

RESPIRATORY VIRUS DETECTION REPORT

July 31 to August 6, 2022
(Surveillance Week 2022-31)



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 24 detections (23 influenza A, 1 influenza B) reported in week 31 (week ending August 6, 2022).
- Enterovirus/Rhinovirus remains the most common seasonal respiratory virus detected in Canada (248 detections; 11.5% 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 (77 detections; 3.5% positive).
- The number of tests performed for all viruses was above expected levels.
- 25/34 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

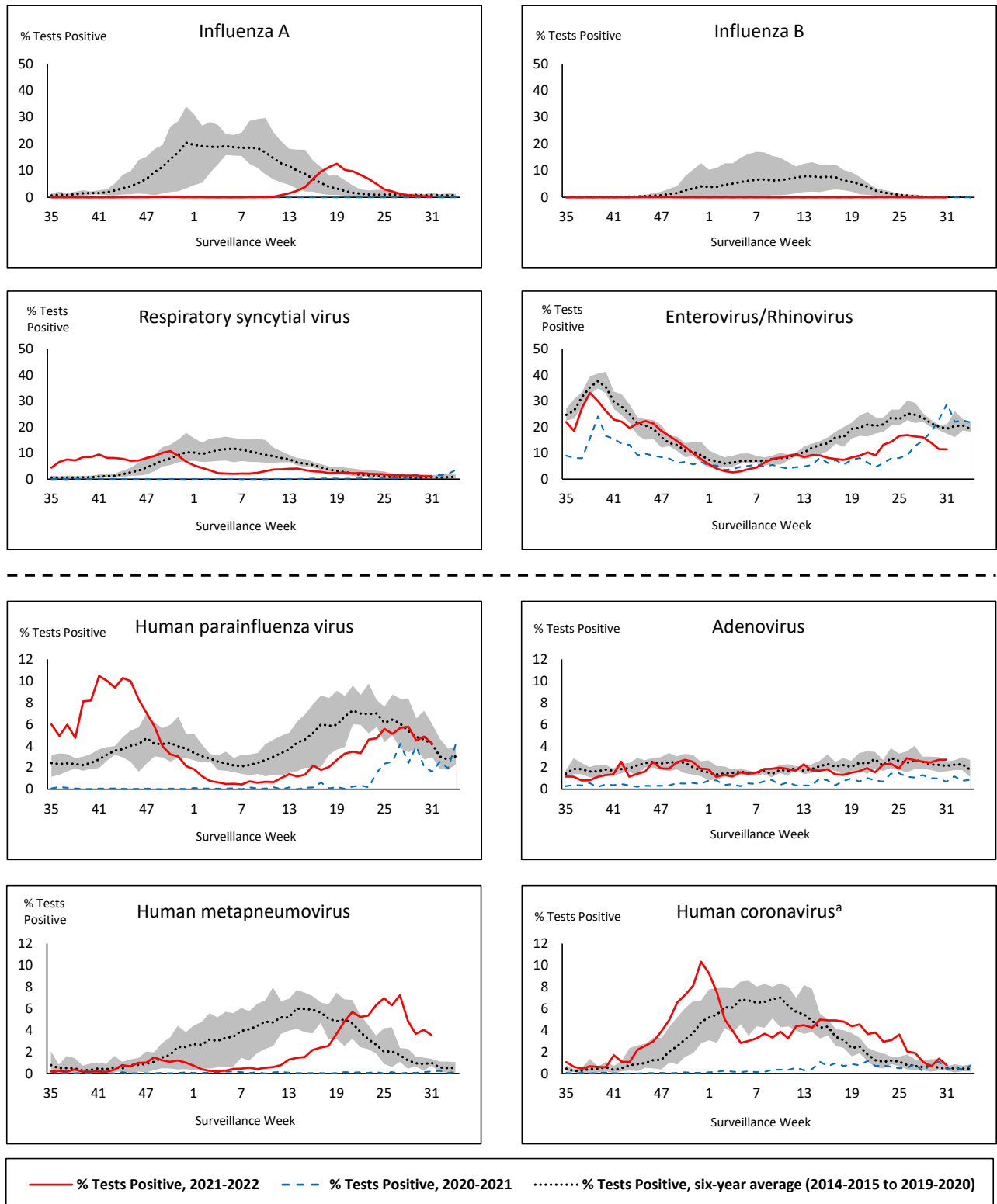
QC: Quebec

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 August 6, 2022 (surveillance week 2022-31)

