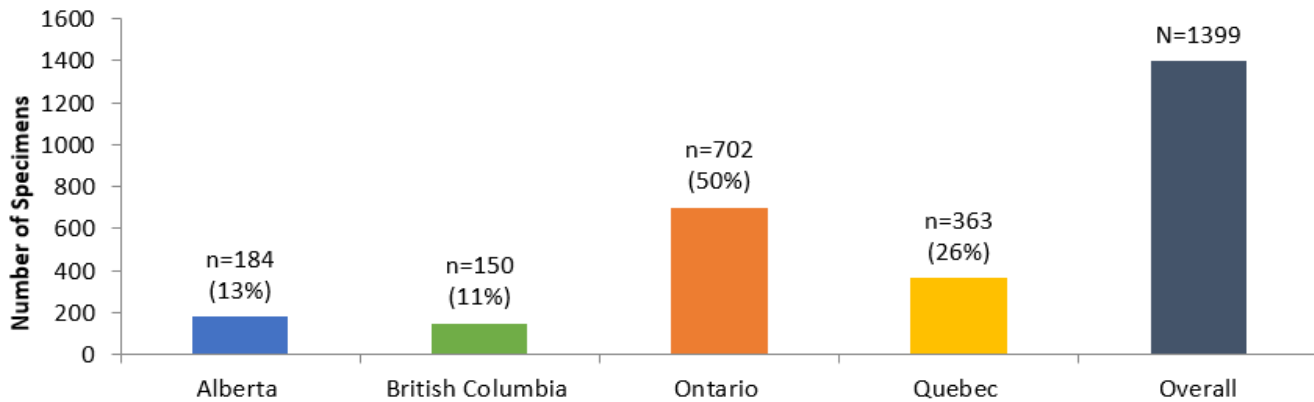


## SPSN Report #5, 2023-24 Season Epi Weeks 44 to 49: October 29 to December 9, 2023

**As enterovirus and rhinovirus detections have decreased, influenza and respiratory syncytial virus show gradual increase. SARS-CoV-2 detection appears relatively stable overall. Patterns vary by province. Sentinels please complete the full 2023-24 SPSN requisition for consenting patients.**

Below is a summary of specimens and respiratory detections by the SPSN between epi-weeks 44 and 49. 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 44-49, 2023 (N=1399)



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 44-49, 2023:** 793/1399 (57%)

**SPSN respiratory virus detections, all provinces<sup>a</sup> combined, by period and order of frequency:**

<u>Cumulatively, since</u> epi-week 44, N = 1399	<u>Since last bulletin,</u> epi-weeks 47-48 <sup>b</sup> , N = 616
Respiratory syncytial virus (RSV): 212 (15%)	Respiratory syncytial virus (RSV): 103 (17%)
Entero/rhinoviruses (EV/RV): 195 (14%)	Influenza viruses: 91 (15%)
SARS-CoV-2: 165 (12%)	SARS-CoV-2: 73 (12%)
Influenza viruses <sup>c</sup> : 151 (11%)	Entero/rhinoviruses (EV/RV): 65 (11%)
Other <sup>d</sup> : 126 (9%)	Other <sup>d</sup> : 68 (11%)

<sup>a</sup>Varies by province; see [Figures 3a-d](#) for province-specific findings.

<sup>b</sup>Most recent week excluded owing to potential delay in assay results.

<sup>c</sup>Of 151 influenza viruses detected cumulatively, and typed to date, 143/151 are influenza A and 8/151 are influenza B. Of influenza A viruses subtyped (n=135), 122/135 (90%) are A(H1) and 13/135 (10%) are A(H3).

<sup>d</sup>Other: parainfluenza, seasonal coronaviruses, human metapneumovirus, adenovirus. In British Columbia and Quebec, multiplex testing additionally includes *Mycoplasma pneumoniae* of which 2/513 (0.4%), 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-negative controls since epi-week 44, reporting 2023-24 influenza vaccination:** 26% (301/1179\*)

