

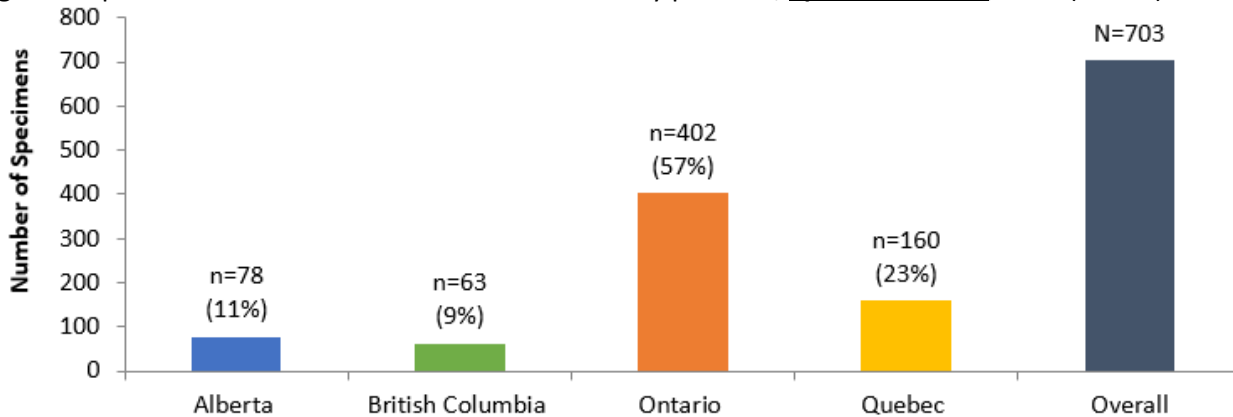
SPSN Report #4 [Revised][§] 2023-24 Season Epi Weeks 44 to 47: October 29 to November 25, 2023

As of week 44, only the updated 2023-24 SPSN requisitions should be used. Specimens submitted with old requisitions will be excluded from analyses. Please complete the full 2023-24 SPSN requisition for consenting patients. For COVID-19 vaccination, please specify the month and year of the most recent dose.

Below is a summary of specimens and respiratory detections by the SPSN between epi-weeks 44 and 47. All tallies are subject to change as the season progresses and data become more complete.

[§]Note corrections made on December 14, 2023 to *Mycoplasma pneumoniae* observations highlighted in yellow below (pages 1 and 2).

Figure 1. Specimens submitted to the SPSN overall and by province, epi-weeks 44-47, 2023 (N=703)



For the distribution of SPSN specimens by province and age group, see [Table 1](#).

SPSN specimens with at least one respiratory pathogen detected, epi-weeks 44-47, 2023: 382/703 (54%)

SPSN respiratory virus detections, all provinces combined, by period and order of frequency:

<u>Cumulatively, since</u> epi-week 44, N = 703	<u>Since last bulletin,</u> epi-weeks 46-47, N = 248
Enteroviruses (EV/RV): 120 (17%)	Respiratory syncytial virus (RSV): 56 (23%)
Respiratory syncytial virus (RSV): 114 (16%)	Enteroviruses (EV/RV): 31 (13%)
SARS-CoV-2: 83 (12%)	SARS-CoV-2: 29 (12%)
Influenza viruses*: 46 (7%)	Influenza viruses: 19 (8%)
Other**: 46 (7%)	Other**: 23 (9%)

*Of 46 influenza viruses detected cumulatively, and typed to date, 43/46 (93%) are influenza A and 3/46 (7%) are influenza B. Of influenza A viruses with known subtype, 38/42 (90%) are A(H1) and 4/42 (10%) are A(H3). **Other: parainfluenza, seasonal coronaviruses, human metapneumovirus, adenovirus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae* of which 2/232 (0.9%), one child and one adult, were positive since epi-week 44.

SPSN weekly respiratory virus findings since epi-week 35 are shown in [Figure 2](#), and **by province** in [Figure 3](#).

SPSN influenza test-negative controls who received 2023-24 influenza vaccine to date: 20% (127/623*)

