

RESPIRATORY VIRUS DETECTION REPORT

June 4 to June 10, 2023
(Surveillance Week 2023-23)



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 23 (week ending June 10, 2023) in Canada, participating RVDSS laboratories reported 1,819 detections of SARS-CoV-2 from 24,412 tests (7.5% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 4,417 to 14,031 tests), activity of nearly all viruses is within or below expected levels.

- Activity of influenza remains low at inter-seasonal levels. Both influenza A (82 detections; 0.6% positive) and influenza B (97 detections; 0.7% 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

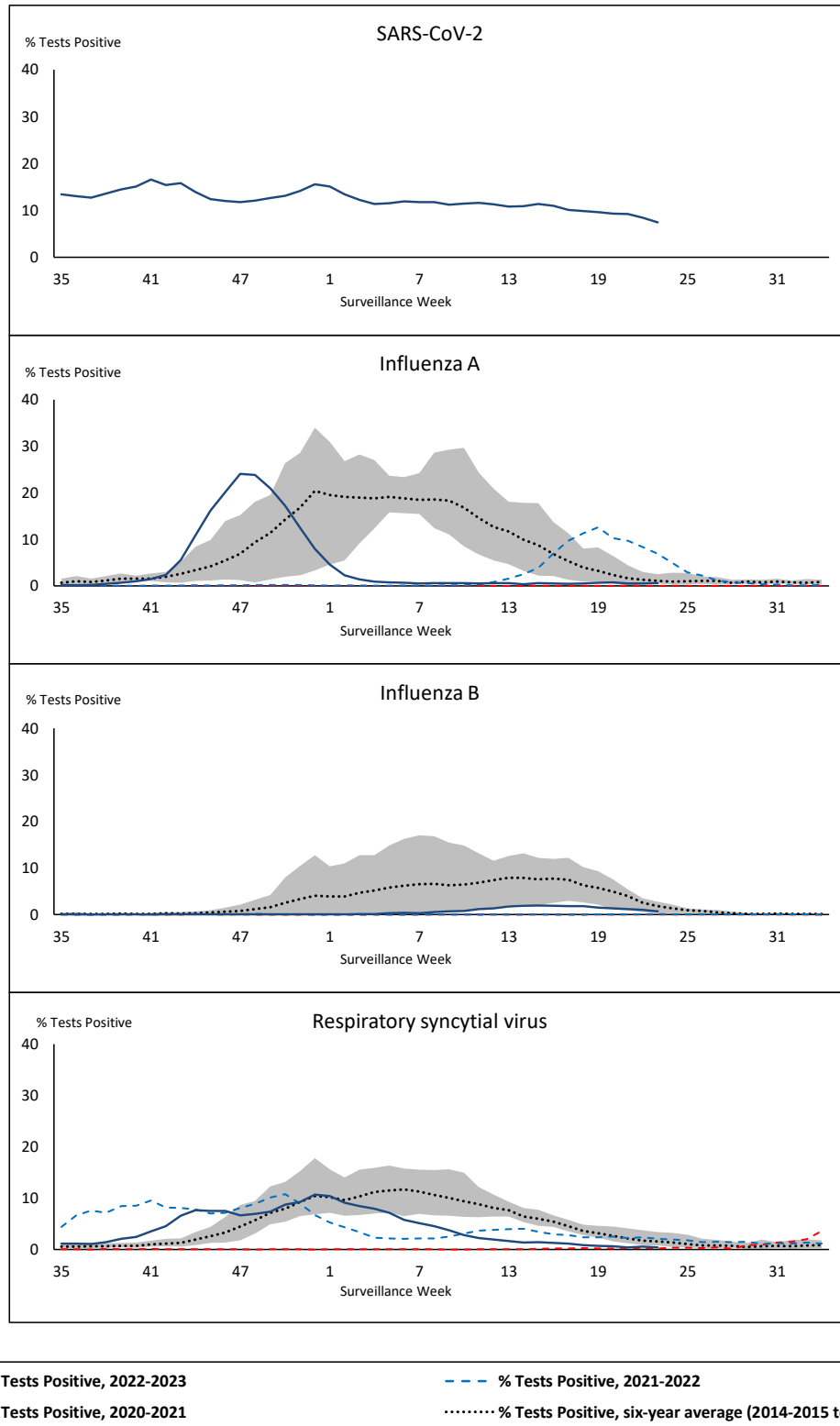
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

