

RESPIRATORY VIRUS DETECTION REPORT

March 31 to April 6, 2024
(Surveillance Week 2024-14)



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 14 (week ending April 6, 2024) in Canada, participating RVDSS laboratories reported 1,369 detections of SARS-CoV-2 from 28,886 tests (4.7% positive). Among non-SARS-CoV-2 respiratory viruses, activity of influenza is highest.

- National SARS-CoV-2 percent positivity has been decreasing since mid-December 2023.
- Influenza A percent positivity has decreased in recent weeks (662 detections; 2.3% positive) and is lower than influenza B which is currently stable (1,949 detections; 6.7% positive).
- RSV percent positivity has decreased in recent weeks (518 detections; 2.0% positive).
- Percent positivity of all other non-SARS-CoV-2 respiratory viruses is within 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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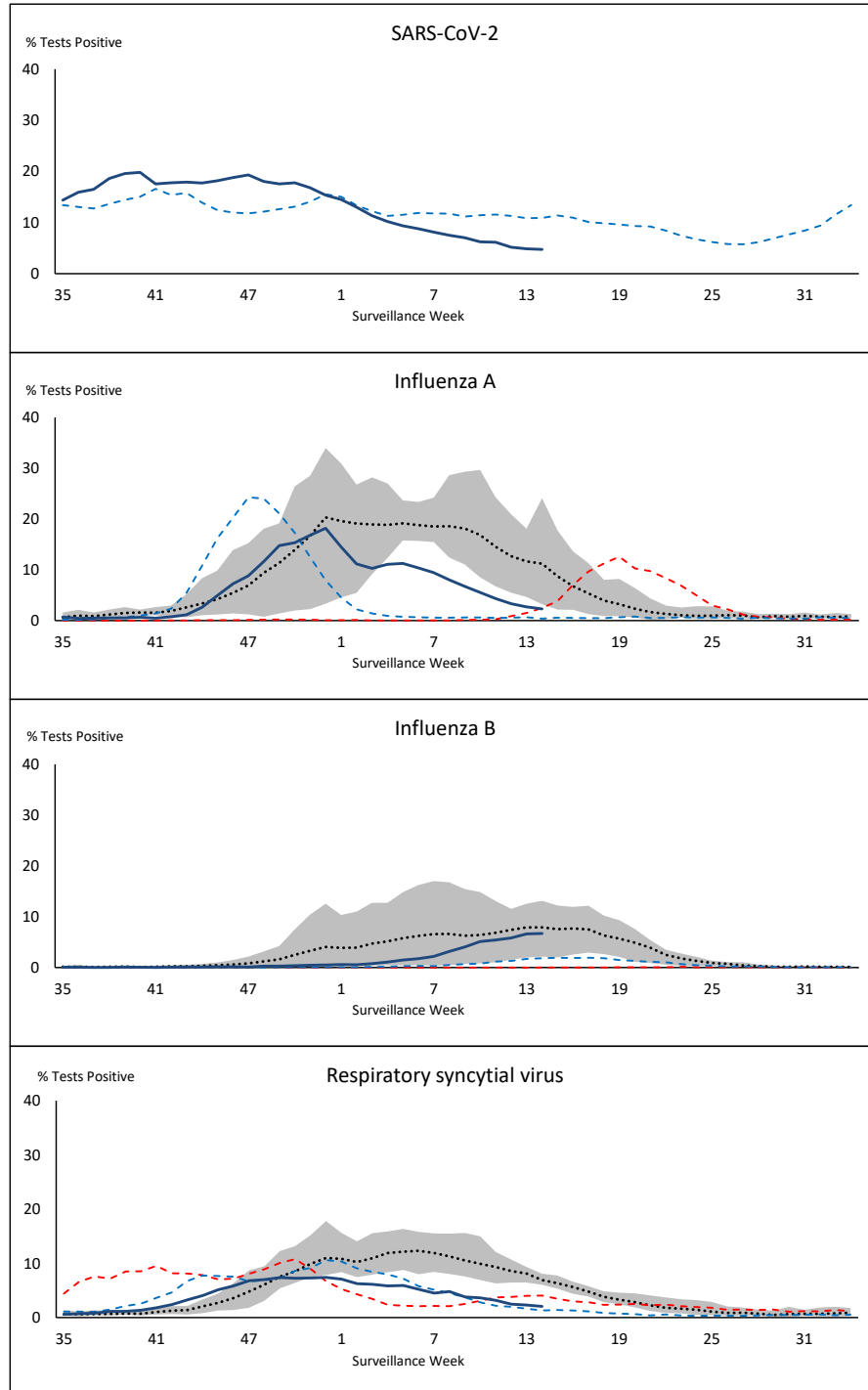


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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



