

RESPIRATORY VIRUS DETECTION REPORT

February 19 to February 25, 2023
(Surveillance Week 2023-08)



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 8 (week ending February 25, 2023) in Canada, participating RVDSS laboratories reported 6,126 detections of SARS-CoV-2 from 52,076 tests (11.8% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 7,092 to 24,971 tests), activity of nearly all viruses is within or below expected levels.

- Activity of influenza remains low and stable at inter-seasonal levels. Influenza A and B are circulating at similar levels [influenza A (144 detections; 0.6% positive) and influenza B (124 detections; 0.5% 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

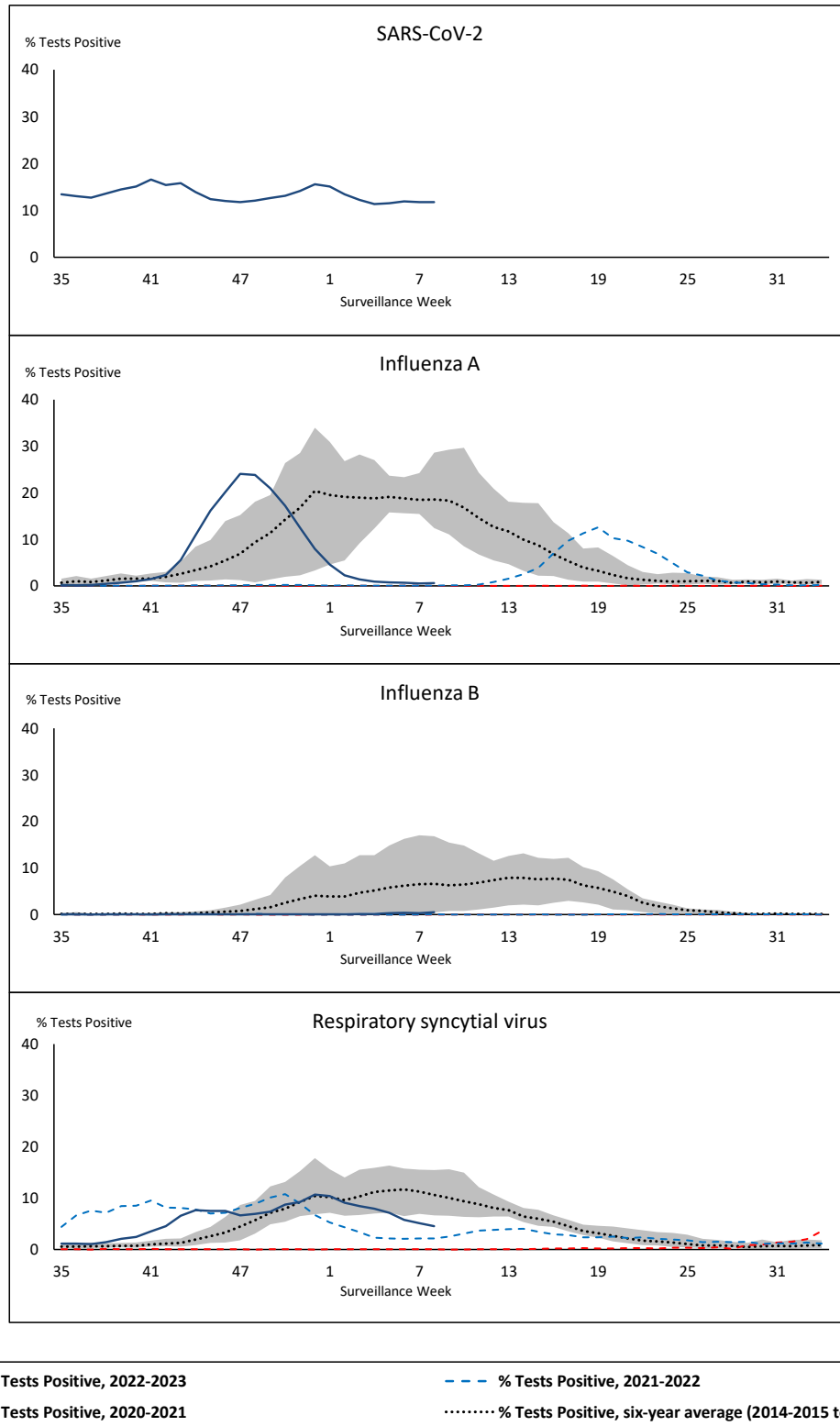
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

