

RESPIRATORY VIRUS DETECTION REPORT

April 23 to April 29, 2023
(Surveillance Week 2023-17)



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 17 (week ending April 29, 2023) in Canada, participating RVDSS laboratories reported 3,805 detections of SARS-CoV-2 from 37,889 tests (10.0% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 5,917 to 19,982 tests), activity of nearly all viruses is within or below expected levels.

- Activity of influenza remains low at inter-seasonal levels.
 - Influenza B activity remains slightly below expected levels (362 detections; 1.8% positive). Influenza A activity is lower and far below expected levels (86 detections; 0.4% positive).
- Activity of all other non-SARS-CoV-2 respiratory viruses is near 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

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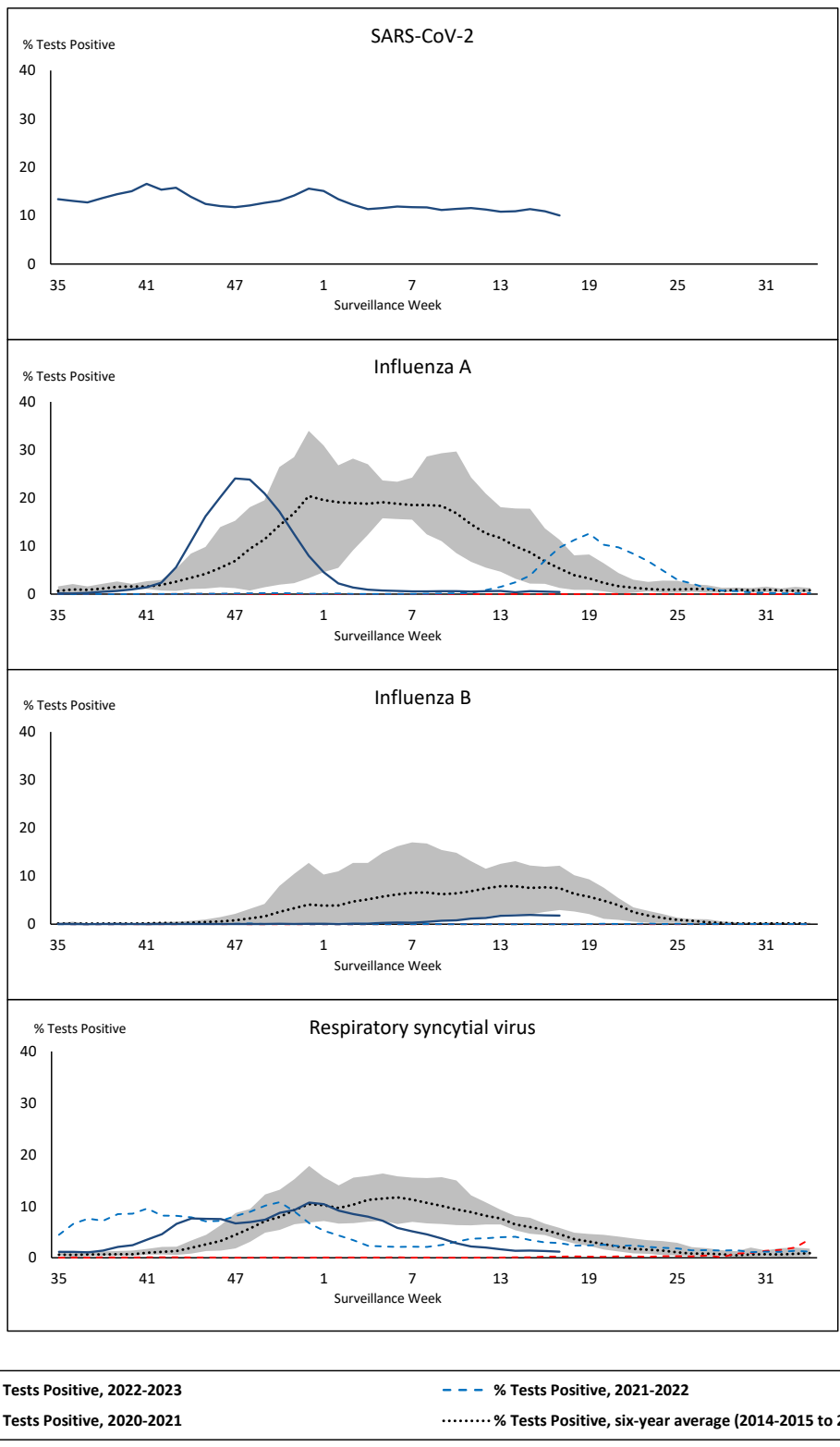


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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



