

SPSN Report #7, 2023-24 Season

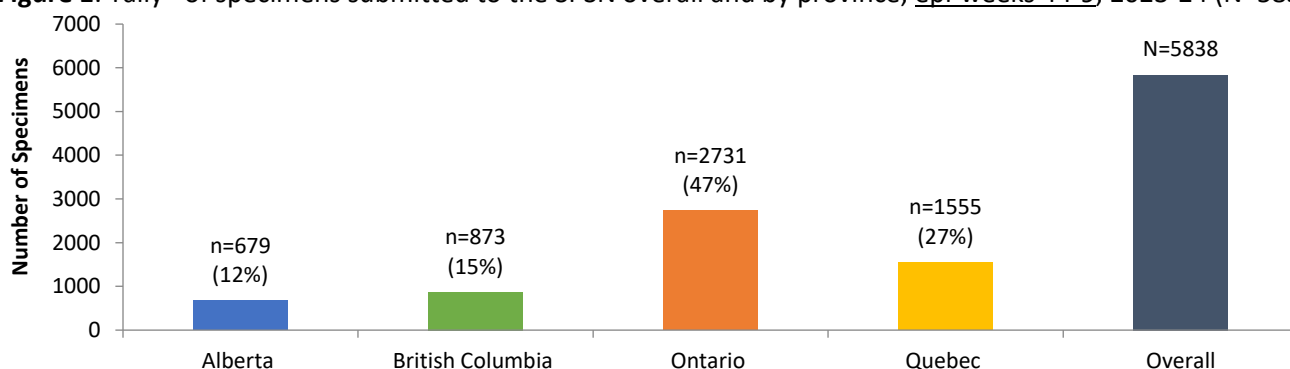
Epi Weeks 44 to 9: October 29, 2023 to March 2, 2024

Following a late December peak mainly due to influenza A(H1N1), the influenza season continues with increased contribution by A(H3N2) and influenza B. The SPSN has published interim vaccine effectiveness (VE) estimates for the 2023/24 influenza and Omicron XBB.1.5 vaccines. We thank sentinels for their important contribution and urge continued submission in support of end-of-season analyses.

In recent [mid-season publication](#) in the peer-reviewed journal *Eurosurveillance*, the SPSN reported:

- The 2023/24 influenza vaccine reduced the risk of medically attended influenza illness due to the predominant A(H1N1) subtype by about 60% and due to the A(H3N2) subtype by about 40%.
- The updated Omicron XBB.1.5 vaccine reduced the risk of medically attended COVID-19 by about half.
- Findings were reviewed during [a BCCDC grand rounds on February 20, 2024](#) now also available online.

Figure 1. Tally* of specimens submitted to the SPSN overall and by province, epi-weeks 44-9, 2023-24 (N=5838)



*Tallies may change as the season progresses and data become more complete. For further breakdown by age group, see [Table 1](#).

Table 2. Respiratory virus detections in all SPSN provinces by period^a

	Cumulative to last report epi-weeks 44-51, N = 2960	Since last report epi-weeks 52-9, N = 2878
At least one respiratory pathogen detected	1812 (61%)	1721 (60%)
Influenza viruses	610 (21%)	836 (29%)
Influenza A ^b	581 (20%)	735 (26%)
Influenza B	29 (1%)	102 (4%)
SARS-CoV-2	371 (13%)	246 (9%)
Enteroviruses (EV/RV)	335 (11%)	194 (7%)
Respiratory syncytial virus (RSV)	345 (12%)	129 (4%)
Other^c	285 (10%)	417 (15%)

^a See breakdown of detections by epi-week in [Figure 2](#) and by province in [Figures 3a-d](#). Tallies may change as data become more complete.