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



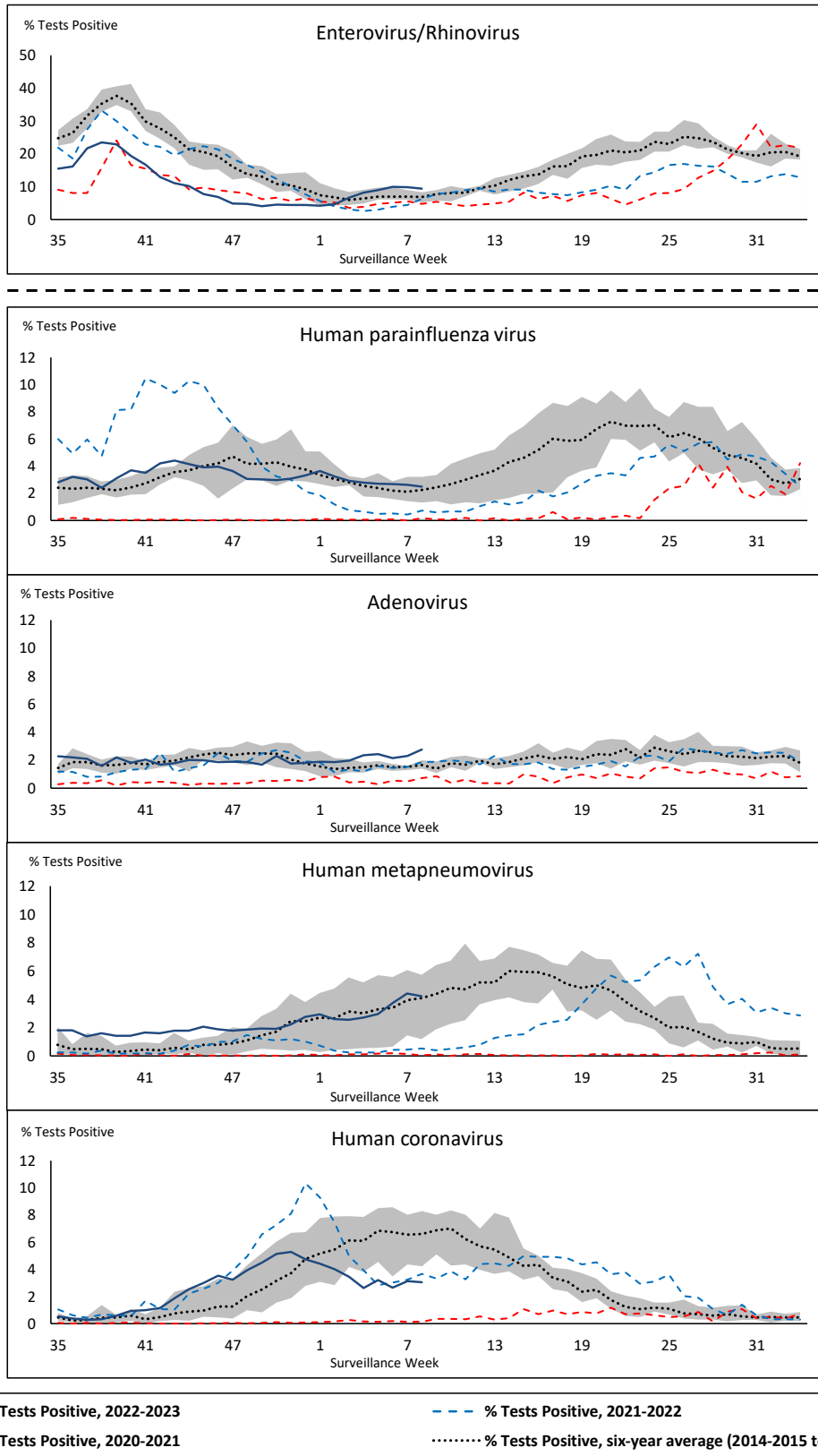
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 February 25, 2023 (surveillance week 2023-08)