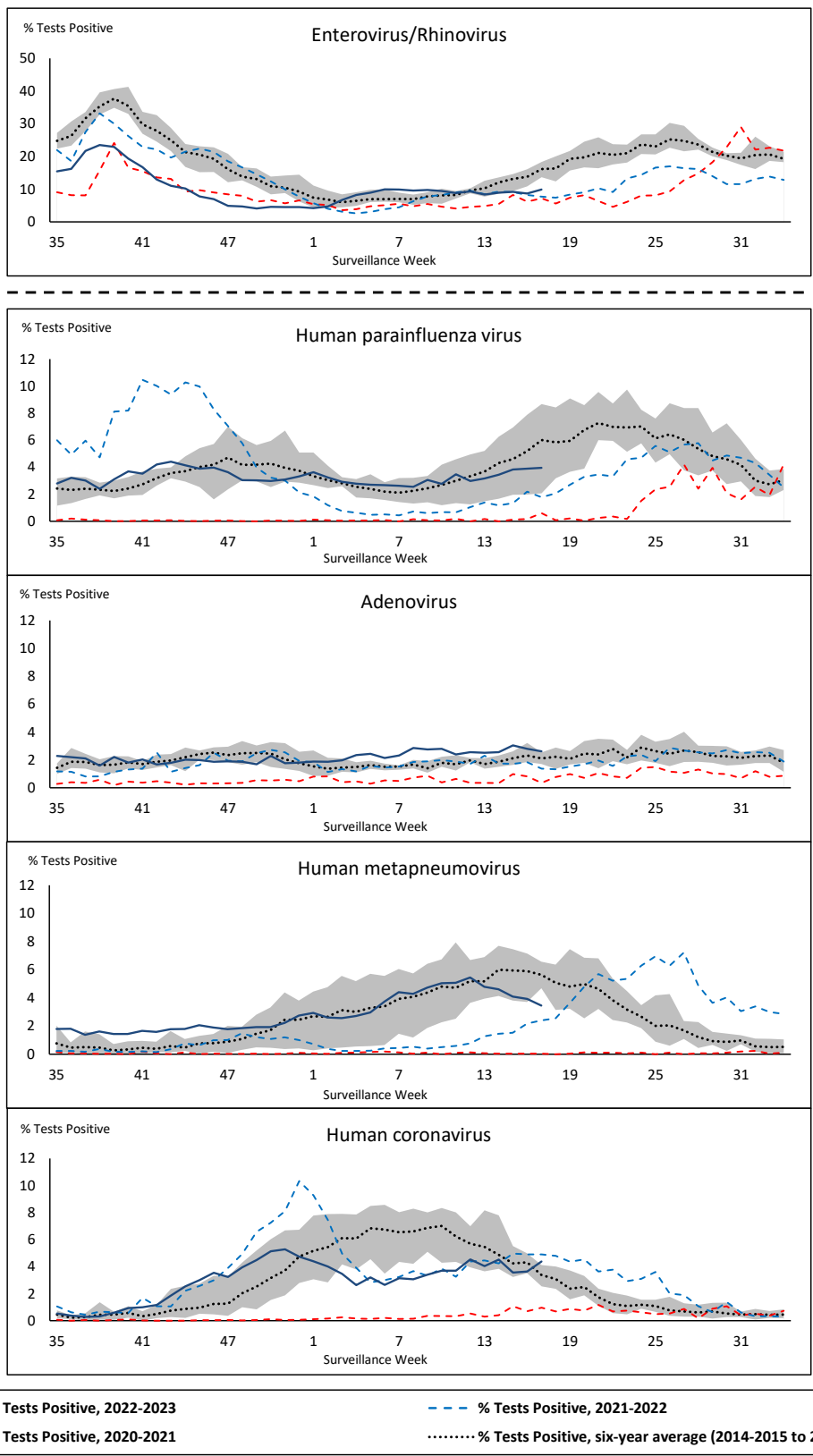
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 April 29, 2023 (surveillance week 2023-17)

