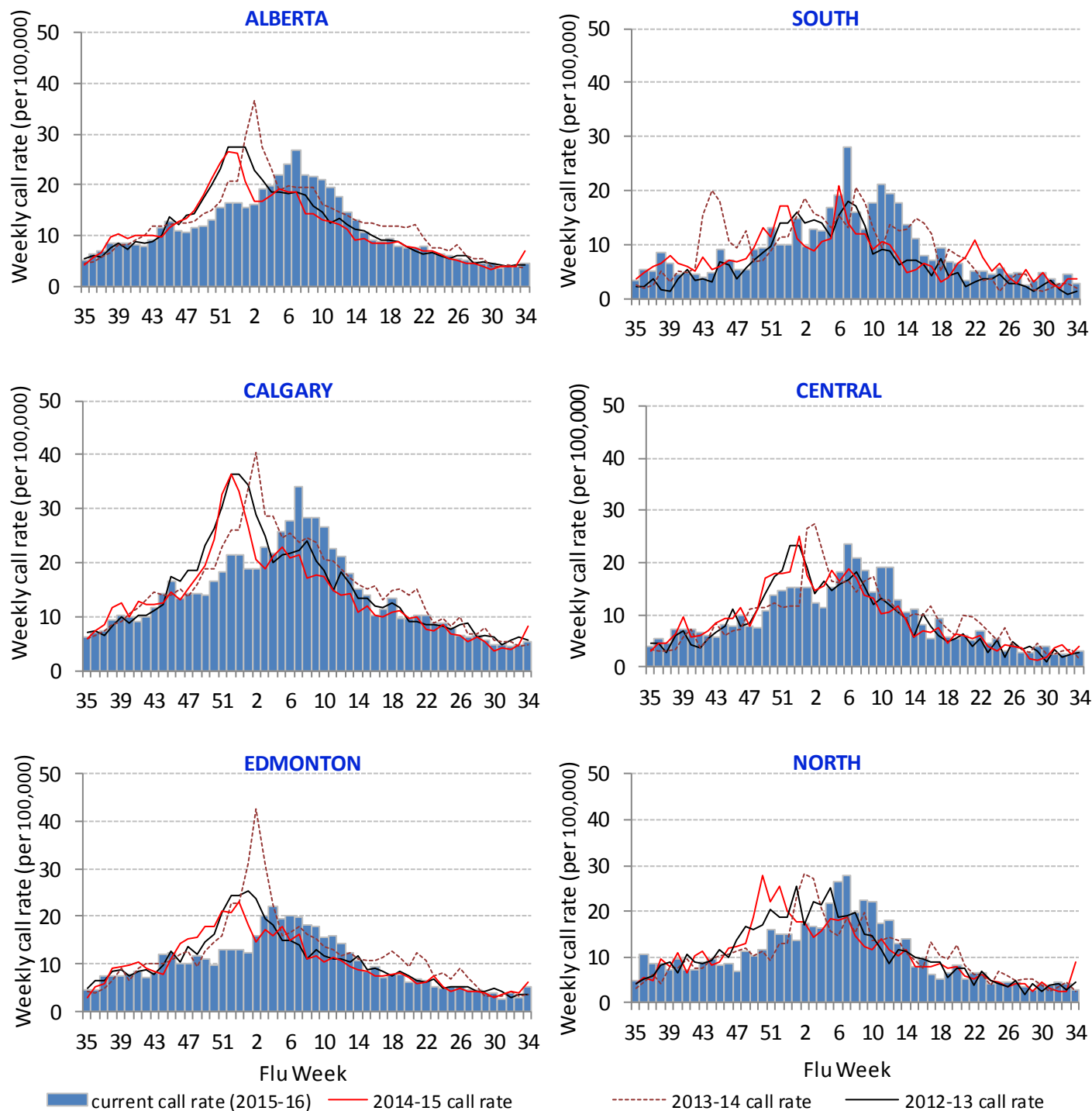
CENTRAL													
Organism	Week 34 (21Aug2016 - 27AUG2016)						Cumulative (30Aug2015 - 27AUG2016)						
	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Long Term Care	SL/HL	School (K-12)	Acute Care	Child care	Other	Total
Confirmed Flu A(H3)	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	1	4	-	-	-	1	6
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed RSV	-	-	-	-	-	-	2	-	-	-	-	-	2
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-	0
Confirmed Rhino-enterovirus	-	-	-	-	-	-	1	1	-	-	-	-	2
Confirmed other** respiratory viruses	-	-	-	-	-	-	1	1	-	1	-	-	3
Initial report only (lab results pending)	-	-	-	-	-	-	-	-	-	-	-	-	0
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	-	-	-	-	1	-	1
Total	0	0	0	0	0	0	5	6	0	1	1	1	14
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
	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	-	1	-	-	3
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	6	2	-	6	1	2	17
Confirmed Flu B	-	-	-	-	-	-	1	1	-	-	-	1	3
Confirmed RSV	-	-	-	-	-	-	1	-	-	-	-	-	1
Confirmed Parainfluenza	-	-	-	-	-	-	5	1	-	-	1	-	7
Confirmed Rhino-enterovirus	-	-	-	-	-	-	11	2	-	1	-	-	14
Confirmed other** respiratory viruses	-	-	-	-	-	-	4	5	-	1	1	-	11
Initial report only (lab results pending)	-	-	-	-	-	-	2	-	-	-	-	-	2
Unknown (none confirmed or no specimen available)	-	-	-	-	-	-	4	4	1	-	16	-	25
Total	0	0	0	0	0	0	35	16	1	9	19	3	83
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
	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	-	-	-	-	-	.	-	2	1	-	-	.	3
Confirmed Flu B	-	-	-	-	-	.	-	-	-	-	-	.	0
Confirmed RSV	-	-	-	-	-	.	-	1	-	-	-	.	1
Confirmed Parainfluenza	-	-	-	-	-	.	1	-	-	-	-	.	1
Confirmed Rhino-enterovirus	-	-	-	-	-	.	2	-	-	-	1	.	3
Confirmed other** respiratory viruses	-	-	-	-	-	.	1	-	1	-	-	.	2
Initial report only (lab results pending)	-	-	-	-	-	.	-	-	-	-	-	.	0
Unknown (none confirmed or no specimen available)	-	-	-	-	-	.	-	-	-	-	-	.	0
Total	0	0	0	0	0	0	4	3	2	0	1	0	10

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

Source: CDRS data extracted on August 30, 2016 (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.

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 August 30, 2016 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)

