

RESPIRATORY VIRUS DETECTION REPORT

May 28 to June 3, 2023
(Surveillance Week 2023-22)



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 22 (week ending June 3, 2023) in Canada, participating RVDSS laboratories reported 2,257 detections of SARS-CoV-2 from 26,681 tests (8.5% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 4,984 to 16,128 tests), activity of nearly all viruses is within or below expected levels.

- Activity of influenza remains low at inter-seasonal levels. Both influenza A (85 detections; 0.5% positive) and influenza B (160 detections; 1.0% positive) are within expected levels typical of this time of year.
- 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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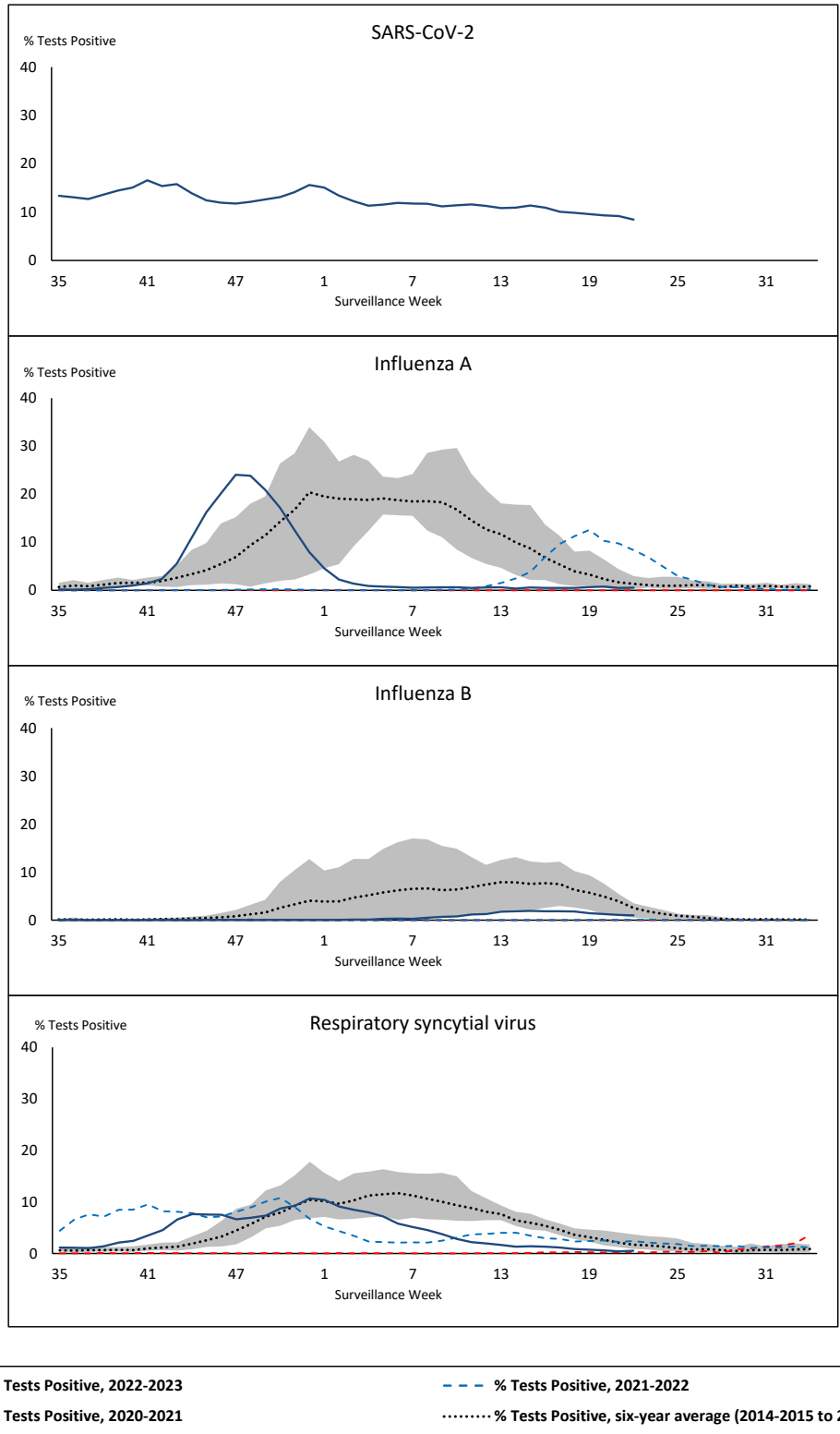


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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



