

RESPIRATORY VIRUS DETECTION REPORT

May 21 to May 27, 2023
(Surveillance Week 2023-21)



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 21 (week ending May 27, 2023) in Canada, participating RVDSS laboratories reported 2,438 detections of SARS-CoV-2 from 26,751 tests (9.1% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 4,615 to 16,241 tests), activity of all viruses is within or below expected levels.

- Activity of influenza remains low at inter-seasonal levels. Both influenza A (86 detections; 0.5% positive) and influenza B (181 detections; 1.1% positive) are within expected levels typical of this time of year.
- Activity of all other non-SARS-CoV-2 respiratory viruses is within or below 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

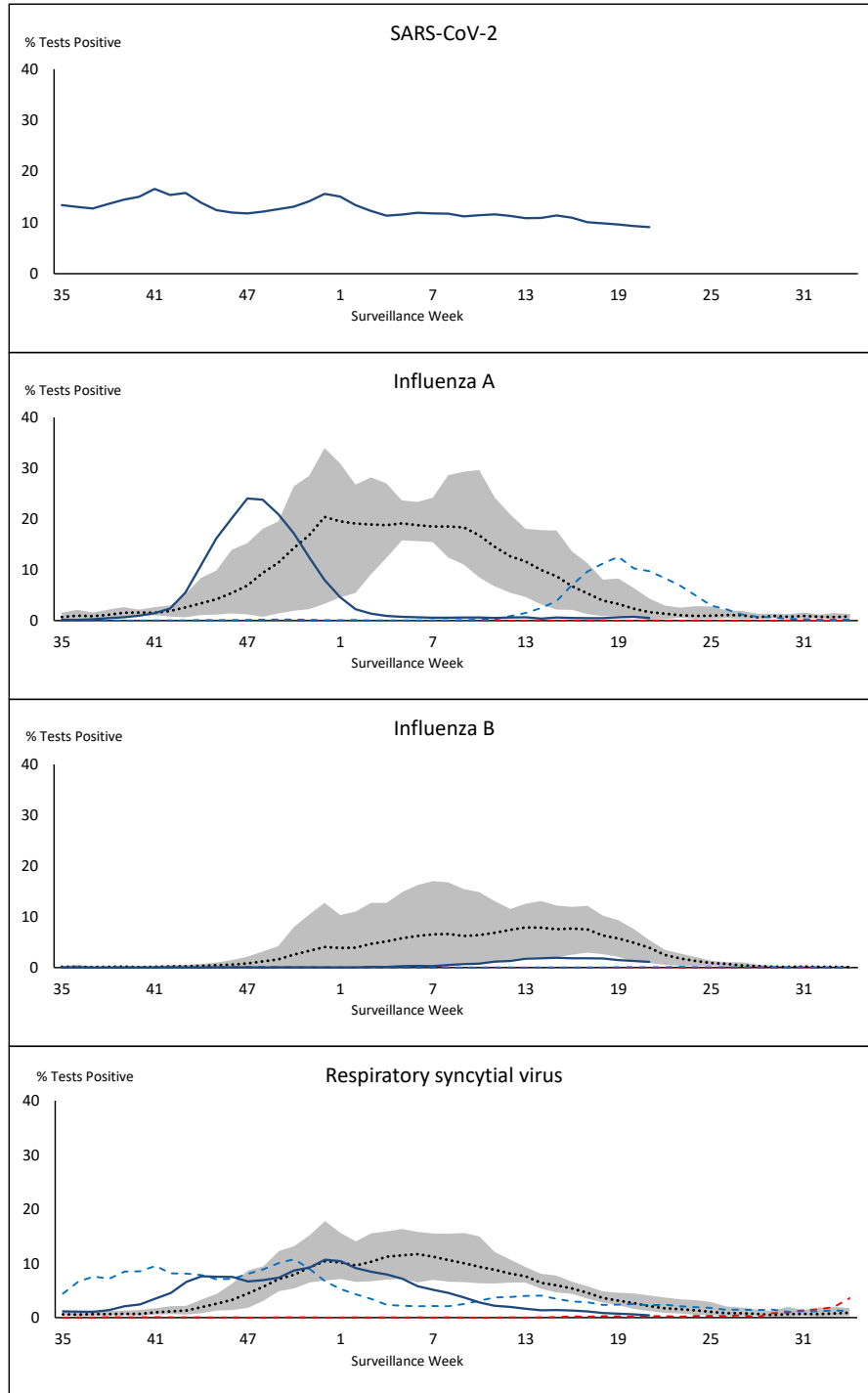
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

