

# RESPIRATORY VIRUS DETECTION REPORT

July 9 to July 15, 2023  
(Surveillance Week 2023-28)



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 28 (week ending July 15, 2023) in Canada, participating RVDSS laboratories reported 1,157 detections of SARS-CoV-2 from 18,719 tests (6.2% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 3,994 to 11,946 tests), activity of enterovirus/rhinovirus is highest.

- While activity of enterovirus/rhinovirus is highest, it remains below expected levels typical of this time of year (565 detections; 13.4% positive).
- Activity of all other non-SARS-CoV-2 respiratory viruses is near or below expected levels typical of this time of year.
- 32/35 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

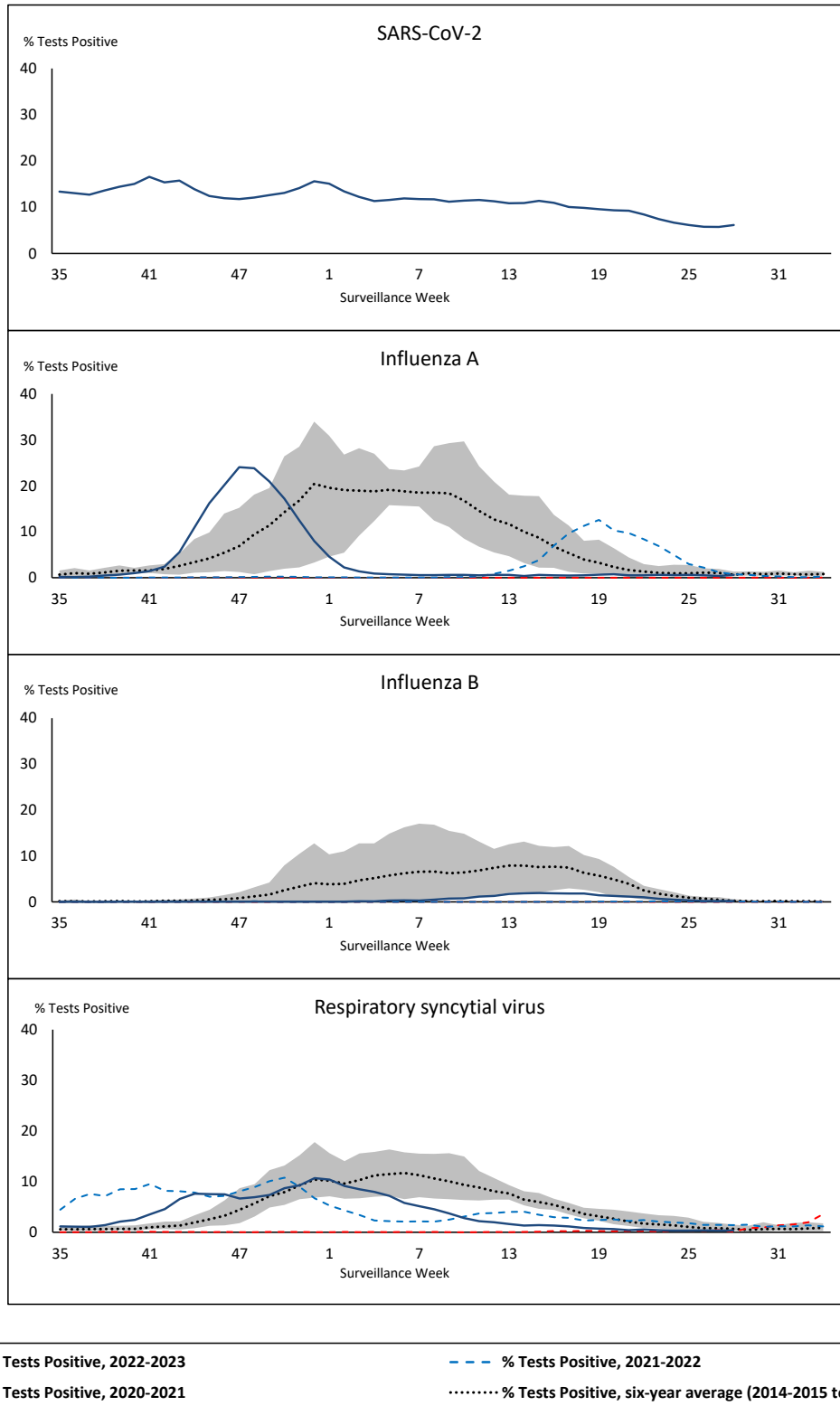
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