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	575	125	323	0	0	0	0	0	323	25	323	1	0	16	0	0	323	11	323	8	323	29	323	12	
Prince Edward Island	566	54	162	0	0	1	1	0	162	34	10	1	0	1	0	0	10	1	10	1	10	1	10	0	
Nova Scotia	2078	358	1098	0	0	0	0	0	1098	57	31	1	0	1	0	0	34	0	34	6	34	7	34	3	
New Brunswick	1659	372	1281	0	0	1	1	1	1138	59	57	1	0	2	0	0	57	4	57	10	57	14	57	6	
Atlantic	4878	909	2864	0	0	2	2	1	2721	175	421	4	0	20	0	0	424	16	424	25	424	51	424	21	
Région Nord-Est	1884	187	1494	0	0	22	22	2	412	41	33	0	0	3	0	0	33	3	33	5	N.C.	N.C.	33	4	
Québec-Chaudière-Appalaches	4267	468	634	0	0	10	10	2	601	21	174	0	0	3	0	0	186	35	174	5	N.C.	N.C.	174	6	
Centre-du-Québec	3203	376	286	0	0	1	1	2	281	6	26	0	0	1	0	0	26	6	26	2	N.C.	N.C.	26	4	
Montréal-Laval	4455	520	2666	0	0	26	26	49	1456	52	531	0	0	15	0	0	531	23	533	4	N.C.	N.C.	531	27	
Ouest du Québec	2679	313	711	0	0	5	5	4	697	26	22	0	0	0	0	0	22	7	22	0	N.C.	N.C.	22	0	
Montréal	2719	287	615	0	0	6	6	1	615	12	6	0	0	0	0	0	6	0	6	1	N.C.	N.C.	6	1	
Province of Québec	19207	2151	6406	0	0	70	70	60	4062	158	792	0	0	22	0	0	804	74	794	17	N.C.	N.C.	792	42	
P.H.O.L. - Ottawa	554	128	166	0	0	0	0	0	166	20	108	0	0	0	0	1	108	0	108	3	108	20	108	5	
EOCLA	1757	160	404	0	0	1	1	0	404	13	30	1	0	2	0	0	30	2	30	3	30	6	30	0	
P.H.O.L. - Kingston	630	99	106	0	4	0	4	0	106	2	86	0	0	0	0	1	86	1	86	2	86	16	86	2	
UHN / Mount Sinai Hospital	2092	118	677	0	0	0	0	1	677	10	85	0	0	2	0	0	85	0	85	1	85	1	85	5	
P.H.O.L. - Toronto	836	184	887	2	1	2	3	1	887	40	726	0	0	0	0	21	726	20	726	30	726	80	726	26	
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	2099	132	2099	2	1	1	4	7	2099	27	2106	0	0	0	0	17	2106	26	2108	65	2108	96	2108	41	
P.H.O.L. - Sault Ste. Marie	25	0	19	0	0	0	0	0	19	0	19	0	0	0	0	2	19	1	19	0	19	1	19	4	
P.H.O.L. - Timmins	208	7	31	0	0	0	0	0	31	2	29	0	0	0	0	1	29	0	29	1	29	7	29	2	
St. Joseph's - London	2520	272	727	0	0	0	0	0	727	11	71	0	0	0	0	2	71	2	71	3	71	11	71	7	
P.H.O.L. - London	811	158	341	0	0	0	0	2	341	17	263	0	0	0	0	7	263	3	263	4	263	57	263	11	
P.H.O.L. - Orillia	12	0	52	0	0	0	0	0	52	3	48	0	0	0	0	0	48	1	48	2	48	10	48	1	
P.H.O.L. - Thunder Bay	134	25	13	0	0	0	0	0	13	1	13	0	0	0	0	0	13	0	13	1	13	3	13	1	
P.H.O.L. - Sudbury	27	3	14	0	0	0	0	0	14	1	14	0	0	0	0	1	14	1	14	6	14	0	14	0	
P.H.O.L. - Hamilton	460	157	249	0	1	0	1	0	249	3	166	0	0	0	0	4	166	9	166	14	166	29	166	2	
P.H.O.L. - Peterborough	92	31	41	0	0	0	0	0	41	3	37	0	0	0	0	1	37	1	37	1	37	2	37	0	
St. Joseph's - Hamilton	2409	291	1388	0	0	5	5	13	1388	9	1388	0	0	16	0	0	1388	33	1388	76	1388	84	0	0	
Sault Area Hospital	172	39	94	0	0	0	0	0	94	5	43	0	0	2	0	0	43	0	43	0	43	2	43	0	
Province of Ontario	14838	1804	7308	4	7	9	18	24	7308	167	5232	1	0	22	0	58	5232	100	5234	212	5234	425	3846	107	
Manitoba	1406	166	975	0	0	1	1	0	975	56	95	2	0	6	0	0	95	2	106	5	95	13	106	6	
Saskatchewan	2534	173	882	0	0	5	5	4	792	96	319	2	3	6	0	0	319	6	319	16	319	40	319	9	
Alberta	4748	391	2979	7	6	13	26	18	2728	106	1006	6	0	25	1	0	1005	15	1005	36	993	92	1006	10	
Prairies	8688	730	4836	7	6	19	32	22	4495	258	1420	10	3	37	1	0	1419	23	1430	57	1407	145	1431	25	
British Columbia	4258	505	3469	7	3	0	22	10	3265	223	629	3	0	31	0	0	629	22	629	47	599	101	599	21	
Yukon	104	14	32	0	0	0	0	1	32	5	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	30	7	22	0	0	0	0	0	22	5	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	73	6	34	0	0	0	0	6	34	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	207	27	88	0	0	0	0	7	88	12	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	22	3	N.C.	
CANADA	52076	6126	24971	18	16	100	144	124	21939	993	8494	18	3	132	1	58	8508	235	8511	358	7686	725	7092	216	

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.