Terr: Territories of Canada

UHN: University Health Network



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



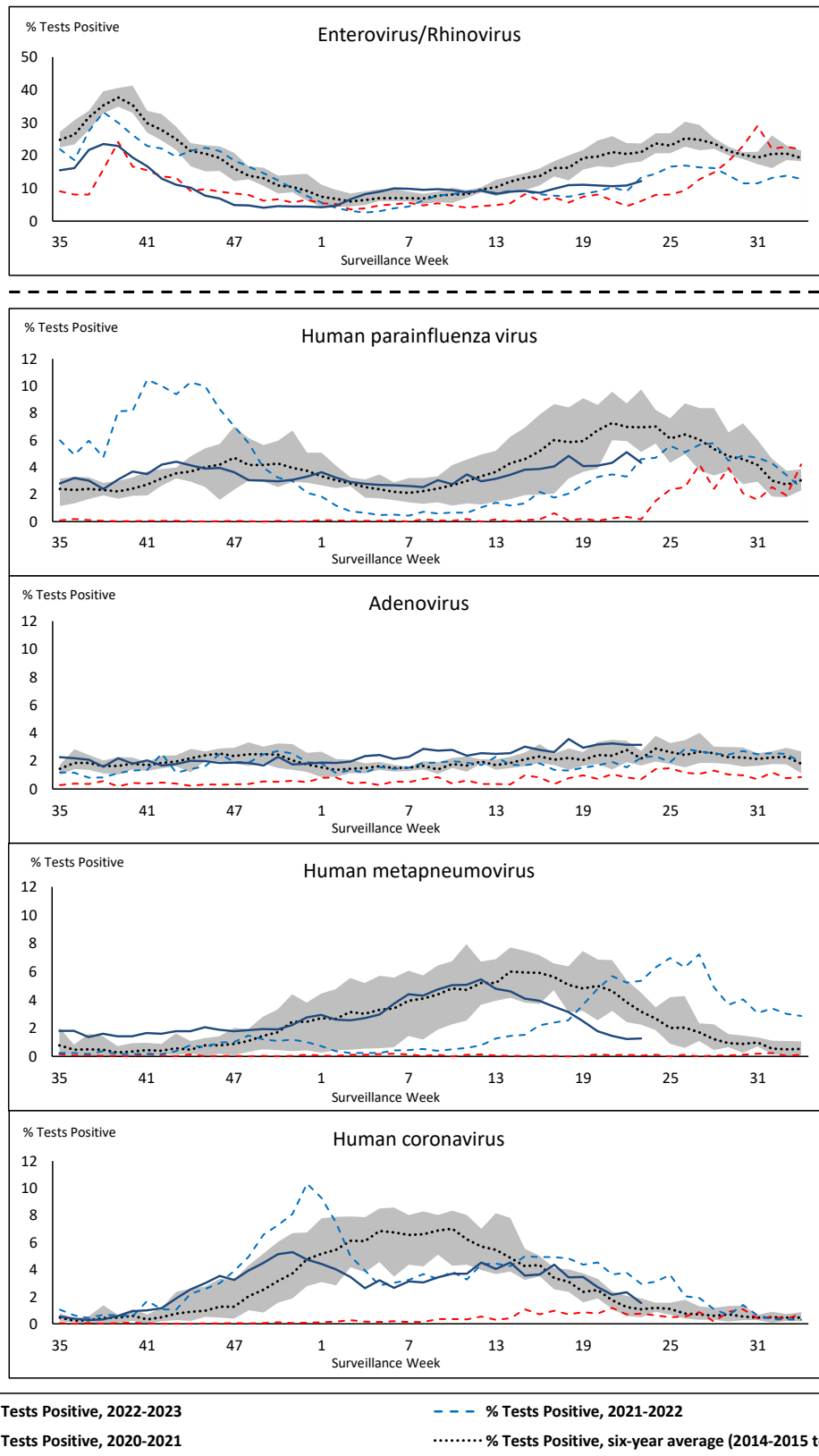
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 10, 2023 (surveillance week 2023-23)

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	370	60	228	0	0	1	1	0	228	7	228	2	0	1	11	0	228	7	228	3	228	27	228	21	
Prince Edward Island	99	12	22	0	0	0	0	0	22	0	7	1	0	1	0	0	7	2	7	1	7	3	7	0	
Nova Scotia	1176	208	735	0	0	1	1	0	736	2	25	0	0	0	0	0	25	1	25	0	25	4	25	0	
New Brunswick	629	65	592	0	0	1	1	0	586	1	72	1	0	3	0	0	72	3	72	1	72	17	72	0	
Atlantic	2274	345	1577	0	0	3	3	0	1572	10	332	4	0	5	11	0	332	13	332	5	332	51	332	21	
Région Nord-Est	1123	98	860	0	0	7	7	5	146	1	40	0	0	1	0	0	40	3	38	1	N.C.	N.C.	40	0	
Québec-Chaudière-Appalaches	1739	109	363	0	0	3	3	4	363	2	159	0	0	2	2	0	181	15	159	4	N.C.	N.C.	159	0	
Centre-du-Québec	1648	131	162	0	0	0	0	6	160	0	18	1	0	0	0	0	18	2	18	0	N.C.	N.C.	18	0	
Montréal-Laval	2551	180	1256	0	0	5	5	18	1046	7	461	1	2	12	7	0	461	15	461	2	N.C.	N.C.	461	2	
Ouest du Québec	993	66	275	0	0	0	0	2	275	2	14	0	0	1	1	0	14	0	14	2	N.C.	N.C.	14	0	
Montérégie	1044	92	759	0	0	2	2	4	717	2	4	0	0	0	0	0	4	0	4	0	N.C.	N.C.	4	0	
Province of Québec	9098	676	3675	0	0	17	17	39	2707	14	696	2	2	16	10	0	718	35	694	9	N.C.	N.C.	696	2	
P.H.O.L. - Ottawa	97	10	53	1	0	0	1	1	53	0	47	0	0	0	0	0	47	0	47	0	47	7	47	1	
EOURLA	688	21	221	0	0	1	1	4	221	3	36	0	0	3	0	0	36	0	36	0	36	7	36	2	
P.H.O.L. - Kingston	269	3	31	0	0	0	0	0	31	0	29	0	0	0	0	1	29	1	29	0	29	8	29	0	
UH / Mount Sinai Hospital	807	45	461	0	0	1	1	1	461	0	28	0	0	1	0	0	28	0	28	0	28	1	28	2	
P.H.O.L. - Toronto	376	79	578	10	0	0	7	7	578	2	554	0	0	0	0	38	554	16	554	21	554	77	554	13	
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.	N.R.
Shared Hospital Laboratory	863	45	863	0	1	0	1	14	863	2	864	0	0	0	0	35	864	14	863	2	863	37	863	6	
P.H.O.L. - Sault Ste. Marie	14	0	6	0	0	0	0	0	6	0	6	0	0	0	0	0	6	0	6	1	6	1	6	0	
P.H.O.L. - Timmins	38	3	12	0	0	0	0	0	12	0	5	0	0	0	0	0	5	0	5	0	5	1	5	0	
St. Joseph's - London	723	33	79	0	0	0	0	0	79	0	51	0	0	0	0	0	51	2	51	2	51	3	51	1	
P.H.O.L. - London	213	22	134	0	1	0	1	2	134	0	125	0	0	0	0	14	125	2	125	1	125	23	125	2	
P.H.O.L. - Orillia	9	1	25	0	0	0	0	2	25	0	25	0	0	0	0	2	25	2	25	0	25	4	25	1	
P.H.O.L. - Thunder Bay	41	3	3	0	0	0	0	0	3	0	2	0	0	0	0	0	2	0	2	0	2	0	2	0	
P.H.O.L. - Sudbury	13	2	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	163	28	127	1	0	0	1	0	127	0	123	0	0	0	0	9	123	11	123	2	123	14	123	0	
P.H.O.L. - Peterborough	33	1	46	0	0	0	0	1	46	1	40	0	0	0	0	3	40	0	40	0	40	15	40	0	
St. Joseph's - Hamilton	1212	54	988	0	0	12	12	5	988	0	988	0	0	15	0	0	988	28	988	12	988	61	0	0	
Sault Area Hospital	89	8	89	0	0	0	0	0	89	2	57	0	0	0	0	0	57	1	57	0	57	19	57	1	
Province of Ontario	5648	358	3720	12	2	14	25	37	3720	10	2984	0	0	19	0	102	2984	77	2983	41	2983	278	1995	29	
Manitoba	915	72	788	0	0	0	0	4	788	4	71	1	2	1	0	0	71	6	87	0	71	26	87	1	
Saskatchewan	1213	37	569	0	0	8	8	1	521	1	213	7	3	0	1	0	213	4	213	6	213	50	213	0	
Alberta	2949	136	1973	12	0	0	12	6	1917	3	626	3	7	9	1	0	626	13	626	0	611	79	626	5	
Prairies	5077	245	3330	12	0	8	20	11	3226	8	910	11	12	10	2	0	910	23	926	6	895	155	925	6	
British Columbia	2171	193	1619	8	0	1	16	9	1618	7	490	10	3	8	8	0	490	23	490	8	469	87	469	9	
Yukon	31	1	13	0	0	0	0	0	13	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	26	1	22	0	0	0	0	0	22	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.	
Nunavut	87	0	75	1	0	0	1	1	75	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	144	2	110	1	0	0	1	1	110	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.	
CANADA	24412	1819	14031	33	2	43	82	97	12953	52	5412	27	17	58	31	102	5434	171	5425	69	4701	575	4417	67	

