

RESPIRATORY VIRUS DETECTION REPORT

July 24 to July 30, 2022
(Surveillance Week 2022-30)



In this Respiratory Virus Report, the number of detections of coronavirus reflects only seasonal human coronaviruses, not the novel pandemic coronavirus (SARS-CoV-2) that causes COVID-19. For information on COVID-19, see the [Coronavirus disease \(COVID-19\): Outbreak update](#).

Overall Summary

Weekly respiratory virus detections have steadily decreased since mid-May.

- Influenza activity is at interseasonal levels, with only 40 detections (38 influenza A, 2 influenza B) reported in week 30 (week ending July 30, 2022).
- Enterovirus/Rhinovirus remains the most common seasonal respiratory virus detected in Canada (239 detections; 11.0% positive). Activity remains slightly below expected levels for this time of year.
- Activity of most other respiratory viruses is near expected levels.
 - With the exception of human metapneumovirus, where activity has fluctuated in recent weeks but is above expected levels for this time of year (103 detections; 3.7% positive).
- The number of tests performed for all viruses was above expected levels.
- 30/34 sentinel laboratories reported surveillance data.

Abbreviations

Flu: Influenza

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

Flu A(H3): Influenza A(H3N2)

Flu A (UnS): Influenza A(Unsubtyped)

RSV: Respiratory syncytial virus

HPIV: Human parainfluenza virus

HMPV: Human metapneumovirus

ADV: Adenovirus

EV/RV: Enterovirus/Rhinovirus

HCoV: Human coronavirus

Atl: Atlantic Canada

BC: British Columbia

Can: Canada

EORLA: Eastern Ontario Regional Laboratory Association

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

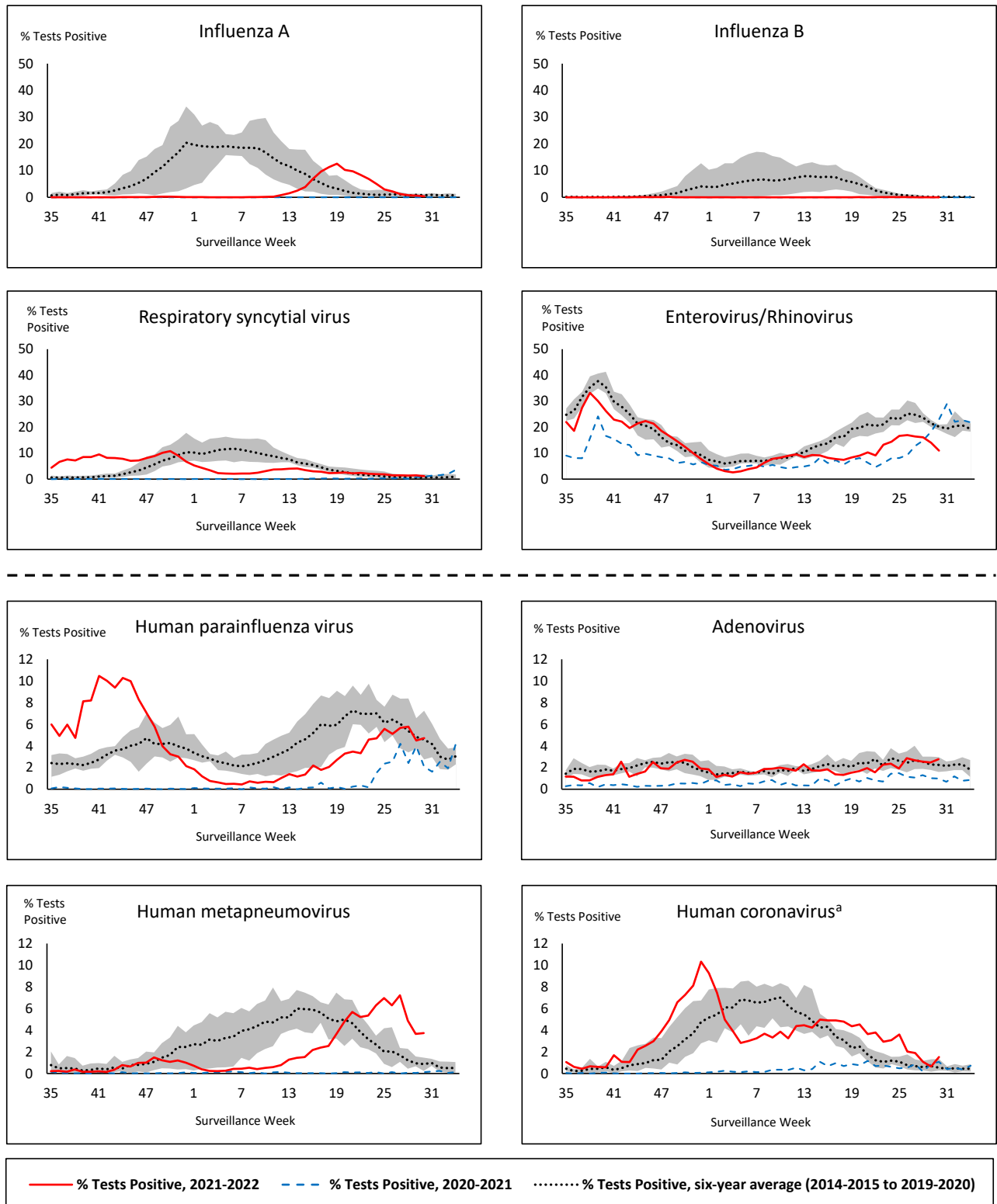
QC: Quebec

Terr: Territories of Canada

UHN: University Health Network



Figure 1: Positive respiratory 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: 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

^a Human coronavirus excludes human coronaviruses SARS-CoV, MERS-CoV and SARS-CoV-2; Includes seasonal human coronaviruses HCoV-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1.

