

# RESPIRATORY VIRUS DETECTION REPORT

December 19, 2021 to January 1, 2022  
(Surveillance Weeks 2021-51 and 2021-52)



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

In week 52 (December 26, 2021 to January 1, 2022), activity of almost all respiratory viruses is within or below expected levels for this time of year.

- Due to the current COVID-19 pandemic, changes in laboratory testing practices for the past week may affect the comparability of data to previous weeks.
- Respiratory syncytial virus (1,824 detections; 6.8% positive) is the most common seasonal respiratory viruses detected in Canada. Activity remains within expected levels.
- Detections of other respiratory viruses are low, but activity of seasonal human coronavirus (297 detections; 10.3% positive) is far above expected levels.
- The number of tests performed for each virus is either within or above expected levels.
- 31/34 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

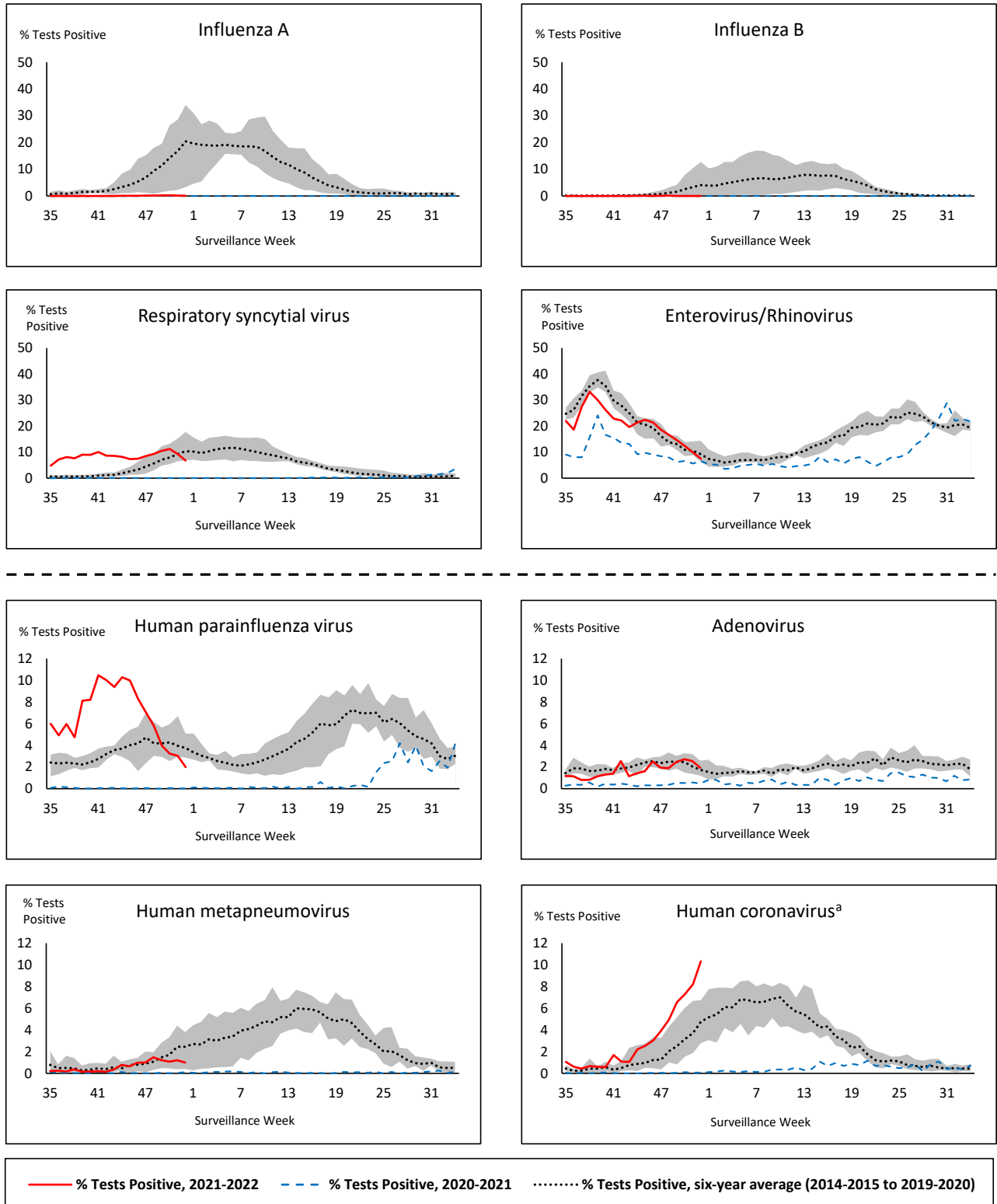
QC: Quebec

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**



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

<sup>a</sup> 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 January 1, 2022 (surveillance week 2021-52)**

