

RESPIRATORY VIRUS DETECTION REPORT

October 22 to October 28, 2023
(Surveillance Week 2023-43)



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 43 (week ending October 28, 2023) in Canada, participating RVDSS laboratories reported 6,676 detections of SARS-CoV-2 from 37,246 tests (17.9% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 6,914 to 22,025 tests), activity of RSV is low but increasing.

- While there has been an observed increase in national SARS-CoV-2 percent positivity since early-July, some jurisdictions are showing early signs of levelling off or decreasing.
- Activity of RSV is slightly above expected levels for this time of year (676 detections; 3.3% positive) but overall remains low. While activity of RSV is increasing, activity is expected to increase at this time of year.
- Activity of all other non-SARS-CoV-2 respiratory viruses is low and near expected levels typical of this time of year.
- 35/35 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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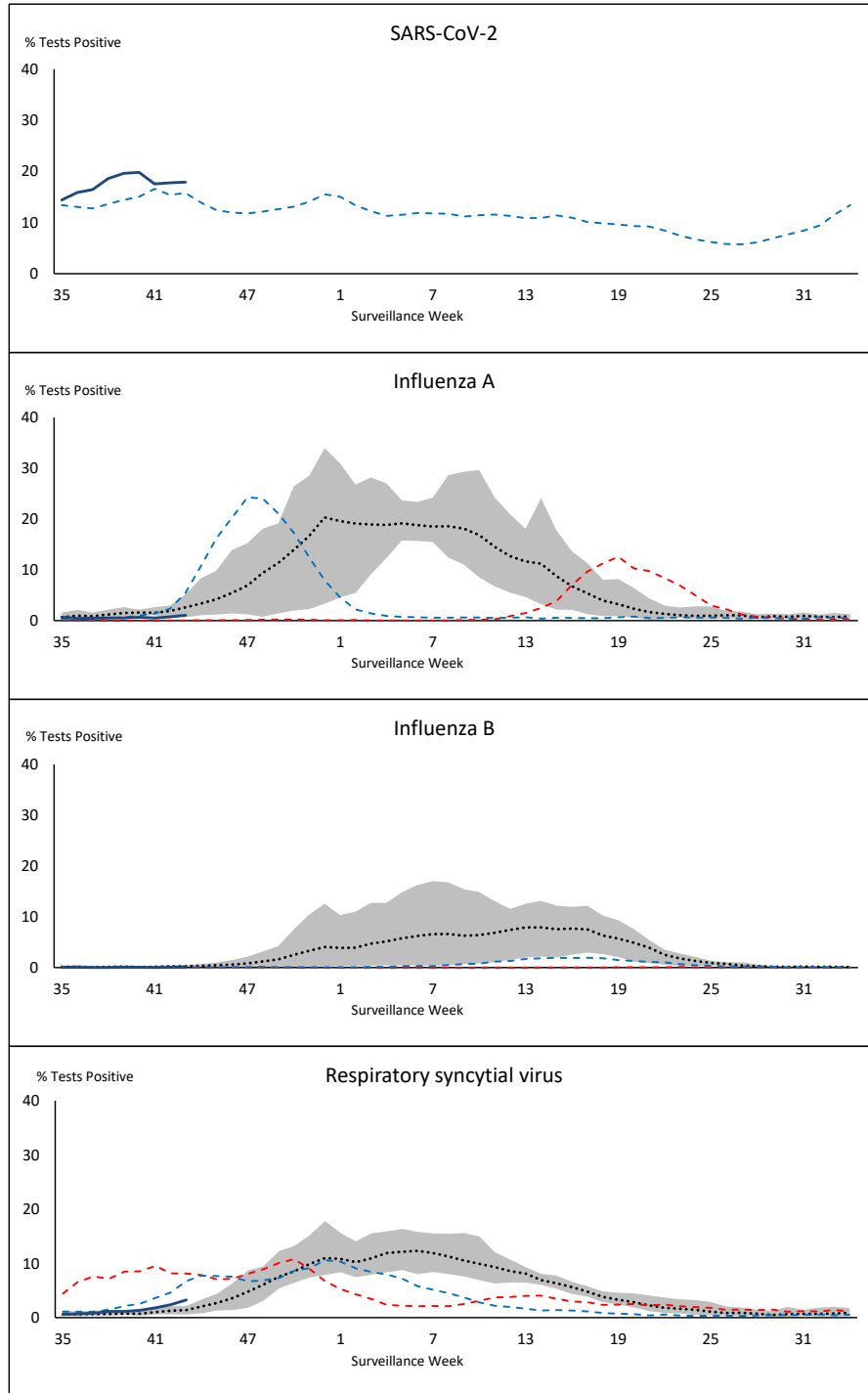


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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



— % Tests Positive, 2023-2024 - - - % Tests Positive, 2022-2023
- - - % Tests Positive, 2021-2022 · · · · · % Tests Positive, six-year average (2014-2015 to 2019-2020)