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



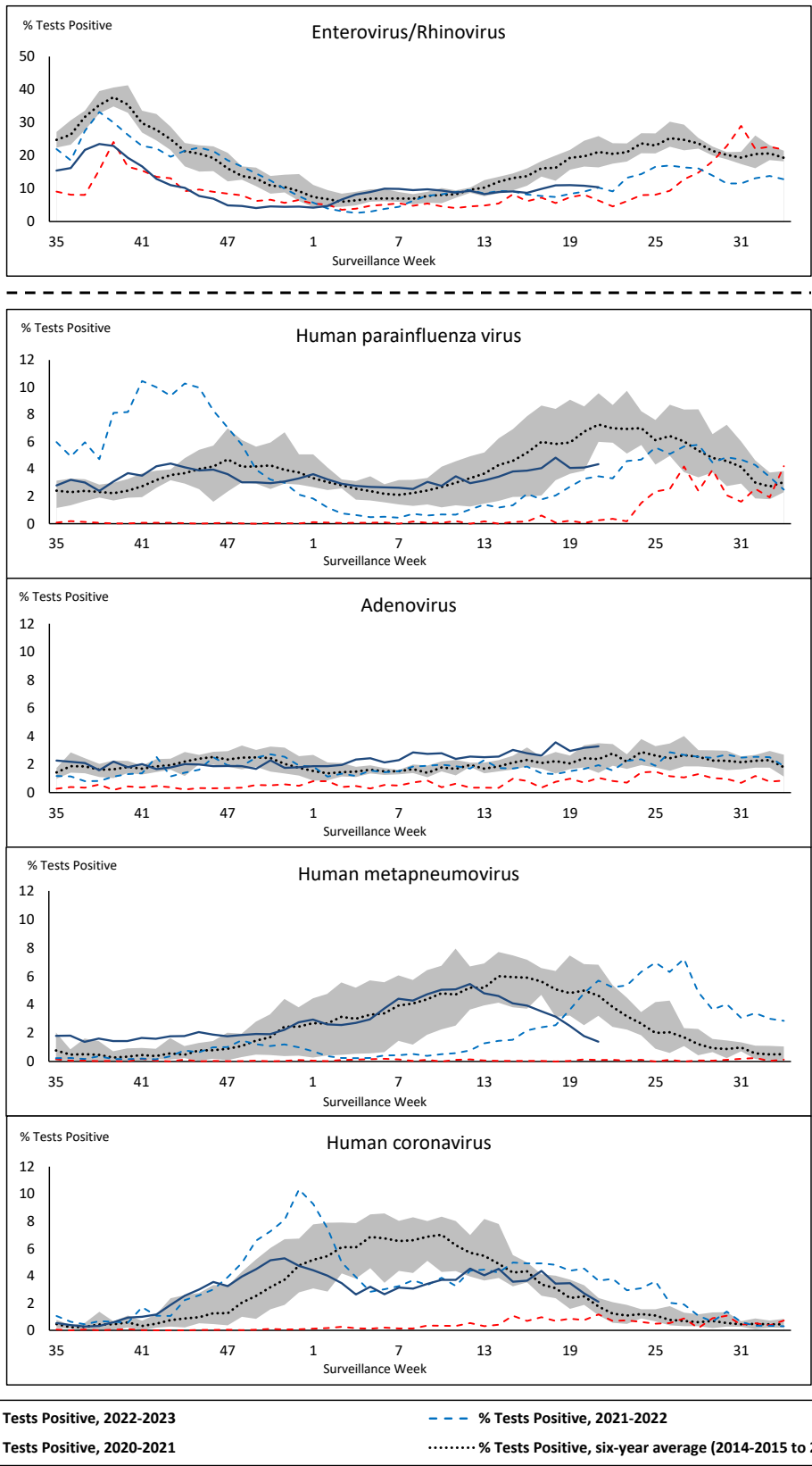
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 May 27, 2023 (surveillance week 2023-21)