Reporting Laboratory	Flu Tested	A(H1)pdm09 Positive	A(H3) Positive	A(UnS) Positive	Total Flu A Positive	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	EV/RV Tested	EV/RV Positive	HCoV Tested	HCoV Positive	
Newfoundland	8	0	0	0	0	0	8	1	8	0	0	0	0	0	9	0	8	0	8	0	N.C.	N.C.	
Prince Edward Island	87	0	0	0	0	0	87	19	87	0	0	1	0	0	87	4	87	1	87	15	87	12	
Nova Scotia	1283	0	0	4	4	0	1283	41	37	0	0	0	1	0	37	1	37	1	37	0	37	6	
New Brunswick	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	
<b>Atlantic</b>	<b>1378</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>1378</b>	<b>61</b>	<b>132</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>133</b>	<b>5</b>	<b>132</b>	<b>2</b>	<b>132</b>	<b>15</b>	<b>124</b>	<b>18</b>	
Région Nord-Est	732	0	0	0	0	0	107	8	0	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Québec-Chaudière-Appalaches	166	0	0	2	2	0	166	0	31	0	0	0	0	0	73	0	73	0	N.C.	N.C.	72	0	
Centre-du-Québec	237	0	0	0	0	0	233	15	7	0	0	0	0	0	7	0	7	1	N.C.	N.C.	7	0	
Montréal-Laval	1052	0	0	6	6	0	1034	21	244	0	0	0	0	0	244	18	241	32	N.C.	N.C.	241	8	
Ouest du Québec	273	0	0	0	0	0	273	24	5	0	0	1	0	0	0	0	0	0	N.C.	N.C.	0	0	
Montérégie	100	0	0	0	0	0	100	1	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0	
<b>Province of Québec</b>	<b>2560</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>1913</b>	<b>69</b>	<b>287</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>324</b>	<b>18</b>	<b>321</b>	<b>33</b>	<b>N.C.</b>	<b>N.C.</b>	<b>320</b>	<b>8</b>	
P.H.O.L. - Ottawa	49	0	0	0	0	0	49	5	49	0	0	0	0	1	49	0	49	0	49	0	49	5	
EORLA	259	0	0	0	0	0	259	30	19	0	0	0	0	0	19	2	19	2	19	4	19	0	
P.H.O.L. - Kingston	44	0	0	0	0	0	44	10	44	0	0	0	0	0	44	2	44	0	44	1	44	4	
UHN / Mount Sinai Hospital	694	0	0	1	1	0	694	6	16	0	0	0	0	0	16	0	16	0	16	0	16	0	
P.H.O.L. - Toronto	285	0	1	0	1	0	285	12	285	0	0	0	0	2	286	6	285	1	285	23	285	31	
Sick Kids Hospital - Toronto	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	
Sunnybrook & Women's College HSC	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	
P.H.O.L. - Sault Ste. Marie	6	0	0	0	0	0	6	1	6	0	0	0	0	1	6	1	6	0	6	0	6	0	
P.H.O.L. - Timmins	18	0	0	0	0	0	18	1	18	0	0	0	0	1	18	0	18	0	18	0	18	0	
St. Joseph's - London	895	0	0	1	1	0	895	98	895	0	0	0	0	5	895	12	895	2	895	53	3	0	
P.H.O.L. - London	162	0	2	0	2	0	160	51	160	0	0	0	0	2	160	6	160	0	160	14	160	35	
P.H.O.L. - Orillia	42	0	0	0	0	0	42	13	42	0	0	0	0	1	42	0	42	1	42	3	42	7	
P.H.O.L. - Thunder Bay	15	0	0	0	0	0	15	2	15	0	0	0	0	1	15	0	15	0	15	2	15	3	
P.H.O.L. - Sudbury	7	0	0	0	0	0	7	0	7	0	0	0	0	0	7	0	7	0	7	0	7	0	
P.H.O.L. - Hamilton	44	0	0	0	0	0	44	3	44	0	0	0	0	1	44	0	44	0	44	0	44	10	
P.H.O.L. - Peterborough	15	0	0	0	0	0	15	2	15	0	0	0	0	0	15	0	15	0	15	2	15	9	
St. Joseph's - Hamilton	1072	0	0	2	2	0	1072	132	1072	0	0	8	0	0	1072	10	1072	3	1072	42	0	0	
<b>Province of Ontario</b>	<b>3607</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>3605</b>	<b>366</b>	<b>2687</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>15</b>	<b>2688</b>	<b>39</b>	<b>2687</b>	<b>9</b>	<b>2687</b>	<b>144</b>	<b>723</b>	<b>104</b>	
Province of Manitoba	2428	0	3	0	3	0	2428	90	88	0	0	3	0	0	88	3	120	0	88	5	120	6	
Province of Saskatchewan	1134	0	0	1	1	0	1134	30	165	0	0	23	2	0	165	5	165	0	165	26	165	20	
Province of Alberta	2595	0	1	2	3	1	915	305	915	0	3	8	7	0	915	7	915	2	915	86	915	111	
<b>Prairies</b>	<b>6157</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>1</b>	<b>4477</b>	<b>425</b>	<b>1168</b>	<b>0</b>	<b>3</b>	<b>34</b>	<b>9</b>	<b>0</b>	<b>1168</b>	<b>15</b>	<b>1200</b>	<b>2</b>	<b>1168</b>	<b>117</b>	<b>1200</b>	<b>137</b>	
<b>British Columbia</b>	<b>13474</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>13662</b>	<b>860</b>	<b>520</b>	<b>1</b>	<b>0</b>	<b>8</b>	<b>11</b>	<b>4</b>	<b>520</b>	<b>17</b>	<b>520</b>	<b>3</b>	<b>507</b>	<b>60</b>	<b>507</b>	<b>30</b>	
Yukon	214	0	0	0	0	0	214	42	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	
Northwest Territories	32	0	0	0	0	0	31	1	1	0	0	0	0	0	1	0	1	0	31	3	1	0	
Nunavut	1719	0	0	0	0	0	1719	0	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	
<b>Territories</b>	<b>1965</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1964</b>	<b>43</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>31</b>	<b>3</b>	<b>1</b>	<b>0</b>	
<b>CANADA</b>	<b>29141</b>	<b>0</b>	<b>11</b>	<b>19</b>	<b>36</b>	<b>2</b>	<b>26999</b>	<b>1824</b>	<b>4795</b>	<b>1</b>	<b>3</b>	<b>52</b>	<b>21</b>	<b>19</b>	<b>4834</b>	<b>94</b>	<b>4861</b>	<b>49</b>	<b>4525</b>	<b>339</b>	<b>2875</b>	<b>297</b>	

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.

The reporting laboratory previously listed as CHEO - Ottawa is now listed as EORLA to better reflect data submitted by this provider.

Specimens from Yukon (YT) and Northwest Territories (NT) are sent to reference laboratories in other provinces and reported results reflect specimens identified as originating from YT or NT.

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.