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 positive.

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

Table 2: Cumulative respiratory virus detections from August 28, 2022 to June 10, 2023 (surveillance weeks 2022-35 to 2023-23)

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	22438	3914	12999	8	246	675	929	9	12999	611	12999	61	31	380	122	0	12999	258	12999	383	12999	1107	12999	535
Prince Edward Island	33226	7283	4053	1	119	248	368	4	4053	384	1158	20	27	81	7	0	1158	77	1158	39	1158	341	1158	35
Nova Scotia	132865	25993	43796	0	4	3645	3649	13	43787	2417	1380	9	16	32	4	0	1387	56	1377	45	1387	257	1387	60
New Brunswick	108266	15878	50124	23	133	4434	4590	29	42088	2054	3824	33	31	164	8	0	3824	267	3824	184	3824	695	3769	233
Atlantic	296795	53068	110972	32	502	9002	9536	55	102927	5466	19361	123	105	657	141	0	19368	658	19358	651	19368	2400	19313	863
Région Nord-Est	95608	11535	56991	0	4	3879	3883	85	16872	1382	1714	29	5	93	0	0	1715	139	1704	98	N.C.	N.C.	1715	112
Québec-Chaudière-Appalaches	195109	18380	27067	0	0	2904	2904	171	26377	1933	7867	25	5	94	9	0	8487	695	7867	358	N.C.	N.C.	7867	339
Centre-du-Québec	160255	21663	16444	0	0	1782	1782	113	14689	993	1123	14	1	52	12	0	1123	128	1123	74	N.C.	N.C.	1123	72
Montréal-Laval	219467	26676	107786	0	9	6273	6282	1561	58773	2767	23868	140	23	547	49	0	23877	1054	24024	812	N.C.	N.C.	23553	793
Ouest du Québec	119753	15224	24708	0	7	2200	2207	188	22411	1325	1109	21	0	68	5	0	1108	199	1109	62	N.C.	N.C.	1110	63
Montréal	151746	17078	33001	0	0	1807	1807	254	29767	1212	166	0	0	2	0	0	166	4	166	6	N.C.	N.C.	166	5
Province of Québec	941938	110556	265997	0	20	18845	18865	2372	168889	9612	35847	229	34	856	75	0	36476	2219	35993	1410	N.C.	N.C.	35534	1384
P.H.O.L. - Ottawa	29473	7431	5905	20	136	66	216	3	5905	355	4149	0	0	0	0	126	4149	18	4149	115	4149	393	4149	208
EOURLA	91780	8814	17300	0	0	1417	1417	53	17300	1301	1420	11	5	59	17	0	1420	51	1420	61	1420	316	1420	101
P.H.O.L. - Kingston	31276	4956	3252	5	92	38	135	3	3251	180	2592	0	0	0	0	117	2593	29	2593	81	2592	331	2593	104
UHN / Mount Sinai Hospital	100103	7586	25174	7	44	357	408	57	25174	319	2226	2	2	40	2	0	2193	7	2226	15	2226	79	2226	90
P.H.O.L. - Toronto	53227	11240	30605	145	2415	151	1153	70	30574	1352	27165	0	0	0	0	1147	27169	564	27163	1046	27165	2649	27163	1329
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	89043	6221	89043	128	1472	727	2327	374	89044	2215	66330	4	0	16	0	805	66343	688	66622	956	66570	2341	66462	1041
P.H.O.L. - Sault Ste. Marie	1861	346	719	1	52	15	58	0	719	25	629	0	0	0	0	54	629	4	629	31	629	51	629	44
P.H.O.L. - Timmins	9425	904	1113	0	161	6	156	0	1111	98	1024	0	0	0	0	56	1024	14	1024	29	1024	87	1024	48
St. Joseph's - London	126292	15283	21195	0	0	886	886	69	21195	1016	2360	0	0	0	0	87	2394	81	2394	72	2394	343	1982	108
P.H.O.L. - London	38428	8062	11855	14	586	63	645	27	11854	888	9551	0	0	0	0	494	9552	135	9552	247	9551	945	9552	322
P.H.O.L. - Orillia	607	268	2452	6	261	23	290	14	2452	233	2377	0	0	0	0	140	2378	72	2377	79	2377	350	2377	108
P.H.O.L. - Thunder Bay	8669	1720	1109	0	107	3	110	0	1108	96	982	0	0	0	0	38	982	18	982	29	982	116	983	38
P.H.O.L. - Sudbury	2163	321	822	1	65	14	67	0	822	79	701	0	0	0	0	30	701	8	701	45	701	42	701	25
P.H.O.L. - Hamilton	26620	7030	9889	18	302	92	410	39	9886	555	7385	0	0	0	0	304	7387	177	7385	259	7385	741	7385	294
P.H.O.L. - Peterborough	5462	1027	1713	1	67	11	79	17	1713	116	1385	0	0	0	0	56	1385	31	1385	48	1385	243	1385	48
St. Joseph's - Hamilton	103205	13800	52574	0	0	2755	2755	499	52574	2289	52574	0	0	1088	0	0	52574	779	52574	927	52574	3479	0	0
Sault Area Hospital	12698	2137	8614	1	262	258	521	7	8614	172	2937	36	7	73	4	0	2937	51	2937	101	2937	326	2937	83
Province of Ontario	730332	97146	283334	347	6022	6882	11633	1232	283296	11289	185787	53	14	1276	23	3454	185810	2727	186113	4141	186061	12832	132968	3991
Manitoba	74720	12035	45326	18	202	1804	2024	76	45326	1786	5677	46	40	174	8	0	5667	146	6038	221	5677	878	6038	223
Saskatchewan	171210	13738	43755	2	41	3976	4019	78	35539	2217	14657	151	113	530	67	0	14659	384	14659	671	14660	1626	14654	519
Alberta	246080	34523	138615	1059	7304	2843	11206	768	123313	7669	48168	368	142	962	146	0	48153	685	48106	1262	47384	4524	48168	1316
Prairies	492010	60296	227696	1079	7547	8623	17249	922	204178	11672	68502	565	295	1666	221	0	68479	1215	68803	2154	67721	7028	68860	2058
British Columbia	242702	26164	140534	445	4356	306	8974	318	132450	8247	30912	348	205	1142	201	6	30880	970	30880	1184	29907	4647	29962	1140
Yukon	5307	401	961	2	136	0	138	9	959	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	1716	193	1558	10	147	1	158	5	1558	115	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1558	310	N.C.
Nunavut	5226	393	3042	5	230	3	238	229	3042	153	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	12249	987	5561	17	513	4	534	243	5559	327	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1558	310	N.C.	N.C.
CANADA	2716026	348217	1034094	1920	18960	43662	66791	5142	897299	46613	340409	1318	653	5597	661	3460	341013	7789	341147	9540	304615	27217	286637	9436