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/IV Tested	EV/IV Positive	HCoV Tested	HCoV Positive	
Newfoundland	399	39	285	0	0	2	2	0	265	6	265	1	1	4	16	0	265	5	265	2	265	20	265	30	
Prince Edward Island	80	7	6	0	0	0	0	1	6	0	3	0	0	0	0	0	3	2	3	0	3	0	3	0	
Nova Scotia	1175	200	670	0	0	1	1	0	670	4	20	0	0	1	0	0	23	3	23	0	23	8	23	1	
New Brunswick	657	80	627	0	0	0	0	1	619	4	88	7	1	2	0	0	88	2	88	2	88	10	88	3	
Atlantic	2311	326	1568	0	0	3	3	2	1560	14	376	8	2	7	16	0	379	12	379	4	379	38	379	34	
Région Nord-Est	1280	125	996	0	0	17	17	4	200	1	42	1	0	0	0	0	42	1	42	1	N.C.	N.C.	42	1	
Québec-Chaudière-Appalaches	1627	113	383	0	0	4	4	8	383	4	155	0	0	0	0	0	187	18	155	4	N.C.	N.C.	155	0	
Centre-du-Québec	1877	172	198	0	0	1	1	4	195	2	31	0	0	1	1	0	31	6	31	0	N.C.	N.C.	31	0	
Montréal-Laval	2687	214	2066	0	0	7	7	40	1110	9	455	0	0	14	6	0	455	20	456	9	N.C.	N.C.	455	4	
Ouest du Québec	1192	110	328	0	0	2	2	14	328	1	25	0	0	1	0	0	25	4	25	0	N.C.	N.C.	25	0	
Montérégie	1491	148	925	0	0	1	1	8	777	3	4	0	0	0	0	0	4	0	4	0	N.C.	N.C.	4	0	
Province of Québec	10154	882	4896	0	0	32	32	78	2993	20	712	1	0	16	7	0	744	49	713	14	N.C.	N.C.	712	5	
P.H.O.L. - Ottawa	242	93	96	0	0	0	0	0	96	0	57	0	0	0	0	3	57	0	57	0	57	12	57	3	
EORLA	717	42	230	0	0	0	0	0	230	0	24	0	0	0	0	0	24	0	24	1	24	6	24	1	
P.H.O.L. - Kingston	329	33	84	0	0	0	0	0	84	0	36	0	0	0	0	2	36	0	36	0	36	5	36	1	
UHN / Mount Sinai Hospital	998	60	530	0	0	0	0	1	530	0	12	0	0	0	0	0	12	0	12	0	12	0	12	0	
P.H.O.L. - Toronto	401	66	481	1	0	1	2	6	479	3	430	0	0	0	0	28	430	19	430	13	430	58	430	13	
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	997	58	996	4	0	0	4	20	996	0	992	0	0	0	0	20	992	11	998	7	998	48	998	6	
P.H.O.L. - Sault Ste. Marie	23	2	12	0	0	0	0	0	12	0	4	0	0	0	0	0	4	0	4	0	4	3	4	0	
P.H.O.L. - Timmins	63	10	22	0	0	0	0	0	22	0	14	0	0	0	0	1	14	0	14	0	14	0	14	2	
St. Joseph's - London	832	58	103	0	0	0	0	0	103	0	46	0	0	0	0	4	46	2	46	0	46	8	46	1	
P.H.O.L. - London	290	40	152	0	0	0	0	1	152	0	133	0	0	0	0	11	133	5	133	6	133	7	133	5	
P.H.O.L. - Orillia	3	0	28	0	0	0	0	2	28	0	28	0	0	0	0	5	28	4	28	1	28	5	28	2	
P.H.O.L. - Thunder Bay	39	0	5	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	0	5	0	5	0	
P.H.O.L. - Sudbury	14	0	4	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	0	4	2	4	0	
P.H.O.L. - Hamilton	149	52	121	1	1	0	2	1	121	1	119	0	0	0	0	10	119	6	119	6	119	11	119	2	
P.H.O.L. - Peterborough	40	3	67	1	0	0	1	3	67	0	67	0	0	0	0	3	67	6	67	3	67	22	67	0	
St. Joseph's - Hamilton	1343	77	1100	0	0	2	2	19	1100	5	1100	0	0	17	0	0	1100	22	1100	7	1100	77	0	0	
Sault Area Hospital	86	7	86	0	0	0	0	0	86	2	59	0	0	2	0	0	59	1	59	0	59	13	59	0	
Province of Ontario	6566	601	4117	7	1	3	11	53	4115	11	3130	0	0	19	0	87	3130	76	3136	44	3136	277	2036	36	
Manitoba	1083	101	868	0	0	3	3	1	868	1	87	6	2	0	1	0	87	1	103	1	87	16	103	1	
Saskatchewan	1398	74	528	0	0	9	9	2	492	0	191	10	5	2	6	0	191	7	190	1	191	40	191	3	
Alberta	2565	167	2246	12	0	2	14	28	2170	3	734	7	6	5	1	0	734	15	734	0	734	73	734	11	
Prairies	5046	342	3642	12	0	14	26	31	3530	4	1012	23	13	7	8	0	1012	23	1027	2	1012	129	1028	15	
British Columbia	2481	275	1894	7	0	0	14	8	1890	5	481	14	1	12	8	0	481	29	481	16	460	72	460	7	
Yukon	57	7	16	0	0	0	0	0	16	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.	
Northwest Territories	15	3	13	0	0	0	0	0	13	3	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	13	4	N.C.	N.C.
Nunavut	121	2	95	0	0	0	0	9	95	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.	
Territories	193	12	124	0	0	0	0	9	124	5	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	13	4	N.C.	N.C.
CANADA	26751	2438	16241	26	1	52	86	181	14212	59	5711	46	16	61	39	87	5746	189	5736	80	5000	520	4615	97	

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.

