

# RESPIRATORY VIRUS DETECTION REPORT

January 15 to January 21, 2023  
(Surveillance Week 2023-03)



Please note that the Respiratory Virus Detection Surveillance System (RVDSS) is a sentinel laboratory surveillance system that does not capture all respiratory virus testing performed in Canada; differences may exist between the data presented in this report and provincial/territorial epidemiological reports. SARS-CoV-2 laboratory data is included in this report to facilitate the comparison of positivity with other respiratory viruses. Interpretation should be made with caution as testing practices differ among viruses.

For additional SARS-CoV-2 surveillance information, please refer to the [COVID-19 epidemiology update](#).

## Overall Summary

In week 3 (week ending January 21, 2023) in Canada, participating RVDSS laboratories reported 8,059 detections of SARS-CoV-2 from 65,762 tests (12.3% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 8,370 to 29,576 tests), activity of nearly all viruses is stable or decreasing.

- Activity of influenza continues to decrease and remains below the epidemic threshold. Influenza A accounts for nearly all influenza detections in Canada (410 detections; 1.4% positive).
- Compared to pre-pandemic seasons, RSV activity is within expected levels typical of this time of year (2,043 detections; 8.2% positive).
- Activity of all other non-SARS-CoV-2 respiratory viruses is near expected levels typical of this time of year.
- 34/35 sentinel laboratories reported surveillance data.

## Abbreviations

ADV: Adenovirus

Atl: Atlantic Canada

BC: British Columbia

Can: Canada

EORLA: Eastern Ontario Regional Laboratory Association

EV/RV: Enterovirus/Rhinovirus

Flu: Influenza

Flu A(H1N1)pdm09: Influenza A(H1N1)pdm09

Flu A(H3): Influenza A(H3N2)

Flu A (UnS): Influenza A(Unsubtyped)

HCoV: Human coronavirus 229E/OC43/NL63/HKU1

HMPV: Human metapneumovirus

HPIV: Human parainfluenza virus

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

RSV: Respiratory syncytial virus

RVDSS: Respiratory Virus Detection Surveillance System

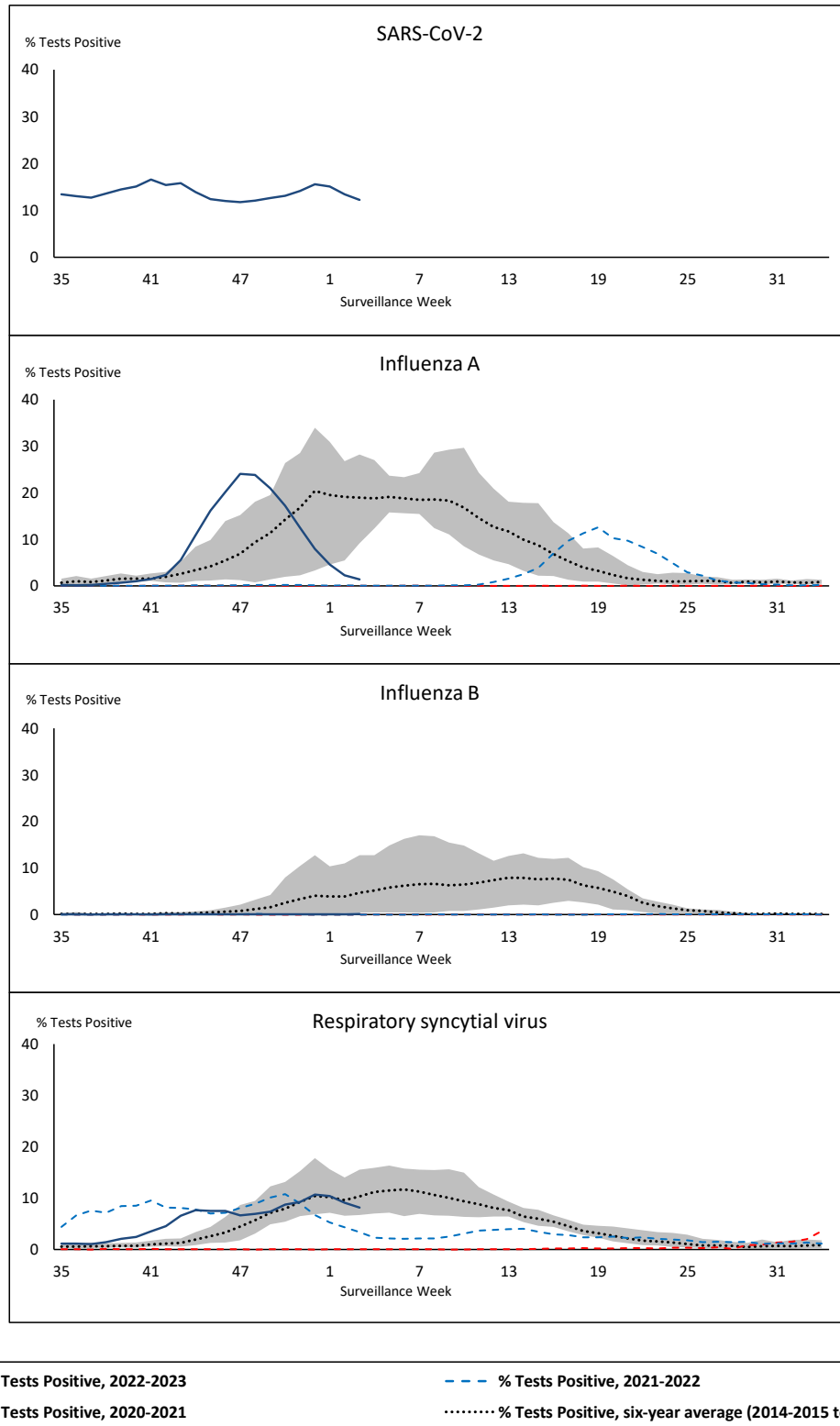
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

