

Section 1: Summary

During Weeks 37 and 38, there was no lab-confirmed influenza activity in Alberta.

North No activity.

Edmonton No activity.

Central No activity.

Calgary No activity.

South No activity.



**Isolates reported above only include those found in Alberta residents.*

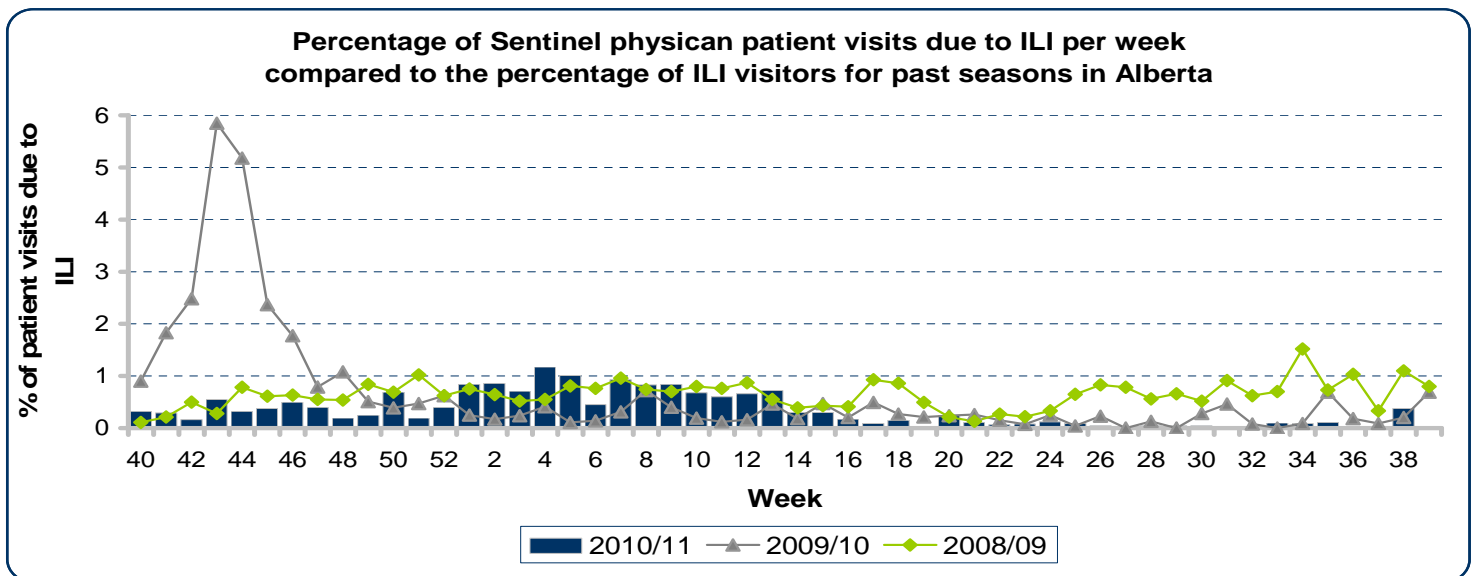
Section 2: Influenza-Like Illness – TARRANT

Sentinel physicians reported in all health zones during **Weeks 37 and 38**, and saw 4,560 patients. The physicians diagnosed influenza-like-illness (ILI) or lower respiratory tract illness (LRTI) in **0.72%** of the patients seen over the two weeks, which is higher than in Weeks 35 and 36 (0.69%). However, from Week 37 to Week 38, the ILI rate jumped from 0% to 0.38%, particularly due to increased ILI activity in the Central Zone.

Zone	Patients Seen (#)	ILI Cases (#)	Patients with ILI (%)	LRTI Cases (#)	Patients with LRTI (%)	Total ILI & LRTI Cases (#)	Patients with either ILI or LRTI (%)
North	306	0	0.00	0	0.00	0	0.00
Edmonton	961	0	0.00	12	1.25	12	1.25
Central	1193	7	0.59	2	0.17	9	0.75
Calgary	1,635	1	0.06	11	0.68	12	0.73
South	465	0	0.00	0	0.00	0	0.00
Alberta	4,560	8	0.18	25	0.55	33	0.72

