

Section 1: Summary

During Week 52, there was activity in all five zones.

North Localized activity. Influenza A outbreak reported in a seniors lodge. Five influenza A (1 H1N1) isolates in: one child 18 years and under; and four adults. One influenza B isolate in: an infant.

Edmonton Sporadic activity. Eleven influenza A isolates in: four infants; two children; and five adults.

Central Sporadic activity. Three influenza A isolates in: three adults.

Calgary Sporadic activity. Eleven influenza A (4 H1N1) isolates in: two infants; two children; and seven adults.

South Sporadic activity. Two influenza A isolates in: a child; and an adult.



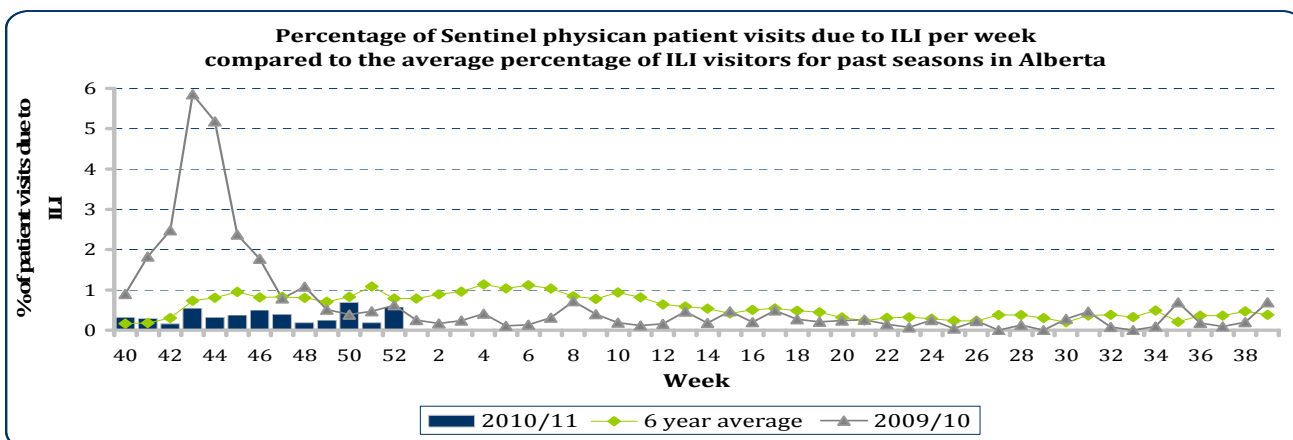
Section 2: Influenza-Like Illness – TARRANT

Sentinel physicians reported in all health zones during Week 52, and saw 1,380 patients. These 29 physicians diagnosed influenza-like-illness (ILI) or lower respiratory tract illness (LRTI) in **1.96%** of the patients seen, which is higher than the previous week. The majority of respiratory illness seen was LRTI.

Zone	Sentinel Doctors (#)	Sentinel Recorders (#)	Patients Seen (#)	ILI Cases (#)	Patients with ILI (%)	LRTI Cases (#)	Patients with LRTI (%)	Total ILI & LRTI Cases (#)	Patients with either ILI or LRTI (%)
North	8	1	77	0	0	5	6.49	5	6.49
Edmonton	11	3	188	1	0.53	5	2.66	6	3.19
Central	16	8	297	0	0	3	1.01	3	1.01
Calgary	34	13	597	7	1.17	5	0.84	12	2.01
South	10	4	221	0	0	1	0.45	1	0.45
Alberta	79	29	1,380	8	0.58	19	1.38	27	1.96

ILI= Influenza-Like Illness; LRTI = Lower Respiratory Tract Infection

Source: TARRANT. For more information, please go to the website: www.tarrantviralwatch.ca

