

TARRANT August 2022 Newsletter

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Fri 9/16/2022 2:36 PM

To: TARRANT Viral Watch <tarrant@ucalgary.ca>

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TARRANT WATCH VIRAL

August 2022 Update

TARRANT News & Updates

Dear Colleagues,

Thank you for participating in the Tarrant program. We play a valuable role for Alberta Health epidemiology to assist understanding what is happening in the community. As you see from this report, we are providing samples that help track the new normal of COVID-19 and other respiratory viruses. Our colleagues in the SPSNetwork across Canada are performing an analysis of Influenza and COVID-19 to assess the Vaccine effectiveness. We will send that out as soon as we have the paper.

We are trying to expand the sentinel program, and its uses, in collaboration with Alberta Health. As we approach a new winter season or respiratory viruses, we all need to know even better what is happening in our communities. Thus, we need to recruit more sentinels, especially in the areas where we have gaps. If you know of anyone who might be interested in participating, please let us know, and any venues where we could meet family physicians to increase our enrolment.

Please complete the attached questionnaire by clicking this [LINK](#); this will assist us to respond to Alberta Health and PCNs as they assist with recruiting new sentinels.

Data analysis 2021-2022 Season

Data Analysis from 2021-2022 season

- During reporting weeks 1 (Oct 24,2021) to week 44 (August 24, 2022), sentinels submitted 2316 specimens of which 487 (21%) tested positive for Covid-19, 57 (2.5%) tested positive for Influenza A subtype H3.
- A single case of Influenza B (0.04%) was documented in Edmonton in week 8.
- COVID-19 peaked in January this season following which a steady decline is noted

- An upsurge in number of participants who tested positive for Influenza A across Alberta was noted in April through June.
- The majority (63%) of participants who tested positive for Influenza A had not received the flu vaccine in the current season. (*See Table 1*)
- Majority of participants who tested positive for COVID-19 (63%), Influenza A (51%) and Influenza B (100%) viruses were female (*See Table 2*)
- Calgary and Edmonton continue to demonstrate more COVID-19 & Influenza cases than other locations. Drumheller and Sundre were the most sampled rural locations (*See Figure 2 and Table 3*).
- Majority of patients who tested positive for respiratory viruses were aged between 10 and 59 years (*See Table 3*)
- Respiratory Syncytial Virus: usually thought of as a young children's disease also showed a peak of cases between 30 and 39 years
- Cough, fever, and myalgia were defining features for choosing to swab. These are the commonest symptoms amongst participants, but sore throat was the commonest non-defining symptom (*See Table 5*)
- While originally loss of smell and loss of taste were thought to be specific features of COVID-19, in our sample they were no more or less common than in other viral infections.

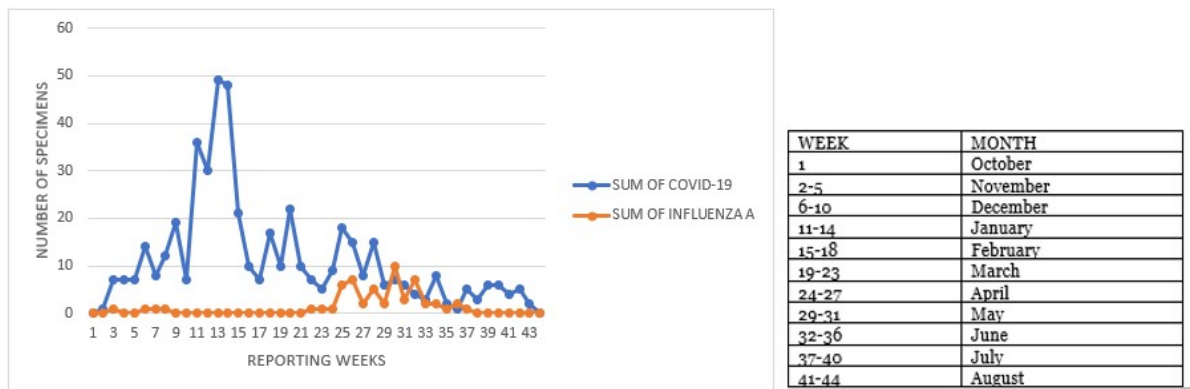


Figure 1: Trends of Covid-19 and Influenza cases from Week 1 (Oct 24, 2021) to Week 44 (August 24, 2022)