Terr: Territories of Canada

UHN: University Health Network



**Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015 to 2019-2020 season**



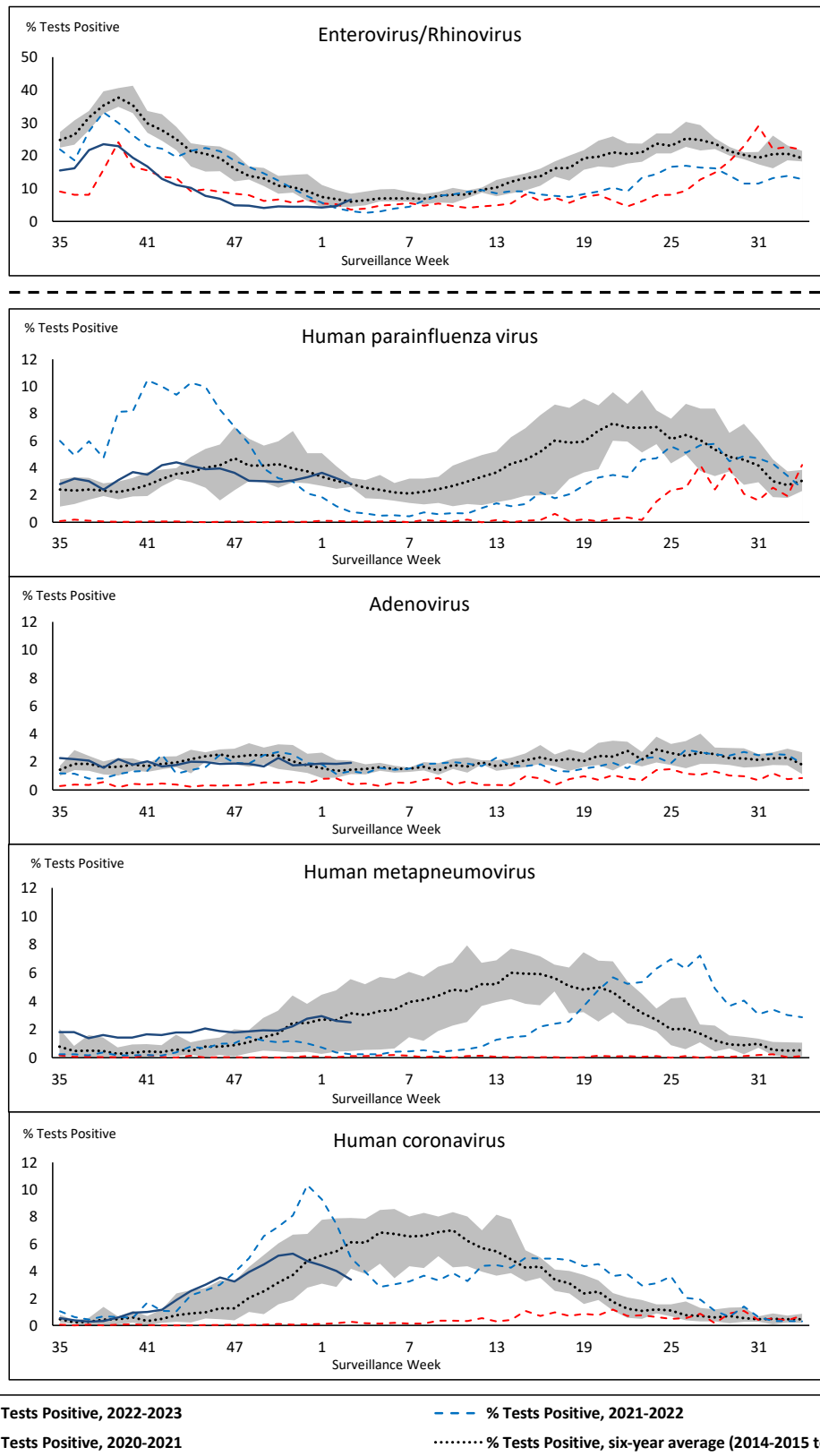
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

Note: Changes to testing practices during the COVID-19 pandemic may cause substantial changes to indicator estimates from previous years. Collection of laboratory testing practice meta-data to understand these changes is ongoing. Interpret trends with caution.

Note: SARS-CoV-2 surveillance was integrated into RVDSS at the beginning of the 2022-2023 season; no appropriate data is available for historical comparison.

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

**Figure 2: Positive tests (%) of other respiratory viruses 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: Changes to testing practices during the COVID-19 pandemic may cause substantial changes to indicator estimates from previous years. Collection of laboratory testing practice meta-data to understand these changes is ongoing. Interpret trends with caution.