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

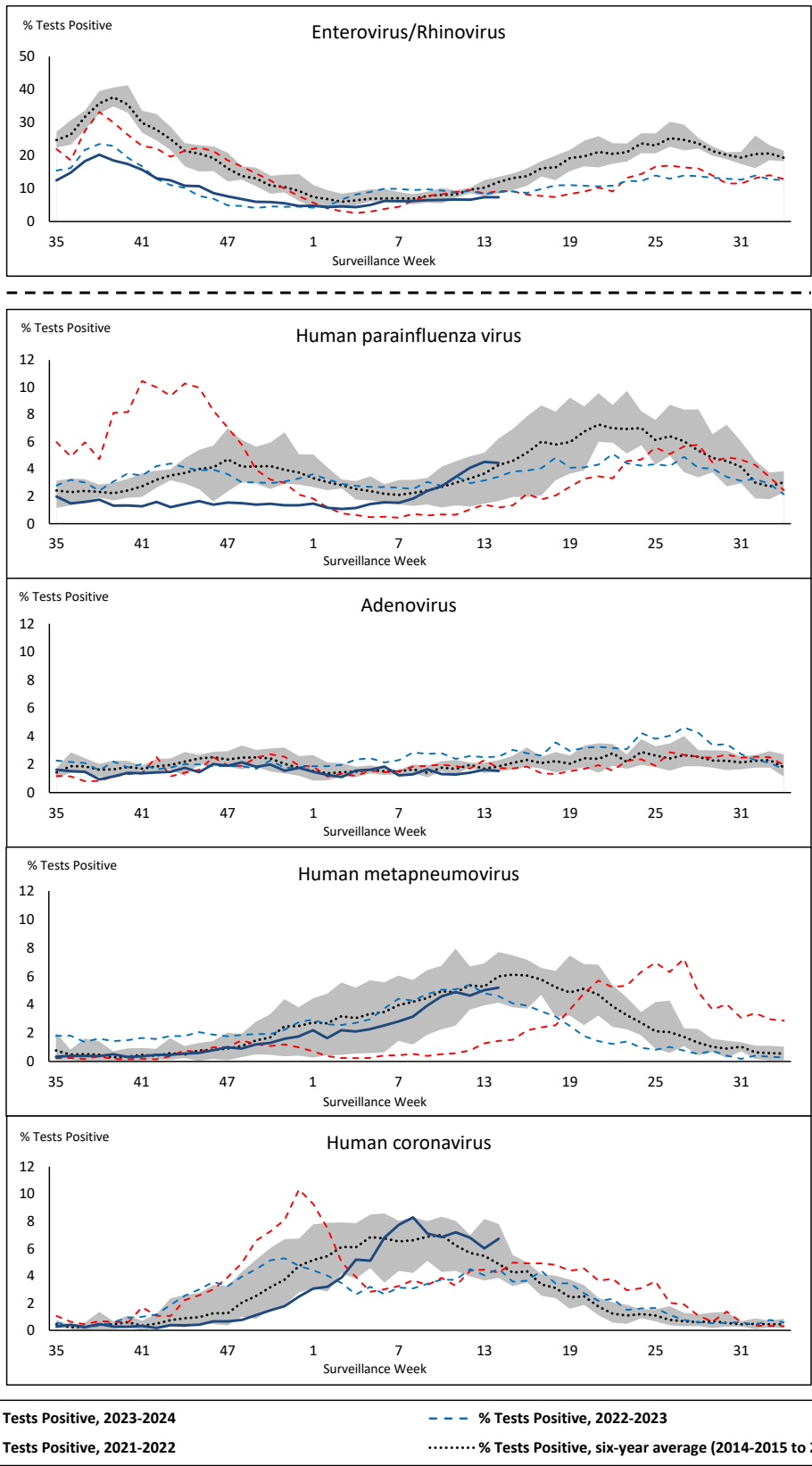
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 April 6, 2024 (surveillance week 2024-14)

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	557	48	436	0	0	3	3	19	436	22	436	1	2	11	4	0	436	6	436	24	436	36	436	36	
Prince Edward Island	154	5	138	0	0	0	0	17	138	4	14	0	0	4	0	0	14	3	14	3	15	7	15	1	
Nova Scotia	1278	83	1259	0	0	59	59	64	999	18	30	0	0	0	0	0	30	1	30	2	30	4	30	2	
New Brunswick	975	42	1112	0	0	12	12	110	1112	30	117	0	0	6	0	0	117	2	117	16	117	16	117	4	
Atlantic	2964	178	2945	0	0	74	74	210	2685	74	597	1	2	21	4	0	597	12	597	45	598	63	598	43	
Région Nord-Est	1354	40	1473	0	0	11	11	156	688	37	88	0	0	1	1	0	88	4	84	13	N.C.	N.C.	88	8	
Québec-Chaudière-Appalaches	1264	22	1621	0	0	46	46	179	1559	67	642	0	0	6	0	0	657	19	642	43	N.C.	N.C.	492	31	
Centre-du-Québec	1850	44	1790	0	0	71	71	167	799	26	21	0	0	2	0	0	21	1	21	1	N.C.	N.C.	22	1	
Montréal-Laval	1956	55	2748	0	0	65	65	171	1623	32	859	0	2	37	0	0	859	21	862	48	N.C.	N.C.	859	51	
Ouest du Québec	1092	21	726	0	0	30	30	52	718	12	14	0	0	3	0	0	14	4	14	1	N.C.	N.C.	14	0	
Montérégie	1193	25	1321	0	0	25	25	63	1320	26	8	0	0	1	0	0	8	1	8	2	N.C.	N.C.	8	0	
Province of Québec	8709	207	9679	0	0	248	248	788	6707	200	1632	0	2	50	1	0	1647	50	1631	108	N.C.	N.C.	1483	91	
P.H.O.L. - Ottawa	271	57	278	6	0	7	13	5	278	5	164	0	0	0	0	4	164	0	164	22	164	9	164	25	
EORLA	825	38	523	0	0	28	28	50	523	7	33	0	0	2	0	0	33	0	33	3	33	4	33	4	
P.H.O.L. - Kingston	217	40	179	3	0	0	3	0	179	0	82	0	0	0	0	12	82	0	82	1	82	1	82	19	
UHN / Mount Sinai Hospital	816	21	699	0	0	12	12	7	699	1	65	0	0	1	0	0	65	0	65	4	65	6	65	1	
P.H.O.L. - Toronto	370	34	898	9	2	5	16	12	898	3	837	0	0	0	0	80	837	9	837	73	837	54	837	85	
Sick Kids Hospital - Toronto	128	4	111	0	1	0	1	6	111	2	111	0	0	7	0	0	111	2	111	12	111	31	111	5	
Shared Hospital Laboratory	1496	13	1180	13	5	2	20	28	1180	3	1178	0	0	0	0	10	1178	7	1182	25	1182	34	1182	13	