**Table 2: Cumulative respiratory virus detections from August 29, 2021 to January 1, 2022 (surveillance week 2021-35 to 2021-52)**

Reporting Laboratory	Flu Tested	A(H1)pdm09 Positive	A(H3) Positive	A(UnS) Positive	Total Flu A Positive	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	EV/RV Tested	EV/RV Positive	HCoV Tested	HCoV Positive
Newfoundland	7052	0	0	0	0	0	7051	71	7054	1	3	116	0	154	7060	21	7051	23	7055	1724	N.C.	N.C.
Prince Edward Island	1506	0	0	0	0	0	1506	78	1506	0	0	151	0	0	1506	33	1506	1	1506	422	1506	96
Nova Scotia	8511	0	1	10	11	4	8511	192	1002	0	2	37	3	0	1016	8	1016	1	1016	91	1016	25
New Brunswick	7294	0	0	6	6	0	4243	190	2283	0	0	21	0	0	2276	6	2283	3	2283	32	2192	4
<b>Atlantic</b>	<b>24363</b>	<b>0</b>	<b>1</b>	<b>16</b>	<b>17</b>	<b>4</b>	<b>21311</b>	<b>531</b>	<b>11845</b>	<b>1</b>	<b>5</b>	<b>325</b>	<b>3</b>	<b>154</b>	<b>11858</b>	<b>68</b>	<b>11856</b>	<b>28</b>	<b>11860</b>	<b>2269</b>	<b>4714</b>	<b>125</b>
Région Nord-Est	10663	0	0	0	0	2	5310	1397	585	0	0	6	1	0	596	12	23	0	N.C.	N.C.	596	6
Québec-Chaudière-Appalaches	3696	0	0	4	4	4	4253	975	590	0	1	6	4	0	823	29	735	31	N.C.	N.C.	647	15
Centre-du-Québec	4252	0	0	3	3	4	4422	1063	341	0	0	19	0	0	341	12	349	12	N.C.	N.C.	334	7
Montréal-Laval	13321	0	0	31	31	4	13286	2401	3991	3	2	20	4	0	3991	244	3988	291	N.C.	N.C.	3988	44
Ouest du Québec	3311	0	1	6	7	0	3268	913	22	0	0	2	0	0	8	1	11	1	N.C.	N.C.	11	1
Montérégie	2125	0	0	2	2	0	2118	384	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
<b>Province of Québec</b>	<b>37368</b>	<b>0</b>	<b>1</b>	<b>46</b>	<b>47</b>	<b>14</b>	<b>32657</b>	<b>7133</b>	<b>5529</b>	<b>3</b>	<b>3</b>	<b>53</b>	<b>9</b>	<b>0</b>	<b>5759</b>	<b>298</b>	<b>5106</b>	<b>335</b>	<b>N.C.</b>	<b>N.C.</b>	<b>5576</b>	<b>73</b>
P.H.O.L. - Ottawa	6116	2	1	0	3	0	6116	1418	6116	0	0	0	0	727	6116	309	6115	38	6116	2201	6115	233
EORLA	3570	0	0	0	0	0	3545	549	477	0	1	17	0	0	477	8	158	2	477	105	154	11
P.H.O.L. - Kingston	889	0	0	0	0	0	888	89	887	0	0	0	0	129	887	16	886	2	887	271	886	56
UHN / Mount Sinai Hospital	8367	0	0	8	8	0	8367	73	256	0	0	0	0	0	256	0	256	0	256	8	256	2
P.H.O.L. - Toronto	5074	0	11	0	11	0	5062	230	5062	0	0	0	0	257	5064	63	5061	9	5062	811	5062	144
Sick Kids Hospital - Toronto	839	0	0	0	0	0	0	0	839	0	2	68	1	0	839	12	839	1	839	233	839	10
Sunnybrook & Women's College HSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P.H.O.L. - Sault Ste. Marie	161	0	1	0	1	0	159	4	159	0	0	0	0	7	159	1	159	0	159	46	159	1
P.H.O.L. - Timmins	177	0	0	0	0	0	177	6	177	0	0	0	0	15	177	1	177	0	177	28	177	5
St. Joseph's - London	5164	0	0	13	13	0	5167	572	3610	0	0	7	0	81	3610	63	3610	8	3564	321	462	1
P.H.O.L. - London	1879	0	5	0	5	0	1873	369	1873	0	0	0	0	138	1873	44	1873	7	1873	379	1873	108
P.H.O.L. - Orillia	523	0	1	0	1	0	523	83	523	0	0	0	0	41	523	19	521	5	523	153	521	29
P.H.O.L. - Thunder Bay	164	0	0	0	0	0	164	15	164	0	0	0	0	17	164	0	164	0	164	46	164	7
P.H.O.L. - Sudbury	197	0	0	0	0	0	197	7	197	0	0	0	0	6	197	1	197	2	197	27	197	4
P.H.O.L. - Hamilton	825	0	7	0	7	0	818	54	818	0	0	0	0	43	818	7	818	4	818	190	818	39
P.H.O.L. - Peterborough	454	0	0	0	0	0	454	44	453	0	0	0	0	11	453	1	451	0	453	79	451	27
St. Joseph's - Hamilton	10599	0	4	7	11	0	10593	1445	10593	2	0	639	0	0	10593	104	10593	23	10593	1488	0	0
<b>Province of Ontario</b>	<b>44998</b>	<b>2</b>	<b>30</b>	<b>28</b>	<b>60</b>	<b>0</b>	<b>44103</b>	<b>4958</b>	<b>32204</b>	<b>2</b>	<b>3</b>	<b>731</b>	<b>1</b>	<b>1472</b>	<b>32206</b>	<b>649</b>	<b>31878</b>	<b>101</b>	<b>32158</b>	<b>6386</b>	<b>18134</b>	<b>677</b>
Manitoba	32457	1	8	3	12	0	32457	471	626	1	3	62	0	0	626	12	1575	4	626	178	1381	13
Province of Saskatchewan	11017	0	1	3	4	0	10996	83	1878	0	0	154	14	0	1878	35	1878	1	1878	350	1877	69
Province of Alberta	35893	0	7	25	32	2	13599	1356	13599	0	15	621	117	0	13599	130	13599	28	13599	2370	13599	794
<b>Prairies</b>	<b>79367</b>	<b>1</b>	<b>16</b>	<b>31</b>	<b>48</b>	<b>2</b>	<b>57052</b>	<b>1910</b>	<b>16103</b>	<b>1</b>	<b>18</b>	<b>837</b>	<b>131</b>	<b>0</b>	<b>16103</b>	<b>177</b>	<b>17052</b>	<b>33</b>	<b>16103</b>	<b>2898</b>	<b>16857</b>	<b>876</b>
<b>British Columbia</b>	<b>79435</b>	<b>0</b>	<b>34</b>	<b>3</b>	<b>147</b>	<b>79</b>	<b>79408</b>	<b>6352</b>	<b>10676</b>	<b>2</b>	<b>4</b>	<b>990</b>	<b>116</b>	<b>130</b>	<b>10676</b>	<b>179</b>	<b>10672</b>	<b>48</b>	<b>10419</b>	<b>2250</b>	<b>10468</b>	<b>149</b>
Yukon	3718	0	1	0	4	7	3783	161	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	44	2	44	0	N.C.	N.C.	N.C.	N.C.
Northwest Territories	399	0	0	0	0	0	363	1	44	0	0	0	0	0	44	2	44	0	362	74	44	0
Nunavut	6347	0	0	0	0	0	6340	7	11	0	0	0	0	0	11	1	11	0	11	7	11	0
<b>Territories</b>	<b>10464</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>10486</b>	<b>169</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>3</b>	<b>55</b>	<b>0</b>	<b>373</b>	<b>81</b>	<b>55</b>	<b>0</b>
<b>CANADA</b>	<b>275995</b>	<b>3</b>	<b>83</b>	<b>124</b>	<b>323</b>	<b>106</b>	<b>245017</b>	<b>21053</b>	<b>76412</b>	<b>9</b>	<b>33</b>	<b>2936</b>	<b>260</b>	<b>1756</b>	<b>76657</b>	<b>1374</b>	<b>76619</b>	<b>545</b>	<b>70913</b>	<b>13884</b>	<b>55804</b>	<b>1900</b>