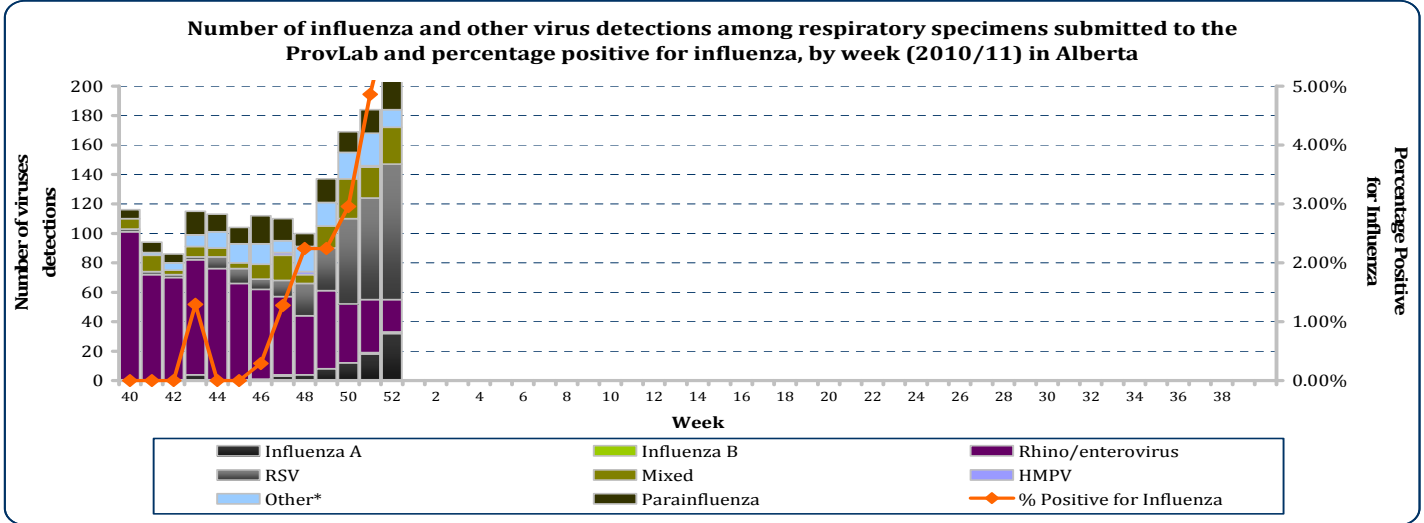


Source: TARRANT

Of note: 6 year average is 2003/04 to 2008/09

Section 3: Influenza Isolates

In Week 52, the Provincial Laboratory for Public Health (ProvLab) tested 518 specimens – 325 in North/Central and 193 in South. ProvLab confirmed 32 **influenza A** isolates; (2) South zone; (11) Calgary zone; (3) Central zone; (11) Edmonton zone; and (5) North zone. ProvLab confirmed one **influenza B** isolate; (1) North zone. The percentage positive rate for influenza was 6.4%, which is higher than the previous week (4.9%). Human respiratory syncytial virus (RSV) made up the largest number of virus detections for week 52.



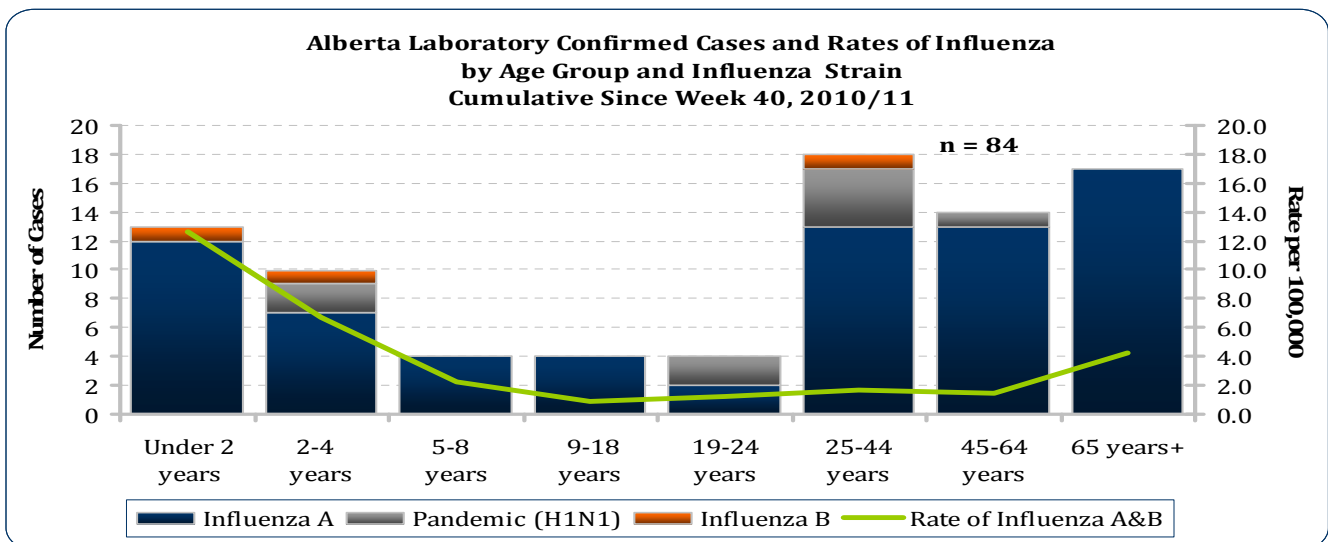
Sources: ProvLab, Dial System; Other* refers to Adenovirus and Coronavirus; human Metapneumovirus (HMPV); Human respiratory syncytial virus (RSV)