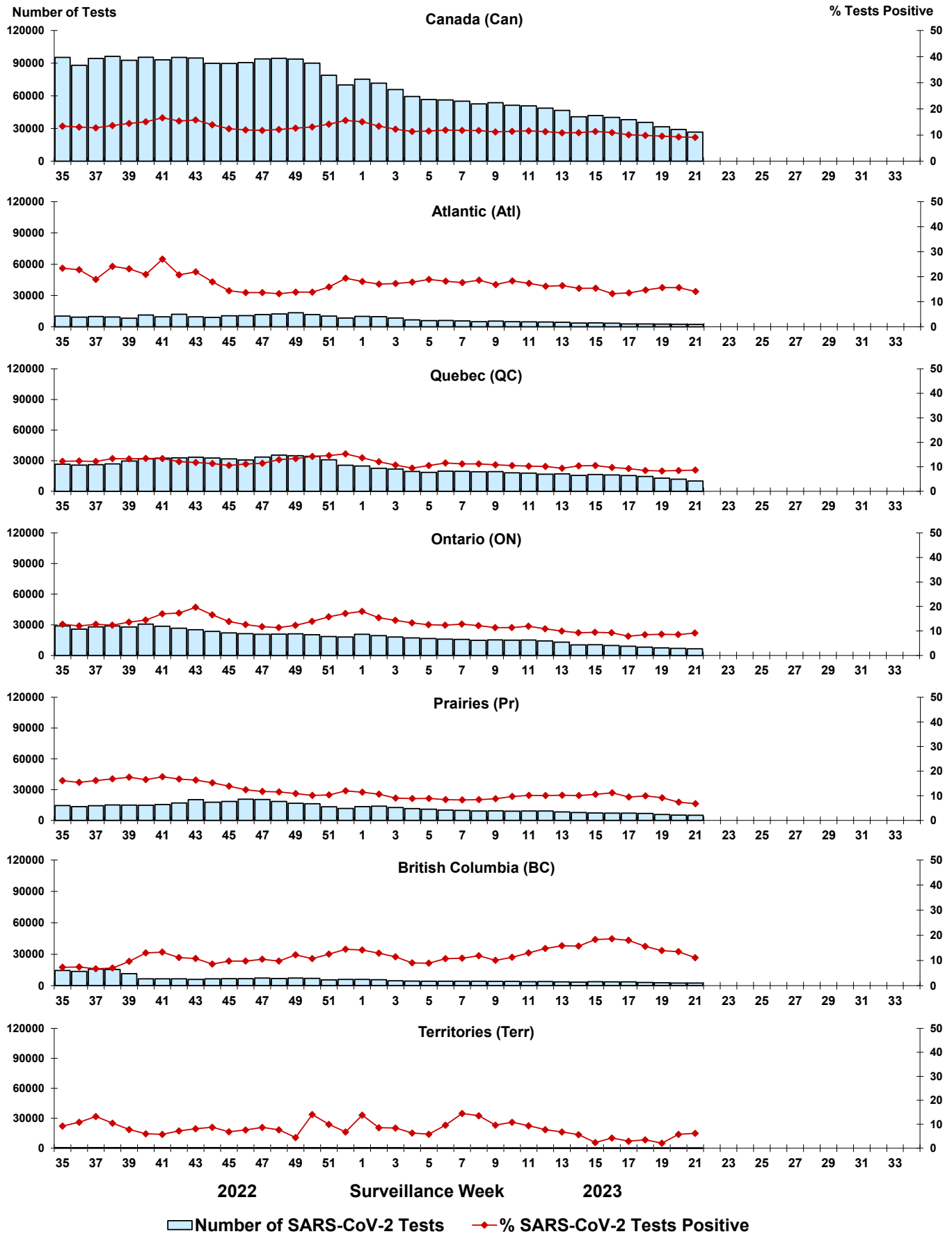
Some specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