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	482	46	324	0	0	0	0	1	324	24	324	7	0	18	5	0	324	7	324	10	324	37	324	28	
Prince Edward Island	172	25	57	0	0	0	0	0	57	1	4	0	0	0	0	0	4	0	4	0	4	0	4	1	
Nova Scotia	1342	210	735	0	0	4	4	0	735	8	33	0	0	0	0	0	33	1	33	5	33	11	33	1	
New Brunswick	704	84	655	1	0	0	1	2	639	3	82	2	1	3	0	0	82	6	82	2	82	19	82	5	
Atlantic	2700	365	1771	1	0	4	5	3	1755	36	443	9	1	21	5	0	443	14	443	17	443	67	443	35	
Région Nord-Est	1804	180	1305	0	0	6	6	4	272	6	58	2	0	3	0	0	58	9	58	1	N.C.	N.C.	58	5	
Québec-Chaudière-Appalaches	2771	208	497	0	0	6	6	13	480	12	173	1	0	3	1	0	181	22	173	4	N.C.	N.C.	173	5	
Centre-du-Québec	3147	420	264	0	0	2	2	11	261	13	21	0	0	3	0	0	21	0	21	1	N.C.	N.C.	21	1	
Montréal-Laval	3074	259	2410	0	0	19	19	91	1420	24	517	0	0	12	3	0	517	25	519	12	N.C.	N.C.	517	11	
Ouest du Québec	1822	140	528	0	0	2	2	24	522	8	26	1	0	1	0	0	26	0	26	1	N.C.	N.C.	26	0	
Montréal	2607	198	1002	0	0	8	8	28	818	12	3	0	0	0	0	0	3	0	3	0	N.C.	N.C.	3	0	
Province of Québec	15225	1405	6006	0	0	43	43	171	3773	75	798	4	0	22	4	0	806	56	800	19	N.C.	N.C.	798	22	
P.H.O.L. - Ottawa	262	78	105	0	0	0	0	0	105	0	78	0	0	0	0	0	78	0	78	4	78	7	78	8	
EOURLA	1582	75	350	0	0	0	0	7	350	2	21	1	0	1	0	0	21	0	21	0	21	2	21	4	
P.H.O.L. - Kingston	377	55	94	0	0	0	0	0	94	0	63	0	0	0	0	11	63	0	63	4	63	8	63	8	
UHN / Mount Sinai Hospital	1474	77	539	0	0	0	0	3	539	3	34	1	0	7	0	0	34	0	34	0	34	0	34	3	
P.H.O.L. - Toronto	410	62	676	2	0	0	1	4	676	8	631	0	0	0	0	35	631	13	631	41	631	69	631	47	
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	1495	59	1495	3	2	1	6	16	1495	4	1500	0	0	0	0	19	1500	20	1504	33	1504	73	1504	31	
P.H.O.L. - Sault Ste. Marie	16	0	3	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	0	3	0	3	0	
P.H.O.L. - Timmins	84	5	15	0	0	0	0	0	15	0	15	0	0	0	0	0	15	0	15	2	15	0	15	3	
St. Joseph's - London	1099	68	582	0	0	0	0	3	582	2	69	0	0	0	0	1	69	0	69	5	69	7	69	5	
P.H.O.L. - London	398	87	180	0	0	0	0	1	180	1	149	0	0	0	0	8	149	4	149	9	149	16	149	4	
P.H.O.L. - Orillia	3	0	21	0	0	0	0	1	21	0	21	0	0	0	0	2	21	0	21	3	21	2	21	1	
P.H.O.L. - Thunder Bay	77	7	24	0	0	0	0	0	24	0	21	0	0	0	0	1	21	0	21	2	21	6	21	0	
P.H.O.L. - Sudbury	13	0	12	0	0	0	0	0	12	1	12	0	0	0	0	0	12	0	12	3	12	0	12	0	
P.H.O.L. - Hamilton	245	52	148	0	0	0	0	1	148	0	130	0	0	0	0	7	130	5	130	9	130	16	130	6	
P.H.O.L. - Peterborough	59	13	40	0	0	0	0	2	40	0	35	0	0	0	0	1	35	0	35	2	35	5	35	0	
St. Joseph's - Hamilton	1411	67	1200	0	0	0	0	55	1200	2	1200	0	0	14	0	0	1200	25	1200	32	1200	87	0	0	
Sault Area Hospital	77	8	77	0	0	0	0	0	77	4	44	0	0	0	0	0	44	1	44	0	44	4	44	0	
Province of Ontario	9082	713	5561	5	2	1	7	93	5561	27	4026	2	0	22	0	93	4026	68	4030	149	4030	302	2830	120	
Manitoba	1325	138	1092	0	0	2	2	12	1092	15	92	1	3	1	0	0	92	1	115	5	92	26	115	4	
Saskatchewan	1839	162	649	0	0	9	9	6	553	5	247	9	7	3	7	0	246	6	246	6	246	33	247	14	
Alberta	3917	361	2550	10	0	5	15	58	2418	6	907	8	2	11	9	0	906	11	906	16	890	103	907	33	
Prairies	7081	661	4291	10	0	16	26	76	4063	26	1246	18	12	15	16	0	1244	18	1267	27	1228	162	1269	51	
British Columbia	3629	656	2233	3	0	0	4	7	2067	34	597	10	3	23	1	0	597	30	597	34	577	87	577	31	
Yukon	42	3	19	0	0	0	0	0	19	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	18	0	15	0	0	0	0	0	15	0	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	15	3	N.C.	N.C.
Nunavut	112	2	86	1	0	0	1	12	86	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.	
Territories	172	5	120	1	0	0	1	12	120	6	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	15	3	N.C.	N.C.	
CANADA	37889	3805	19982	20	2	64	86	362	17339	204	7110	43	16	103	26	93	7116	186	7137	246	6293	621	5917	259	

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.