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.

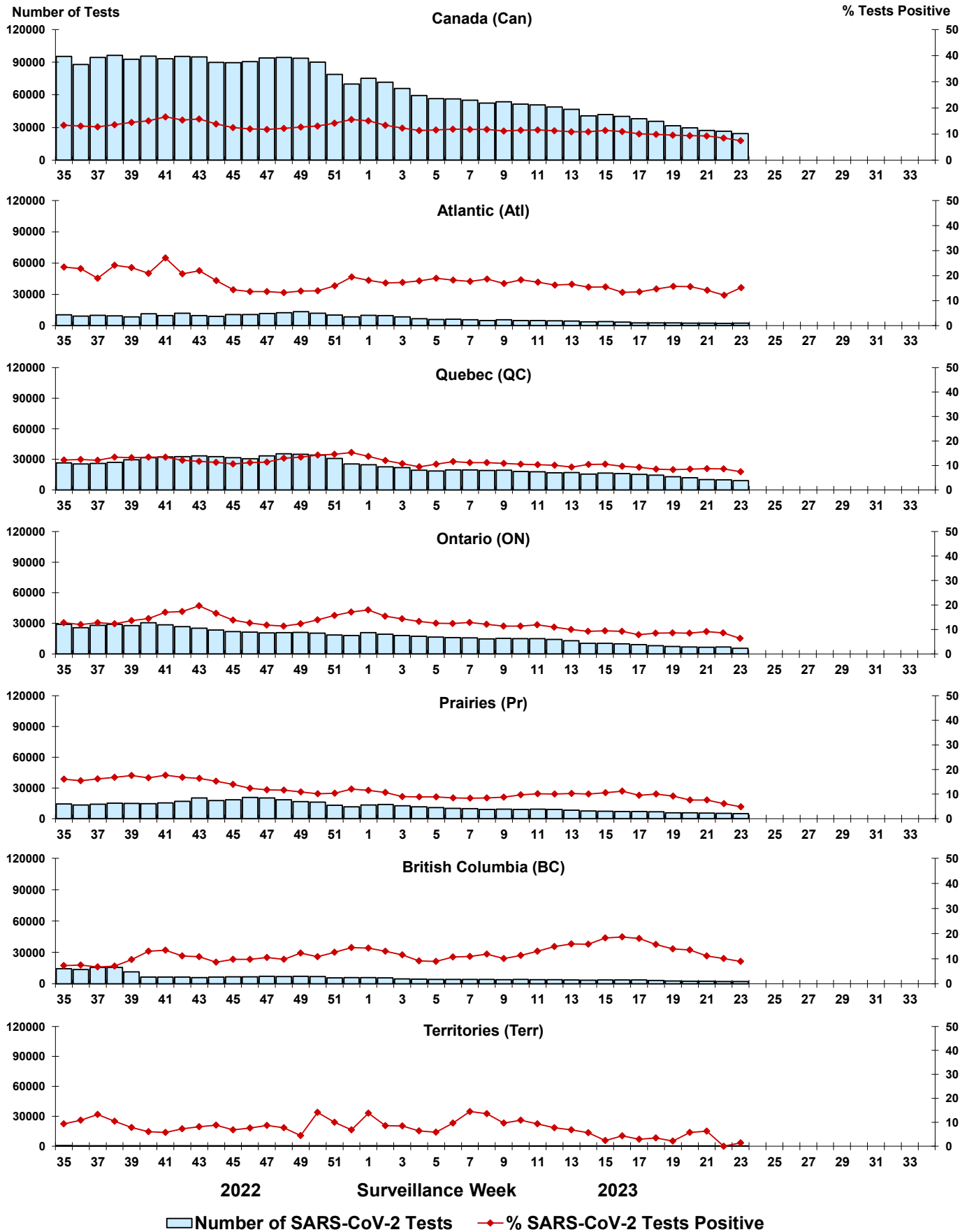
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Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts. Total influenza A and B positive counts are used to calculate percentage of tests positive.