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	143	0	0	0	0	0	143	5	143	0	1	0	0	0	144	2	143	3	143	9	143	0	
Prince Edward Island	16	0	0	0	0	0	16	0	16	0	0	2	1	0	16	0	16	1	16	1	16	0	
Nova Scotia	445	0	0	0	0	1	445	2	43	0	0	1	1	0	43	1	43	2	43	7	43	0	
New Brunswick	292	0	0	0	0	0	226	4	46	0	1	3	0	0	46	5	46	1	46	2	46	1	
Atlantic	896	0	0	0	0	1	830	11	248	0	2	6	2	0	249	8	248	7	248	19	248	1	
Région Nord-Est	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.C.	N.C.	N.R.	N.R.
Québec-Chaudière-Appalaches	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.C.	N.C.	N.R.	N.R.
Centre-du-Québec	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.C.	N.C.	N.R.	N.R.
Montréal-Laval	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.C.	N.C.	N.R.	N.R.
Ouest du Québec	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.C.	N.C.	N.R.	N.R.
Montérégie	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.C.	N.C.	N.R.	N.R.
Province of Québec	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.C.	N.C.	N.R.	N.R.
P.H.O.L. - Ottawa	45	0	0	0	0	0	45	0	45	0	0	0	0	0	45	0	45	3	45	0	45	0	
EORLA	150	0	0	0	0	0	150	2	33	0	0	1	0	0	33	1	33	0	33	4	33	0	
P.H.O.L. - Kingston	22	0	0	0	0	0	22	0	22	0	0	0	0	0	22	0	22	5	22	4	22	0	
UHN / Mount Sinai Hospital	427	0	0	0	0	0	427	2	20	0	0	0	0	0	20	0	20	0	20	0	20	0	
P.H.O.L. - Toronto	167	0	1	0	1	0	167	2	167	0	0	0	0	11	167	5	167	8	167	12	167	5	
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	11	0	0	0	0	0	11	1	11	0	0	0	0	0	11	0	11	0	11	2	11	0	
P.H.O.L. - Timmins	12	0	0	0	0	0	12	0	12	0	0	0	0	0	12	0	12	0	12	1	12	0	
St. Joseph's - London	58	0	0	0	0	0	58	1	58	0	0	0	0	2	58	5	58	5	58	12	3	0	
P.H.O.L. - London	51	0	0	0	0	0	51	2	51	0	0	0	0	3	51	1	51	3	51	2	51	0	
P.H.O.L. - Orillia	22	0	0	0	0	0	22	0	22	0	0	0	0	5	22	1	22	1	22	4	22	0	
P.H.O.L. - Thunder Bay	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	6	0	0	0	0	0	6	0	6	0	0	0	0	0	6	1	6	0	6	0	6	0	
P.H.O.L. - Hamilton	45	0	0	0	0	0	45	0	45	0	0	0	0	0	45	0	45	1	45	3	45	1	
P.H.O.L. - Peterborough	25	0	0	0	0	0	25	5	25	0	0	0	0	0	25	1	25	3	25	4	25	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	1046	0	1	0	1	0	1046	15	522	0	0	1	0	21	522	15	522	29	522	48	467	6	
Province of Manitoba	505	0	0	0	0	0	505	7	115	0	0	2	4	0	115	7	134	8	115	29	134	1	
Province of Saskatchewan	325	0	0	1	1	0	325	2	140	0	1	5	2	0	140	4	140	13	140	19	140	1	
Province of Alberta	1681	1	9	2	12	0	1523	19	745	0	5	16	3	0	743	10	744	3	729	66	745	6	
Prairies	2511	1	9	3	13	0	2353	28	1000	0	6	23	9	0	998	21	1018	24	984	114	1019	8	
British Columbia	2366	0	2	0	9	0	2205	10	383	1	1	15	3	1	383	15	383	17	375	59	375	1	
Yukon	8	0	0	0	0	0	8	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	32	0	0	0	0	0	31	6	2	0	0	0	0	0	2	0	2	0	31	7	2	0	
Nunavut	78	0	0	0	0	0	78	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.	
Territories	118	0	0	0	0	0	117	6	3	0	0	0	0	0	3	0	3	0	32	8	3	0	
CANADA	6937	1	12	3	23	1	6551	70	2156	1	9	45	14	22	2155	59	2174	77	2161	248	2112	16	

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 August 6, 2022 (surveillance week 2021-35 to 2022-31)