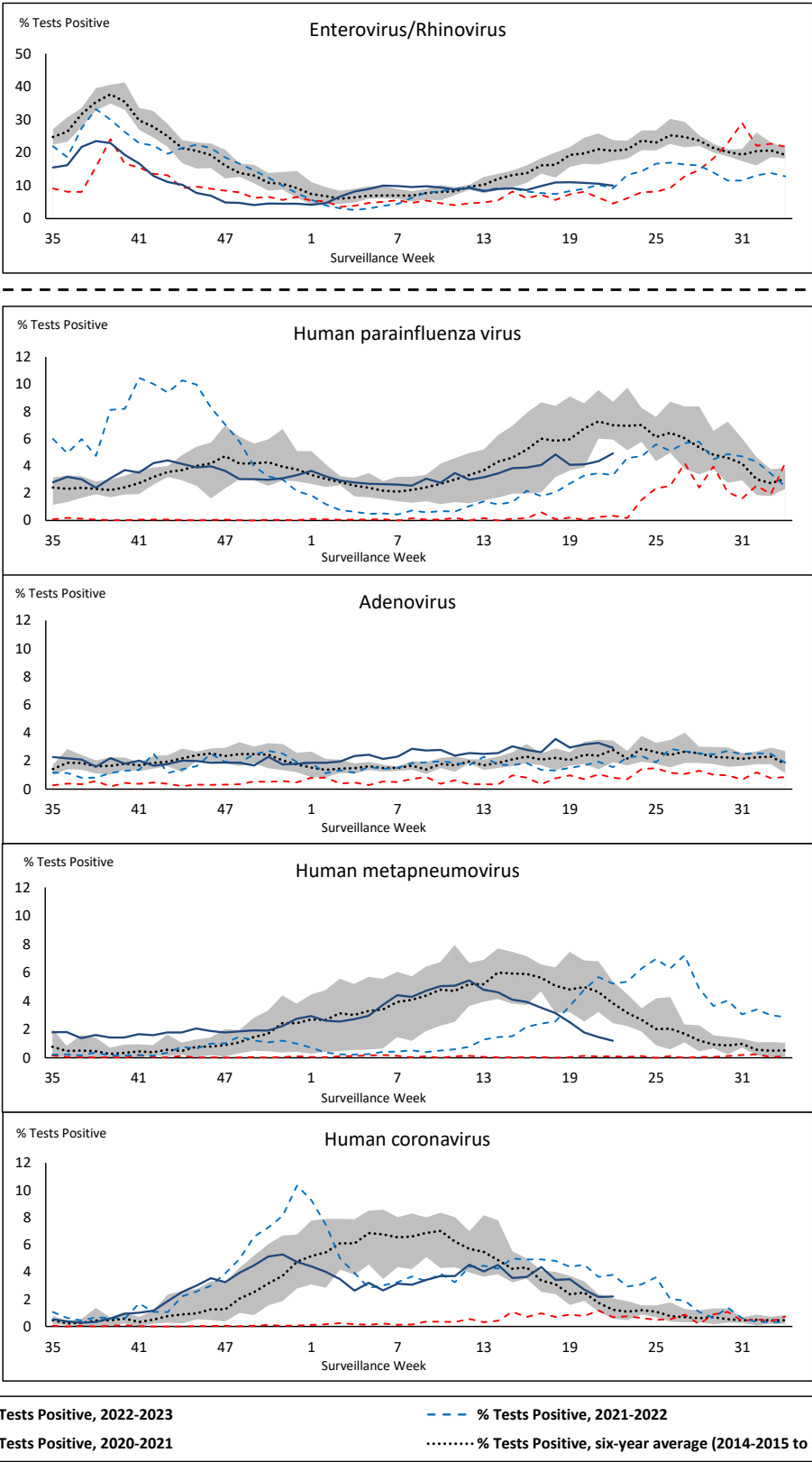
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 June 3, 2023 (surveillance week 2023-22)

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	383	36	218	0	0	0	0	0	218	11	218	1	0	3	16	0	218	10	218	3	218	18	218	15	
Prince Edward Island	69	9	10	0	0	0	0	0	10	0	5	0	0	2	0	0	5	1	5	1	5	0	5	0	
Nova Scotia	1042	150	683	0	0	0	0	0	683	2	20	2	0	0	0	0	20	1	20	1	20	1	20	1	
New Brunswick	649	65	593	0	0	0	0	1	589	2	62	4	0	0	0	0	62	4	62	2	62	9	62	1	
Atlantic	2143	260	1504	0	0	0	0	1	1500	15	305	7	0	5	16	0	305	16	305	7	305	28	305	17	
Région Nord-Est	1263	117	1009	0	0	2	2	5	195	2	40	0	0	3	0	0	40	2	40	0	N.C.	N.C.	40	0	
Québec-Chaudière-Appalaches	1721	135	376	0	0	1	1	7	376	4	164	0	0	0	1	0	194	13	164	5	N.C.	N.C.	164	0	
Centre-du-Québec	1650	140	176	0	0	0	0	6	173	2	31	0	0	0	1	0	31	1	31	0	N.C.	N.C.	31	0	
Montréal-Laval	2845	249	1933	0	0	7	7	43	1143	13	487	3	0	16	3	0	487	20	489	6	N.C.	N.C.	487	9	
Ouest du Québec	1104	108	266	0	0	1	1	5	266	1	12	0	0	0	1	0	12	2	12	0	N.C.	N.C.	12	0	
Montérégie	1255	100	814	0	0	6	6	10	716	9	4	0	0	0	0	0	4	0	4	0	N.C.	N.C.	4	0	
Province of Québec	9838	849	4574	0	0	17	17	76	2869	31	738	3	0	19	6	0	768	38	740	11	N.C.	N.C.	738	9	
P.H.O.L. - Ottawa	115	31	59	1	0	0	1	0	59	0	44	0	0	0	0	3	44	0	44	0	44	4	44	1	
EOURLA	974	74	260	0	0	2	2	4	260	1	28	0	1	0	0	0	28	0	28	0	28	8	28	1	
P.H.O.L. - Kingston	279	12	43	0	0	0	0	0	43	0	38	0	0	0	0	1	38	0	38	0	38	4	38	4	
UHN / Mount Sinai Hospital	1042	80	621	0	0	4	4	1	621	0	52	0	0	5	0	0	52	0	52	0	52	6	52	1	
P.H.O.L. - Toronto	476	91	609	3	0	0	2	7	609	2	594	0	0	0	0	47	594	17	594	12	594	76	594	24	
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	1027	62	1027	3	0	0	3	21	1027	0	1031	0	0	0	0	35	1031	17	1033	8	1033	54	1033	5	
P.H.O.L. - Sault Ste. Marie	9	0	6	0	0	0	0	0	6	0	6	0	0	0	0	0	6	0	6	0	6	3	6	0	
P.H.O.L. - Timmins	75	8	28	0	0	0	0	0	28	0	22	0	0	0	0	1	22	0	22	1	22	2	22	2	
St. Joseph's - London	835	39	79	0	0	0	0	0	79	0	53	0	0	0	0	2	53	3	53	2	53	8	53	1	
P.H.O.L. - London	255	18	153	1	0	0	1	0	153	0	130	0	0	0	0	17	130	2	130	5	130	12	130	4	
P.H.O.L. - Orillia	18	3	26	0	0	0	0	0	26	3	26	0	0	0	0	4	26	0	26	0	26	3	26	1	
P.H.O.L. - Thunder Bay	39	0	12	0	0	0	0	0	12	0	11	0	0	0	0	0	11	0	11	1	11	3	11	0	
P.H.O.L. - Sudbury	27	17	11	0	0	0	0	0	11	0	11	0	0	0	0	0	11	0	11	0	11	1	11	0	
P.H.O.L. - Hamilton	218	45	125	0	0	0	0	3	125	0	106	0	0	0	0	3	106	8	106	2	106	15	106	4	
P.H.O.L. - Peterborough	61	1	71	0	0	0	0	1	71	0	45	0	0	0	0	3	45	3	45	1	45	12	45	2	
St. Joseph's - Hamilton	1320	101	1069	0	0	4	4	14	1069	1	1069	0	0	23	0	0	1069	28	1069	7	1069	57	0	0	
Sault Area Hospital	84	7	84	0	0	0	0	0	84	0	59	1	0	1	0	0	59	1	59	1	59	16	59	2	
Province of Ontario	6854	589	4283	8	0	10	17	51	4283	7	3325	1	1	29	0	116	3325	79	3327	40	3327	284	2258	52	
Manitoba	1035	76	938	0	0	4	4	5	938	3	73	0	1	0	1	0	73	1	93	2	73	24	93	5	
Saskatchewan	1224	36	503	0	0	10	10	1	466	0	206	16	4	1	7	0	206	10	206	4	206	36	206	6	
Alberta	3111	217	2287	8	0	0	8	14	2198	7	810	4	6	5	2	0	810	8	810	0	810	76	810	11	
Prairies	5370	329	3728	8	0	14	22	20	3602	10	1089	20	11	6	10	0	1089	19	1109	6	1089	136	1109	22	
British Columbia	2286	230	1887	13	1	0	23	4	1887	5	578	20	3	14	10	0	536	25	536	8	516	74	574	9	
Yukon	31	0	14	0	0	0	0	0	14	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	29	0	29	6	0	0	6	0	29	4	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	29	5	N.C.	N.C.
Nunavut	130	0	109	0	0	0	0	8	109	3	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	190	0	152	6	0	0	6	8	152	7	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	29	5	N.C.	N.C.	
CANADA	26681	2257	16128	35	1	41	85	160	14293	75	6035	51	15	73	42	116	6023	177	6017	72	5266	527	4984	109	