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

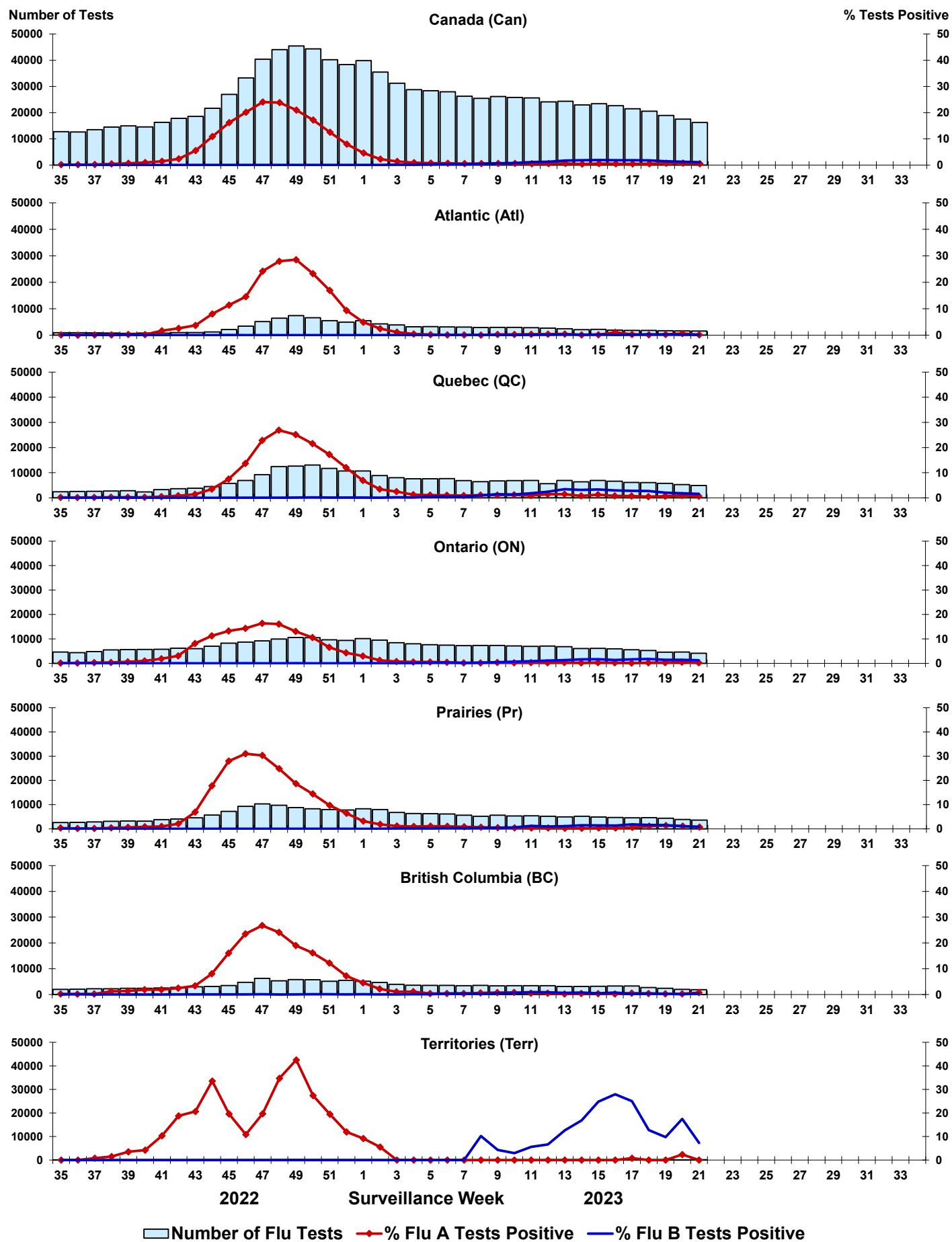


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