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.

Note: Included in the cumulative detections this season are 11 co-infections of influenza A and B (total of 22 detections) that are suspected to be associated with recent live attenuated influenza vaccine (LAIV) receipt. Co-infections known or reported to be associated with recent LAIV are removed by the submitting laboratory or by PHAC beginning in week 44 as they do not represent community transmission of seasonal influenza viruses.

The reporting laboratory previously listed as CHEO - Ottawa is now listed as EORLA to better reflect data submitted by this provider.

Specimens from Yukon (YT) and Northwest Territories (NT) are sent to reference laboratories in other provinces and reported results reflect specimens identified as originating from YT or NT.

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.

**Figure 2: Number of positive respiratory virus tests reported by participating laboratories in Canada by surveillance week**

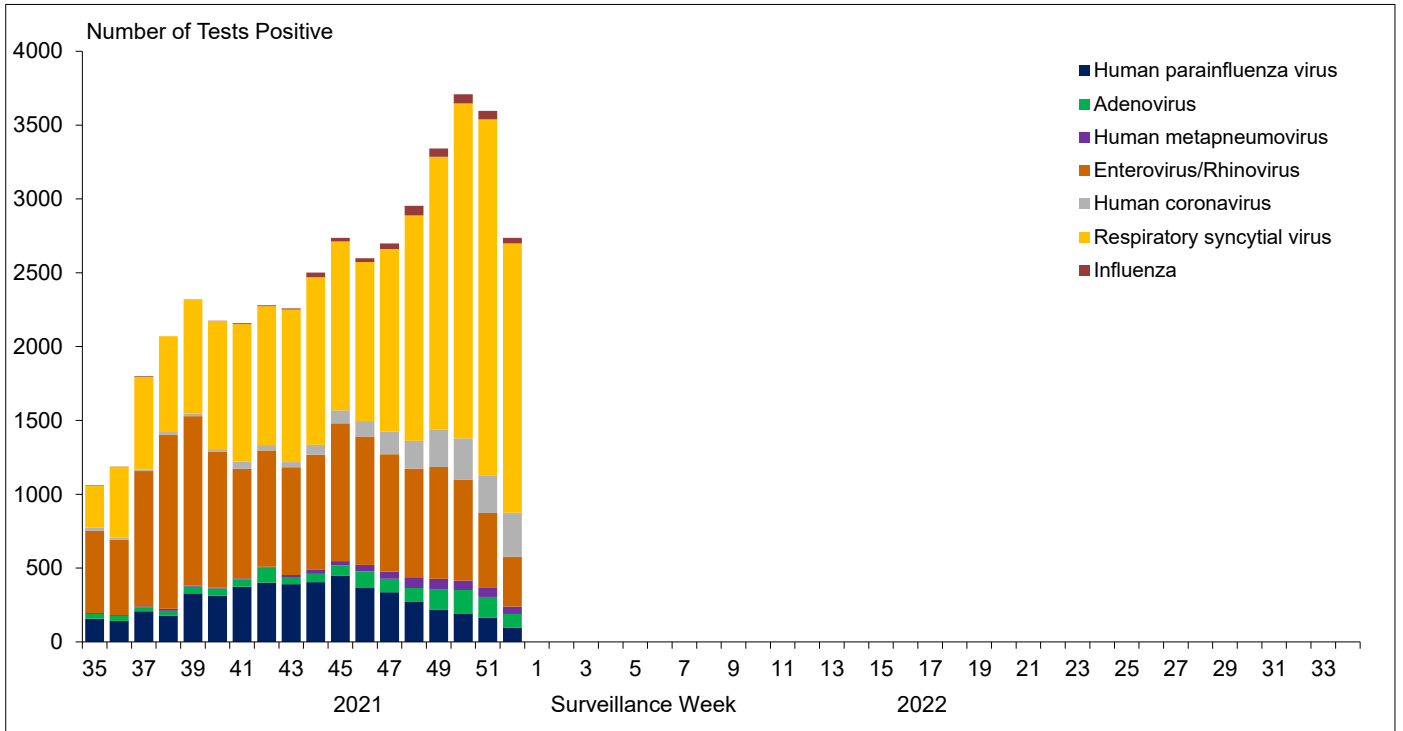


Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week

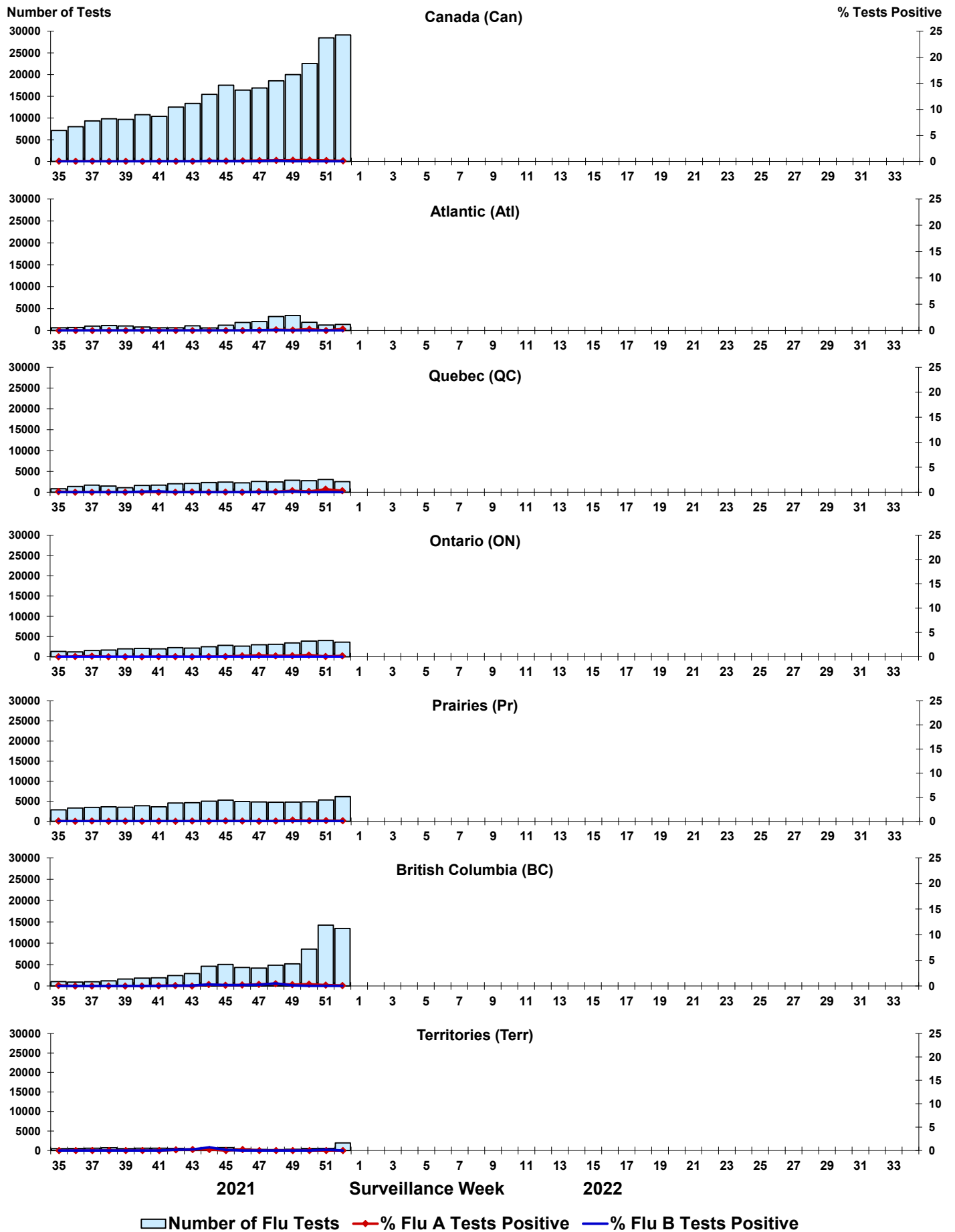
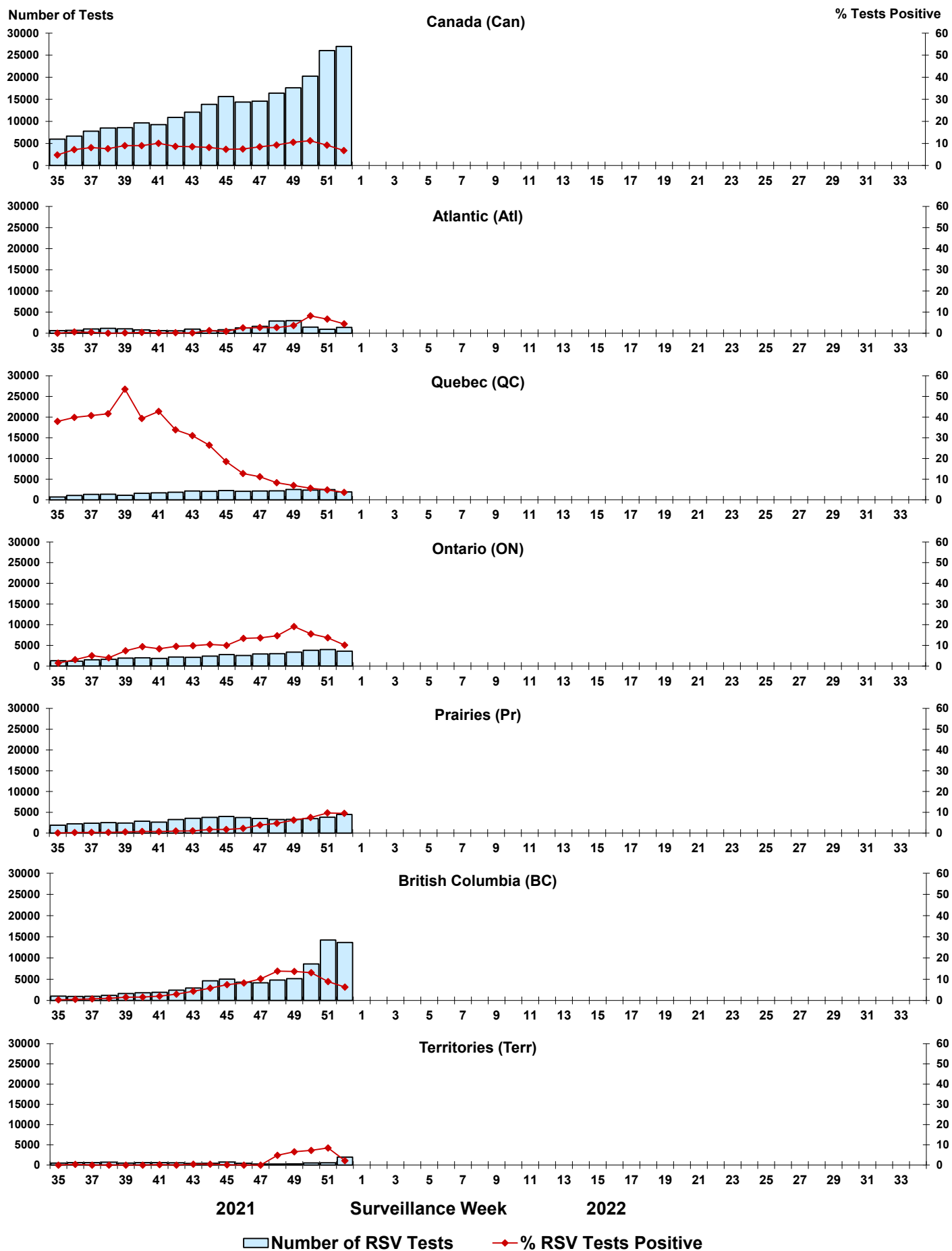


Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week



Number of RSV Tests      % RSV Tests Positive

Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

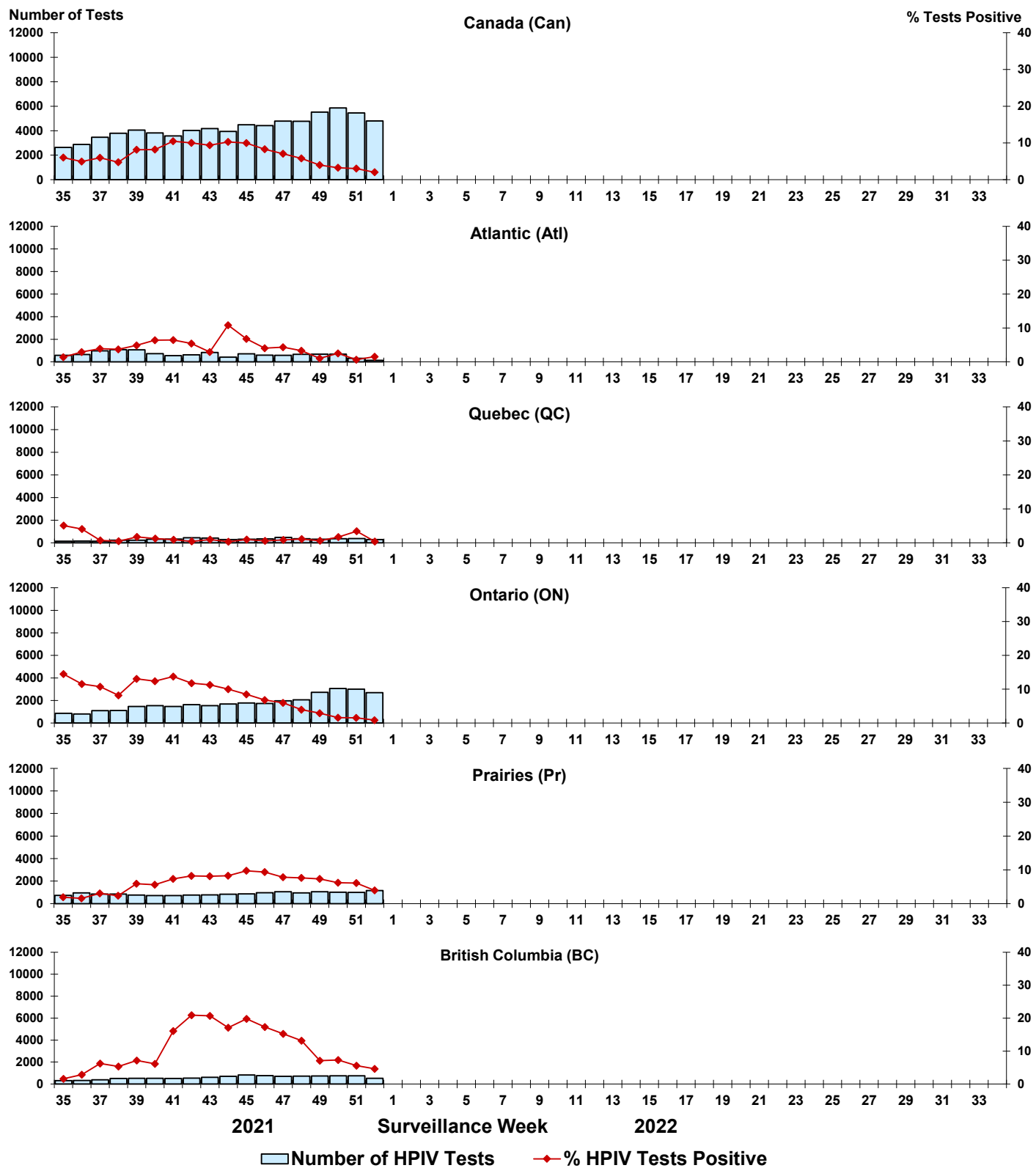




Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

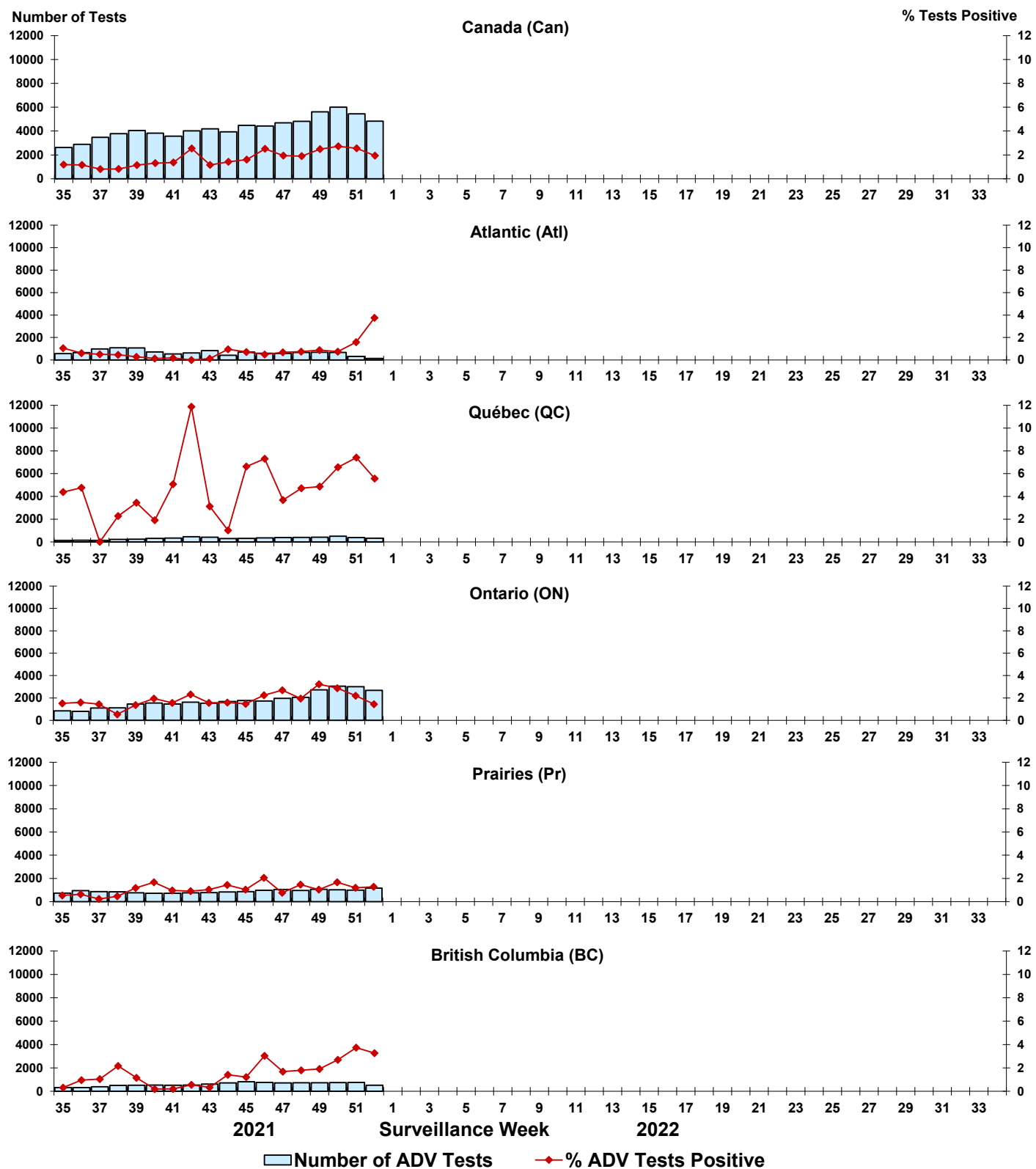


Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

