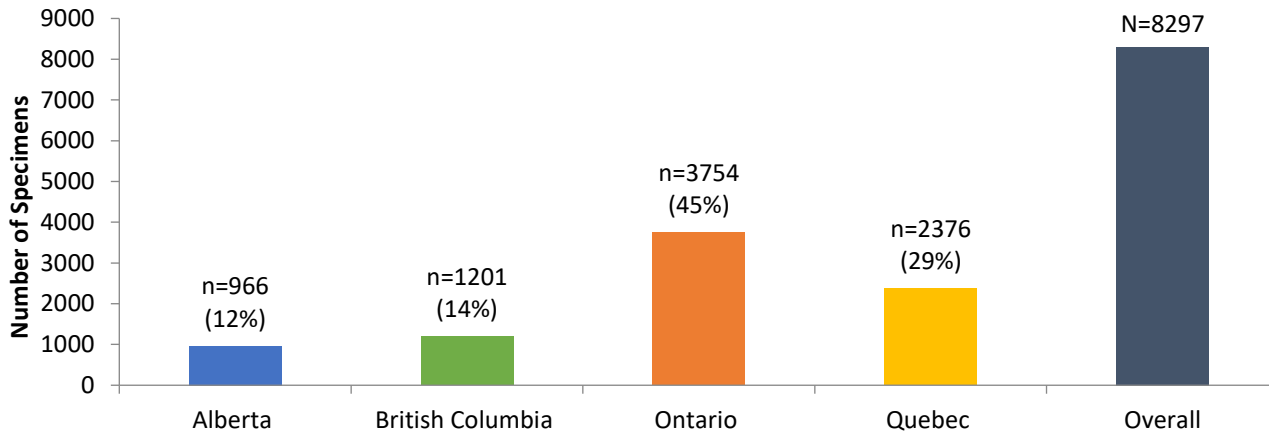


SPSN Report #8, 2023-24 Season Epi Weeks 44 to 18: October 29, 2023 to May 4, 2024

The 2023/24 influenza vaccine effectiveness (VE) monitoring period is now officially ended but we encourage continued sentinel submissions through the summer period to support ongoing surveillance. Having already published interim VE for influenza and COVID-19 vaccines, the SPSN now works on end-of-season analyses. We will issue further bulletins as indicated pending start of the 2024/25 analysis period.

Figure 1. Tally* of specimens submitted to the SPSN overall and by province, epi-weeks 44-18, 2023-24 (N=8297)



* 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 44-9, N = 6382	Since last report epi-weeks 10-18, N = 1915
At least one respiratory pathogen detected	3880 (61%)	1113 (58%)
Influenza viruses	1626 (26%)	414 (22%)
Influenza A ^b	1426 (22%)	128 (7%)
Influenza B	201 (3%)	286 (15%)
SARS-CoV-2	639 (10%)	85 (4%)
Enteroviruses (EV/RV)	564 (9%)	227 (12%)
Respiratory syncytial virus (RSV)	489 (8%)	30 (2%)
Other^c	817 (13%)	408 (21%)

^a See breakdown of detections by epi-week in [Figure 2](#) and by province in [Figures 3a-d](#).

^b Of influenza A viruses subtyped cumulatively to last report (n=1327), 1003/1327 (76%) were A(H1) and 323/1327 (24%) were A(H3). There was one A+B and one A(H1)+A(H3) co-infection. Of influenza A viruses subtyped since last report (n=118), 82/118 (69%) were A(H1) and 36/118 (31%) were A(H3).

^c Other includes parainfluenza, seasonal coronaviruses, human metapneumovirus, adenovirus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae*, for which 16/3575 (0.4%), including 9 children and 7 adults, were positive since epi-week 44.

