

Weekly Update

August 28, 2013

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 as of the Saturday prior to the day the report is released.

Summary of What's New

Alberta:

- Rhino-enterovirus continued to have the highest percent positive rate of lab confirmed respiratory viruses in Alberta for the last several weeks ([Figure 1](#)).
- There were no new cases of lab confirmed influenza between week 31 and week 34 in Alberta ([Table 1](#)).
- One ILI outbreak was reported with onset between week 31 and week 34: it was a rhino-enterovirus outbreak in a Calgary zone long term care facility ([Table 2](#)).
- The Health Link Alberta call rate for cough was low, at 4.2 per 100,000, in Alberta in week 34 ([Figure 5](#)).
- The number of weekly visits for cough or cough/congestion to Edmonton zone Emergency Departments/Urgent Care Centres was low, at 134 in week 34 (UAH, FSH, RHC, EEHC are not included) ([Figure 6](#)).
- In week 34, 0.04% and 0.81% of patient visits to Alberta sentinel physicians were attributed to ILI (influenza like illness) and LRTI (lower respiratory tract infection), respectively ([Figure 7](#)).
- AHS public health administered influenza immunization data are in [Table 3](#). Community provider administered immunization data are in [Table 4](#). First Nation and Inuit Health Branch (FNIHB) administered immunization data are available in [Table 5](#).
- Immunization rates for the 2012-13 influenza season are available in [Table 7](#).

North America:

- As per FluWatch (PHAC), influenza activity has remained at inter seasonal levels in Canada. Rhino-enterovirus has had the highest percent positive rate of lab confirmed respiratory viruses for the past several weeks.
- As of flu week 28, the National Microbiology Lab (NML) of Canada antigenically characterized 1490 influenza samples – 657 A(H3N2), 248 A(H1N1)pdm09, and 602 B. All were similar to the 2012-13 Northern Hemisphere influenza vaccine strains, except 138 B viruses that were B/Brisbane/60/2008 (Victoria lineage). All viruses tested for antiviral resistance to oseltamivir and zanamivir were sensitive, except one influenza A(H3N2) sample was resistant to both oseltamivir and zanamivir, one influenza A(H1N1)pdm09 sample was resistant to oseltamivir, and three influenza B samples were resistant to both oseltamivir and zanamivir. All influenza A virus samples tested for resistance to amantadine were resistant except one influenza A(H3N2) sample.
- According to FluView (US CDC), influenza activity remained low in the United States in week 33.
- As of week 33, 16 cases of novel influenza A(H3N2)v have been reported to US CDC Indiana. All cases have had close contact with swine, one person was hospitalized, none died and no human-to-human transmission has been identified.

International:

- As per the most recent WHO influenza update, influenza activity remains at inter seasonal levels across the temperate Northern hemisphere.
- In the tropical zone, influenza activity has been decreasing for most of the Caribbean, Central and South America however sharp increases of influenza A(H3N2) and A(H1N1)pdm09 were observed in Nicaragua and Peru, respectively, in mid July. Central Africa and tropical Asia reported low influenza activity.

Quick Links

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Current Global Information

[FluWatch \(PHAC\)](#)

[FluView \(US CDC\)](#)

[HPA \(UK\)](#)

[WHO](#)

[Travel Advisories](#)

Surveillance and Reporting

Report Date: August 28, 2013

An influenza report targeted to the general public is available at: <http://www.health.alberta.ca/health-info/influenza-evidence.html>

If you have questions about the Alberta Respiratory Virus Surveillance Report, or any of the indicators, please contact:

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- In the temperate Southern Hemisphere, ILI activity (primarily influenza A(H1N1)pdm09) has been reported to be decreasing in South America and Southern Africa. Australia, New Zealand and the Pacific Islands reported low influenza activity but with an increasing trend.

Avian influenza A(H7N9) update:

- One additional case of avian influenza A(H7N9) has been reported to the WHO, since July. To date, 135 cases, including 44 deaths have been reported from China. There is still no evidence of sustained human-to-human transmission.
- WHO avian influenza A(H7N9) update: http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/index.html
- PHAC avian influenza A(H7N9) update: <http://www.phac-aspc.gc.ca/eri-ire/h7n9/index-eng.php>

Novel coronavirus update - Middle East respiratory syndrome coronavirus (MERS-CoV):

- As of August 1, 2013, 94 cases of lab confirmed MERS-CoV, including 46 deaths, have been reported to the WHO.
- WHO MERS-CoV update: http://www.who.int/csr/disease/coronavirus_infections/en/index.html
- PHAC MERS-CoV update: http://www.phac-aspc.gc.ca/eri-ire/coronavirus/risk_assessment-evaluation_risque-eng.php

2013-14 Northern Hemisphere influenza season vaccine composition recommendation for trivalent vaccines:

- an A/California/7/2009 (H1N1)pdm09-like virus*;
- an A(H3N2) virus antigenically like the cell-propagated prototype virus A/Victoria/361/2011**;
- 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.

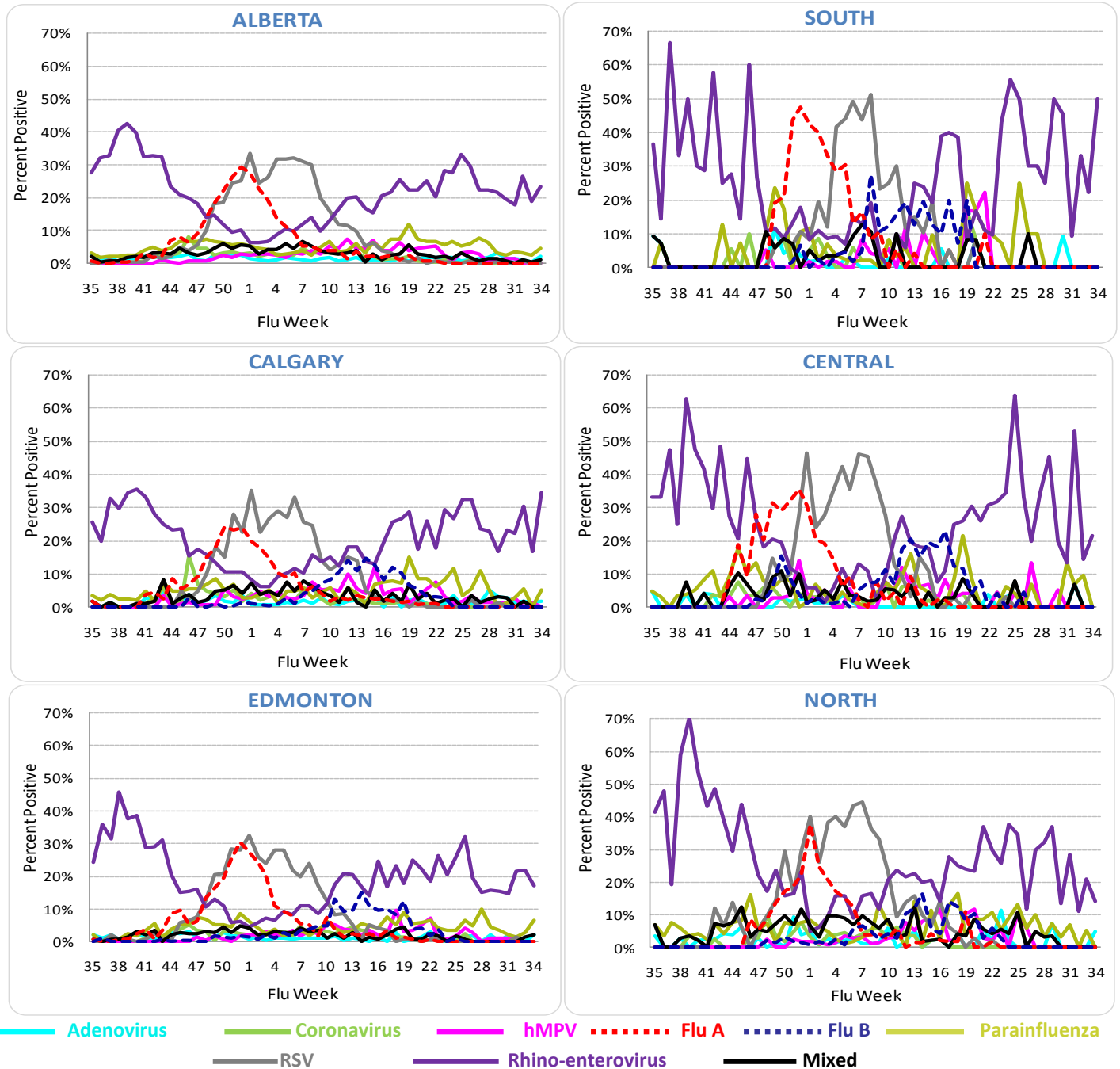
*A/Christchurch/16/2010 is an A/California/7/2009-like virus