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

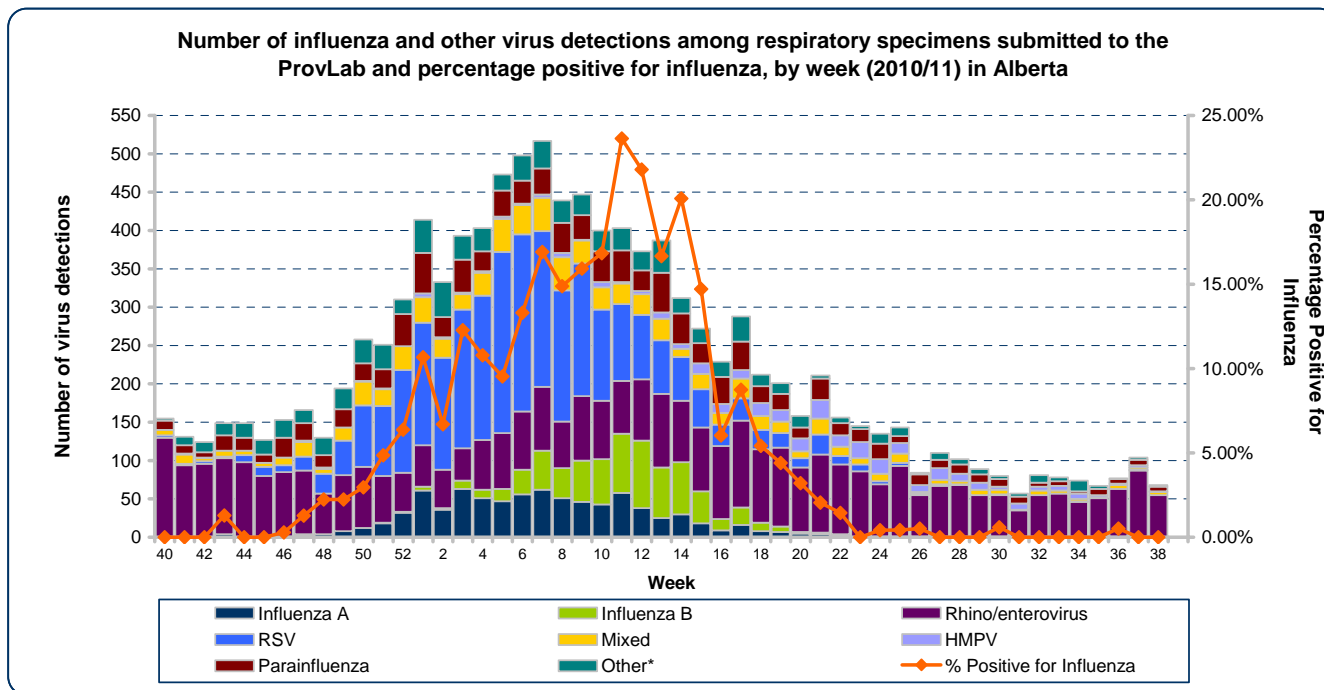
Source: TARRANT. For more information, please go to the website: www.tarrantvirabwatch.ca



Source: TARRANT; Of note: 6 year average is 2003/04 to 2008/09.

Section 3: Influenza Isolates

In Weeks 37 and 38, the Provincial Laboratory for Public Health (ProvLab) tested a total of 428 specimens – 277 in North/Central and 151 in South. ProvLab confirmed no **influenza A** or **influenza B** isolates. Rhino/enterovirus made up the largest number of virus detections for Weeks 37 and 38.