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**



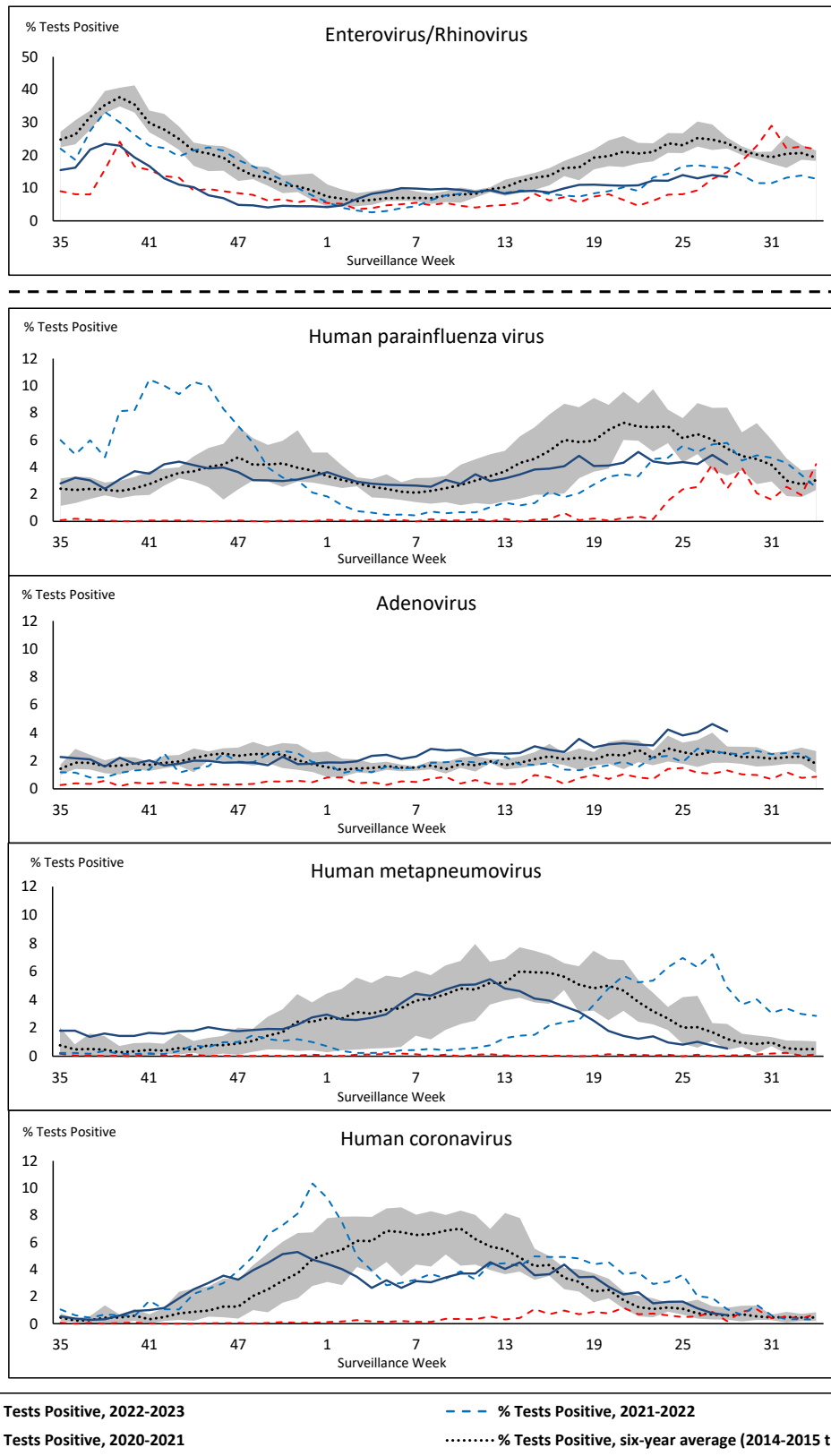
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 July 15, 2023 (surveillance week 2023-28)**