Table 1- Relationship between influenza and Flu vaccine

| FLU VACCINE RECEIVED | INFLUENZA A |
|----------------------|-------------|
| Yes | 13(23%) |
| No | 36 (63%) |
| Unknown | 8(14%) |
| Grand total | 57 |

Table 2- Relationship between gender, COVID-19, and Influenza

| GENDER | COVID-19 | INFLUENZA A | INFLUENZA B |
|-------------|-----------|-------------|-------------|
| Male | 180 (37%) | 27 (47%) | 0(0%) |
| Female | 307(63%) | 29 (51%) | 1(100%) |
| Undisclosed | 0(0%) | 1(1.8%) | 0(0%) |
| Grand total | 487 | 57 | 1 |

Table 3: Cases in different locations

| | COVID-19 | Influenza | | RSV | Coronavirus | | | Parainfluenza | | | Metapneumovirus | Enterovirus/ Rhinovirus | Adenovirus | TOTAL |
|---------------|------------|-----------|----------|------------|-------------|------------|-----------|---------------|-----------|-----------|-----------------|----------------------------|------------|-------|
| | | A | B | | 229E | OC43 | NL63 | 2 | 3 | 4 | | | | |
| Fort McMurray | 14 | 0 | 0 | 9 | 3 | 26 | 0 | 0 | 6 | 3 | 0 | 14 | 0 | 75 |
| Grand Prairie | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Edmonton | 90 | 3 | 1 | 31 | 2 | 105 | 12 | 3 | 39 | 13 | 4 | 157 | 7 | 467 |
| Sherwood Park | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| St Albert | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 7 |
| Camrose | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 7 |
| Red Deer | 7 | 1 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 3 | 0 | 19 |
| Sundre | 44 | 7 | 0 | 12 | 0 | 7 | 7 | 4 | 7 | 5 | 10 | 53 | 2 | 158 |
| Banff | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Drumheller | 39 | 7 | 0 | 15 | 3 | 8 | 4 | 4 | 4 | 3 | 24 | 50 | 1 | 162 |
| Cochrane | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Airdrie | 4 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 12 |
| Calgary | 265 | 34 | 0 | 44 | 10 | 56 | 19 | 10 | 22 | 4 | 12 | 181 | 2 | 659 |
| Chestermere | 6 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Strathmore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| High River | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Siksika | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lethbridge | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Coaldale | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Brooks | 9 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 2 | 22 |
| Medicine Hat | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 5 |
| TOTAL | 487 | 57 | 1 | 121 | 20 | 207 | 44 | 22 | 83 | 30 | 52 | 468 | 16 | |