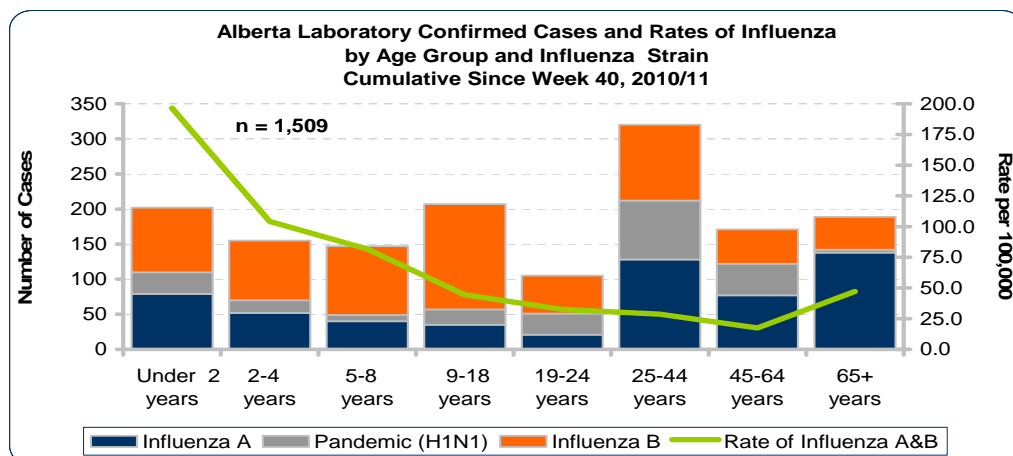
Sources: ProvLab, Dial System; Other* refers to Adenovirus and Coronavirus; human Metapneumovirus (HMPV); Human respiratory syncytial virus (RSV); Isolates for cases which seek treatment within Alberta, but are out-of-provinces residents have been excluded.

Influenza Isolates (A&B) Reported by ProvLab				
AHS Health Zone	Weeks 37 and 38 Influenza A	Weeks 37 and 38 Influenza B	YTD (A) 2010/11*	YTD (B) 2010/11*
South	0	0	43	95
Calgary	0	0	208	178
Central	0	0	135	74
Edmonton	0	0	274	208
North	0	0	162	132
Alberta	0	0	822	687

Source: ProvLab – Note: Isolates reported by week subtyped

The graph below shows the 1,509 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 have the largest number of cases (320 cases; 21%). Persons under two years of age have the highest rate of disease (197 cases per 100,000).

*Season begins Week 40 (October 3, 2010)



Source: ProvLab

Section 4: Outbreaks

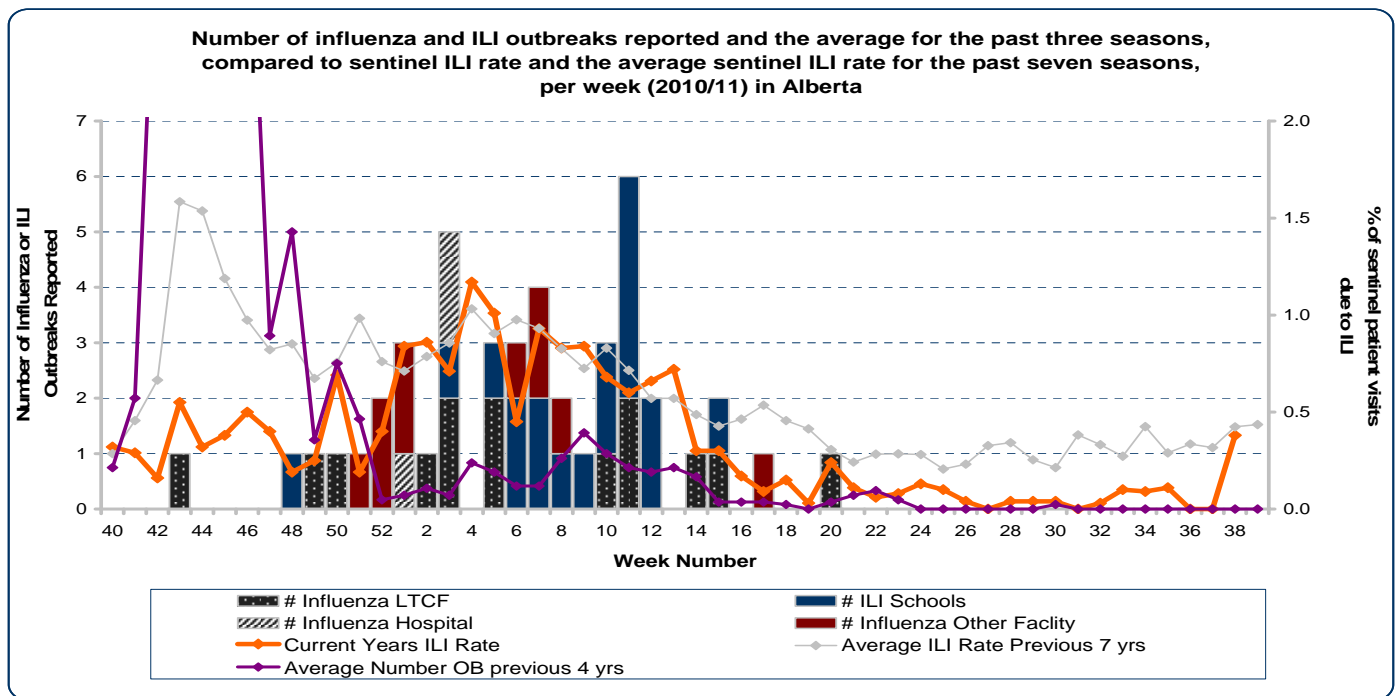
During Weeks 37 and 38 there were no influenza or ILI outbreaks reported to AHW.