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	340	46	234	0	0	1	1	0	234	2	234	1	0	3	2	0	234	8	234	0	234	23	234	0	
Prince Edward Island	62	5	7	0	0	0	0	0	7	0	5	0	0	0	0	0	5	2	5	0	5	1	5	0	
Nova Scotia	816	101	485	0	0	0	0	0	485	0	23	0	0	0	0	0	23	4	23	0	23	6	23	1	
New Brunswick	470	19	327	0	0	0	0	0	324	0	44	0	0	0	0	0	44	6	44	0	44	8	44	0	
<b>Atlantic</b>	<b>1688</b>	<b>171</b>	<b>1053</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1050</b>	<b>2</b>	<b>306</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>306</b>	<b>20</b>	<b>306</b>	<b>0</b>	<b>306</b>	<b>38</b>	<b>306</b>	<b>1</b>	
Région Nord-Est	990	46	806	0	0	0	0	1	163	0	51	0	0	1	1	0	51	2	49	0	N.C.	N.C.	51	0	
Québec-Chaudière-Appalaches	1247	70	311	0	0	1	1	1	311	5	134	0	0	0	1	0	149	11	134	0	N.C.	N.C.	134	0	
Centre-du-Québec	974	41	120	0	0	0	0	0	119	1	26	0	0	0	1	0	26	2	26	1	N.C.	N.C.	26	0	
Montréal-Laval	1887	115	870	0	0	3	3	0	861	4	455	3	2	9	12	0	455	13	455	5	N.C.	N.C.	455	1	
Ouest du Québec	824	47	254	0	0	0	0	0	254	3	24	0	1	0	3	0	24	1	24	0	N.C.	N.C.	24	0	
Montréal	726	40	650	0	0	1	1	1	630	6	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0	
<b>Province of Québec</b>	<b>6648</b>	<b>359</b>	<b>3011</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>2338</b>	<b>19</b>	<b>690</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>18</b>	<b>0</b>	<b>705</b>	<b>29</b>	<b>688</b>	<b>6</b>	<b>N.C.</b>	<b>N.C.</b>	<b>690</b>	<b>1</b>	
P.H.O.L. - Ottawa	87	26	51	2	0	0	2	0	51	0	50	0	0	0	0	3	50	1	50	0	50	11	50	1	
EOCLA	588	25	207	0	0	2	2	0	207	4	27	0	1	1	0	0	27	2	27	1	27	5	27	0	
P.H.O.L. - Kingston	94	0	40	0	0	0	0	0	40	0	33	0	0	0	0	5	33	2	33	0	33	1	33	0	
UHN / Mount Sinai Hospital	783	24	487	0	0	3	3	2	487	3	42	0	0	6	0	0	42	0	42	0	42	2	42	1	
P.H.O.L. - Toronto	250	38	517	13	0	0	9	0	516	0	482	0	0	0	0	28	482	15	482	7	482	91	482	4	
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.	
Shared Hospital Laboratory	752	27	752	5	0	1	6	5	752	3	756	0	0	0	0	26	756	17	759	1	759	56	759	1	
P.H.O.L. - Sault Ste. Marie	3	0	6	0	0	0	0	0	6	0	6	0	0	0	0	0	6	0	6	0	6	0	6	0	
P.H.O.L. - Timmins	10	1	10	0	0	0	0	0	10	0	10	0	0	0	0	0	10	0	10	0	10	3	10	0	
St. Joseph's - London	485	35	31	0	0	0	0	2	31	0	31	0	0	0	0	0	31	2	31	0	31	2	31	0	
P.H.O.L. - London	240	50	176	2	0	0	2	0	176	0	160	0	0	0	0	10	160	3	160	3	160	24	160	0	
P.H.O.L. - Orillia	17	5	31	0	0	0	0	0	31	0	31	0	0	0	0	1	31	4	31	0	31	6	31	0	
P.H.O.L. - Thunder Bay	36	9	24	0	0	0	0	0	24	0	23	0	0	0	0	0	23	1	23	0	23	6	23	0	
P.H.O.L. - Sudbury	1	0	5	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	1	5	0	5	0	
P.H.O.L. - Hamilton	127	23	95	1	0	0	0	1	95	1	95	0	0	0	0	8	95	13	95	0	95	15	95	1	
P.H.O.L. - Peterborough	17	0	18	1	0	0	1	0	18	0	18	0	0	0	0	0	18	1	18	0	18	4	18	0	
St. Joseph's - Hamilton	1094	72	920	0	0	6	6	6	920	2	920	0	0	14	0	0	920	32	920	3	920	55	0	0	
Sault Area Hospital	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.	
<b>Province of Ontario</b>	<b>4584</b>	<b>335</b>	<b>3370</b>	<b>24</b>	<b>0</b>	<b>12</b>	<b>31</b>	<b>16</b>	<b>3369</b>	<b>13</b>	<b>2689</b>	<b>0</b>	<b>1</b>	<b>21</b>	<b>0</b>	<b>81</b>	<b>2689</b>	<b>93</b>	<b>2692</b>	<b>16</b>	<b>2692</b>	<b>281</b>	<b>1772</b>	<b>8</b>	
Manitoba	856	23	808	0	0	2	2	3	808	1	68	0	2	2	2	0	68	4	85	1	68	33	85	1	
Saskatchewan	967	47	418	0	0	3	3	0	410	0	211	3	2	0	3	0	211	8	211	0	211	48	211	2	
Alberta	2102	70	1654	7	0	0	7	1	1597	3	505	3	1	2	2	0	505	16	504	1	497	92	505	2	
<b>Prairies</b>	<b>3925</b>	<b>140</b>	<b>2880</b>	<b>7</b>	<b>0</b>	<b>5</b>	<b>12</b>	<b>4</b>	<b>2815</b>	<b>4</b>	<b>784</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>784</b>	<b>28</b>	<b>800</b>	<b>2</b>	<b>776</b>	<b>173</b>	<b>801</b>	<b>5</b>	
British Columbia	1845	152	1615	4	0	0	23	3	1614	4	447	10	5	5	22	0	447	33	447	3	425	72	425	10	
Yukon	24	0	12	0	0	0	1	0	12	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	5	0	5	0	0	0	0	0	5	0	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	5	1	N.C.	N.C.
Nunavut	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	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>29</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>17</b>	<b>1</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>5</b>	<b>1</b>	<b>N.C.</b>	<b>N.C.</b>	
<b>CANADA</b>	<b>18719</b>	<b>1157</b>	<b>11946</b>	<b>35</b>	<b>0</b>	<b>23</b>	<b>73</b>	<b>26</b>	<b>11203</b>	<b>43</b>	<b>4916</b>	<b>20</b>	<b>14</b>	<b>43</b>	<b>49</b>	<b>81</b>	<b>4931</b>	<b>203</b>	<b>4933</b>	<b>27</b>	<b>4204</b>	<b>565</b>	<b>3994</b>	<b>25</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.