**A/Texas/50/2012 is an A(H3N2) virus antigenically like the cell-propagated prototype virus A/Victoria/361/2011. It is recommended that A/Texas/50/2012 is used as the A(H3N2) vaccine component because of antigenic changes in earlier A/Victoria/361/2011-like vaccine viruses (such as IVR-165) resulting from adaptation to propagation in eggs.

***B/Brisbane/33/2008 is a B/Brisbane/60/2008-like virus.

Laboratory Data

Figure 1: Respiratory specimen percent positive rates, by virus type, by week, (2012-13)



Source: DIAL – Provincial Laboratory (includes specimens received on or before Aug 24, 2013). For more information on data definitions and sources, see [Data Notes](#). “Percent positive” for a virus is defined as the positive specimens for that virus as a percent of the total number of respiratory virus specimens tested.

Surveillance and Reporting

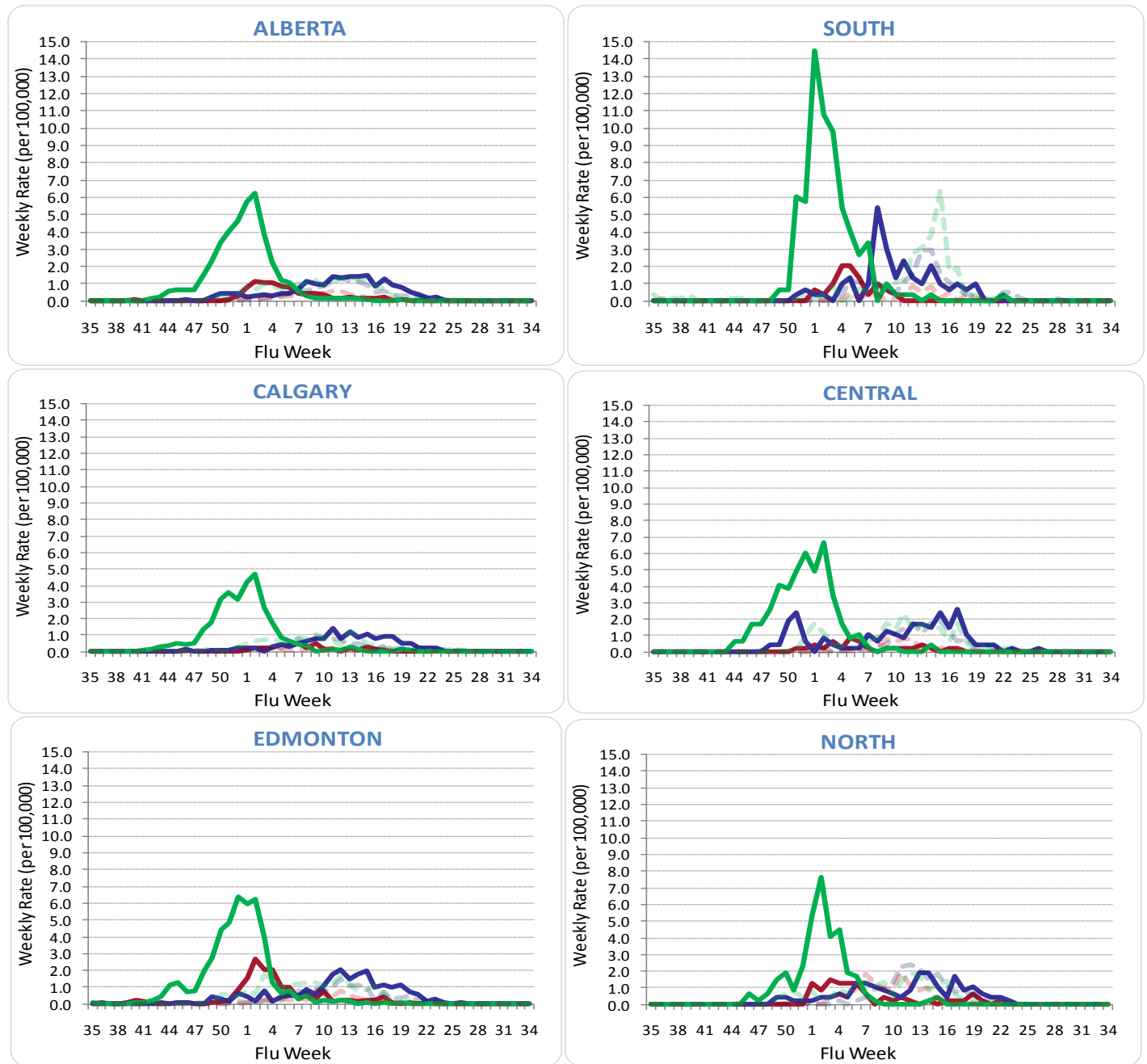
Report Date: August 28, 2013

An influenza report targeted to the general public is available at: <http://www.health.alberta.ca/health-info/influenza-evidence.html>

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Figure 2: Rate of lab confirmed influenza (per 100,000) by subtype, by week specimen classified



— Flu A(H3) current season (2012-13)
 — Flu A(H1N1) current season (2012-13)
 — Flu B current season (2012-13)
- - - Flu A(H3) 2 Yr Avg (2010-11, 2011-12)
 - - - Flu A(H1N1) 2 Yr Avg (2010-11, 2011-12)
 - - - Flu B 2 Yr Avg (2010-11/2011-12)