P.H.O.L. - Sault Ste. Marie	27	8	37	3	0	1	4	0	37	1	20	0	0	0	0	0	20	0	20	0	20	0	20	4	
P.H.O.L. - Timmins	19	1	46	5	0	0	5	0	46	3	37	0	0	0	0	1	37	1	37	3	37	2	37	6	
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.	N.R.	N.R.	N.R.
P.H.O.L. - London	300	26	298	2	1	1	4	10	298	2	269	0	0	0	0	22	269	2	269	21	269	18	269	25	
P.H.O.L. - Orillia	21	6	19	1	0	0	1	0	19	0	15	0	0	0	0	0	15	0	15	0	15	0	15	2	
P.H.O.L. - Thunder Bay	34	0	31	3	0	1	4	0	31	0	22	0	0	0	0	1	22	0	22	1	22	0	22	1	
P.H.O.L. - Sudbury	39	0	43	1	0	0	1	0	43	1	30	0	0	0	0	2	30	0	30	1	30	4	30	11	
P.H.O.L. - Hamilton	64	4	75	0	0	1	1	3	75	0	59	0	0	0	0	4	59	1	59	7	59	4	59	7	
P.H.O.L. - Peterborough	75	4	90	1	1	0	2	5	90	1	50	0	0	0	0	3	50	1	50	5	50	8	50	1	
St. Joseph's - Hamilton	1605	39	1565	0	0	46	46	85	1565	7	1565	0	0	52	0	0	1565	7	1565	67	1565	100	0	0	
Sault Area Hospital	121	7	110	4	0	0	4	0	110	2	93	0	0	2	0	0	93	4	93	12	93	10	93	0	
Province of Ontario	6428	302	6182	51	10	104	165	211	6182	38	4630	0	0	64	0	139	4630	34	4634	257	4634	285	3069	209	
Manitoba	1325	86	1062	1	0	16	17	70	1062	15	96	0	0	3	0	0	96	2	95	8	96	8	95	10	
Saskatchewan	1613	77	1312	0	0	33	33	202	1059	38	384	0	0	17	0	0	384	3	384	14	384	28	384	30	
Alberta	4267	160	4318	19	28	0	49	337	4151	69	1117	2	1	60	0	0	1117	9	1056	0	1099	96	1117	72	
Prairies	7205	323	6692	20	28	49	99	609	6272	122	1597	2	1	80	0	0	1597	14	1535	22	1579	132	1596	112	
British Columbia	3308	346	3351	13	10	5	75	97	3260	67	790	0	5	38	2	0	790	32	790	46	762	77	762	49	
Yukon	56	0	36	0	0	0	0	2	36	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	35	1	35	1	0	0	1	3	35	4	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	181	12	150	0	0	0	0	29	150	13	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	272	13	221	1	0	0	1	34	221	17	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	35	1	35	1	35	5	N.C.	N.C.	
CANADA	28886	1369	29070	85	48	480	662	1949	25327	518	9246	3	10	253	7	139	9296	143	9222	479	7608	562	7508	504	