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

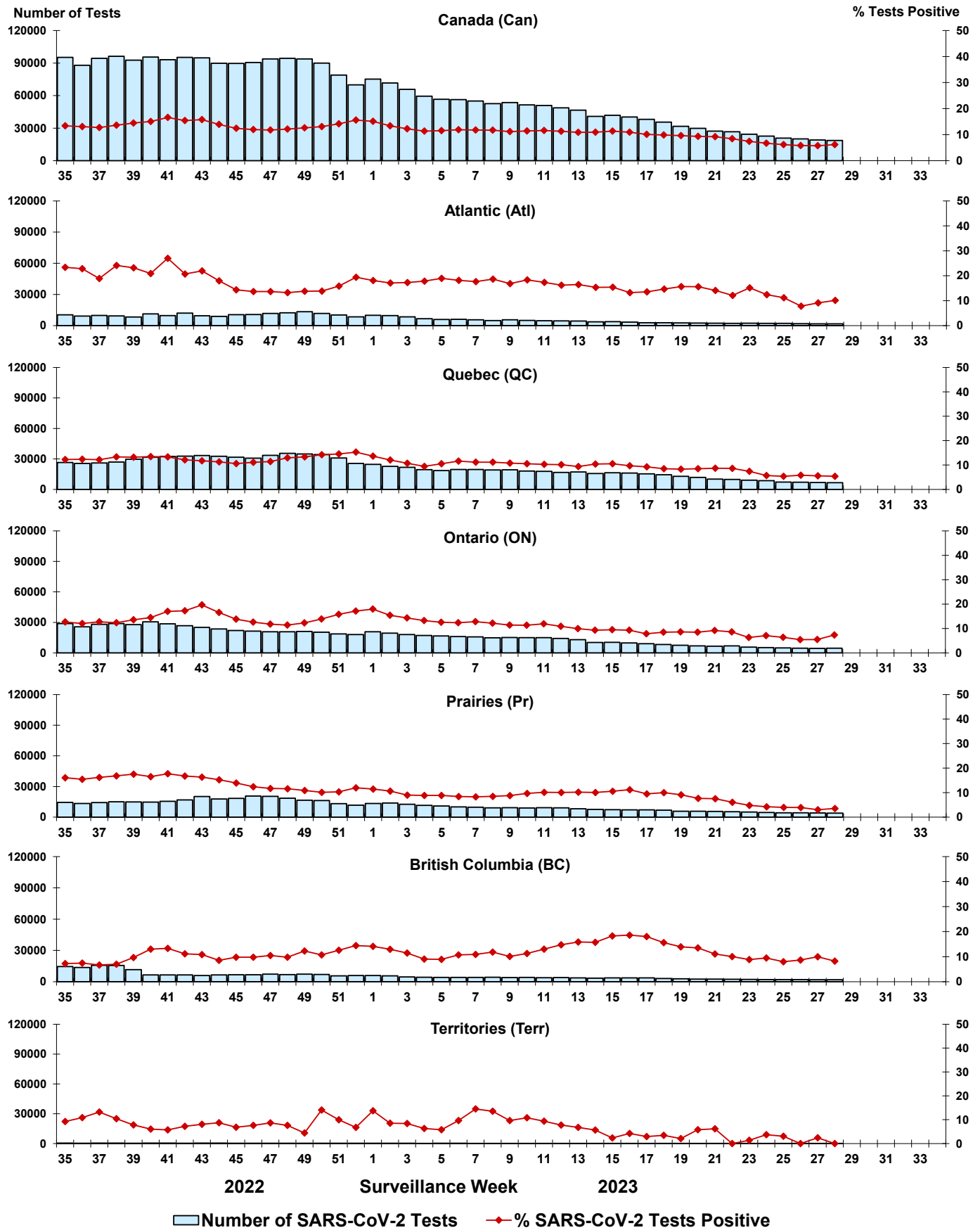
Results from British Columbia comprise of specimens from the following sites: Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Vancouver Coastal Health sites, Victoria General Hospital, BCCDC Public Health Laboratory, Interior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