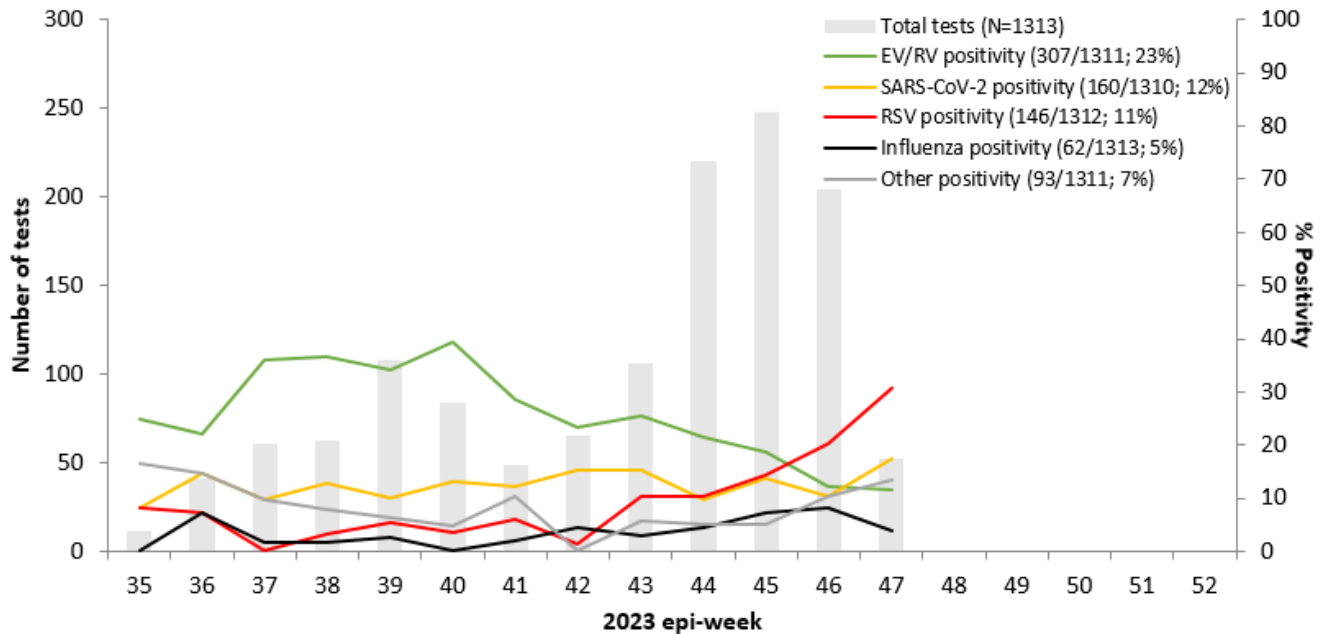
*Denominator includes specimens collected from SPSN patients with acute respiratory illness who tested negative for influenza virus and for whom 2023-24 influenza vaccine status (yes/no) was reported; numerator represents those reporting vaccine receipt.

For more respiratory pathogen surveillance globally, including from among [general laboratory specimens](#) in British Columbia, see references with hyperlinks provided in [Table 2](#).

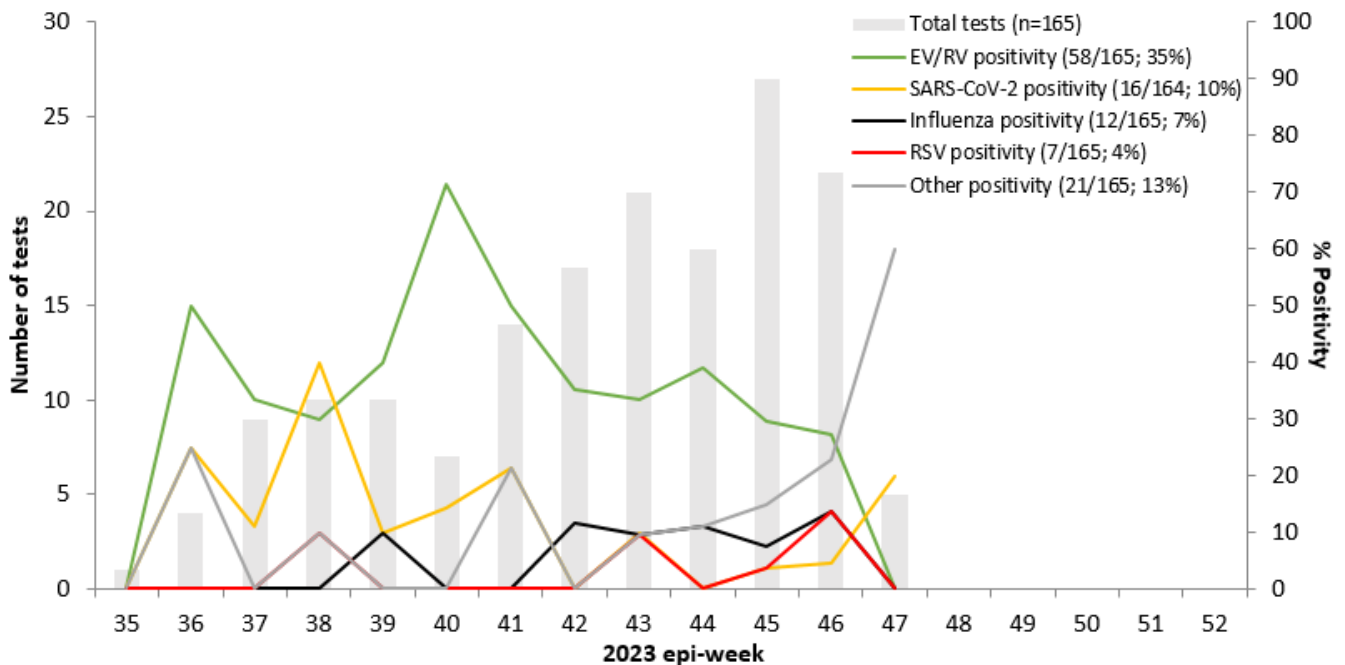
Below are the vaccine components recommended by the [World Health Organization](#) for the 2023-24 season:

Season	A(H1N1)pdm09	A(H3N2)	B/Victoria*	B/Yamagata
2023-24 (current)	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)

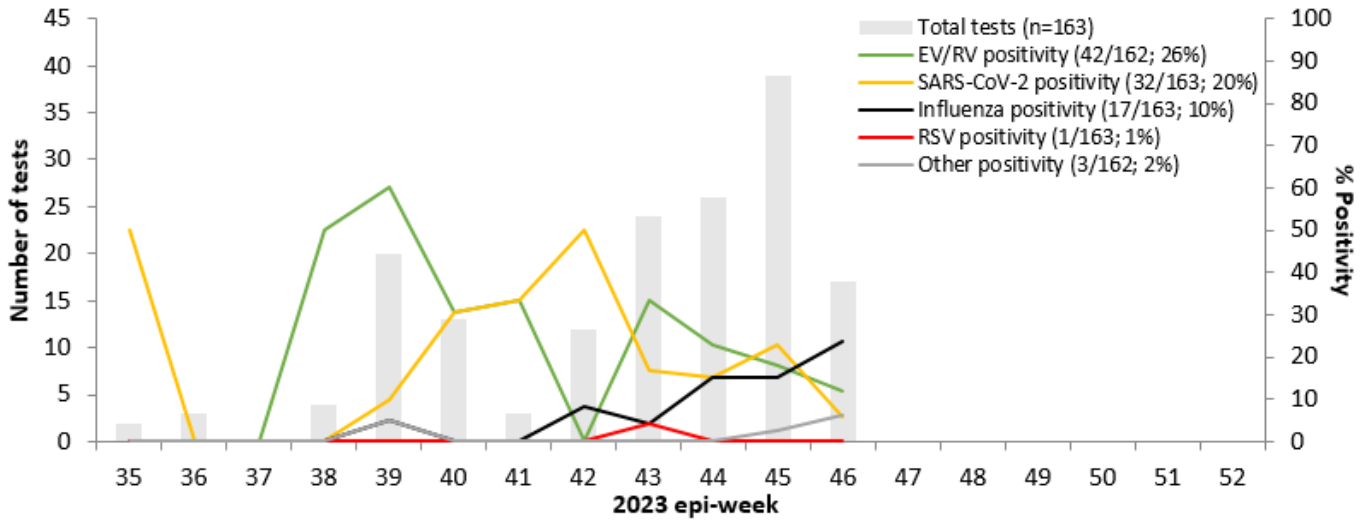
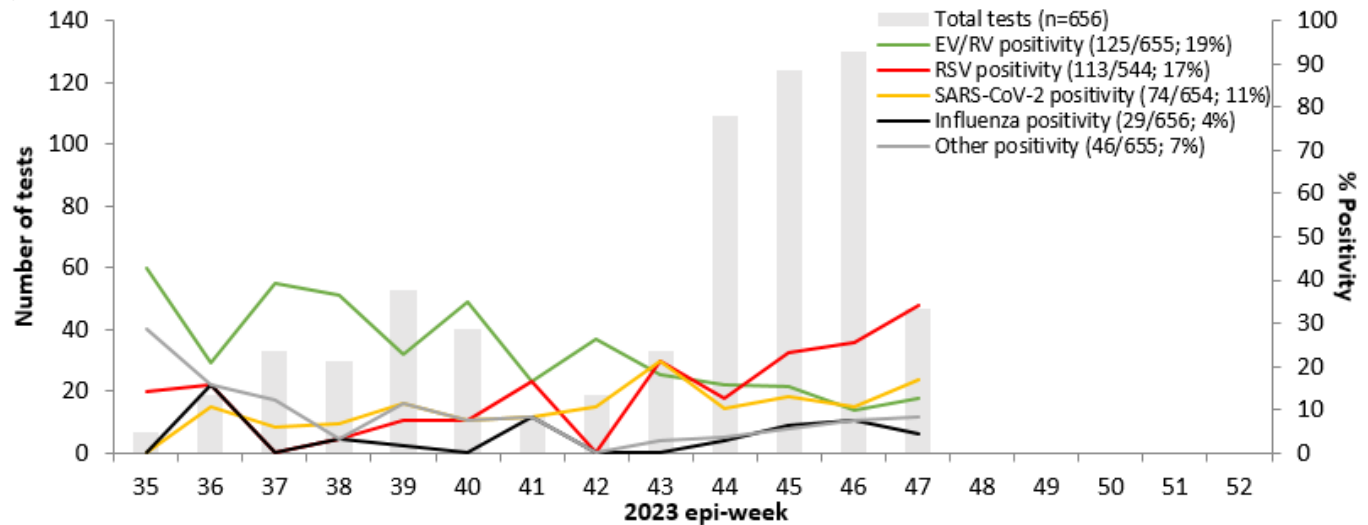
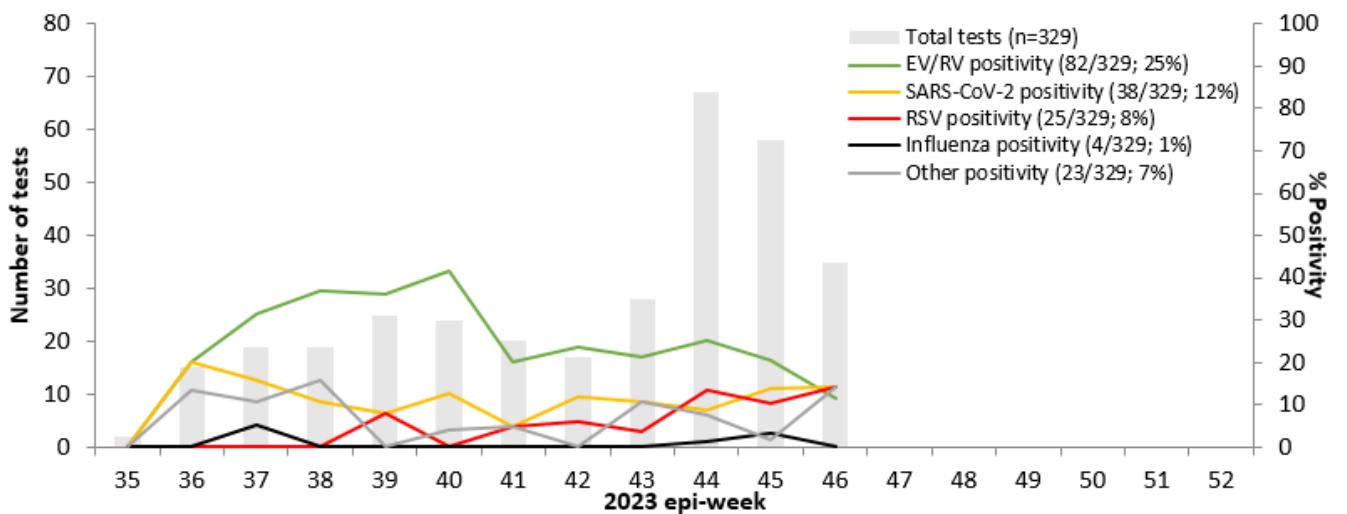
*recommended component of trivalent vaccine whereas quadrivalent vaccine includes both B/Victoria and B/Yamagata lineages.

