

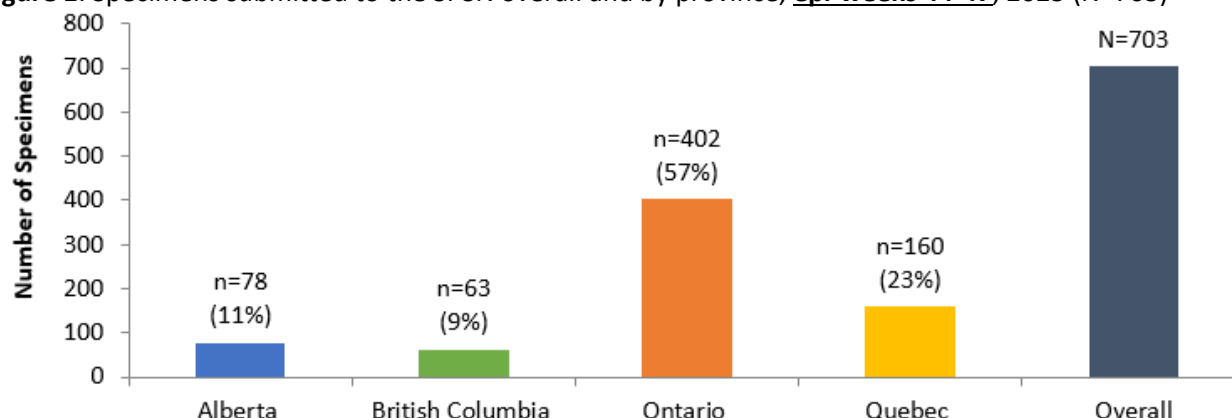
SPSN Report #4, 2023-24 Season

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.

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 2/227 (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.

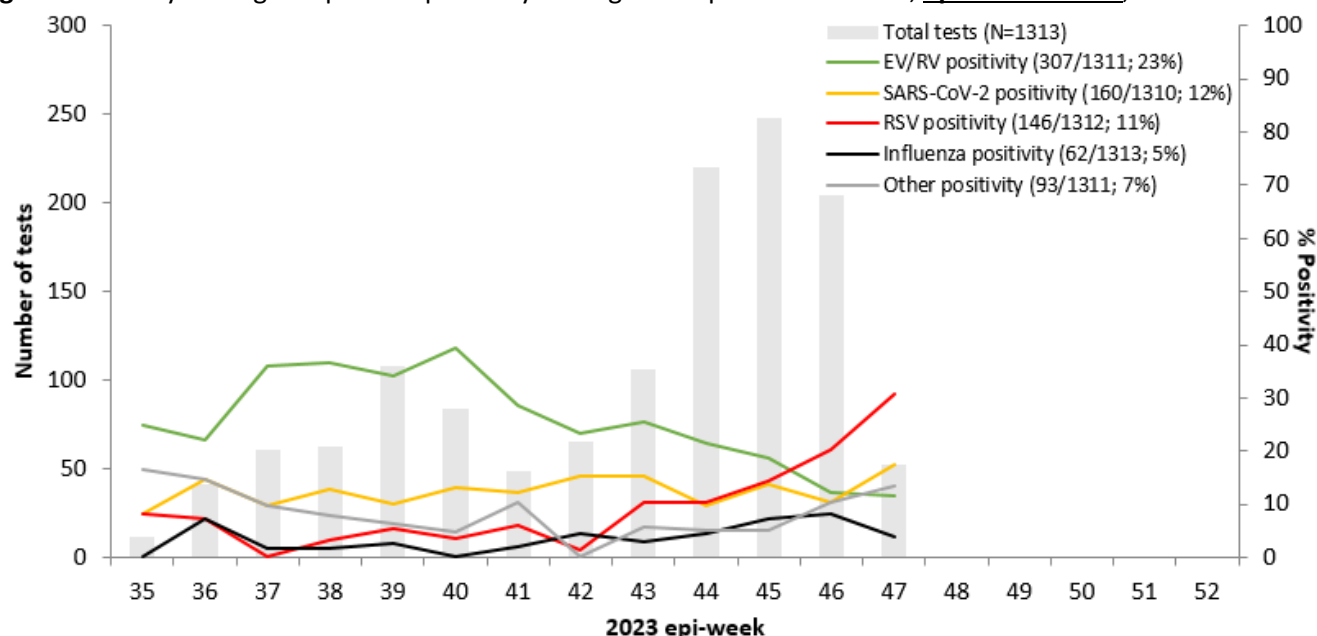
For more respiratory pathogen surveillance globally, including from among [general laboratory specimens](#) in British Columbia, see references with hyperlinks provided in [Table 2](#).