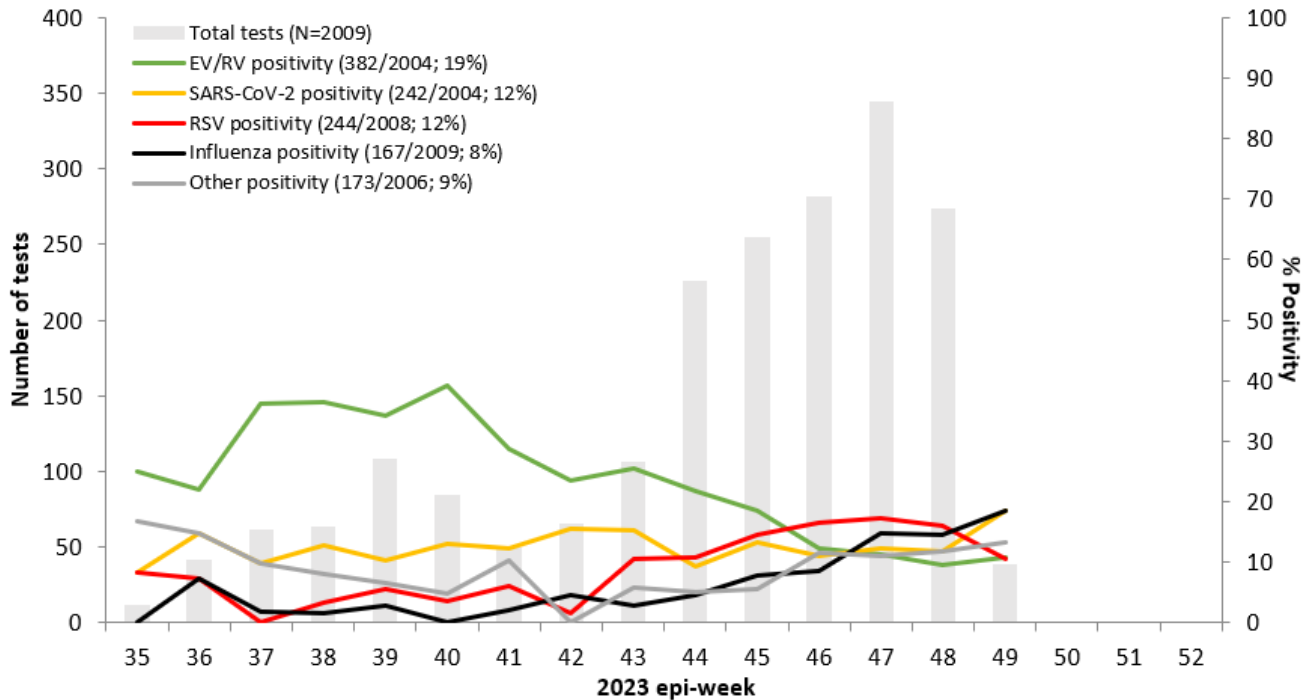
\*Denominator includes specimens collected from SPSN patients with acute respiratory illness who tested negative for influenza virus and for whom 2023-24 influenza vaccine status (yes/no) was reported; numerator represents those reporting vaccine receipt.

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:

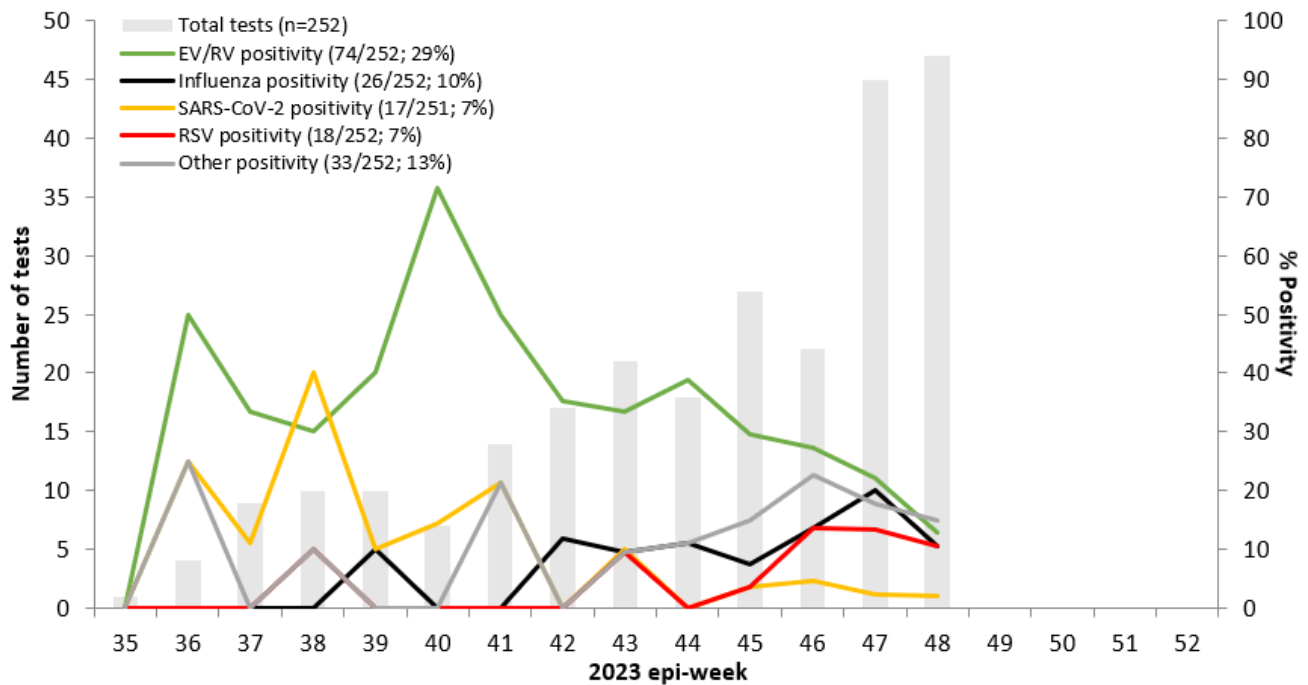
Season	A(H1N1)pdm09	A(H3N2)	B/Victoria*	B/Yamagata
<b>2023-24 (current)</b>	A/Victoria/4897/2022 (clade 6B.1A.5a.2a.1; "5a.2a.1")	A/Darwin/9/2021 (clade 3C.2a1b.2a.2a; "2a")	B/Austria/1359417/2021 (clade V1A.3a.2; "3a.2")	B/Phuket/3073/2013 (clade Y3)