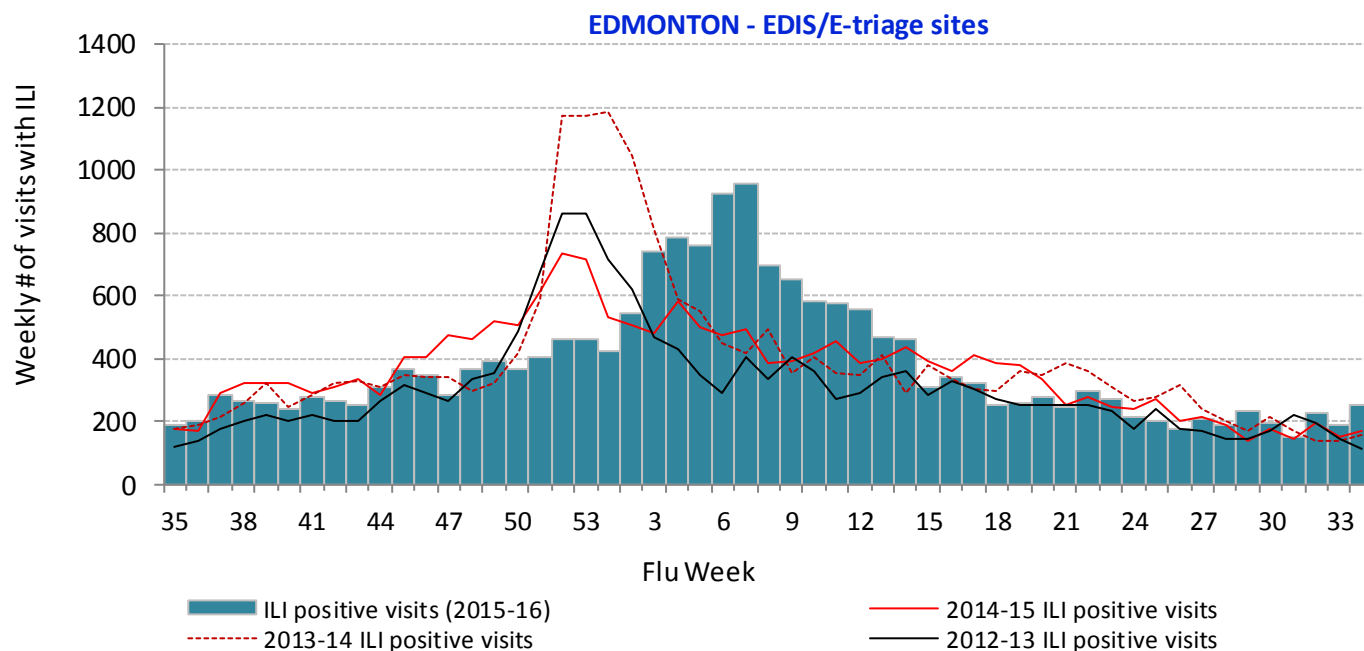
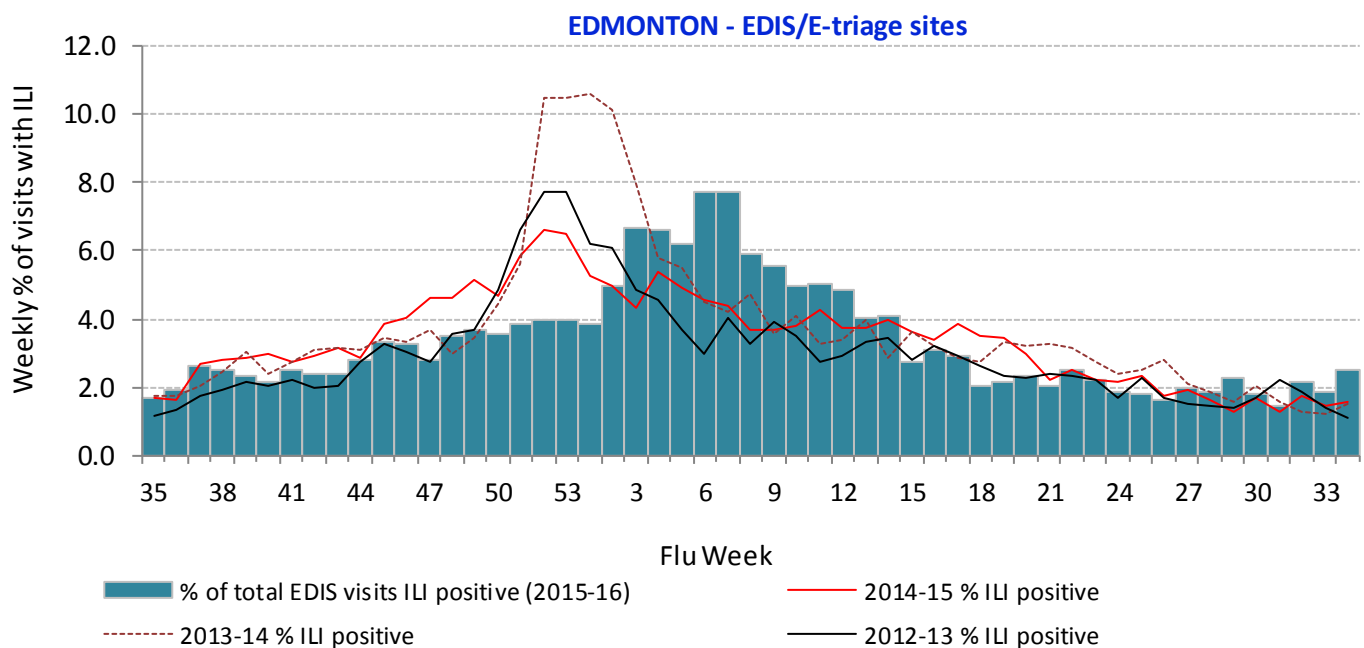


Figure 7B: Weekly percentage of all ED/UCC visits with ILI during screening at triage, Edmonton zone (EDIS and E-triage sites)



Source: EDIS and E-triage emergency department visits, data extracted on August 30, 2016 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)

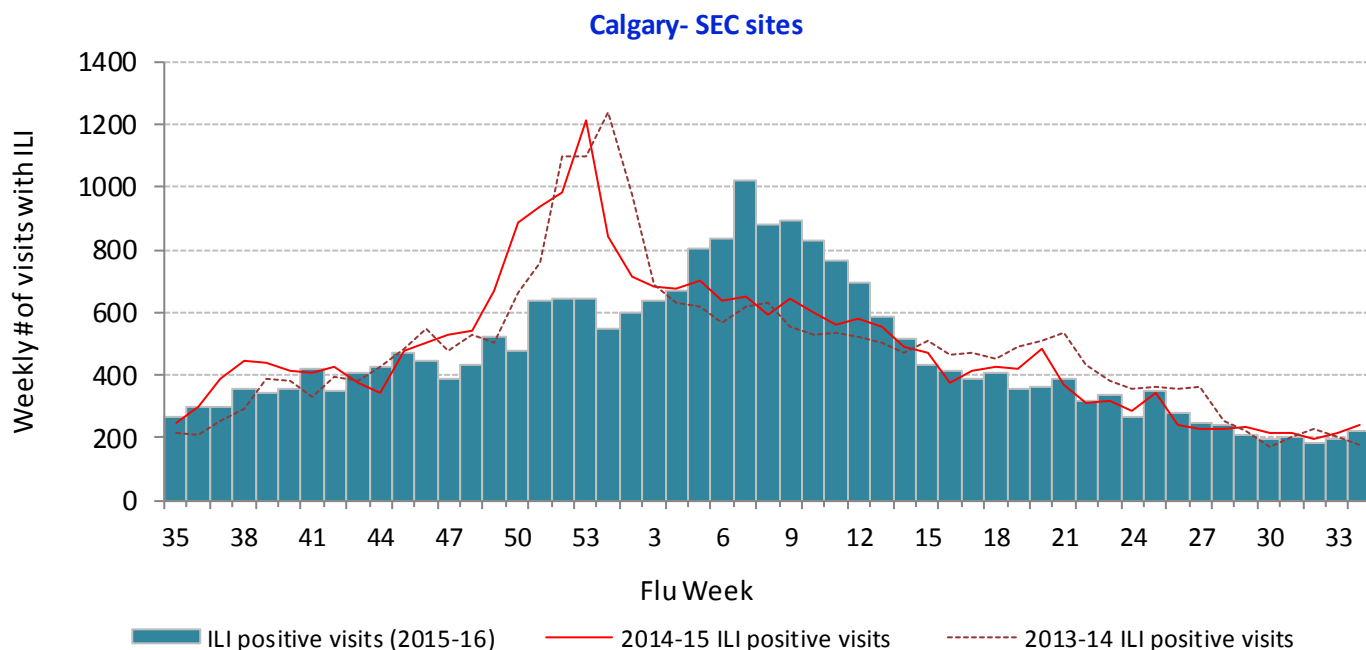
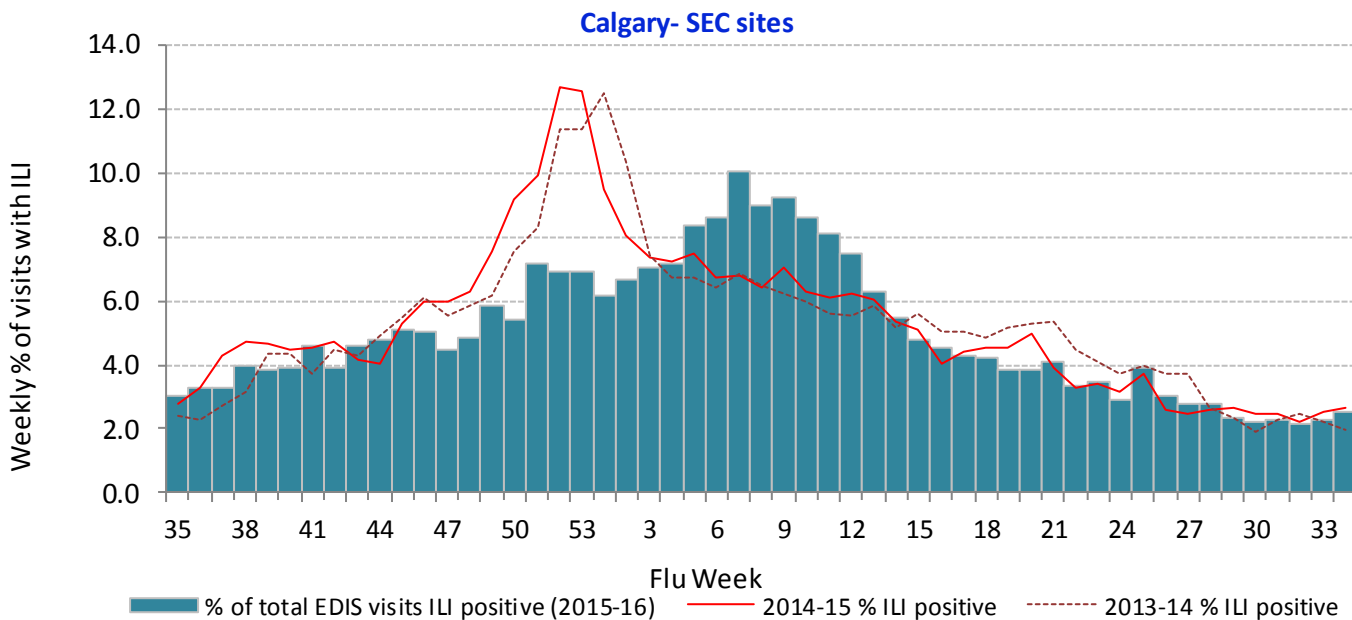