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

**Table 1: Respiratory virus detections for the week ending January 21, 2023 (surveillance week 2023-03)**

Reporting Laboratory	SARS-CoV-2 Tested	SARS-CoV-2 Positive	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	665	100	346	0	0	4	4	0	346	17	346	0	0	6	2	0	346	10	346	11	346	19	346	22	
Prince Edward Island	818	156	165	0	0	3	3	0	165	28	24	0	0	2	0	0	24	2	24	1	24	5	24	3	
Nova Scotia	3428	841	1582	0	0	30	30	0	1573	133	37	0	0	0	1	0	41	1	41	0	41	2	41	4	
New Brunswick	3524	361	1765	2	4	2	8	1	1583	140	91	0	1	8	0	0	91	8	91	3	91	12	91	3	
<b>Atlantic</b>	<b>8435</b>	<b>1458</b>	<b>3858</b>	<b>2</b>	<b>4</b>	<b>39</b>	<b>45</b>	<b>1</b>	<b>3667</b>	<b>318</b>	<b>498</b>	<b>0</b>	<b>1</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>502</b>	<b>21</b>	<b>502</b>	<b>15</b>	<b>502</b>	<b>38</b>	<b>502</b>	<b>32</b>	
Région Nord-Est	2406	200	1699	0	0	64	64	0	555	53	57	0	0	1	0	0	57	3	56	5	N.C.	N.C.	57	1	
Québec-Chaudière-Appalaches	4963	419	822	0	0	31	31	2	787	55	177	0	0	1	0	0	191	10	177	11	N.C.	N.C.	177	8	
Centre-du-Québec	3517	498	486	0	0	12	12	1	321	15	23	0	0	1	0	0	23	2	23	1	N.C.	N.C.	23	1	
Montréal-Laval	4759	518	3508	0	0	65	65	14	1419	63	555	0	0	19	0	0	555	27	561	9	N.C.	N.C.	555	27	
Ouest du Québec	2900	340	816	0	0	14	14	2	778	79	27	0	0	2	0	0	27	2	27	1	N.C.	N.C.	27	2	
Montérégie	3251	363	701	0	0	14	14	1	689	31	1	0	0	0	0	0	1	0	1	0	N.C.	N.C.	1	0	
<b>Province of Québec</b>	<b>21796</b>	<b>2338</b>	<b>8032</b>	<b>0</b>	<b>0</b>	<b>200</b>	<b>200</b>	<b>20</b>	<b>4549</b>	<b>296</b>	<b>840</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>854</b>	<b>44</b>	<b>845</b>	<b>27</b>	<b>N.C.</b>	<b>N.C.</b>	<b>840</b>	<b>39</b>	
P.H.O.L. - Ottawa	753	209	260	6	0	3	9	0	260	13	156	0	0	0	0	2	156	1	156	4	156	8	156	12	
EOURLA	2069	212	447	0	0	4	4	0	447	24	32	0	0	1	0	0	32	2	32	0	32	4	32	1	
P.H.O.L. - Kingston	654	161	96	0	0	0	0	0	96	21	60	0	0	0	0	1	60	1	60	2	60	3	60	0	
UHN / Mount Sinai Hospital	2624	203	746	0	0	8	8	0	746	15	119	0	0	0	0	0	119	1	119	0	119	3	119	6	
P.H.O.L. - Toronto	1010	257	948	5	11	1	9	0	948	57	811	0	0	0	0	28	811	13	811	20	811	63	811	51	
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.	N.R.	N.R.	N.R.
Shared Hospital Laboratory	2351	198	2351	5	9	1	15	1	2351	62	2333	0	0	0	0	28	2333	28	2364	24	2364	124	2363	21	
P.H.O.L. - Sault Ste. Marie	47	0	48	0	0	0	0	0	48	7	45	0	0	0	0	5	45	1	45	4	45	4	45	4	
P.H.O.L. - Timmins	234	15	41	0	0	0	0	0	41	14	41	0	0	0	0	0	41	1	41	0	41	0	41	2	
St. Joseph's - London	3146	341	855	0	0	6	6	1	855	51	75	0	0	0	0	2	75	2	75	0	75	7	75	1	
P.H.O.L. - London	1084	303	545	0	0	0	0	0	545	54	351	0	0	0	0	14	351	3	351	13	351	21	351	20	
P.H.O.L. - Orillia	11	3	46	0	0	0	0	0	46	4	46	0	0	0	0	1	46	2	46	3	46	3	46	1	
P.H.O.L. - Thunder Bay	183	37	43	0	0	1	1	0	43	7	31	0	0	0	0	3	31	0	31	2	31	2	31	0	
P.H.O.L. - Sudbury	59	3	39	0	0	0	0	0	39	13	30	0	0	0	0	1	30	0	30	4	30	0	30	0	
P.H.O.L. - Hamilton	731	226	376	0	1	1	2	0	376	26	229	0	0	0	0	10	229	2	229	2	229	20	229	4	
P.H.O.L. - Peterborough	104	18	47	0	0	0	0	0	47	8	31	0	0	0	0	0	31	0	31	0	31	1	31	0	
St. Joseph's - Hamilton	2716	368	1384	0	0	11	11	2	1384	48	1384	0	0	31	0	0	1384	19	1384	12	1384	78	0	0	
Sault Area Hospital	325	39	191	0	1	2	3	0	191	10	42	0	0	1	0	0	42	0	42	0	42	1	42	7	
<b>Province of Ontario</b>	<b>18101</b>	<b>2593</b>	<b>8463</b>	<b>16</b>	<b>22</b>	<b>38</b>	<b>68</b>	<b>4</b>	<b>8463</b>	<b>434</b>	<b>5816</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>0</b>	<b>95</b>	<b>5816</b>	<b>76</b>	<b>5847</b>	<b>90</b>	<b>5847</b>	<b>342</b>	<b>4462</b>	<b>130</b>	
Manitoba	1686	178	1271	0	1	9	10	0	1271	105	144	0	0	4	0	0	144	2	169	5	144	4	169	10	
Saskatchewan	5094	246	1243	0	0	11	11	0	1031	137	412	1	2	19	0	0	411	9	411	27	411	33	412	10	
Alberta	5730	690	3769	20	9	25	54	14	3307	433	1314	9	1	37	2	0	1314	11	1313	56	1292	73	1314	17	
<b>Prairies</b>	<b>12510</b>	<b>1114</b>	<b>6283</b>	<b>20</b>	<b>10</b>	<b>45</b>	<b>75</b>	<b>14</b>	<b>5609</b>	<b>675</b>	<b>1870</b>	<b>10</b>	<b>3</b>	<b>60</b>	<b>2</b>	<b>0</b>	<b>1869</b>	<b>22</b>	<b>1893</b>	<b>88</b>	<b>1847</b>	<b>110</b>	<b>1895</b>	<b>37</b>	
<b>British Columbia</b>	<b>4636</b>	<b>532</b>	<b>2805</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>2611</b>	<b>307</b>	<b>700</b>	<b>0</b>	<b>1</b>	<b>27</b>	<b>2</b>	<b>0</b>	<b>700</b>	<b>26</b>	<b>700</b>	<b>25</b>	<b>671</b>	<b>95</b>	<b>671</b>	<b>44</b>	
Yukon	114	7	25	2	0	0	0	0	25	1	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	35	3	30	0	0	0	0	0	30	10	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.	
Nunavut	135	14	80	0	0	0	0	0	80	2	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>284</b>	<b>24</b>	<b>135</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>13</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>N.C.</b>	<b>30</b>	<b>4</b>	<b>N.C.</b>	
<b>CANADA</b>	<b>65762</b>	<b>8059</b>	<b>29576</b>	<b>44</b>	<b>41</b>	<b>322</b>	<b>410</b>	<b>39</b>	<b>25034</b>	<b>2043</b>	<b>9724</b>	<b>10</b>	<b>5</b>	<b>160</b>	<b>7</b>	<b>95</b>	<b>9741</b>	<b>189</b>	<b>9787</b>	<b>245</b>	<b>8897</b>	<b>589</b>	<b>8370</b>	<b>282</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.