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 April 6, 2024 (surveillance weeks 2023-35 to 2024-14)

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	19785	2864	14500	0	0	1322	1322	120	14500	935	14500	17	69	51	105	0	14500	241	14500	312	14500	1150	14500	400
Prince Edward Island	7364	778	4798	0	0	541	541	213	4798	367	526	3	0	10	8	0	525	32	515	19	526	132	510	25
Nova Scotia	45760	8421	32206	0	0	2664	2664	401	26534	1420	1110	16	3	4	10	0	1110	41	1103	12	1110	224	1109	18
New Brunswick	34926	3893	32889	889	25	1906	2820	776	32485	1876	2940	7	4	26	30	0	2940	107	2940	89	2940	562	2940	120
Atlantic	107835	15956	84393	889	25	6433	7347	1510	78317	4598	19076	43	76	91	153	0	19075	421	19058	432	19076	2068	19059	563
Région Nord-Est	53904	7085	49135	5	0	4724	4729	794	19590	1429	2516	16	12	26	17	0	2516	108	2455	106	N.C.	N.C.	2516	112
Québec-Chaudière-Appalaches	62778	9317	43393	0	0	5541	5541	1447	41643	2713	16624	22	9	35	14	0	17128	526	16624	530	N.C.	N.C.	13648	485
Centre-du-Québec	78502	12444	39904	0	0	4542	4542	890	23178	1618	1158	15	8	21	7	0	1158	57	1158	52	N.C.	N.C.	1190	44
Montréal-Laval	93893	13925	78831	5	2	6627	6634	703	50593	2894	26786	95	42	272	24	0	26786	525	26859	645	N.C.	N.C.	26786	948
Ouest du Québec	51588	10039	22370	4	0	2085	2089	311	22150	1104	612	11	3	21	7	0	612	47	612	20	N.C.	N.C.	612	28
Montréal	50242	8034	41329	0	0	3211	3211	338	40251	1786	221	1	0	1	1	0	221	8	221	5	N.C.	N.C.	221	3
Province of Québec	390907	60844	274962	14	2	26730	26746	4483	197405	11544	47917	160	74	376	70	0	48421	1271	47929	1358	N.C.	N.C.	44973	1620
P.H.O.L. - Ottawa	10899	3778	7680	296	54	191	418	38	7674	137	4581	0	0	0	0	121	4581	13	4579	107	4581	430	4579	270
EORLA	40152	4537	18960	0	0	1604	1604	395	18960	1127	1248	2	5	28	4	0	1223	14	1248	32	1248	223	1248	41
P.H.O.L. - Kingston	7490	2113	4282	135	19	96	224	5	4282	168	2951	0	0	0	0	77	2951	11	2951	25	2951	331	2951	136
UHN / Mount Sinai Hospital	34527	3037	21798	41	10	552	603	79	21798	225	1404	0	0	20	2	0	1404	3	1404	11	1404	70	1404	44
P.H.O.L. - Toronto	18862	5454	34589	1175	911	345	1781	242	34580	1047	31754	0	0	0	0	1102	31762	368	31739	717	31754	2926	31739	1627
Sick Kids Hospital - Toronto	4087	311	3676	105	100	20	225	58	3676	312	3676	15	12	87	21	0	3676	99	3676	115	3676	666	3676	112
Shared Hospital Laboratory	55572	4546	46695	859	525	293	1677	386	46702	1341	46470	0	0	0	0	319	40816	337	46551	277	46596	1502	46573	529
P.H.O.L. - Sault Ste. Marie	479	206	589	55	3	17	69	1	589	46	404	0	0	0	0	5	404	1	404	0	404	21	404	42
P.H.O.L. - Timmins	1128	326	1148	63	10	30	92	7	1148	65	908	0	0	0	0	26	908	5	908	12	908	54	908	43
St. Joseph's - London	27420	3463	14953	0	0	965	965	210	14953	712	2080	0	0	0	0	34	2099	33	2099	32	2101	236	2099	58
P.H.O.L. - London	14561	4130	10894	485	142	169	611	100	10891	472	8788	0	0	0	0	270	8788	39	8786	128	8788	765	8786	358
P.H.O.L. - Orillia	575	150	1260	72	17	11	100	0	1257	74	1191	0	0	0	0	31	1191	16	1191	19	1191	145	1191	26
P.H.O.L. - Thunder Bay	1850	501	1163	61	0	9	42	5	1160	30	968	0	0	0	0	28	968	6	968	30	968	57	968	28
P.H.O.L. - Sudbury	754	239	901	43	1	23	67	1	899	26	640	0	0	0	0	23	641	1	640	9	640	51	640	61
P.H.O.L. - Hamilton	7125	2110	5915	149	66	98	258	40	5914	172	4461	0	0	0	0	144	4461	85	4460	118	4461	565	4460	214
P.H.O.L. - Peterborough	2327	670	2388	207	205	73	155	29	2378	222	1859	0	0	0	0	68	1859	39	1859	48	1859	297	1859	55
St. Joseph's - Hamilton	60601	5832	54028	0	0	3208	3208	731	54028	1769	54028	0	0	519	0	0	54028	337	54028	701	54028	3091	0	0
Sault Area Hospital	5926	789	4020	180	18	55	253	15	4013	205	3159	27	0	22	17	0	3110	40	3110	37	3110	267	3120	67
Province of Ontario	294335	42192	234939	3926	2081	7759	12352	2342	234902	8150	170570	44	17	676	44	2248	164870	1447	170601	2418	170668	11697	116605	3711
Manitoba	51459	7314	38783	145	12	1857	2014	445	38783	1368	2987	2	10	25	41	0	2987	124	3762	151	2987	534	3762	140
Saskatchewan	66021	7377	45421	117	10	5442	5569	1737	40518	1606	14665	30	9	113	25	0	14665	278	14665	779	14665	1387	14665	393
Alberta	172101	19853	150887	11796	779	586	13232	3457	141021	6153	41520	137	92	565	3	0	41509	480	40148	30	40862	3749	41519	1081
Prairies	289581	34544	235091	12058	801	7885	20815	5639	220322	9127	59172	169	111	703	69	0	59161	882	58575	960	58514	5670	59946	1614
British Columbia	122048	16240	123676	4070	818	266	8690	1103	120700	5892	28940	115	182	351	184	0	28942	902	28827	1157	27802	4173	27779	877
Yukon	1715	178	1122	34	15	0	60	7	1113	46	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	1207	76	1145	167	6	1	174	51	1145	172	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	946	45	946	10	1145	138	N.C.	N.C.
Nunavut	4403	370	3154	432	33	52	517	189	3154	468	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	7325	624	5421	633	54	53	751	247	5412	686	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	946	45	946	10	1145	138	N.C.	N.C.
CANADA	1212031	170400	958482	21590	3781	49126	76701	15324	857058	39997	325675	531	460	2197	520	2248	321415	4968	325936	6335	277205	23746	268362	8385