Table 1: Respiratory virus detections for the week ending July 30, 2022 (surveillance week 2022-30)

Reporting Laboratory	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	173	0	0	1	1	0	173	1	173	0	2	0	1	0	173	3	173	6	173	8	173	1	
Prince Edward Island	32	0	0	0	0	0	32	1	32	0	0	1	3	0	32	1	32	2	32	7	32	0	
Nova Scotia	508	0	0	3	3	0	508	4	44	1	0	0	0	0	44	1	44	4	44	7	44	0	
New Brunswick	275	0	0	0	0	0	244	6	35	0	0	5	0	0	35	1	35	0	35	5	35	3	
Atlantic	988	0	0	4	4	0	957	12	284	1	2	6	4	0	284	6	284	12	284	27	284	4	
Région Nord-Est	417	0	0	0	0	0	167	4	11	0	0	1	0	0	11	1	11	0	N.C.	N.C.	11	0	
Québec-Chaudière-Appalaches	309	0	0	3	3	1	309	3	20	0	0	1	0	0	218	6	214	2	N.C.	N.C.	93	1	
Centre-du-Québec	354	0	0	2	2	0	273	1	30	2	0	3	1	0	30	0	30	2	N.C.	N.C.	30	0	
Montréal-Laval	1080	0	0	3	3	0	1001	17	302	3	5	14	1	0	302	11	302	16	N.C.	N.C.	320	3	
Ouest du Québec	186	0	0	1	1	0	186	1	15	1	0	0	0	0	15	0	15	0	N.C.	N.C.	15	0	
Montérégie	375	0	0	0	0	0	127	4	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0	
Province of Québec	2721	0	0	9	9	1	2063	30	378	6	5	19	2	0	576	18	572	20	N.C.	N.C.	469	4	
P.H.O.L. - Ottawa	48	0	0	0	0	0	48	0	48	0	0	0	0	3	48	0	48	3	48	5	48	2	
EORLA	189	0	0	1	1	0	189	4	33	0	0	1	0	0	33	0	33	3	33	8	33	1	
P.H.O.L. - Kingston	26	0	0	0	0	0	26	1	26	0	0	0	0	1	26	1	26	6	26	7	26	0	
UHN / Mount Sinai 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.
P.H.O.L. - Toronto	260	0	6	0	2	0	260	2	260	0	0	0	0	3	260	7	260	13	260	17	260	1	
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.
Sunnybrook & Women's College HSC	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.
P.H.O.L. - Sault Ste. Marie	6	0	0	0	0	0	6	0	6	0	0	0	0	0	6	0	6	0	6	1	6	0	
P.H.O.L. - Timmins	5	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	2	5	0	5	0	
St. Joseph's - London	74	0	0	0	0	0	74	2	74	0	0	0	0	2	74	3	74	4	74	8	74	0	
P.H.O.L. - London	46	0	0	0	0	0	46	0	46	0	0	0	0	3	46	0	46	1	46	2	46	0	
P.H.O.L. - Orillia	18	0	1	0	1	0	18	0	18	0	0	0	0	0	18	3	18	3	18	5	18	0	
P.H.O.L. - Thunder Bay	2	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	0	2	0	2	0	
P.H.O.L. - Sudbury	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. - Hamilton	51	0	0	0	0	0	51	0	51	0	0	0	0	1	51	0	51	1	51	8	51	1	
P.H.O.L. - Peterborough	9	0	0	0	0	0	9	2	9	0	0	0	0	0	9	0	9	3	9	1	9	0	
St. Joseph's - Hamilton	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.
Province of Ontario	739	0	7	1	4	0	739	11	583	0	0	1	0	13	583	14	583	39	583	62	515	5	
Province of Manitoba	457	0	0	0	0	0	457	13	106	0	1	3	2	0	106	1	121	7	106	23	121	4	
Province of Saskatchewan	304	0	0	2	2	0	304	2	143	0	0	4	3	0	143	3	143	15	143	25	143	0	
Province of Alberta	1727	0	3	5	8	0	1528	11	720	0	7	30	3	0	720	22	720	3	703	55	720	5	
Prairies	2488	0	3	7	10	0	2289	26	969	0	8	37	8	0	969	26	984	25	952	103	984	9	
British Columbia	2454	0	6	0	11	1	2326	15	319	0	0	6	1	1	319	11	319	7	311	30	311	17	
Yukon	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.	N.C.	N.C.	N.C.	
Northwest Territories	43	0	0	0	0	0	43	2	6	0	0	0	0	0	6	0	6	0	40	14	6	0	
Nunavut	120	0	0	0	0	0	120	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	168	0	0	0	0	0	168	4	11	0	0	0	0	0	11	1	11	0	45	17	11	0	
CANADA	9558	0	16	21	38	2	8542	98	2544	7	15	69	15	14	2742	76	2753	103	2175	239	2574	39	

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.

The reporting laboratory previously listed as CHEO - Ottawa is now listed as EORLA to better reflect data submitted by this provider.

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: BC Children's and Women's Hospital, Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital, St. Paul's Hospital, Vancouver General Hospital, Victoria General Hospital, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites.

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

For British Columbia, only data from subtyped influenza A specimens are included in the weekly number of influenza detections. The sum of A(H1N1)pdm09, A(H3), and A(UnS) positive results may not equal the sum of total Flu A positive results.

Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts, as some subtype detections are not available through routine testing but are subsequently reported if further subtype testing is conducted. In these instances, subtype counts do not reflect influenza A detections intended to be captured by routine surveillance, and are excluded from total detections and percent positivity.