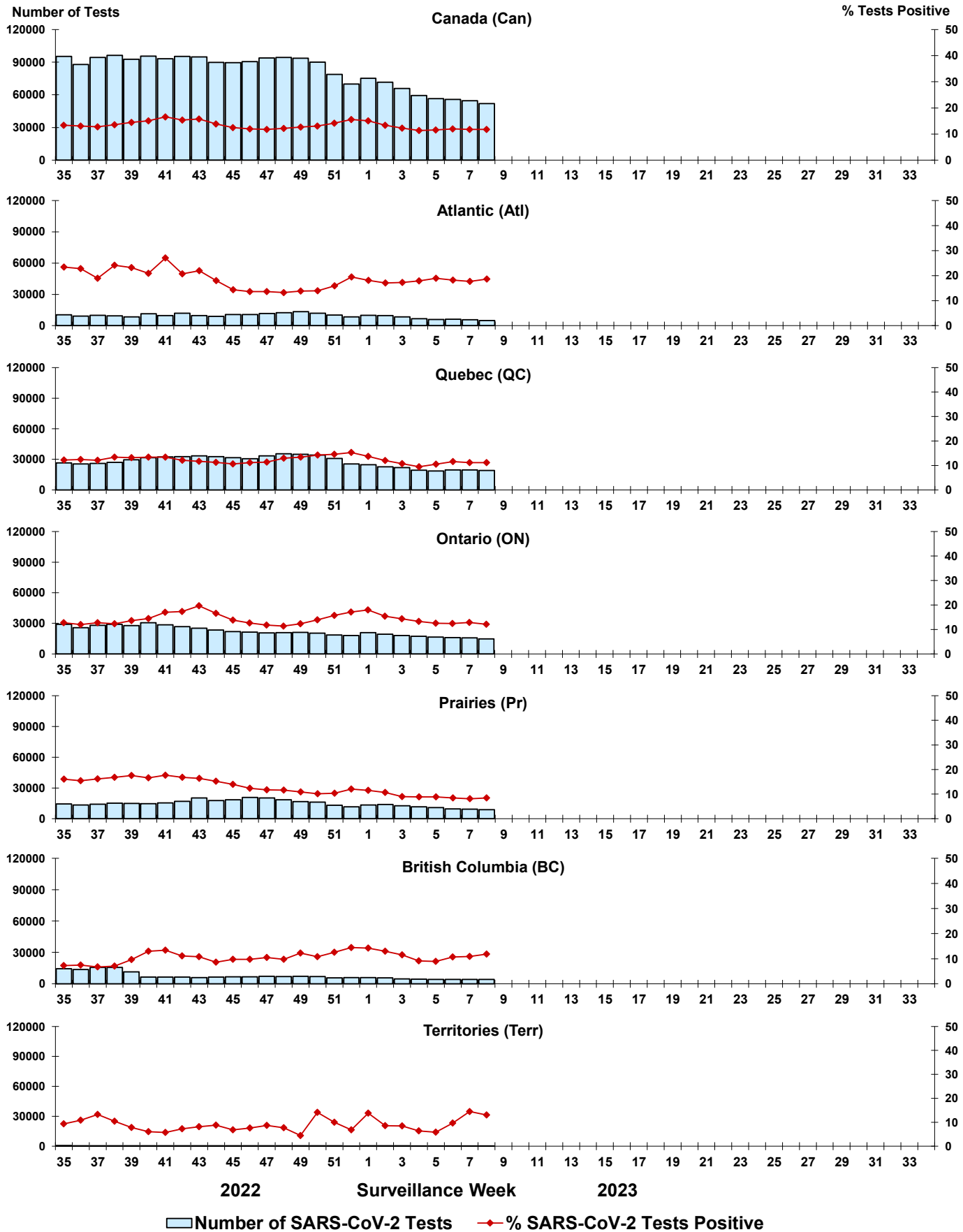
Non-SARS-CoV-2 specimens and select SARS-CoV-2 specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

