From: TARRANT Viral Watch <tarrant@ucalgary.ca>
Sent: F 25 7:34 PM
To:
Subject: TARRANT February 2025 Newsletter

[△EXTERNAL]

View this email in your browser

February 2025 Newsletter

TARRANT News & Updates

Dear Sentinels,

Flu season is well underway, and we have many exciting updates to share with you all!

We are in the process of reimbursing you for your participation in the TARRANT Viral Watch Sentinel Surveillance Network for the 2024 calendar year. You will be happy to know that starting from November 01,

2024, swab reimbursements have increased from $20 to $30 per each sample (with full details filled out on the requisition form).

2024-25 Influenza Vaccine Effectiveness

Your data has contributed to this year's mid-season paper on influenza vaccine effectiveness. As in previous years, it was published in Eurosurveillance: a legitimate online journal.

https://www.eurosurveillance.org/content/10.2807/1560-7917.ES.2025.30.4.2500059

We had sufficient sample size to produce estimates for H1N1 and H3N2 influenza:

Table 1: Vaccine effectiveness for H1N1 and H3N2 for the 2024-25 season

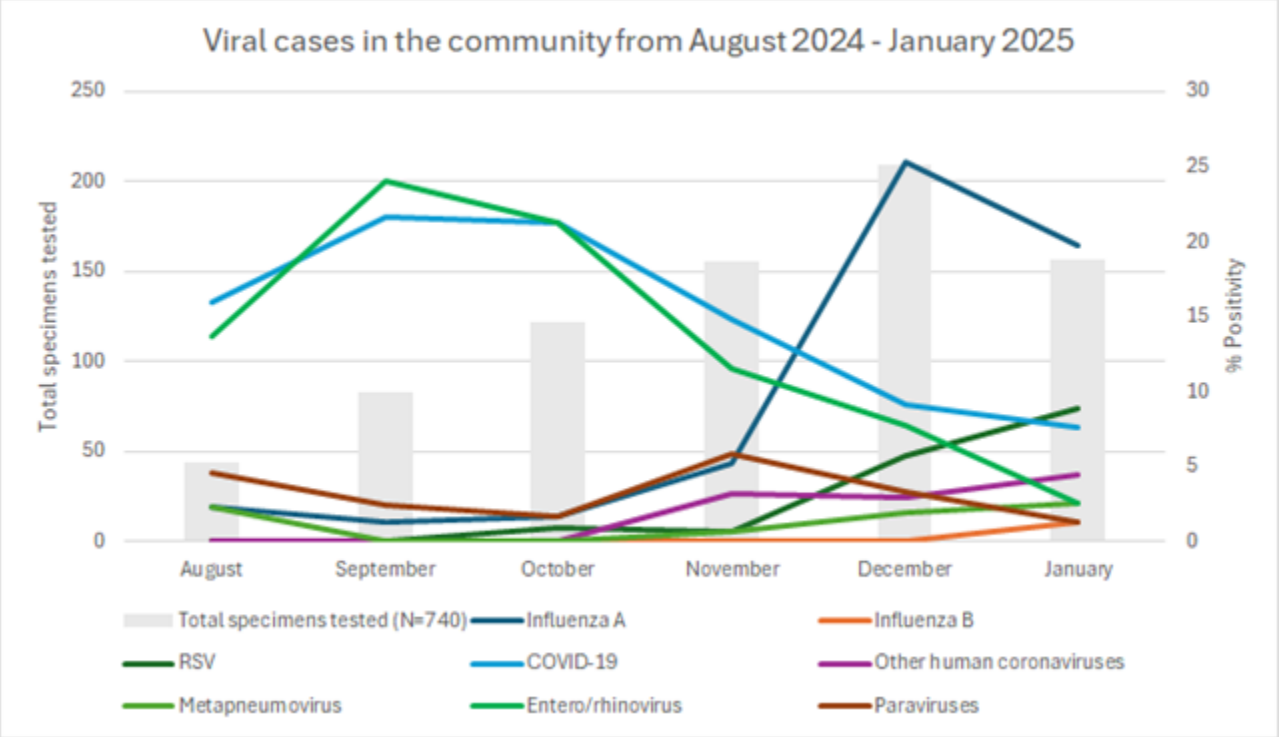
	H1N1	**H3N2**
Estimate	53%	54%
95% CI	36-65	29-70

These results are consistent with previous estimates, where H1N1 is usually in the range of 40 to 70% effectiveness, and H3N2 in the range of 35 to 55%. The discrepancies may be related to mismatch of vaccine and the circulating strain. H3N2 comprises less than one third of the cases in

Canada so far, but is dominant in the US, so may become more frequent later in the season.