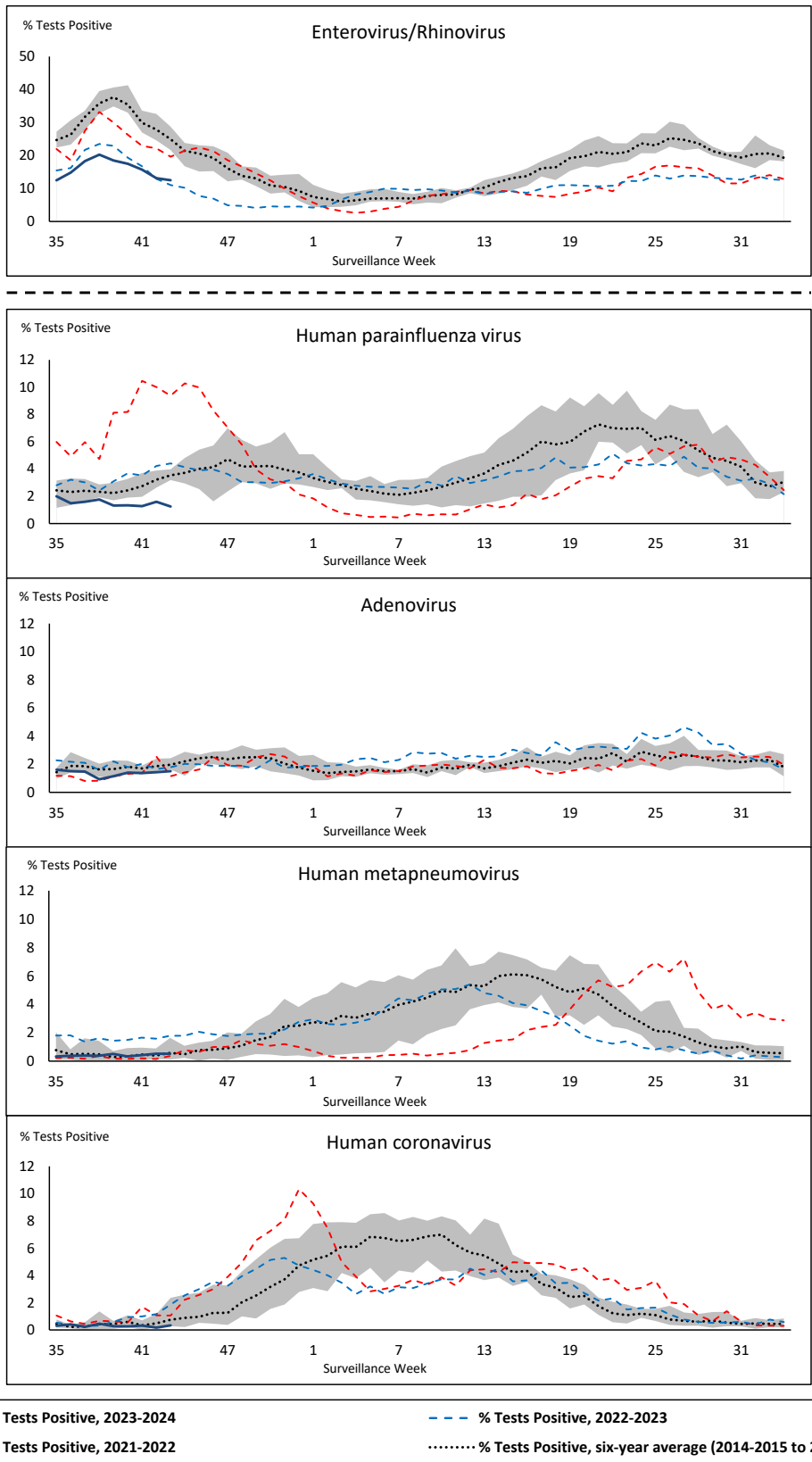
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 prior 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 October 28, 2023 (surveillance week 2023-43)

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	509	95	367	0	0	8	8	0	367	4	367	0	0	1	2	0	367	7	367	3	367	43	367	2	
Prince Edward Island	180	34	65	0	0	0	0	0	65	2	10	0	0	0	0	0	10	0	10	0	10	3	10	0	
Nova Scotia	1464	298	714	0	0	5	5	0	714	16	27	1	0	0	1	0	27	3	27	0	27	10	26	0	
New Brunswick	958	138	833	6	0	0	6	0	824	13	70	0	0	0	2	0	70	3	70	0	70	20	70	0	
Atlantic	3111	565	1979	6	0	13	19	0	1970	35	474	1	0	1	5	0	474	13	474	3	474	76	473	2	
Région Nord-Est	1604	304	1195	0	0	4	4	0	351	11	64	1	0	0	0	0	64	4	62	0	N.C.	N.C.	64	0	
Québec-Chaudière-Appalaches	2135	352	689	0	0	3	3	1	689	36	255	0	0	0	2	0	268	9	255	5	N.C.	N.C.	255	0	
Centre-du-Québec	2407	496	513	0	0	6	6	0	510	25	39	0	2	0	0	0	39	4	39	0	N.C.	N.C.	39	0	
Montréal-Laval	2687	419	1251	0	0	6	6	1	1100	84	657	4	1	5	2	0	657	20	663	10	N.C.	N.C.	657	4	
Ouest du Québec	1655	344	581	0	0	1	1	2	580	39	28	2	0	0	0	0	28	2	28	0	N.C.	N.C.	28	0	
Montérégie	1517	281	852	0	0	12	12	2	813	51	4	0	0	0	0	0	4	0	4	0	N.C.	N.C.	4	0	
Province of Québec	12005	2196	5081	0	0	32	32	6	4043	246	1047	7	3	5	4	0	1060	39	1051	15	N.C.	N.C.	1047	4	
P.H.O.L. - Ottawa	400	171	297	1	0	0	1	0	297	0	185	0	0	0	0	2	185	0	185	0	185	36	185	6	
EORLA	1360	156	499	0	0	4	4	0	499	70	35	0	0	0	0	0	35	0	35	0	35	9	35	0	
P.H.O.L. - Kingston	265	109	184	1	0	0	0	0	184	2	129	0	0	0	0	1	129	0	129	0	129	23	129	0	
UHN / Mount Sinai Hospital	1053	106	657	0	0	2	2	1	657	4	20	0	0	1	0	0	20	0	20	0	20	1	20	0	
P.H.O.L. - Toronto	743	283	1072	9	1	0	8	0	1073	17	941	0	0	0	0	21	941	4	941	8	941	129	941	2	
Sick Kids Hospital - Toronto	127	6	103	0	1	0	1	0	103	15	103	1	1	1	1	0	103	6	103	2	103	34	103	0	
Shared Hospital Laboratory	1340	107	1340	6	1	0	7	0	1340	57	1344	0	0	0	0	2	1344	11	1321	3	1348	58	1348	2	
P.H.O.L. - Sault Ste. Marie	10	10	5	0	0	0	0	0	5	0	3	0	0	0	0	1	3	0	3	0	3	0	3	0	
P.H.O.L. - Timmins	73	39	58	0	0	0	0	0	58	1	40	0	0	0	0	1	40	0	40	0	40	4	40	0	
St. Joseph's - London	942	183	247	0	0	1	1	0	247	18	248	0	0	0	0	1	248	2	248	0	248	26	247	1	
P.H.O.L. - London	619	216	337	0	1	0	1	0	337	10	272	0	0	0	0	7	272	1	272	0	272	35	272	0	
P.H.O.L. - Orillia	25	7	62	0	0	0	0	0	62	5	62	0	0	0	0	1	62	2	62	0	62	13	62	0	
P.H.O.L. - Thunder Bay	79	38	46	0	0	0	0	0	46	0	24	0	0	0	0	0	24	0	24	0	24	1	24	0	
P.H.O.L. - Sudbury	16	13	16	0	0	0	0	0	16	0	15	0	0	0	0	0	15	0	15	0	15	0	15	0	
P.H.O.L. - Hamilton	217	111	176	1	0	0	1	1	176	10	128	0	0	0	0	1	128	2	128	1	128	16	128	0	
P.H.O.L. - Peterborough	45	12	85	0	0	1	1	0	85	12	84	0	0	0	0	3	84	3	84	0	84	23	84	0	
St. Joseph's - Hamilton	1754	198	1519	0	0	7	7	2	1519	66	1519	0	0	5	0	0	1519	5	1519	2	1519	108	0	0	
Sault Area Hospital	207	29	110	0	0	0	0	0	110	0	67	1	1	0	0	0	67	0	67	0	67	4	67	0	
Province of Ontario	9275	1794	6813	18	4	15	34	4	6814	287	5219	1	1	7	0	41	5219	36	5196	16	5223	520	3703	11	
Manitoba	1504	280	1083	0	0	4	4	0	1083	8	80	0	1	0	3	0	80	5	118	1	80	25	118	0	
Saskatchewan	2355	417	885	0	0	37	37	1	849	8	302	3	0	1	0	0	302	6	302	1	302	48	302	0	
Alberta	5528	900	3042	48	13	1	62	7	2852	40	643	2	1	0	0	0	643	8	42	0	634	104	643	3	
Prairies	9387	1597	5010	48	13	42	103	8	4784	56	1025	5	2	1	3	0	1025	19	462	2	1016	177	1063	3	
British Columbia	3268	483	3028	18	2	0	44	3	3028	52	660	6	3	1	8	0	660	20	660	5	628	145	628	3	
Yukon	43	3	30	0	0	0	0	0	30	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	17	3	15	1	0	0	1	0	15	0	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	15	2	N.C.	N.C.
Nunavut	140	35	69	0	0	0	0	0	69	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	200	41	114	1	0	0	1	0	114	0	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	15	2	N.C.	N.C.	
CANADA	37246	6676	22025	91	19	102	233	21	20753	676	8425	20	9	15	20	41	8438	127	7843	41	7356	920	6914	23	