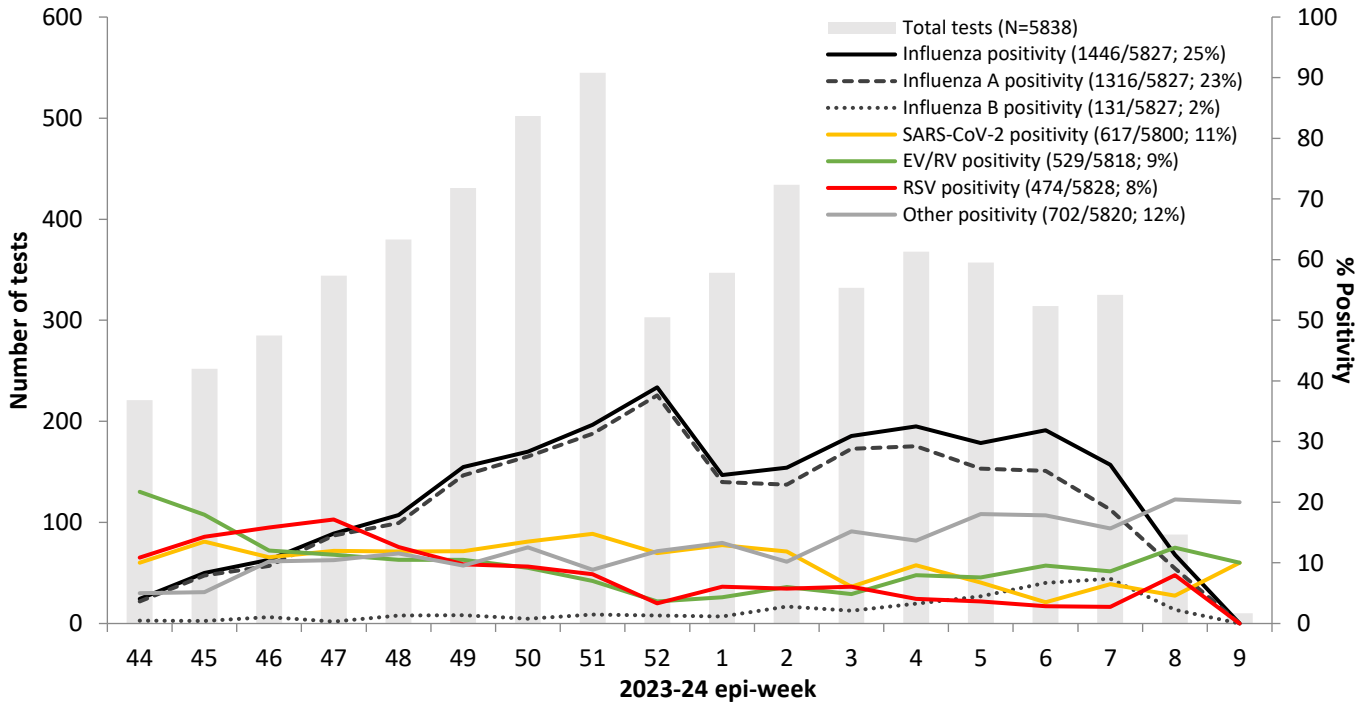
^b Of influenza A viruses subtyped cumulatively to last report (n=556), 460/556 (83%) were A(H1) and 96/556 (17%) were A(H3). Of influenza A viruses subtyped since last report (n=669), 472/669 (71%) were A(H1) and 198/669 (29%) were A(H3). There was one A+B and one A(H1)+A(H3) co-infection.

^c Other includes parainfluenza, seasonal coronaviruses, human metapneumovirus, adenovirus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae*, for which 11/2426 (0.5%), including 6 children and 5 adults, were positive since epi-week 44.

The [World Health Organization](#) has recently announced the recommended influenza strains for the northern hemisphere's upcoming 2024-25 vaccine, changing only the A(H3N2) component of the 2023-24 vaccine:

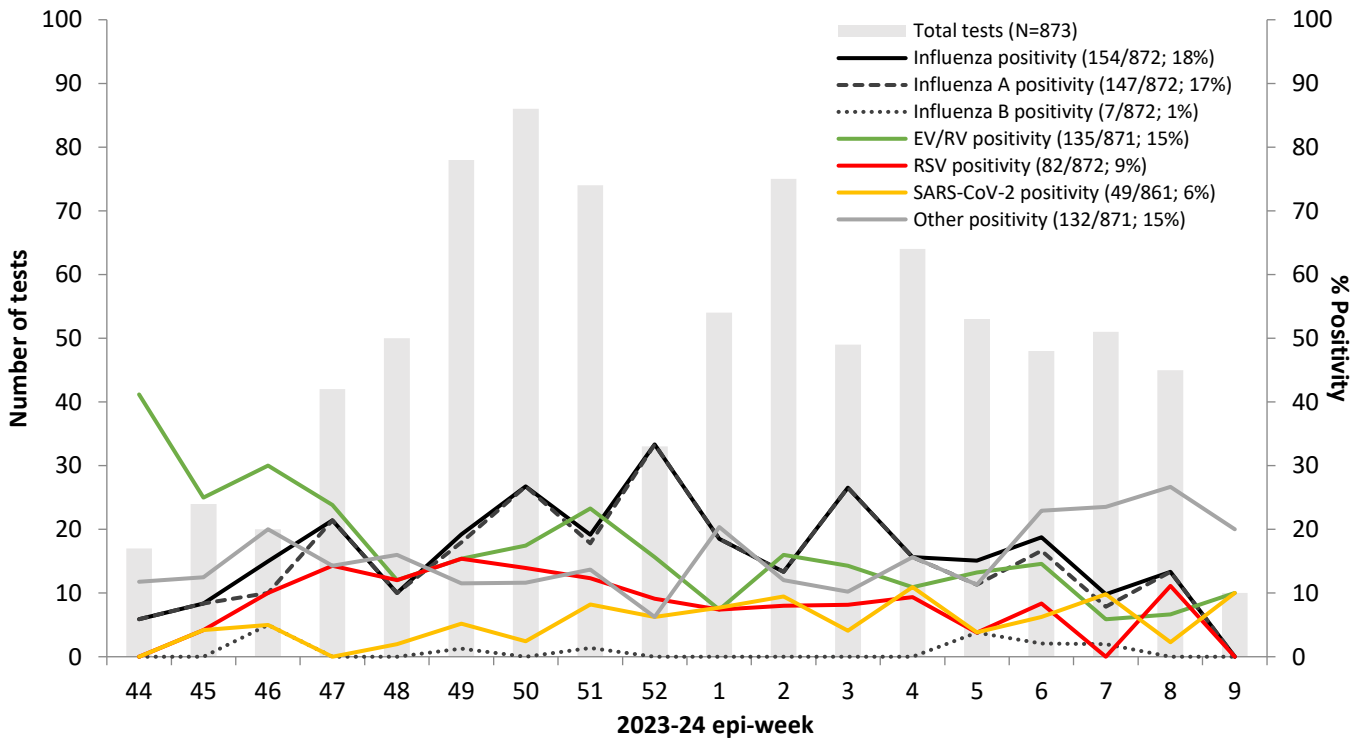
Season	A(H1N1)pdm09	A(H3N2)	B/Victoria*	B/Yamagata
2023-24	A/Victoria/4897/2022 (clade 6B.1A.5a.2a.1; "5a.2a.1")	A/Darwin/9/2021 (clade 3C.2a1b.2a.2a; "2a")	B/Austria/1359417/2021 (clade V1A.3a.2; "3a.2")	B/Phuket/3073/2013 (clade Y3)
2024-25	-	A/Thailand/8/2022 (clade 3C.2a1b.2a.2a.3a.1; "2a.3a.1")	-	-

*recommended component of trivalent vaccine whereas quadrivalent vaccine includes both B/Victoria and B/Yamagata lineages.