Table 2: Cumulative respiratory virus detections from August 29, 2021 to July 30, 2022 (surveillance week 2021-35 to 2022-30)

Reporting Laboratory	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	15279	0	0	327	327	0	15277	231	15280	1	32	116	1	314	15287	56	15274	97	15341	2154	1061	21
Prince Edward Island	2705	0	48	17	65	0	2705	262	2660	1	1	160	31	1	2705	74	2705	107	2705	634	2705	140
Nova Scotia	25746	0	2	420	422	8	25750	410	1956	1	4	43	31	0	1976	26	1976	59	1976	178	1976	48
New Brunswick	20416	0	111	384	495	0	12929	363	3564	1	10	45	29	0	3557	50	3564	47	3564	148	3473	22
Atlantic	64146	0	161	1148	1309	8	56661	1266	23460	4	47	364	92	315	23525	206	23519	310	23586	3114	9215	231
Région Nord-Est	36358	45	1	2193	2239	27	16412	1481	836	2	1	13	1	0	927	19	440	16	N.C.	N.C.	1271	24
Québec-Chaudière-Appalaches	14522	0	0	1432	1432	57	15592	1016	1852	1	18	16	19	0	5394	148	5287	136	N.C.	N.C.	3157	115
Centre-du-Québec	14818	0	3	1291	1294	11	13140	1107	1491	6	8	33	4	0	1491	43	1499	29	N.C.	N.C.	1484	31
Montréal-Laval	39271	0	5	1561	1566	10	33229	2533	10697	30	95	145	11	0	10696	592	10694	442	N.C.	N.C.	11035	263
Ouest du Québec	8985	0	6	654	660	0	8927	945	326	2	8	8	7	0	319	26	315	16	N.C.	N.C.	315	6
Montréal	6975	0	0	319	319	1	5684	402	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	120929	45	15	7450	7510	106	92984	7484	15202	41	130	215	42	0	18827	828	18235	639	N.C.	N.C.	17262	439
P.H.O.L. - Ottawa	7218	2	81	1	84	0	7218	1442	7218	0	0	0	0	749	7218	313	7216	58	7218	2264	7216	298
EORLA	9092	0	0	176	176	0	9067	664	1363	0	3	30	13	0	1363	27	1044	34	1363	220	1021	33
P.H.O.L. - Kingston	1729	0	220	0	9	0	1736	148	1733	0	0	0	0	145	1734	31	1715	42	1733	391	1715	101
UHN / Mount Sinai Hospital	21945	0	0	57	57	5	21946	122	723	0	0	0	0	0	723	1	723	2	723	20	723	13
P.H.O.L. - Toronto	12221	2	394	2	130	0	12207	307	12207	0	0	0	0	448	12213	183	12197	245	12207	1344	12198	497
Sick Kids Hospital - Toronto	839	0	0	0	0	0	0	0	839	0	2	68	1	0	839	12	839	1	839	233	839	10
Sunnybrook & Women's College HSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P.H.O.L. - Sault Ste. Marie	380	0	4	1	4	0	379	12	379	0	0	0	0	9	379	4	379	2	379	63	379	23
P.H.O.L. - Timmins	547	0	17	0	10	0	547	28	547	0	0	0	0	23	547	1	546	8	547	42	546	33
St. Joseph's - London	13359	0	0	73	73	0	13362	791	11805	0	0	7	0	99	11805	161	11805	117	11759	676	573	4
P.H.O.L. - London	4238	0	57	11	60	0	4237	469	4237	0	0	0	0	197	4237	99	4234	112	4237	537	4234	303
P.H.O.L. - Orillia	1153	0	9	1	10	0	1153	153	1153	0	0	0	0	75	1153	43	1150	75	1153	287	1150	81
P.H.O.L. - Thunder Bay	378	0	6	0	5	0	378	27	378	0	0	0	0	25	378	1	378	12	378	64	378	37
P.H.O.L. - Sudbury	397	0	6	0	6	0	397	12	397	0	0	0	0	12	397	2	397	7	397	37	397	14
P.H.O.L. - Hamilton	2247	0	25	2	23	0	2242	79	2242	0	0	0	0	78	2243	24	2242	60	2242	294	2242	118
P.H.O.L. - Peterborough	722	0	2	0	2	0	722	62	715	0	0	0	0	19	715	7	712	12	715	120	712	45
St. Joseph's - Hamilton	24329	0	4	237	241	1	24323	1651	24323	5	0	663	0	0	24323	234	24323	263	24323	2098	0	0
Province of Ontario	100794	4	825	561	890	6	99914	5967	70259	5	5	768	14	1879	70267	1143	69900	1050	70213	8690	34323	1610
Manitoba	58788	1	86	487	574	0	58788	1450	4008	3	16	84	34	0	4008	75	5457	72	4008	540	5263	106
Province of Saskatchewan	31414	2	482	294	778	0	31379	1764	6658	1	20	228	108	0	6658	140	6658	178	6658	1033	6647	314
Province of Alberta	96155	9	1829	854	2692	3	75010	3707	39410	8	184	954	274	0	39400	452	39385	632	38975	4519	39410	1565
Prairies	186357	12	2397	1635	4044	3	165177	6921	50076	12	220	1266	416	0	50066	667	51500	882	49641	6092	51320	1985
British Columbia	215921	15	968	7	1434	94	210632	9474	29877	13	40	1153	348	192	29877	620	29873	720	29296	4579	29314	1015
Yukon	5489	1	5	2	14	7	5498	308	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	2141	0	206	1	207	0	2101	225	137	0	1	3	0	0	137	3	137	0	2050	264	137	1
Nunavut	16832	0	403	7	410	0	16830	431	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	24462	1	614	10	631	7	24429	964	198	0	1	7	0	0	198	7	198	0	2111	280	181	2
CANADA	712609	77	4980	10811	15818	224	649797	32076	189072	75	443	3773	912	2386	192760	3471	193225	3601	174847	22755	141615	5282

The data in the RVDSS report represent surveillance data available at the time of writing. Data not collected by reporting lab denoted by N.C.