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.

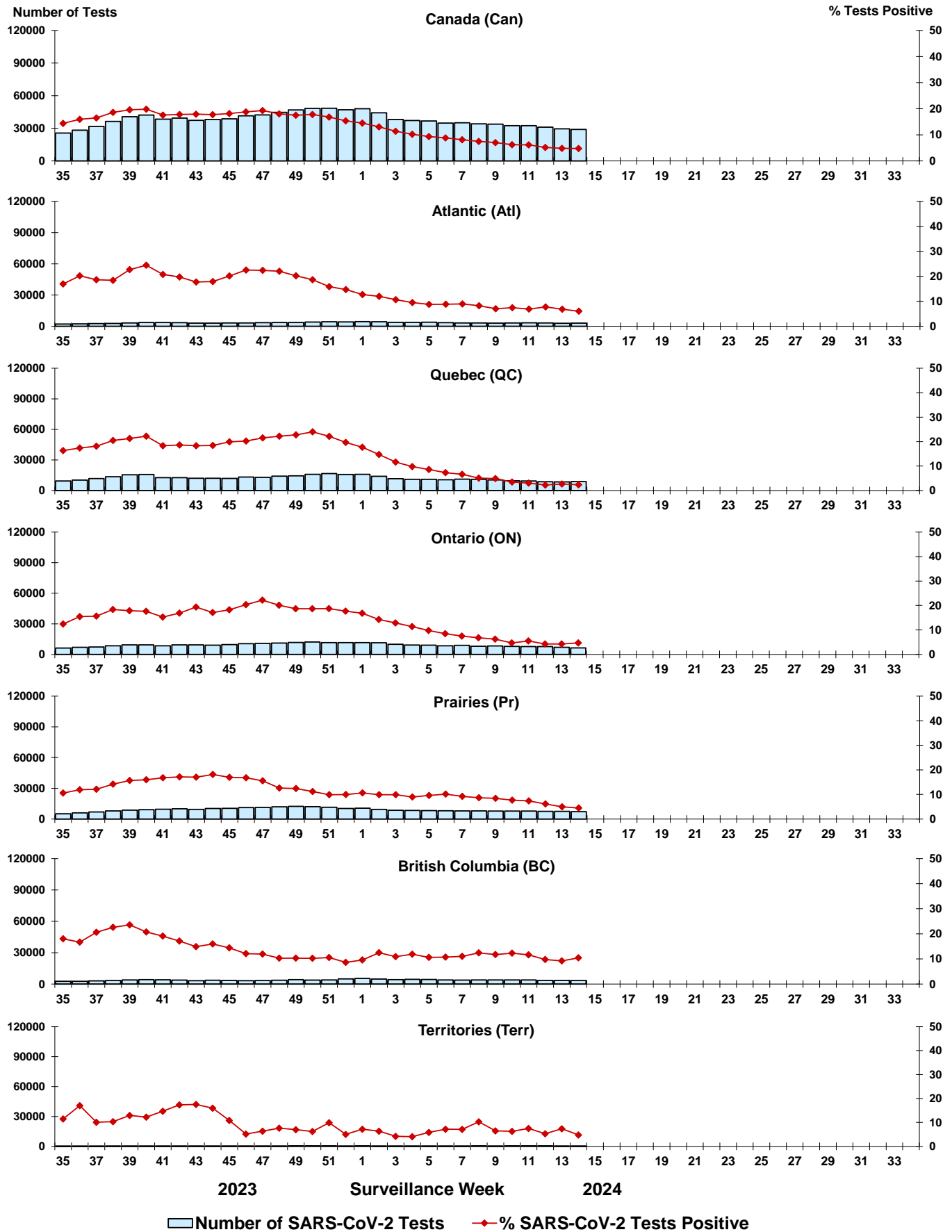
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Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts. Total influenza A and B positive counts are used to calculate percentage of tests positive.