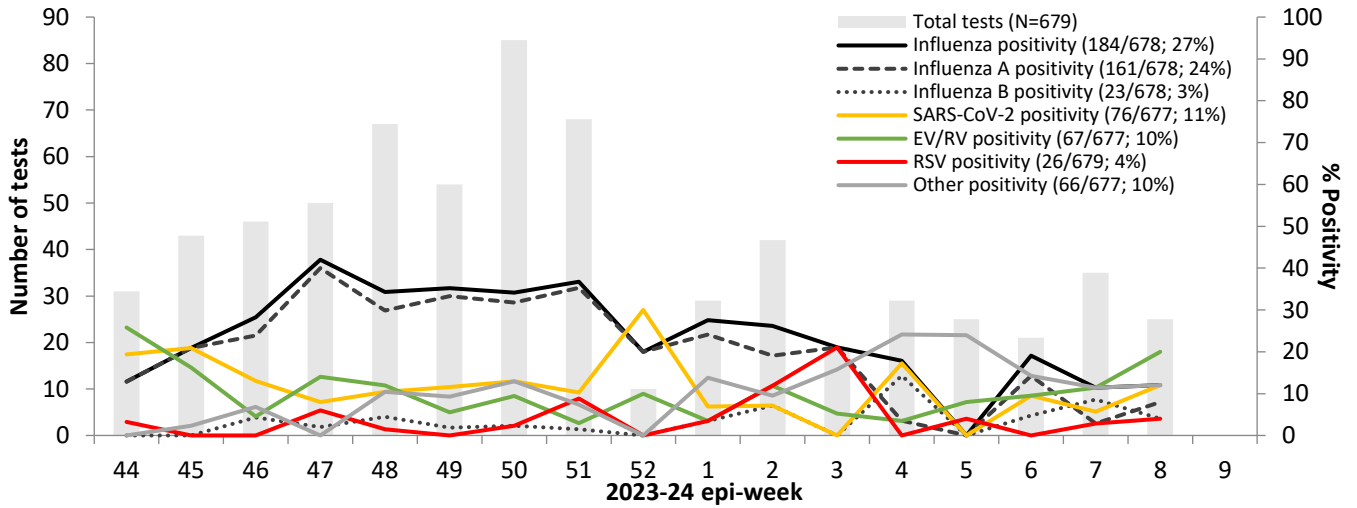
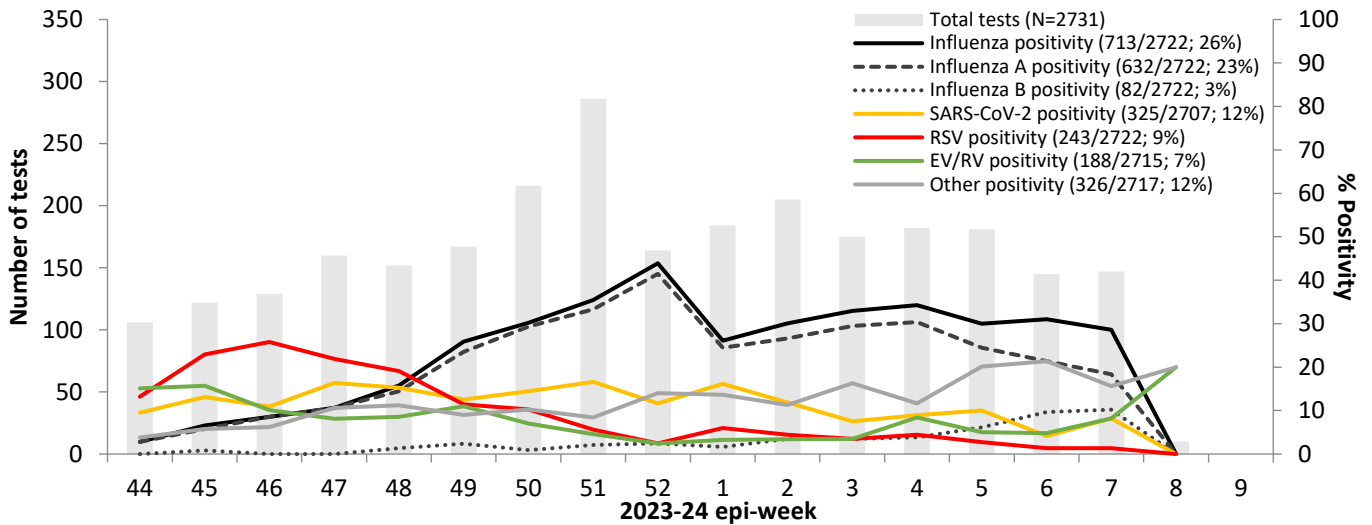
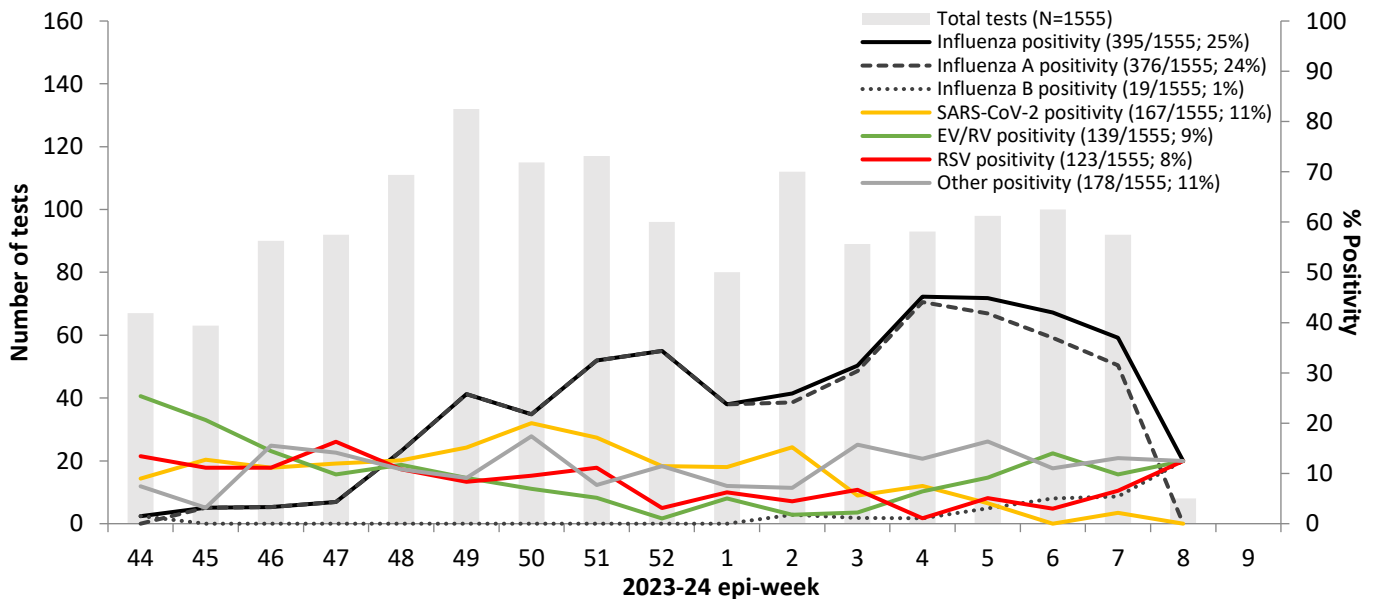
Figure 2. Weekly testing and percent positivity among SPSN specimens overall*, epi-weeks 44-9, 2023-24