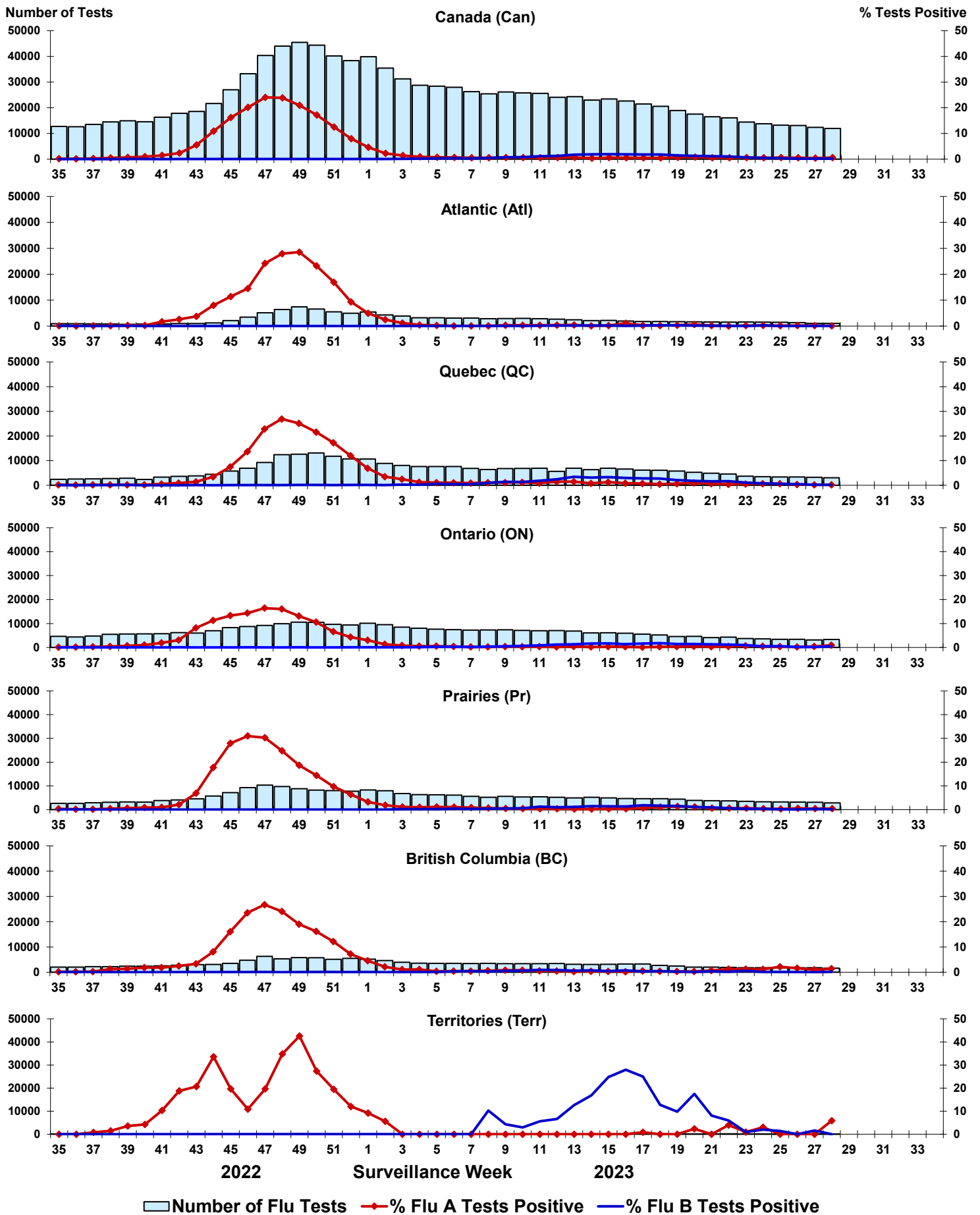


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

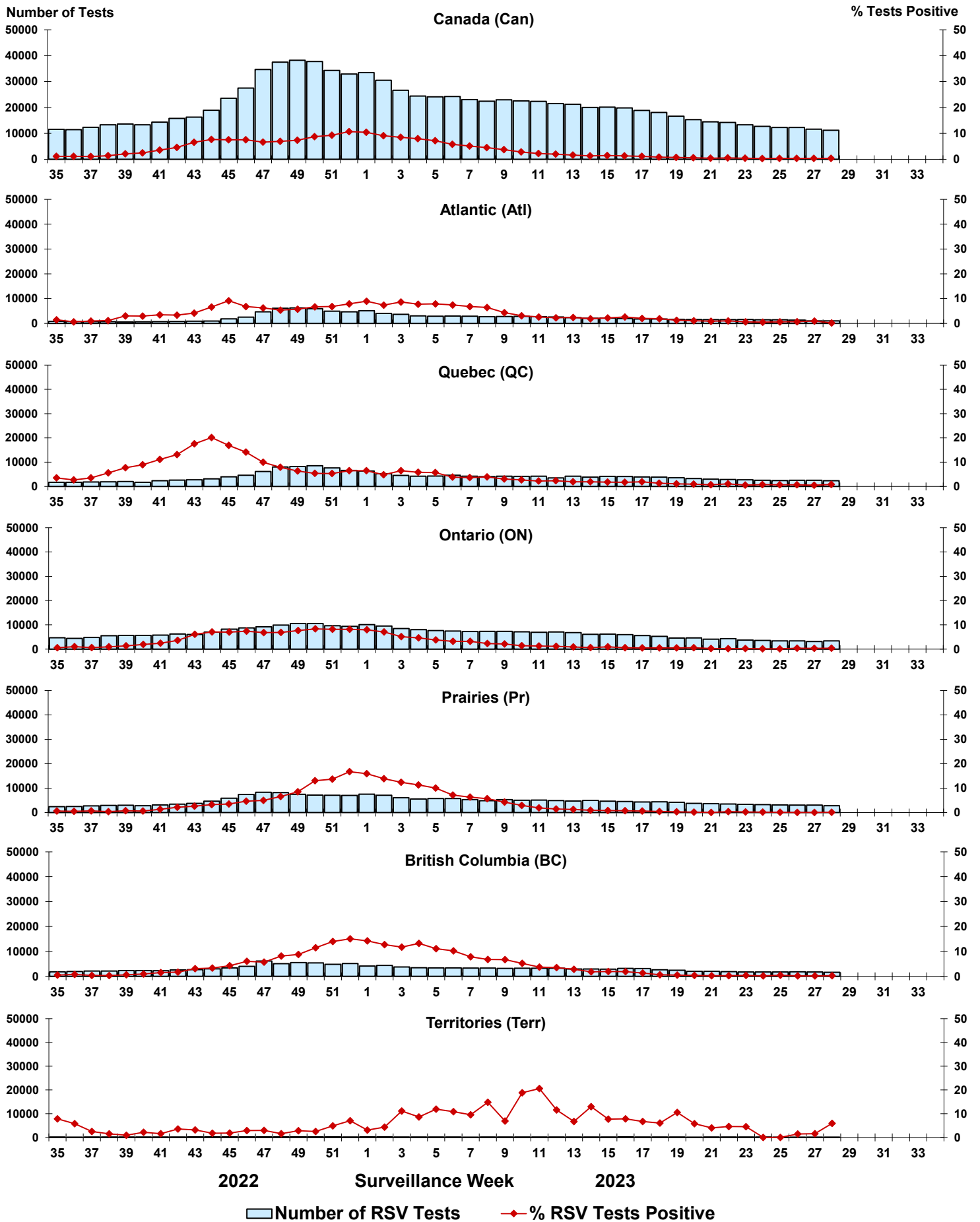




Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

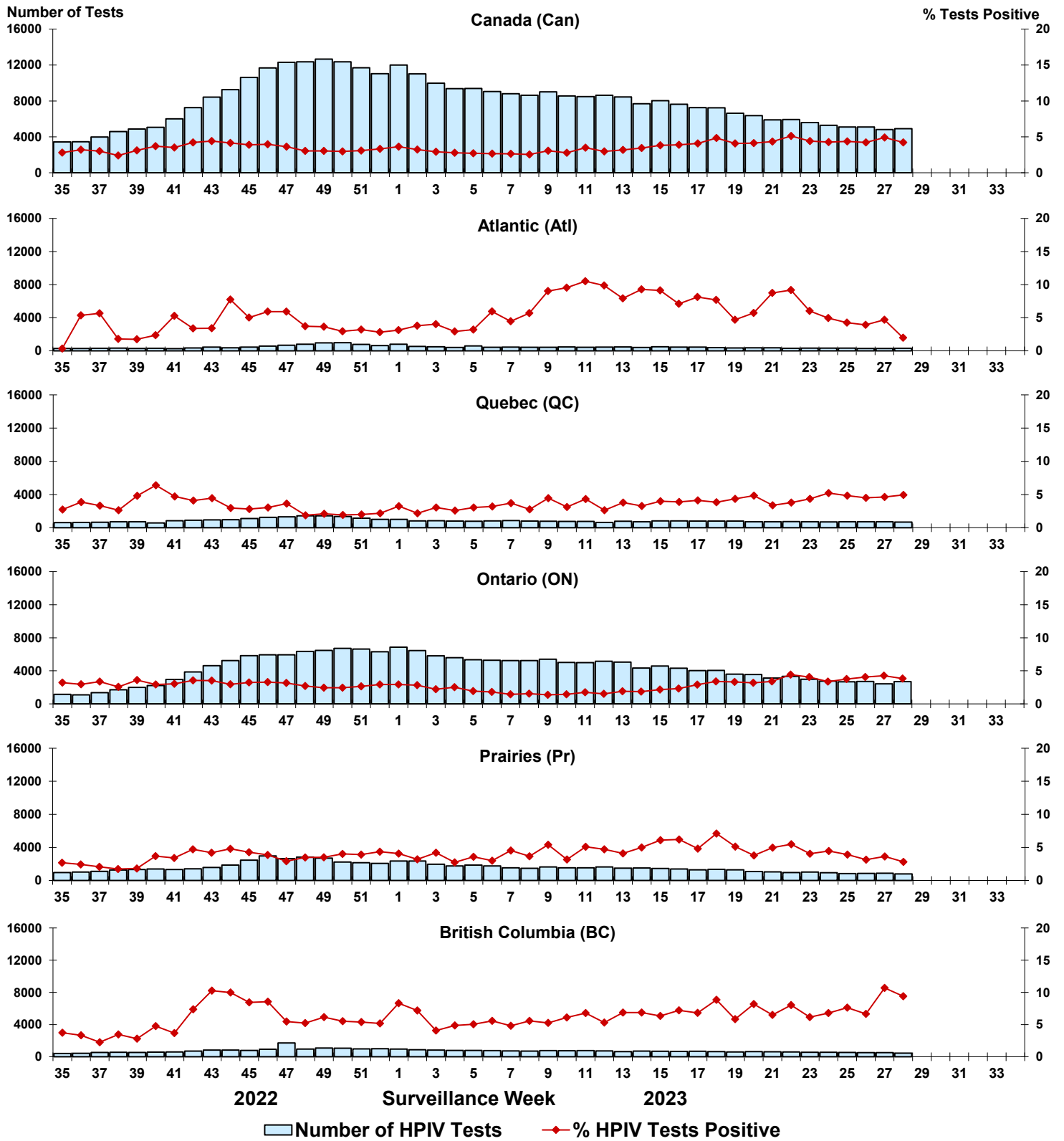


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