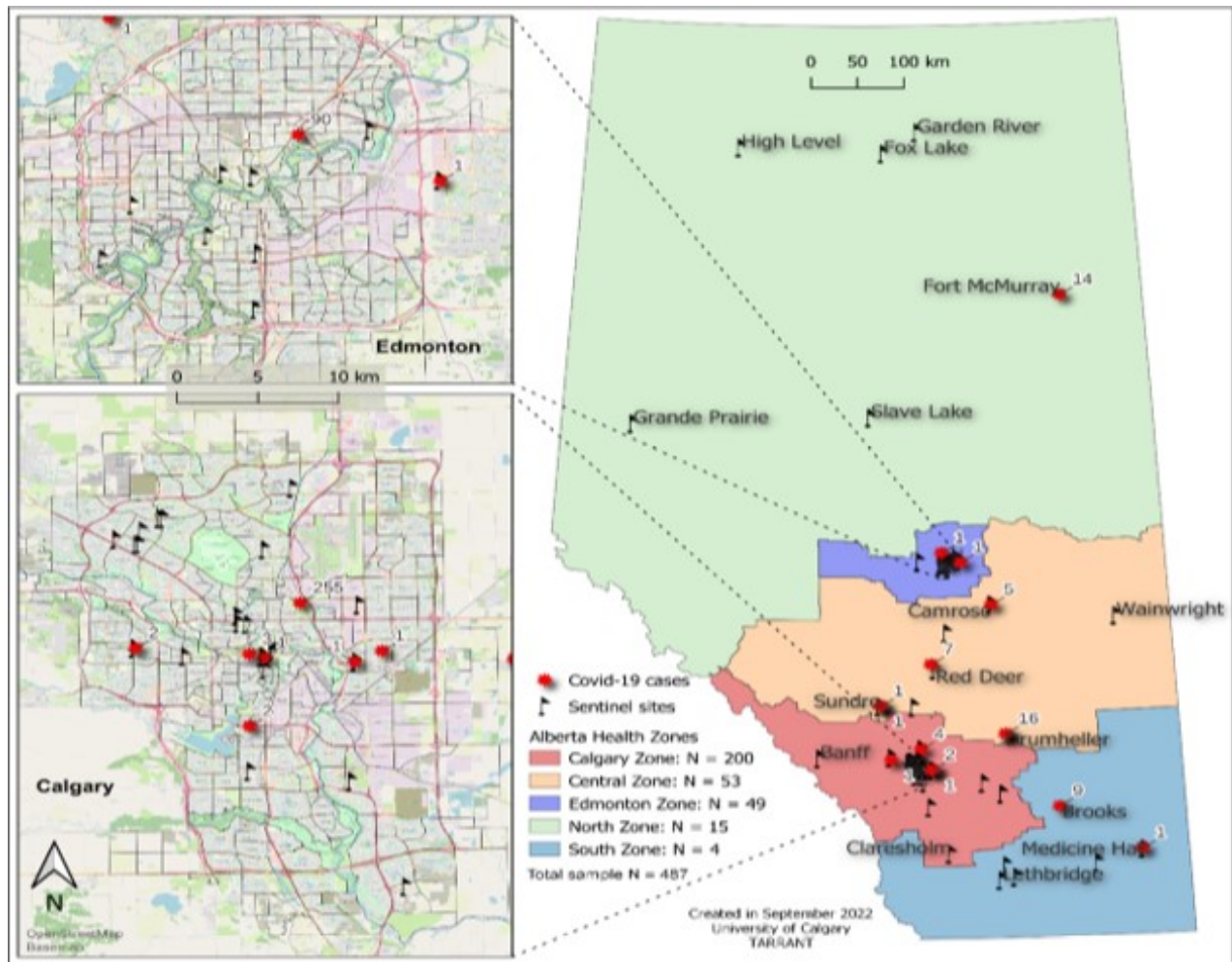


Figure 2: Alberta map showing positive COVID-19 cases from Week 1 to Week 44

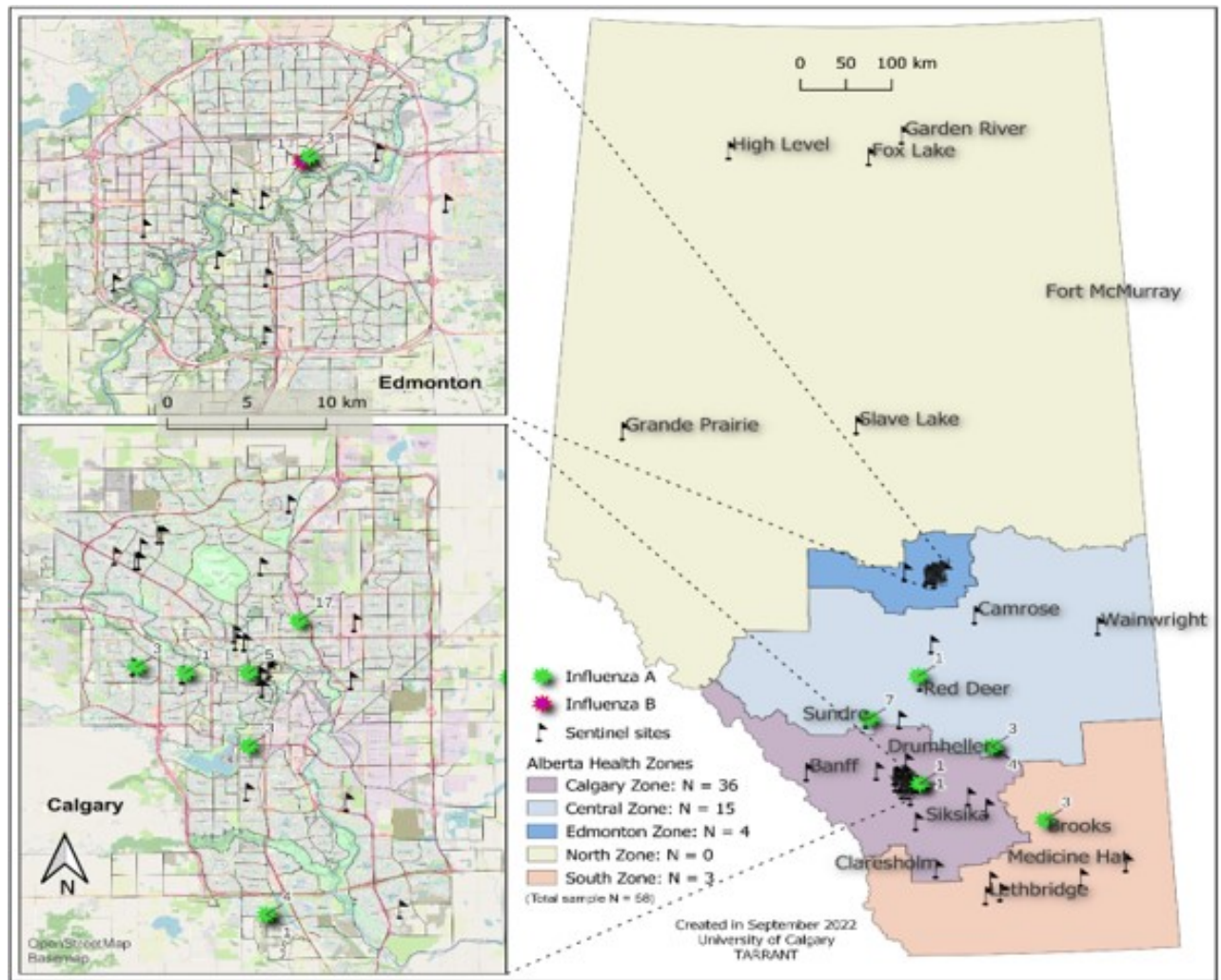


Figure 3: Alberta map showing positive cases of Influenza A & B from Week 1 to Week 44

Table 4: Cases arranged according to age distribution

| | COVID-19 | Influenza | | RSV | Coronavirus | | | Parainfluenza | | | Metapneumovirus | Enterovirus/Rhinovirus | Adenovirus | TOTAL |
|--------------|------------|-----------|----------|------------|-------------|------------|-----------|---------------|-----------|-----------|-----------------|------------------------|------------|-------|
| | | A | B | | 229E | OC43 | NL63 | 2 | 3 | 4 | | | | |