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 27, 2023 to October 28, 2023 (surveillance weeks 2023-35 to 2023-43)

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	4545	818	2940	0	0	13	13	0	2940	22	2940	2	6	5	33	0	2940	38	2940	9	2940	589	2940	8
Prince Edward Island	1686	216	335	0	0	2	2	0	335	2	75	0	0	0	2	0	74	4	64	0	74	38	74	0
Nova Scotia	12819	3218	5073	0	0	24	24	1	5073	52	327	13	1	1	4	0	327	17	320	1	327	112	326	0
New Brunswick	7605	1136	5411	10	0	5	15	1	5315	32	537	6	2	0	5	0	537	10	537	0	537	154	537	1
Atlantic	26655	5388	13759	10	0	44	54	2	13663	108	3879	21	9	6	44	0	3878	69	3861	10	3878	893	3877	9
Région Nord-Est	14503	2666	10102	0	0	16	16	1	2318	56	531	9	4	2	13	0	531	16	527	10	N.C.	N.C.	531	0
Québec-Chaudière-Appalaches	19842	3568	4911	0	0	18	18	3	4911	162	2153	8	2	1	8	0	2265	102	2153	26	N.C.	N.C.	2153	2
Centre-du-Québec	19614	4082	3432	0	0	12	12	4	3420	114	271	9	4	2	3	0	271	14	271	4	N.C.	N.C.	271	1
Montréal-Laval	28984	4730	11464	0	0	48	48	4	10328	344	6192	58	20	25	17	0	6192	109	6207	60	N.C.	N.C.	6192	44
Ouest du Québec	16292	4014	4485	1	0	20	21	6	4478	142	172	7	3	1	4	0	172	12	172	3	N.C.	N.C.	172	1
Monterégie	13778	2724	7146	0	0	24	24	7	6618	177	57	1	0	0	1	0	57	0	57	0	N.C.	N.C.	57	0
Province of Québec	113013	21784	41540	1	0	138	139	25	32073	995	9376	92	33	31	46	0	9488	253	9387	103	N.C.	N.C.	9376	48
P.H.O.L. - Ottawa	3614	1337	2055	10	0	1	11	0	2055	10	1226	0	0	0	0	19	1226	0	1226	1	1226	242	1226	6
EORLA	11055	1228	3821	0	0	14	14	4	3821	267	274	0	3	2	1	0	249	1	274	1	274	73	274	1
P.H.O.L. - Kingston	2510	719	1166	1	0	0	0	0	1166	4	885	0	0	0	0	23	885	2	885	0	885	195	885	1
UHN / Mount Sinai Hospital	8836	717	5010	0	0	9	9	6	5010	19	198	0	0	4	0	0	198	1	198	0	198	13	198	0
P.H.O.L. - Toronto	5412	1807	8217	61	22	2	61	0	8218	71	7414	0	0	0	0	222	7415	71	7411	35	7414	1588	7411	20
Sick Kids Hospital - Toronto	970	62	851	9	7	6	22	1	851	63	851	9	4	5	4	0	851	23	851	6	851	138	851	4
Shared Hospital Laboratory	10453	1021	10453	15	15	0	30	2	10454	266	10456	0	0	0	0	76	10454	75	10447	11	10474	712	10474	15
P.H.O.L. - Sault Ste. Marie	125	97	120	0	0	0	0	0	120	0	63	0	0	0	0	1	63	0	63	0	63	12	63	0
P.H.O.L. - Timmins	275	73	220	0	0	0	0	0	220	3	186	0	0	0	0	10	186	2	186	0	186	23	186	0
St. Joseph's - London	7161	1035	799	0	0	1	1	0	799	32	776	0	0	0	0	9	793	6	793	0	793	118	793	2
P.H.O.L. - London	4414	1425	2885	0	3	0	3	1	2885	25	2284	0	0	0	0	51	2284	11	2284	0	2284	404	2284	0
P.H.O.L. - Orillia	172	26	362	1	1	0	2	0	361	10	348	0	0	0	0	9	348	8	348	2	348	94	348	0
P.H.O.L. - Thunder Bay	576	228	307	0	0	0	0	0	307	0	229	0	0	0	0	5	229	1	229	1	229	35	229	1
P.H.O.L. - Sudbury	150	59	170	0	0	0	0	0	168	0	132	0	0	0	0	1	133	1	132	0	132	32	132	0
P.H.O.L. - Hamilton	2308	720	1762	4	1	0	2	1	1762	26	1252	0	0	0	0	40	1252	14	1252	12	1252	297	1252	1
P.H.O.L. - Peterborough	640	206	606	0	0	1	1	1	606	55	537	0	0	0	0	16	537	8	537	1	537	146	537	2
St. Joseph's - Hamilton	14912	1623	12596	0	0	29	29	11	12596	265	12596	0	0	35	0	0	12596	70	12596	32	12596	1205	0	0
Sault Area Hospital	1078	130	748	0	1	0	1	0	741	2	579	0	0	2	0	0	579	6	579	0	579	105	589	0
Province of Ontario	74661	12513	52148	101	50	63	186	27	52140	1118	40286	9	7	48	5	482	40278	300	40291	102	40321	5432	27732	53
Manitoba	13249	2267	10239	0	1	26	27	5	10239	35	604	0	5	4	21	0	604	33	971	2	604	256	971	3
Saskatchewan	16295	2124	7039	0	0	65	65	4	6841	35	2803	6	5	1	6	0	2803	83	2798	20	2788	591	2803	7
Alberta	43375	6584	29013	237	44	9	290	30	26985	150	8809	32	31	9	3	0	8807	96	5240	0	8644	1424	8808	40
Prairies	72919	10975	46291	237	45	100	382	39	44065	220	12216	38	41	14	30	0	12214	212	9009	22	12036	2271	12582	50
British Columbia	30928	6012	27837	242	42	14	383	15	27820	223	6361	30	21	16	58	0	6361	153	6361	56	6054	1325	6031	21
Yukon	508	64	284	0	1	0	2	0	284	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	177	27	139	1	0	0	1	0	139	0	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	139	46	N.C.
Nunavut	838	135	536	0	0	0	0	0	536	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.
Territories	1523	226	959	1	1	0	3	0	959	1	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	139	46	N.C.	N.C.
CANADA	319699	56898	182534	592	138	359	1147	108	170720	2665	72118	190	111	115	183	482	72219	987	68909	293	62428	9967	59598	181