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.

Table 2: Cumulative respiratory virus detections from August 28, 2022 to June 3, 2023 (surveillance weeks 2022-35 to 2023-22)

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	22068	3854	12771	8	246	674	928	9	12771	604	12771	59	31	379	111	0	12771	251	12771	380	12771	1080	12771	514
Prince Edward Island	33127	7271	4031	1	119	248	368	4	4031	384	1151	19	27	80	7	0	1151	75	1151	38	1151	338	1151	35
Nova Scotia	131689	25785	43061	0	4	3644	3648	13	43051	2415	1355	9	16	32	4	0	1362	55	1352	45	1362	253	1362	60
New Brunswick	107637	15813	49532	23	133	4433	4589	29	41502	2053	3752	32	31	161	8	0	3752	264	3752	183	3752	678	3697	233
Atlantic	294521	52723	109395	32	502	8999	9533	55	101355	5456	19029	119	105	652	130	0	19036	645	19026	646	19036	2349	18981	842
Région Nord-Est	94485	11437	56130	0	4	3872	3876	80	16725	1381	1673	29	5	92	0	0	1674	136	1665	97	N.C.	N.C.	1674	112
Québec-Chaudière-Appalaches	193369	18270	26704	0	0	2901	2901	167	26014	1931	7708	25	5	92	7	0	8304	679	7708	354	N.C.	N.C.	7708	339
Centre-du-Québec	158607	21532	16283	0	0	1782	1782	107	14530	993	1106	13	1	52	12	0	1106	126	1106	74	N.C.	N.C.	1106	72
Montréal-Laval	216918	26496	106532	0	9	6268	6277	1543	57729	2760	23408	139	21	535	42	0	23417	1039	23564	810	N.C.	N.C.	23093	791
Ouest du Québec	118762	15158	24433	0	7	2200	2207	186	22136	1323	1095	21	0	67	4	0	1094	199	1095	60	N.C.	N.C.	1096	63
Montérégie	150702	16986	32242	0	0	1805	1805	250	29050	1210	162	0	0	2	0	0	162	4	162	6	N.C.	N.C.	162	5
Province of Québec	932843	109879	262324	0	20	18828	18848	2333	166184	9598	35152	227	32	840	65	0	35757	2183	35300	1401	N.C.	N.C.	34839	1382
P.H.O.L. - Ottawa	29376	7421	5852	19	136	66	215	2	5852	355	4102	0	0	0	0	126	4102	18	4102	115	4102	386	4102	207
EOURLA	91092	8793	17079	0	0	1416	1416	49	17079	1298	1384	11	5	56	17	0	1384	51	1384	61	1384	309	1384	99
P.H.O.L. - Kingston	31007	4953	3221	5	92	38	135	3	3220	180	2563	0	0	0	0	116	2564	28	2564	81	2563	323	2564	104
UHN / Mount Sinai Hospital	99296	7541	24713	7	44	356	407	56	24713	319	2198	2	2	39	2	0	2165	7	2198	15	2198	78	2198	88
P.H.O.L. - Toronto	52851	11161	30027	135	2415	151	1146	63	29995	1350	26610	0	0	0	0	1109	26614	548	26609	1025	26610	2572	26609	1316
Sick Kids Hospital - Toronto	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shared Hospital Laboratory	88180	6176	88180	128	1471	727	2326	360	88181	2213	65466	4	0	16	0	770	65479	674	65759	954	65707	2304	65599	1035
P.H.O.L. - Sault Ste. Marie	1847	346	713	1	52	15	58	0	713	25	623	0	0	0	0	54	623	4	623	30	623	50	623	44
P.H.O.L. - Timmins	9387	901	1101	0	161	6	156	0	1099	98	1019	0	0	0	0	56	1019	14	1019	29	1019	86	1019	48
St. Joseph's - London	125569	15250	21116	0	0	886	886	69	21116	1016	2309	0	0	0	0	87	2343	79	2343	70	2343	340	1931	107
P.H.O.L. - London	38215	8040	11721	14	585	63	644	25	11720	888	9426	0	0	0	0	480	9427	133	9427	246	9426	922	9427	320
P.H.O.L. - Orillia	598	267	2427	6	261	23	290	12	2427	233	2352	0	0	0	0	138	2353	70	2352	79	2352	346	2352	107
P.H.O.L. - Thunder Bay	8628	1717	1106	0	107	3	110	0	1105	96	980	0	0	0	0	38	980	18	980	29	980	116	981	38
P.H.O.L. - Sudbury	2150	319	818	1	65	14	67	0	818	79	697	0	0	0	0	30	697	8	697	45	697	42	697	25
P.H.O.L. - Hamilton	26457	7002	9762	17	302	92	409	39	9759	555	7262	0	0	0	0	295	7264	166	7262	257	7262	727	7262	294
P.H.O.L. - Peterborough	5429	1026	1667	1	67	11	79	16	1667	115	1345	0	0	0	0	53	1345	31	1345	48	1345	228	1345	48
St. Joseph's - Hamilton	101993	13746	51586	0	0	2743	2743	494	51586	2289	51586	0	0	1073	0	0	51586	751	51586	915	51586	3418	0	0
Sault Area Hospital	12609	2129	8525	1	262	258	521	7	8525	170	2880	36	7	73	4	0	2880	50	2880	101	2880	307	2880	82
Province of Ontario	724684	96788	279614	335	6020	6868	11608	1195	279575	11279	182802	53	14	1257	23	3352	182825	2650	183130	4100	183077	12554	130973	3962
Manitoba	73805	11963	44538	18	202	1804	2024	66	44538	1782	5606	45	38	173	8	0	5596	140	5951	221	5606	852	5951	222
Saskatchewan	169997	13701	43152	2	41	3968	4011	77	34987	2216	14444	144	110	530	66	0	14446	380	14446	665	14447	1576	14442	519
Alberta	243127	34383	136670	1048	7304	2844	11196	760	121456	7663	47630	364	132	949	146	0	47615	663	47568	1262	46875	4410	47630	1307
Prairies	486929	60047	224360	1068	7547	8616	17231	903	200981	11661	67680	553	280	1652	220	0	67657	1183	67965	2148	66928	6838	68023	2048
British Columbia	240531	25971	138895	434	4356	304	8958	309	130812	8240	30402	337	202	1134	193	6	30370	947	30370	1175	29418	4556	29473	1131
Yukon	5276	400	948	2	136	0	138	9	946	59	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	1690	192	1536	10	147	1	158	5	1536	114	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1536	306	N.C.
Nunavut	5139	393	2967	4	230	3	237	228	2967	151	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	12105	985	5451	16	513	4	533	242	5449	324	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1536	306	N.C.	N.C.
CANADA	2691613	346393	1020039	1885	18958	43619	66711	5037	884356	46558	335065	1289	633	5535	631	3358	335645	7608	335791	9470	299995	26603	282289	9365

