

RESPIRATORY VIRUS DETECTION REPORT

August 14 to August 20, 2022
(Surveillance Week 2022-33)



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 12 detections (10 influenza A, 2 influenza B) reported in week 33 (week ending August 20, 2022).
- Enterovirus/Rhinovirus remains the most common seasonal respiratory virus detected in Canada (208 detections; 12.0% 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 (72 detections; 3.1% positive).
- The number of tests performed for all viruses was above expected levels.
- 28/34 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

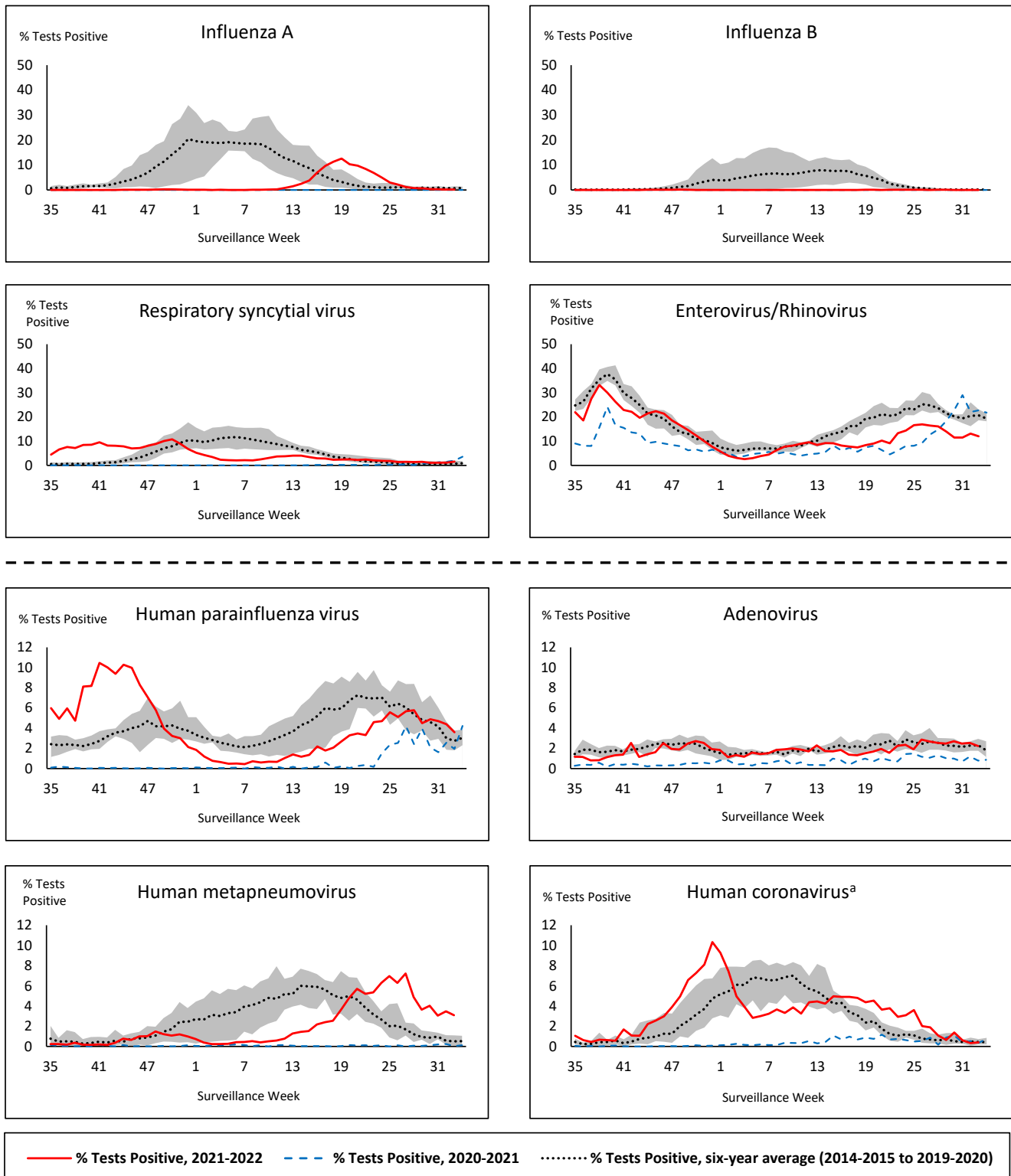
QC: Quebec

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 20, 2022 (surveillance week 2022-33)