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

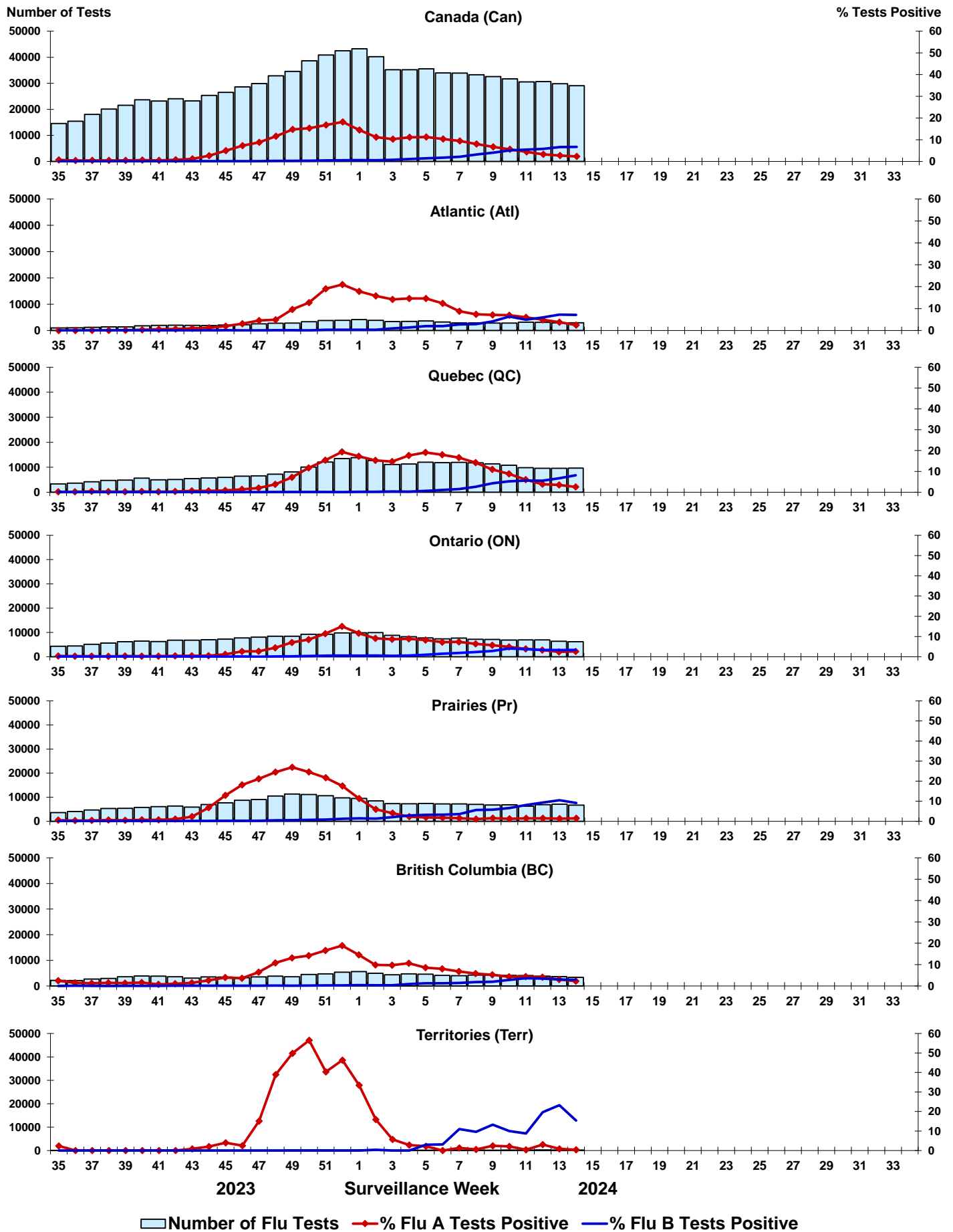
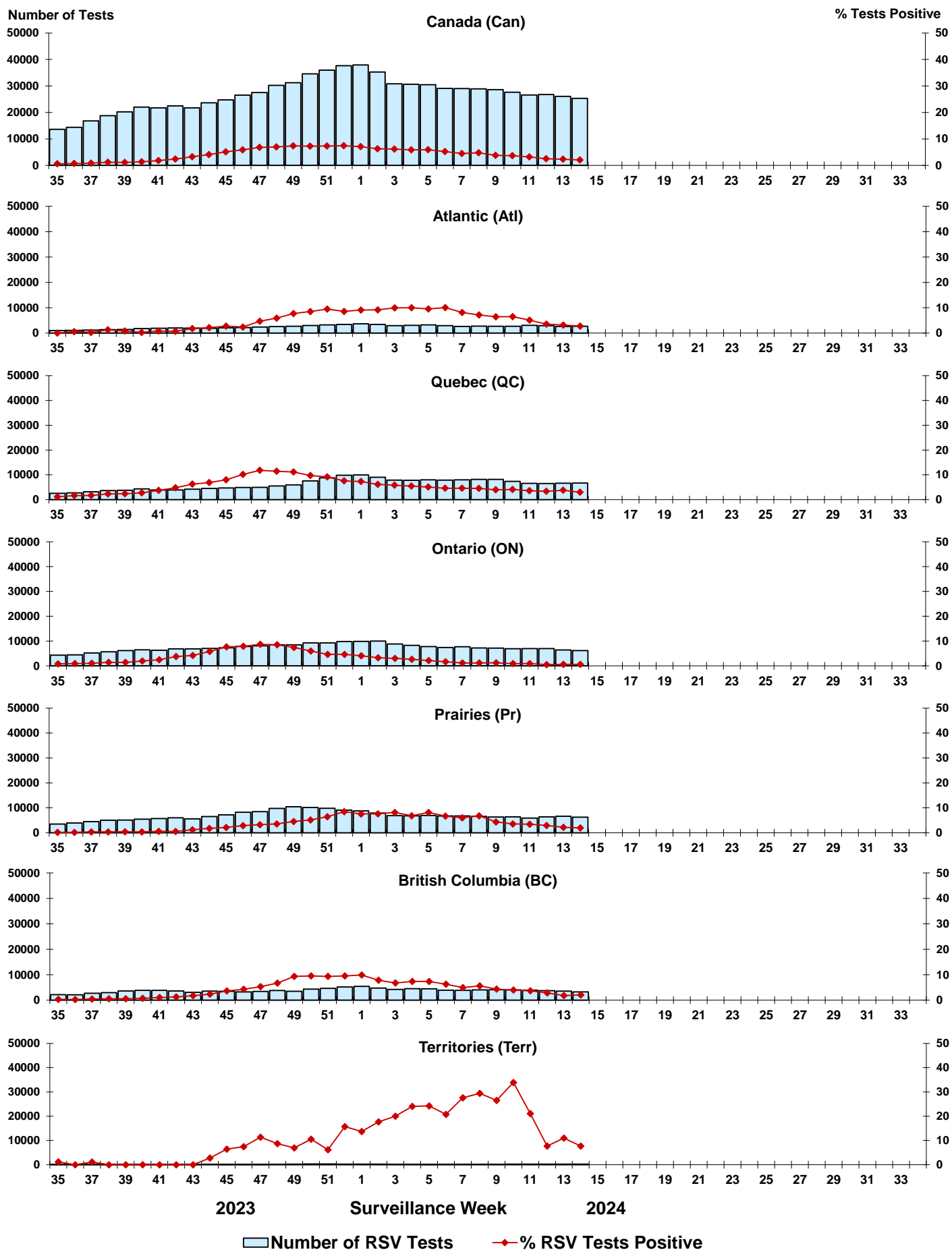