| Age 0-9 | 26 | 10 | 0 | 60 | 2 | 40 | 11 | 10 | 46 | 8 | 22 | 145 | 9 | 389 |
| Age 10-19 | 27 | 11 | 0 | 8 | 1 | 15 | 5 | 3 | 5 | 3 | 1 | 53 | 1 | 133 |
| Age 20-29 | 90 | 11 | 0 | 6 | 5 | 33 | 6 | 0 | 5 | 9 | 11 | 78 | 3 | 257 |
| Age 30-39 | 106 | 6 | 1 | 23 | 3 | 43 | 12 | 2 | 10 | 8 | 5 | 92 | 2 | 313 |
| Age 40-49 | 117 | 7 | 0 | 7 | 5 | 42 | 5 | 6 | 6 | 0 | 8 | 49 | 0 | 252 |
| Age 50-59 | 69 | 7 | 0 | 8 | 4 | 18 | 2 | 0 | 3 | 1 | 1 | 23 | 0 | 136 |
| Age 60-69 | 36 | 3 | 0 | 4 | 0 | 13 | 3 | 1 | 8 | 1 | 4 | 17 | 0 | 90 |
| Age 70-79 | 11 | 1 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 1 | 28 |
| ≥80 | 5 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 |
| TOTAL | 487 | 57 | 1 | 121 | 20 | 206 | 44 | 22 | 83 | 30 | 52 | 468 | 16 | |