Figure 8B: Weekly percentage of all ED/UCC visits with ILI during screening at triage, Calgary zone (SEC sites)



Source: SEC emergency department visits, data extracted on August 30, 2016 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)

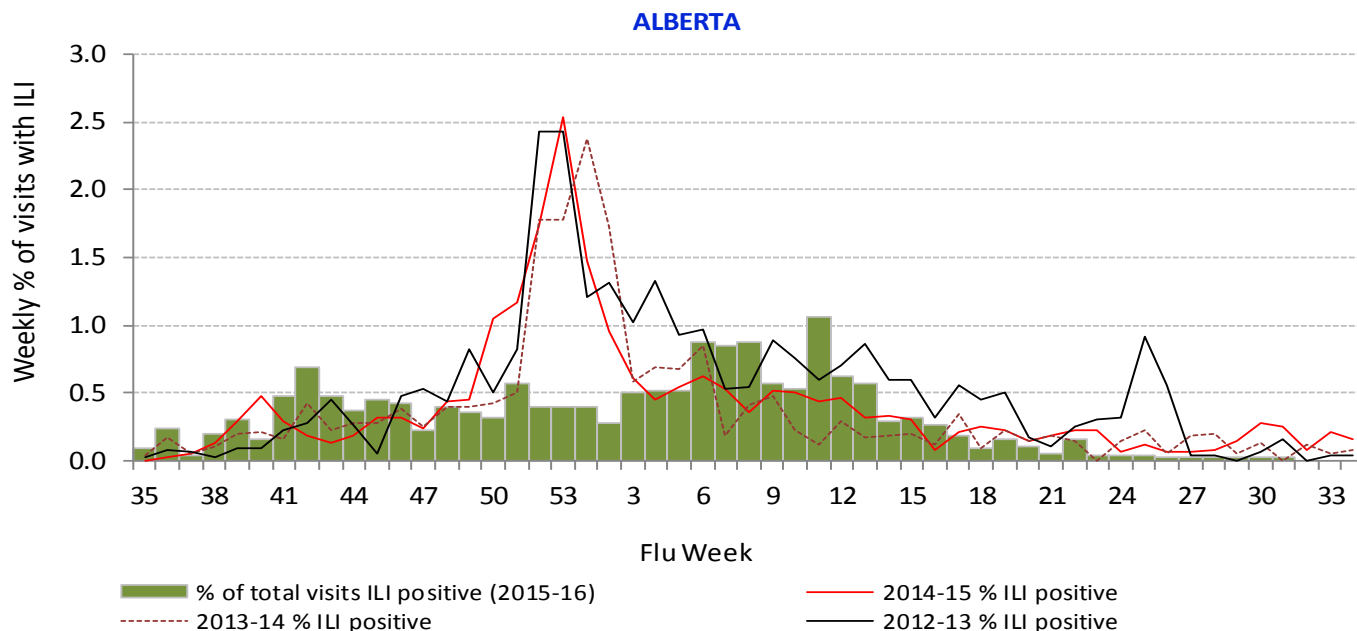
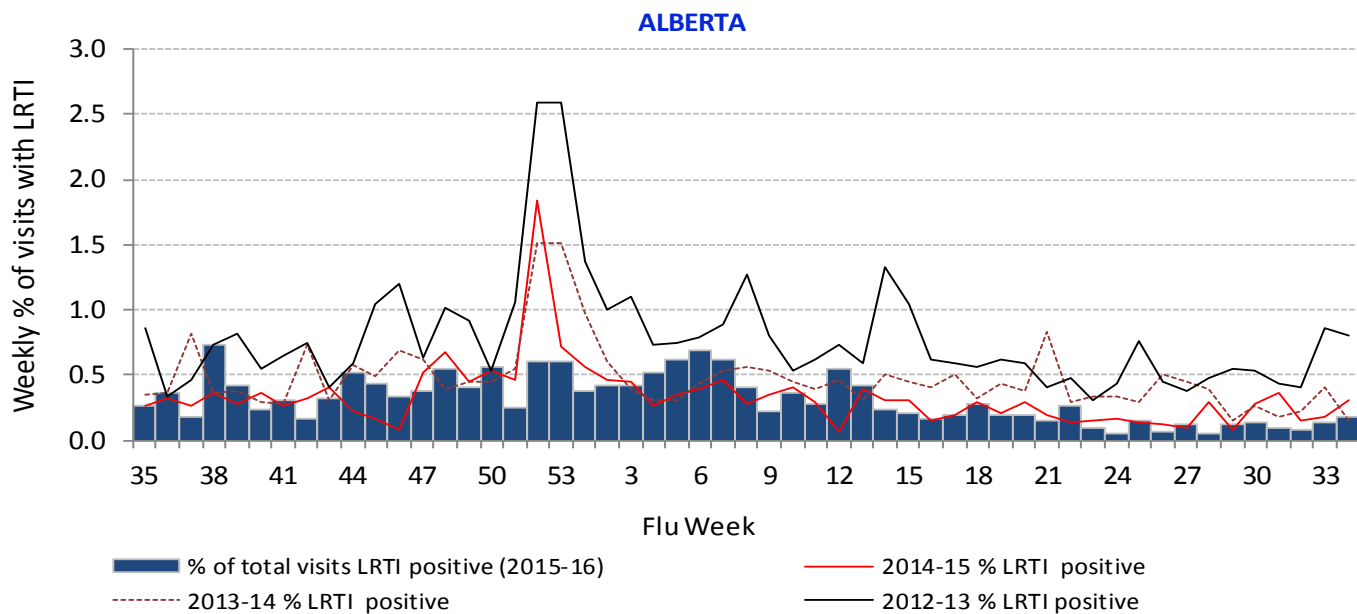


Figure 9B: Alberta weekly sentinel physician patient visits (%) with LRTI (Lower Respiratory Tract Infection)



Source: Tarrant Viral Watch program – www.tarrantviralwatch.ca, data extracted on August 30, 2016. 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 17 (Apr 24 – 30, 2016¹)

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Health care workers AHS/Covenant		0	0	0	0	1	1
Health care workers Total		0	7	0	0	1	8
Pregnant women		0	0	0	0	0	0
65 years of age and over		0	0	0	0	0	0
All children 6 months up to and including 23 months ²	Dose #1	0	1	0	0	1	2
	Dose #2	70	474	110	114	32	800
	Annual	0	3	0	0	0	3
All children 24 months up to and including 59 months ²	Dose #1	0	0	0	0	0	0
	Dose #2	7	22	8	18	7	62
	Annual	1	0	0	0	2	3
All children 5 years up to and including 8 years of age ²	Dose #1	0	0	0	0	0	0
	Dose #2	4	14	3	12	0	33
	Annual	2	1	0	0	0	3
All 9 years up to and including 64 years of age		5	25	0	1	12	43
Total number of clients who have received Dose 1 of 2		0	1	0	0	1	2
Total number of clients who have received Dose 2 of 2		81	510	121	144	39	895
Total number of clients who have received an Annual Dose		8	36	0	1	15	60
Total Doses Administered		89	547	121	145	55	957

¹Source: AHS Zones (doses do not include those delivered by community providers). For more information on data definitions and sources, see [Data Notes](#).