Note: Included in the cumulative detections this season are 11 co-infections of influenza A and B (total of 22 detections) that are suspected to be associated with recent live attenuated influenza vaccine (LAIV) receipt. Co-infections known or reported to be associated with recent LAIV are removed by the submitting laboratory or by PHAC beginning in week 44 as they do not represent community transmission of seasonal influenza viruses.

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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: BC Children's and Women's Hospital, Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital , St. Paul's Hospital , Vancouver General Hospital, Victoria General Hospital, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites.

Delays in the reporting of data may cause data to change retrospectively. Due to these delays, the sum of weekly report totals do not add up to cumulative totals.

For British Columbia, only data from subtyped influenza A specimens are included in the weekly number of influenza detections. The sum of A(H1N1)pdm09, A(H3), and A(UnS) positive results may not equal the sum of total Flu A positive results.

Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts, as some subtype detections are not available through routine testing but are subsequently reported if further subtype testing is conducted. In these instances, subtype counts do not reflect influenza A detections intended to be captured by routine surveillance, and are excluded from total detections and percent positivity.

Figure 2: Number of positive respiratory virus tests reported by participating laboratories in Canada by surveillance week

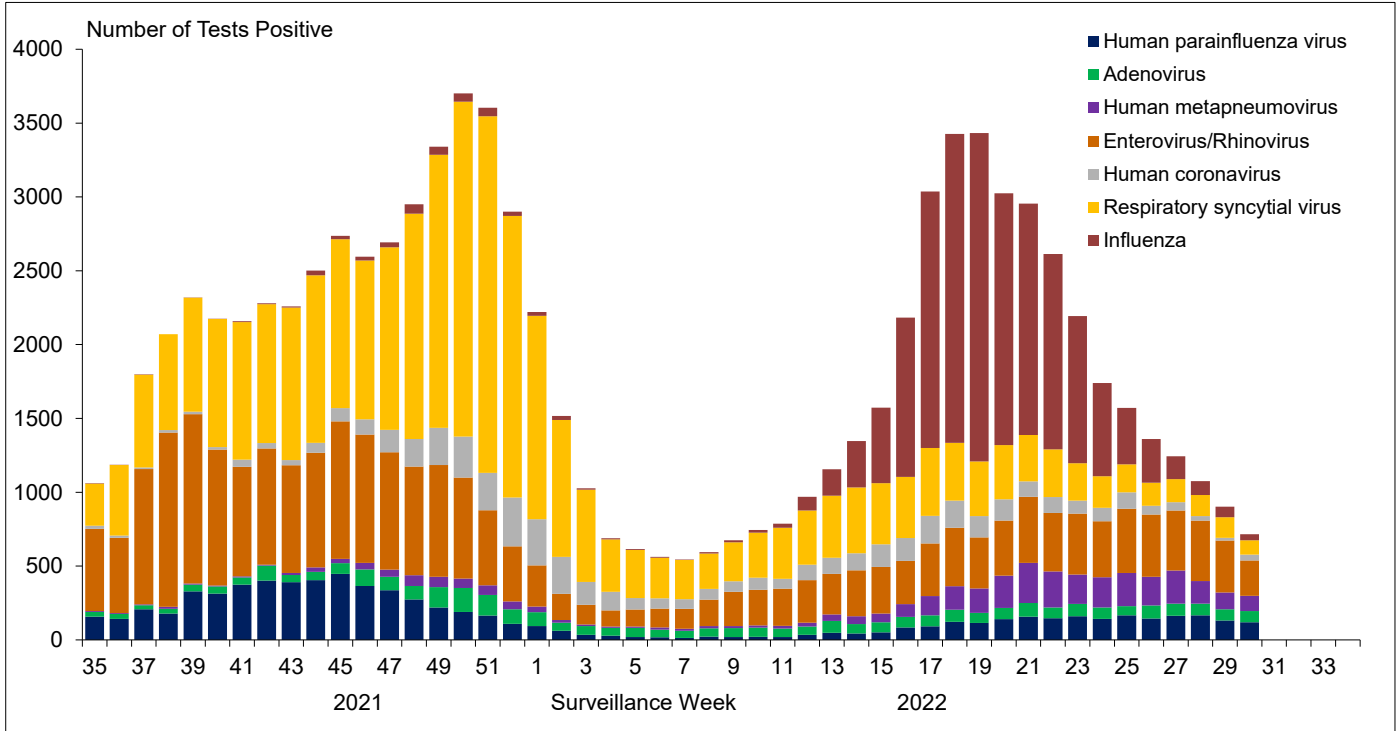


Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week

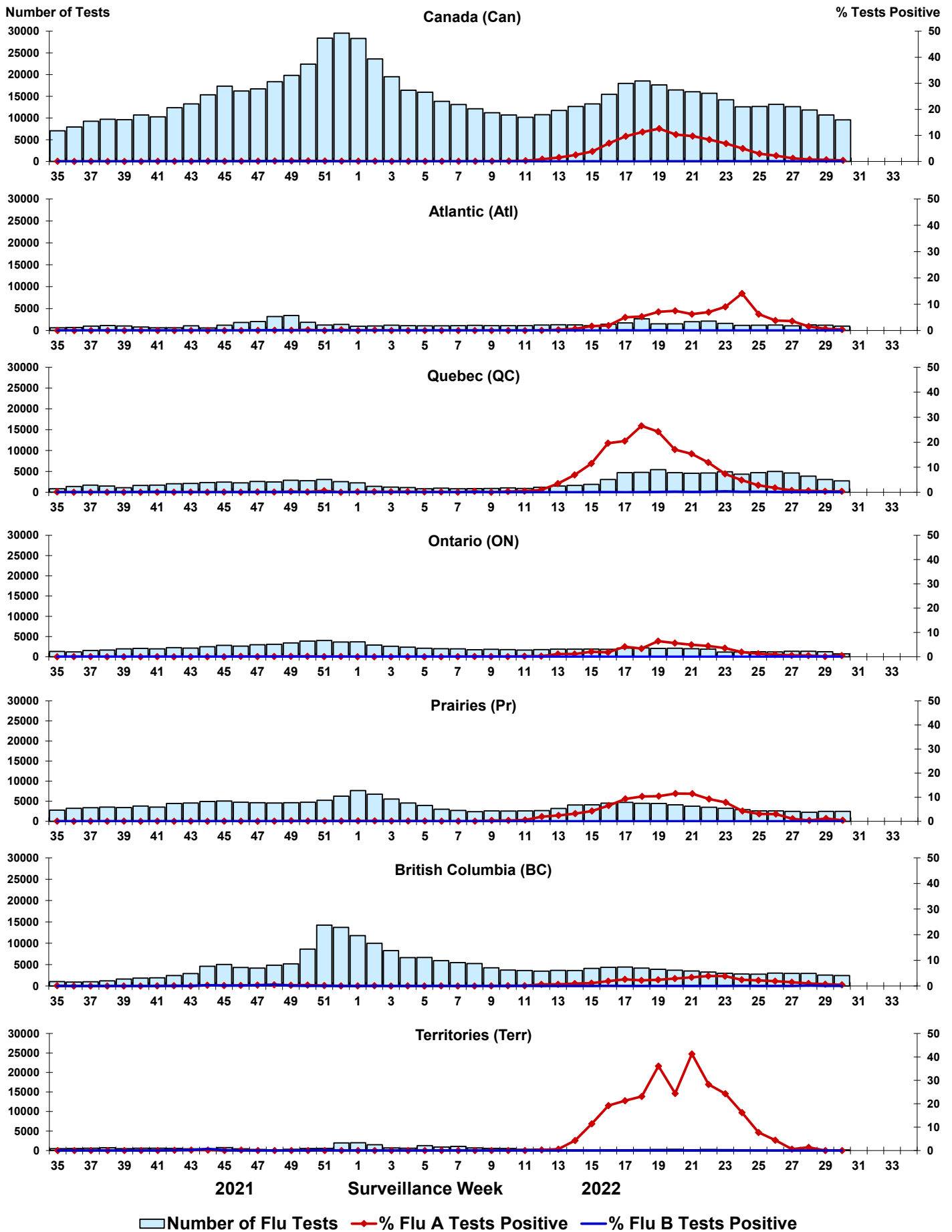


Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

