In this Respiratory Virus Report, the number of detections of coronavirus reflects only seasonal human coronaviruses, not the novel pandemic coronavirus (SARS-CoV-2) that causes COVID-19. For information on COVID-19, see the Coronavirus disease (COVID-19): Outbreak update.

Overall Summary

Respiratory virus detections are low in Canada, and activity of all viruses is near or below expected levels.

- Enterovirus/Rhinovirus remains the most common seasonal respiratory virus detected in Canada (671 detections; 21.8% positive). Activity is increasing, but remains below expected levels for this time of year.
- Detections of other respiratory viruses are low, but activity is near expected levels.
- 32/34 sentinel laboratories reported surveillance data.

Abbreviations

Flu: Influenza
Flu A(H1N1)pdm09: Influenza A(H1N1)pdm09
Flu A(H3): Influenza A(H3N2)
Flu A(UnS): Influenza A(Unsubtyped)
RSV: Respiratory syncytial virus
HPIV: Human parainfluenza virus
HMPV: Human metapneumovirus
ADV: Adenovirus
EV/RV: Enterovirus/Rhinovirus
HCoV: Human coronavirus

Atl: Atlantic Canada
BC: British Columbia
Can: Canada
EORLA: Eastern Ontario Regional Laboratory Association
HSC: Health Sciences Centre
N.C.: Data not collected
N.R.: Data not reported for current week
ON: Ontario
PR: Prairies
P.H.O.L.: Public Health Ontario Laboratory
QC: Quebec
Terr: Territories of Canada
UHN: University Health Network
Figure 1: Positive respiratory virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015 to 2019-2020 season

- **Influenza A**
- **Influenza B**
- **Respiratory syncytial virus**
- **Enterovirus/Rhinovirus**
- **Human parainfluenza virus**
- **Adenovirus**
- **Human metapneumovirus**
- **Human coronavirus**

Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

Note: Data from week 11 of the 2019-2020 season onwards are excluded from the historical comparison due to the COVID-19 pandemic

Note: % Tests Positive scale changes across the dashed line

* Human coronavirus excludes human coronaviruses SARS-CoV, MERS-CoV and SARS-CoV-2; Includes seasonal human coronaviruses HCoV-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1.
Table 1: Respiratory virus detections for the week ending September 17, 2022 (surveillance week 2022-37)

<table>
<thead>
<tr>
<th>Reporting Laboratory</th>
<th>Flu Tested</th>
<th>A(H1)pdm09 Positive</th>
<th>A(H3) Positive</th>
<th>A(UNs) Positive</th>
<th>Total Flu A Positive</th>
<th>Total Flu B Positive</th>
<th>RSV Tested</th>
<th>RSV Positive</th>
<th>HPIV 1 Tested</th>
<th>HPIV 1 Positive</th>
<th>HPIV 2 Tested</th>
<th>HPIV 2 Positive</th>
<th>HPIV 3 Tested</th>
<th>HPIV 3 Positive</th>
<th>HPIV 4 Tested</th>
<th>HPIV 4 Positive</th>
<th>Other HPiV Tested</th>
<th>Other HPiV Positive</th>
<th>ADV Tested</th>
<th>ADV Positive</th>
<th>ADVP Tested</th>
<th>ADVP Positive</th>
<th>EViRV Tested</th>
<th>EViRV Positive</th>
<th>HCiOV Tested</th>
<th>HCiOV Positive</th>
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</thead>
<tbody>
<tr>
<td>Newfoundland</td>
<td>156</td>
<td>0</td>
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<td>Prince Edward Island</td>
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<tr>
<td>Nova Scotia</td>
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</tbody>
</table>