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.

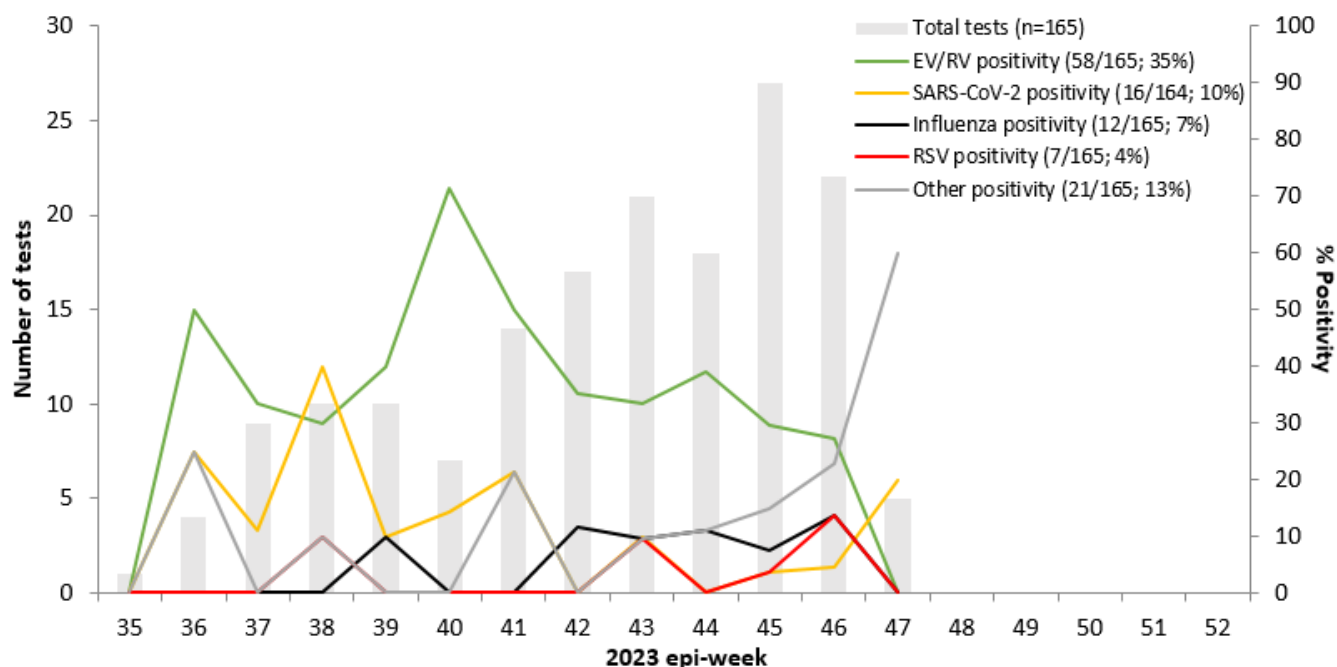
Figure 2. Weekly testing and percent positivity among SPSN specimens overall, epi-weeks 35-47, 2023