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	167	0	0	0	0	0	167	7	167	0	2	1	0	0	167	1	167	3	167	29	167	0
Prince Edward Island	29	0	0	0	0	0	29	1	29	0	0	1	0	0	29	2	29	17	29	0	29	0
Nova Scotia	375	0	0	0	0	0	375	3	14	0	0	0	0	0	14	0	14	0	14	3	14	0
New Brunswick	290	0	0	0	0	0	117	1	28	0	0	4	0	0	28	2	28	0	28	9	28	0
Atlantic	861	0	0	0	0	0	688	12	238	0	2	6	1	0	238	5	238	20	238	41	238	0
Région Nord-Est	624	0	0	0	0	0	127	3	6	0	0	0	0	0	6	0	6	0	N.C.	N.C.	1	0
Québec-Chaudière-Appalaches	394	0	0	2	2	1	394	2	51	0	0	7	0	0	232	1	231	5	N.C.	N.C.	123	1
Centre-du-Québec	289	0	0	0	0	0	258	0	30	0	0	3	1	0	30	1	30	2	N.C.	N.C.	30	0
Montréal-Laval	742	0	0	2	2	0	693	15	298	3	1	4	0	0	298	10	298	13	N.C.	N.C.	322	2
Ouest du Québec	210	0	0	0	0	0	197	7	21	0	0	3	0	0	21	1	21	0	N.C.	N.C.	21	0
Montréal	376	0	0	1	1	0	376	6	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	2635	0	0	5	5	1	2045	33	406	3	1	17	1	0	587	13	586	20	N.C.	N.C.	497	3
P.H.O.L. - Ottawa	28	0	0	0	0	0	28	0	28	0	0	0	0	1	28	0	28	0	28	2	28	0
EORLA	148	0	0	0	0	1	148	3	21	0	1	1	0	0	21	1	21	0	21	4	21	0
P.H.O.L. - Kingston	23	0	0	0	0	0	23	0	23	0	0	0	0	1	23	0	23	1	23	1	23	0
UHN / Mount Sinai Hospital	432	0	0	0	0	0	432	4	13	0	0	0	0	0	13	0	13	0	13	0	13	0
P.H.O.L. - Toronto	203	0	1	0	0	0	203	2	203	0	0	0	0	7	203	4	203	8	203	14	203	2
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.
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.
P.H.O.L. - Sault Ste. Marie	7	0	0	0	0	0	7	0	7	0	0	0	0	1	7	1	7	0	7	1	7	0
P.H.O.L. - Timmins	5	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	0	5	2	5	0
St. Joseph's - London	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. - London	59	0	0	0	0	0	59	5	59	0	0	0	0	1	59	0	59	4	59	5	59	0
P.H.O.L. - Orillia	19	0	0	0	0	0	19	2	19	0	0	0	0	4	19	0	19	1	19	5	19	0
P.H.O.L. - Thunder Bay	11	0	0	0	0	0	11	0	11	0	0	0	0	0	11	1	11	0	11	0	11	0
P.H.O.L. - Sudbury	4	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	0	4	0	4	0
P.H.O.L. - Hamilton	48	0	0	0	0	0	48	3	48	0	0	0	0	0	48	0	48	0	48	3	48	1
P.H.O.L. - Peterborough	17	0	0	0	0	0	17	2	17	0	0	0	0	0	17	0	17	0	17	0	17	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.
Province of Ontario	1004	0	1	0	0	1	1004	21	458	0	1	1	0	15	458	7	458	14	458	37	458	3
Province of Manitoba	506	0	0	0	0	0	506	4	142	0	0	1	1	0	142	3	171	2	142	39	171	0
Province of Saskatchewan	355	0	0	1	1	0	355	1	170	0	3	1	4	0	170	6	170	13	170	21	170	0
Province of Alberta	1627	0	3	1	4	0	1432	15	697	0	2	13	3	0	695	17	696	3	688	62	697	3
Prairies	2488	0	3	2	5	0	2293	20	1009	0	5	15	8	0	1007	26	1037	18	1000	122	1038	3
British Columbia	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.
Yukon	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	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	31	0	0	0	0	0	31	7	1	0	0	0	0	0	1	0	1	0	30	7	1	0
Nunavut	69	0	0	0	0	0	69	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	100	0	0	0	0	0	100	9	2	0	0	0	0	0	2	0	2	0	31	8	2	0
CANADA	7088	0	4	7	10	2	6130	95	2113	3	9	39	10	15	2292	51	2321	72	1727	208	2233	9

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 20, 2022 (surveillance week 2021-35 to 2022-33)