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.

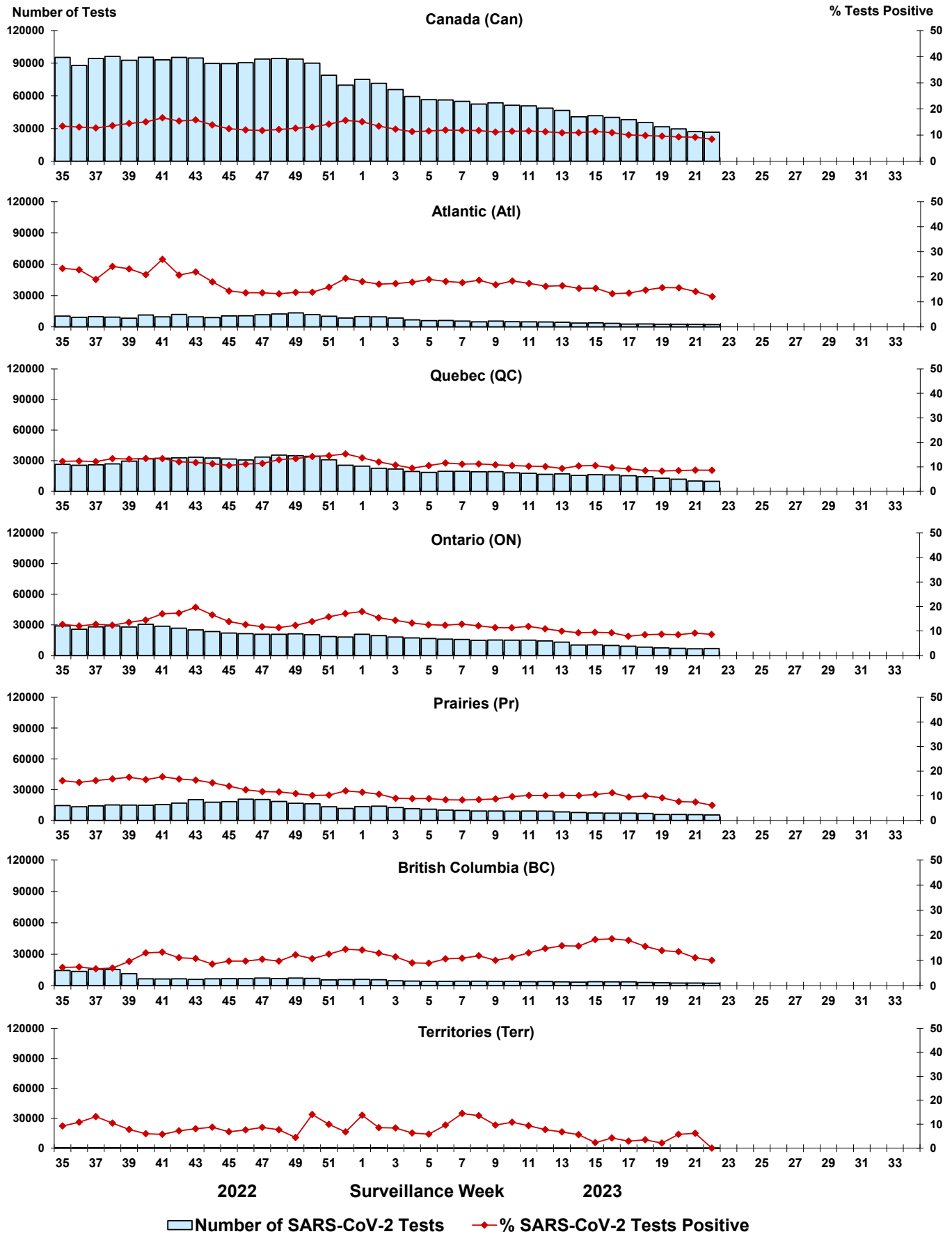
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Results from British Columbia comprise of specimens from the following sites: Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Vancouver Coastal Health sites, Victoria 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. Due to these delays, the sum of weekly report totals do not add up to cumulative totals.