* Among SPSN specimens overall, a total of 190 were diagnosed with co-infections, mostly involving EV/RV and another respiratory virus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae*, for which 11/2426 (0.5%) were positive since epi-week 44, including 6 children and 5 adults.

Figure 3. Weekly testing and percent positivity among SPSN specimens by province, epi-weeks 44-9, 2023-24

a) British Columbia


Note: All values for the most recent epi-weeks are subject to change.

b) Alberta

c) Ontario

d) Quebec


Note: All values for the most recent epi-weeks are subject to change.

Table 1. Specimens submitted to the SPSN by province and age group, epi-weeks 44-9, 2023-24 (N=5838)

Province	<5 years	5-8 years	9-19 years	20-49 years	50-64 years	65+ years	Unknown	Total
AB	48	38	79	279	130	105	0	679
BC	98	64	124	299	145	143	0	873
ON	382	173	265	1037	440	432	2	2731
QC	197	78	107	535	374	264	0	1555
Total	725	353	575	2150	1089	944	2	5838

Table 3. Additional resources for respiratory pathogen surveillance

<p>Canada BCCDC - Respiratory Disease Dashboard PHAC - FluWatch Surveillance PHAC - Human Emerging Respiratory Pathogens Bulletins</p> <p>United States Washington State - Influenza Updates California State - Influenza and Respiratory Disease Surveillance Report CDC - Weekly Influenza Surveillance Report</p> <p>Europe Joint ECDC—WHO/Europe - Flu News</p> <p>Oceania Australian Influenza Surveillance Reports New Zealand Institute of Environmental Science and Research (ESR) - Acute Respiratory Illness Infections Dashboard</p>	<p>South Africa National Institute for Communicable Diseases - Weekly Respiratory Pathogens Surveillance Report</p> <p>World Health Organization Global Influenza Updates Weekly Epidemiological Record Collaborating Centre for Reference and Research on Influenza Recommendations for Influenza Vaccine Composition Influenza at the Human-Animal Interface Summary and Assessment Updates</p> <p>World Organization for Animal Health OFFLU - Animal influenza</p>
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