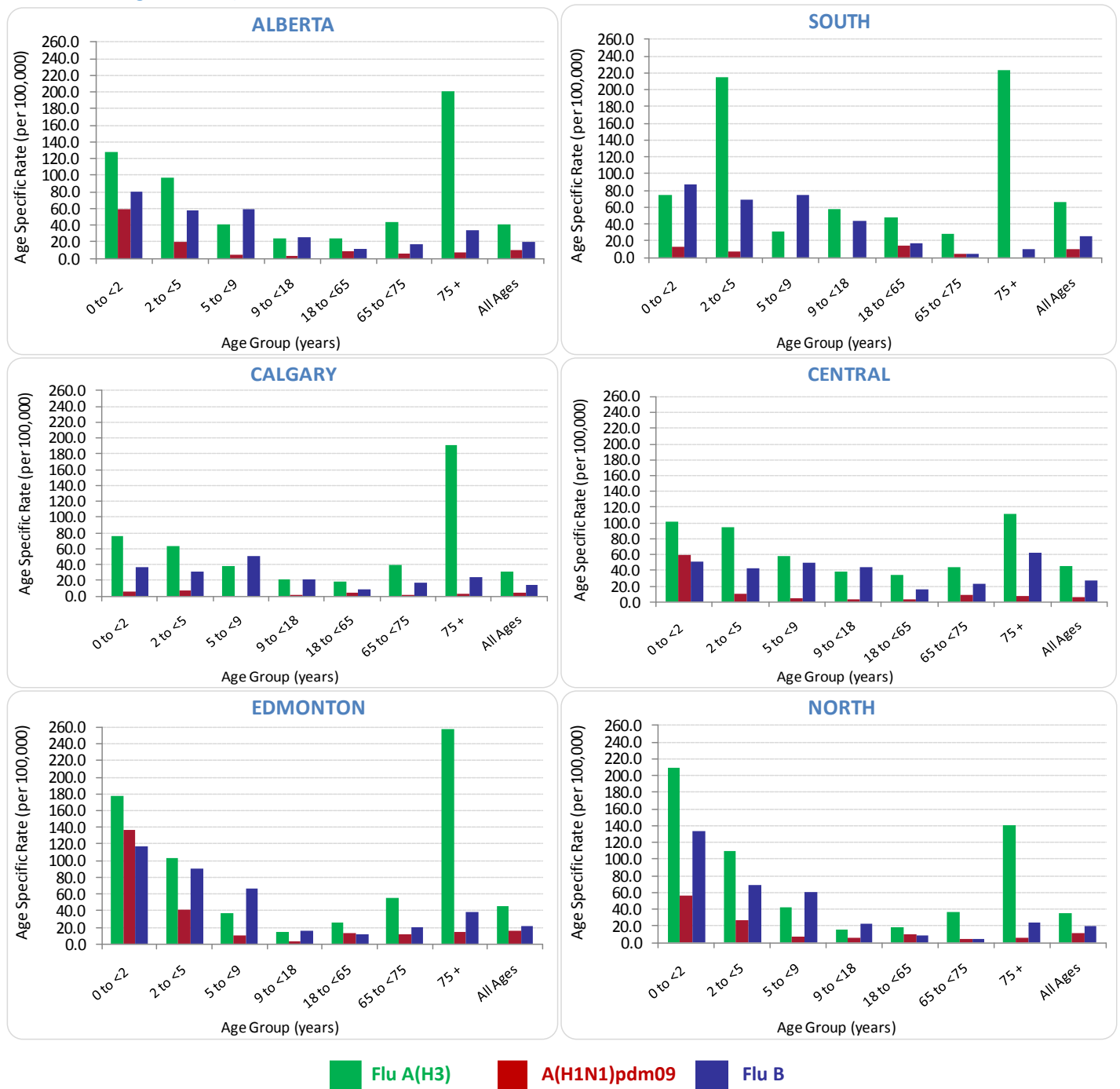
Source: The Alberta influenza outbreak response toolkit (includes cases with positive influenza specimens classified on or before Aug 24, 2013). For more information on data definitions and sources, see [Data Notes](#).

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

Zones	Weeks 31 - 34 (Jul 28 - Aug 24, 2013)					Cumulative (Aug 26, 2012 - Aug 24, 2013)				
	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	0	0	0	0	0	197	29	13	239	77
Calgary	0	0	0	0	0	469	56	32	557	213
Central	0	0	0	0	0	214	26	11	251	125
Edmonton	0	0	0	0	0	570	204	39	813	277
North	0	0	0	0	0	163	53	13	229	96
Alberta Total	0	0	0	0	0	1613	368	108	2089	788

Source: The Alberta influenza outbreak response toolkit (includes cases with positive influenza specimens classified on or before Aug 24, 2013). For more information on data definitions and sources, see [Data Notes](#).

Figure 3: Cumulative age-specific rates of lab confirmed influenza (per 100,000) by subtype, Alberta and each zone (Aug 26, 2012 – Aug 24, 2013)



Source: The Alberta influenza outbreak response toolkit (includes cases with positive influenza specimens classified on or before Aug 24, 2013). For more information on data definitions and sources, see [Data Notes](#).