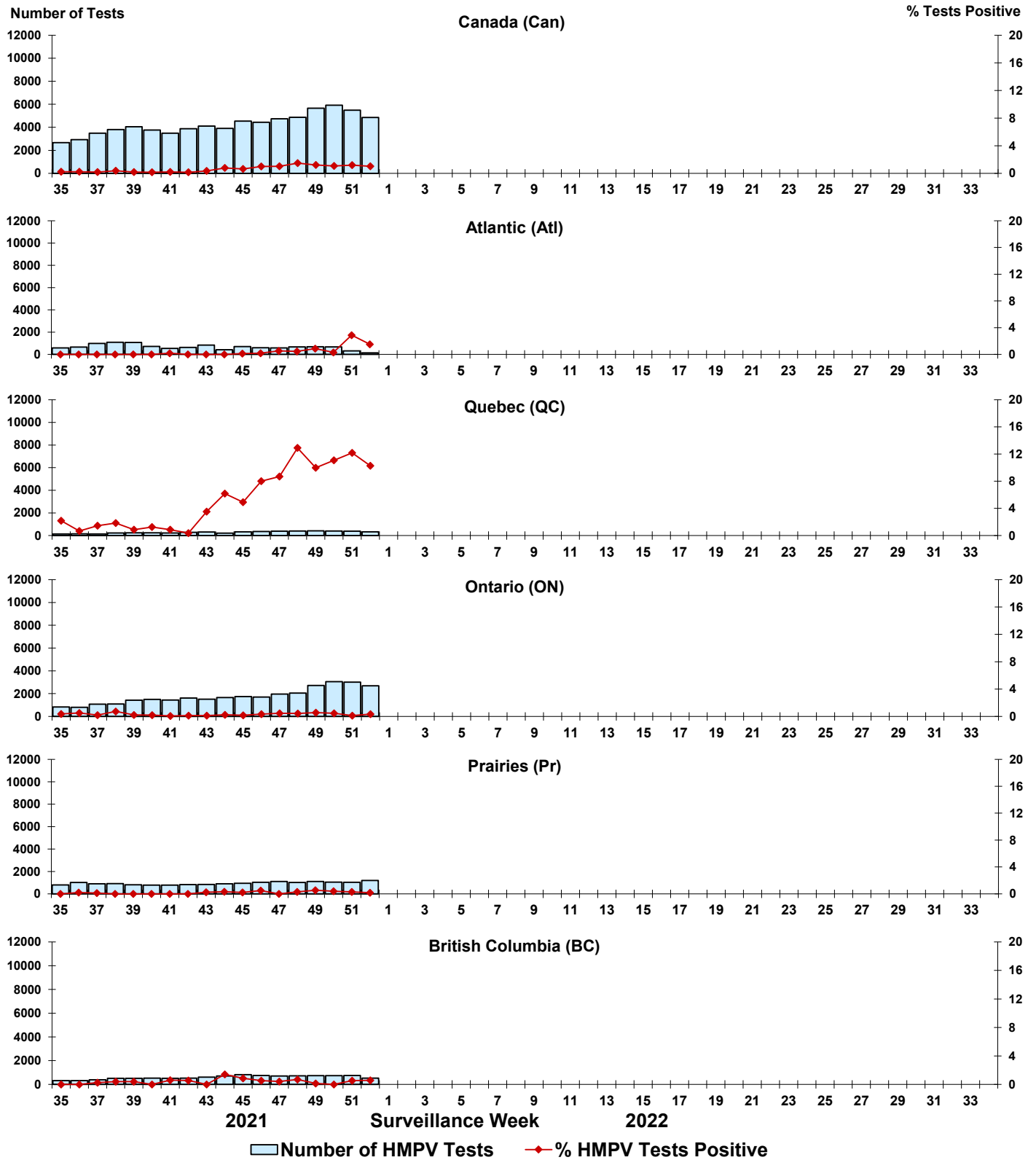


Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

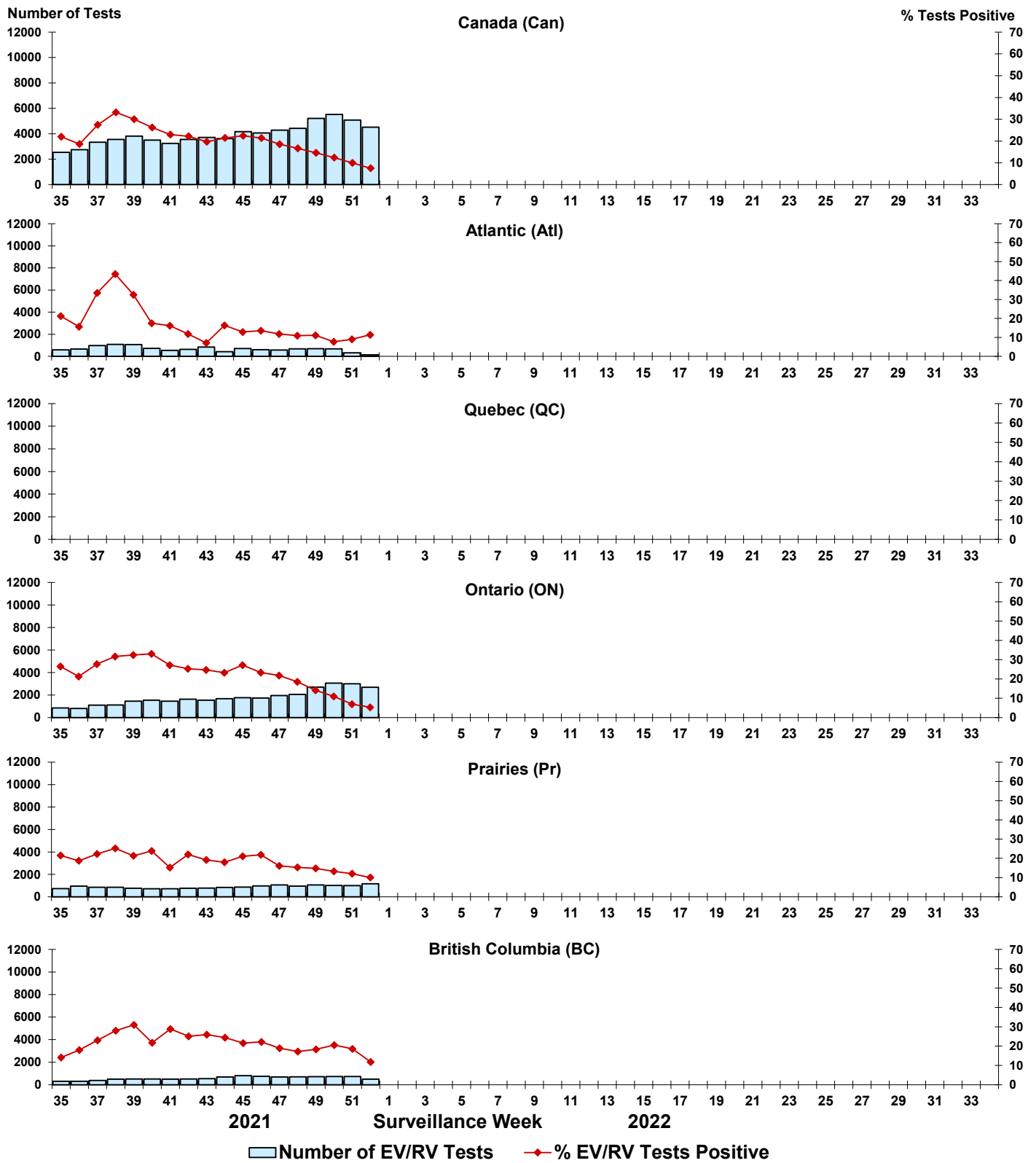


Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