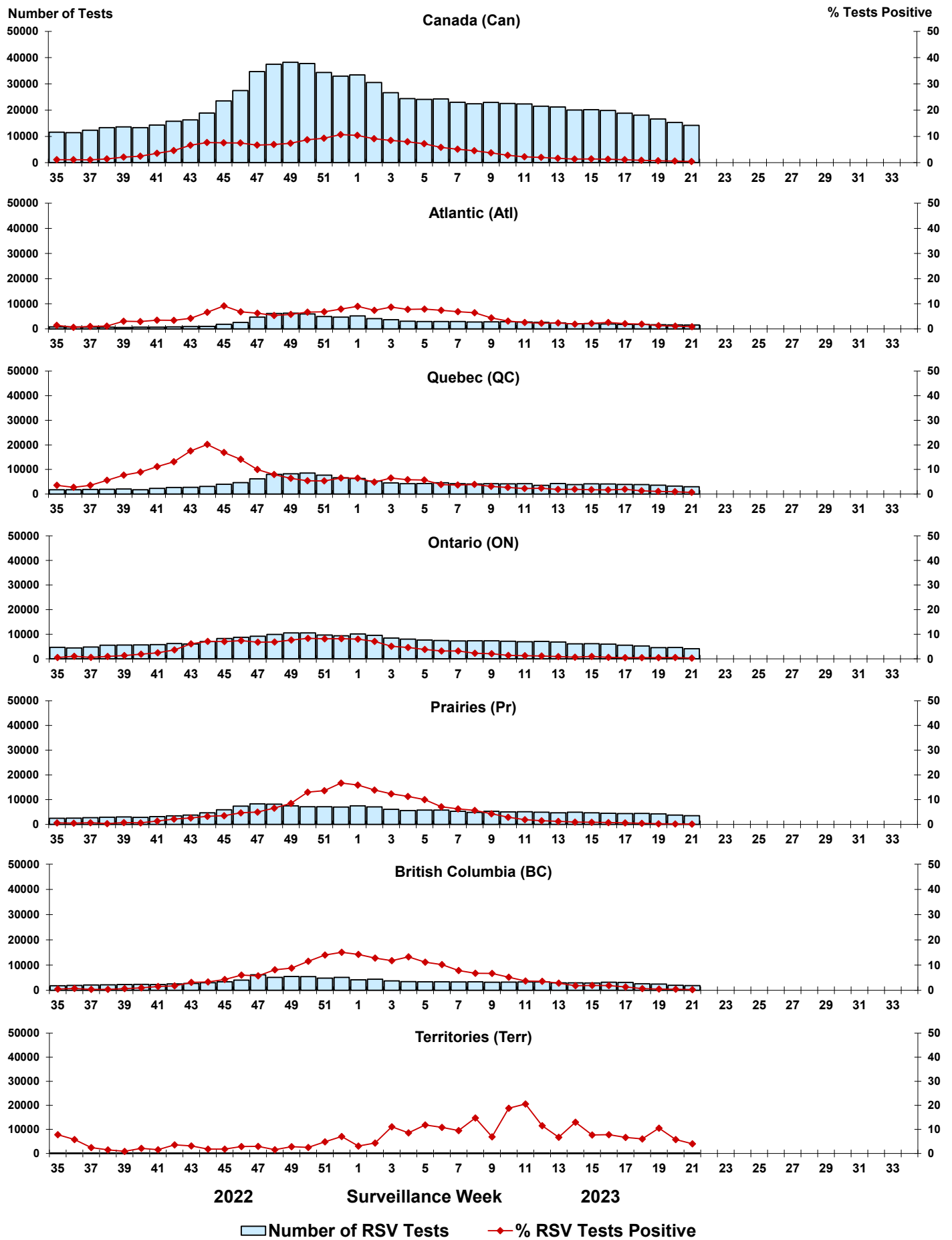


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

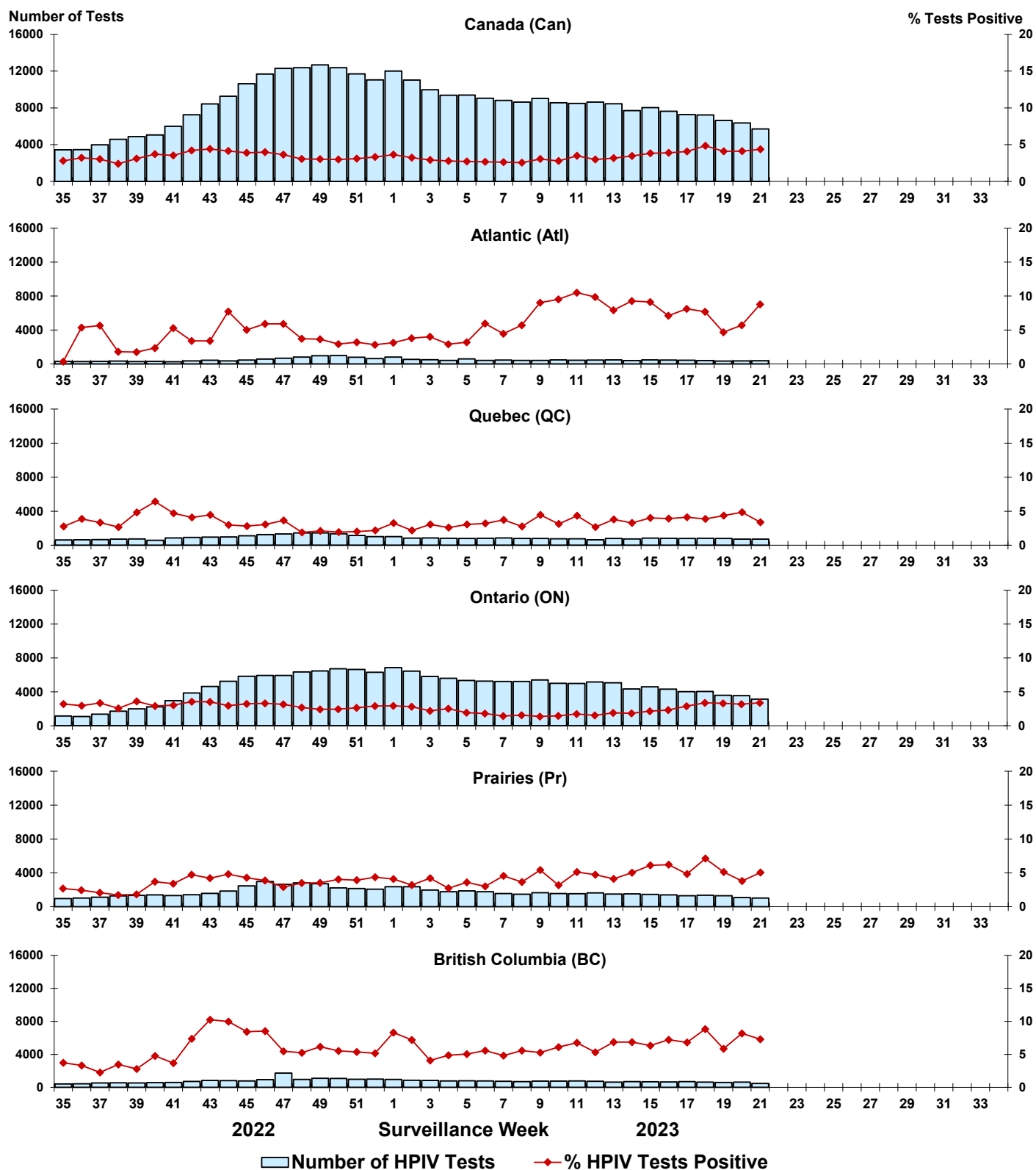


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