²Children 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 as of Apr 30, 2016¹

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Health care workers AHS/Covenant		995	2,828	1,258	2,715	2,825	10,621
Health care workers Total		3,107	6,284	2,670	7,007	6,745	25,813
Pregnant women		272	1,328	347	1,326	378	3,651
65 years of age and over		8,241	23,877	12,044	33,070	12,279	89,511
All children 6 months up to and including 23 months ²	Dose #1	2,035	9,688	2,295	7,524	2,301	23,843
	Dose #2	1,617	5,636	1,766	4,823	1,243	15,085
	Annual	914	7,819	1,061	3,530	1,106	14,430
All children 24 months up to and including 59 months ²	Dose #1	406	1,415	357	1,312	465	3,955
	Dose #2	267	633	242	675	208	2,025
	Annual	2,425	14,017	2,618	10,420	2,881	32,361
All children 5 years up to and including 8 years of age ²	Dose #1	242	794	182	773	541	2,532
	Dose #2	161	464	119	342	122	1,208
	Annual	2,585	17,831	2,840	11,589	4,602	39,447
All 9 years up to and including 64 years of age		11,287	66,911	15,765	64,575	25,302	183,840
Total number of clients who have received Dose 1 of 2		2,683	11,897	2,834	9,609	3,307	30,330
Total number of clients who have received Dose 2 of 2		2,045	6,733	2,127	5,840	1,573	18,318
Total number of clients who have received an Annual Dose		28,831	138,067	37,345	131,517	53,293	389,053
Total Doses Administered		33,559	156,697	42,306	146,966	58,173	437,701

¹Source: AHS Zones (doses do not include those delivered by community providers). For more information on data definitions and sources, see [Data Notes](#).

²Children 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: Public Health Community provider* (excluding FNIHB) delivered influenza immunizations by risk group**

Priority Group		South	Calgary	Central	Edmonton	North	Unassigned Zone	Alberta
Health care workers AHS/Covenant		3,937	19,652	5,768	18,762	414	0	48,533
Health care workers Total		5,402	31,749	7,312	28,939	643	0	74,045
Pregnant women		543	1,619	104	433	48	0	2,747
65 years of age and over		3,282	23,719	3,123	16,836	389	0	47,349
All children 6 months up to and including 23 months	Dose #1	4	83	0	105	0	0	192
	Dose #2	1	73	0	91	0	0	165
	Annual	6	387	0	191	0	0	584
All children 24 months up to and including 59 months	Dose #1	2	31	0	62	0	0	95
	Dose #2	0	17	0	30	0	0	47
	Annual	26	810	0	797	22	0	1,655
All children 5 years up to and including 8 years of age	Dose #1	3	33	0	50	0	0	86
	Dose #2	1	19	0	19	0	0	39
	Annual	64	1,443	1	1,132	59	0	2,699
All 9 years up to and including 64 years of age		5,103	50,770	2,376	31,923	5,048	0	95,220
Total number of clients who have received Dose 1 of 2		9	147	0	217	0	0	373
Total number of clients who have received Dose 2 of 2		2	109	0	140	0	0	251
Total number of clients who have received an Annual Dose		14,426	110,497	12,916	80,251	6,209	0	224,299
Physician administered Doses (Physician's claims)		0	0	0	0	0	0	0
Total Doses Administered		14,437	110,753	12,916	80,608	6,209	0	224,923

*Source: AHS Public Health Zones from Oct 1, 2015 to Mar 31, 2016, including Physicians, AHS non-public health and non-AHS community providers.

** FNIHB = First Nation Inuit Health Branch.

Table 6: Cumulative influenza immunization delivered by AHS public health* (Oct 4, 2015 to Apr 30, 2016) + Public Health community providers ** (Oct 1, 2015 to Mar 31, 2016) + FNIHB * by risk group**

Priority Group		South	Calgary	Central	Edmonton	North	Unassigned Zone	Alberta
Health care workers AHS/Covenant		4,932	22,480	7,026	21,477	3,239	0	59,154
Health care workers Total		8,618	38,155	10,041	36,032	7,679	0	100,525
Pregnant women		825	2,991	463	1,763	472	0	6,514
65 years of age and over		11,647	47,806	15,218	49,986	13,059	0	137,716
All children 6 months up to and including 23 months	Dose #1	2,099	9,853	2,322	7,636	2,382	0	24,292
	Dose #2	1,649	5,721	1,770	4,915	1,272	0	15,327
	Annual	947	8,249	1,092	3,738	1,162	0	15,188
All children 24 months up to and including 59 months	Dose #1	422	1,467	360	1,377	491	0	4,117
	Dose #2	269	655	242	706	213	0	2,085
	Annual	2,507	14,955	2,661	11,261	3,129	0	34,513
All children 5 years up to and including 8 years of age	Dose #1	249	834	189	824	551	0	2,647
	Dose #2	164	485	119	361	123	0	1,252
	Annual	2,727	19,457	2,911	12,775	4,999	0	42,869
All 9 years up to and including 64 years of age		17,006	119,037	18,712	96,909	32,529	0	284,193
Total number of clients who have received Dose 1 of 2		2,770	12,154	2,871	9,837	3,424	0	31,056
Total number of clients who have received Dose 2 of 2		2,082	6,861	2,131	5,982	1,608	0	18,664
Total number of clients who have received an Annual Dose		44,277	250,650	51,098	212,464	63,029	0	621,518
Physician administered Doses (Physician's claims)**		0	0	0	0	0	0	0
Total Doses Administered		49,129	269,665	56,100	228,283	68,061	0	671,238

*Source: AHS Public Health Zones (doses delivered by community providers are not included).

**Source: AHS Public Health Zones from Oct 1, 2015 to Mar 31, 2016, including Physicians, AHS non-public health and non-AHS community providers.

***Source: FNIHB (First Nation Inuit Health Branch). Data from final snapshot report up to Apr 30, 2016.

Table 7: Influenza immunization doses as of April 30, 2016 administered by zone and provider type

Provider Type	South	Calgary	Central	Edmonton	North	Unassigned Zone	Alberta
Public Health ¹	33,559	156,697	42,306	146,966	58,173	0	437,701
Pharmacist ²	39,043	198,277	49,772	156,440	31,799	0	475,331
Physician ³	6,660	56,378	2,917	35,680	301	0	101,936
AHS non-Public Health ³	4,679	31,583	6,952	22,439	950	0	66,603
Other non-AHS ³	3,098	22,792	3,047	22,489	4,958	0	56,384
FNIHB ⁴	1,133	2,215	878	709	3,679	0	8,614
Total Doses Administered	88,172	467,942	105,872	384,723	99,860	0	1,146,569

¹ Source: AHS Public Health Zones (doses delivered by community providers are not included).

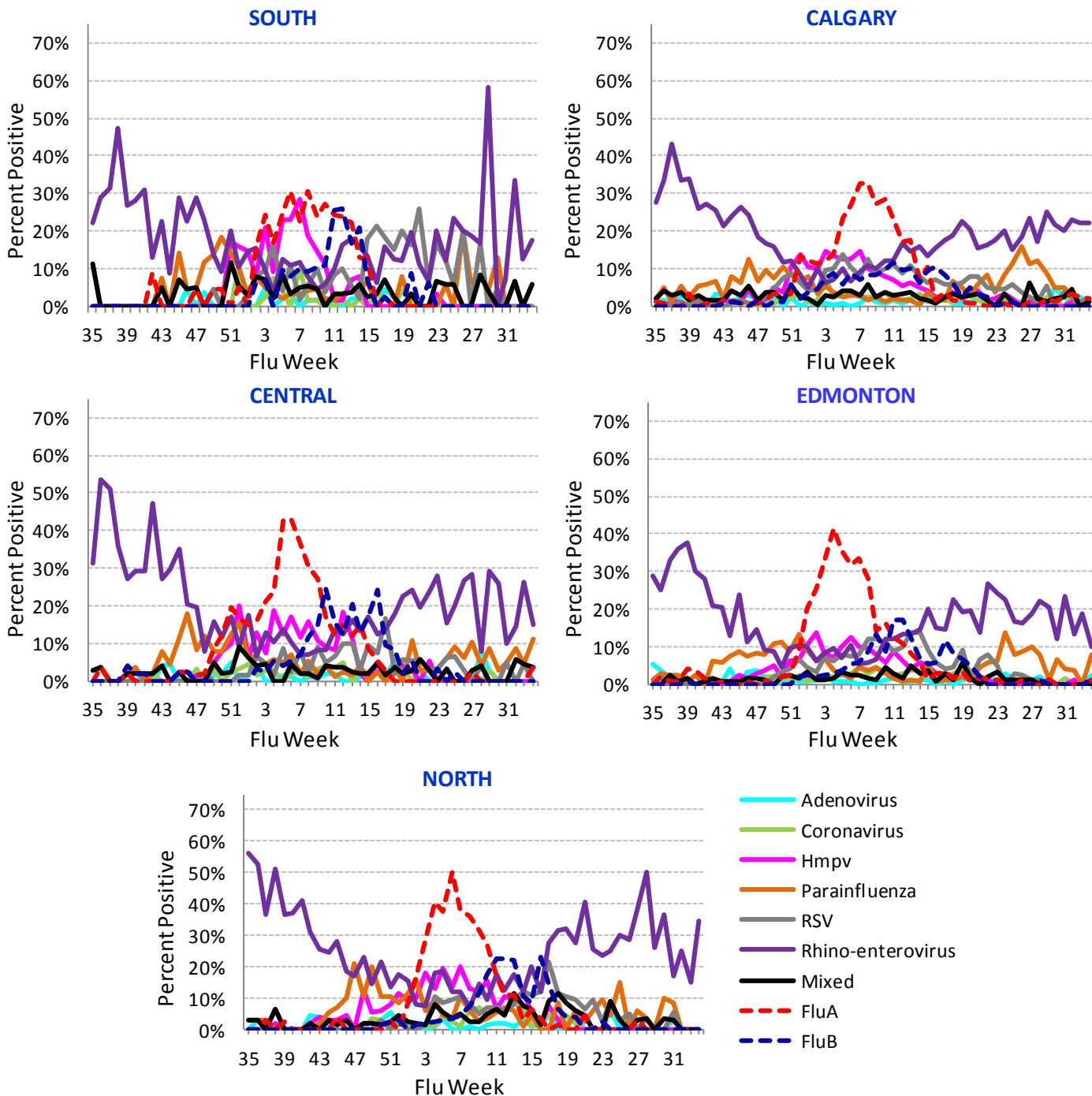
² Data provided by Alberta Health, doses administered up to Mar 31, 2016.