Reporting Laboratory	Flu Tested	A(H1N1)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	15709	0	135	192	327	0	15707	244	15710	1	37	117	1	314	15718	59	15704	105	15771	2203	1491	22
Prince Edward Island	2766	0	48	17	65	0	2766	263	2721	1	1	163	33	1	2766	76	2766	126	2766	639	2766	140
Nova Scotia	26980	0	2	420	422	9	26983	417	2048	1	4	44	32	0	2063	28	2063	63	2063	191	2063	49
New Brunswick	21250	0	111	384	495	0	13428	370	3679	1	11	53	29	0	3672	61	3679	48	3679	159	3588	23
Atlantic	66705	0	296	1013	1309	9	58884	1294	24158	4	53	377	95	315	24219	224	24212	342	24279	3192	9908	234
Région Nord-Est	38138	45	1	2194	2240	28	16750	1485	858	2	1	14	1	0	949	19	462	17	N.C.	N.C.	1288	24
Québec-Chaudière-Appalaches	15640	0	0	1434	1434	60	16456	1021	1959	1	19	32	19	0	6093	157	5924	144	N.C.	N.C.	3456	117
Centre-du-Québec	15645	0	3	1291	1294	11	13873	1108	1574	7	8	38	5	0	1574	44	1582	34	N.C.	N.C.	1567	31
Montréal-Laval	41894	0	5	1563	1568	10	35981	2574	11719	37	103	181	12	0	11754	622	11716	482	N.C.	N.C.	12156	266
Ouest du Québec	9548	0	6	656	662	0	9477	956	371	3	8	12	7	0	364	28	360	16	N.C.	N.C.	360	8
Montréal	8136	0	0	321	321	1	6845	419	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	129001	45	15	7459	7519	110	99382	7563	16481	50	139	277	44	0	20734	870	20044	693	N.C.	N.C.	18827	446
P.H.O.L. - Ottawa	7318	2	81	1	84	0	7318	1442	7318	0	0	0	0	750	7318	313	7316	61	7318	2267	7316	298
EORLA	9560	0	0	176	176	1	9535	673	1442	0	4	32	13	0	1442	30	1123	35	1442	232	1100	33
P.H.O.L. - Kingston	1800	0	220	0	9	0	1807	148	1804	0	0	0	0	146	1805	31	1786	48	1804	397	1786	101
UHN / Mount Sinai Hospital	23713	0	0	57	57	5	23714	131	790	0	1	0	0	0	790	1	790	2	790	21	790	13
P.H.O.L. - Toronto	12827	2	399	2	131	0	12813	315	12813	0	0	0	0	484	12819	197	12803	277	12813	1393	12804	505
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	409	0	4	1	4	0	408	13	408	0	0	0	0	11	408	5	408	2	408	70	408	23
P.H.O.L. - Timmins	572	0	17	0	10	0	572	28	572	0	0	0	0	23	572	1	571	8	572	48	571	33
St. Joseph's - London	13456	0	0	73	73	0	13459	792	11902	0	0	7	0	101	11902	167	11902	123	11856	694	580	4
P.H.O.L. - London	4412	0	57	11	60	0	4411	481	4411	0	0	0	0	202	4411	100	4408	120	4411	547	4408	303
P.H.O.L. - Orillia	1211	0	9	1	10	0	1211	158	1211	0	0	0	0	85	1211	46	1208	78	1211	299	1208	81
P.H.O.L. - Thunder Bay	396	0	6	0	5	0	396	27	396	0	0	0	0	26	396	2	396	13	396	64	396	37
P.H.O.L. - Sudbury	411	0	6	0	6	0	411	12	411	0	0	0	0	12	411	3	411	7	411	37	411	14
P.H.O.L. - Hamilton	2399	0	25	2	23	0	2394	82	2394	0	0	0	0	78	2395	26	2394	64	2394	305	2394	120
P.H.O.L. - Peterborough	778	0	2	0	2	0	778	72	771	0	0	0	0	20	771	10	768	15	771	127	768	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	104430	4	830	561	891	7	103550	6025	71805	5	7	770	14	1938	71813	1178	71446	1117	71759	8832	35779	1620
Manitoba	60367	1	86	487	574	0	60367	1467	4402	3	16	88	41	0	4402	90	5917	91	4402	638	5723	107
Province of Saskatchewan	32529	2	482	297	781	0	32493	1768	7147	1	29	235	117	0	7147	156	7147	224	7147	1104	7136	315
Province of Alberta	101156	10	1844	856	2710	3	79459	3757	41559	10	195	1011	283	0	41543	489	41531	640	41084	4729	41559	1577
Prairies	194052	13	2412	1640	4065	3	172319	6992	53108	14	240	1334	441	0	53092	735	54595	955	52633	6471	54418	1999
British Columbia	221056	15	979	7	1453	96	215483	9505	31030	14	44	1187	361	194	31030	657	31026	771	30433	4757	30451	1016
Yukon	5503	1	5	2	14	7	5512	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	2235	0	206	1	207	0	2194	244	143	0	1	3	0	0	143	3	143	0	2142	285	143	1
Nunavut	17069	0	403	7	410	0	17067	447	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	24807	1	614	10	631	7	24773	999	209	0	1	7	0	0	209	8	209	0	2207	303	192	2
CANADA	740051	78	5146	10690	15868	232	674391	32378	196791	87	484	3952	955	2447	201097	3672	201532	3878	181311	23555	149575	5317