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

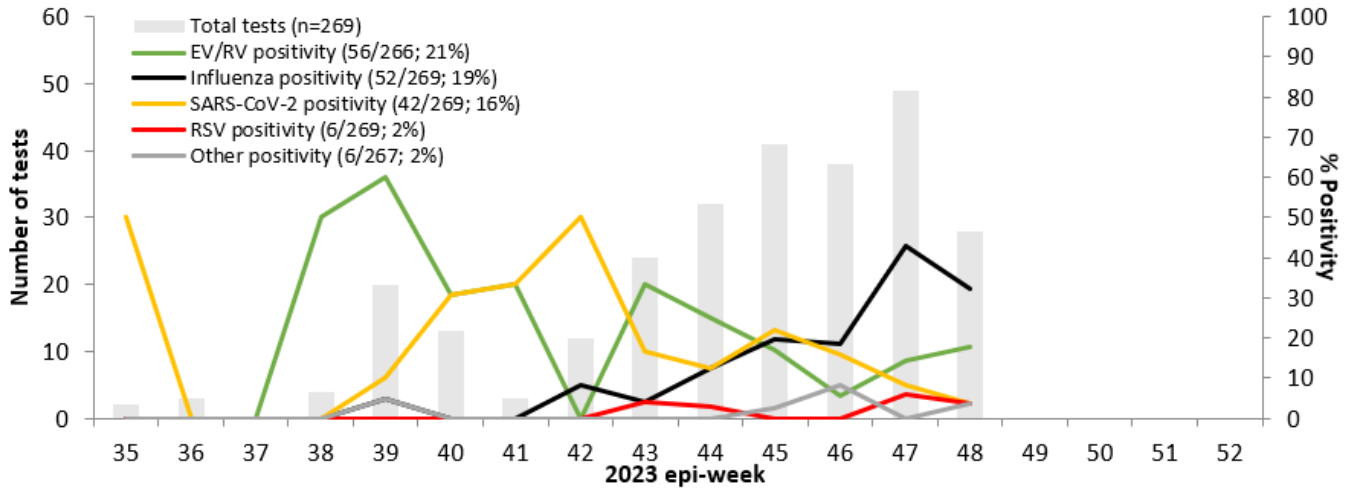
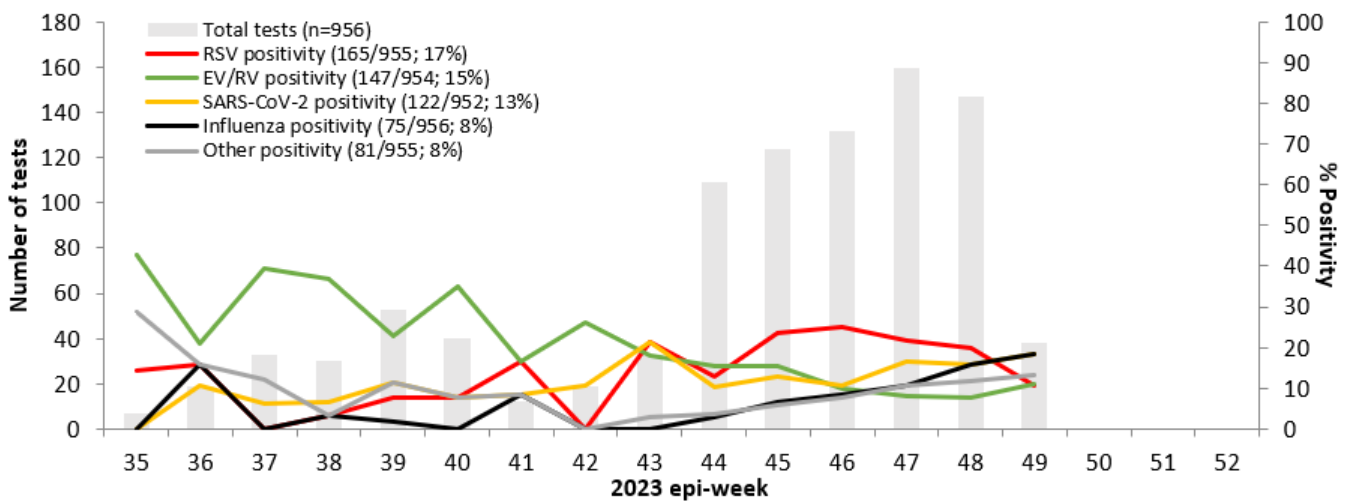
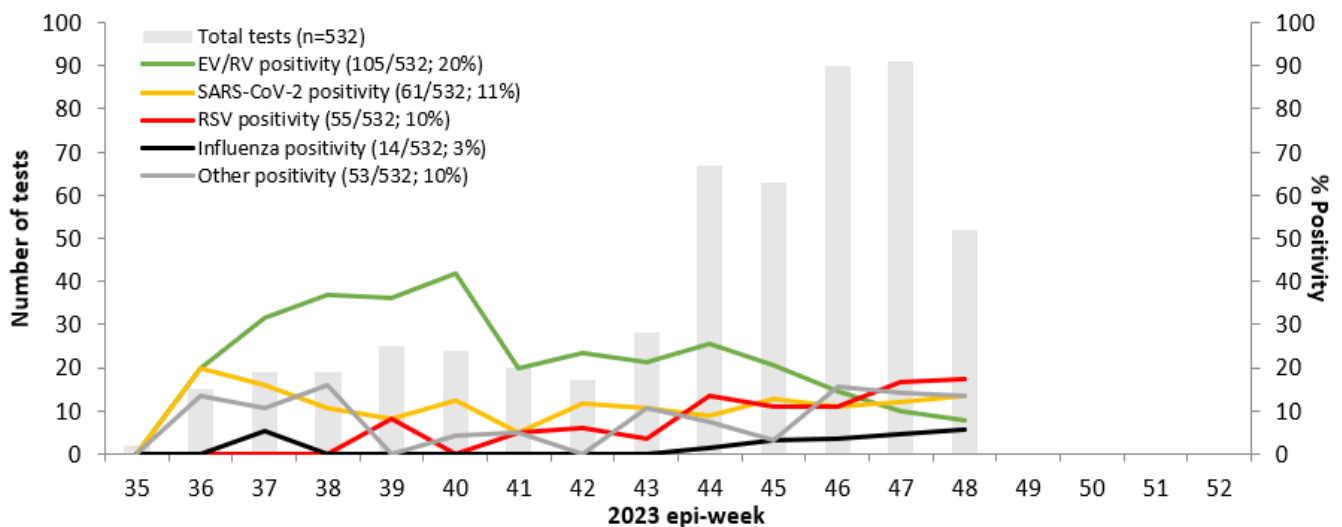
**Figure 2.** Weekly testing and percent positivity among SPSN specimens overall, epi-weeks 35-49, 2023


Among SPSN specimens overall, a total of 59 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 2/784 (0.3%) were positive since epi-week 35, one child and one adult, both since epi-week 44 (2/522; 0.4%).

**Figure 3.** Weekly testing and percent positivity among SPSN specimens by province, epi-weeks 35-49, 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-weeks 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-weeks are subject to change.

**Table 1.** Specimens submitted to the SPSN by province and age group, **epi-weeks 44-49**, 2023 (N=1399)

Province	<5 years	5-8 years	9-19 years	20-49 years	50-64 years	65+ years	Total
AB	12	13	25	79	33	22	184
BC	14	14	21	48	23	30	150
ON	143	53	61	236	99	110	702
QC	55	21	27	124	77	59	363
<b>Total</b>	224	101	134	487	232	221	1399

**Table 2.** Additional resources for respiratory pathogen surveillance

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