³ Monthly data from Public Health Zones for Oct 1, 2015 to Mar 31, 2016.

⁴ Source: FNIHB (First Nation Inuit Health Branch). Data from final snapshot report up to Apr 30, 2016.

Appendix

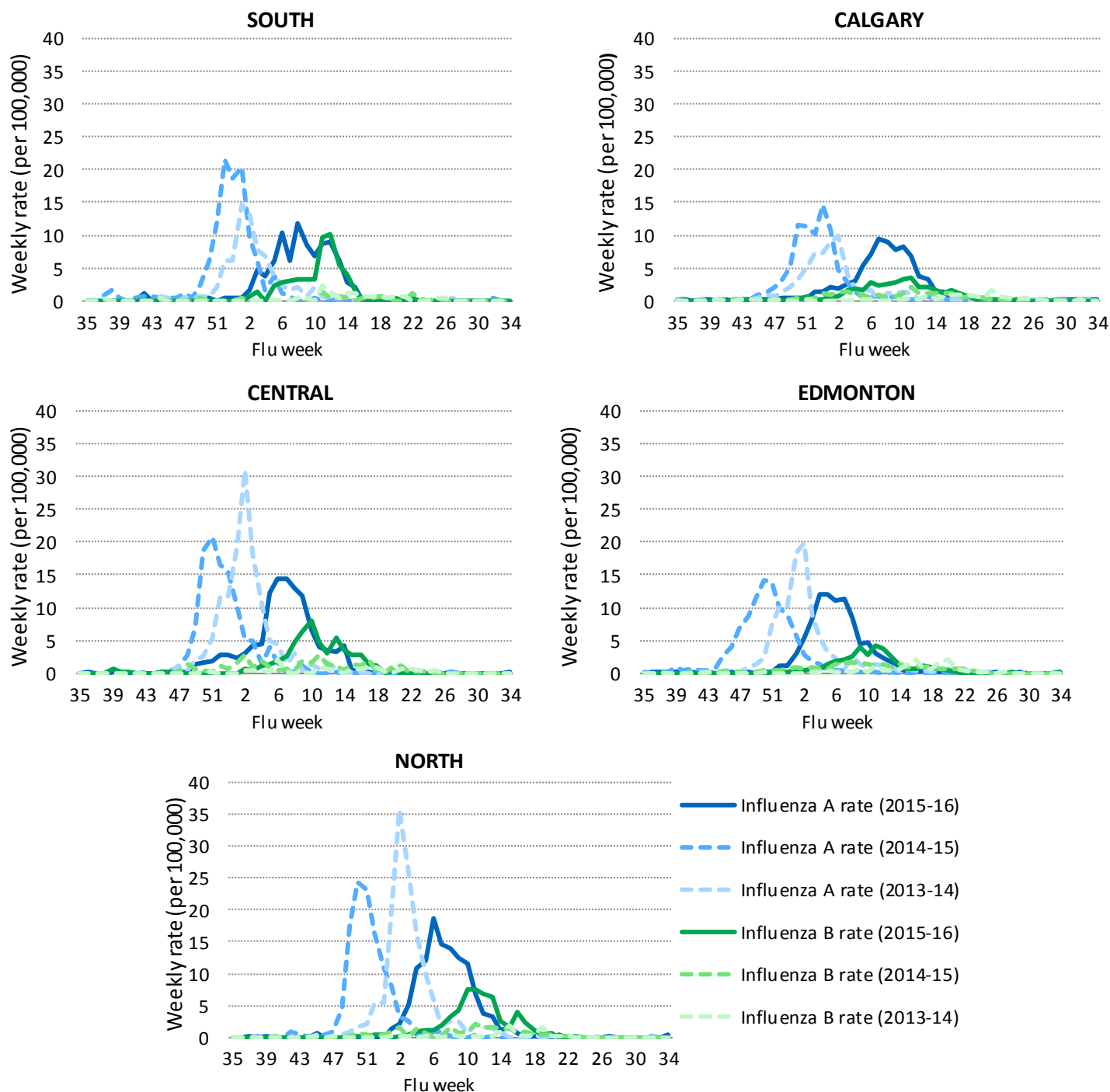
Zones figure 1: Weekly respiratory specimen percent positivity, by virus type and zone



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

Source: DIAL – Provincial Laboratory specimens, data extracted on August 30, 2016. 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.

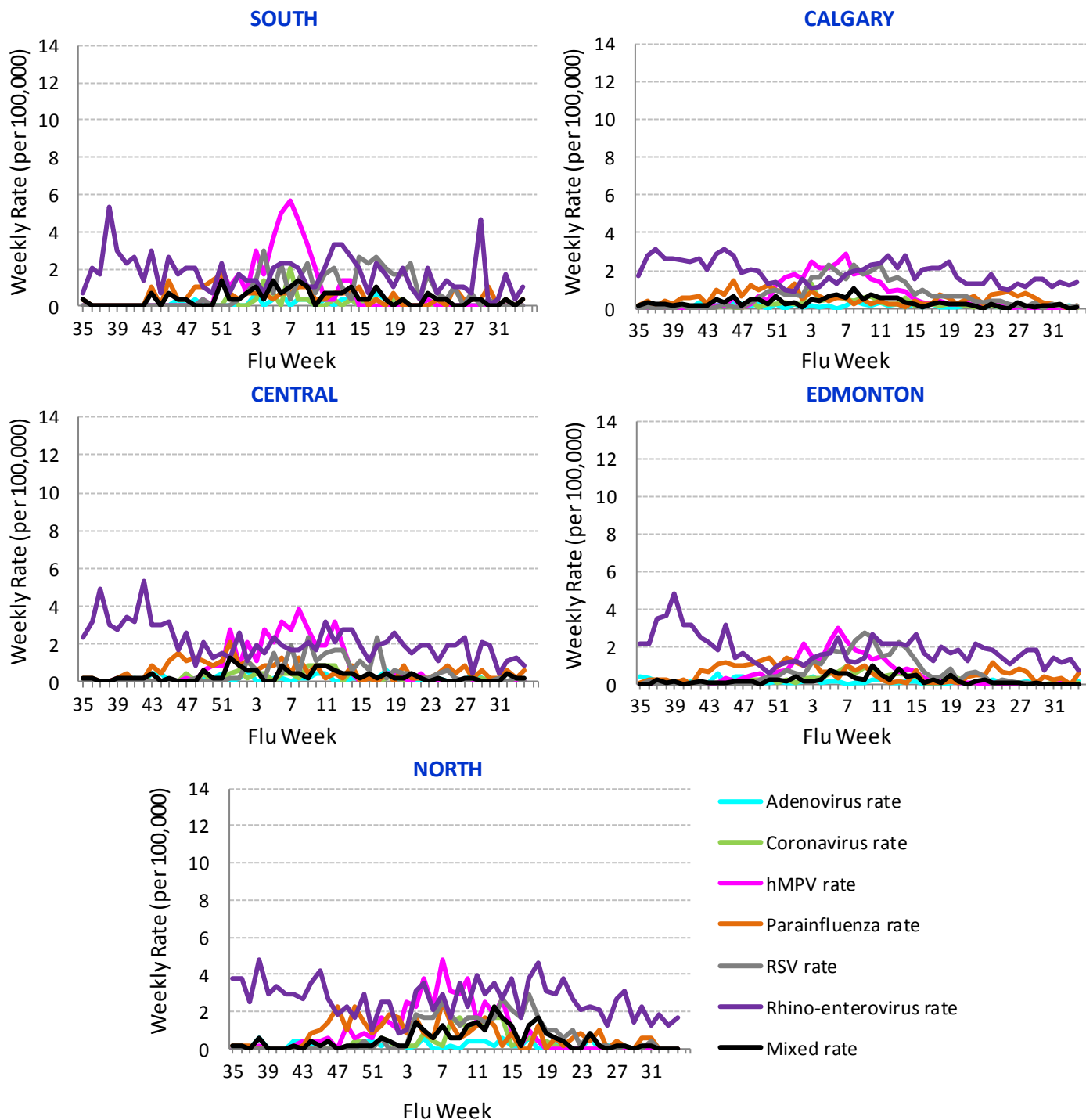
Zones figure 2: Weekly rates (per 100,000) of lab confirmed influenza, by subtype and Zone