Surveillance and Reporting

Report Date: August 28, 2013

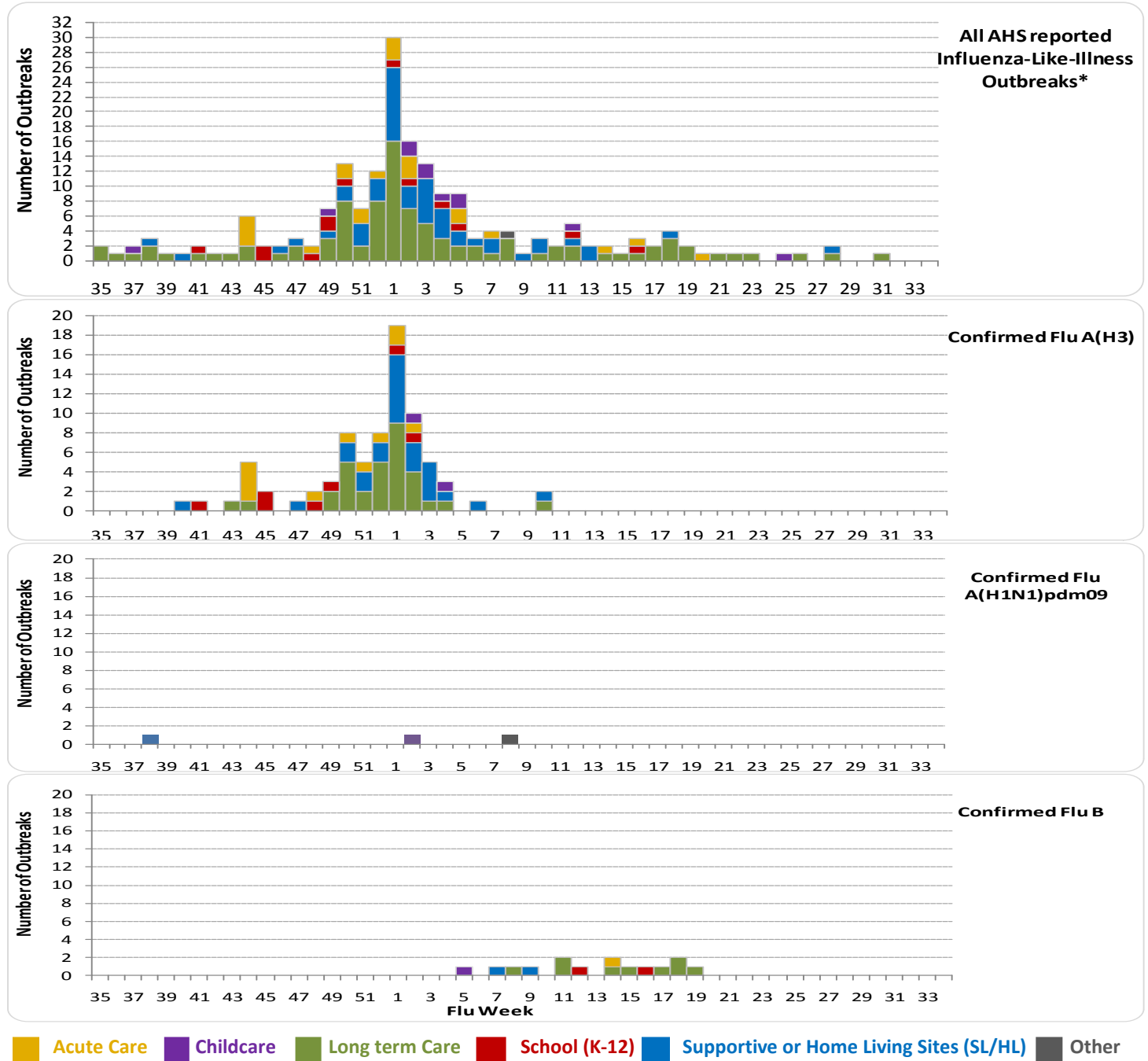
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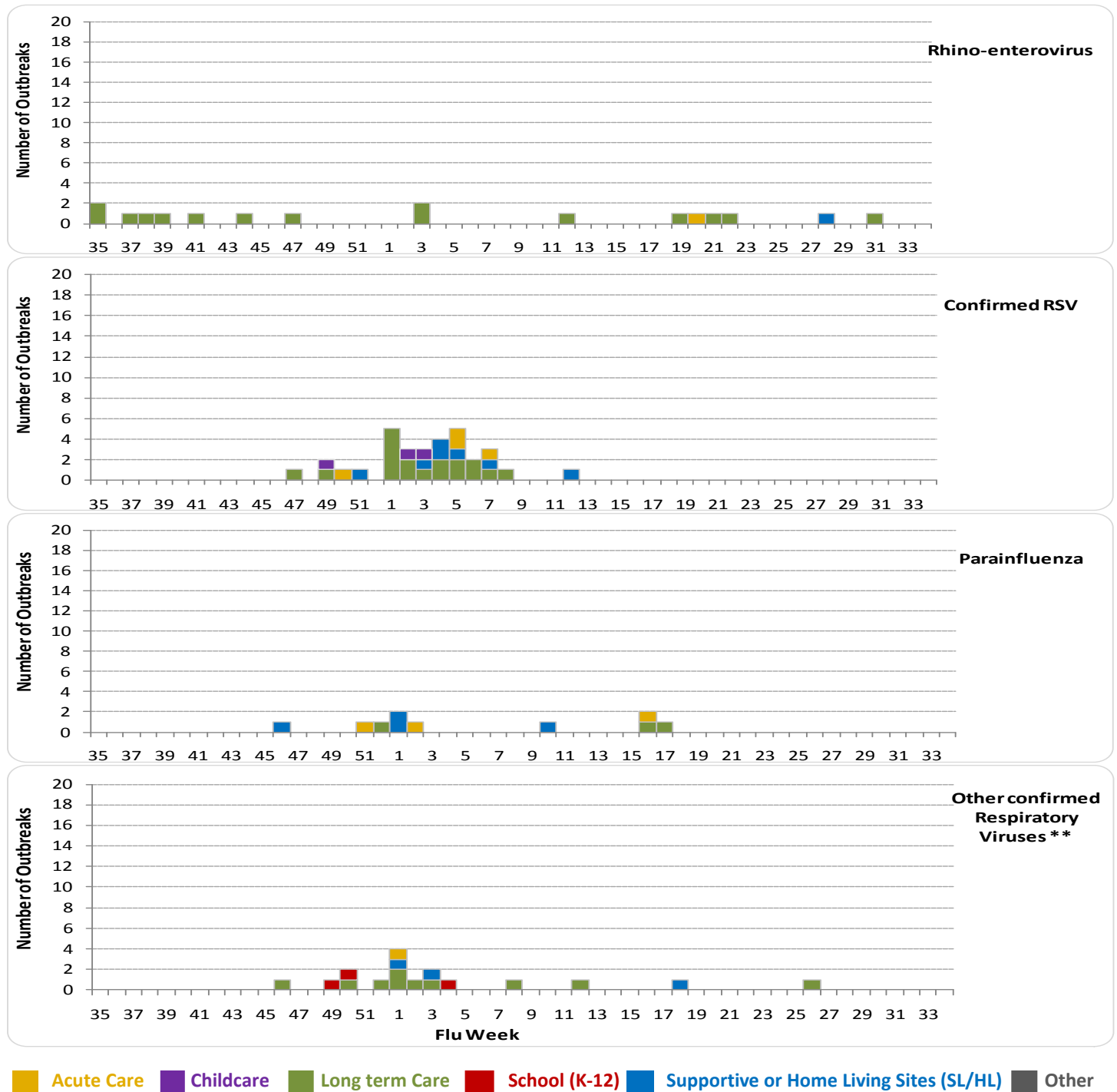
AHS Influenza-Like-Illness (ILI) Outbreak Investigations

Figure 4: AHS investigated ILI outbreaks in Alberta facility types, by onset week, by organism type (2012-13)



"All reported outbreaks include those with a confirmed organism, those where no organism was confirmed, those pending lab confirmation and those where no specimens were tested. *Note: Some outbreaks may involve more than one pathogen.* Source: CDRS as of Aug 27, 2013 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#).

Figure 4 (cont'd): AHS investigated ILI outbreaks in Alberta facility types, by onset week, by organism type (2012-13)



** Other confirmed respiratory viruses include influenza A (unresolved type), adenovirus, coronavirus, and hMPV. *Note: Some outbreaks may involve more than one pathogen.* Source: CDRS as of Aug 27, 2013 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#).

Table 2: New and Cumulative AHS investigated ILI outbreaks reported (by onset date), by organism, Alberta and Zones

ALBERTA												
Organism	Weeks 31-34 (Jul 28- Aug 24, 2013)						Cumulative (Aug 26, 2012 - Aug 24, 2013)					
	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other
Confirmed Flu A(H3)	-	-	-	-	-	-	32	25	7	11	2	-
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	1	-	1	-	1
Confirmed Flu B	-	-	-	-	-	-	9	2	2	1	1	-
Confirmed RSV	-	-	-	-	-	-	18	7	-	4	3	-
Confirmed Parainfluenza	-	-	-	-	-	-	3	4	-	3	-	-
Confirmed Rhino-enterovirus	1	-	-	-	-	-	15	1	-	1	-	-
Other confirmed viruses**	-	-	-	-	-	-	10	3	3	1	-	-
Initial report only (laboratory results pending)	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (no organism confirmed or no specimens available)	-	-	-	-	-	-	9	6	1	-	5	-
Total	1	0	0	0	0	0	96	49	13	22	11	1
SOUTH												
Organism	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other
	Confirmed Flu A(H3)	-	-	-	-	-	2	8	1	1	-	-
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-
Confirmed Flu B	-	-	-	-	-	-	-	-	-	-	-	-
Confirmed RSV	-	-	-	-	-	-	-	1	-	-	2	-
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	-	-	-
Confirmed Rhino-enterovirus	-	-	-	-	-	-	1	1	-	-	-	-
Other confirmed viruses**	-	-	-	-	-	-	-	-	-	-	-	-
Initial report only (laboratory results pending)	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (no organism confirmed or no specimens available)	-	-	-	-	-	-	1	1	-	-	-	-
Total	0	0	0	0	0	0	4	11	1	1	2	0
CALGARY												
Organism	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other
	Confirmed Flu A(H3)	-	-	-	-	-	8	5	2	2	-	-
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-
Confirmed Flu B	-	-	-	-	-	-	4	-	2	-	-	-
Confirmed RSV	-	-	-	-	-	-	4	-	-	2	-	-
Confirmed Parainfluenza	-	-	-	-	-	-	-	-	-	3	-	-
Confirmed Rhino-enterovirus	1	-	-	-	-	-	3	-	-	-	-	-
Other confirmed viruses**	-	-	-	-	-	-	5	-	3	1	-	-
Initial report only (laboratory results pending)	-	-	-	-	-	-	-	-	-	-	-	-
Unknown (no organism confirmed or no specimens available)	-	-	-	-	-	-	1	2	-	-	-	-
Total	1	0	0	0	0	0	25	7	7	8	0	0

Source: CDRS as of Aug 27, 2013 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#).
 **Other confirmed viruses include influenza A(unresolved type) adenovirus, coronavirus and hMPV.