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

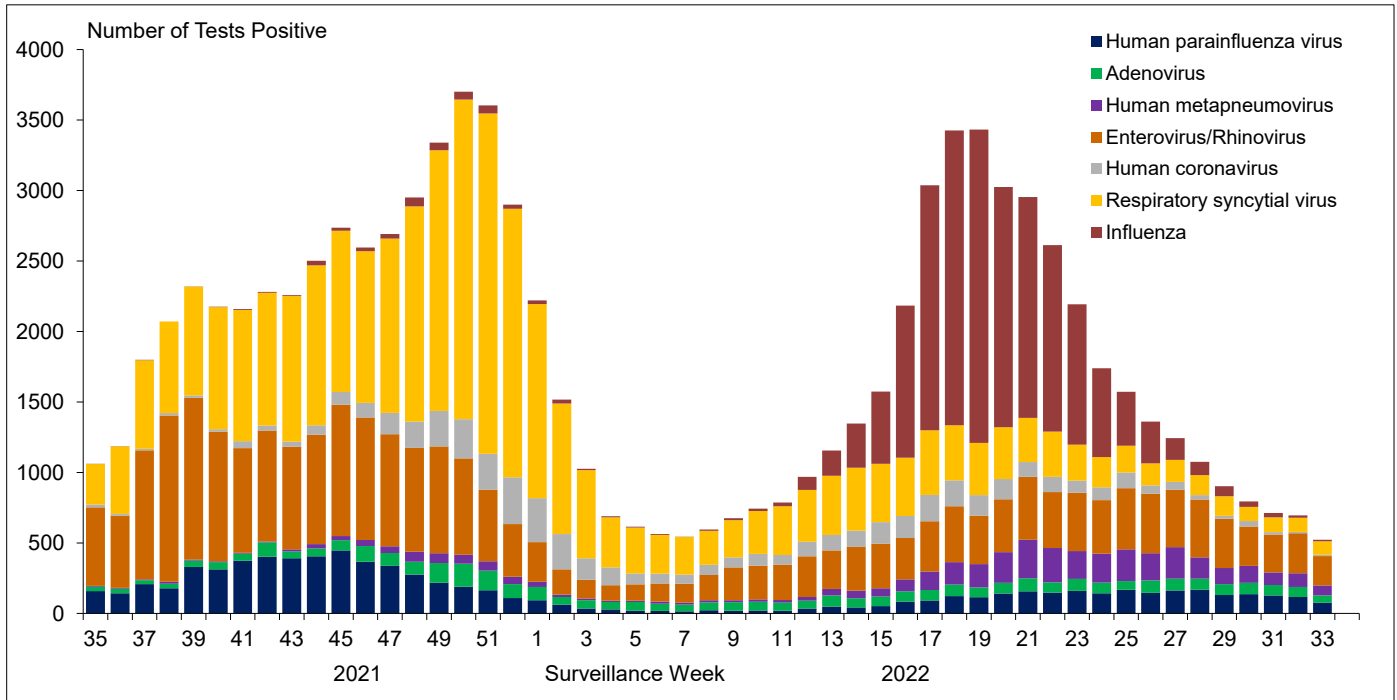


Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week