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

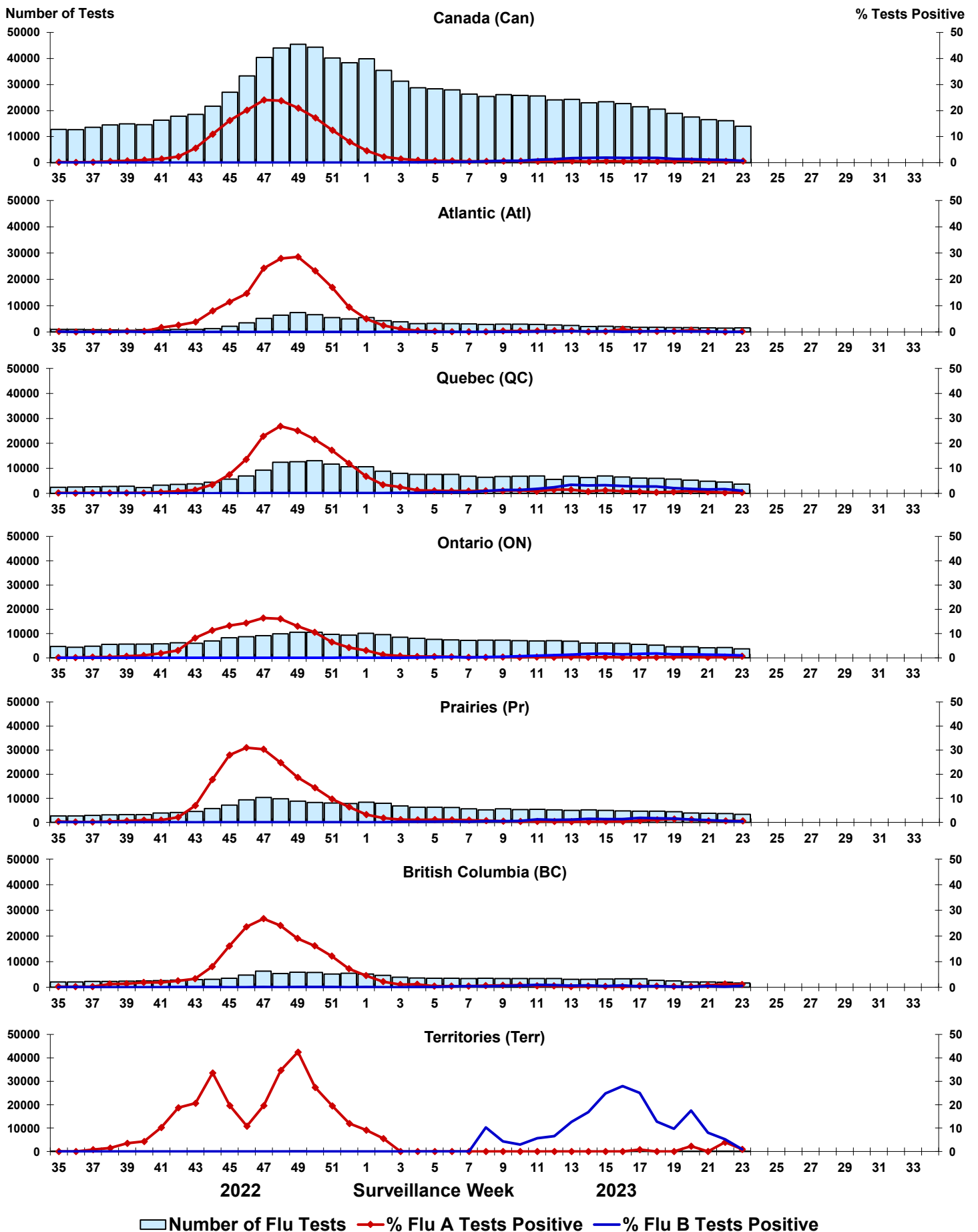


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