Table 2 (cont.): New and Cumulative AHS investigated ILI outbreaks reported (by onset date), by organism, Alberta and Zones

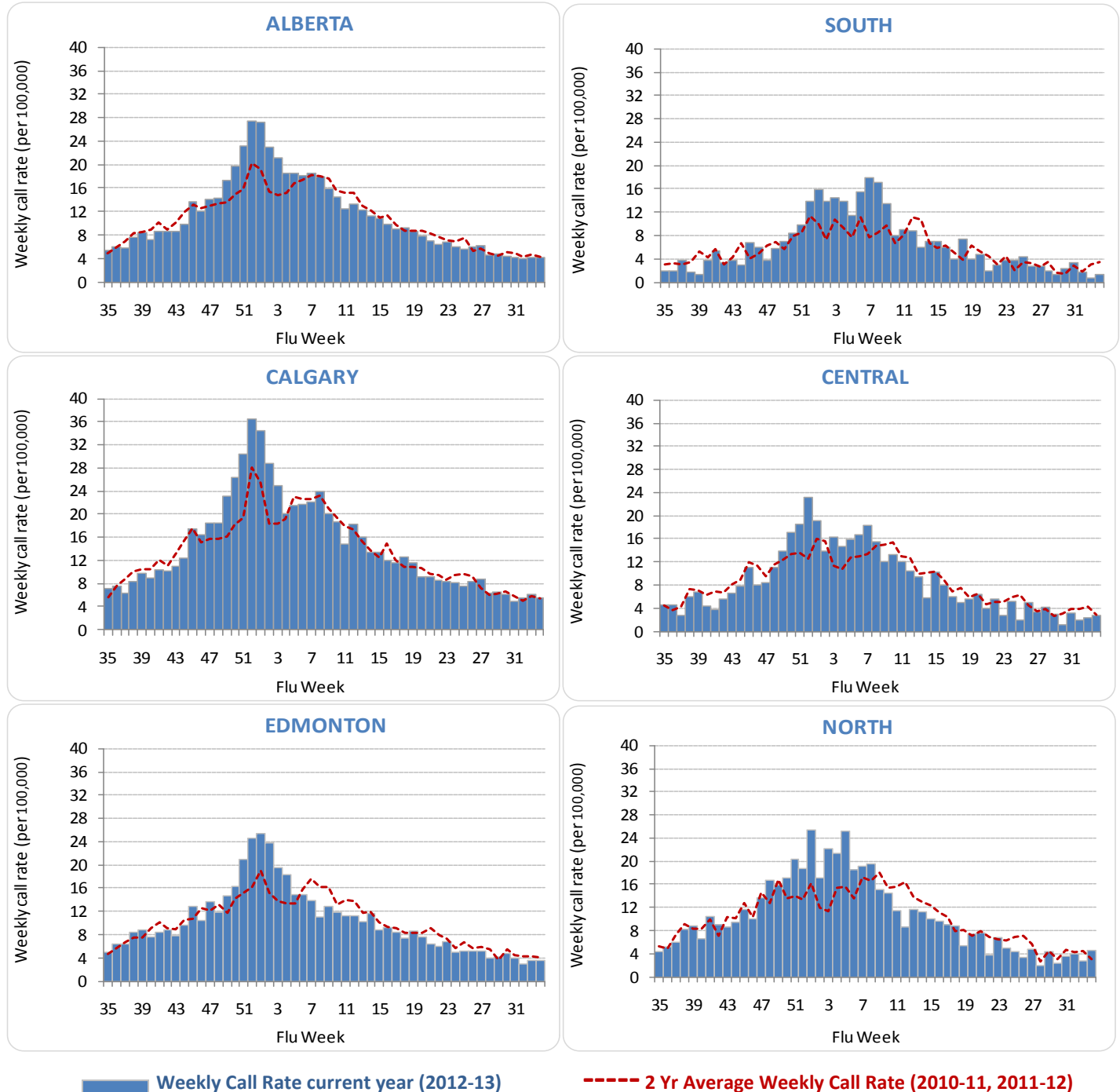
CENTRAL													
Organism	Weeks 31-34 (Jul 28- Aug 24, 2013)						Cumulative (Aug 26, 2012 - Aug 24, 2013)						
	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	
Confirmed Flu A(H3)	-	-	-	-	-	-	2	1	-	1	-	-	
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	-	-	-	
Confirmed Flu B	-	-	-	-	-	-	2	-	-	1	-	-	
Confirmed RSV	-	-	-	-	-	-	4	2	-	-	-	-	
Confirmed Parainfluenza	-	-	-	-	-	-	-	2	-	-	-	-	
Confirmed Rhino-enterovirus	-	-	-	-	-	-	1	-	-	-	-	-	
Other confirmed viruses**	-	-	-	-	-	-	1	-	-	-	-	-	
Initial report only (laboratory results pending)	-	-	-	-	-	-	-	-	-	-	-	-	
Unknown (no organism confirmed or no specimens available)	-	-	-	-	-	-	1	-	-	-	1	-	
Total	0	0	0	0	0	0	11	5	0	2	1	0	
EDMONTON													
Organism	Weeks 31-34 (Jul 28- Aug 24, 2013)						Cumulative (Aug 26, 2012 - Aug 24, 2013)						
	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	
Confirmed Flu A(H3)	-	-	-	-	-	-	17	10	2	6	-	-	
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	1	-	-	-	1	
Confirmed Flu B	-	-	-	-	-	-	2	2	-	-	-	-	
Confirmed RSV	-	-	-	-	-	-	9	3	-	2	1	-	
Confirmed Parainfluenza	-	-	-	-	-	-	2	2	-	-	-	-	
Confirmed Rhino-enterovirus	-	-	-	-	-	-	9	-	-	-	-	-	
Other confirmed viruses**	-	-	-	-	-	-	4	2	-	-	-	-	
Initial report only (laboratory results pending)	-	-	-	-	-	-	-	-	-	-	-	-	
Unknown (no organism confirmed or no specimens available)	-	-	-	-	-	-	5	3	1	-	4	-	
Total	0	0	0	0	0	0	48	23	3	8	5	1	
NORTH													
Organism	Weeks 31-34 (Jul 28- Aug 24, 2013)						Cumulative (Aug 26, 2012 - Aug 24, 2013)						
	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	Long term care	SL/HL	School (K-12)	Acute Care	Childcare	Other	
Confirmed Flu A(H3)	-	-	-	-	-	-	3	1	2	1	2	-	
Confirmed A(H1N1)pdm09	-	-	-	-	-	-	-	-	-	1	-	-	
Confirmed Flu B	-	-	-	-	-	-	1	-	-	-	1	-	
Confirmed RSV	-	-	-	-	-	-	1	1	-	-	-	-	
Confirmed Parainfluenza	-	-	-	-	-	-	1	-	-	-	-	-	
Confirmed Rhino-enterovirus	-	-	-	-	-	-	1	-	-	1	-	-	
Other confirmed viruses**	-	-	-	-	-	-	-	1	-	-	-	-	
Initial report only (laboratory results pending)	-	-	-	-	-	-	-	-	-	-	-	-	
Unknown (no organism confirmed or no specimens available)	-	-	-	-	-	-	1	-	-	-	-	-	
Total	0	0	0	0	0	0	8	3	2	3	3	0	

 Source: CDRS as of Aug 27, 2013 (obtained via the Alberta Outbreak Reporting Form). For more information on data definitions and sources, see [Data Notes](#).