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

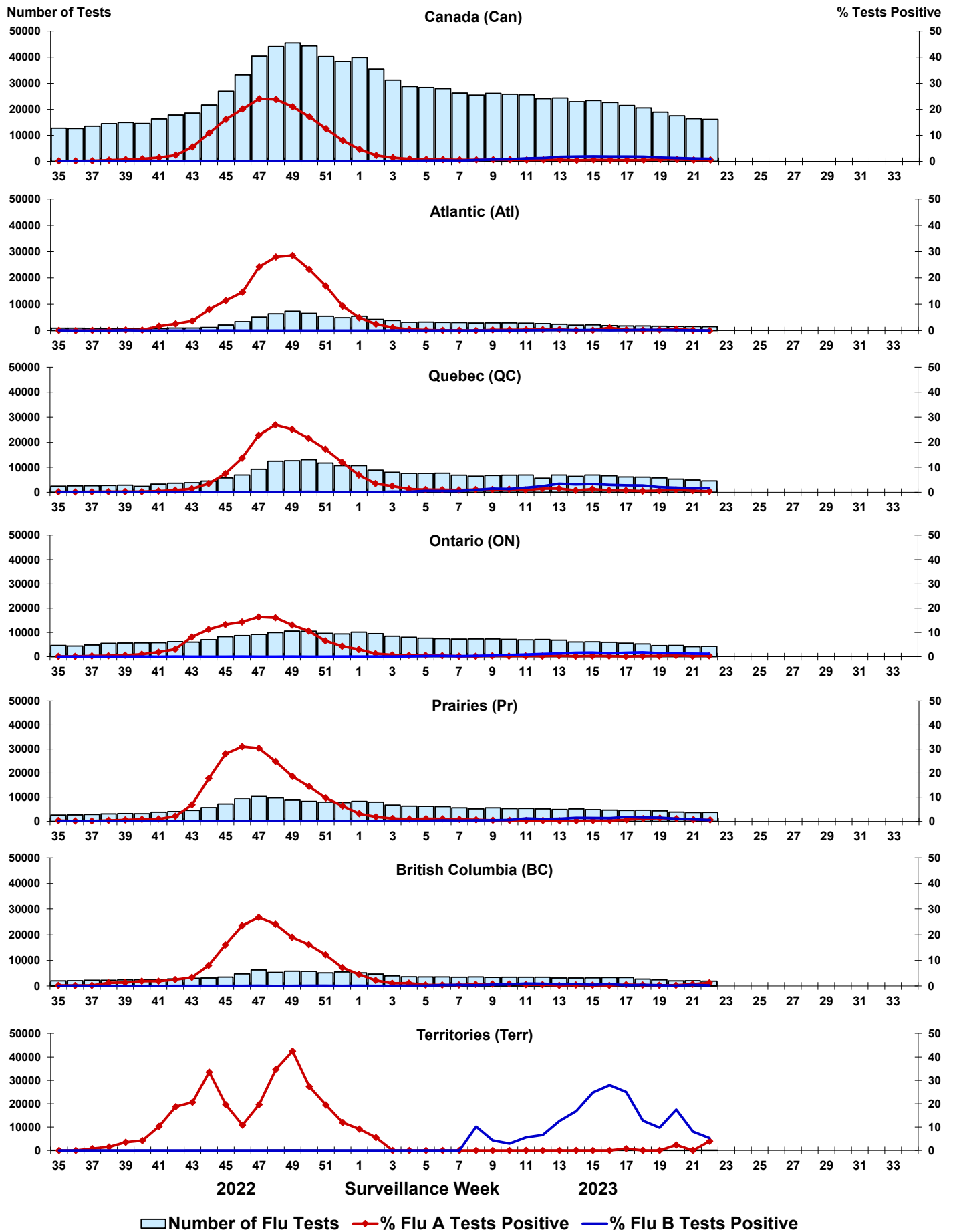


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