The data in the RVDSS report represent surveillance data available at the time of writing. Data missing from the current week are denoted by N.R. Data not collected by reporting lab denoted by N.C. Specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT. Results from British Columbia comprise of specimens from the following sites: BC Children’s and Women’s Hospital, Children’s and Women’s Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital, St. Paul’s Hospital, Vancouver General Hospital, Victoria General Hospital, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites. Delays in the reporting of data may cause data to change retrospectively. For British Columbia, only data from subtyped influenza A specimens are included in the weekly number of influenza detections. The sum of A(H1N1)pdm09, A(H3), and A(UNs) positive results may not equal the sum of total Flu A positive results. Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts, as some subtype detections are not available through routine testing but are subsequently reported if further subtype testing is conducted. In these instances, subtype counts do not reflect influenza A detections intended to be captured by routine surveillance, and are excluded from total detections and percent positivity.
Table 2: Cumulative respiratory virus detections from August 28, 2022 to September 17, 2022 (surveillance weeks 2022-35 to 2022-37)

| Reporting Laboratory | Flu Tested | A(H1N1)pdm09 Positive | A(H3N2) Positive | A(WSN) Positive | Total Flu A Positive | A(H1N1)pdm09 Tested | A(H3N2) Tested | A(WSN) Tested | Total Flu B Positive | RSV Tested | RSV Positive | HPIV Tested | HPIV 1 Positive | HPIV 2 Positive | HPIV 3 Positive | HPIV 4 Positive | Other HPIV Positive | ADV Tested | ADV Positive | HMPV Tested | HMPV Positive | EVRIV Tested | EVRIV Positive | HCV tested | HCIV Positive |
|----------------------|------------|-----------------------|------------------|------------------|---------------------|----------------------|------------------|----------------|---------------------|------------|--------------|------------|---------------|---------------|---------------|----------------|-----------------|------------------|------------|-------------|------------|----------------|---------------|---------------|------------|-------------|
| Newfoundland         | 469        | 0                     | 0                | 0                | 1                   | 0                    | 469              | 9              | 469                 | 1          | 2            | 3          | 2             | 2             | 2             | 0           | 469            | 6              | 469          | 19            | 469          | 49            | 49          | 0           |
| Prince Edward Island | 121        | 0                     | 0                | 0                | 0                   | 121                  | 1                | 121            | 0                  | 1          | 6            | 0          | 0             | 121           | 0             | 121          | 0              | 121            | 80          | 121          | 82            | 121          | 0           | 121          | 3             | 121          | 1           |
| Nova Scotia          | 932        | 0                     | 0                | 1                | 1                   | 931                  | 8                | 931            | 1                  | 0          | 1            | 1          | 0             | 121           | 0             | 121          | 0              | 121            | 5           | 121          | 33            | 121          | 0           | 121          | 121          | 121          | 0           |
| New Brunswick        | 779        | 0                     | 0                | 0                | 1                   | 538                  | 128              | 538            | 128                 | 0          | 5            | 0          | 0             | 0             | 0             | 0           | 0              | 0              | 0           | 0            | 0           | 0            | 0           | 0           | 0           | 0           |
| Atlantic             | 2381       | 0                     | 0                | 1                | 2                   | 2039                 | 23               | 839            | 2                  | 3          | 0            | 3          | 0             | 339           | 3             | 339          | 20              | 839            | 206         | 839          | 3             | 20           | 3            | 3            | 3            | 3            |
| Région Nord-Est      | 1783       | 0                     | 0                | 2                | 2                   | 426                  | 7                | 15             | 1                  | 1          | 0            | 0          | 0             | 0             | 14           | 0           | 14              | 0              | N.C.         | 0            | N.C.         | 11            | 11          | 0           | 0           | 0           |
| Québec-Chaudière-Appalaches | 1030     | 0                     | 0                | 2                | 2                   | 1                    | 951              | 21             | 89                 | 0          | 3            | 0          | 0             | 673           | 11            | 673          | 14              | N.C.           | 353         | 0            | 0           | 0            | 0           | 0           | 0           | 0           |
| Centre-du-Québec     | 724        | 0                     | 0                | 1                | 1                   | 543                  | 13               | 75             | 0                  | 5          | 0            | 0          | 0             | 75            | 0             | 75           | 5               | N.C.           | 75          | 0            | 0           | 0            | 0           | 0           | 0           | 0           |
| Montréal-Laval       | 2221       | 0                     | 0                | 3                | 3                   | 1                    | 2008             | 88              | 1039                | 11         | 15           | 0          | 0             | 1039          | 52            | 1039         | 52              | N.C.           | 1120        | 0            | 0           | 0            | 0           | 0           | 0           | 0           |
| Ouest du Québec      | 744        | 0                     | 0                | 2                | 2                   | 0                    | 744              | 32              | 54                 | 0          | 1            | 0          | 0             | 63            | 6             | 63           | 54              | N.C.           | 54          | 1            | 0           | 0            | 0           | 0           | 0           | 0           |
| Montréal-Ouest       | 1189       | 0                     | 0                | 2                | 2                   | 0                    | 972              | 20              | 0                  | 0          | 0            | 0          | 0             | 0             | 0             | 0           | 0              | 0              | 0           | 0            | 0           | 0            | 0           | 0           | 0           | 0           |
| Province of Quebec   | 7691       | 0                     | 0                | 12               | 12                  | 4                    | 3744             | 181             | 1272                | 12         | 2           | 19          | 0             | 1864          | 51            | 1864         | 71              | N.C.           | 1615        | 6            | 0           | 0            | 0           | 0           | 0           | 0           |

