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:

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

*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:

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

*recommended component of trivalent vaccine whereas quadrivalent vaccine includes both B/Victoria and B/Yamagata lineages.
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.
Table 1. Specimens submitted to the SPSN by province and age group, **epi-weeks 44-47**, 2023 (N=703)

<table>
<thead>
<tr>
<th>Province</th>
<th>&lt;5 years</th>
<th>5-8 years</th>
<th>9-11 years</th>
<th>12-19 years</th>
<th>20-49 years</th>
<th>50-64 years</th>
<th>65+ years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>35</td>
<td>17</td>
<td>9</td>
<td>78</td>
</tr>
<tr>
<td>BC</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>18</td>
<td>10</td>
<td>13</td>
<td>63</td>
</tr>
<tr>
<td>ON</td>
<td>114</td>
<td>57</td>
<td>22</td>
<td>47</td>
<td>240</td>
<td>125</td>
<td>98</td>
<td>703</td>
</tr>
<tr>
<td>QC</td>
<td>21</td>
<td>12</td>
<td>5</td>
<td>7</td>
<td>50</td>
<td>42</td>
<td>23</td>
<td>160</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>57</td>
<td>22</td>
<td>47</td>
<td>240</td>
<td>125</td>
<td>98</td>
<td>703</td>
</tr>
</tbody>
</table>

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**

**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