Table 5: Symptoms recorded for positive virus cases.

*Indicates defining symptoms

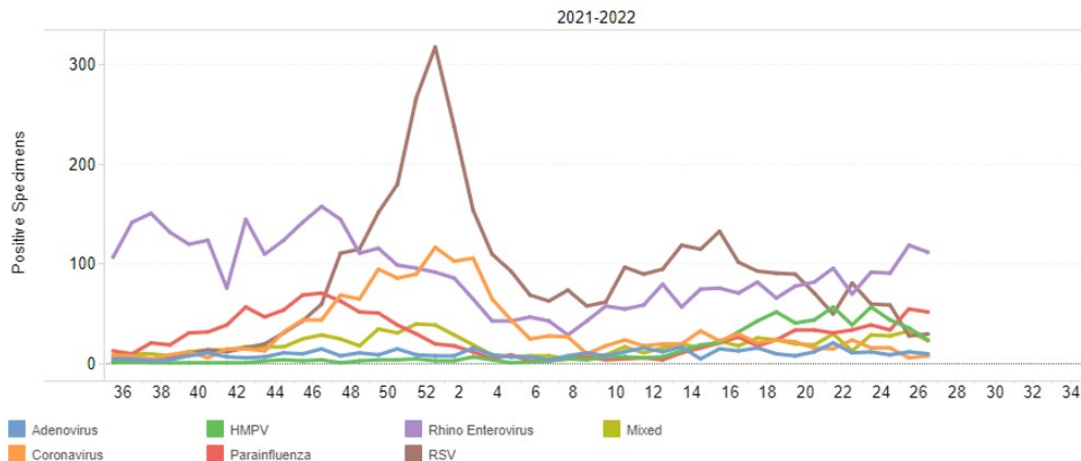
| | COVID-19 | Influenza | | RSV | Coronavirus | | | Parainfluenza | | | Metapneumovirus | Enterovirus/Rhinoviruses | Adenovirus | No virus found |
|----------------|---------------|-------------|------------|---------------|-------------|---------------|--------------|---------------|-------------|-------------|-----------------|--------------------------|-------------|-----------------|
| | | A | B | | 229E | OC43 | NL63 | 2 | 3 | 4 | | | | |
| *Cough | 480/487 (99%) | 52/57 (91%) | 1/1 (100%) | 108/121 (89%) | 17/20 (85%) | 199/207 (96%) | 44/44 (100%) | 21/22 (95%) | 79/83 (95%) | 29/30 (97%) | 41/52 (79%) | 371/468 (79%) | 13/16 (81%) | 1088/2316 (47%) |
| *Fever | 243/487 (50%) | 35/57 (61%) | 1/1 (100%) | 58/121 (48%) | 4/20 (20%) | 76/207 (37%) | 10/44 (23%) | 6/22 (27%) | 45/83 (54%) | 11/30 (37%) | 30/52 (58%) | 136/468 (29%) | 8/16 (50%) | 466/2316 (20%) |
| Chills | 187/487 (38%) | 29/57 (51%) | 1/1 (100%) | 25/121 (21%) | 0/20 (0%) | 65/207 (31%) | 10/44 (23%) | 5/22 (23%) | 22/83 (27%) | 7/30 (23%) | 8/52 (15%) | 72/468 (15%) | 7/16 (44%) | 360/2316 (16%) |
| Sore throat | 341/487 (70%) | 38/57 (67%) | 0/1 (0%) | 60/121 (50%) | 10/20 (50%) | 142/207 (69%) | 29/44 (66%) | 15/22 (68%) | 51/83 (61%) | 20/30 (67%) | 17/52 (33%) | 250/468 (53%) | 9/16 (56%) | 767/2316 (33%) |
| *Myalgia | 130/487 (27%) | 24/57 (42%) | 1/1 (100%) | 10/121 (8%) | 0/20 (0%) | 34/207 (16%) | 5/44 (11%) | 2/22 (9%) | 12/83 (14%) | 4/30 (13%) | 6/52 (12%) | 52/468 (11%) | 5/16 (31%) | 251/2316 (11%) |
| Arthralgia | 98/487 (20%) | 13/57 (23%) | 0/1 (0%) | 5/121 (4%) | 0/20 (0%) | 18/207 (9%) | 3/44 (7%) | 1/22 (5%) | 5/83 (6%) | 3/30 (10%) | 2/52 (4%) | 21/468 (4%) | 2/16 (13%) | 122/2316 (5%) |
| Fatigue | 207/487 (43%) | 34/57 (60%) | 1/1 (100%) | 48/121 (40%) | 5/20 (25%) | 91/207 (44%) | 14/44 (32%) | 9/22 (41%) | 30/83 (36%) | 8/30 (27%) | 12/52 (23%) | 137/468 (29%) | 6/16 (38%) | 544/2316 (23%) |