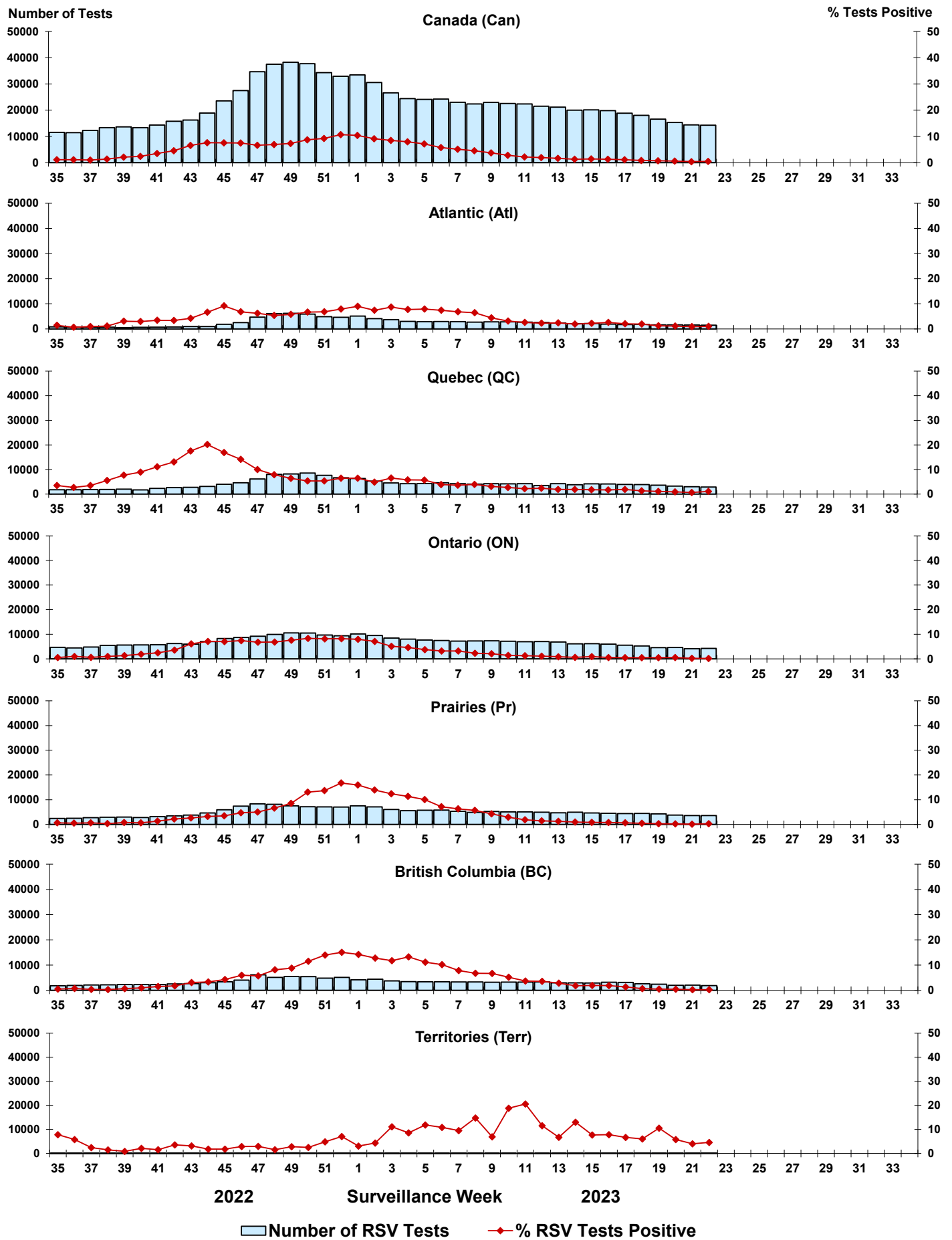


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

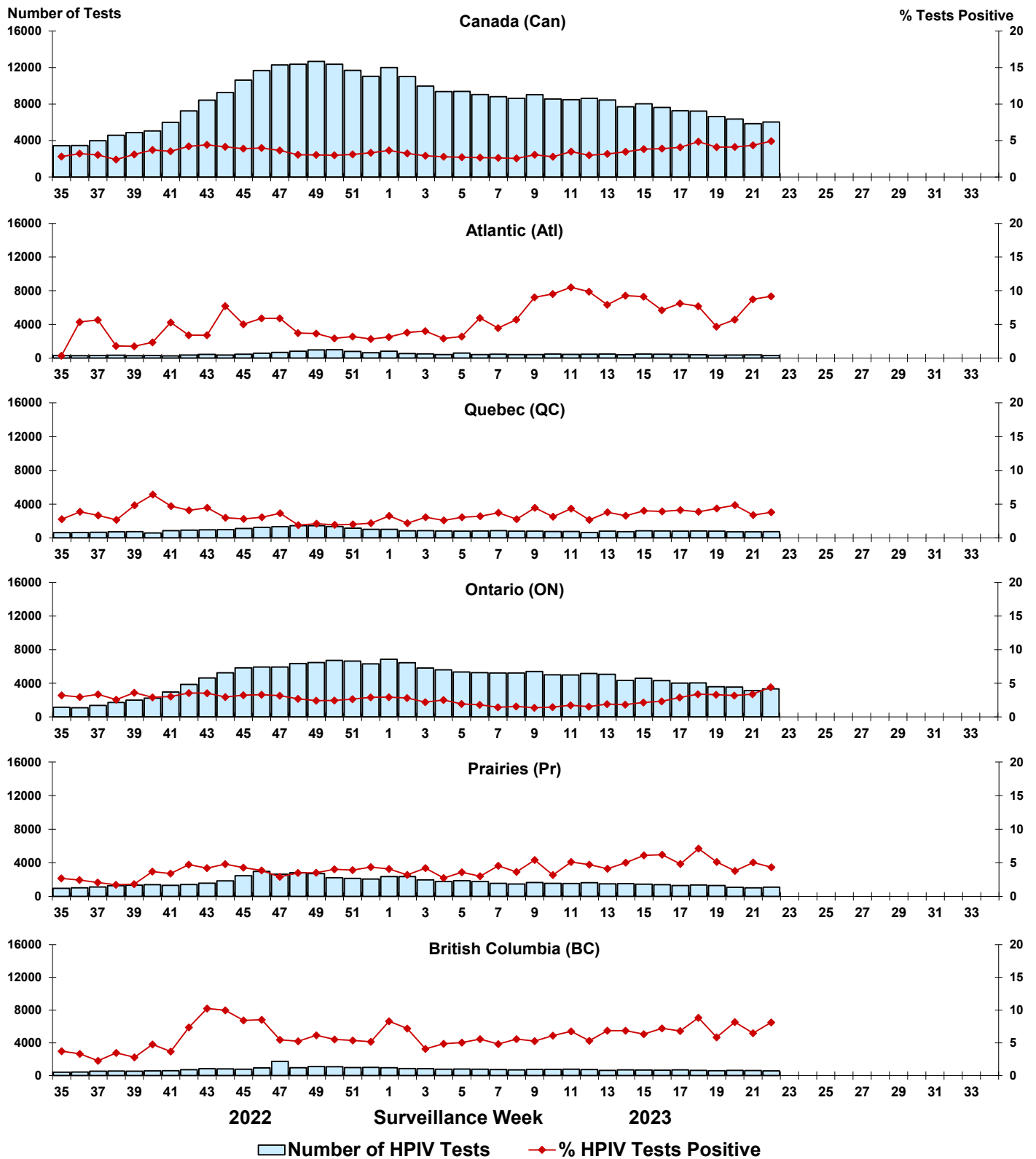


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