Non-SARS-CoV-2 specimens and select SARS-CoV-2 specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

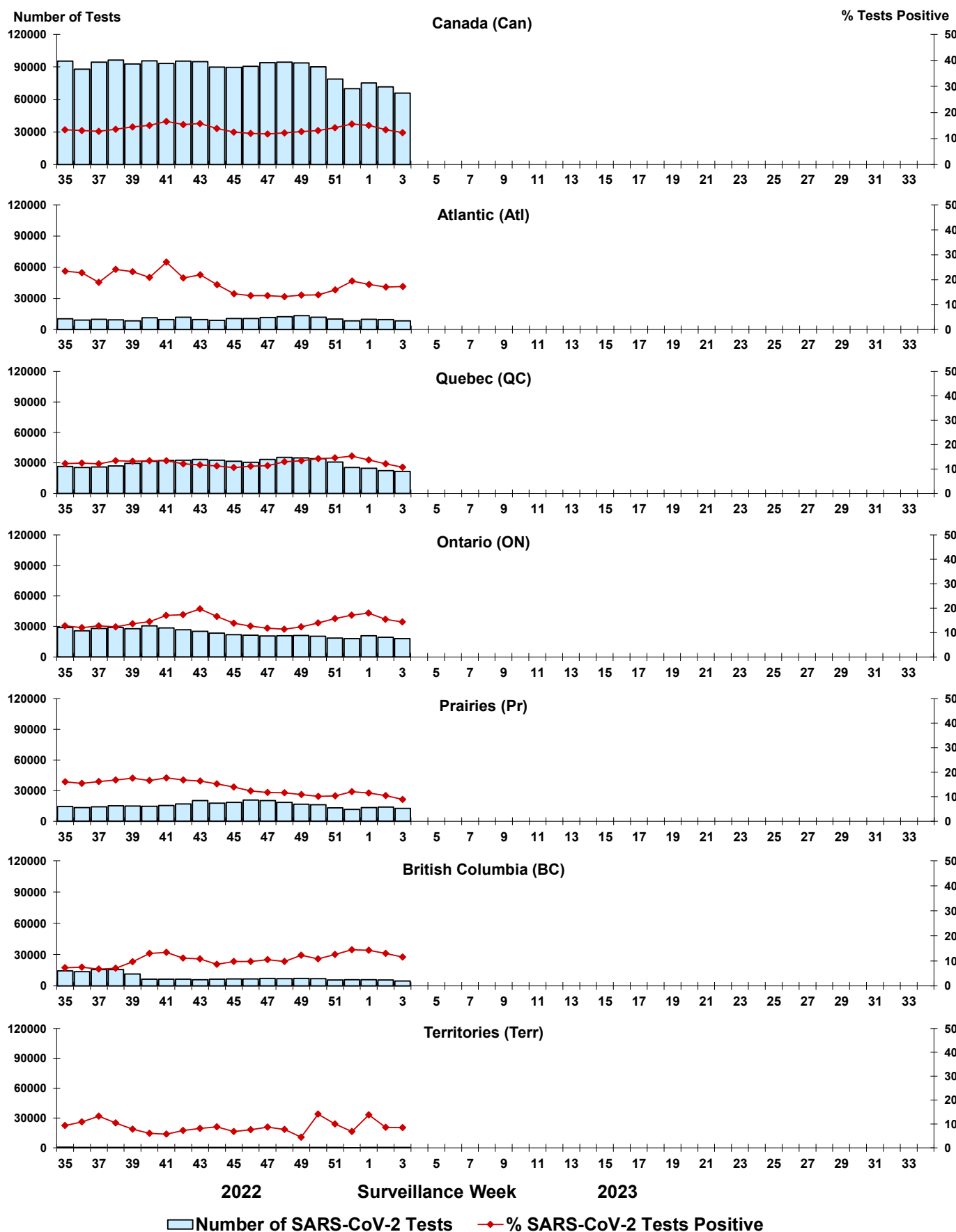
Results from British Columbia comprise of specimens from the following sites: Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Vancouver Coastal Health sites, Victoria General Hospital, BCCDC Public Health Laboratory, Interior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

Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts. Total influenza A and B positive counts are used to calculate percentage of tests positive.

Delays in the reporting of data may cause data to change retrospectively.