| Prostration | 45/487 (9%) | 3/57 (5%) | 0/1 (0%) | 1/121 (1%) | 0/20 (0%) | 5/207 (2%) | 1/44 (2%) | 1/22 (5%) | 2/83 (2%) | 2/30 (7%) | 2/52 (4%) | 15/468 (3%) | 0/16 (0%) | 69/2316 (3%) |
| Headache | 215/487 (44%) | 28/57 (49%) | 1/1 (100%) | 26/121 (22%) | 7/20 (35%) | 81/207 (39%) | 14/44 (32%) | 6/22 (27%) | 19/83 (23%) | 9/30 (30%) | 10/42 (19%) | 140/468 (30%) | 7/16 (44%) | 488/2316 (21%) |
| Nausea | 69/487 (14%) | 9/57 (16%) | 1/1 (100%) | 7/121 (6%) | 0/20 (0%) | 19/207 (9%) | 5/44 (11%) | 5/22 (23%) | 7/83 (8%) | 2/30 (7%) | 0/52 (0%) | 24/468 (5%) | 0/16 (0%) | 156/2316 (7%) |
| Vomiting | 42/487 (9%) | 6/57 (11%) | 1/1 (100%) | 11/121 (9%) | 0/20 (0%) | 12/207 (6%) | 3/44 (7%) | 1/22 (5%) | 8/83 (10%) | 1/30 (3%) | 3/52 (6%) | 17/468 (4%) | 3/16 (19%) | 84/2316 (4%) |
| Diarrhea | 63/487 (13%) | 5/57 (9%) | 0/1 (0%) | 4/121 (3%) | 0/20 (0%) | 17/207 (8%) | 4/44 (9%) | 2/22 (9%) | 12/83 (14%) | 3/30 (10%) | 2/52 (4%) | 15/468 (3%) | 3/16 (19%) | 137/2316 (6%) |
| Runny nose | 266/487 (55%) | 34/57 (60%) | 0/1 (0%) | 89/121 (74%) | 15/20 (75%) | 157/207 (76%) | 29/44 (66%) | 14/22 (64%) | 66/83 (80%) | 22/30 (73%) | 30/52 (58%) | 297/468 (63%) | 10/16 (63%) | 746/2316 (32%) |
| Congestion | 208/487 (43%) | 28/57 (49%) | 0/1 (0%) | 75/121 (62%) | 9/20 (45%) | 141/207 (68%) | 23/44 (52%) | 14/22 (64%) | 50/83 (60%) | 20/30 (67%) | 21/52 (40%) | 224/468 (48%) | 11/16 (69%) | 636/2316 (27%) |
| Conjunctivitis | 32/487 (7%) | 1/57 (2%) | 0/1 (0%) | 7/121 (6%) | 0/20 (0%) | 6/207 (3%) | 0/44 (0%) | 2/22 (9%) | 1/83 (1%) | 2/30 (7%) | 0/52 (0%) | 12/468 (3%) | 2/16 (13%) | 50/2316 (2%) |
| Dyspnea | 80/487 (16%) | 11/57 (19%) | 0/1 (0%) | 10/121 (8%) | 1/20 (5%) | 18/207 (9%) | 7/44 (16%) | 1/22 (5%) | 10/83 (12%) | 5/30 (17%) | 5/52 (10%) | 31/468 (6%) | 2/16 (13%) | 164/2316 (7%) |
| Loss of smell | 42/487 (9%) | 4/57 (7%) | 0/1 (0%) | 10/121 (8%) | 0/20 (0%) | 13/207 (6%) | 2/44 (5%) | 0/22 (0%) | 1/83 (1%) | 1/30 (3%) | 1/52 (2%) | 20/468 (4%) | 0/16 (0%) | 58/2316 (3%) |
| Loss of taste | 50/487 (10%) | 5/57 (9%) | 0/1 (0%) | 6/121 (5%) | 0/20 (0%) | 12/207 (6%) | 2/44 (5%) | 0/22 (0%) | 3/83 (4%) | 0/30 (0%) | 1/52 (2%) | 14/468 (3%) | 0/16 (0%) | 64/2316 (3%) |