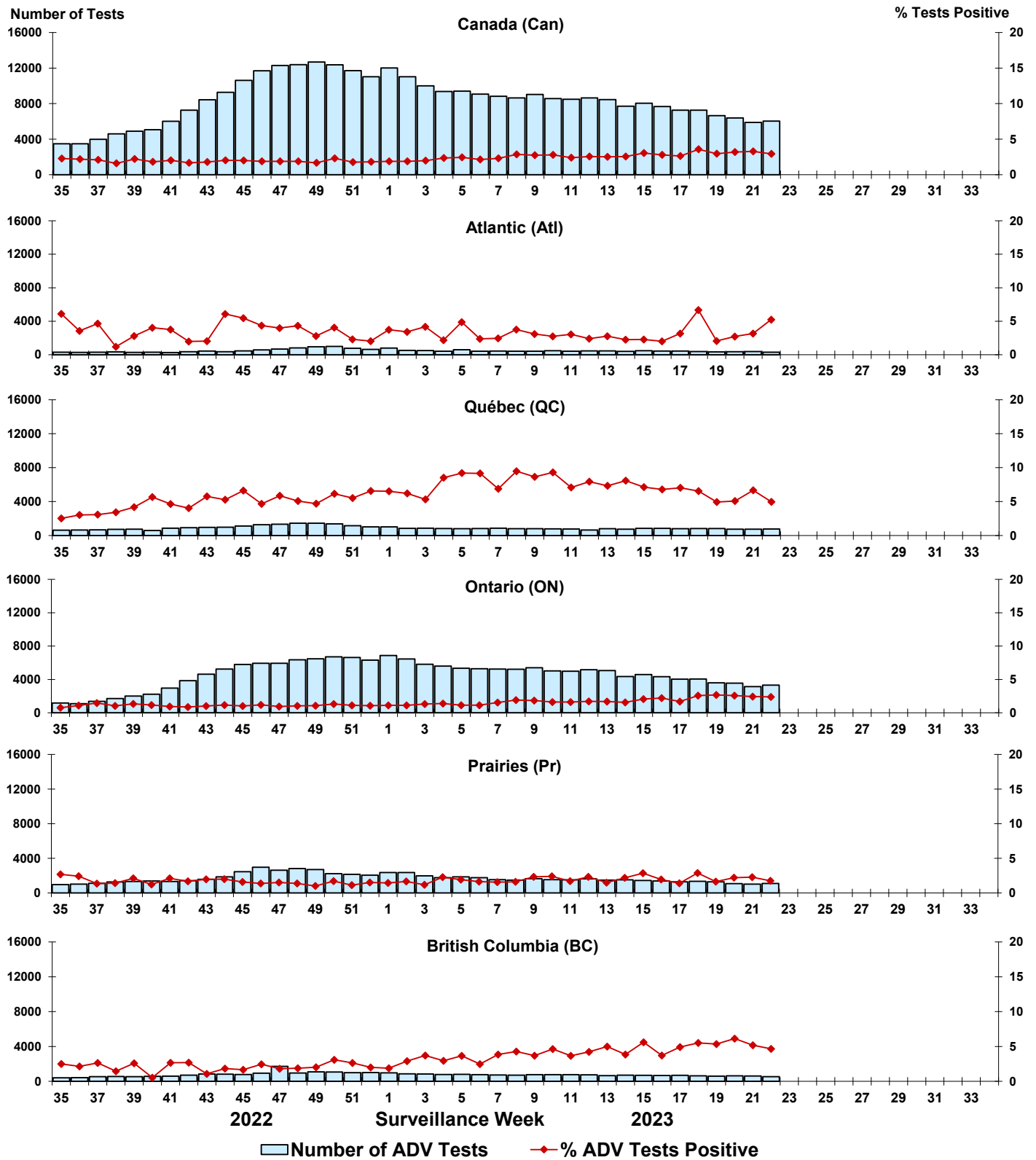


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

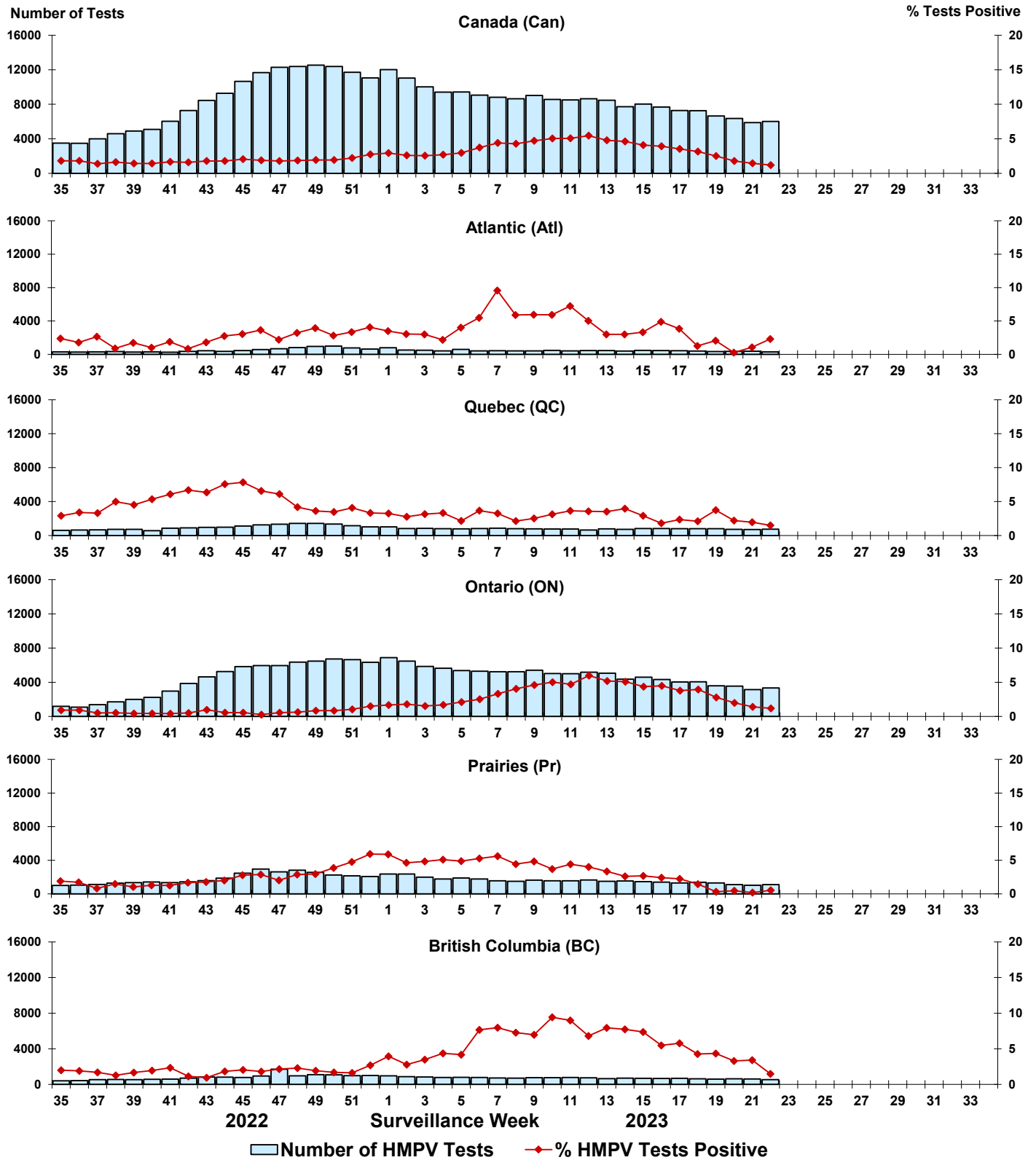