SPSN influenza-negative controls since epi-week 44, reporting 2023-24 influenza vaccination: 35% (2024/5847*)

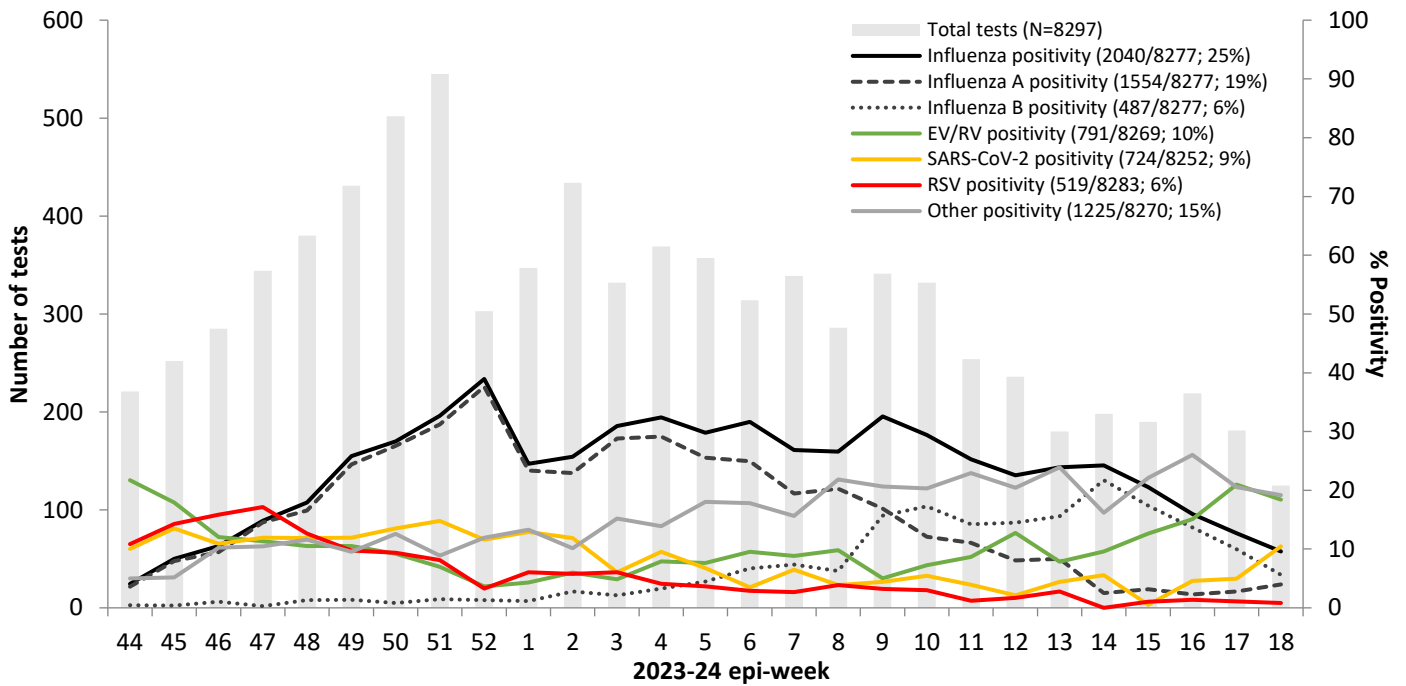
*Denominator includes specimens collected from SPSN patients with acute respiratory illness who tested negative for influenza virus and for whom 2023-24 influenza vaccine status (yes/no) was reported; numerator represents those reporting vaccine receipt.

The [World Health Organization](#) 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.