Flu detections are subsequently reported if further subtype testing is conducted. In these instances, subtype counts do not reflect influenza A detections intended to be captured by routine surveillance, and are excluded from total detections and positive results.

Specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

The data in the RVDSS report represent surveillance data available at the time of writing. Data not collected by reporting lab denoted by N.C.

Results from British Columbia comprise of specimens from the following sites: BC Children’s and Women’s Hospital, Children’s and Women’s Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital, St. Paul’s Hospital, Vancouver General Hospital, Victoria General Hospital, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites.

Delays in the reporting of data may cause data to change retrospectively. Due to these delays, the sum of weekly report totals do not add up to cumulative totals.

For British Columbia, only data from subtyped influenza A specimens are included in the weekly number of influenza detections. The sum of A(H1N1)pdm09, A(H3), and A(Uns) positive results may not equal the sum of total Flu A positive results.

Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts, as some subtype detections are not available through routine testing but are subsequently reported if further subtype testing is conducted. In these instances, subtype counts do not reflect influenza A detections intended to be captured by routine surveillance, and are excluded from total detections and percent positivity.
Figure 2: Number of positive respiratory virus tests reported by participating laboratories in Canada by surveillance week

- Human parainfluenza virus
- Adenovirus
- Human metapneumovirus
- Enterovirus/Rhinovirus
- Human coronavirus
- Respiratory syncytial virus
- Influenza
Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week
Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

Number of Tests

% Tests Positive

Canada (Can)

Atlantic (Atl)

Quebec (QC)

Ontario (ON)

Prairies (Pr)

British Columbia (BC)

Territories (Terr)

2022 Surveillance Week 2023

Number of RSV Tests % RSV Tests Positive
Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week
Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

Canada (Can)

Atlantic (Atl)

Québec (QC)

Ontario (ON)

Prairies (Pr)

British Columbia (BC)

2022 Surveillance Week 2023

Number of ADV Tests

% ADV Tests Positive
Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

- **Canada (Can)**
- **Atlantic (Atl)**
- **Quebec (QC)**
- **Ontario (ON)**
- **Prairies (Pr)**
- **British Columbia (BC)**

**Number of Tests vs. % Tests Positive**

- **Y-axis**: Number of Tests
- **X-axis**: Surveillance Week
- **Legend**:
  - Light blue square: Number of HMPV Tests
  - Red line: % HMPV Tests Positive
Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week.
Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week.