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.

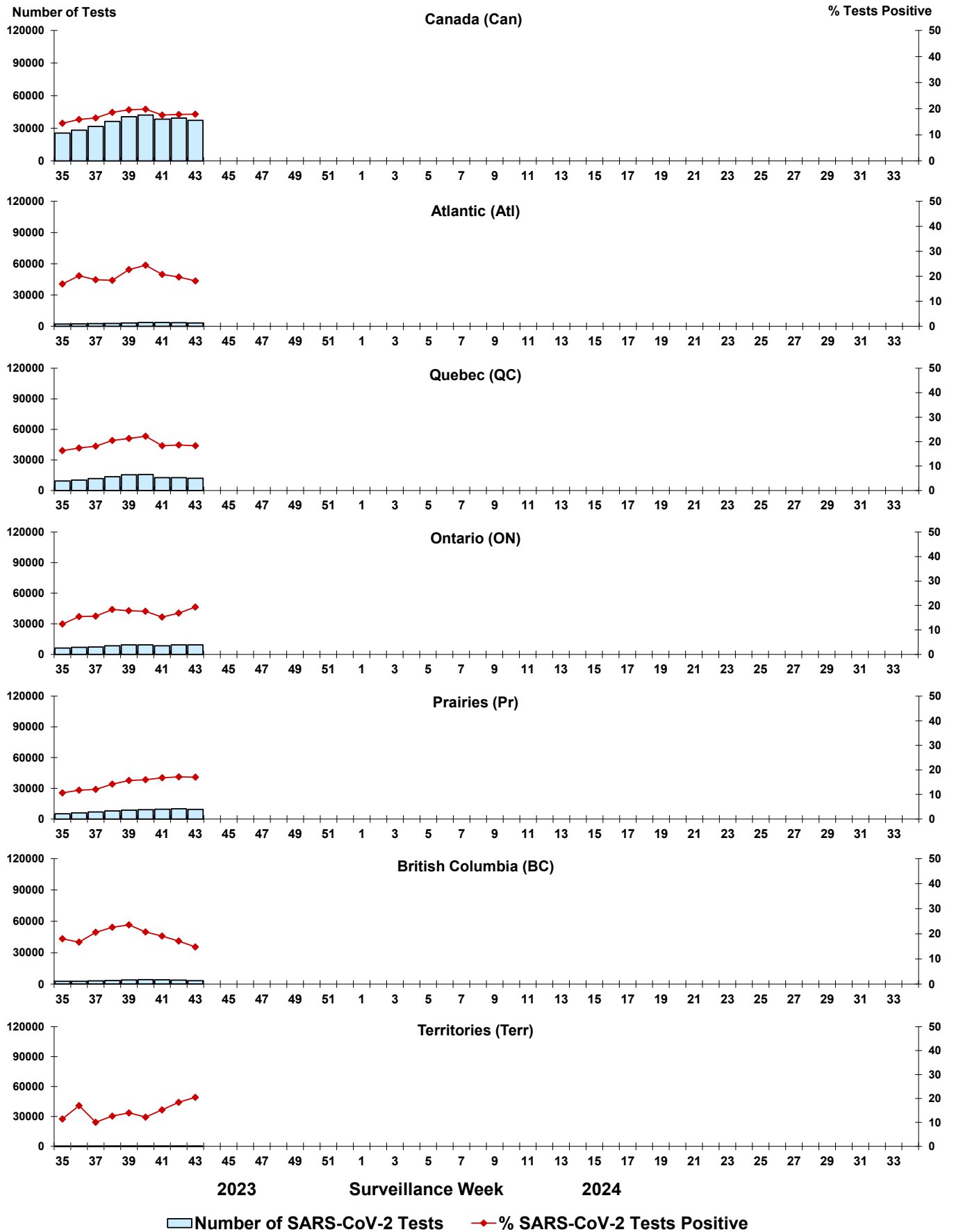
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Results from British Columbia comprise of specimens from the following sites: Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Vancouver Coastal Health sites, Victoria 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 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