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

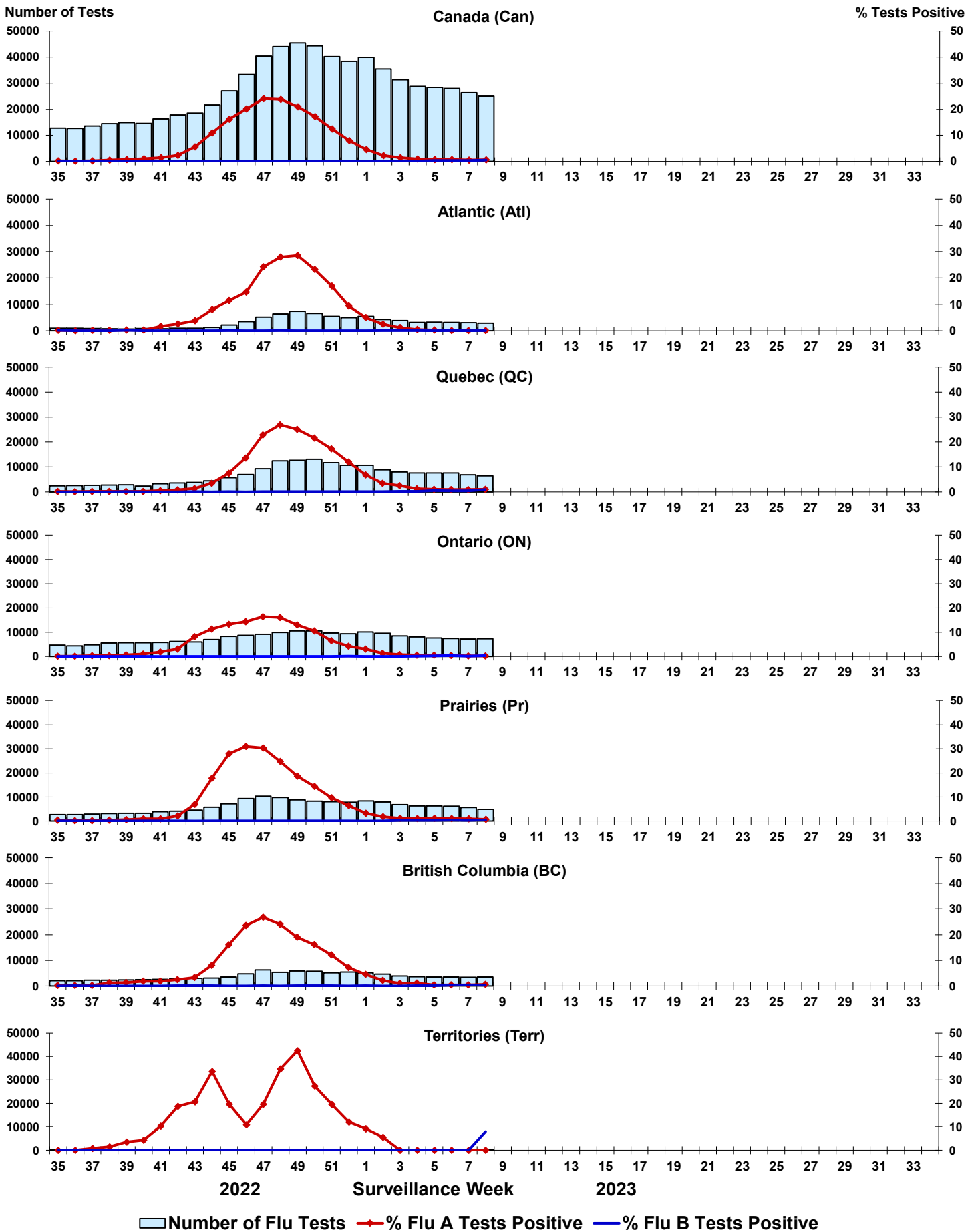


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