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	15422	0	135	192	327	0	15420	236	15423	1	33	116	1	314	15431	58	15417	100	15484	2163	1204	21
Prince Edward Island	2721	0	48	17	65	0	2721	262	2676	1	1	162	32	1	2721	74	2721	108	2721	635	2721	140
Nova Scotia	26191	0	2	420	422	9	26195	412	1999	1	4	44	32	0	2019	27	2019	61	2019	185	2019	48
New Brunswick	20708	0	111	384	495	0	13155	367	3610	1	11	48	29	0	3603	55	3610	48	3610	150	3519	23
Atlantic	65042	0	296	1013	1309	9	57491	1277	23708	4	49	370	94	315	23774	214	23767	317	23834	3133	9463	232
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	7263	2	81	1	84	0	7263	1442	7263	0	0	0	0	749	7263	313	7261	61	7263	2264	7261	298
EORLA	9242	0	0	176	176	0	9217	666	1396	0	3	31	13	0	1396	28	1077	34	1396	224	1054	33
P.H.O.L. - Kingston	1751	0	220	0	9	0	1758	148	1755	0	0	0	0	145	1756	31	1737	47	1755	395	1737	101
UHN / Mount Sinai Hospital	22863	0	0	57	57	5	22864	124	769	0	1	0	0	0	769	1	769	2	769	21	769	13
P.H.O.L. - Toronto	12388	2	395	2	131	0	12374	309	12374	0	0	0	0	459	12380	188	12364	253	12374	1356	12365	502
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	391	0	4	1	4	0	390	13	390	0	0	0	0	9	390	4	390	2	390	65	390	23
P.H.O.L. - Timmins	559	0	17	0	10	0	559	28	559	0	0	0	0	23	559	1	558	8	559	43	558	33
St. Joseph's - London	13417	0	0	73	73	0	13420	792	11863	0	0	7	0	101	11863	166	11863	122	11817	688	576	4
P.H.O.L. - London	4289	0	57	11	60	0	4288	471	4288	0	0	0	0	200	4288	100	4285	115	4288	539	4285	303
P.H.O.L. - Orillia	1175	0	9	1	10	0	1175	153	1175	0	0	0	0	80	1175	44	1172	76	1175	291	1172	81
P.H.O.L. - Thunder Bay	383	0	6	0	5	0	383	27	383	0	0	0	0	25	383	1	383	12	383	64	383	37
P.H.O.L. - Sudbury	403	0	6	0	6	0	403	12	403	0	0	0	0	12	403	3	403	7	403	37	403	14
P.H.O.L. - Hamilton	2292	0	25	2	23	0	2287	79	2287	0	0	0	0	78	2288	24	2287	61	2287	297	2287	119
P.H.O.L. - Peterborough	747	0	2	0	2	0	747	67	740	0	0	0	0	19	740	8	737	15	740	124	737	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	102331	4	826	561	891	6	101451	5982	70807	5	6	769	14	1900	70815	1158	70448	1079	70761	8739	34816	1616
Manitoba	59293	1	86	487	574	0	59293	1457	4123	3	16	86	38	0	4123	82	5591	80	4123	569	5397	107
Province of Saskatchewan	31759	2	482	295	779	0	31723	1766	6798	1	21	233	110	0	6798	144	6798	191	6798	1052	6787	315
Province of Alberta	97851	10	1839	855	2704	3	76546	3726	40168	8	190	971	277	0	40156	462	40142	635	39716	4588	40168	1571
Prairies	188903	13	2407	1637	4057	3	167562	6949	51089	12	227	1290	425	0	51077	688	52531	906	50637	6209	52352	1993
British Columbia	218370	15	974	7	1443	94	212919	9485	30468	14	42	1176	355	193	30468	640	30464	755	29879	4674	29897	1016
Yukon	5497	1	5	2	14	7	5506	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	2173	0	206	1	207	0	2132	231	139	0	1	3	0	0	139	3	139	0	2081	271	139	1
Nunavut	16910	0	403	7	410	0	16908	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	24580	1	614	10	631	7	24546	970	201	0	1	7	0	0	201	7	201	0	2143	288	184	2
CANADA	720155	78	5132	10678	15841	225	656953	32147	191475	76	455	3827	930	2408	195162	3535	195646	3696	177254	23043	143974	5298

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.

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. 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