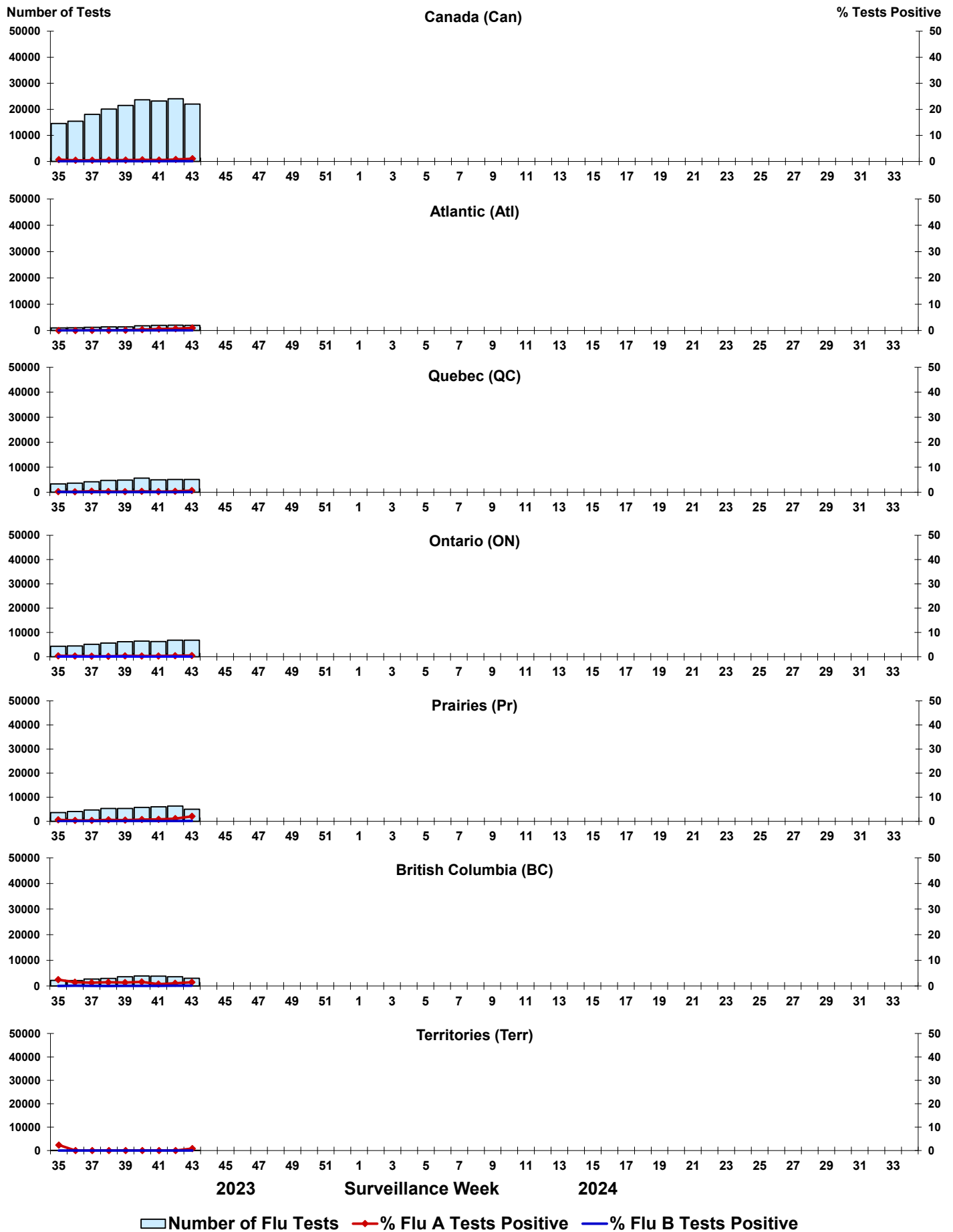


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

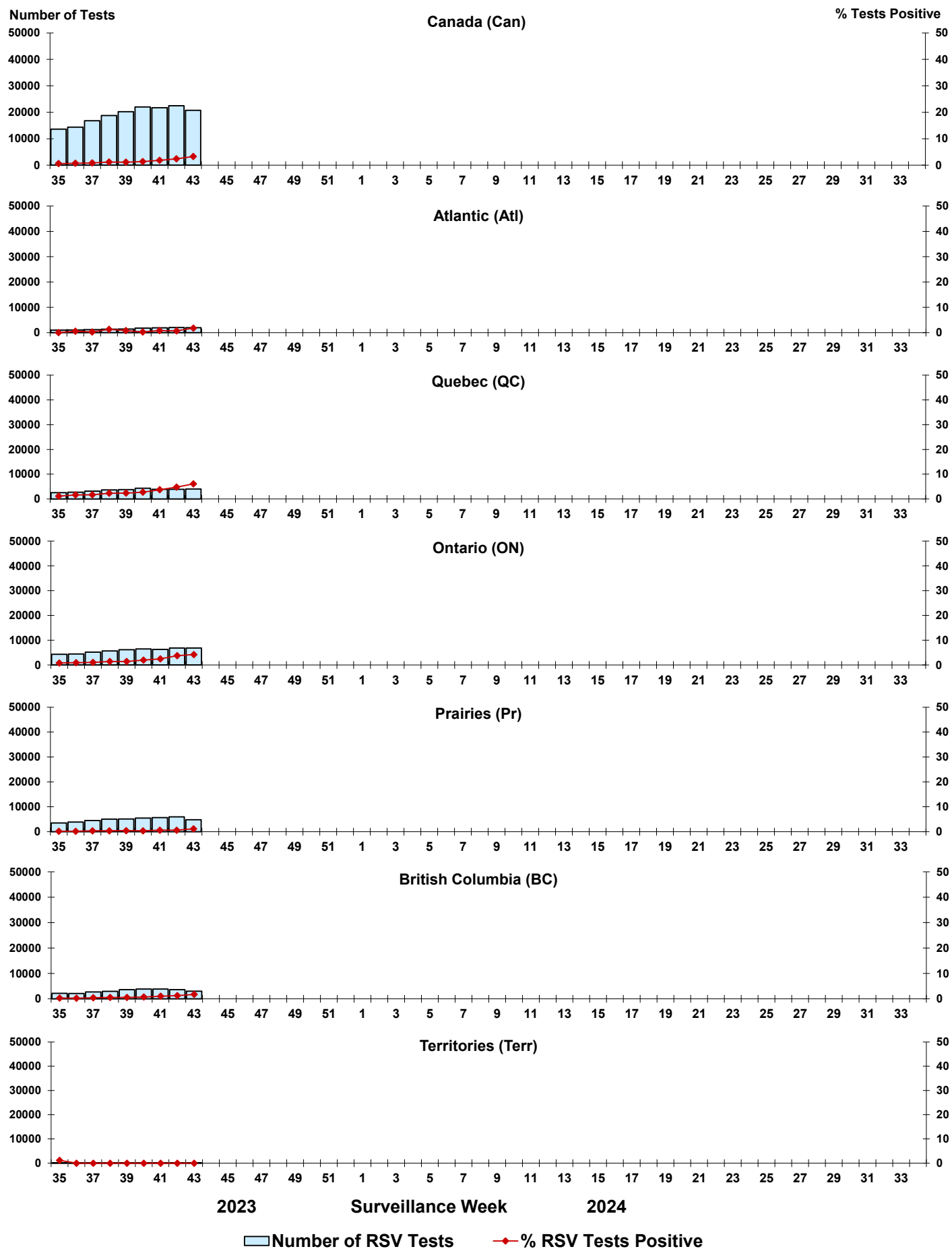