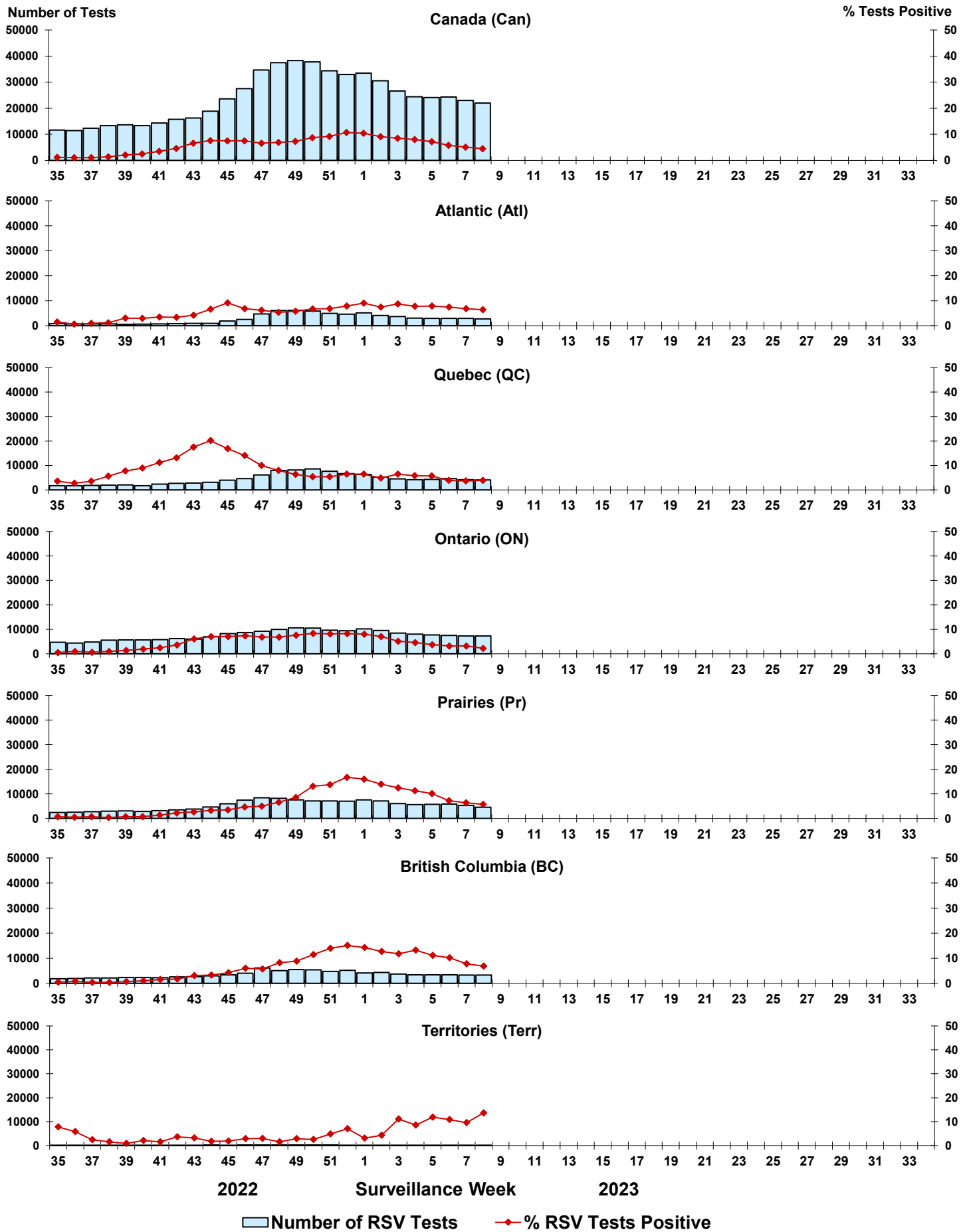


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

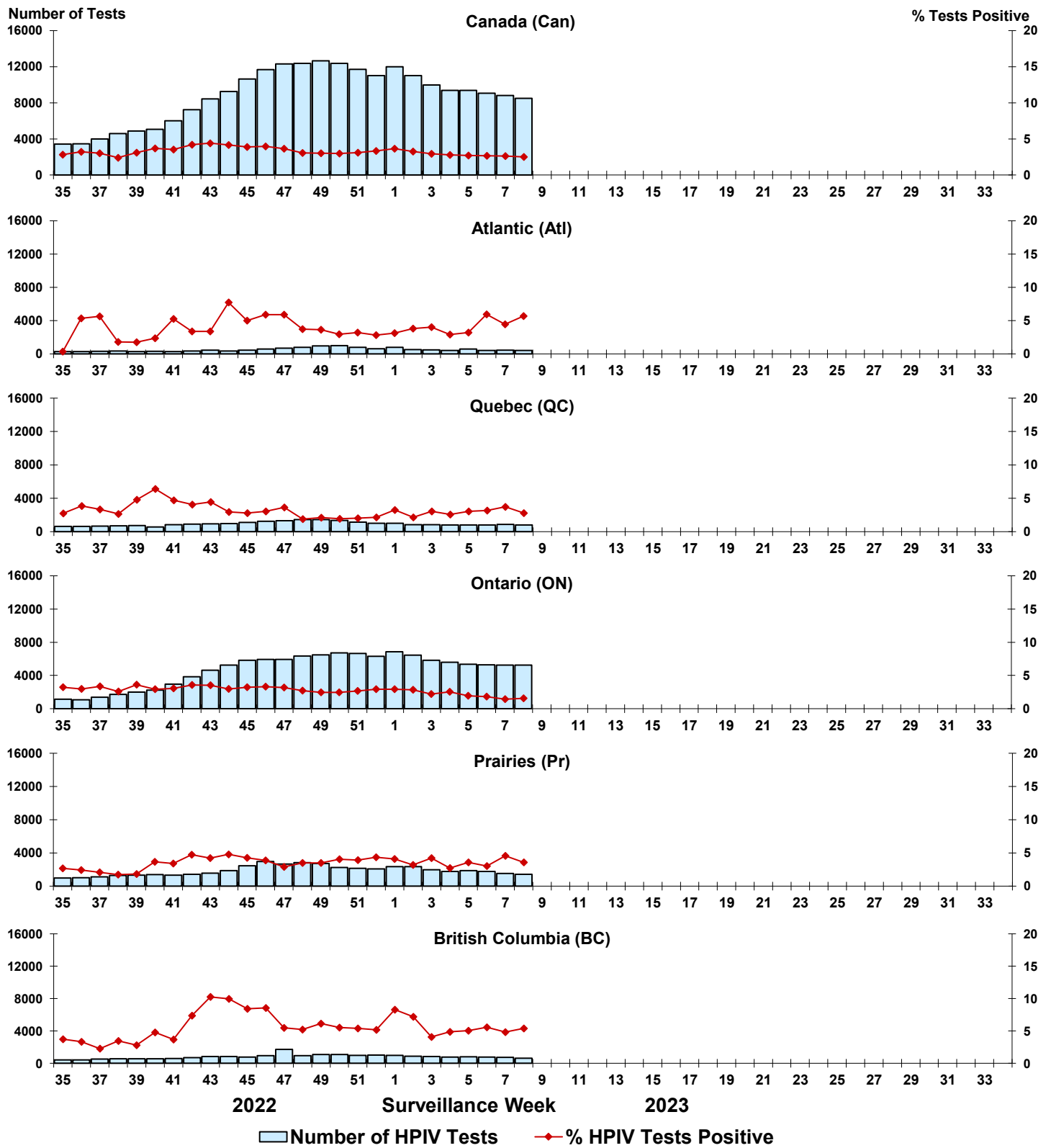


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