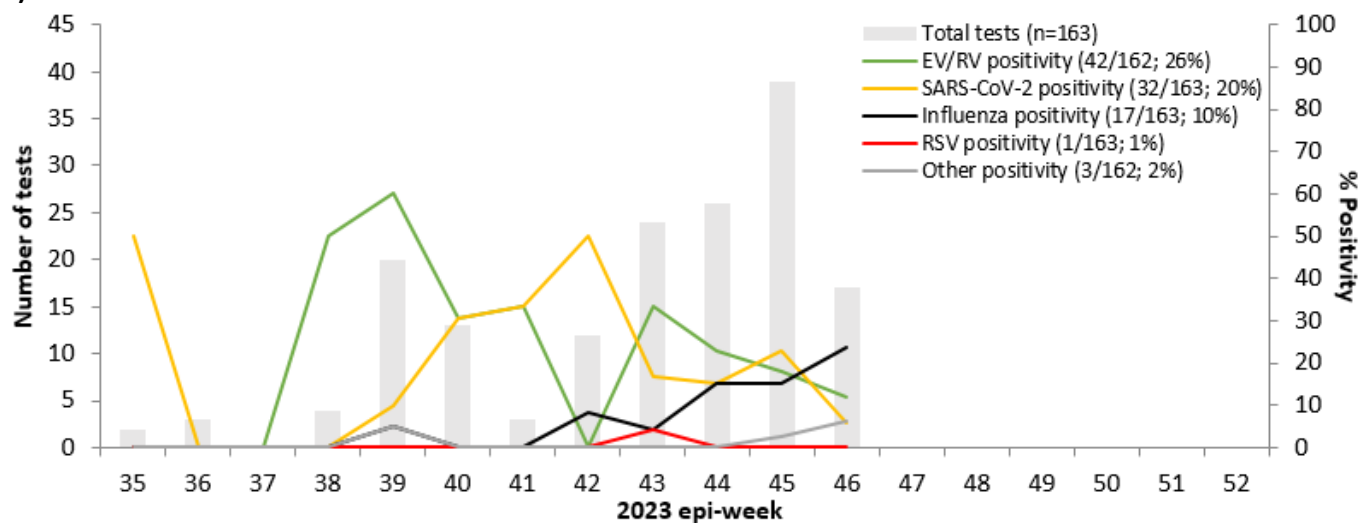
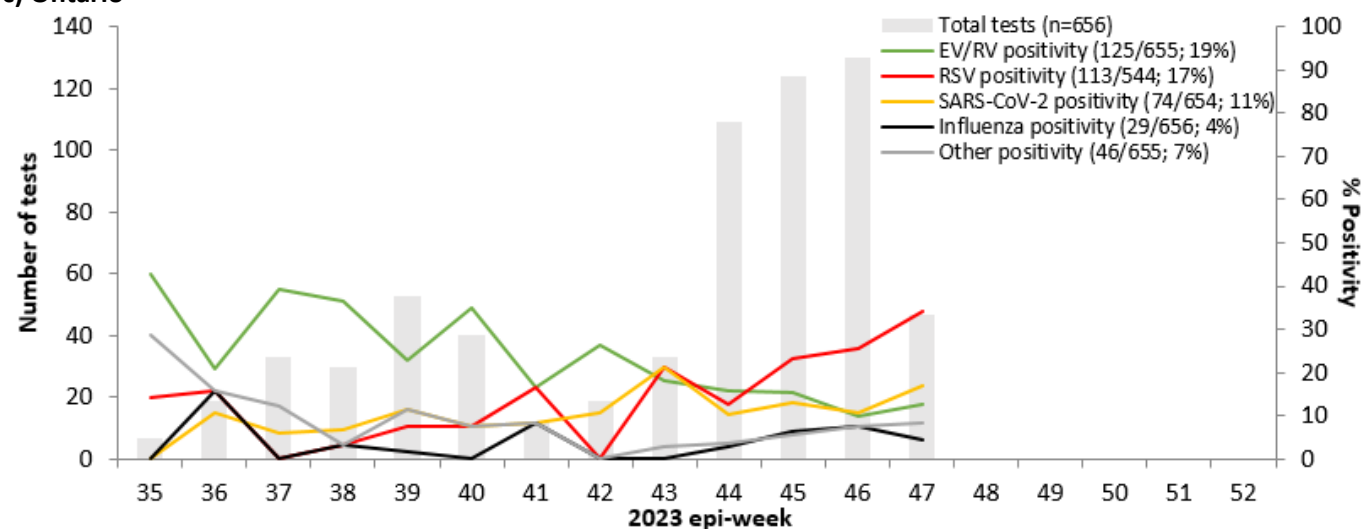
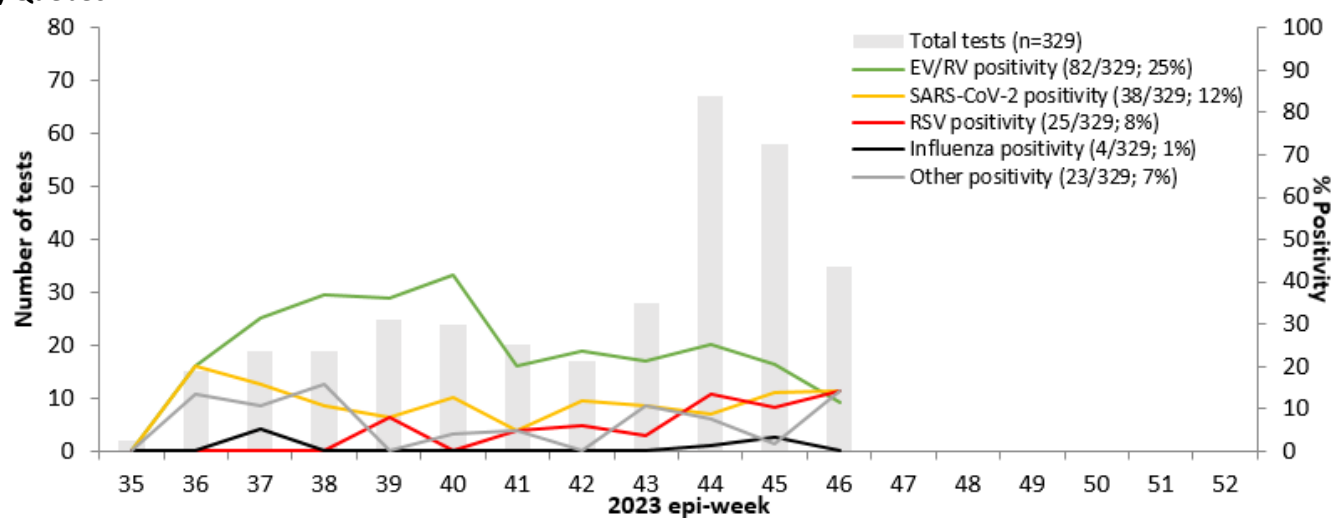
Among SPSN specimens overall, a total of 34 were diagnosed with co-infections, mostly involving EV/RV and another respiratory virus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae* of which 2/827 (0.2%) were positive since epi-week 35, one child and one adult, both since epi-week 44 (2/227; 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

Canada BCCDC - Respiratory Disease Dashboard PHAC - FluWatch Surveillance PHAC - Human Emerging Respiratory Pathogens Bulletins United States Washington State - Influenza Updates California State - Influenza and Respiratory Disease Surveillance Report CDC - Weekly Influenza Surveillance Report Europe Joint ECDC—WHO/Europe - Flu News Oceania Australian Influenza Surveillance Reports New Zealand Institute of Environmental Science and Research (ESR) - Acute Respiratory Illness Infections Dashboard	South Africa National Institute for Communicable Diseases - Weekly Respiratory Pathogens Surveillance Report 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 World Organization for Animal Health OFFLU - Animal influenza
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