Influenza Isolates (A&B) Reported by ProvLab				
AHS Health Zone	Week 52 Influenza A	Week 52 Influenza B	YTD (A) 2010/11*	YTD (B) 2010/11*
South	2	0	4	0
Calgary	11	0	31	0
Central	3	0	4	1
Edmonton	11	0	32	1
North	5	1	10	1
Alberta	32	1	81	3

The graph below shows the 84 lab-confirmed cases of influenza seen since October 3, 2010 by age group and influenza isolate, as well as the rate of influenza (both A & B) by age group. The 25 to 44 year age group had the largest number of cases (18 cases; 21%). Persons under two years of age have the highest rate of disease (13 cases per 100,000).

*YTD begins Week 40 (October 3, 2010)

Source: ProvLab – Note: Isolates reported by week subtyped



Source: ProvLab

Section 4: Outbreaks

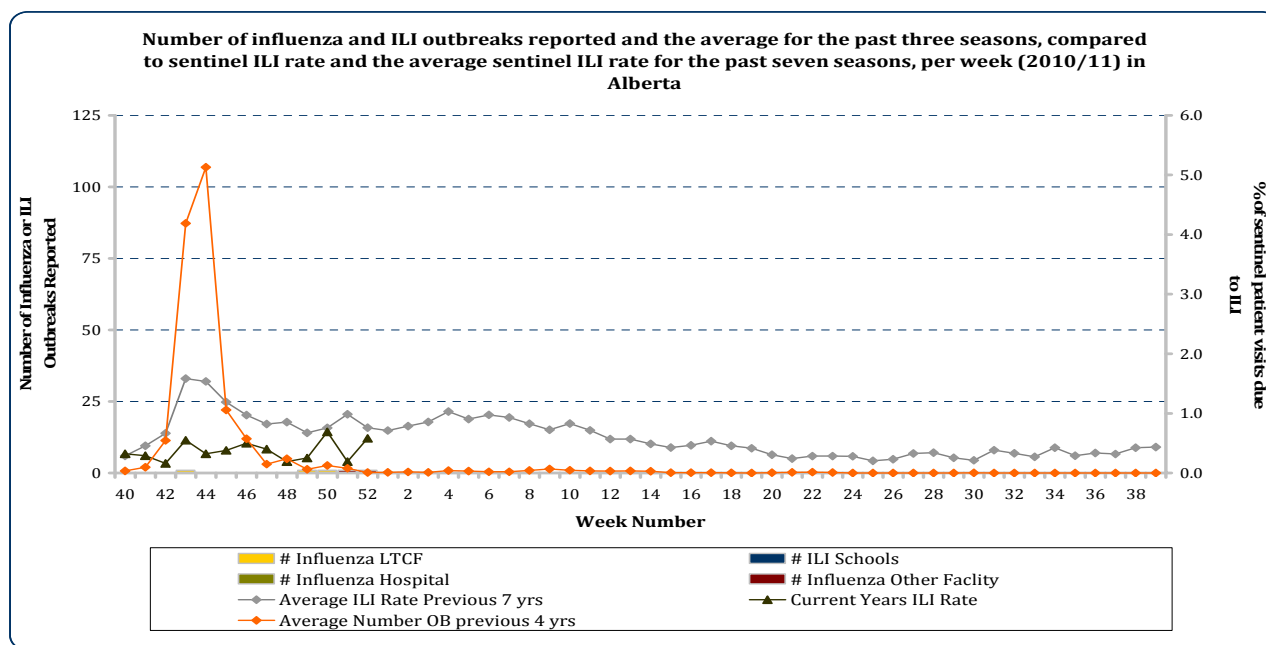
During week 50 there was one influenza outbreak reported in a seniors lodge in the North Zone.