Influenza Updates

Alberta Update:

The prevalence of various viruses in Alberta is illustrated in the figure below. Between June 26, 2022, and July 2, 2022, 29 and 111 more positive specimens were received for RSV and Rhino Enterovirus respectively.

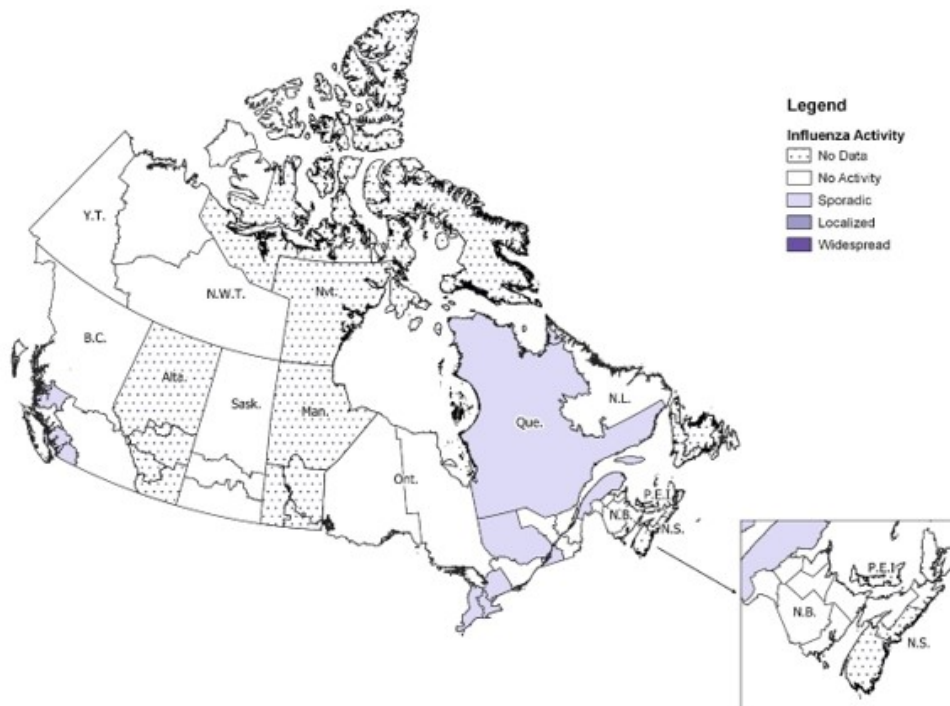
This season, 14,763 detections and 86 outbreaks of influenza were reported. So far, 97 ILI outbreaks have been documented with all but two in schools and day cares.