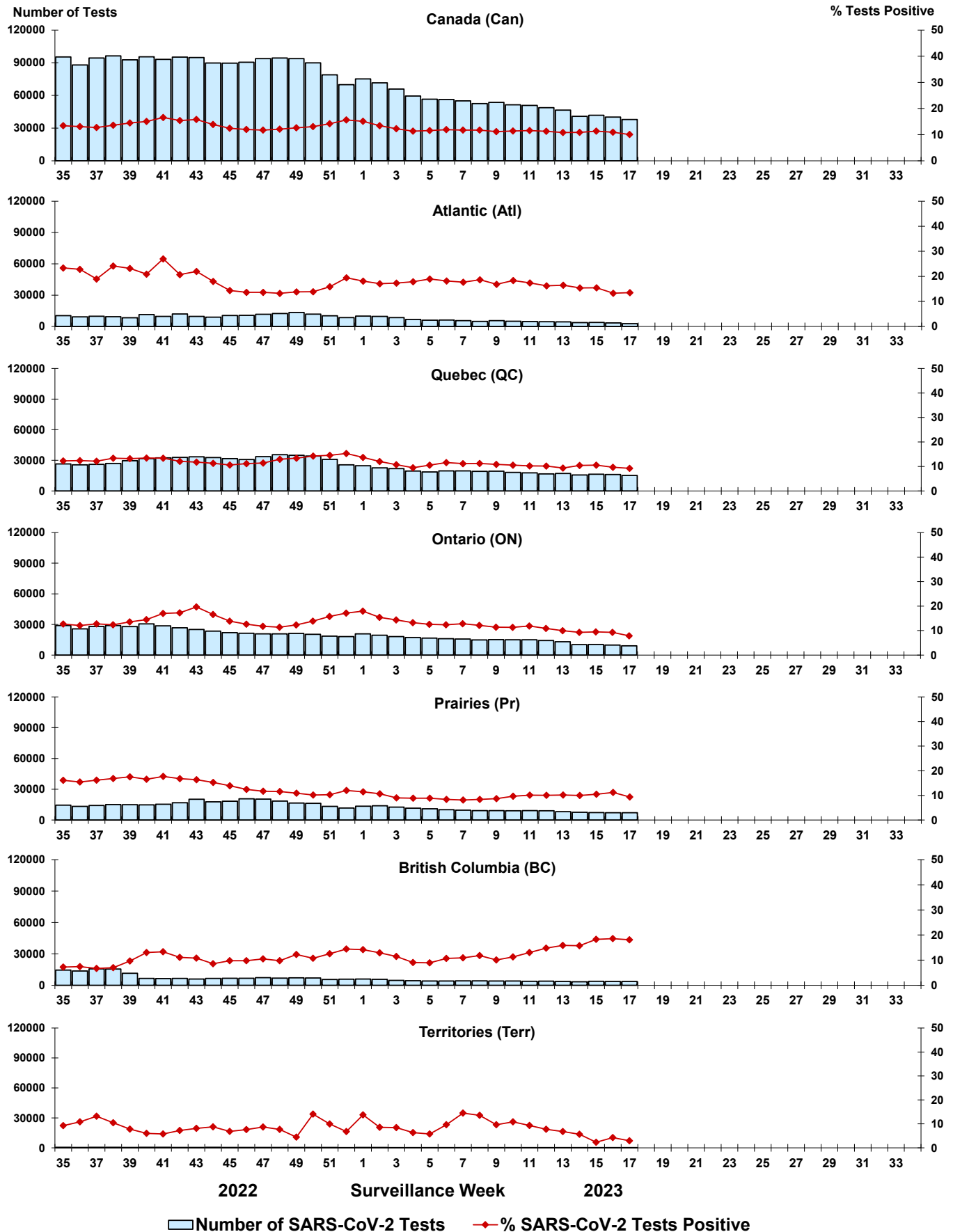
Some specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