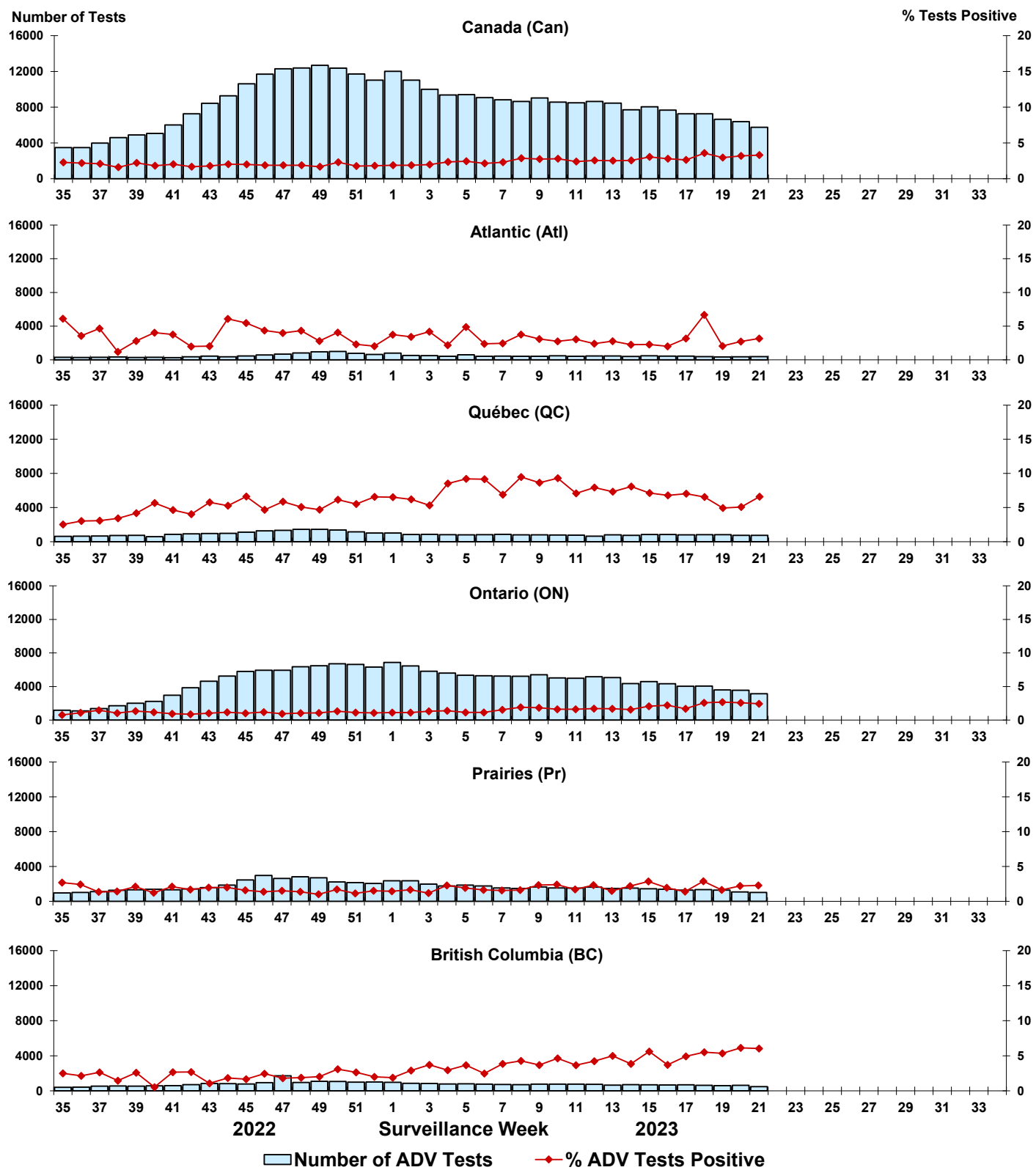


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

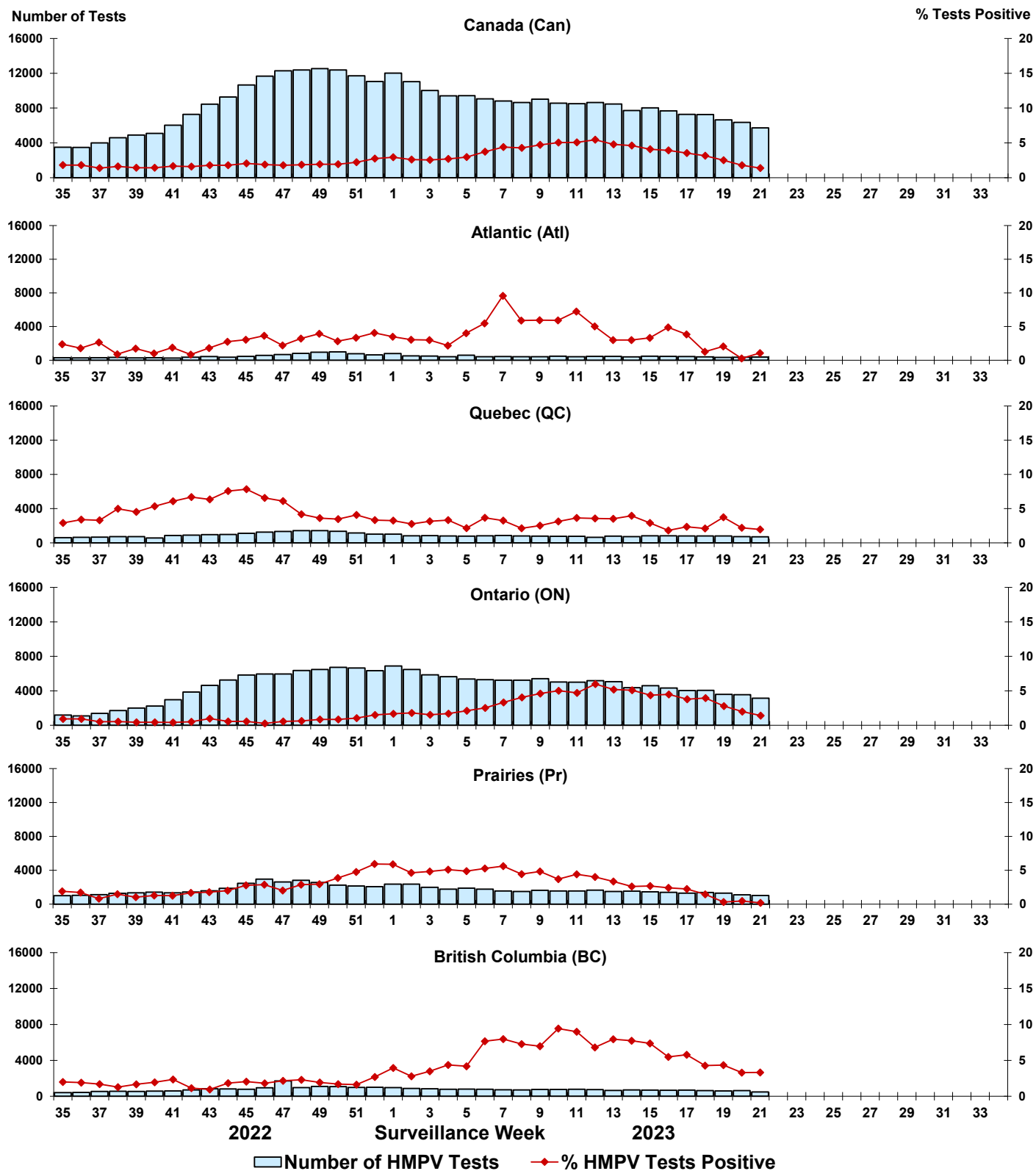