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

Calls to Health Link Alberta

Figure 5: Call rate (per 100,000 Population) for cough, by flu week (2012-13)



Source: Sharp Focus - Health Link Alberta - via Alberta Real Time Syndromic Surveillance Net (ARTSSN) - calls received on or before Aug 24, 2013. For more information on data definitions and sources, see [Data Notes](#).

Surveillance and Reporting

Report Date: August 28, 2013

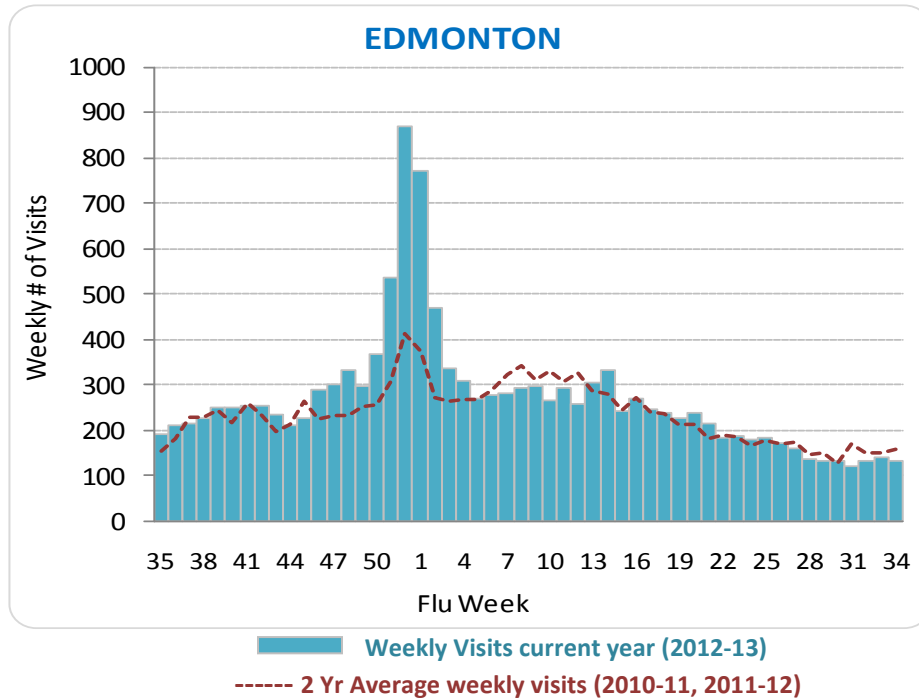
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Emergency Department Visits

Figure 6: Visits for cough, cough/congestion, by flu week, Edmonton zone (2012-13)

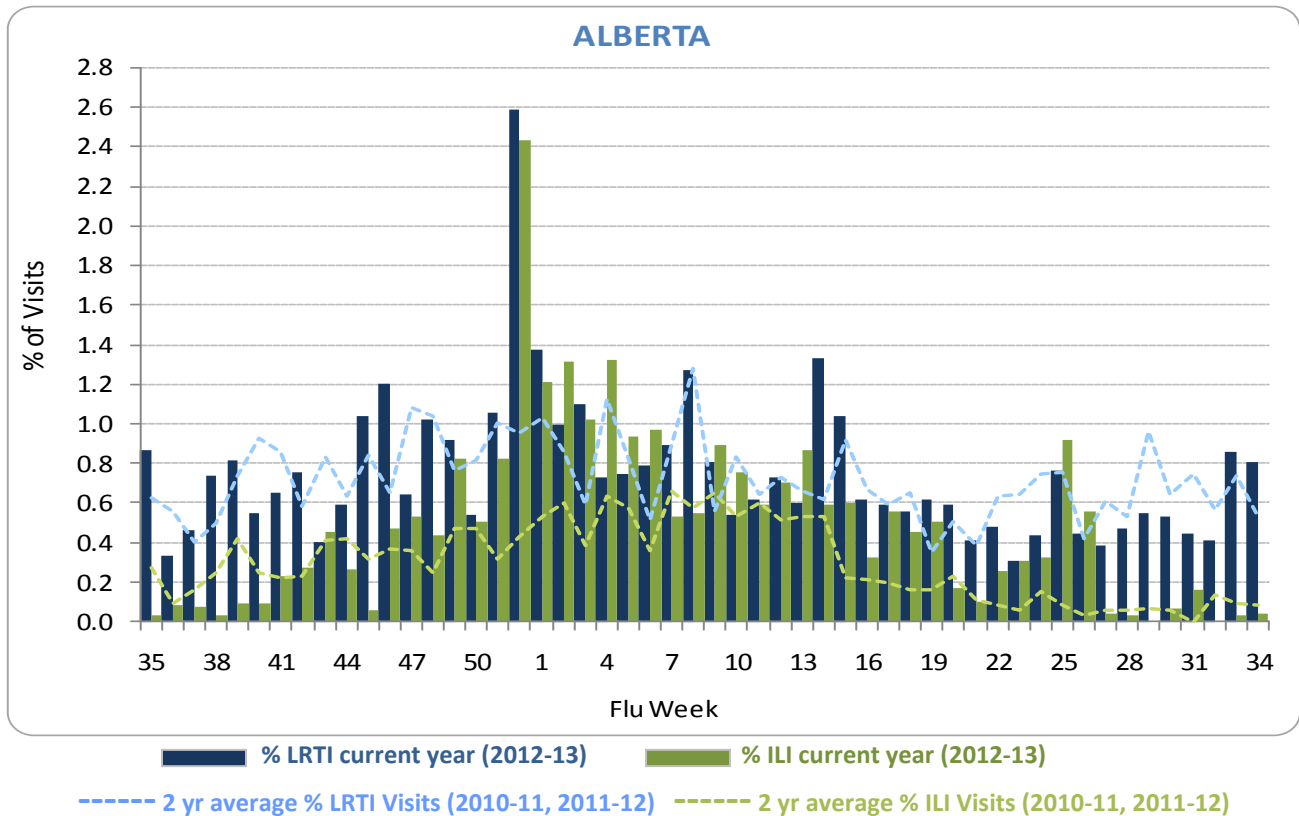


Source: E-triage and EDIS - via Alberta Real Time Syndromic Surveillance Net (ARTSSN) – visits on or before Aug 24, 2013. For more information on data definitions and sources, see [Data Notes](#).

The following facilities have been left out of analysis due to data incomparability across influenza seasons. EDIS: UAH, FSHC and E-Triage: RHC, EEHC

Sentinel Physician Office Visits (TARRANT)

Figure 7: Sentinel physician patient visits (%) with ILI and LRTI, by flu week, Alberta (2012-13)



Number of Physicians Reporting this Week	South	Calgary	Central	Edmonton	North	Alberta
	1	18	11	6	0	36

Source: Tarrant Viral Watch program – www.tarrantviralwatch.ca as of Aug 27, 2013. For more information on data definitions and sources, see [Data Notes](#).