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

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

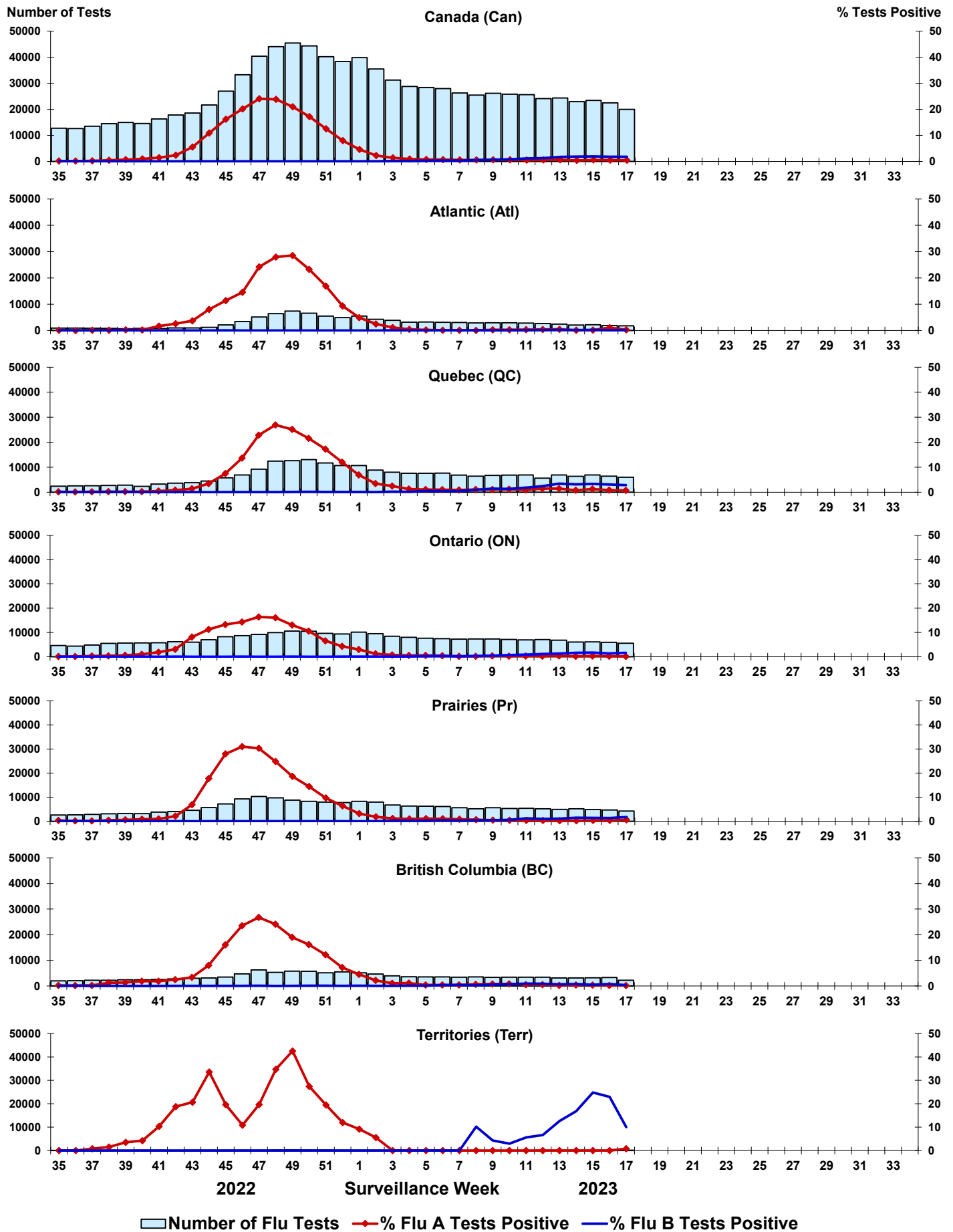