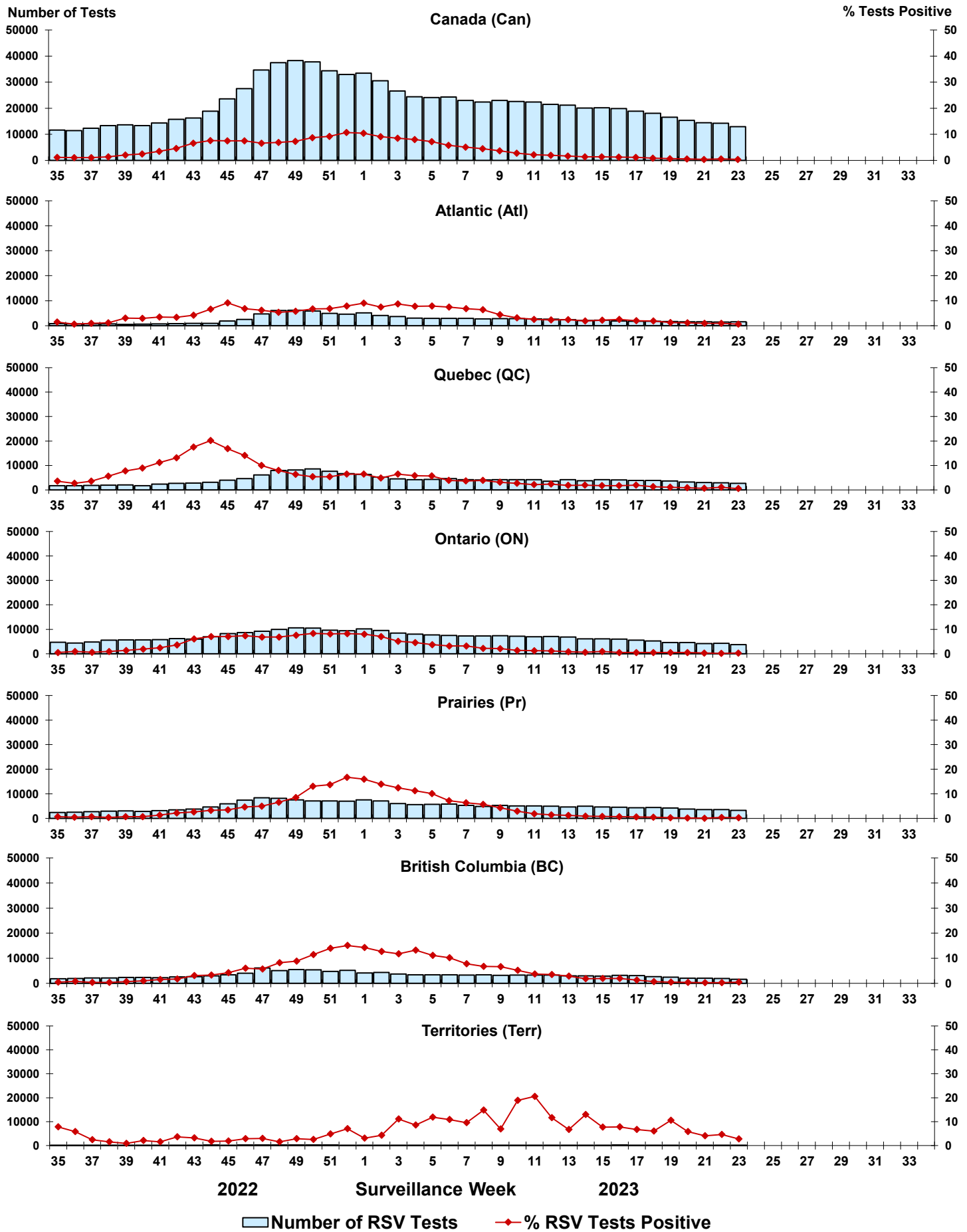


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

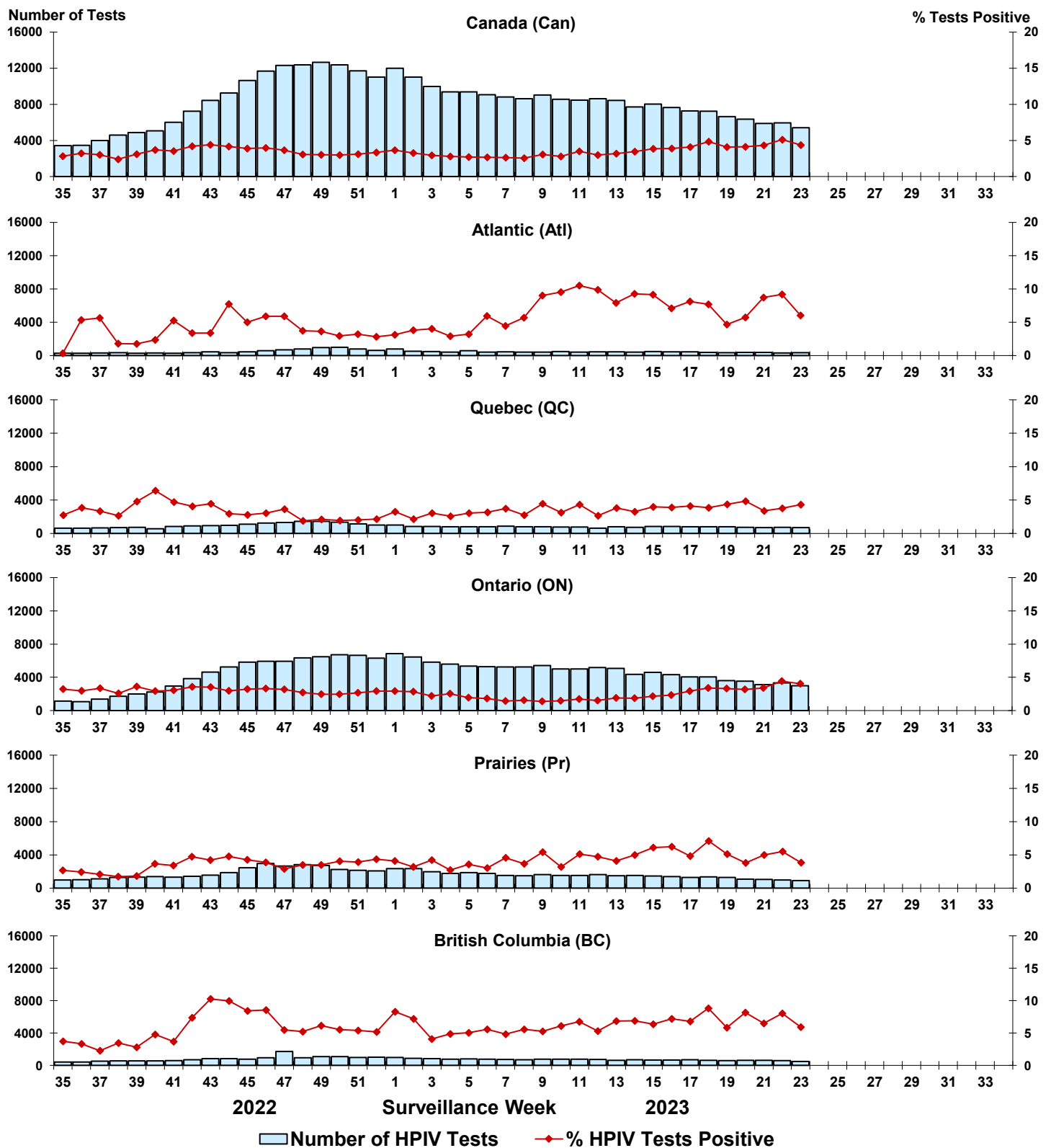


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