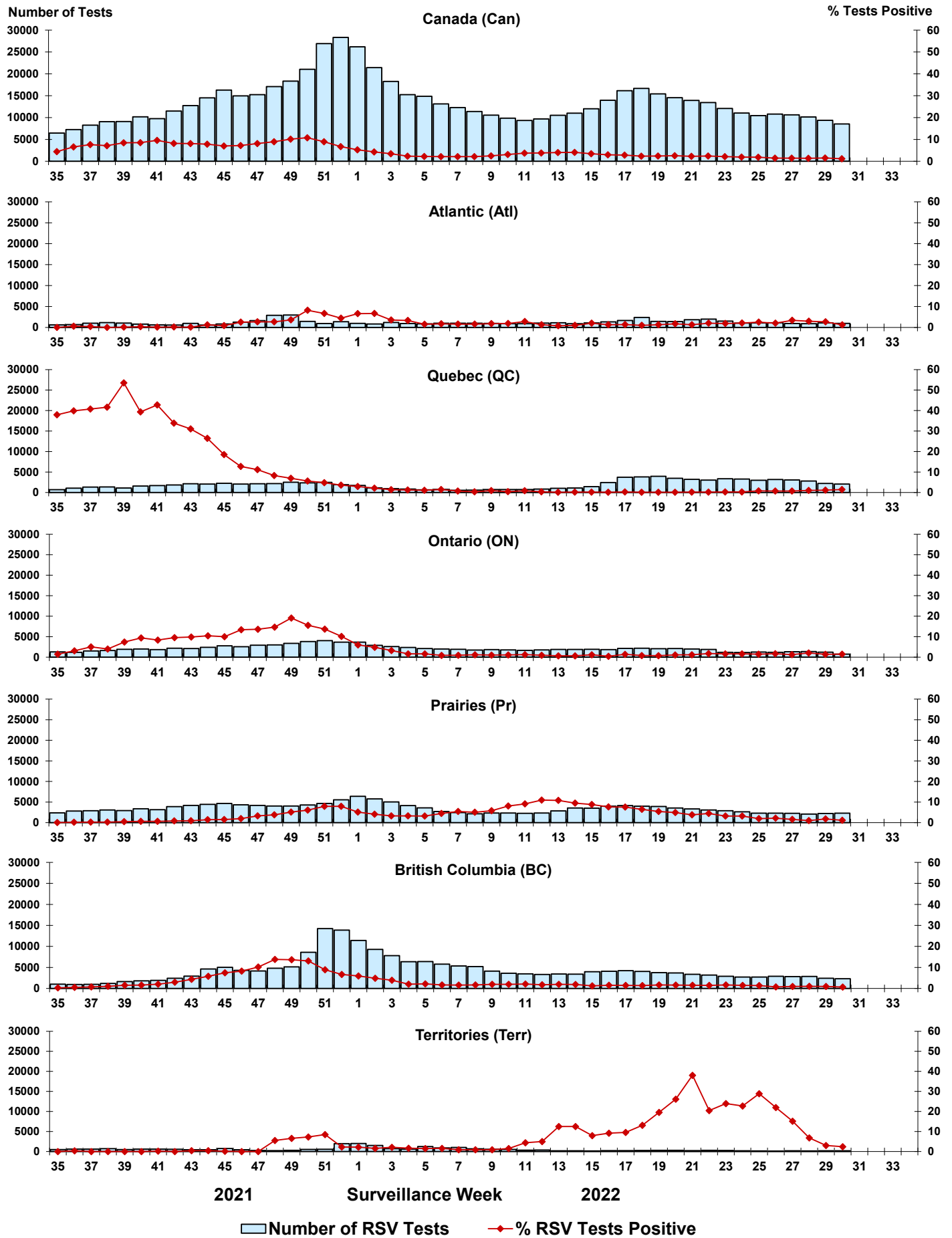


Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

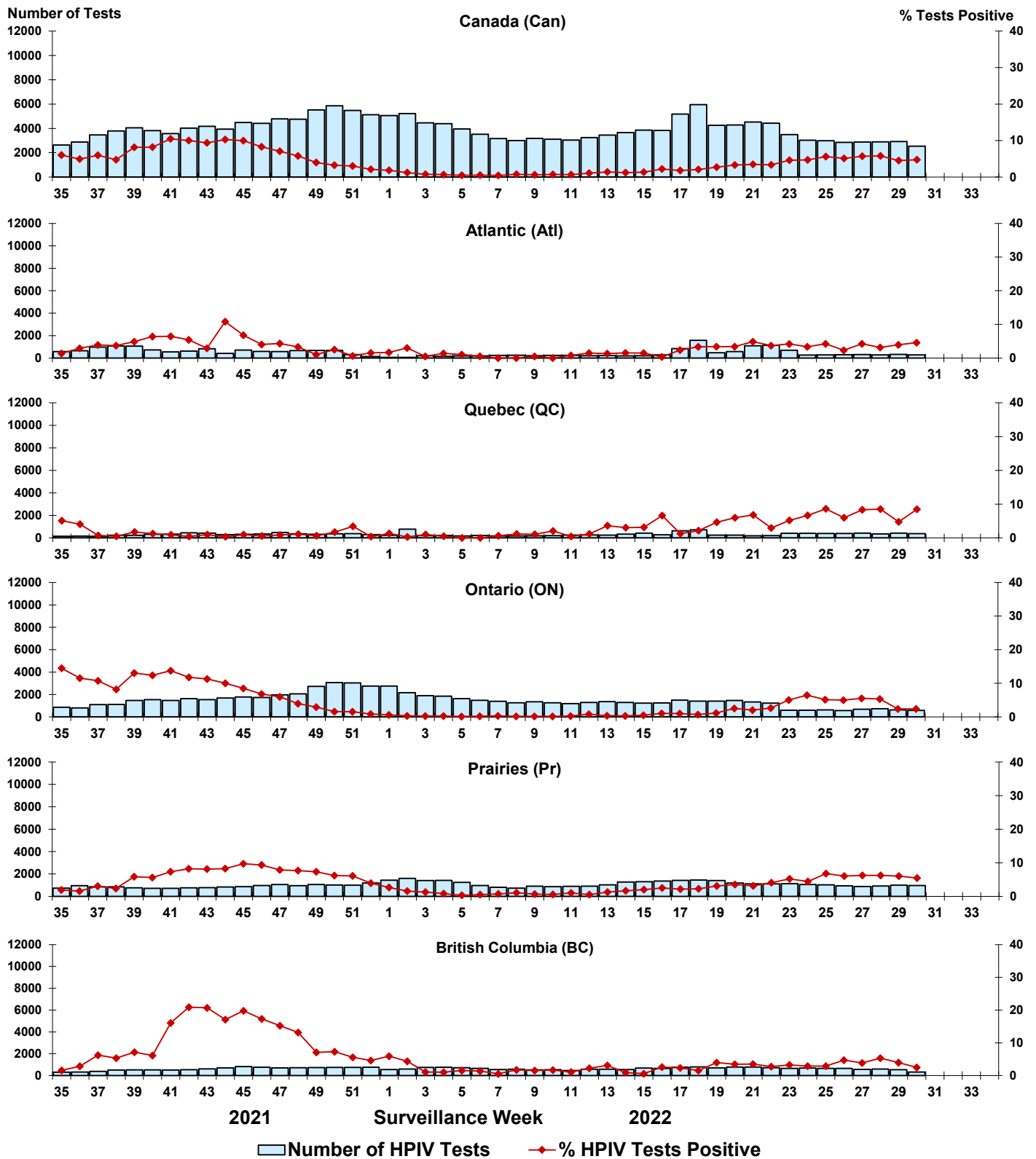


Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

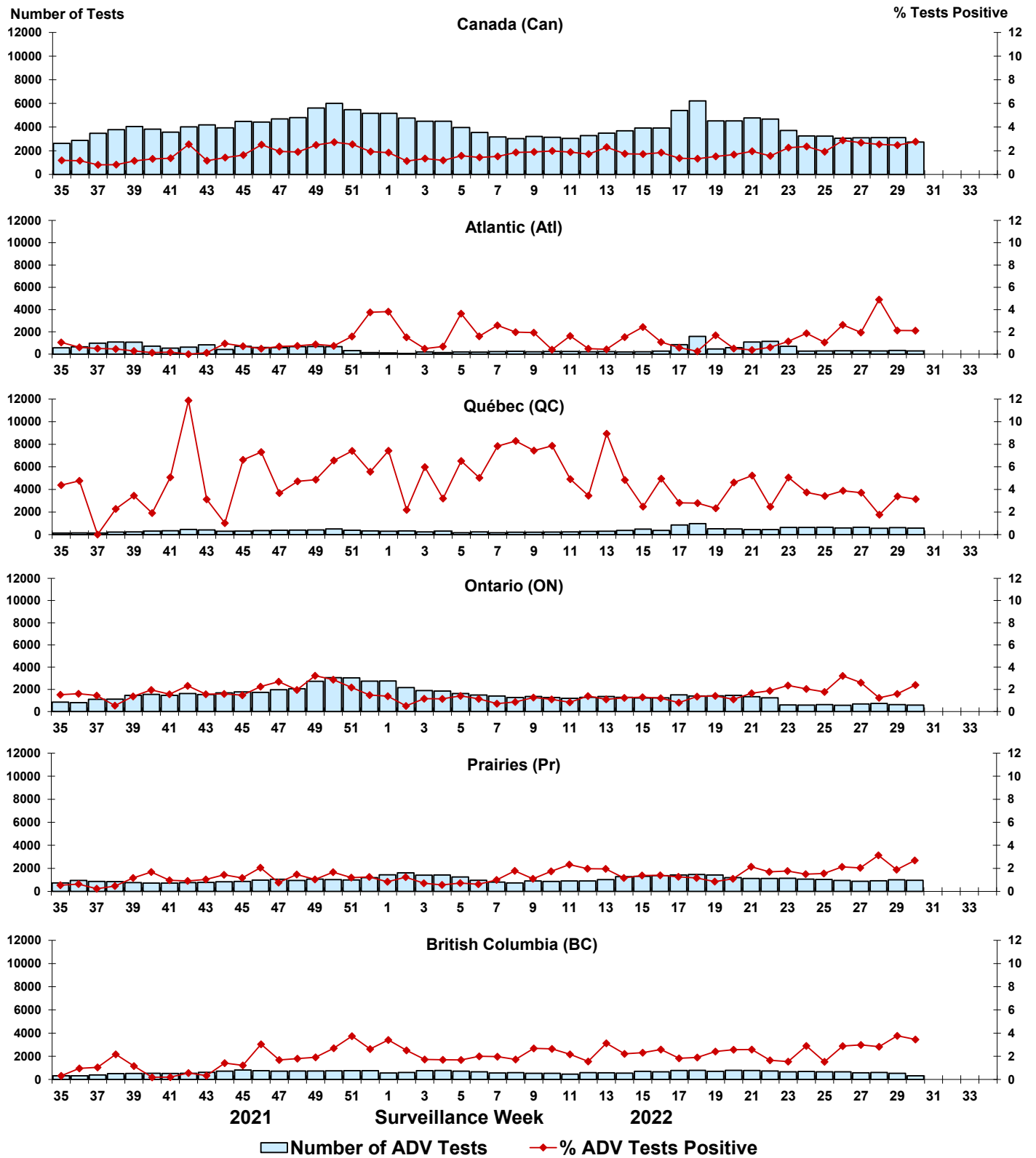


Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

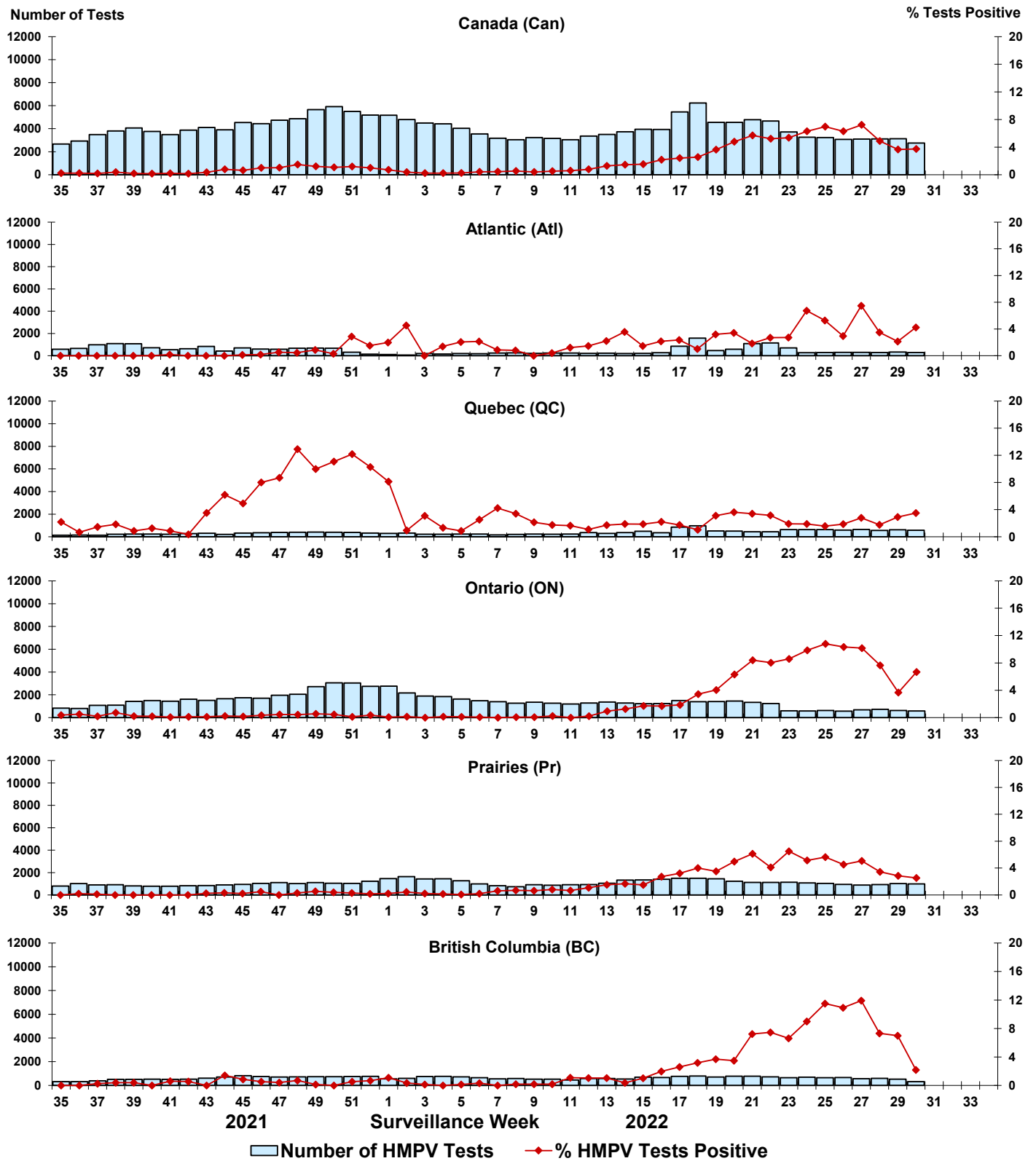


Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

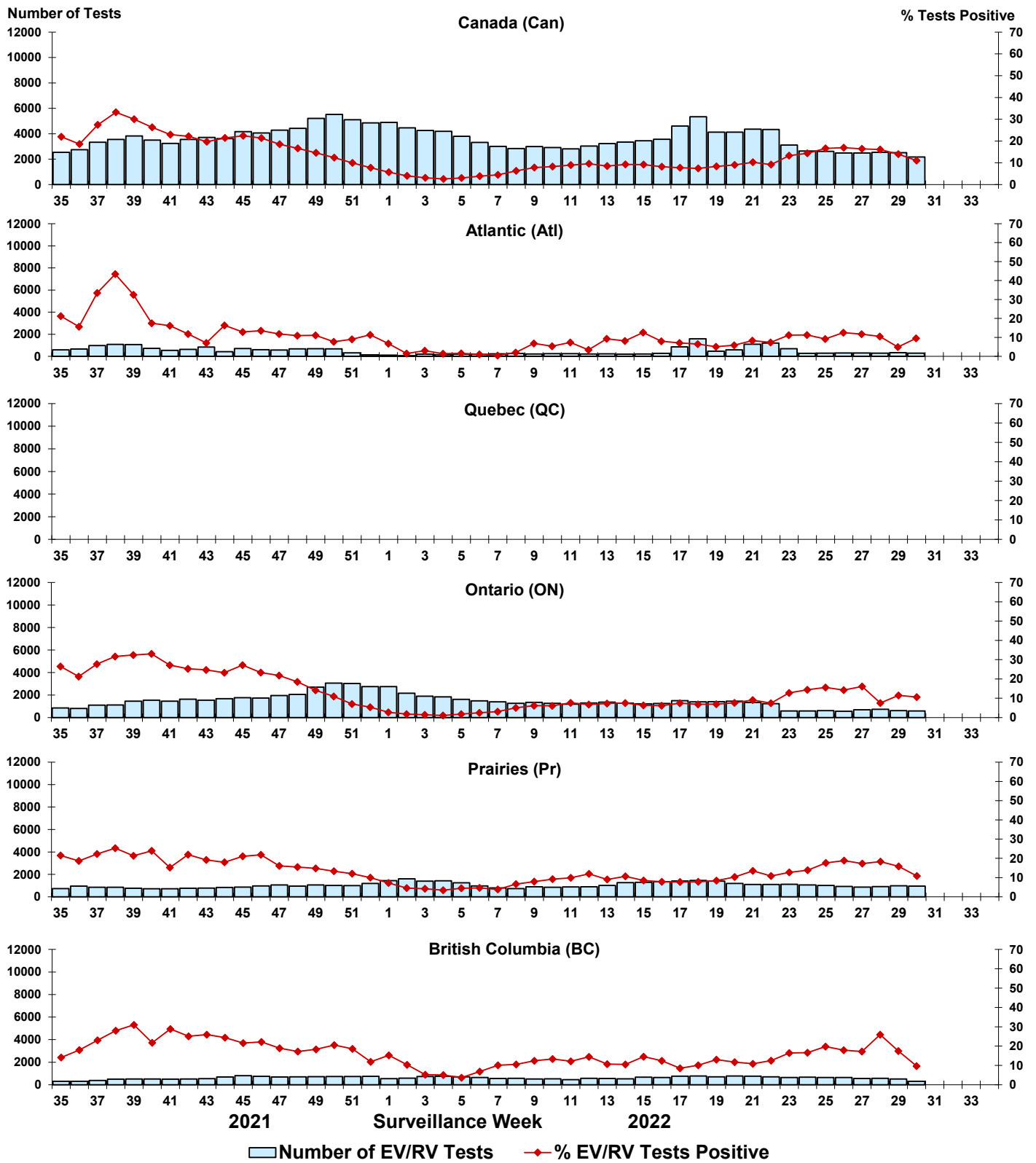


Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