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

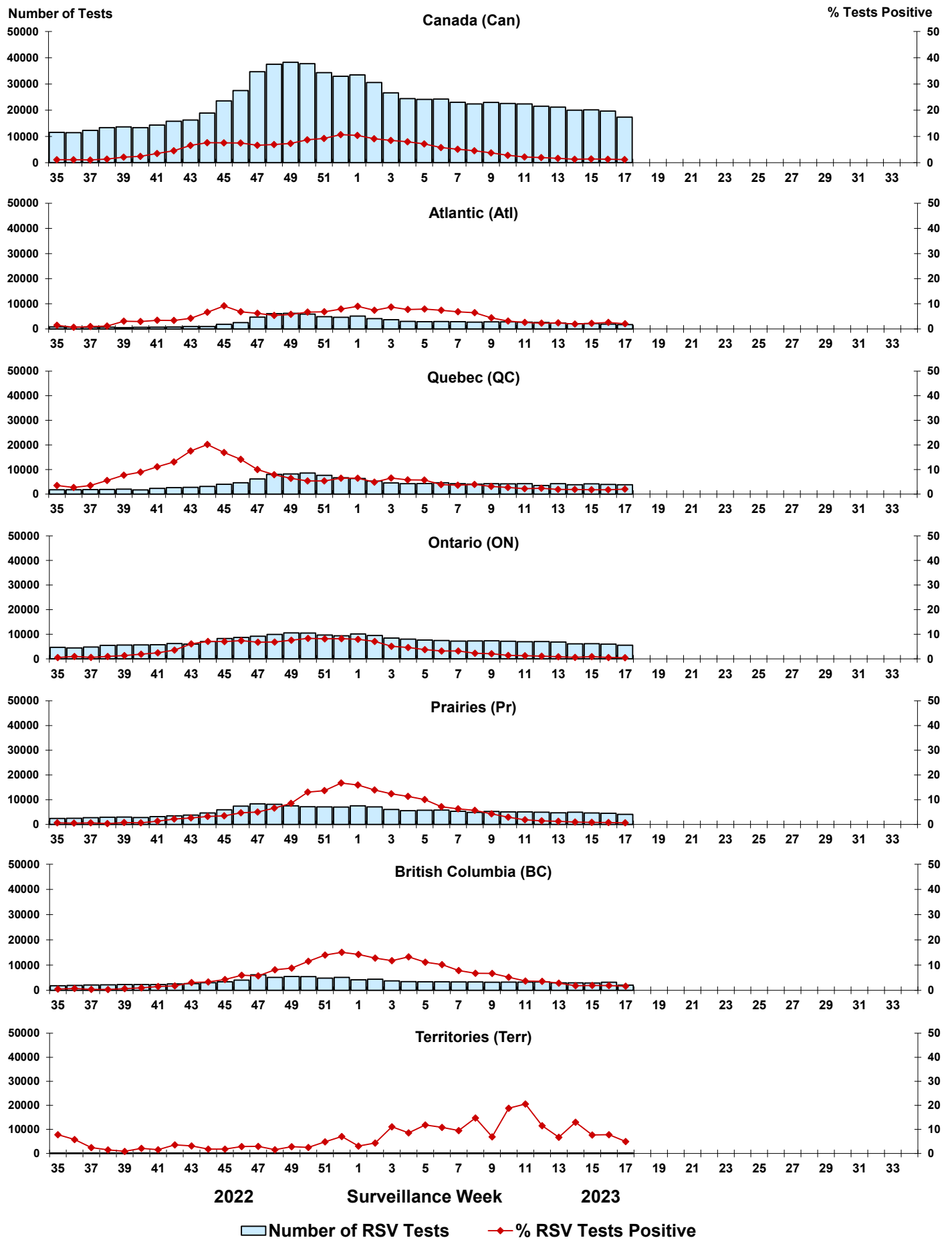


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

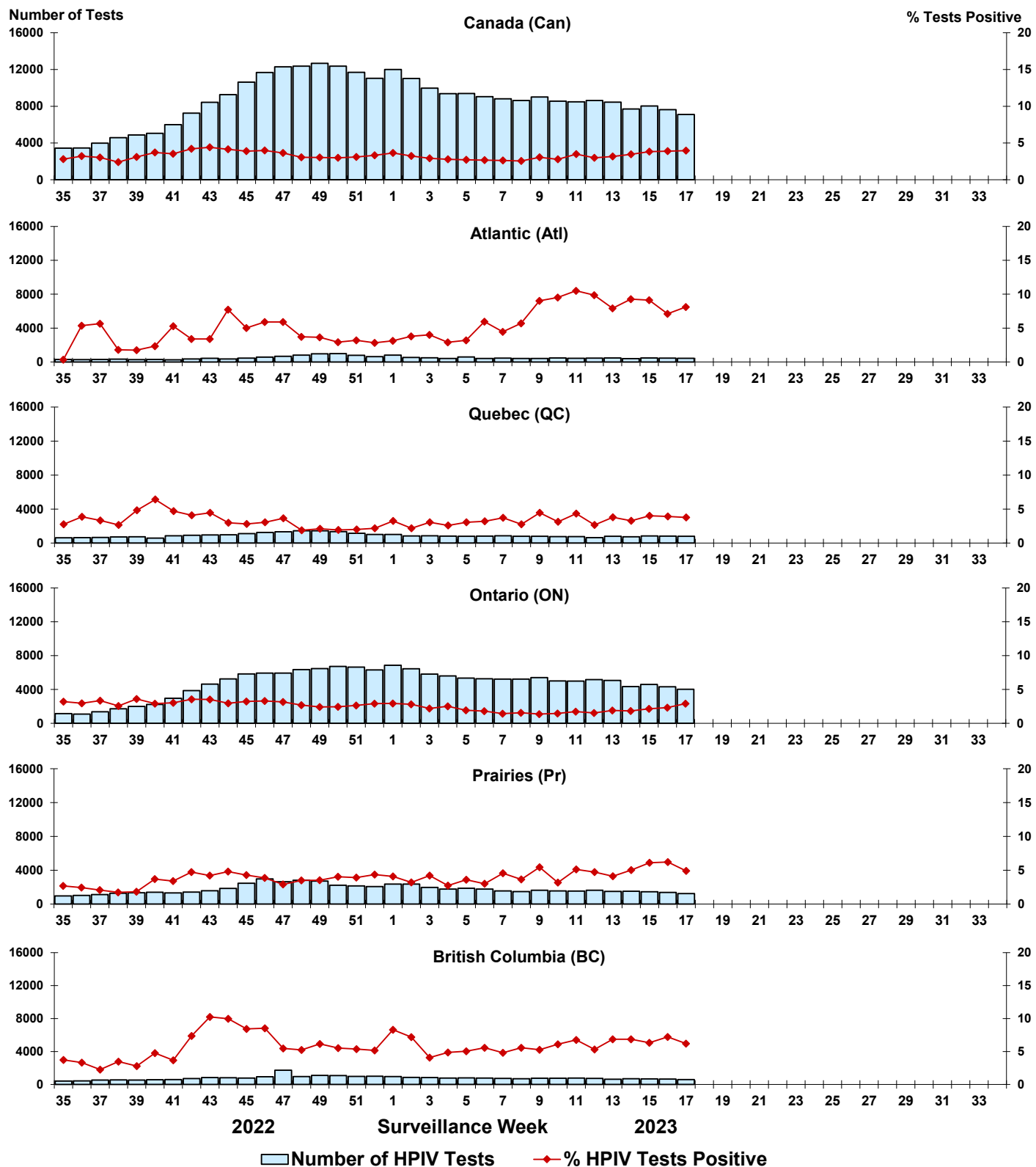