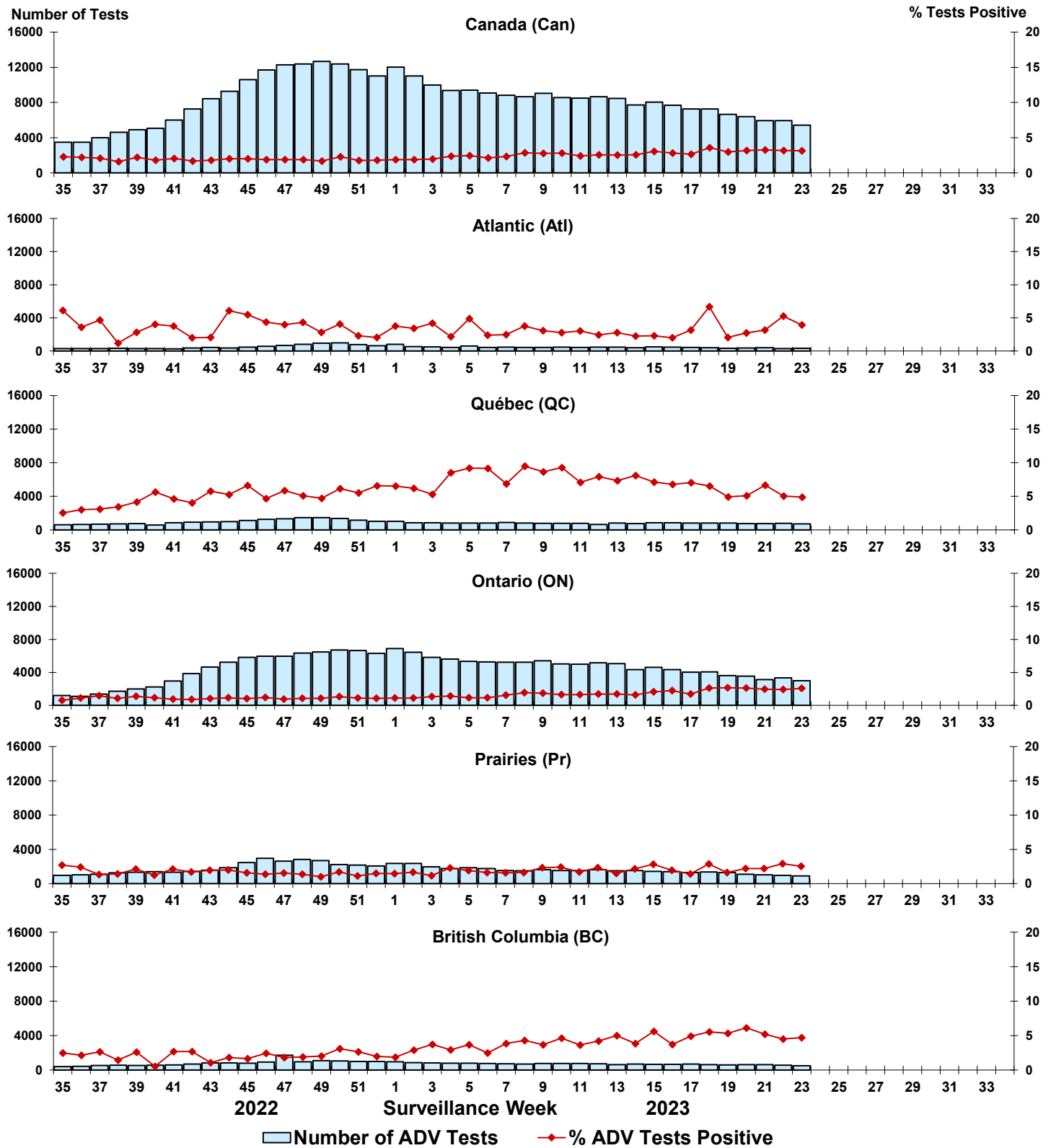


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

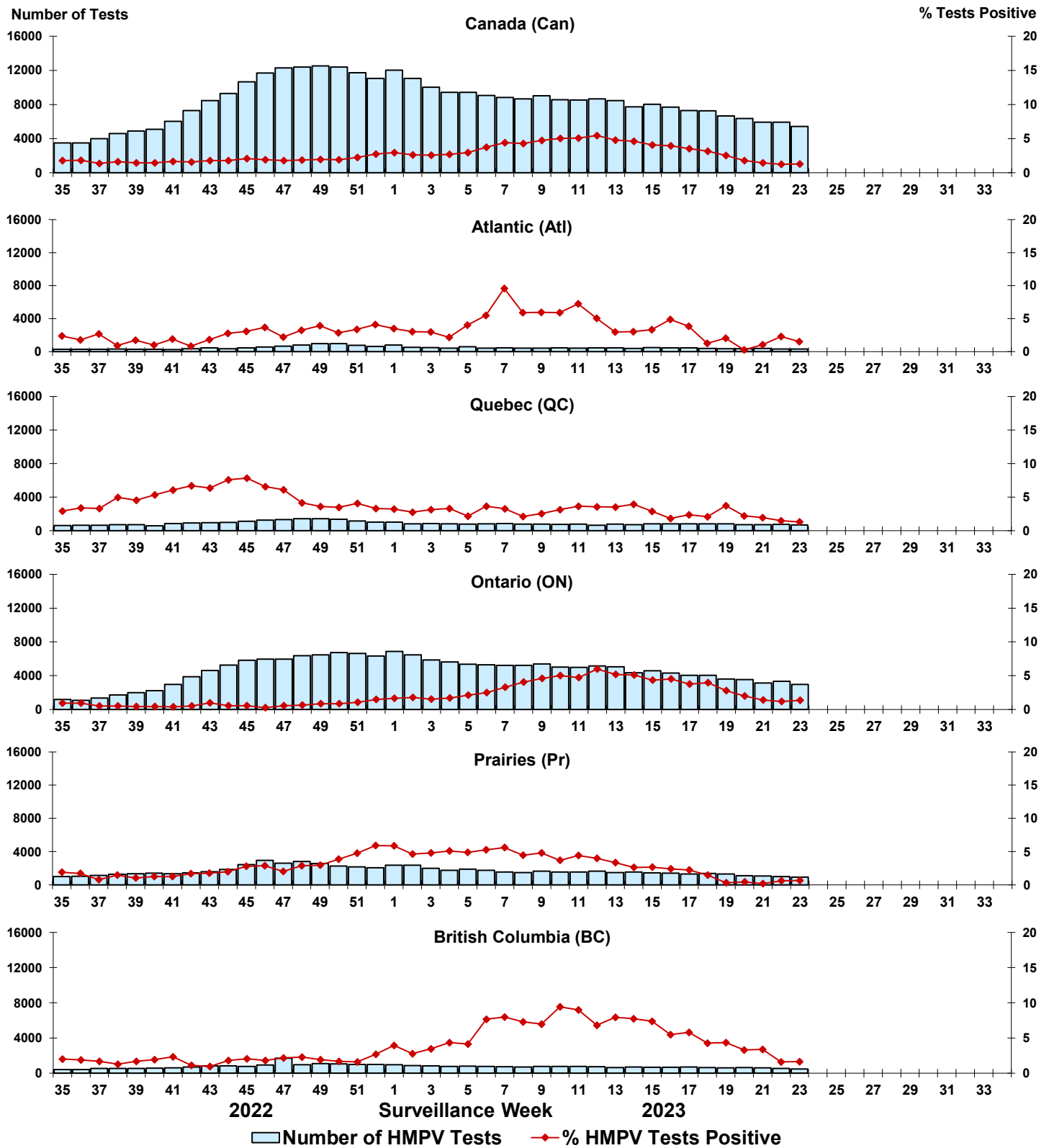