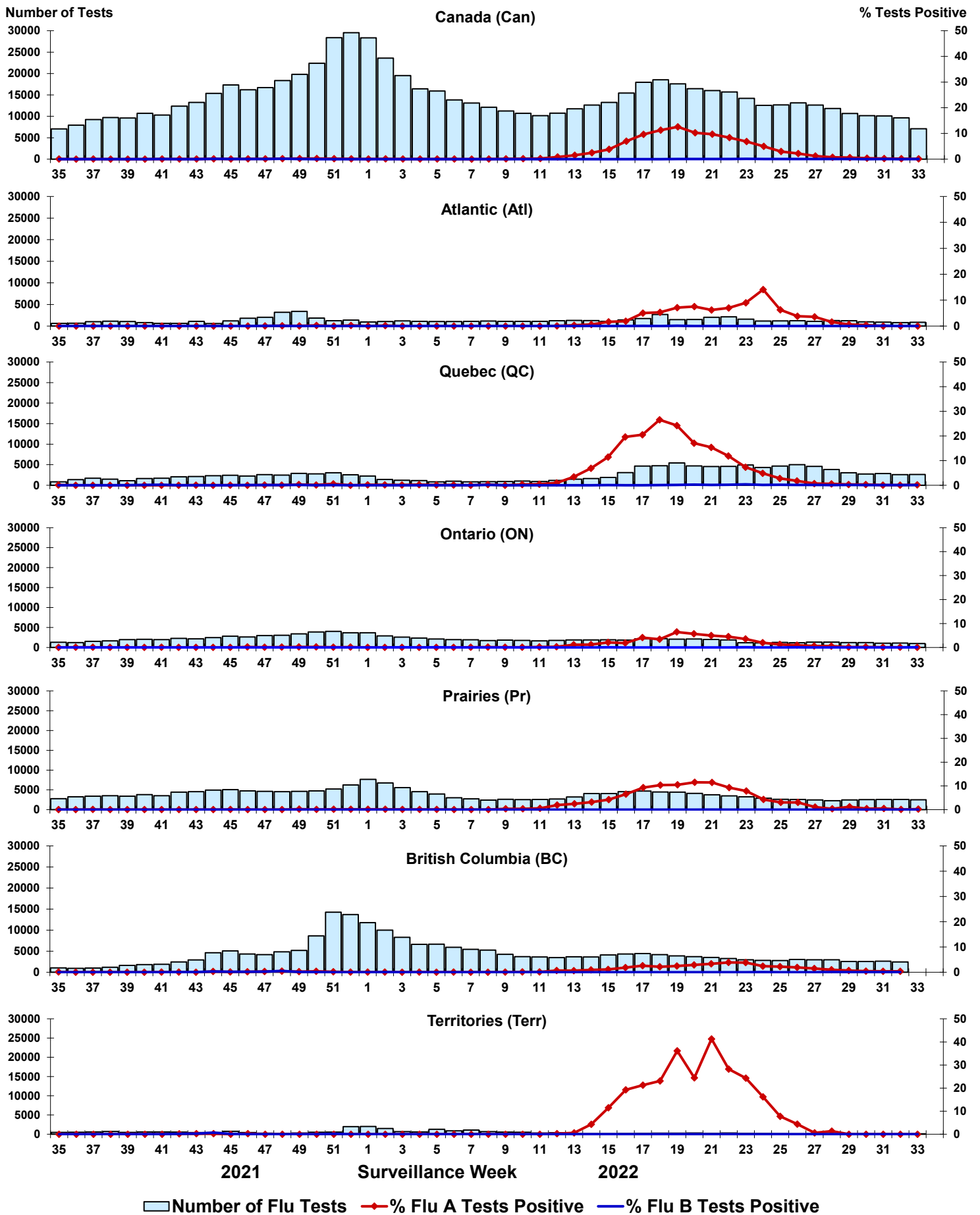


Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

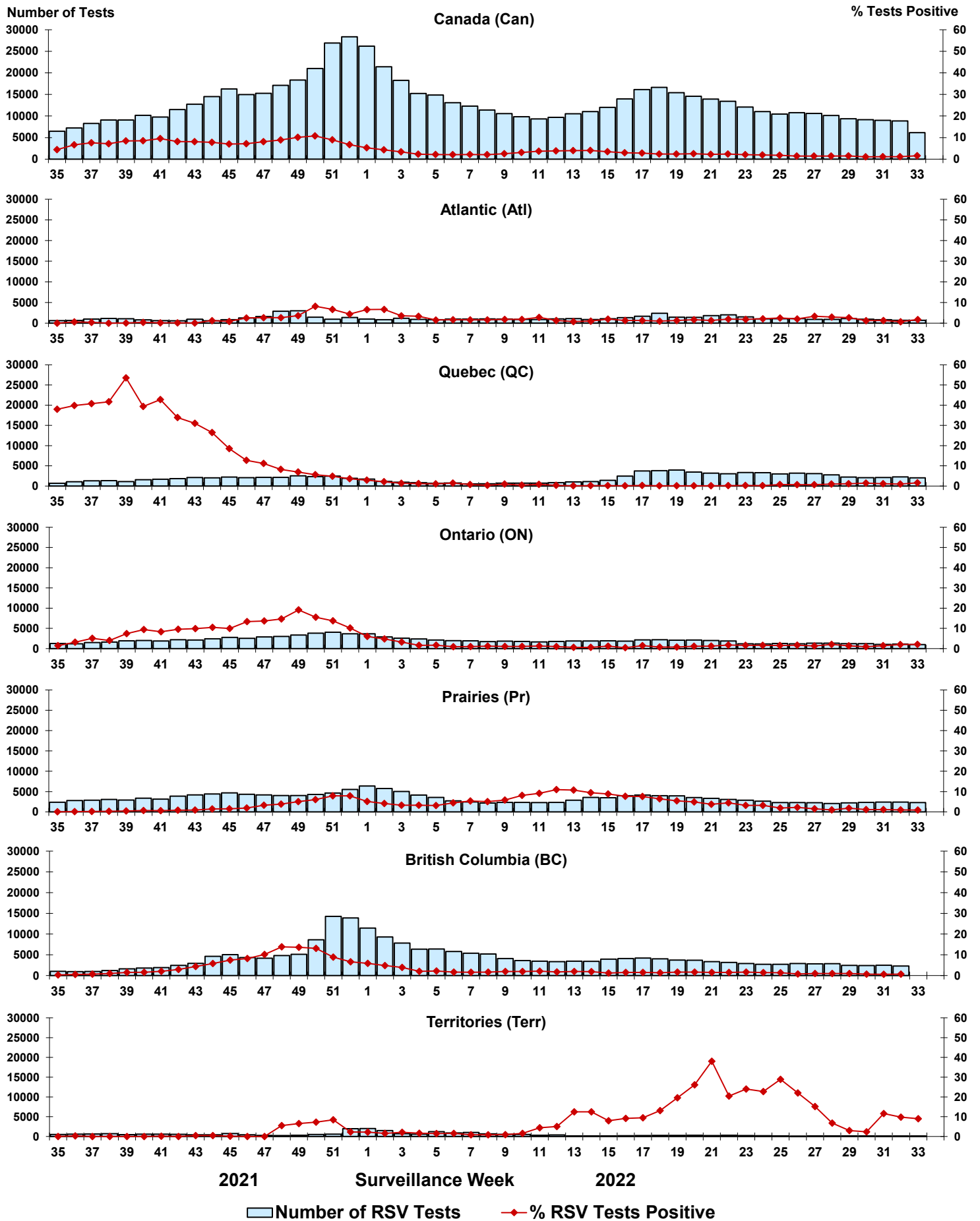


Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

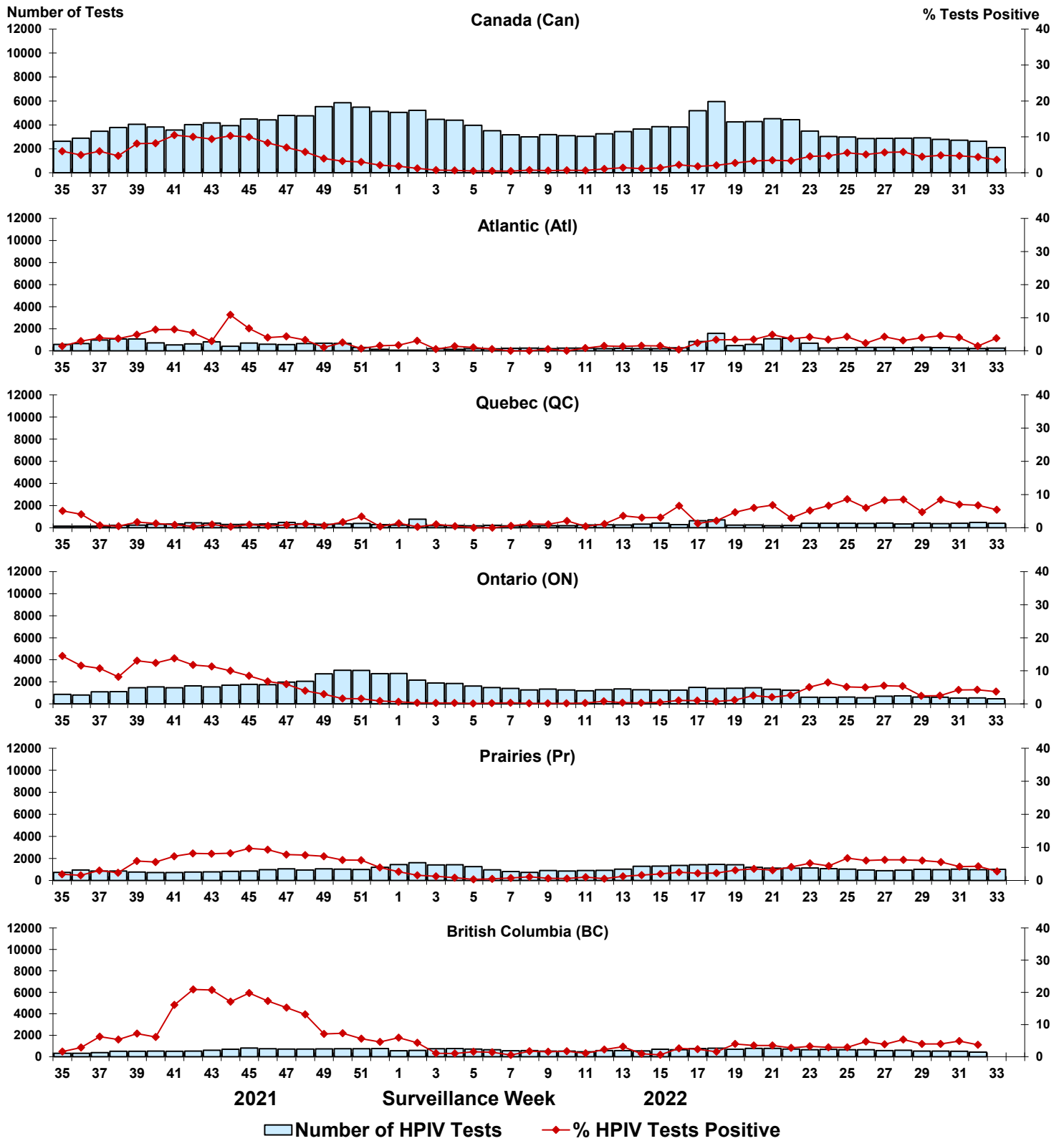


Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