Confirmed New Influenza or ILI Outbreaks Reported by Zones		
AHS Health Zone	Week 52	YTD 2010/11*
South	0	0
Calgary	0	2
Central	0	0
Edmonton	0	1
North	1	1
Alberta	1	5

Source: AHW outbreak database

Each week Alberta Health and Wellness (AHW) is reported respiratory outbreaks. To be considered a **Long-Term Care facility (LTCF), Hospital or other facility** influenza outbreak, two or more cases of ILI within a seven-day period including at least one laboratory confirmed case, must occur. Of note, outbreaks (OBs) where the isolated agent is respiratory syncytial virus (RSV), parainfluenza, human metapneumovirus, or Rhino/enterovirus are also reported to AHW. Finally, **school outbreaks** are reported when greater than 10% of a school population are absent on any given day, most likely due to ILI. Outbreaks are reported by date investigation of outbreak is opened.

The ILI rate for week 52 (0.58%) is lower than the average ILI rate for the previous seasons (0.76%).

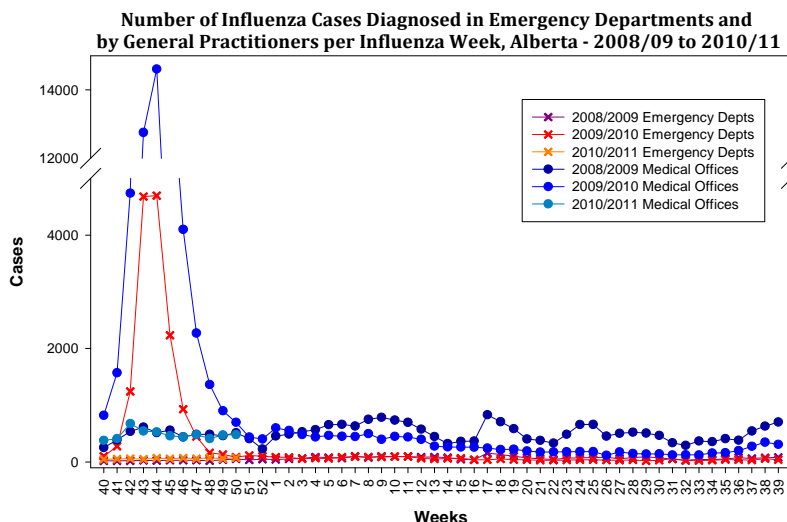


Sources: ProvLab, TARRANT, and AHW outbreak database

Section 5: Clinically Diagnosed Influenza

This graph is based on physician claims and hospitalization data and presents the number of influenza cases clinically diagnosed in Alberta's emergency departments and general practitioner offices. Data for the 2010/2011 as well as 2008/2009 and 2009/2010 are shown. Please note that this data captures the majority of claims within two weeks of reporting and will be updated on a weekly basis.

Influenza cases diagnosed by general practitioners are less than the previous season, but similar to non-pandemic 2008/2009 season. Influenza cases diagnosed at emergency departments are similar to previous seasons.



Section 6: Antigenic Characterization and Antiviral Resistance

To date, all of the influenza A isolates characterized by the National Microbiology Laboratory (NML) for this season, have been compatible to the vaccine components of the seasonal influenza immunization being offered in Alberta this season (H3N2 and H1N1). The majority of influenza B isolates characterized by NML have been compatible to the vaccine component (B/Brisbane/60/08) for the seasonal influenza immunization being offered in Alberta. However, a small proportion of strains antigenically characterized as B/Brisbane/60/08 showed reduced reactivity to antiserum produced against this strain type.

To date, all influenza isolates tested by NML were sensitive to Oseltamivir and to Zanamivir. Almost all influenza isolates were resistant to Amantadine.

Section 7: Canadian and International Influenza Activity

The following links provide access to other Canadian and international websites related to influenza and ILI.

Canada – FluWATCH	http://www.phac-aspc.gc.ca/fluwatch/index-eng.php
British Columbia	www.bccdc.org/topic.php?item=80
Alberta	www.health.alberta.ca/health-info/influenza-evidence.html
Manitoba	www.gov.mb.ca/health/publichealth/cdc/surveillance/index.html#influenza
Ontario	www.health.gov.on.ca/english/providers/program/pubhealth/flu/flu_06/flubul_mn.html
Quebec	www.msss.gouv.qc.ca/sujets/prob_sante/influenza/index.php?accueil
New Brunswick	www.gnb.ca/0053/influenza/index-e.asp
Nova Scotia	www.gov.ns.ca/hpp/ocmoh/flu.htm
World Health Organization	www.who.int/topics/influenza/en/
USA – CDC	www.cdc.gov/flu/weekly/
European Centre for Disease Prevention & Control	www.ecdc.europa.eu/en/Health_Topics/influenza/news_archive.aspx
Avian Flu in Poultry	www.thepoultrysite.com/bird-flu