This season the peak of influenza was delayed more than usual. See the graph of cases from the Tarrant system. This also shows that COVID remains in circulation and the RSV peak is later than usual. The warm weather throughout much of the province in mid-January may have reduced incidence, so renewed cold weather, as we are seeing currently, may produce a bump in cases in the next few weeks.

There is still time for more Influenza A and a late Influenza B epidemic, so remain ready for more acute respiratory illnesses.



RSV

The availability of RSV vaccines highlights the importance of tracking this disease. Currently in Alberta:
Some newborn children are given RSV monoclonal antibody vaccines to prevent bronchiolitis. These include premature babies, and those with severe congenital cardiac diseases, chronic lung disease, some neuromuscular disease and major immune-deficiency. They must be approved by the directors of the program.

https://www.albertahealthservices.ca/info/rsvprogram.aspx
https://www.albertahealthservices.ca/assets/info/hp/rsv/if-hp-rsv-criteria.pdf

For seniors: all over 75 can get the RSV vaccine, while those over 60 years living in a continuing care or supportive living facility, can also be vaccinated. RSV vaccination should be spaced at least 2 weeks away from influenza and other respiratory vaccines.

https://www.albertahealthservices.ca/assets/info/hp/cdc/if-hp-cdc-ipsm-rsv-vac-bio-pg-07-316.pdf

Wang, TY. RSV Vaccination—The Juice Is Worth the Squeeze. JAMA Intern Med. 2024 Jun 1;184(6):611. doi: 10.1001/jamainternmed.2024.0219

Antivirals for Influenza?

A new systematic review and meta-analysis published in JAMA Internal Medicine by Gao et al. (2025) evaluated the benefits and risks of antiviral medications for treating non-severe influenza, such as we see in the community.

The analysis included 73 clinical trials with 34,332 total participants, and assessed mortality, hospitalization, symptom relief, resistance, and adverse events across several direct-acting influenza antivirals. The study found little to no effect of antiviral treatment on mortality or hospital admissions in both low- and high-risk patients, although baloxavir may have slightly reduced the risk of hospitalization in high-risk patients. Both baloxavir and umifenovir showed potential benefits in symptom alleviation, reducing symptom duration by approximately one day, whereas oseltamivir and zanamivir decreased symptom duration by less than one day. Importantly, baloxavir may be associated with fewer adverse events than other antivirals, especially compared to oseltamivir, which had 28 per 1000 treatment-related adverse events.

Given these findings, the authors recommended baloxavir for high-risk patients with non-severe influenza due to its ability to shorten symptom

duration and potentially reduce hospitalization risk with minimal adverse events. However, concerns remain regarding the emergence of drug resistance. This study was limited by the low incidence of reported severe outcomes, making it challenging to determine the full impact of antivirals on hospitalization and mortality. Unfortunately, while baloxavir is marketed in the US, and has been approved by Health Canada, it is not marketed nor distributed in Canada, except through the Special Access Program. This approves drugs on a case-by-case basis, making them difficult to prescribe, with a delay.

https://www.canada.ca/en/health-canada/services/drugs-health-products/special-access/drugs.html

The evidence in this review shows that while Oseltamivir is available, on balance it may cause more side effects than benefits. Consequently, we are stuck with being able to offer only symptomatic relief for our patients.

Gao Y, et al. Antiviral medications for treatment of nonsevere influenza: A systematic review and network meta-analysis. JAMA Intern Med. 2025 Jan 13. doi: 10.1001/jamainternmed.2024.7193

Baghdadi JD, Grady D, Morgan DJ. The limited role for antiviral therapy in influenza. JAMA Intern Med. 2025 Jan 13. doi:

10.1001/jamainternmed.2024.7258

Welcome to Laura and Emilie

We are pleased to announce that Emilie Toews and Laura Ndzi will be joining the Tarrant team as part-time research assistants.

Emilie comes to our department with a Master's degree in Biology at UofC, MPH from Imperial College London, and much prior experience in Public Health and viral disease epidemiology.

Laura comes from Cameroon, and has a medical degree from Makerere in Uganda, and MSc in Health Policy Planning and Financing from London School of Hygiene and Tropical Medicine. She has worked in HIV suppression in Cameroon, and as an RA with Safelink in Calgary.

Website:

TARRANT newsletters: https://cumming.ucalgary.ca/research/alberta-recording-network/tarrant-communications/newsletters

TARRANT sign up: https://cumming.ucalgary.ca/research/alberta-recording-network/join-tarrant

Our mailing address is:
TARRANT Viral Watch
Q Health Sciences Ctr
G012-3330 Hospital Dr NW
Calgary, AB T2N 4N1
Canada