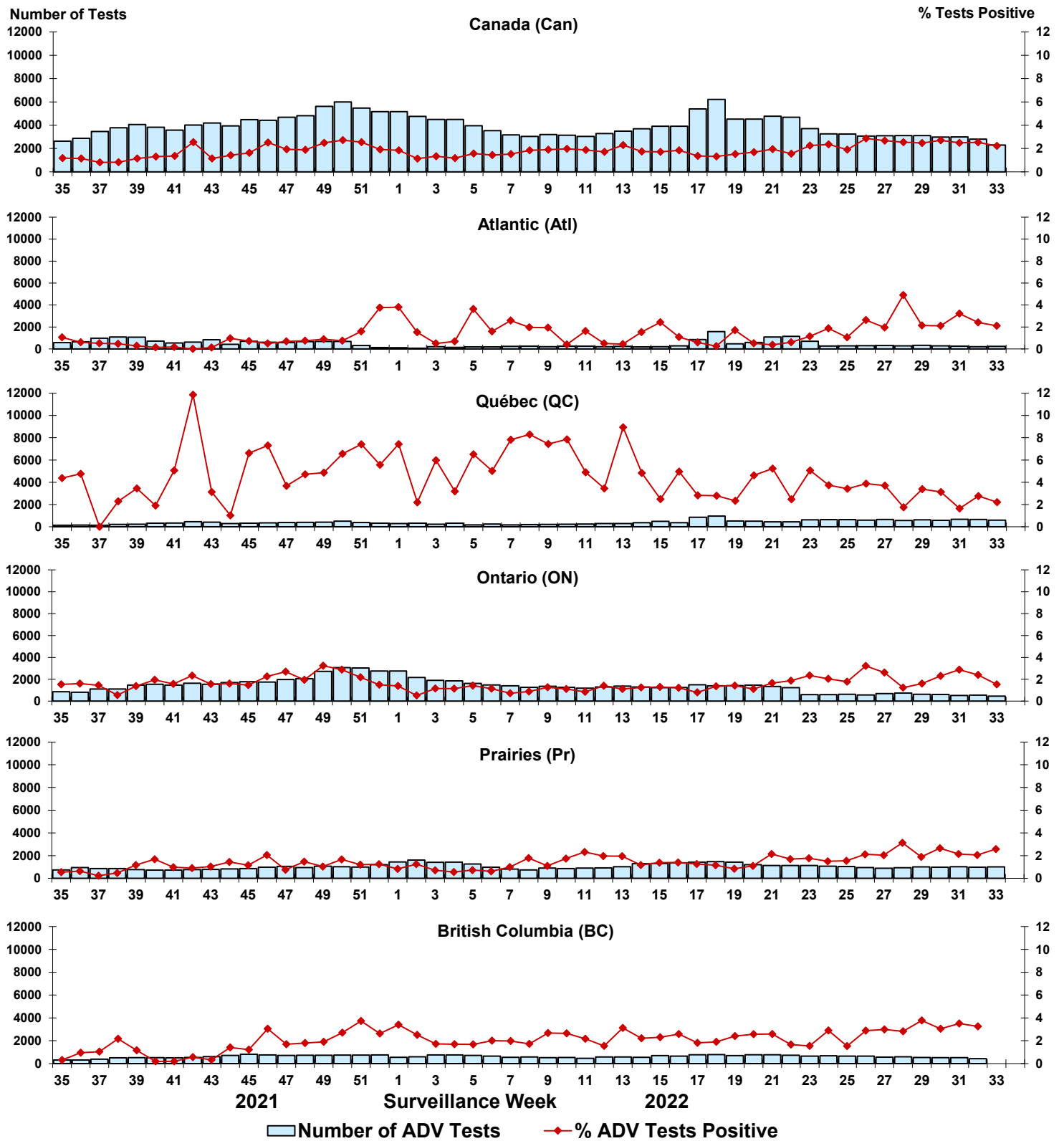


Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

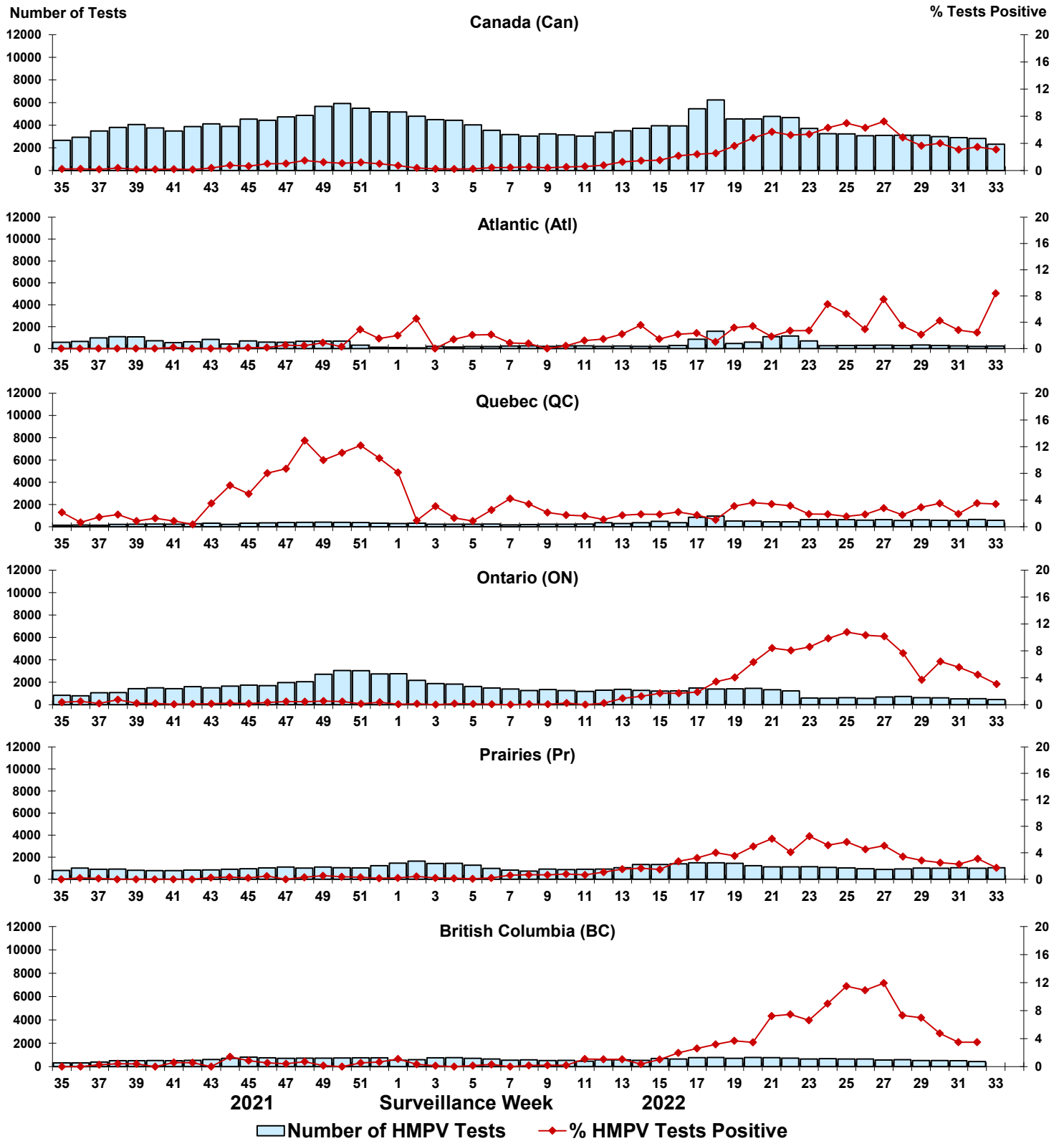


Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

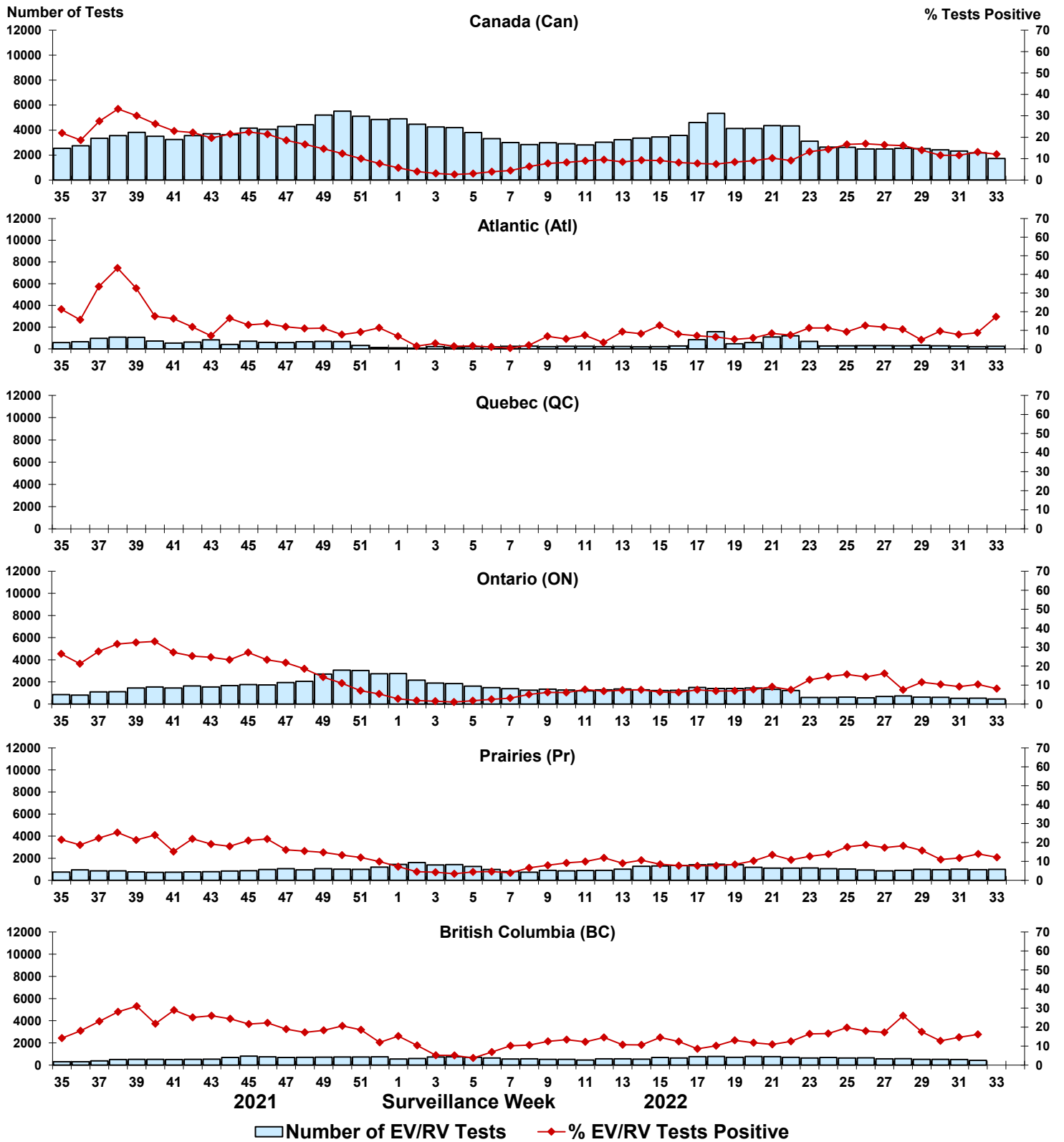


Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