Figure 2. Weekly testing and percent positivity among SPSN specimens overall, **epi-weeks 35-47, 2023**


Among SPSN specimens overall, a total of 34 were diagnosed with co-infections, mostly involving EV/RV and another respiratory virus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae* of which **2/496 (0.4%)** were positive since epi-week 35, one child and one adult, both since epi-week 44 (**2/232; 0.9%**).

Figure 3. Weekly testing and percent positivity among SPSN specimens by province, **epi-weeks 35-47, 2023**
a) British Columbia


Note: Figure 2 and Figure 3 indicate specimens from both 2022-23 and 2023-24 requisitions. All values for the most recent epi-week are subject to change.

b) Alberta

c) Ontario

d) Quebec


Note: Figure 2 and Figure 3 indicate specimens from both 2022-23 and 2023-24 requisitions. All values for the most recent epi-week are subject to change.

Table 1. Specimens submitted to the SPSN by province and age group, **epi-weeks 44-47**, 2023 (N=703)

Province	<5 years	5-8 years	9-11 years	12-19 years	20-49 years	50-64 years	65+ years	Total
AB	2	4	6	5	35	17	9	78
BC	6	6	3	7	18	10	13	63
ON	85	35	8	28	137	56	53	402
QC	21	12	5	7	50	42	23	160
Total	114	57	22	47	240	125	98	703

Table 2. 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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