Influenza Immunizations

Table 3: Cumulative AHS Delivered Influenza Immunizations, by priority group (Oct 1, 2012 – Apr 30, 2013)

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Long term care staff AHS/Covenant		82	108	151	88	560	989
Long term care staff Total		522	374	333	292	1009	2530
Health care workers AHS/Covenant		643	1843	1284	2640	2531	8941
Health care workers Total		1676	5560	2736	6331	5009	21312
Pregnant women		203	1302	360	1153	410	3428
Residents of long term care 65+		830	1,021	729	628	1,267	4,475
Residents of long term care <65		49	251	156	160	56	672
65 years of age and over		12,047	36,675	18,223	44,659	14,824	126,428
All children 6 months up to and including 23 months*	Dose #1	1,695	9,663	1,857	6,324	2,234	21,773
	Dose #2	1,129	5,319	1,192	3,640	1,249	12,529
	Annual	672	4,388	1,043	2,731	1,039	9,873
All children 24 months up to and including 59 months*	Dose #1	434	1,705	372	1,447	1,102	5,060
	Dose #2	309	879	216	647	249	2,300
	Annual	1,941	11,246	1,963	7,331	2,165	24,646
High risk: 5 years up to and including 8 years*	Dose #1	23	104	36	88	122	373
	Dose #2	5	45	15	35	12	112
	Annual	241	1,692	364	1,130	354	3,781
High risk: 9 years up to and including 17 years		267	1,749	466	1,258	545	4,285
High risk: 18 years up to and including 64 years		2,231	12,640	4,270	12,528	5,952	37,621
Healthy: 5 years up to and including 8 years*	Dose #1	275	628	146	562	915	2,526
	Dose #2	169	269	97	195	133	863
	Annual	1,894	9,641	1,941	6,837	2,358	22,671
Healthy: 9 years up to and including 17 years		2,137	10,681	2,715	8,152	4,582	28,267
Healthy: 18 years up to and including 64 years		10,751	67,083	14,176	57,453	21,916	171,379
Total number of clients who have received Dose 1 of 2		2,427	12,100	2,411	8,421	4,373	29,732
Total number of clients who have received Dose 2 of 2		1,612	6,512	1,520	4,517	1,643	15,804
Total number of clients who have received an Annual Dose		35,461	164,303	49,475	150,643	61,486	461,368
Total Doses Administered		39,500	182,915	53,406	163,581	67,502	506,904

Source: AHS Zones (doses do not include those delivered by external 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: Community Provider Delivered Influenza Immunizations by Risk Group (Excluding FNIHB): Report 1 & 2 (Sept 30, 2012 – Mar 31, 2013)**

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Long term care staff AHS/Covenant		316	469	1083	99	20	1987
Long term care staff Total		599	6424	2193	5680	104	15000
Health care workers AHS/Covenant		3045	14059	4270	15788	411	37573
Health care workers Total		5416	20077	5642	19953	806	51894
Pregnant women		458	1933	52	549	40	3032
Residents of long term care 65+		362	5,267	1410	5571	144	12,754
Residents of long term care <65		46	924	408	956	66	2,400
65 years of age and over		10,008	44,684	9,168	30,511	2,181	96,552
All children 6 months up to and including 23 months*	Dose #1	9	95	1	176	0	281
	Dose #2	15	74	1	108	0	198
	Annual	0	214	3	199	0	416
All children 24 months up to and including 59 months*	Dose #1	3	82	0	124	0	209
	Dose #2	6	41	0	70	0	117
	Annual	14	606	7	540	0	1,167
High risk: 5 years up to and including 8 years*	Dose #1	3	35	0	21	0	59
	Dose #2	3	15	0	8	0	26
	Annual	9	239	18	196	0	462
High risk: 9 years up to and including 17 years		236	1,622	159	1,134	55	3,206
High risk: 18 years up to and including 64 years		4,099	20,221	3,302	16,201	2,316	46,139
Healthy: 5 years up to and including 8 years*	Dose #1	4	32	0	51	0	87
	Dose #2	4	12	0	26	0	42
	Annual	38	619	51	672	0	1,380
Healthy: 9 years up to and including 17 years		1,227	6,172	615	3,701	363	12,078
Healthy: 18 years up to and including 64 years		11,878	77,561	9,040	47,930	8,682	155,091
Total number of clients who have received Dose 1 of 2		19	244	1	372	0	636
Total number of clients who have received Dose 2 of 2		28	142	1	212	0	383
Total number of clients who have received an Annual Dose		34,390	186,563	32,068	133,793	14,757	401,571
Total Doses Administered		34,437	186,949	32,070	134,377	14,757	402,590

Source: Community providers and First Nations and Inuit Health Branch (FNIHB) submit reports twice a year, once at end of December and once at the end of the season. 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.

**Physician, pharmacist, other non-AHS community provider, AHS non-public health

Table 5: FNIHB Delivered Influenza Immunizations by Risk Group Report 1 & 2 (Sept 30, 2012 – Mar 31, 2013)

Priority Group		South	Calgary	Central	Edmonton	North	Alberta
Long term care staff AHS/Covenant		0	0	0	0	0	0
Long term care staff Total		0	0	0	0	0	0
Health care workers AHS/Covenant		0	0	0	0	0	0
Health care workers Total		88	102	38	62	235	525
Pregnant women		12	54	8	15	70	159
Residents of long term care 65+		0	0	0	0	0	0
Residents of long term care <65		0	0	0	0	0	0
65 years of age and over		148	279	54	58	387	926
All children 6 months up to and including 23 months*	Dose #1	78	72	39	25	111	325
	Dose #2	28	34	0	4	19	85
	Annual	36	54	12	12	67	181
All children 24 months up to and including 59 months*	Dose #1	22	27	29	9	46	133
	Dose #2	3	32	2	1	4	42
	Annual	84	161	48	47	242	582
High risk: 5 years up to and including 8 years*	Dose #1	1	1	0	0	6	8
	Dose #2	0	0	0	0	0	0
	Annual	12	7	7	8	36	70
High risk: 9 years up to and including 17 years		0	0	0	0	0	
High risk: 18 years up to and including 64 years		204	259	133	79	467	1,142
Healthy: 5 years up to and including 8 years*	Dose #1	7	19	9	3	4	42
	Dose #2	1	0	0	0	1	2
	Annual	73	107	52	48	224	504
Healthy: 9 years up to and including 17 years		0	0	0	0	0	0
Healthy: 18 years up to and including 64 years		754	1,265	546	383	2,180	5,128
Total number of clients who have received Dose 1 of 2		108	119	77	37	167	508
Total number of clients who have received Dose 2 of 2		32	66	2	5	24	129
Total number of clients who have received an Annual Dose		1,411	2,288	898	712	3,908	9,217
Total Doses Administered		1,551	2,473	977	754	4,099	9,854

Source: First Nations and Inuit Health Branch (FNIHB) submit reports twice a year, once at end of December and once at the end of the season. 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 6: Cumulative Influenza Immunizations by Risk Group (AHS + Community Provider + FNIHB)
Community Provider and FNIHB Report 1 & 2 (Sept 30, 2012 – Mar 31, 2013) and AHS Delivered (Oct 2, 2012 - Apr 30, 2013)**