Source: *Alberta Health Services Respiratory Virus Surveillance*

Canada Update:

Influenza activity in Canada is low and remains at inter-seasonal levels. 124 laboratory detections (114 Influenza A and 10 Influenza B) were reported between July 24 and August 27, 2022, with 98% subtyped as H3N2. Children and teenagers represented nearly half (49%) of those detected with Influenza A.



Source: [FluWatch](#)

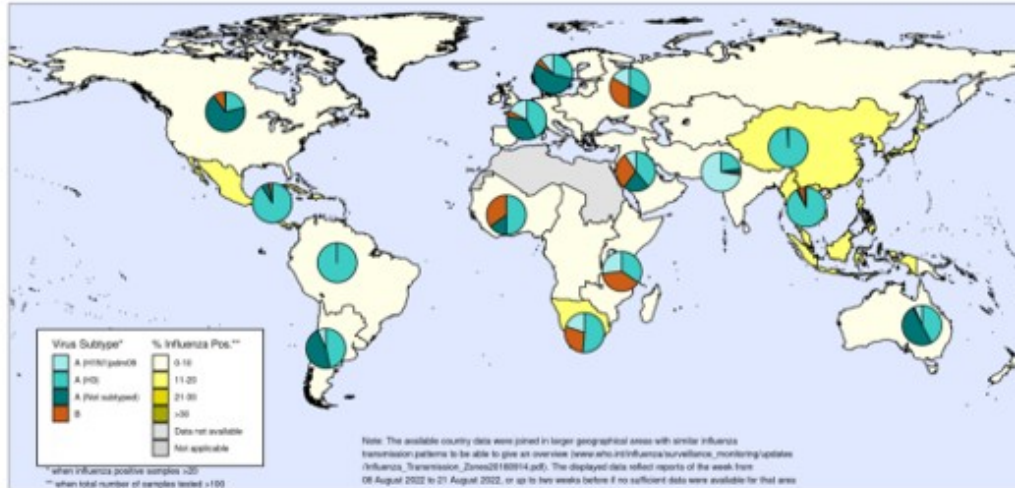
WHO Update:

The southern hemisphere winter influenza season was more severe than usual but is now receding.

Over 242,539 specimens were tested by the WHO GISRS laboratories between 8th August 2022 to 21st August 2022 from 100 countries. Of these, 5445 were positive for influenza viruses (5188 (95.3%) Influenza A and 257 (4.7%) Influenza B). Globally, influenza activity has remained low in most countries this period, except in some countries in tropical countries in Africa, the Americas and Asia, where influenza activity increased.

Latest recommendations by WHO are that countries monitor for co-circulation of influenza and SARS-CoV-2 viruses, enhance integrated surveillance and step-up their influenza vaccination campaign to prevent severe disease and hospitalizations associated with influenza. Clinicians are encouraged to consider influenza in differential diagnosis, especially for high-risk groups for influenza, and test and treat according to national guidance.

Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone¹. Map generated on 02 September 2022.



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data source: Global Influenza Surveillance and Response System (GISRS), FluNet (see www.who.int/flu-net)
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¹Information in this report is categorized by influenza transmission zones, which are geographical groups of countries, areas or territories with similar influenza transmission patterns. For more information on influenza transmission zones, see:

https://cdn.who.int/media/docs/default-source/influenza/influenza-updates/2020/influenza_transmission_zones20180914.pdf

Source: [WHO](https://www.who.int/)



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