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

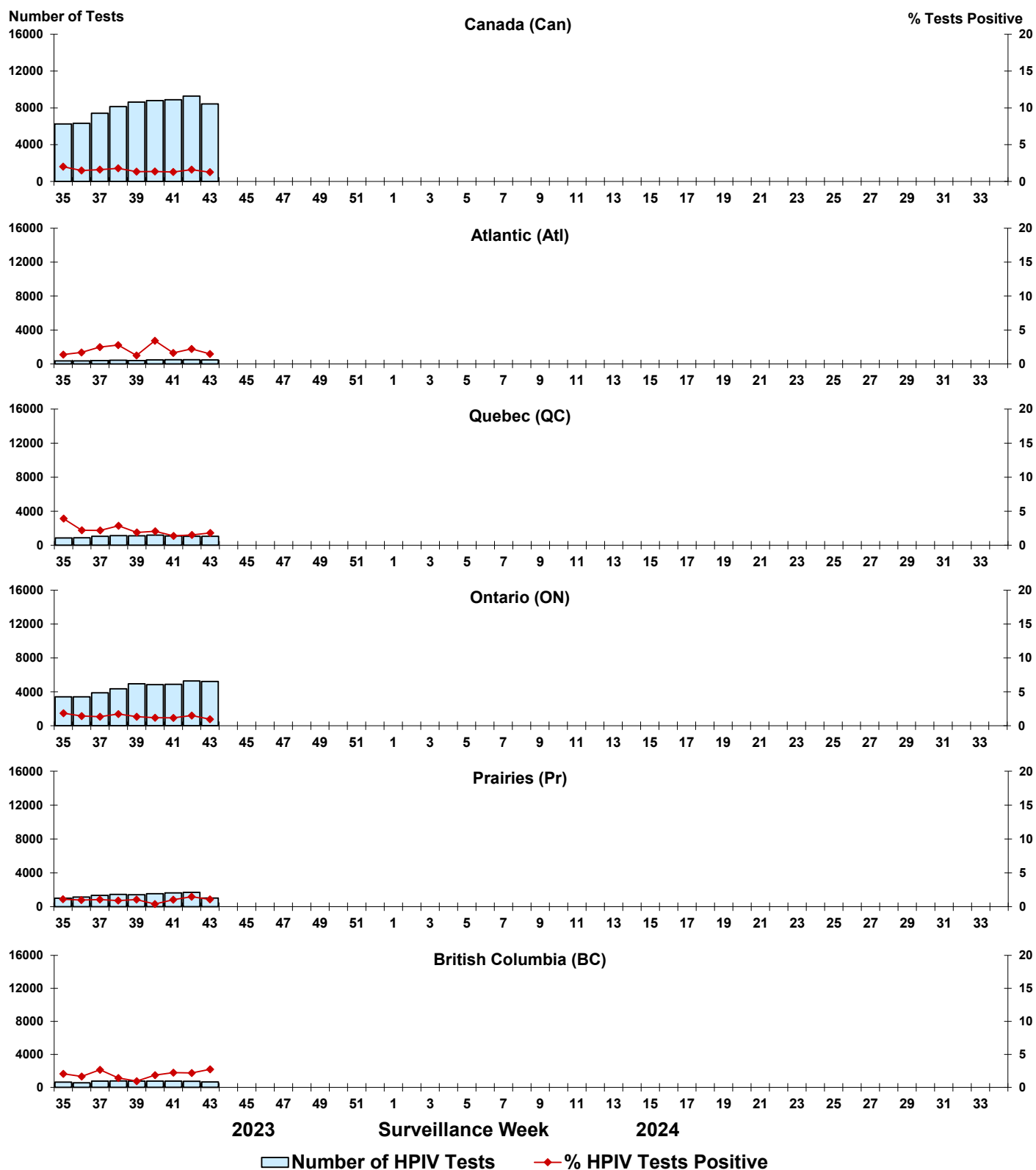


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