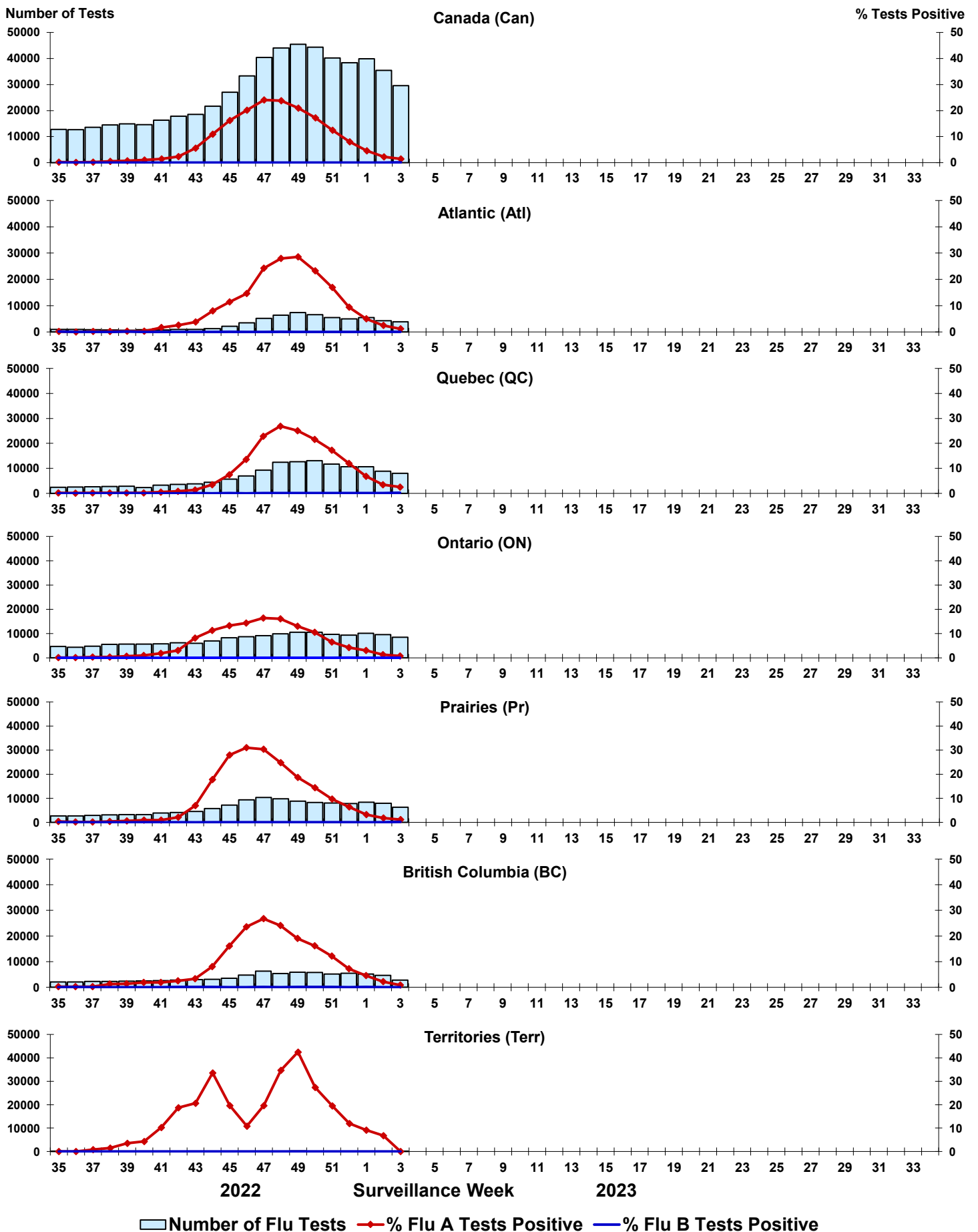


**Figure 3: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) tests (%) in Canada by region by surveillance week**



Note: Differences in positivity between jurisdictions can reflect differences in testing practices. Please interpret with caution.