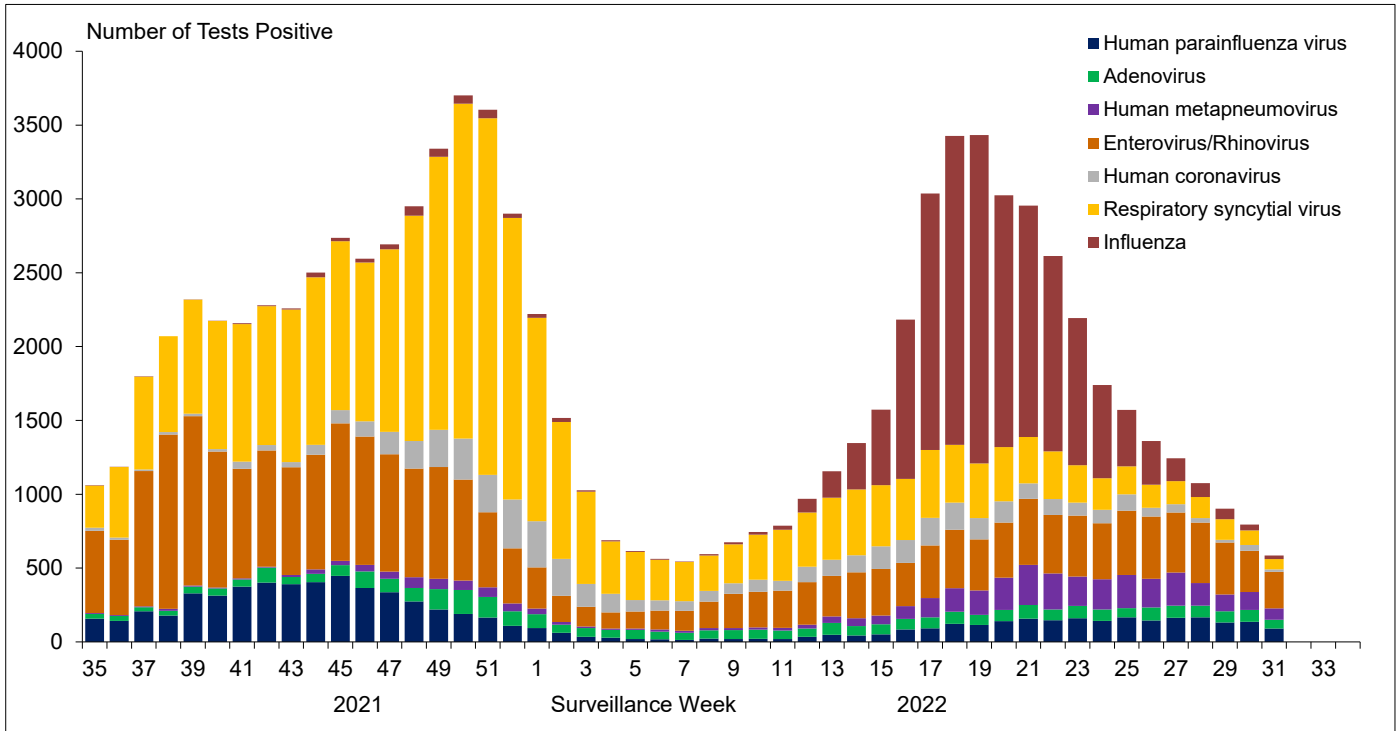


Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week

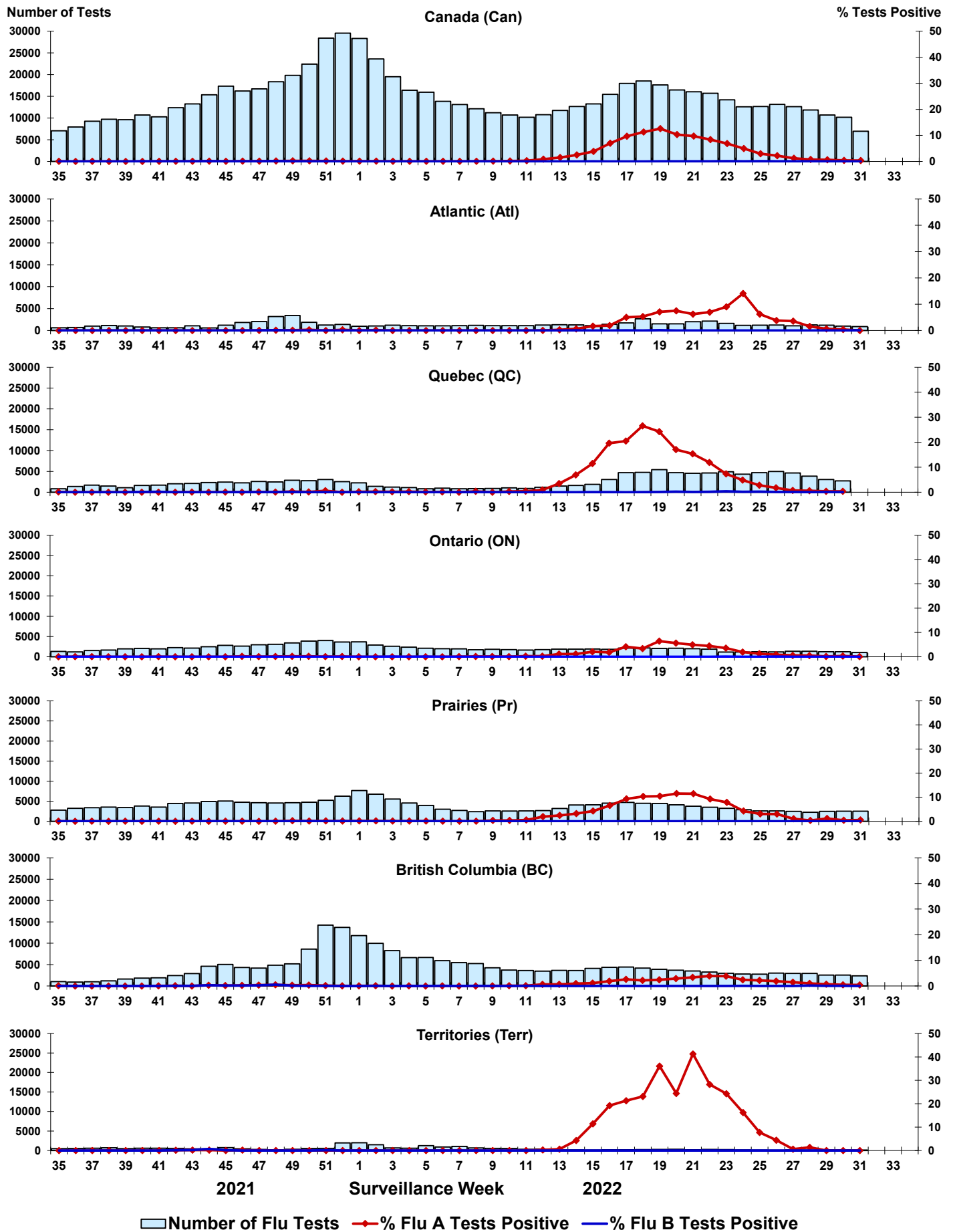


Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

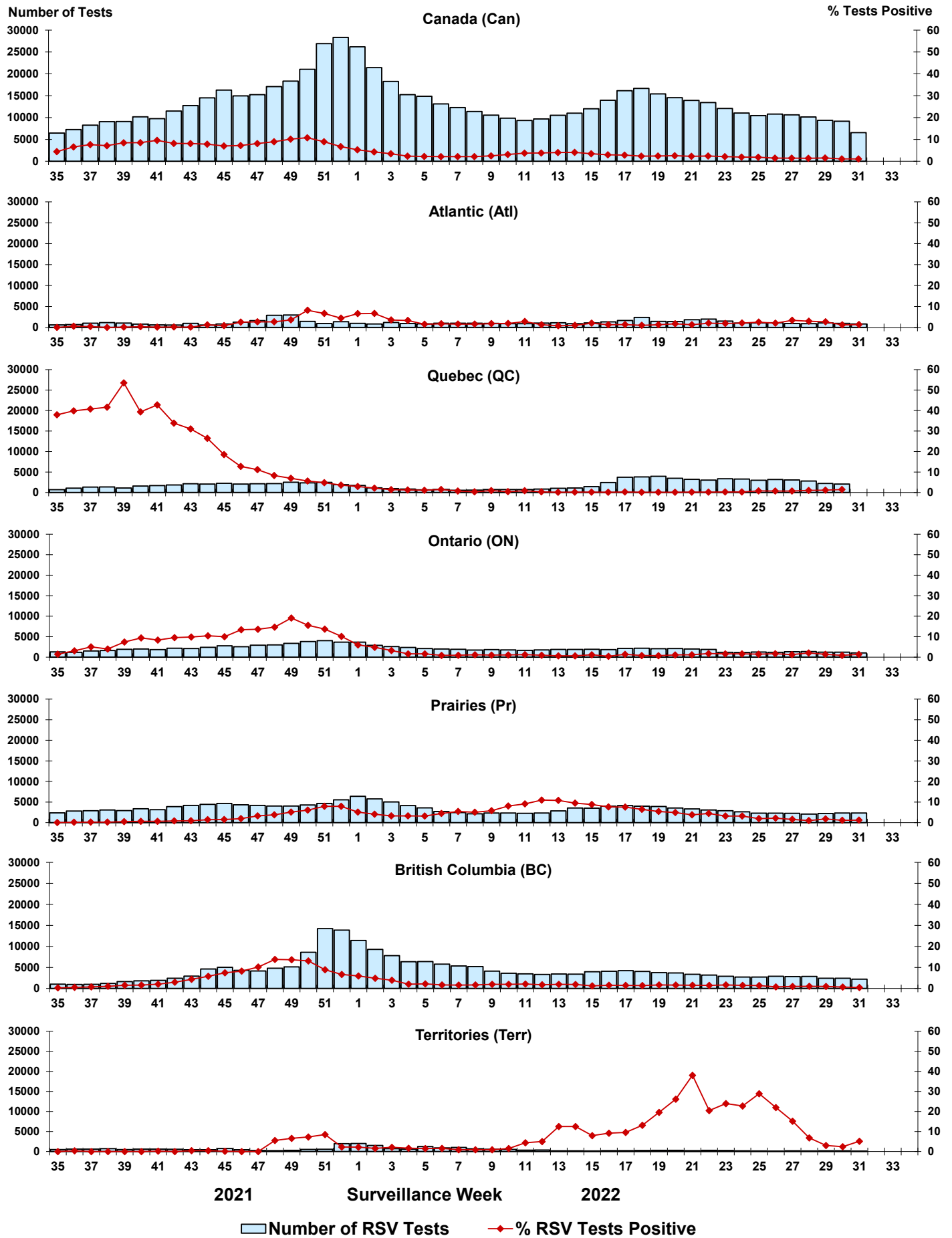


Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