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

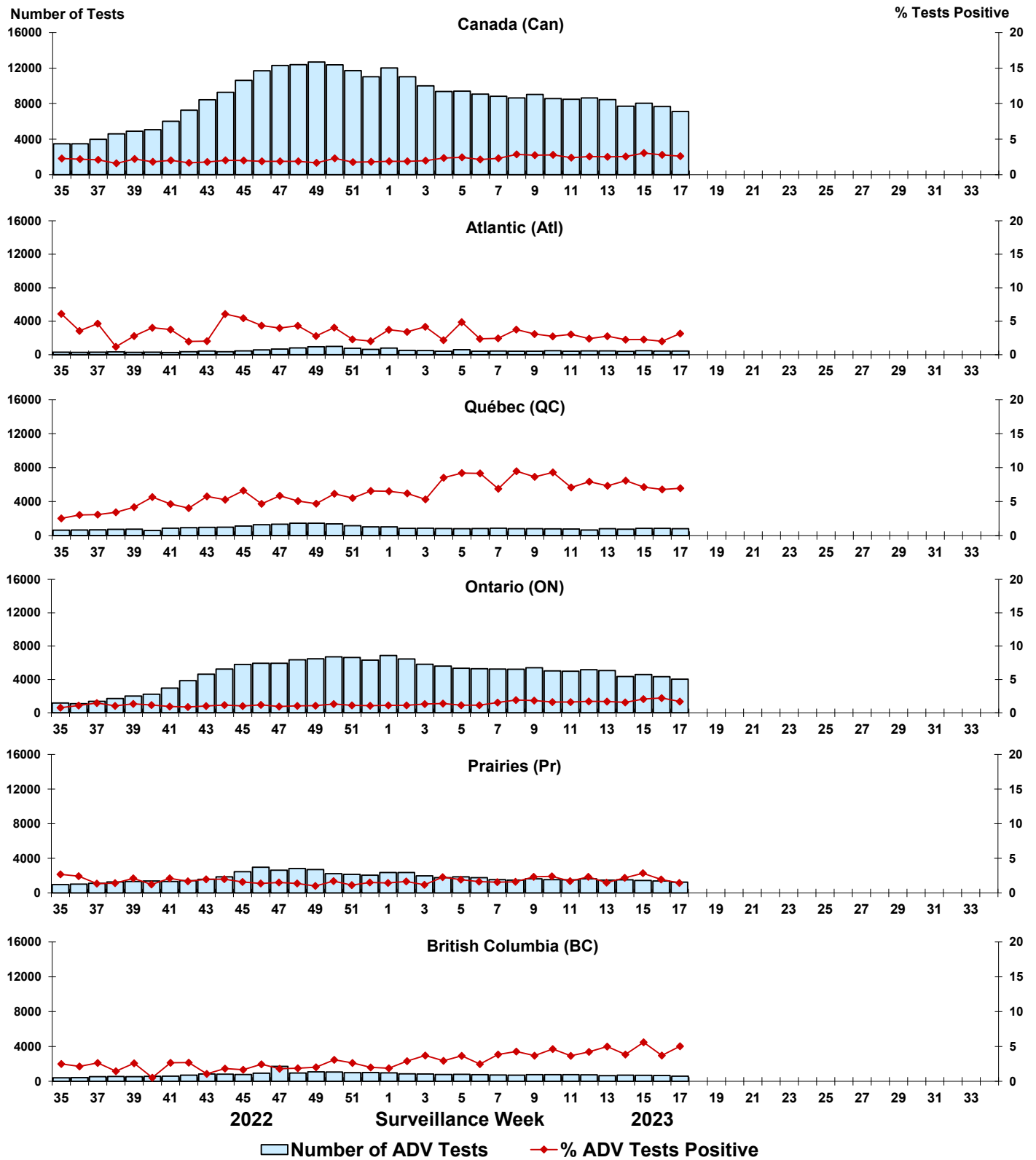


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