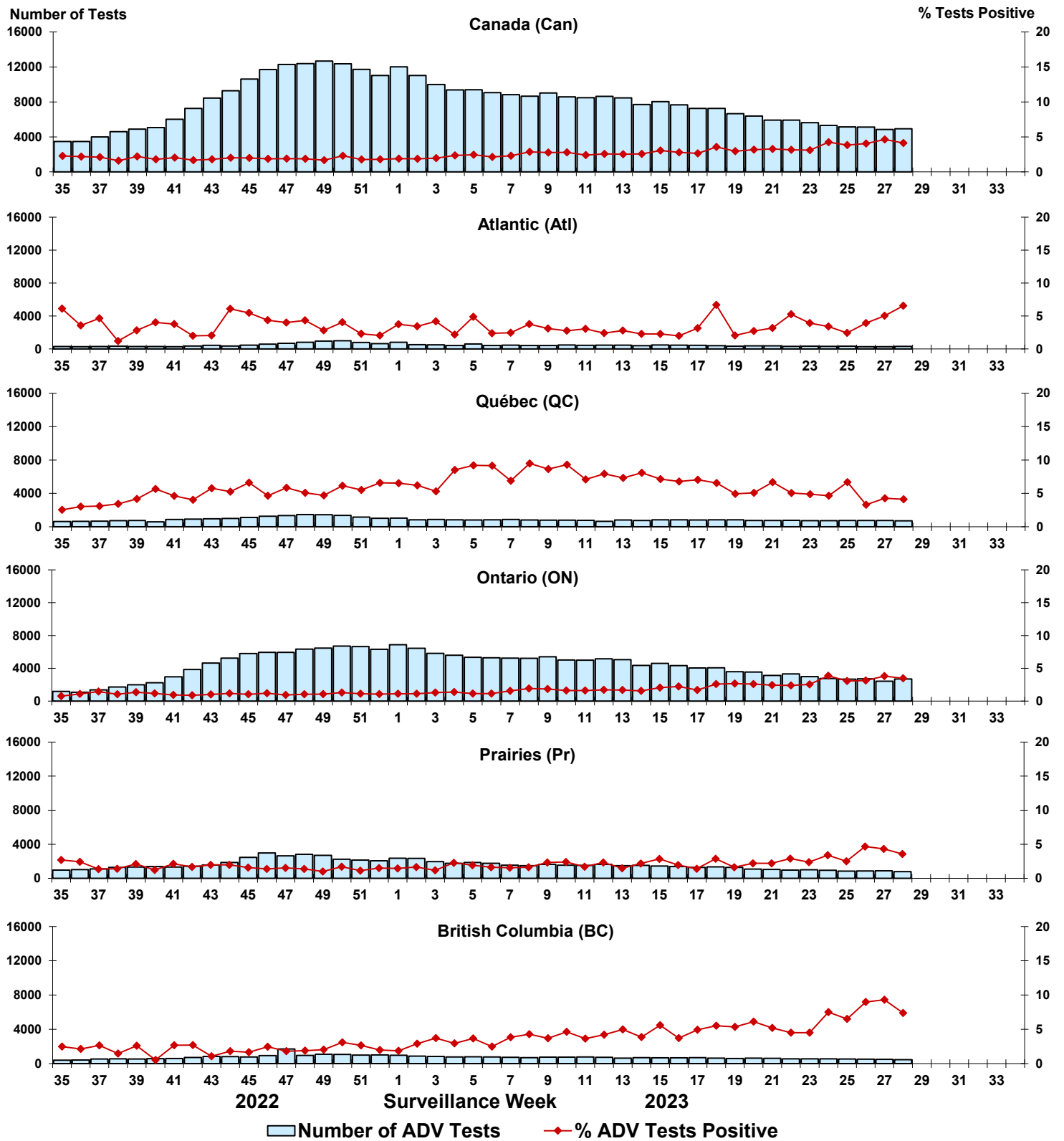


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

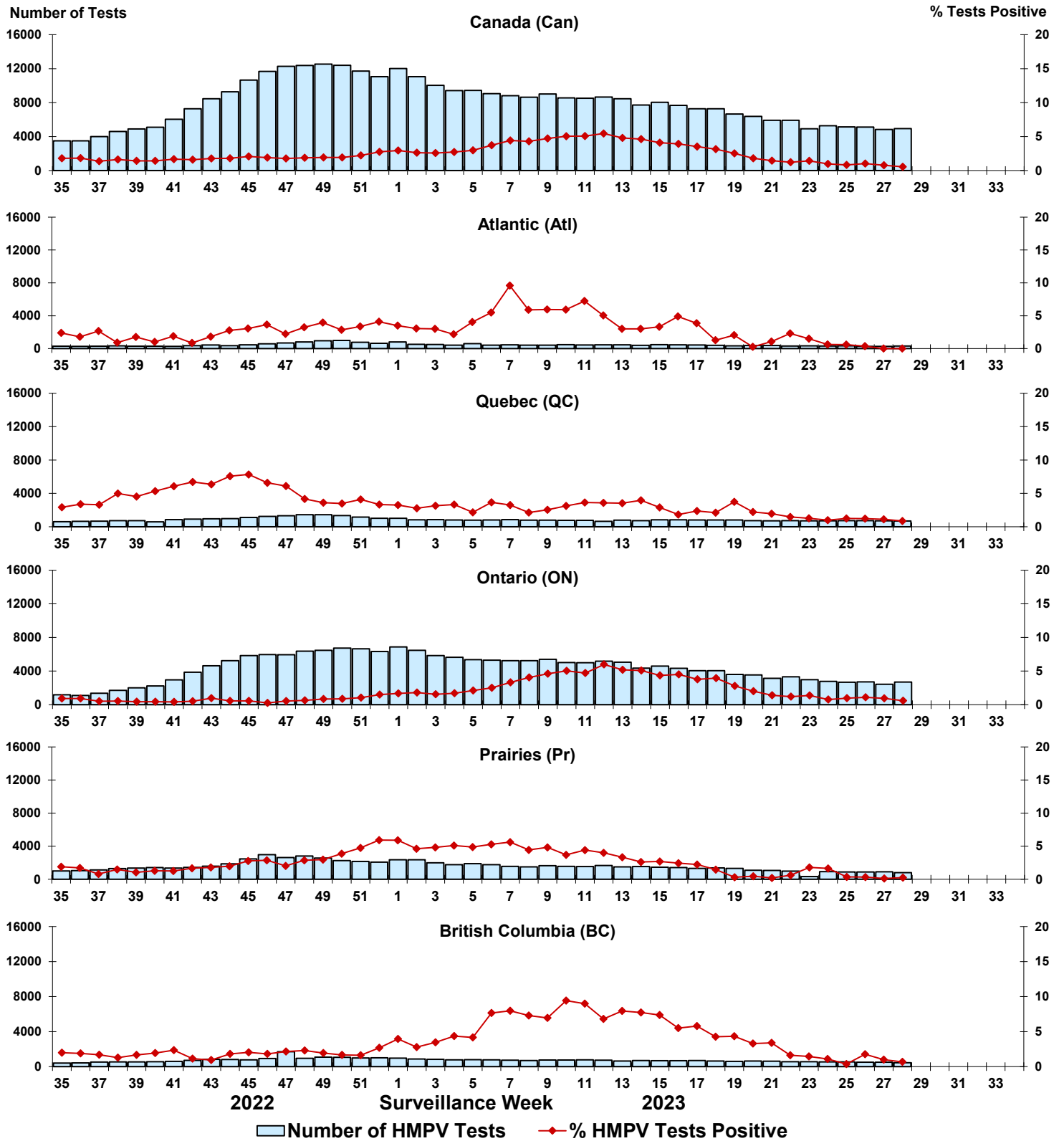