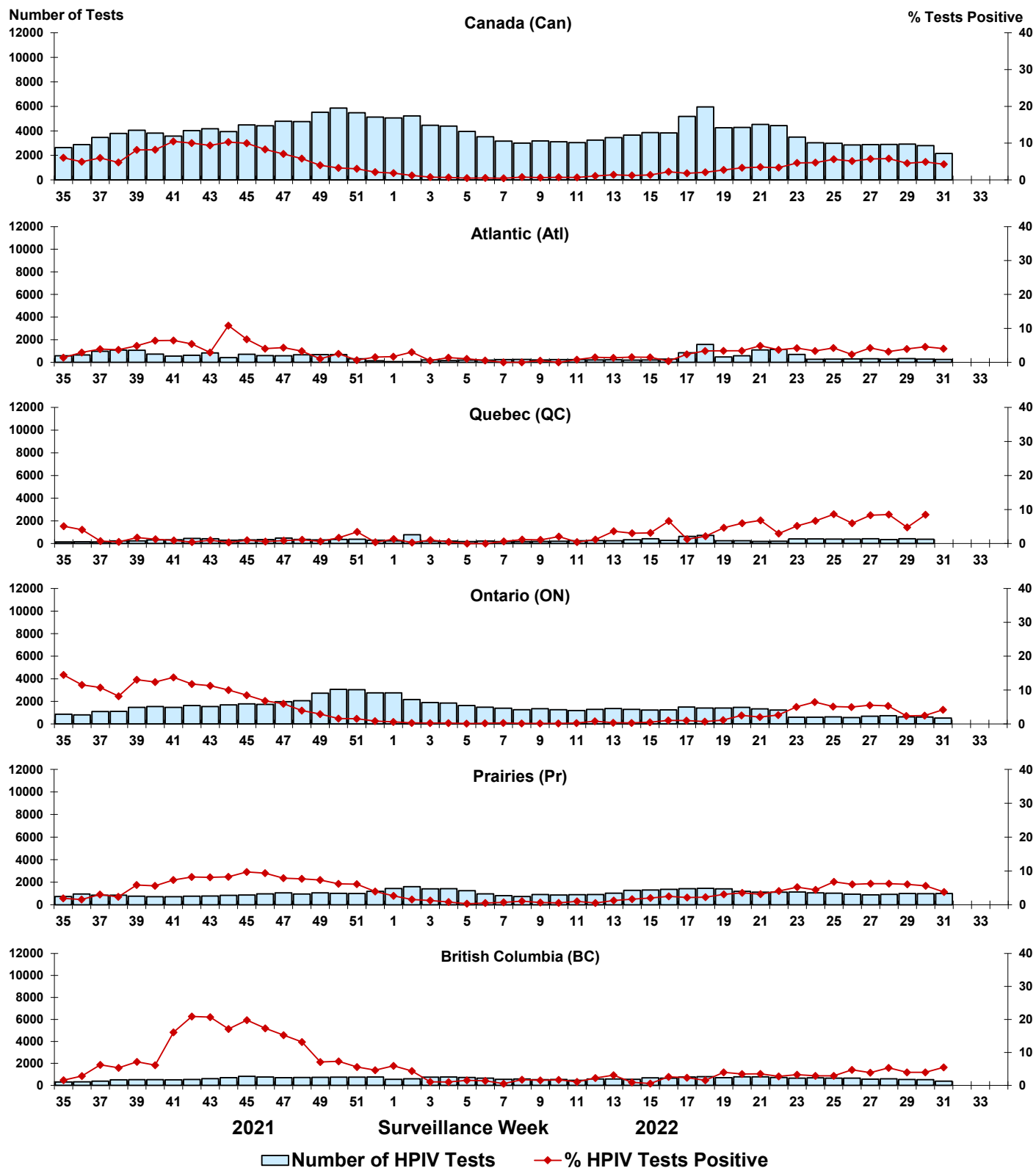


Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