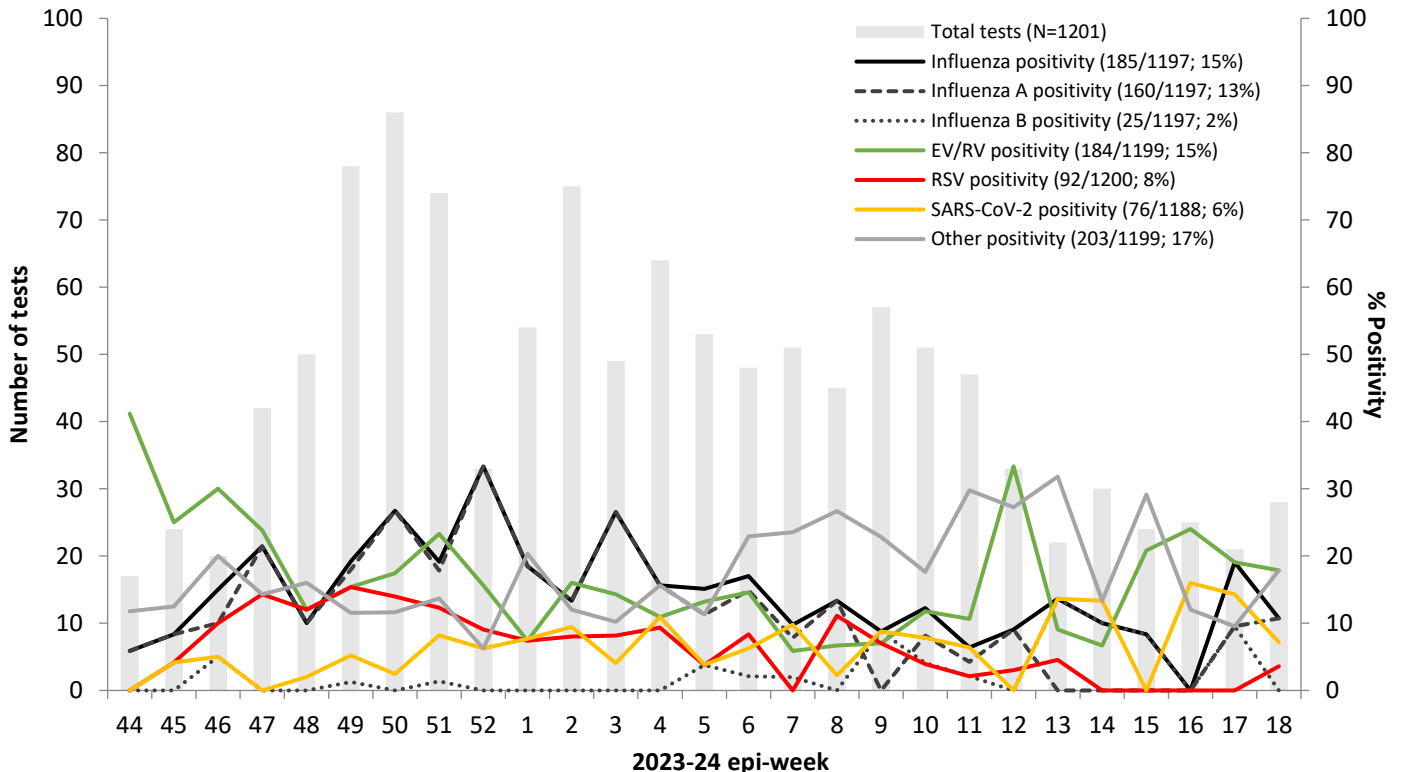
Figure 2. Weekly testing and percent positivity among SPSN specimens overall*, epi-weeks 44-18, 2023-24



* Among SPSN specimens overall, a total of 240 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 16/3575 (0.4%) were positive since epi-week 44, including 9 children and 7 adults.

Figure 3. Weekly testing and percent positivity among SPSN specimens by province, epi-weeks 44-18, 2023-24