Figure 4: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week



Number of Flu Tests    % Flu A Tests Positive    % Flu B Tests Positive

Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

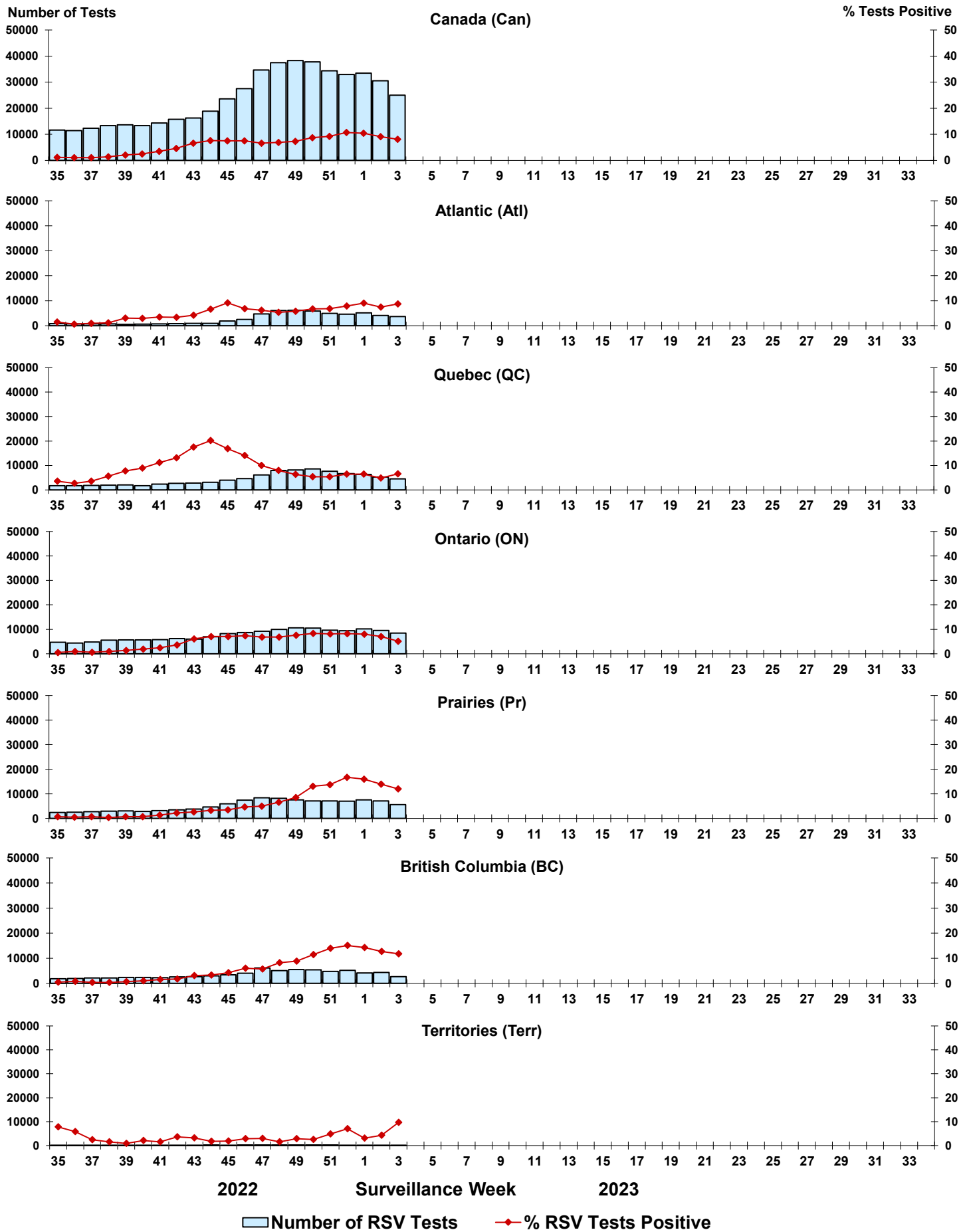




Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

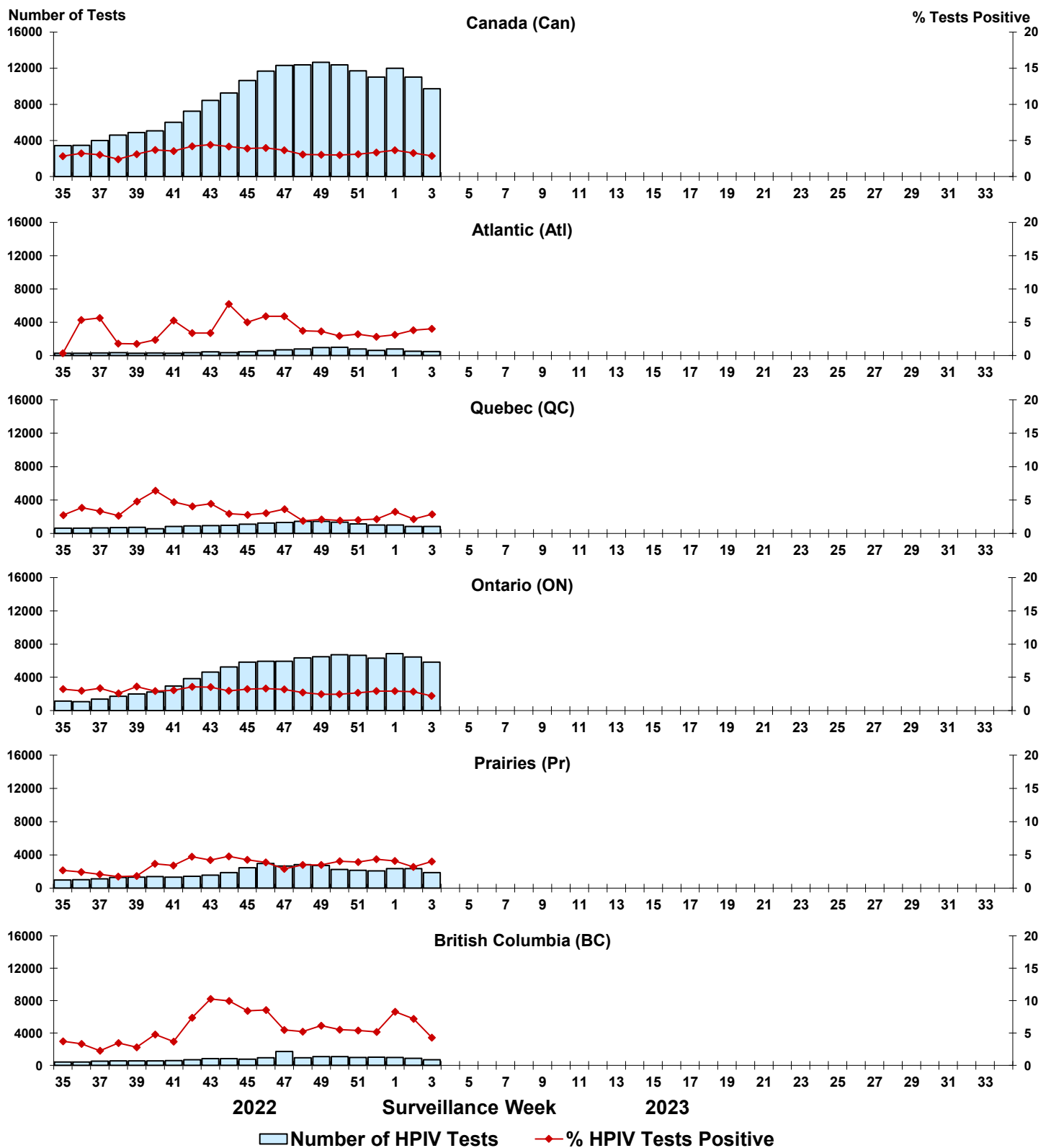


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

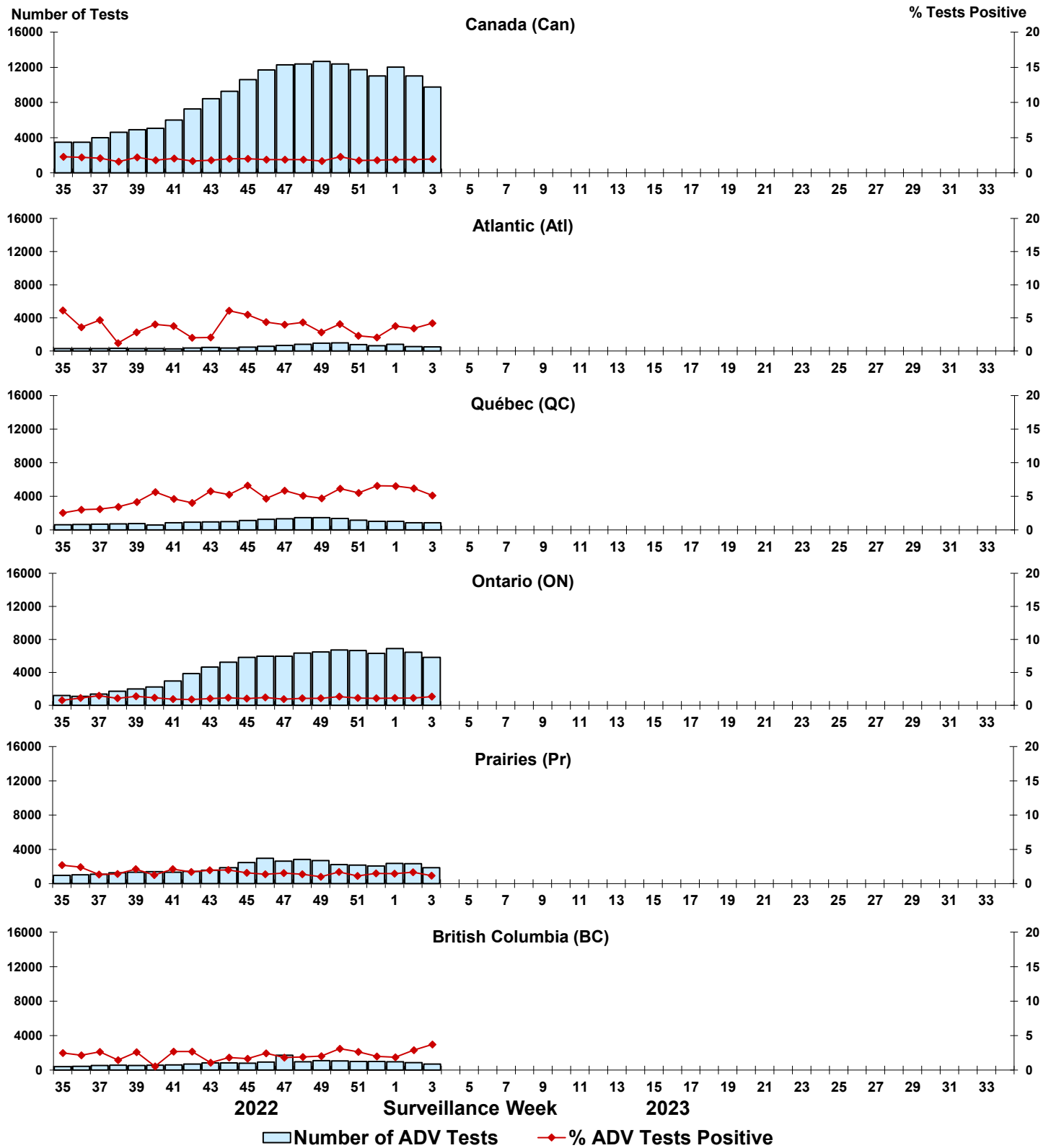