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

Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

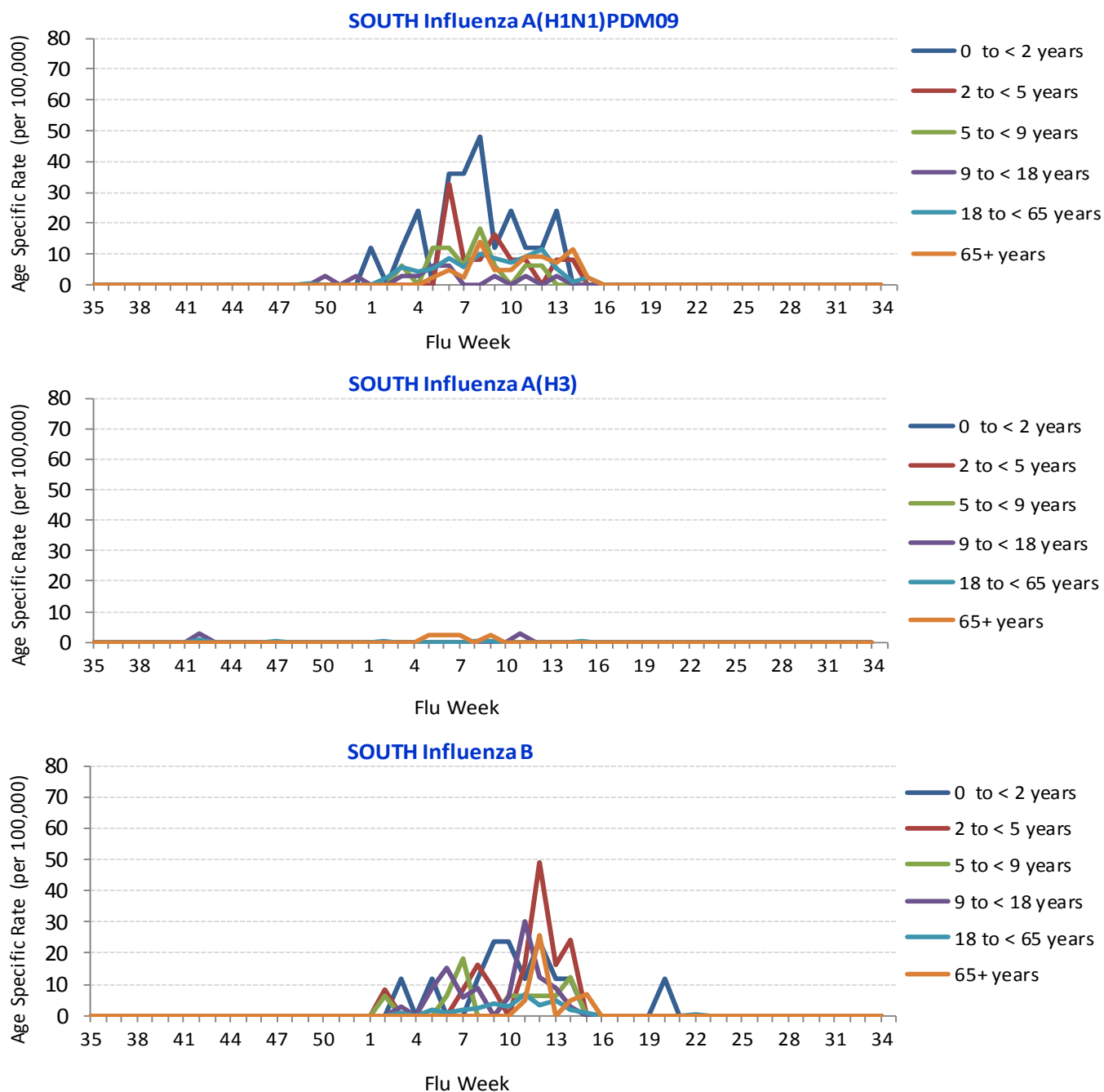
Zones figure 3: Weekly rates (per 100,000) of lab confirmed respiratory viruses (excluding influenza), by virus type and Zone



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

Source: DIAL – Provincial Laboratory specimens, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

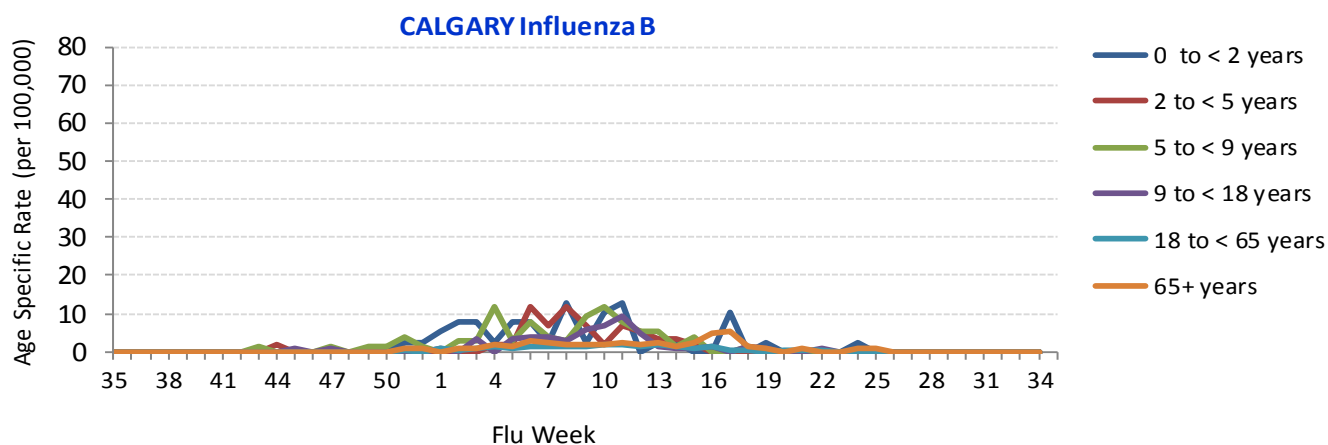
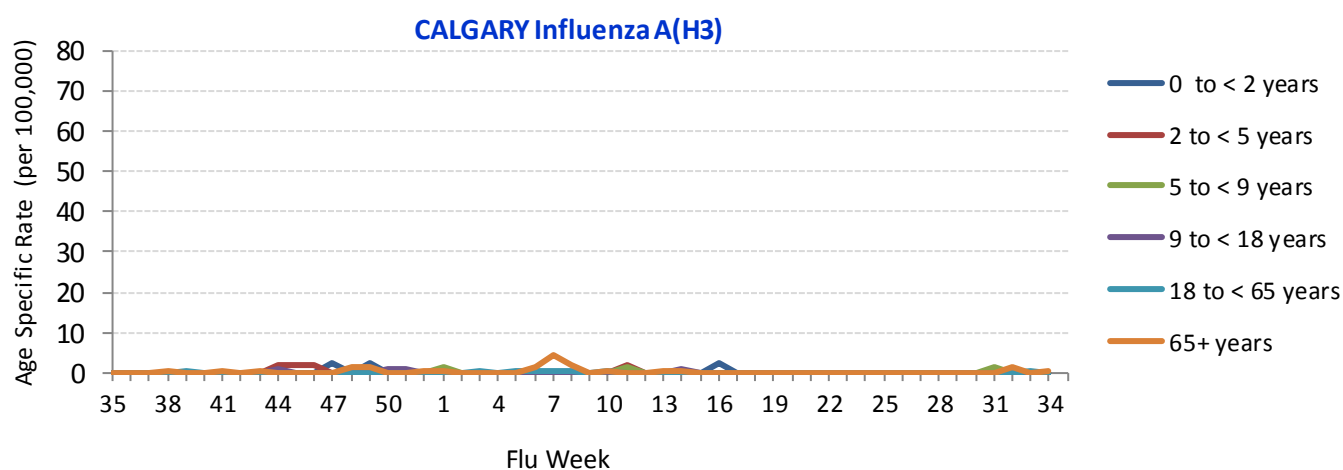
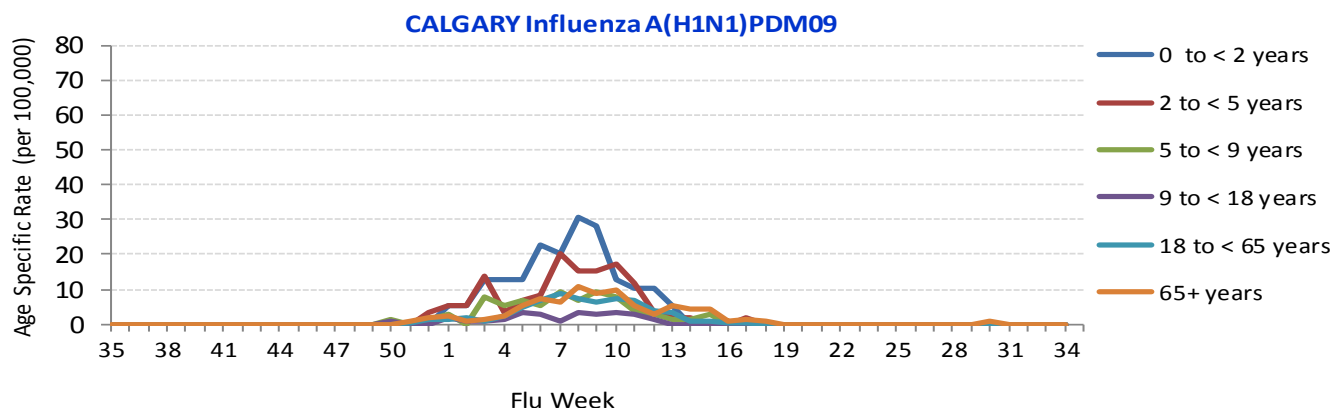
Zones figure 4: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype, South zone