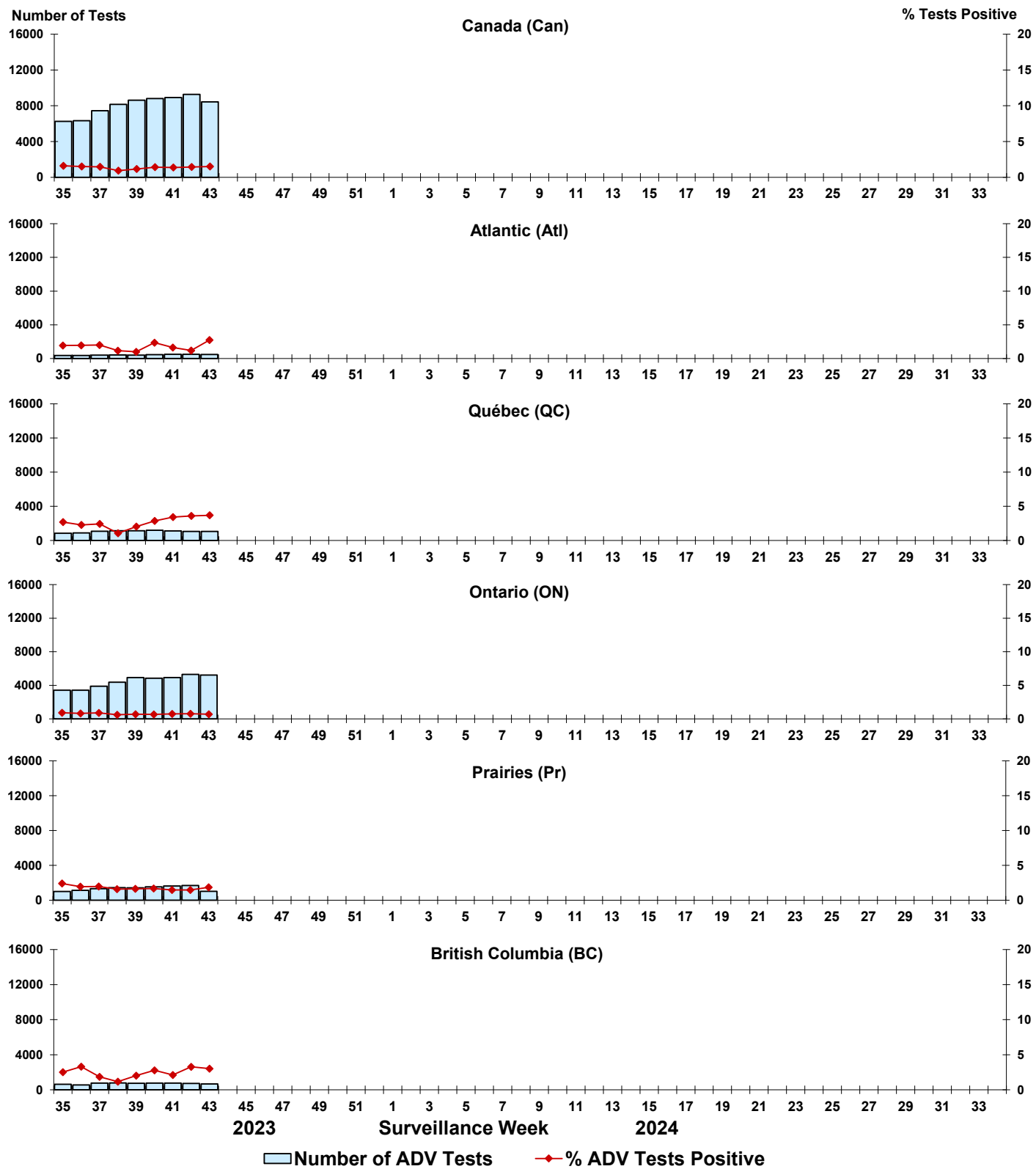


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

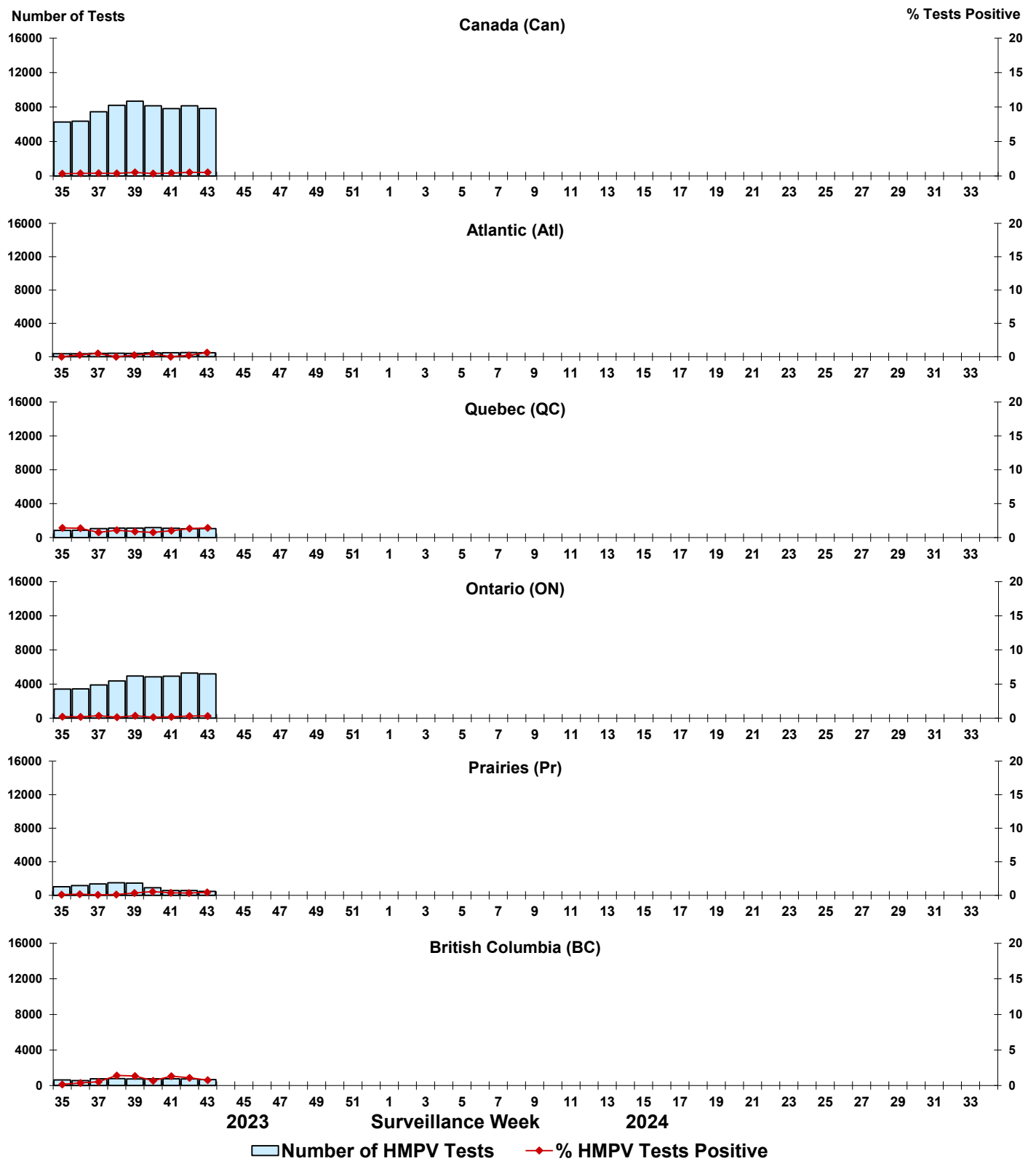