Priority Group	South	Calgary	Central	Edmonton	North	Alberta	
Long term care staff AHS/Covenant	398	577	1234	187	580	2976	
Long term care staff Total	1121	6798	2526	5972	1113	17530	
Health care workers AHS/Covenant	3688	15902	5554	18428	2942	46514	
Health care workers Total	7180	25739	8416	26346	6050	73731	
Pregnant women	673	3289	420	1717	520	6619	
Residents of long term care 65+	1,192	6,288	2139	6199	1,411	17,229	
Residents of long term care <65	95	1,175	564	1116	122	3,072	
65 years of age and over	22,203	81,638	27,445	75,228	17,392	223,906	
All children 6 months up to and including 23 months*	Dose #1	1,782	9,830	1,897	6,525	2,345	22,379
	Dose #2	1172	5,427	1,193	3,752	1,268	12,812
	Annual	708	4,656	1058	2,942	1106	10,470
All children 24 months up to and including 59 months*	Dose #1	459	1,814	401	1,580	1148	5,402
	Dose #2	318	952	218	718	253	2,459
	Annual	2,039	12,013	2,018	7,918	2,407	26,395
High risk: 5 years up to and including 8 years*	Dose #1	27	140	36	109	128	440
	Dose #2	8	60	15	43	12	138
	Annual	262	1,938	389	1,334	390	4,313
High risk: 9 years up to and including 17 years	503	3,371	625	2,392	600	7,491	
High risk: 18 years up to and including 64 years	6,534	33,120	7,705	28,808	8,735	84,902	
Healthy: 5 years up to and including 8 years*	Dose #1	286	679	155	616	919	2,655
	Dose #2	174	281	97	221	134	907
	Annual	2,005	10,367	2,044	7,557	2,582	24,555
Healthy: 9 years up to and including 17 years	3,364	16,853	3,330	11,853	4,945	40,345	
Healthy: 18 years up to and including 64 years	23,383	145,909	23,762	105,766	32,778	331,598	
Total number of clients who have received Dose 1 of 2	2,554	12,463	2,489	8,830	4,540	30,876	
Total number of clients who have received Dose 2 of 2	1,672	6,720	1,523	4,734	1,667	16,316	
Total number of clients who have received an Annual Dose	71,262	353,154	82,441	285,148	80,151	872,156	
Total Doses Administered	75,488	372,337	86,453	298,712	86,358	919,348	

Source: AHS Zones. Community providers and First Nations and Inuit Health Branch (FNIHB) submit reports twice a year, once at end of December and once at the end of the season. 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.

**Physician, pharmacist, other non-AHS community provider, AHS non-public health

Table 7: Influenza Immunization Rates by Risk Group (AHS + Community Provider + FNIHB)
Community Provider and FNIHB Report 1 & 2 (Sept 30, 2012 – Mar 31, 2013) and AHS Delivered (Oct 2, 2012 - Apr 30, 2013)**

Priority Group	South	Calgary	Central	Edmonton	North	Alberta
Health care workers (includes LTC staff)	35.4%	40.1%	32.1%	35.7%	26.9%	35.7%
Pregnant women	17.2%	16.6%	7.4%	10.9%	6.8%	12.5%
65 years of age and over (including LTC residents 65+)	62.1%	63.1%	53.6%	61.8%	49.5%	60.0%
All children 6 months up to and including 23 months*	31.1%	35.4%	26.5%	28.4%	22.3%	30.2%
All children 24 months up to and including 59 months*	18.2%	21.7%	12.4%	18.0%	12.3%	18.0%
High risk: 5 years up to and including 8 years*	7.0%	13.6%	7.6%	9.6%	6.4%	10.0%
High risk: 9 years up to and including 17 years	6.2%	11.2%	5.4%	7.9%	4.5%	8.0%
High risk: 18 years up to and including 64 years (includes LTC residents <65)	16.2%	16.8%	12.6%	14.9%	13.1%	15.2%
Healthy: 5 years up to and including 8 years*	18.0%	18.7%	12.5%	18.1%	14.0%	17.1%
Healthy: 9 years up to and including 17 years	13.3%	14.2%	8.8%	12.9%	11.9%	12.8%
Healthy: 18 years up to and including 64 years	19.0%	20.8%	12.9%	20.0%	14.6%	18.9%
Overall Coverage Rate	24.9%	24.8%	19.1%	23.8%	17.8%	23.0%

Source: AHS Zones. Community providers and First Nations and Inuit Health Branch (FNIHB) submit reports twice a year, once at end of December and once at the end of the season. For more information on data definitions and sources, see [Data Notes](#).

*Some may be eligible for 2 doses of vaccine. Those who are eligible for 2 doses must have received both in order to be considered complete.

**Physician, pharmacist, other non-AHS community provider, AHS non-public health

Data Notes

LABORATORY DATA

Information on laboratory confirmed respiratory virus activity is based on two web-based applications supported by the Canadian Network for Public Health Intelligence (CNPHI):

- 1) The Alberta Provincial Public Health Laboratory 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.
- 2) The Alberta Influenza Outbreak Response Toolkit – an influenza case based system. Data are based on Alberta residents according to the date the sample was classified as influenza sub-type.

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 or RVP which tests for the presence of the non-influenza respiratory viruses presented in this report. 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 viral organisms were isolated.

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 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 are as follows: cough/hoarseness/stridor (PED), cough/hoarseness (ADULT).

EMERGENCY DEPARTMENT VISITS

Information on Edmonton zone emergency department and urgent care centre visits with cough/congestion chief complaints are provided by the *Alberta Real Time Syndromic Surveillance Net (ARTSSN)* data repository. When patients present in emergency departments, a presenting/chief complaint is recorded at triage. The original data sources fed to the ARTSSN data repository are EDIS (Emergency Department Information System) for the following Edmonton Zone emergency departments and urgent care centers: Royal Alexandra Hospital, Westview Health Centre, Sturgeon Community Hospital, Northeast Community Health Centre, Leduc Community Hospital, Grey Nuns Community Hospital, University of Alberta Hospital, Fort Saskatchewan Health Centre, and Misericordia Hospital, and E-Triage for the following: Devon General hospital, Health First Strathcona, East Edmonton Health Centre, Redwater Health Centre.

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, with 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.

Surveillance and Reporting

Report Date: August 28, 2013

An influenza report targeted to the general public is available at: <http://www.health.alberta.ca/health-info/influenza-evidence.html>

If you have questions about the Alberta Respiratory Virus Surveillance Report, or any of the indicators, please contact:

AHS.PublicHealthSurveillance@albertahealthservices.ca

INFLUENZA IMMUNIZATIONS

Influenza immunization data are reported by AHS zones. Numbers are available to the AHS Surveillance and Reporting 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. Note: April 30th was the last day of the influenza immunization program for the current season. Community providers and FNIHB submit reports twice a year, once at the end of December and once at the end of the season. Clients can only exist in one priority group. Immunization coverage rates are reported at the end of the influenza season.

POPULATION NUMBERS

Population data values used to calculate rates were obtained from the Alberta Health (AH) Interactive Health Data Application (IHDA). http://www.ahw.gov.ab.ca/IHDA_Retrieval/ - Demographics, Population Estimates category. Click on *View Data* Notes for a detailed description of definitions and methodology.

For the 2010-11 influenza season, 2010 population estimates were used. For the 2011-12 season, 2011 population estimates were used. For the current (2012-13) influenza season, 2012 population estimates were used.

* Flu week numbers are the same as those defined by the Public Health Agency of Canada's (PHAC) FluWatch.