a) British Columbia



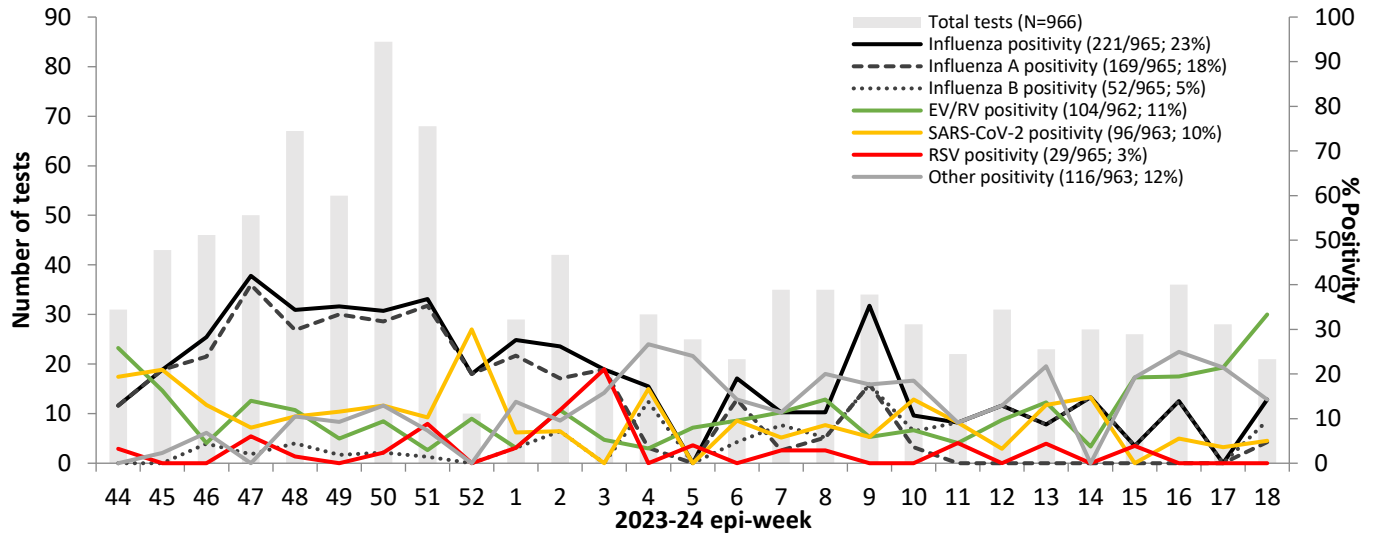
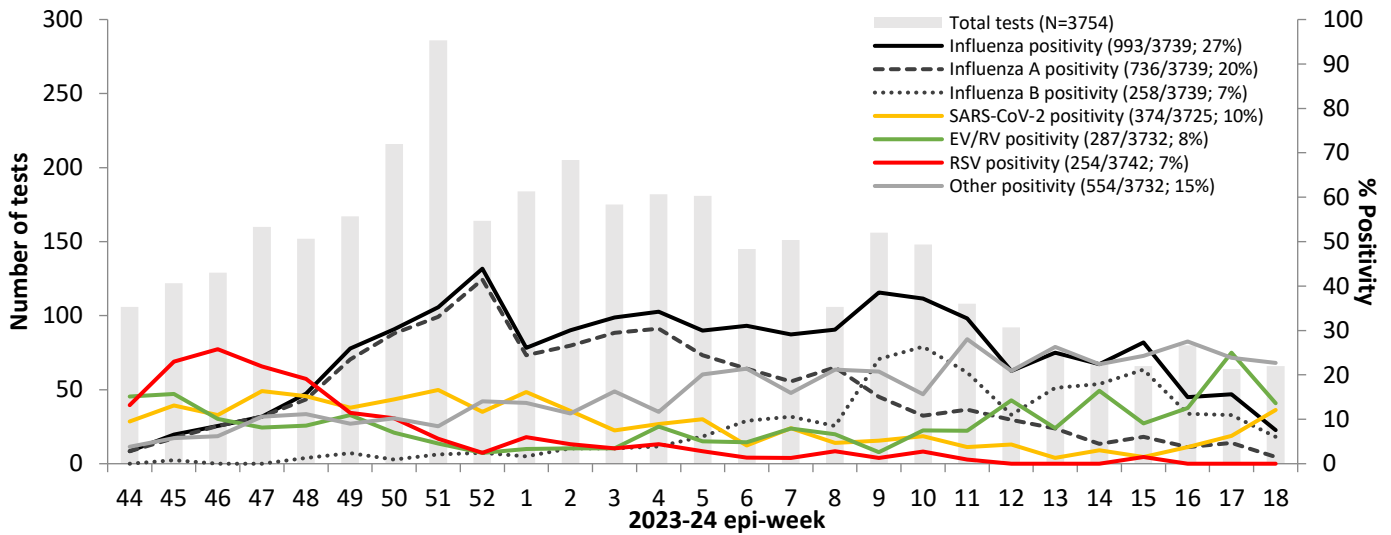
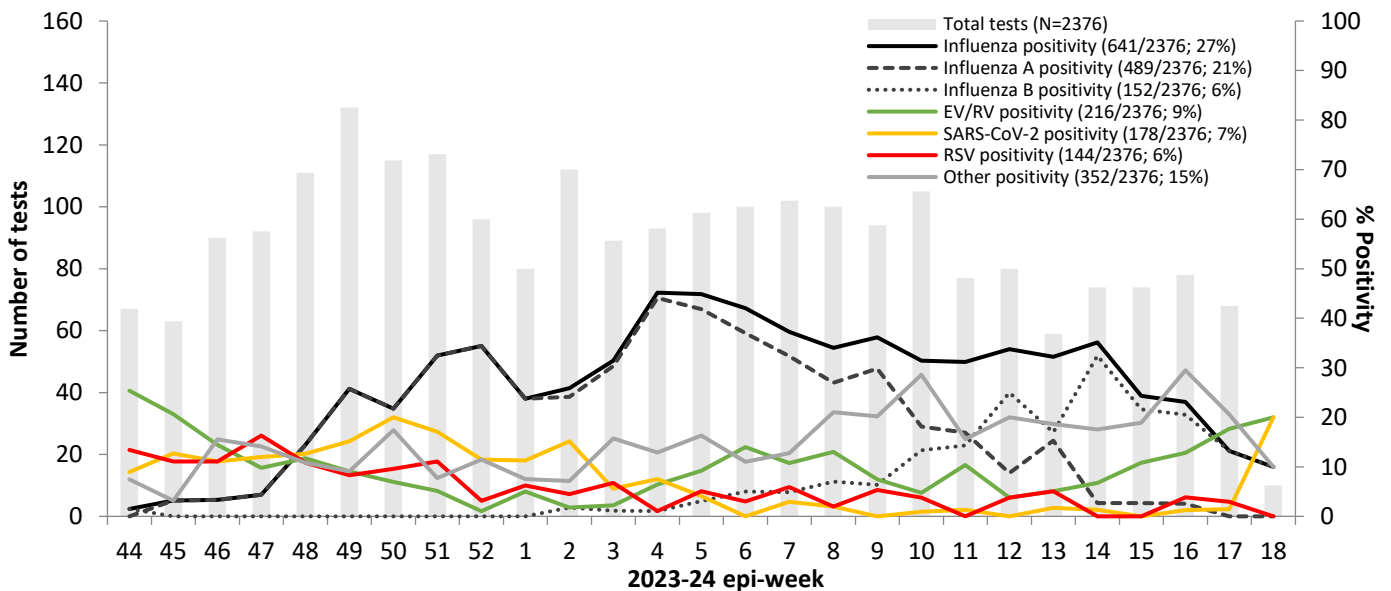
b) Alberta

c) Ontario

d) Quebec


Table 1. Specimens submitted to the SPSN by province and age group, epi-weeks 44-18, 2023-24 (N=8297)

Province	<5 years	5-8 years	9-19 years	20-49 years	50-64 years	65+ years	Unknown	Total
AB	57	48	112	398	182	169	0	966
BC	125	79	166	426	201	204	0	1201
ON	527	261	400	1395	567	602	2	3754
QC	332	129	177	829	516	393	0	2376
Total	1041	517	855	3048	1466	1368	2	8297

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>World Health Organization Global Influenza Updates Weekly Epidemiological Record Recommendations for Influenza Vaccine Composition</p> <p>World Organization for Animal Health OFFLU - Animal influenza</p>
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