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

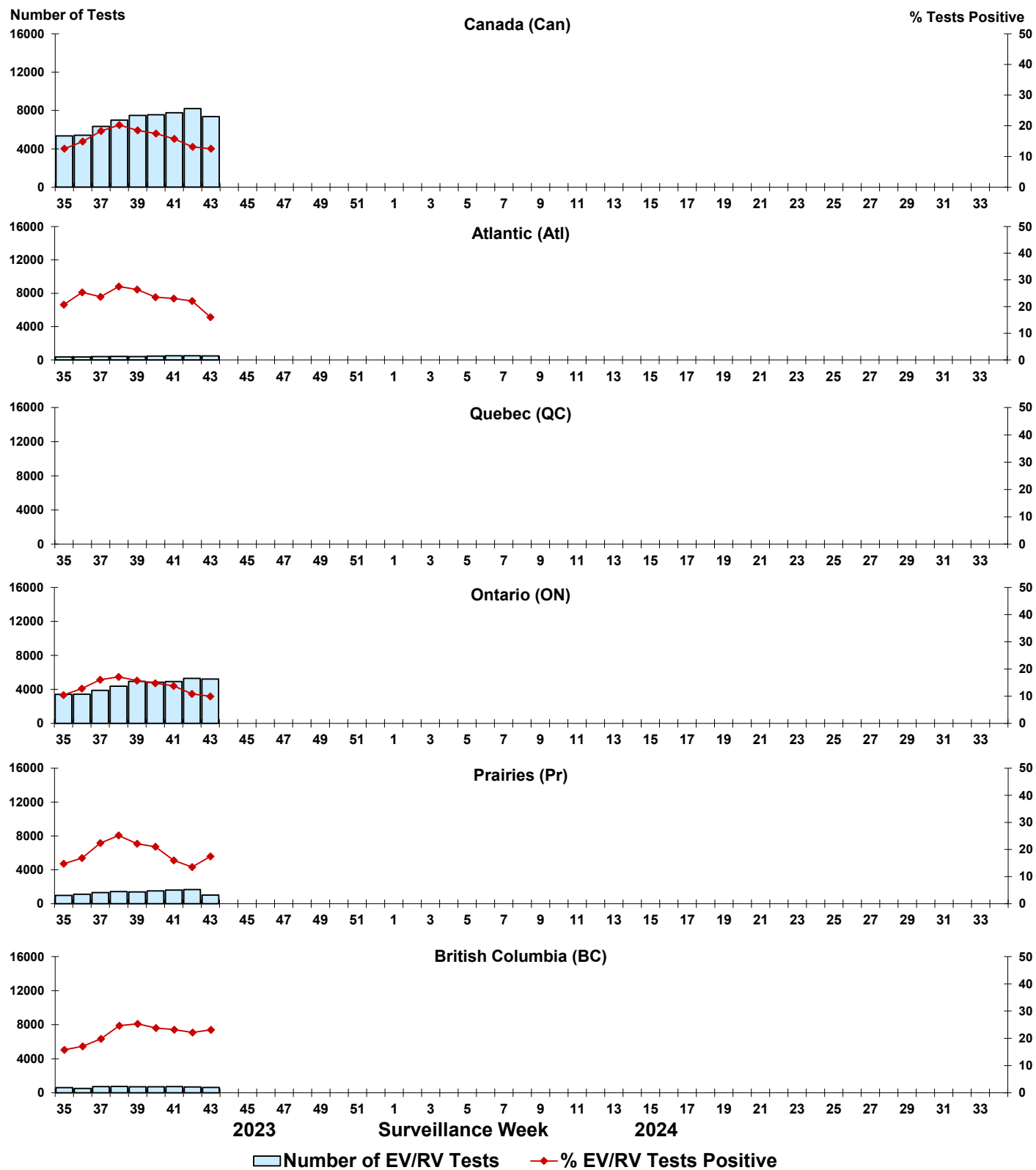


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