Confirmed <u>New</u> Influenza or ILI Outbreaks Reported by Zones		
AHS Health Zone	Weeks 37 and 38	YTD 2010/11*
South	0	0
Calgary	0	12
Central	0	6
Edmonton	0	17
North	0	6
Alberta	0	45

Source: AHW outbreak database

Each week Alberta Health and Wellness (AHW) receives reports of 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 combined ILI rate for Weeks 37 and 38 (0.18%) is the less than the average from previous seasons (0.37%).

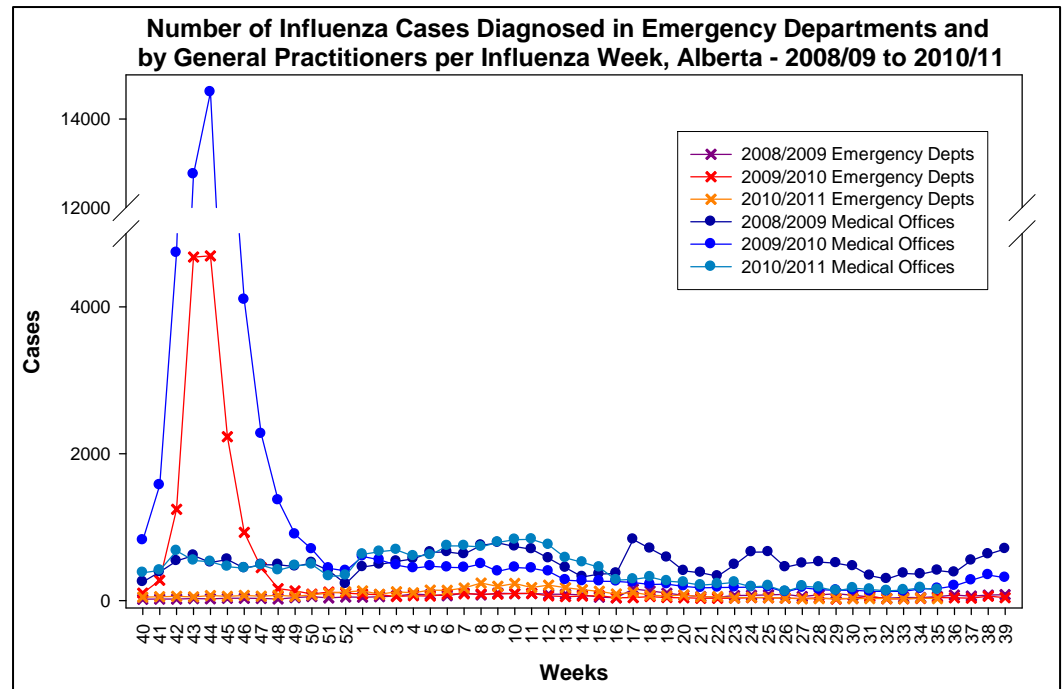


Sources: ProvLab, TARRANT, and AHW outbreak database; Of note, week 44 had the highest average number of outbreaks reported (44 outbreaks) for the previous four seasons.

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 emergency departments were similar to previous seasons. Influenza cases diagnosed in medical offices were similar to the previous season, but lower than in the 2008/09 season (first wave of pH1N1).



Section 6: Antigenic Characterization and Antiviral Resistance

To date, almost 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 the 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. Only a small number were characterized as different lineage (B/Wisconsin/01/2010)

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

In Alberta, the ProvLab has tested 237 isolates (115 H1N1 and 122 H3N2) and no strains were detected exhibiting resistance to Oseltamivir. Many of the isolates tested came from severe cases, cases involved in influenza outbreaks, and TARRANT patients.

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