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

Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

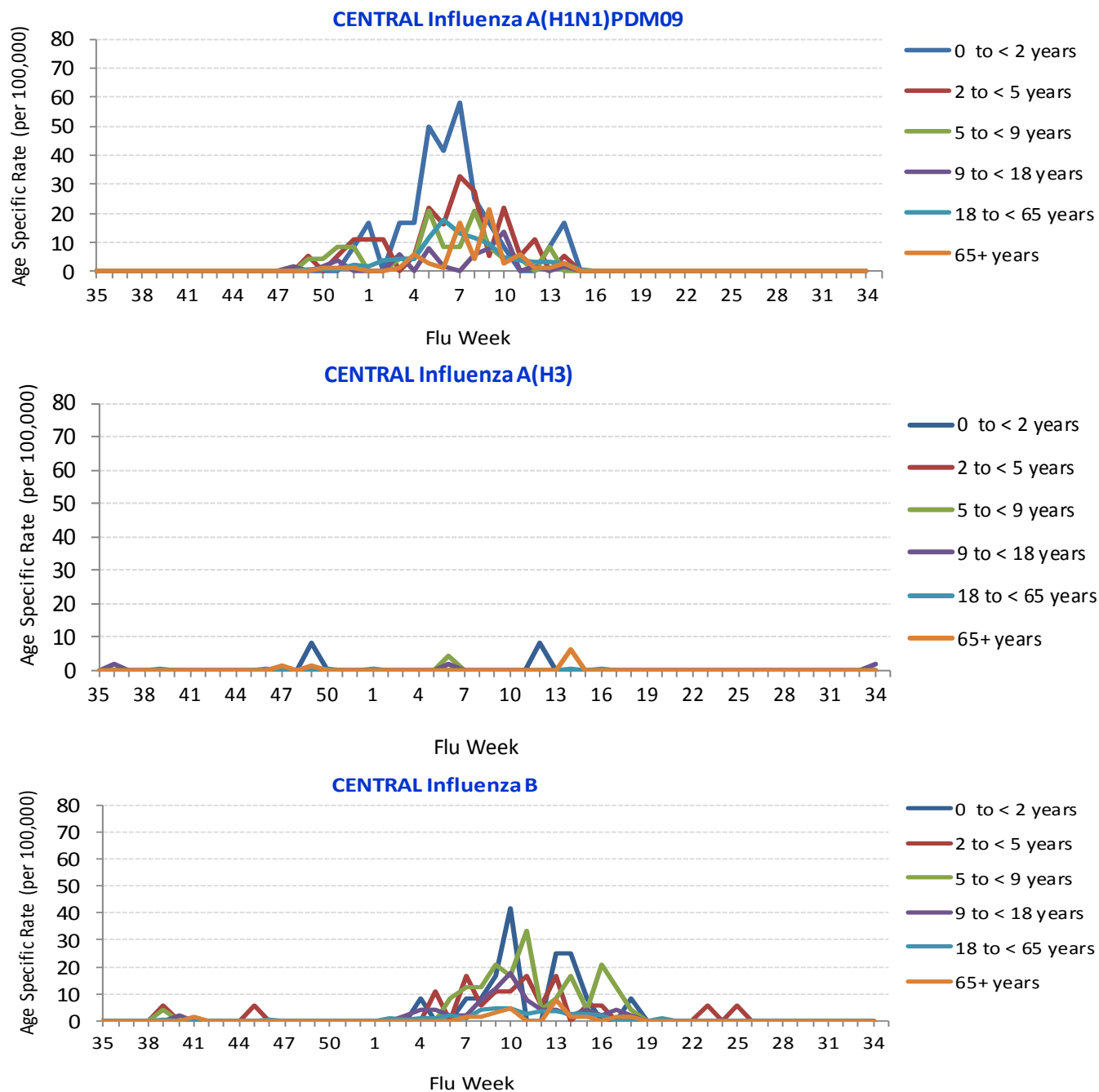
Zones figure 4 continued: Weekly age-specific rates of lab confirmed influenza (per 100,000) by subtype, Calgary zone



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

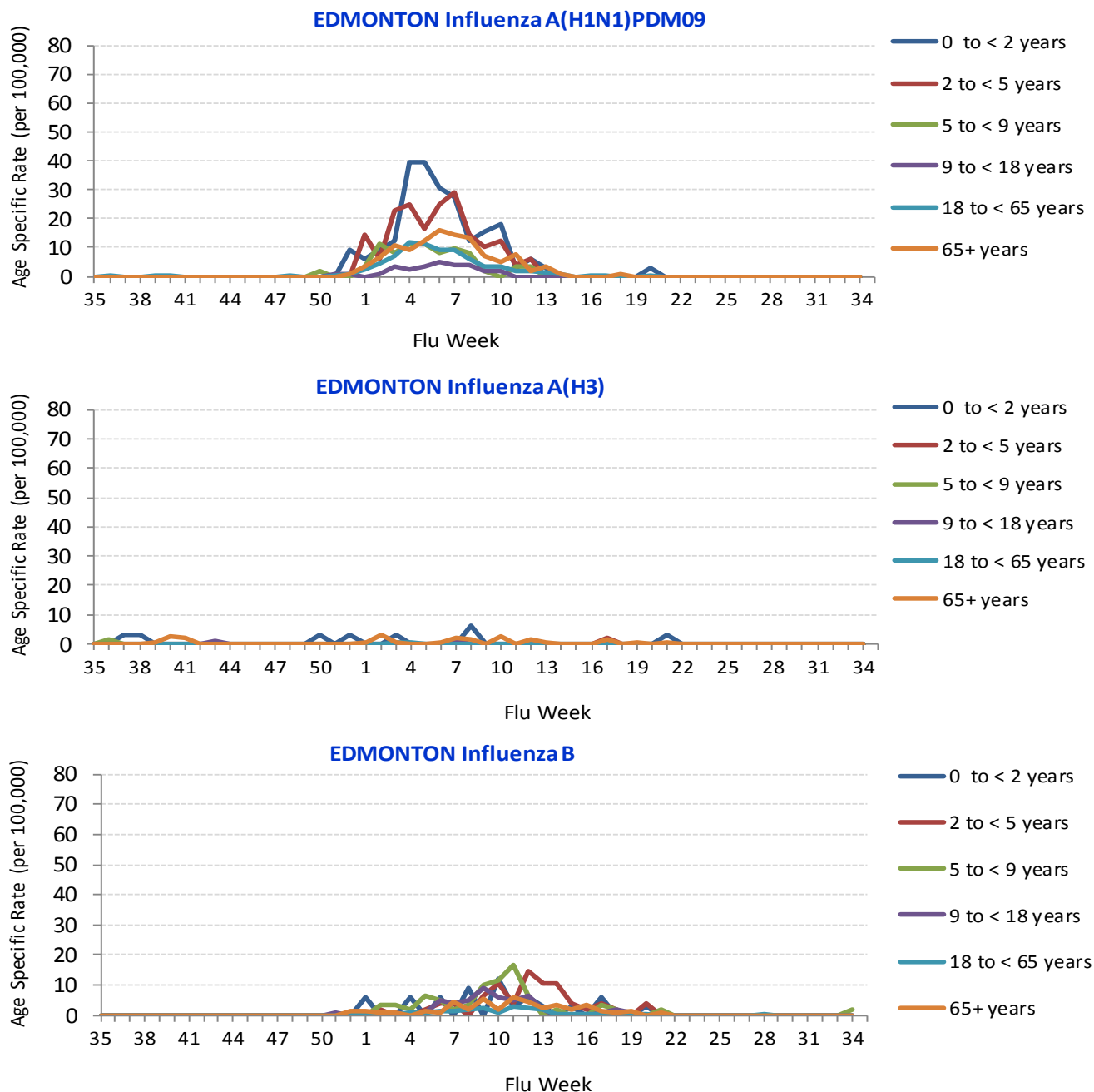
Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