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

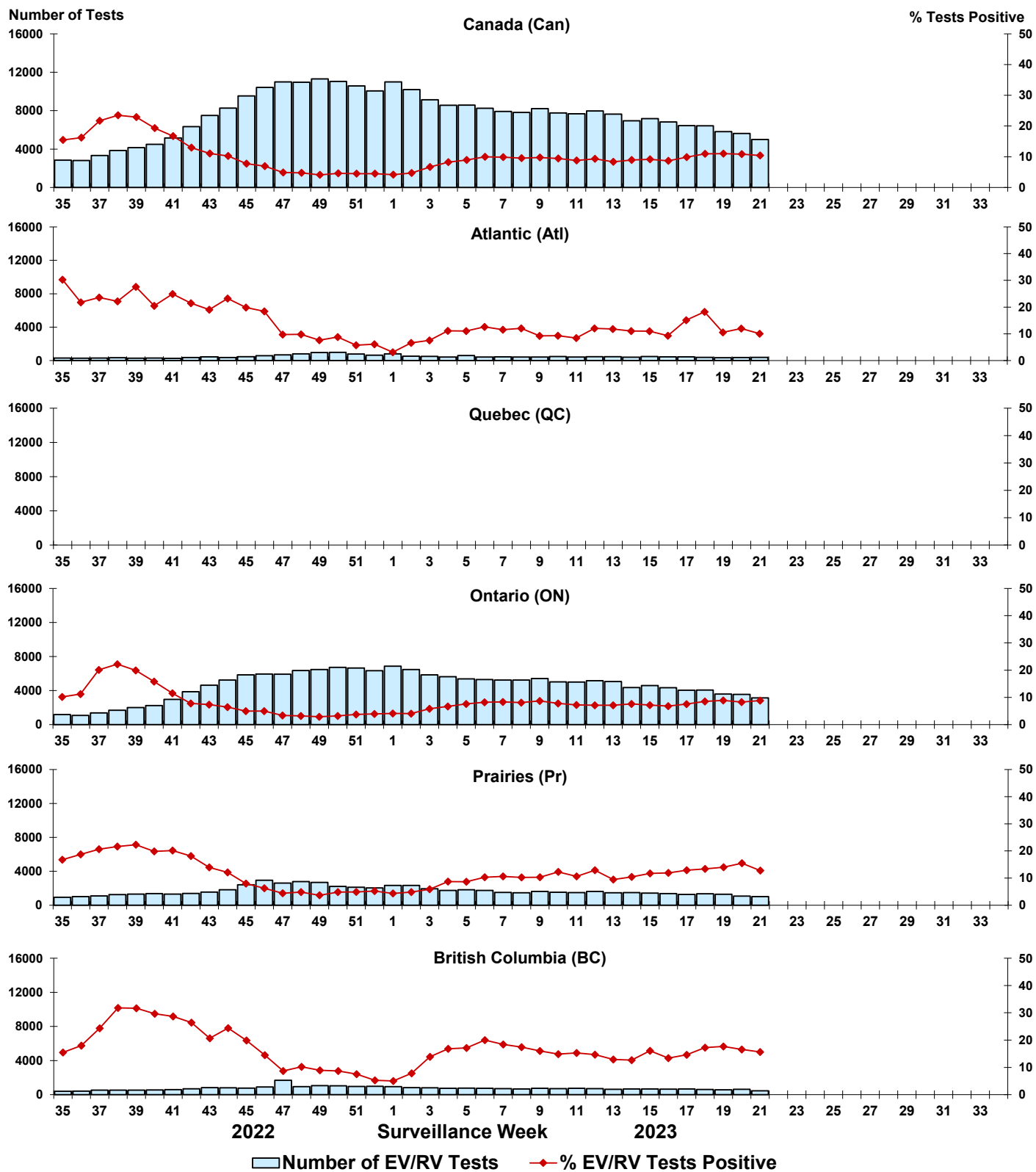


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