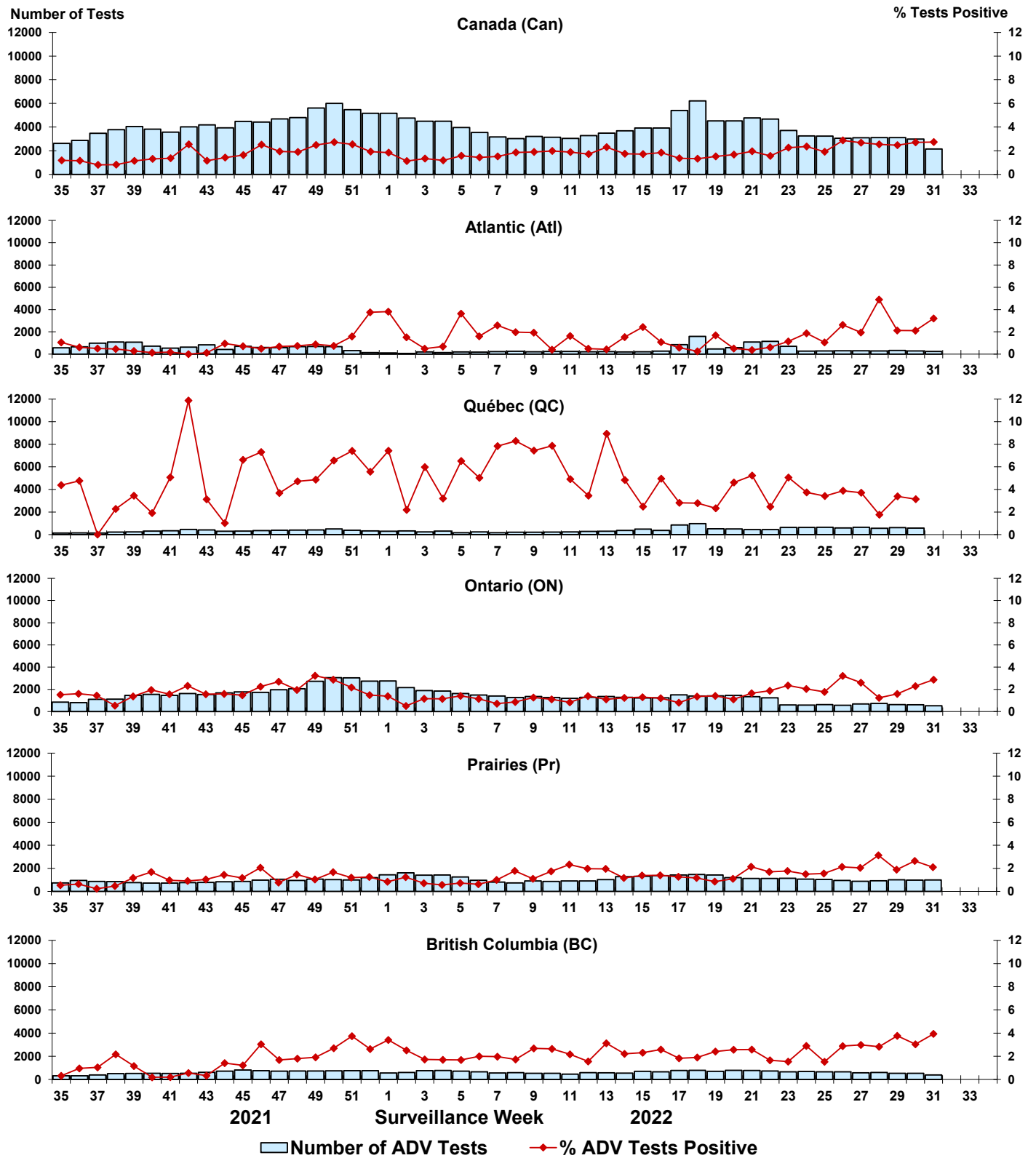


Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

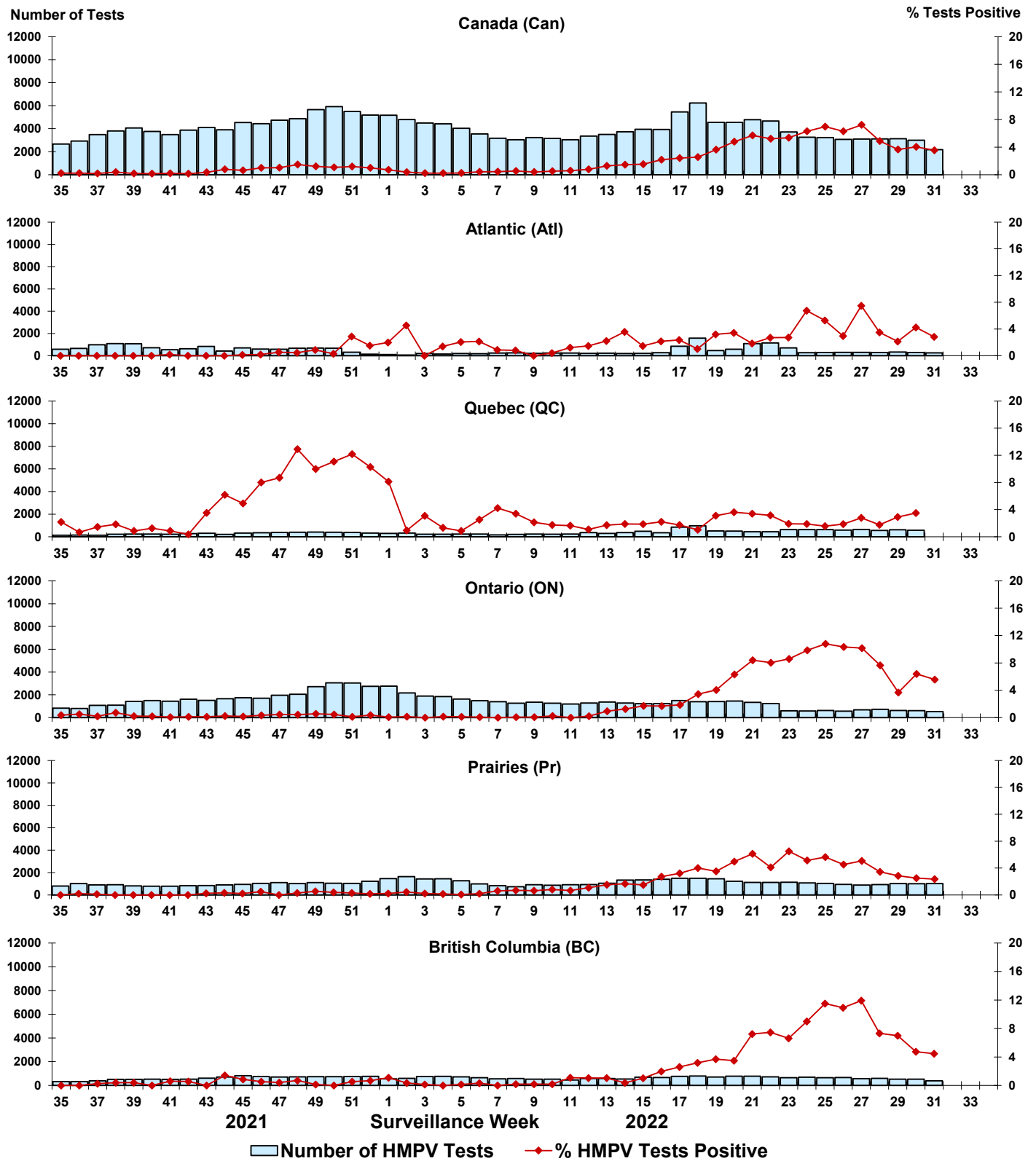


Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

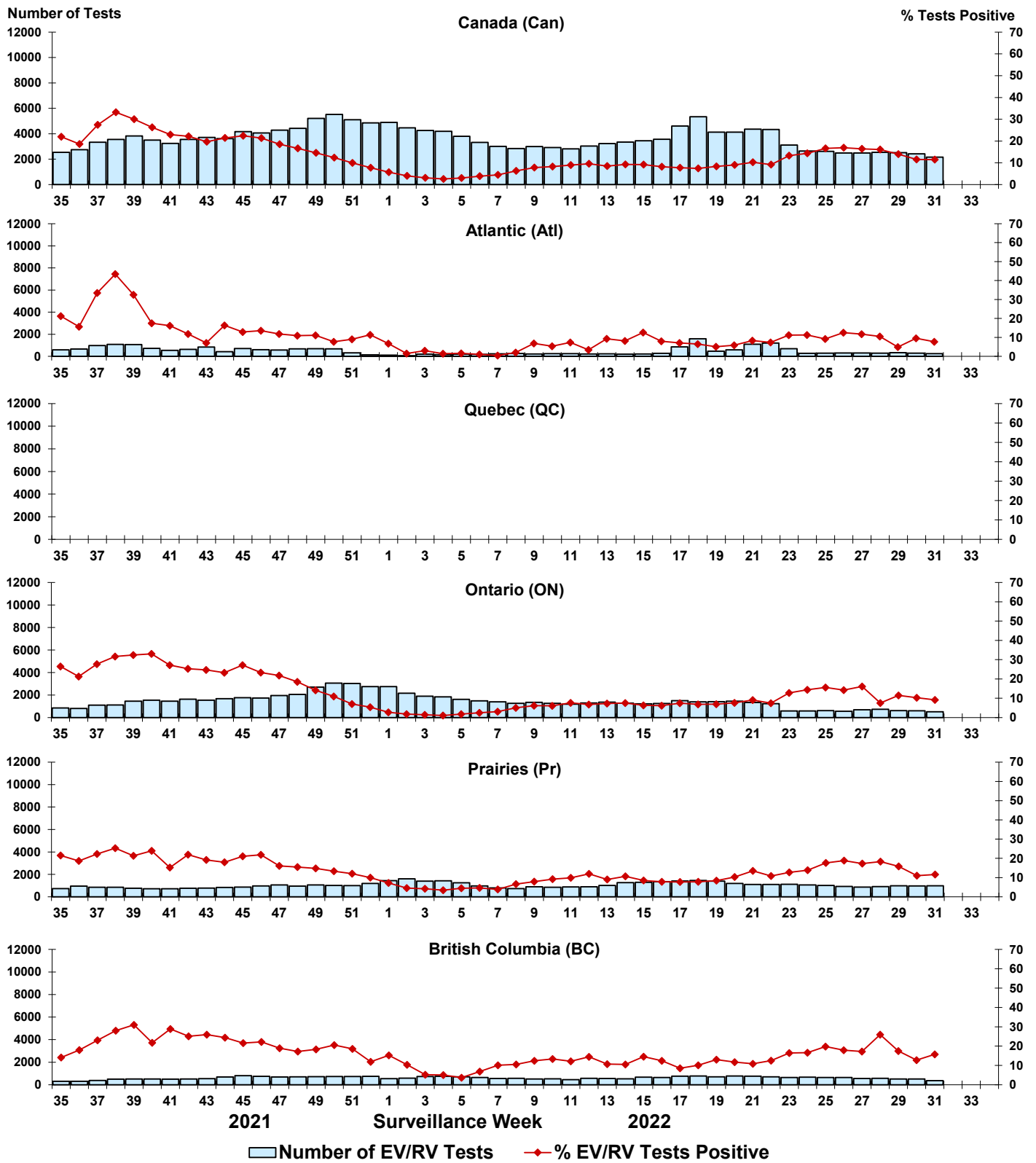


Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