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

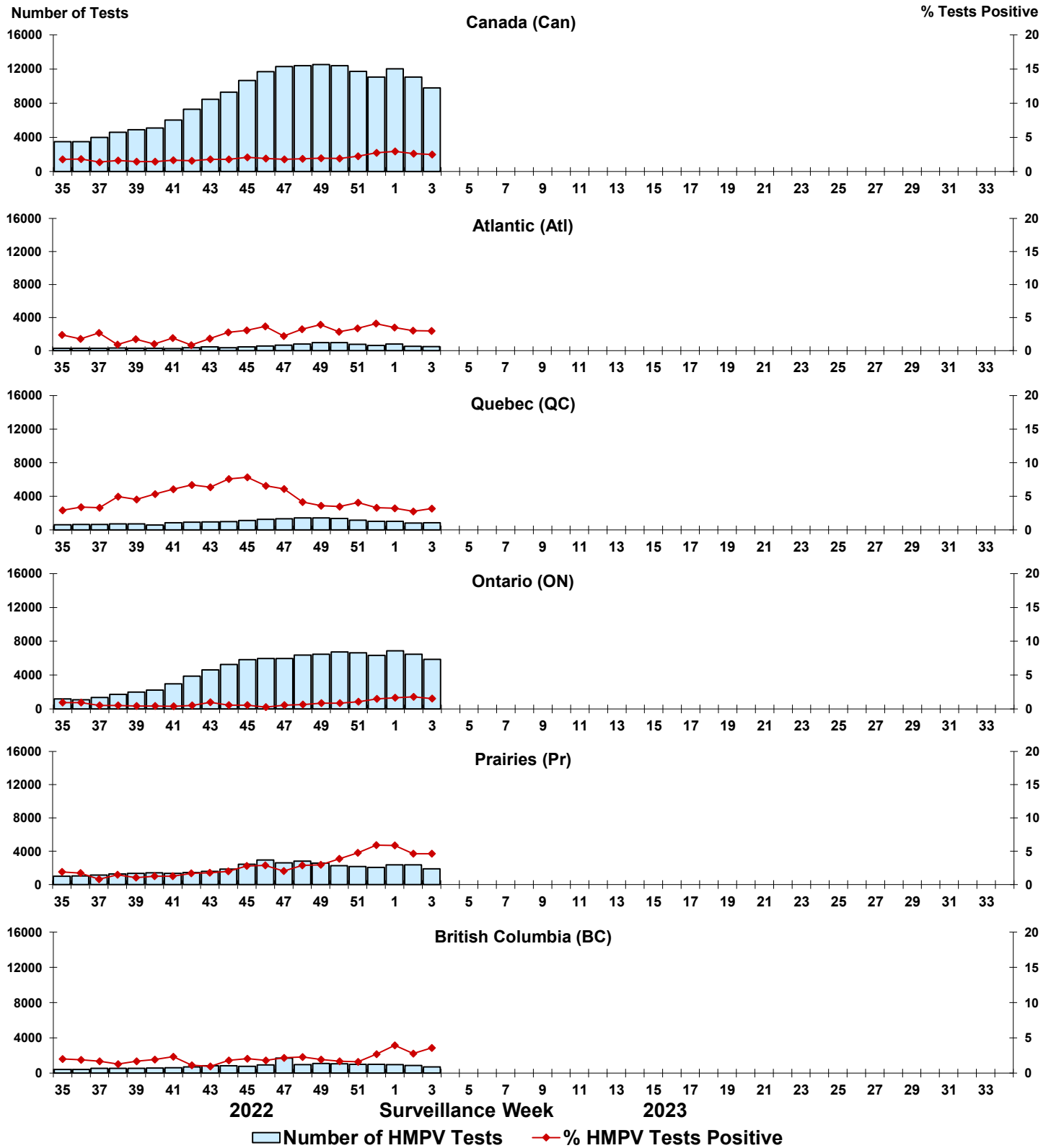


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

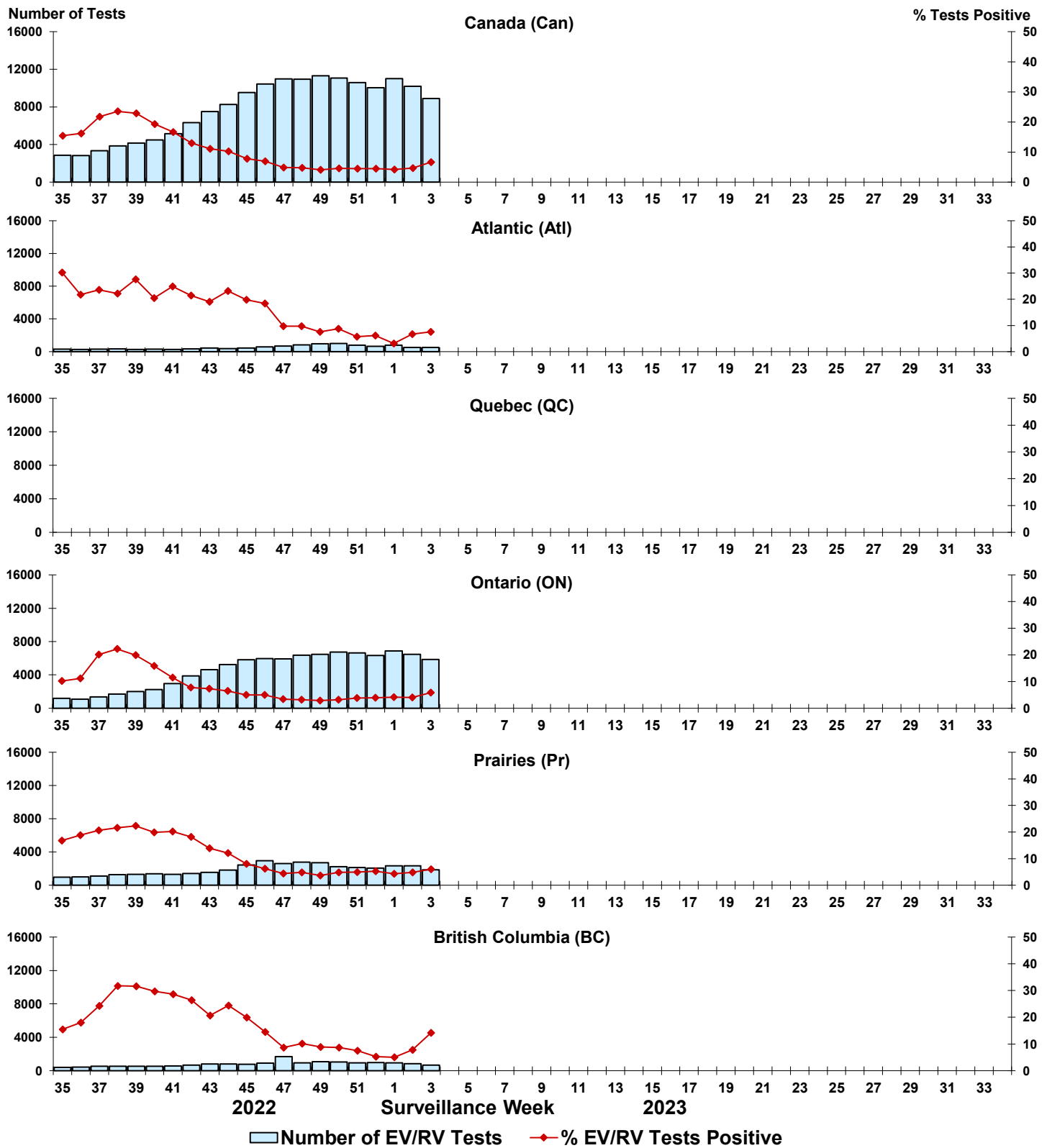


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