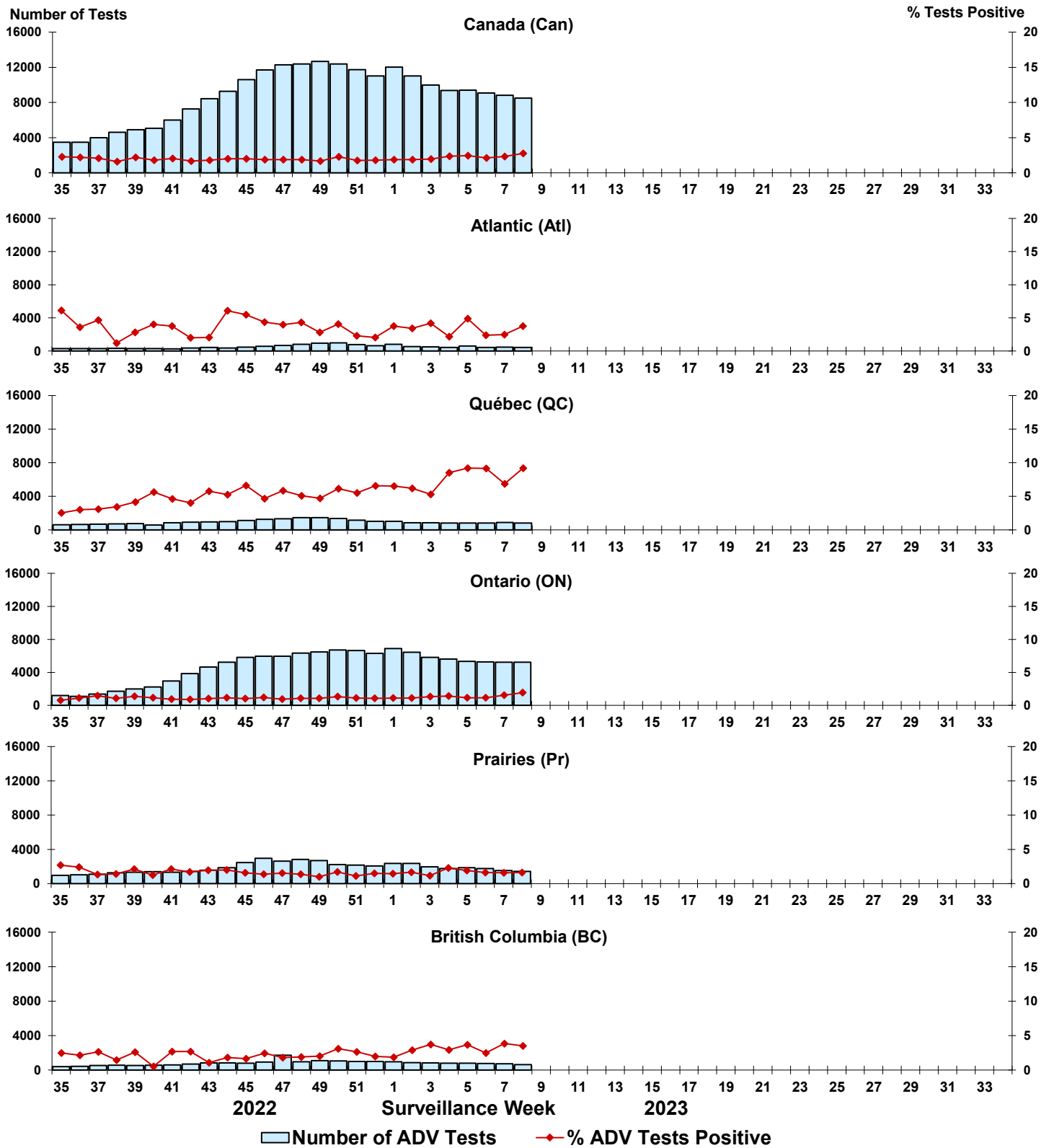


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

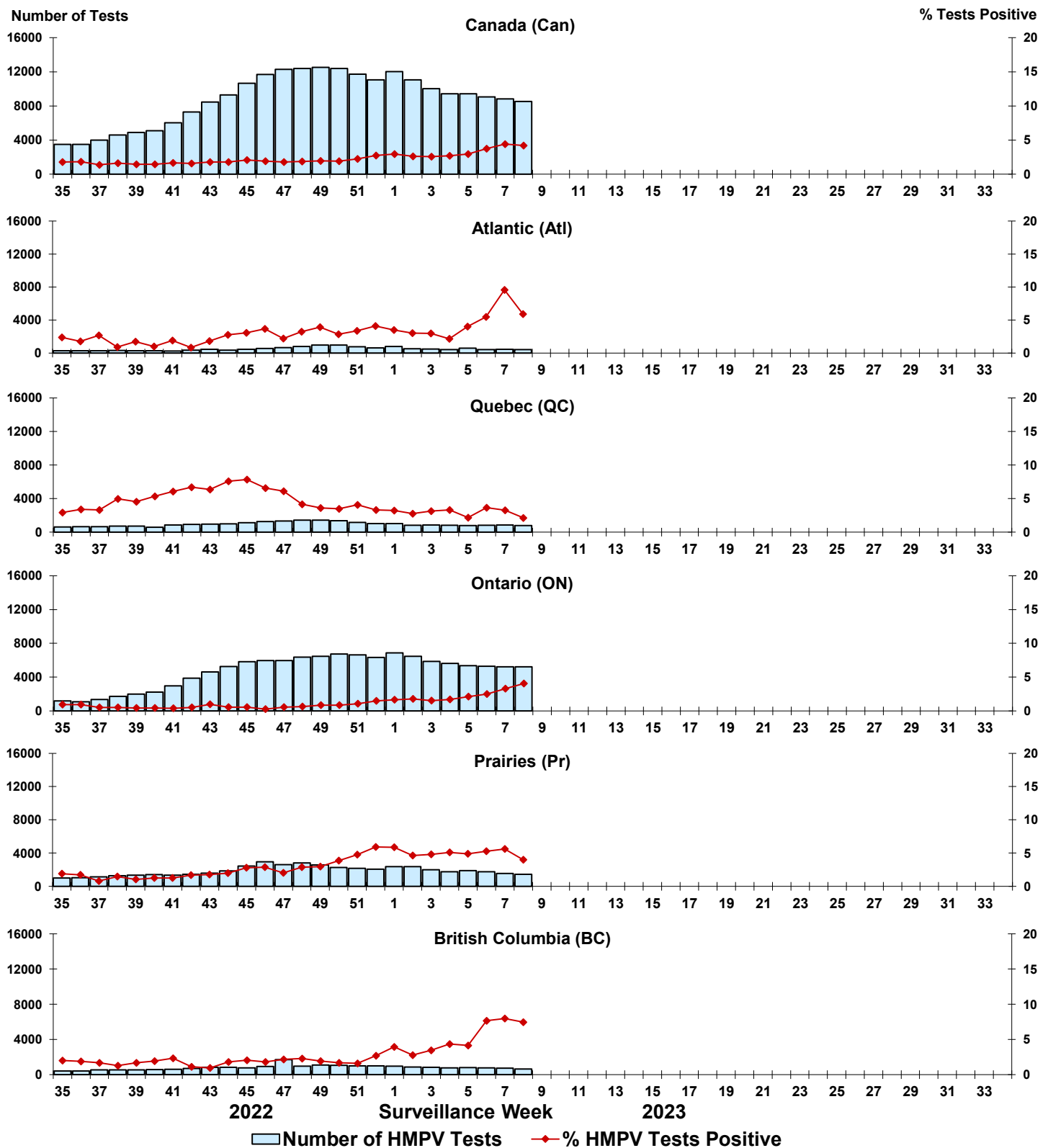