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

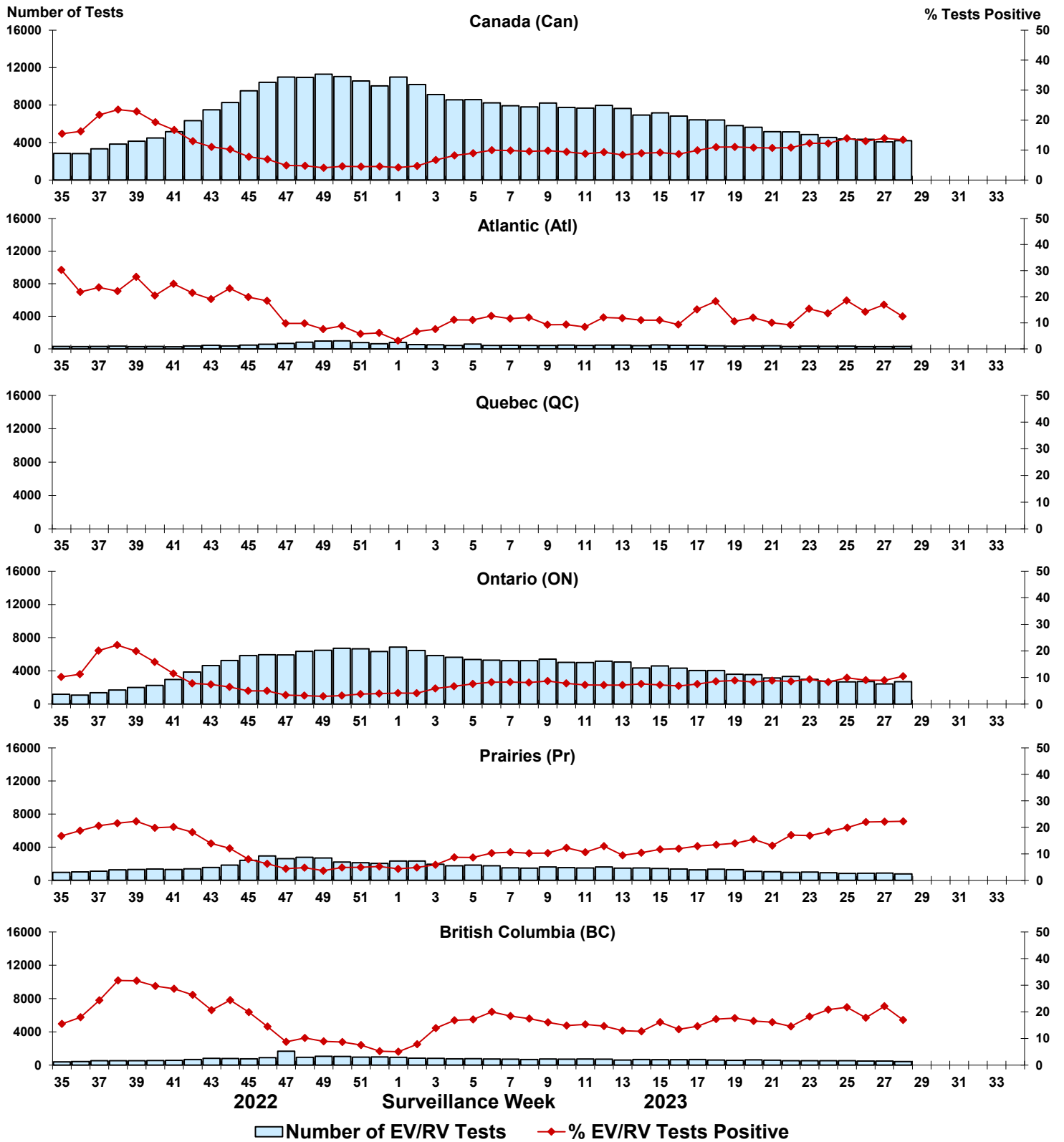


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