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

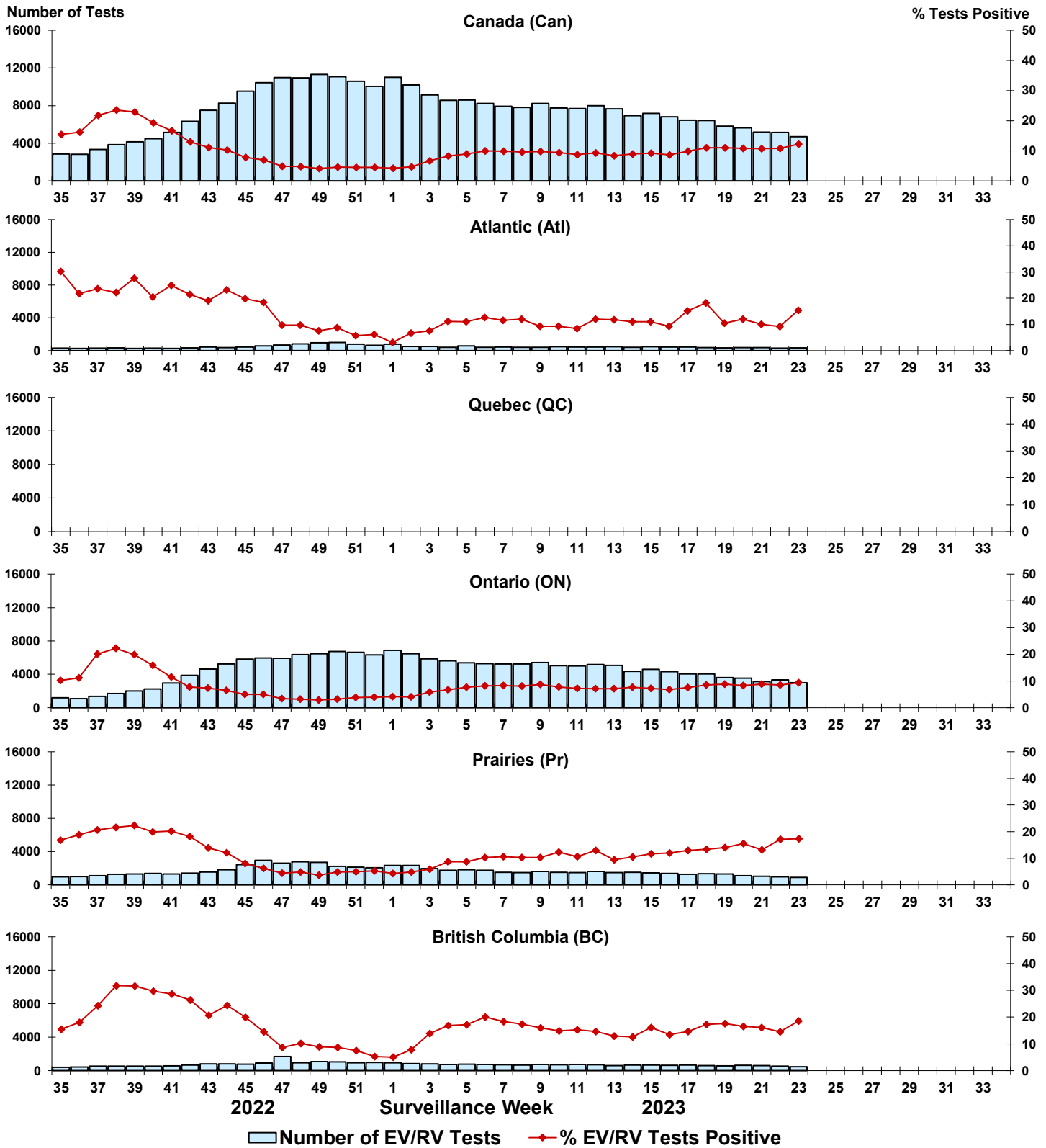


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