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

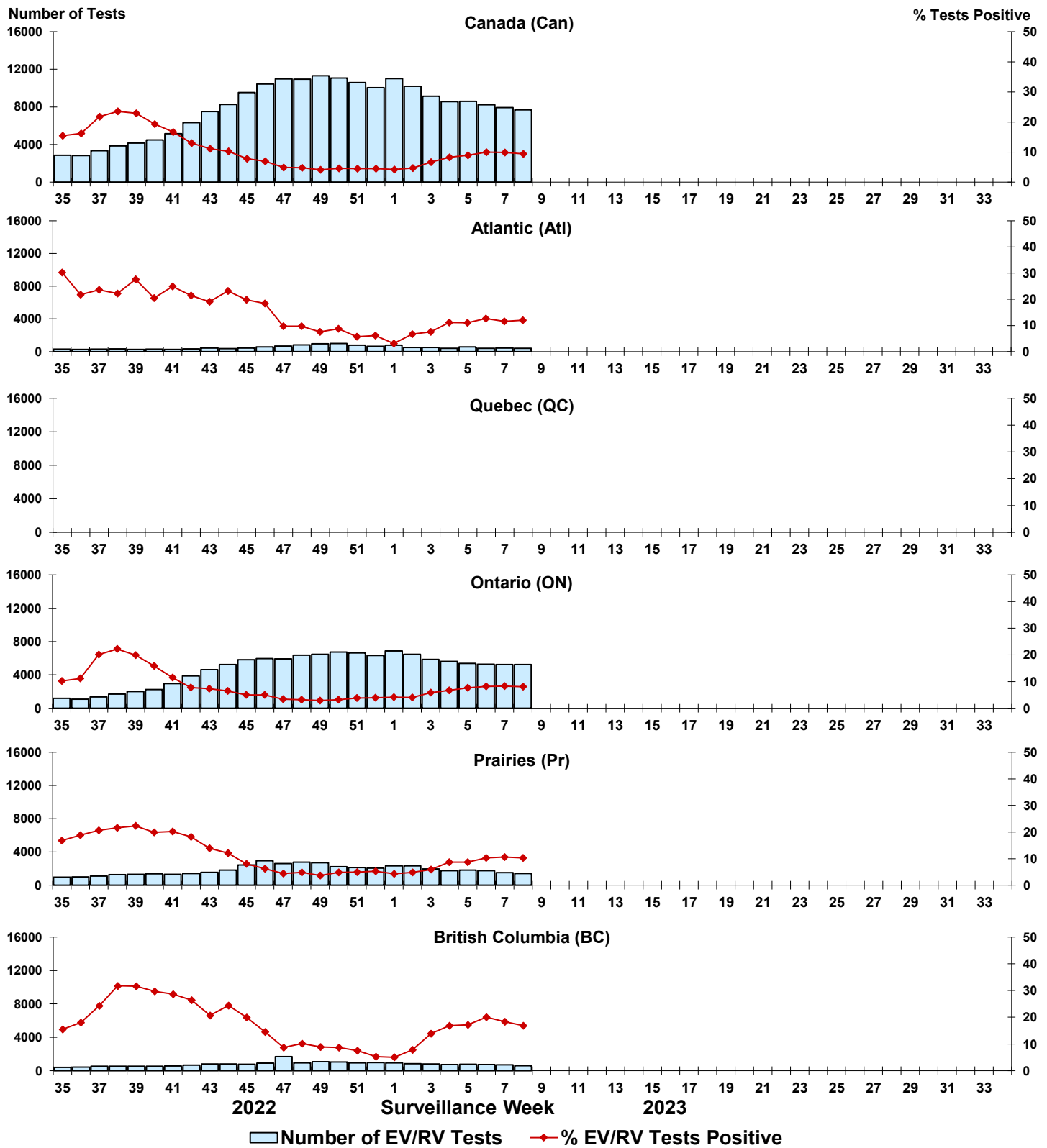


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