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week



Number of RSV Tests % RSV Tests Positive

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

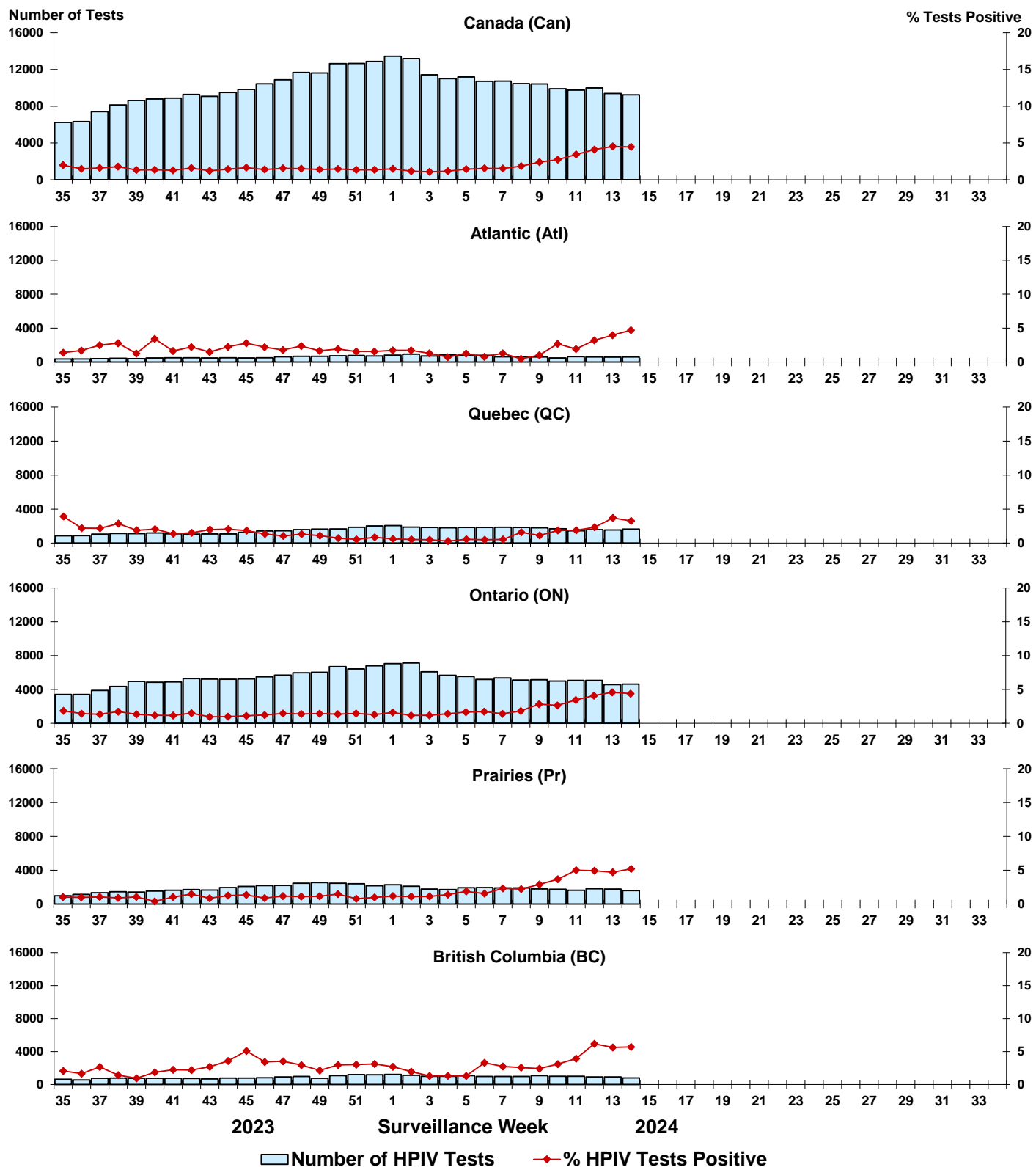


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