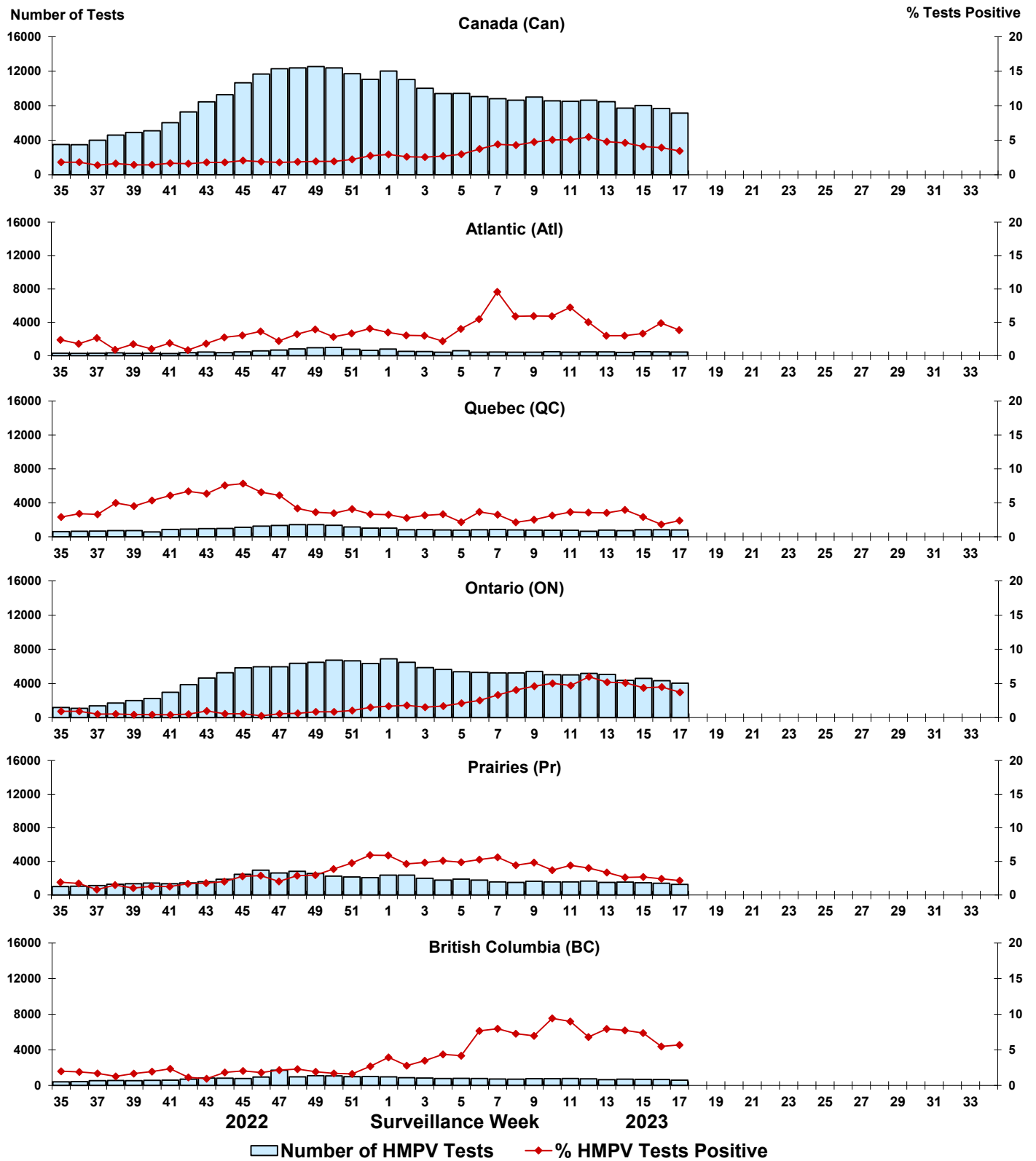


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

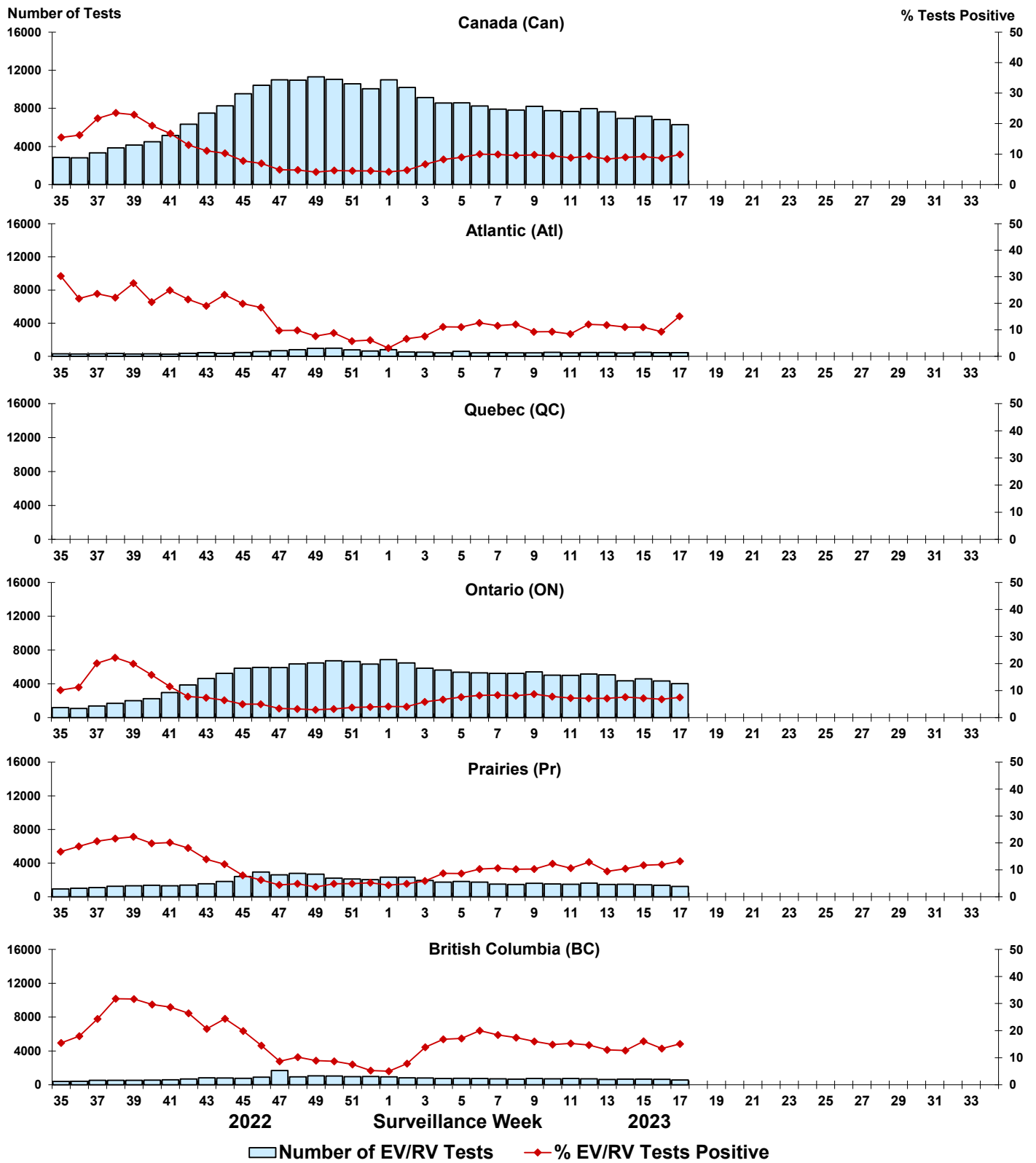


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