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](#)

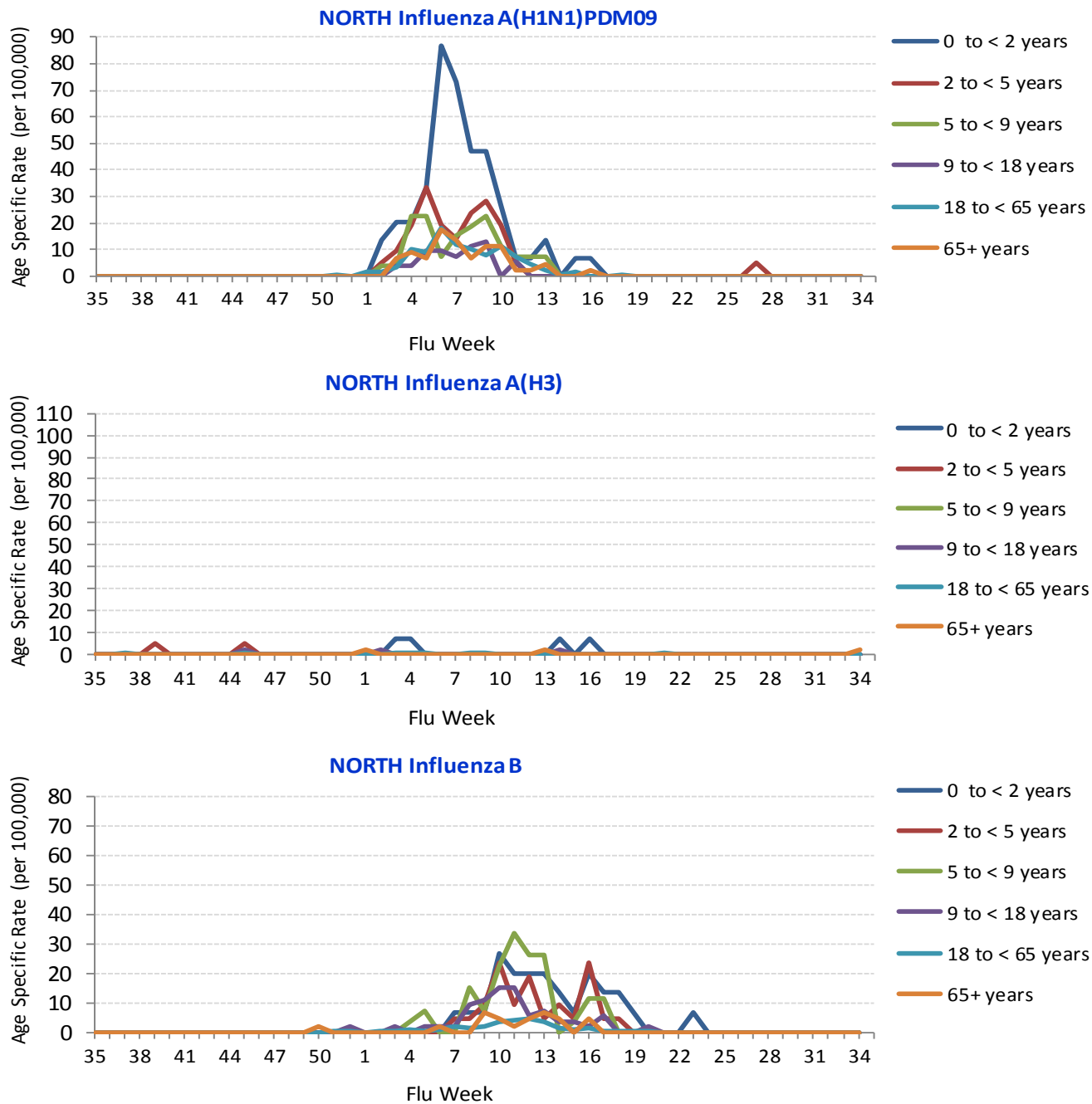
Source: CDRS influenza cases, data extracted on August 30, 2016. For more information on data definitions and sources, see [Data Notes](#).

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 August 30, 2016. 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 August 30, 2016. 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

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, 2013) from the Alberta Health Care Insurance Plan (AHCIP) Registration File. Forecast values (that is, for points in time after March 31, 2013) are estimated using the March 31, 2013 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.

2015-16 and 2016-17 NORTHERN HEMISPHERE INFLUENZA SEASON VACCINE COMPOSITION RECOMMENDATIONS

It is recommended that trivalent vaccines for use (northern hemisphere winter) contain the following:

2015-16 season:

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

2016-17 season:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Hong Kong/4801/2014 (H3N2)-like virus;
- a B/Brisbane/60/2008-like virus.

It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and a B/Phuket/3073/2013-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	August 30, 2015	September 5, 2015
36	September 6, 2015	September 12, 2015
37	September 13, 2015	September 19, 2015
38	September 20, 2015	September 26, 2015
39	September 27, 2015	October 3, 2015
40	October 4, 2015	October 10, 2015
41	October 11, 2015	October 17, 2015
42	October 18, 2015	October 24, 2015
43	October 25, 2015	October 31, 2015
44	November 1, 2015	November 7, 2015
45	November 8, 2015	November 14, 2015
46	November 15, 2015	November 21, 2015
47	November 22, 2015	November 28, 2015
48	November 29, 2015	December 5, 2015
49	December 6, 2015	December 12, 2015
50	December 13, 2015	December 19, 2015
51	December 20, 2015	December 26, 2015
52	December 27, 2015	January 2, 2016
1	January 3, 2016	January 9, 2016
2	January 10, 2016	January 16, 2016
3	January 17, 2016	January 23, 2016
4	January 24, 2016	January 30, 2016
5	January 31, 2016	February 6, 2016
6	February 7, 2016	February 13, 2016
7	February 14, 2016	February 20, 2016
8	February 21, 2016	February 27, 2016
9	February 28, 2016	March 5, 2016

Week	Start	End
10	March 6, 2016	March 12, 2016
11	March 13, 2016	March 19, 2016
12	March 20, 2016	March 26, 2016
13	March 27, 2016	April 2, 2016
14	April 3, 2016	April 9, 2016
15	April 10, 2016	April 16, 2016
16	April 17, 2016	April 23, 2016
17	April 24, 2016	April 30, 2016
18	May 1, 2016	May 7, 2016
19	May 8, 2016	May 14, 2016
20	May 15, 2016	May 21, 2016
21	May 22, 2016	May 28, 2016
22	May 29, 2016	June 4, 2016
23	June 5, 2016	June 11, 2016
24	June 12, 2016	June 18, 2016
25	June 19, 2016	June 25, 2016
26	June 26, 2016	July 2, 2016
27	July 3, 2016	July 9, 2016
28	July 10, 2016	July 16, 2016
29	July 17, 2016	July 23, 2016
30	July 24, 2016	July 30, 2016
31	July 31, 2016	August 6, 2016
32	August 7, 2016	August 13, 2016
33	August 14, 2016	August 20, 2016
34	August 21, 2016	August 27, 2016