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

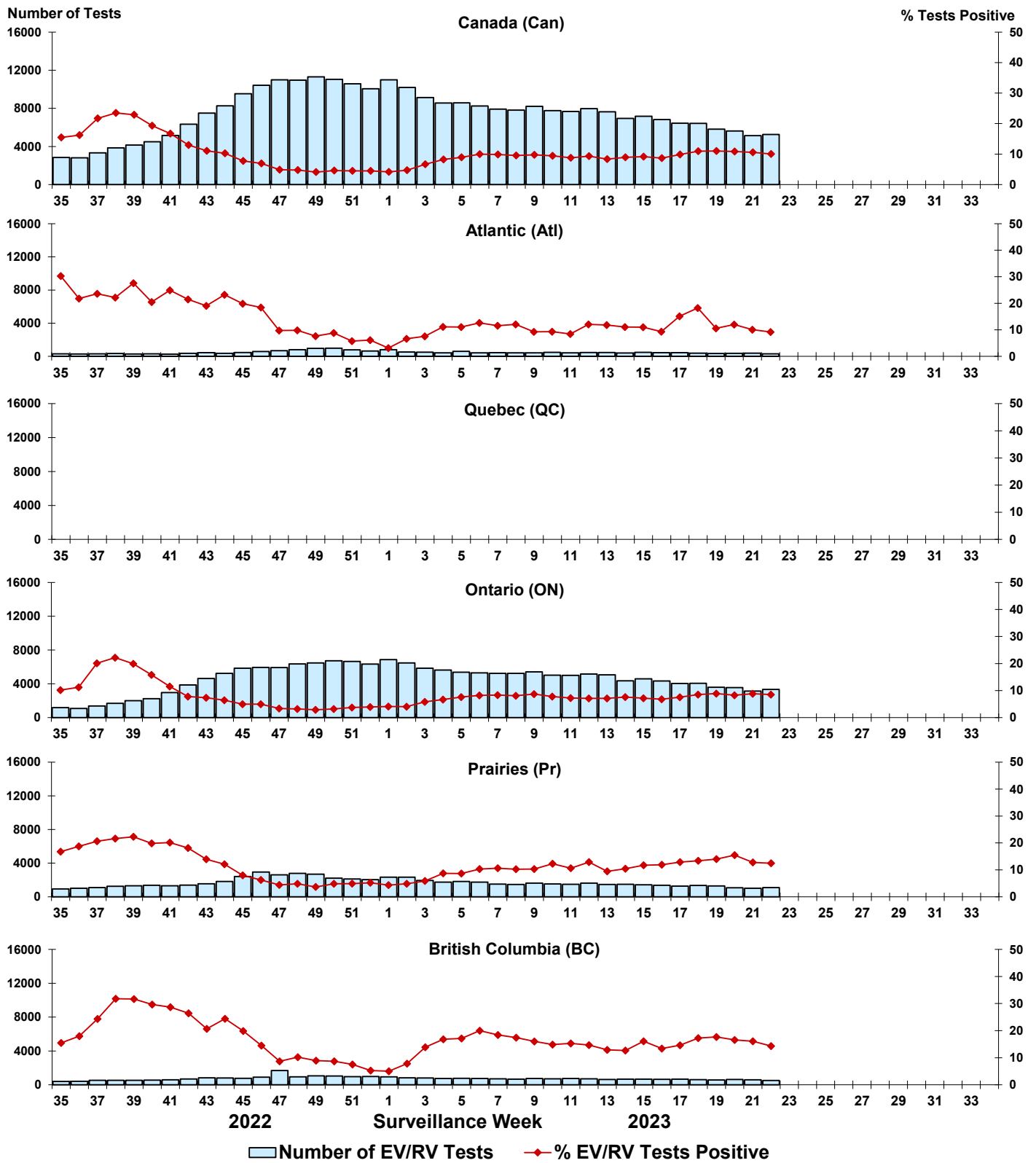


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