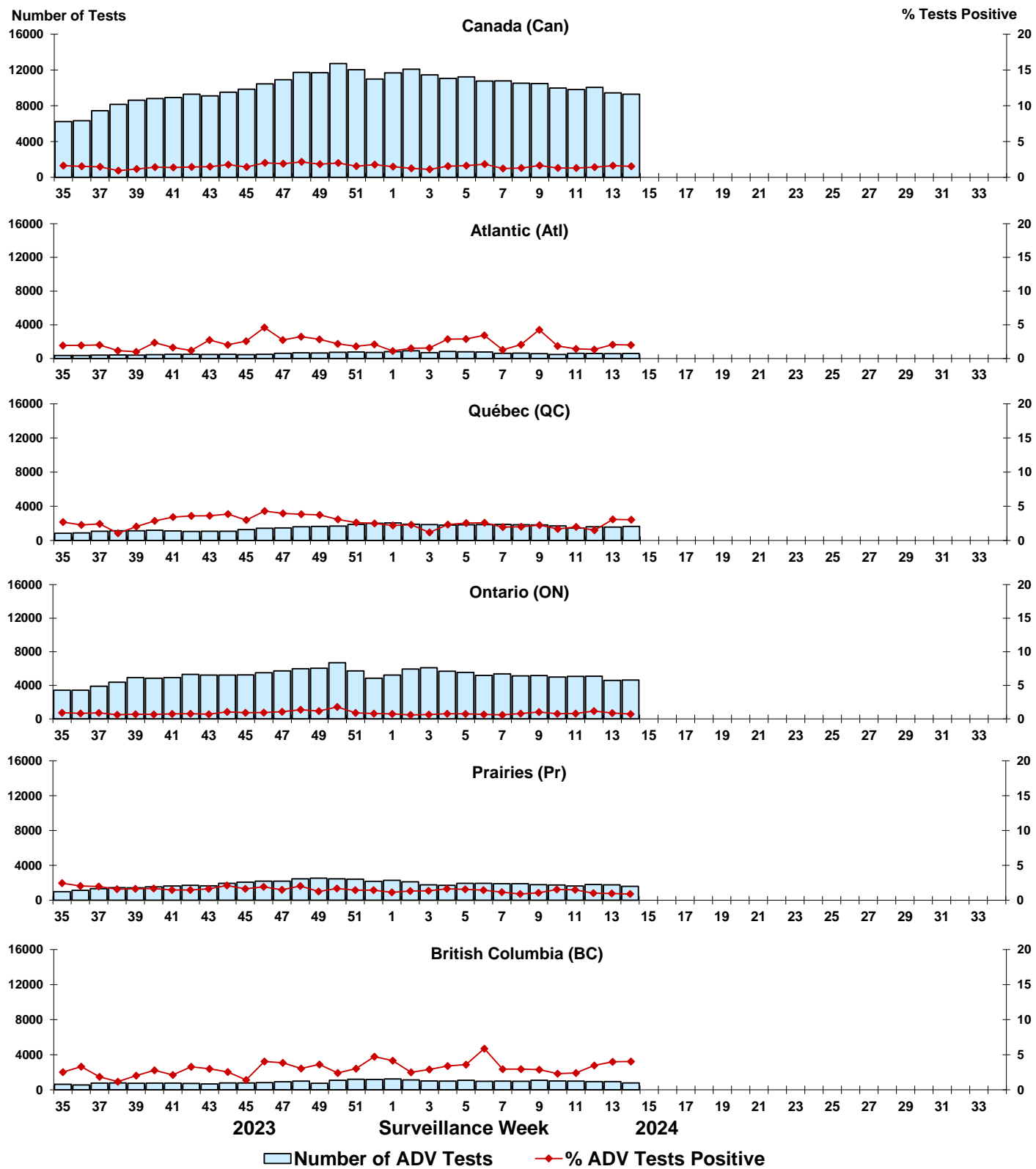


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

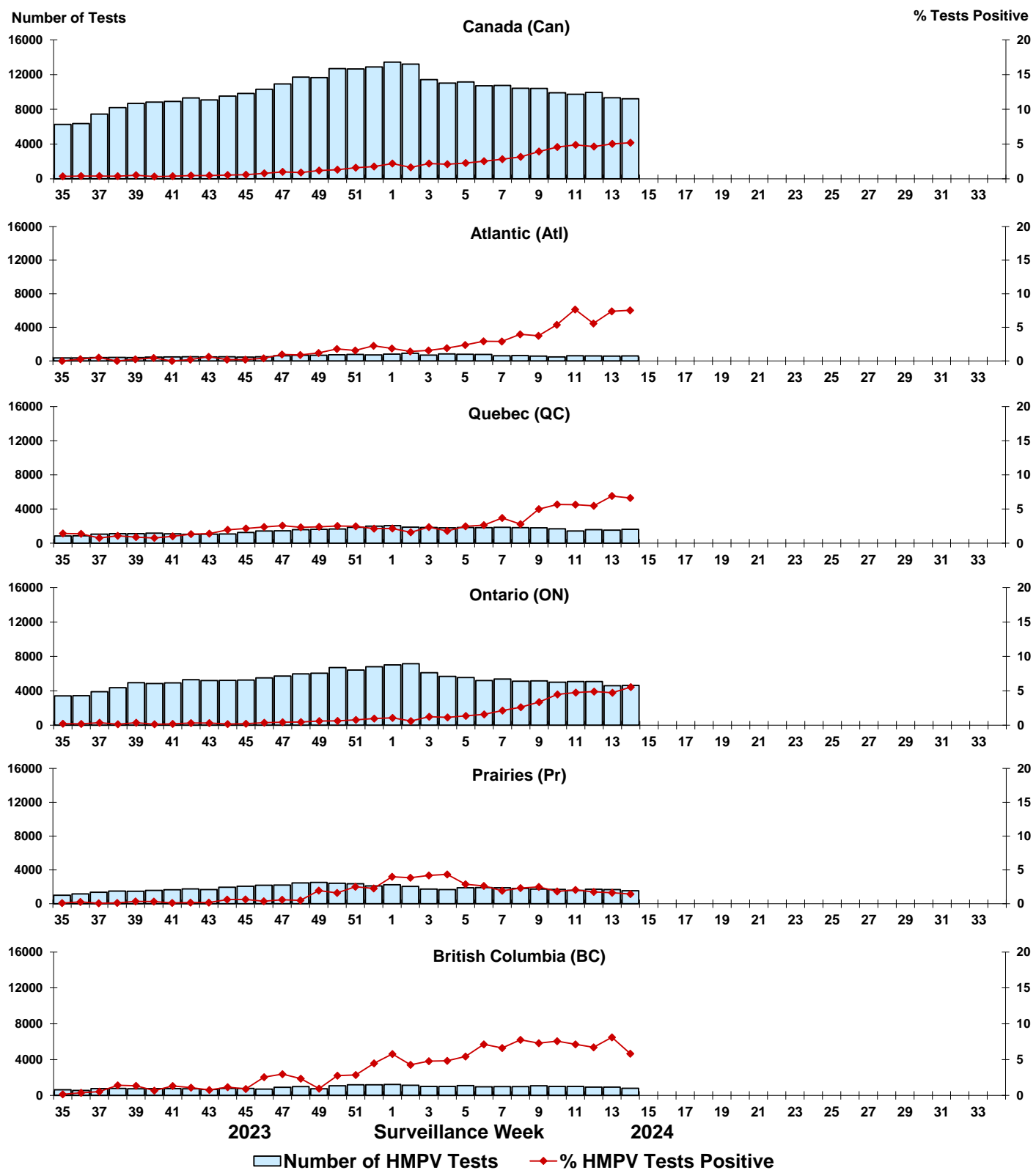


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

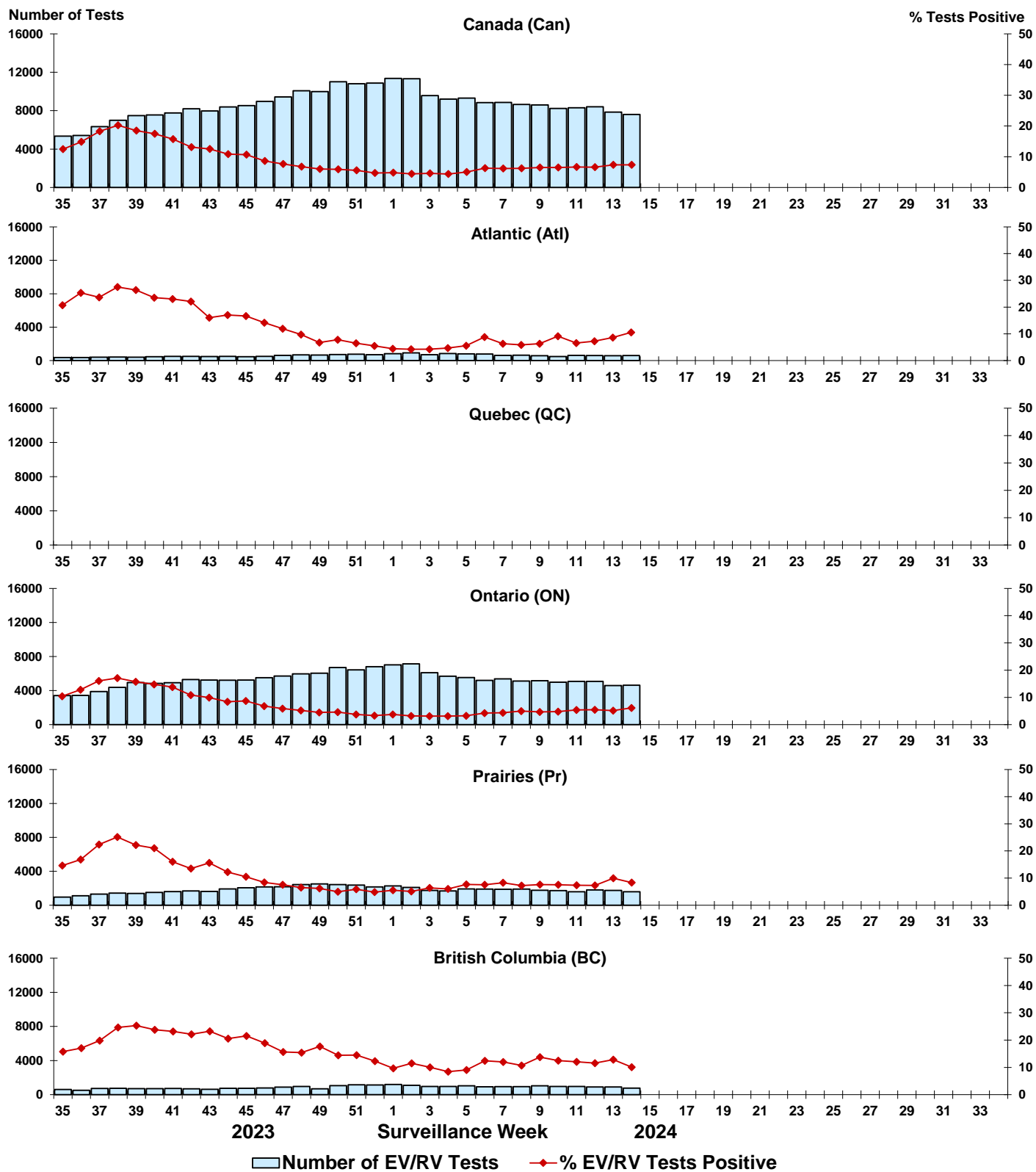


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

