

RESPIRATORY VIRUS DETECTION REPORT

November 26 to December 2, 2023
(Surveillance Week 2023-48)



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 48 (week ending December 2, 2023) in Canada, participating RVDSS laboratories reported 7,876 detections of SARS-CoV-2 from 43,385 tests (18.2% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 9,109 to 31,048 tests), activity of both flu and RSV is increasing, as is expected at this time of year.

- In recent weeks national SARS-CoV-2 percent positivity has increased slightly, but trends vary by region.
- At the national level, activity of influenza is increasing, but is within expected levels for this time of year (3,077 detections; 9.9% positive). Influenza percent positivity currently varies greatly by region.
- Activity of RSV continues to increase but is within expected levels for this time of year (2,032 detections; 7.1% positive).
- 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

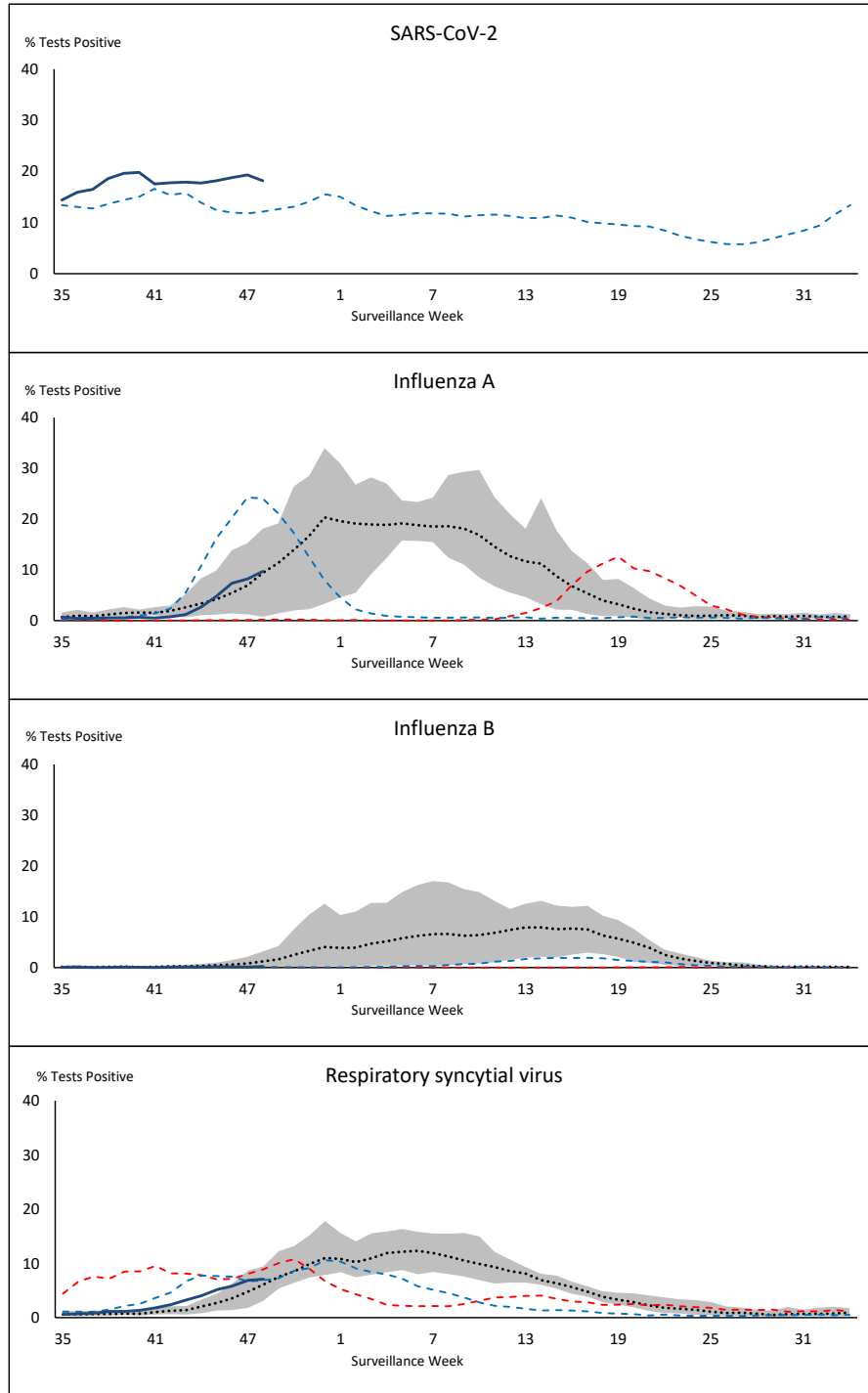
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

Terr: Territories of Canada

UHN: University Health Network



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)

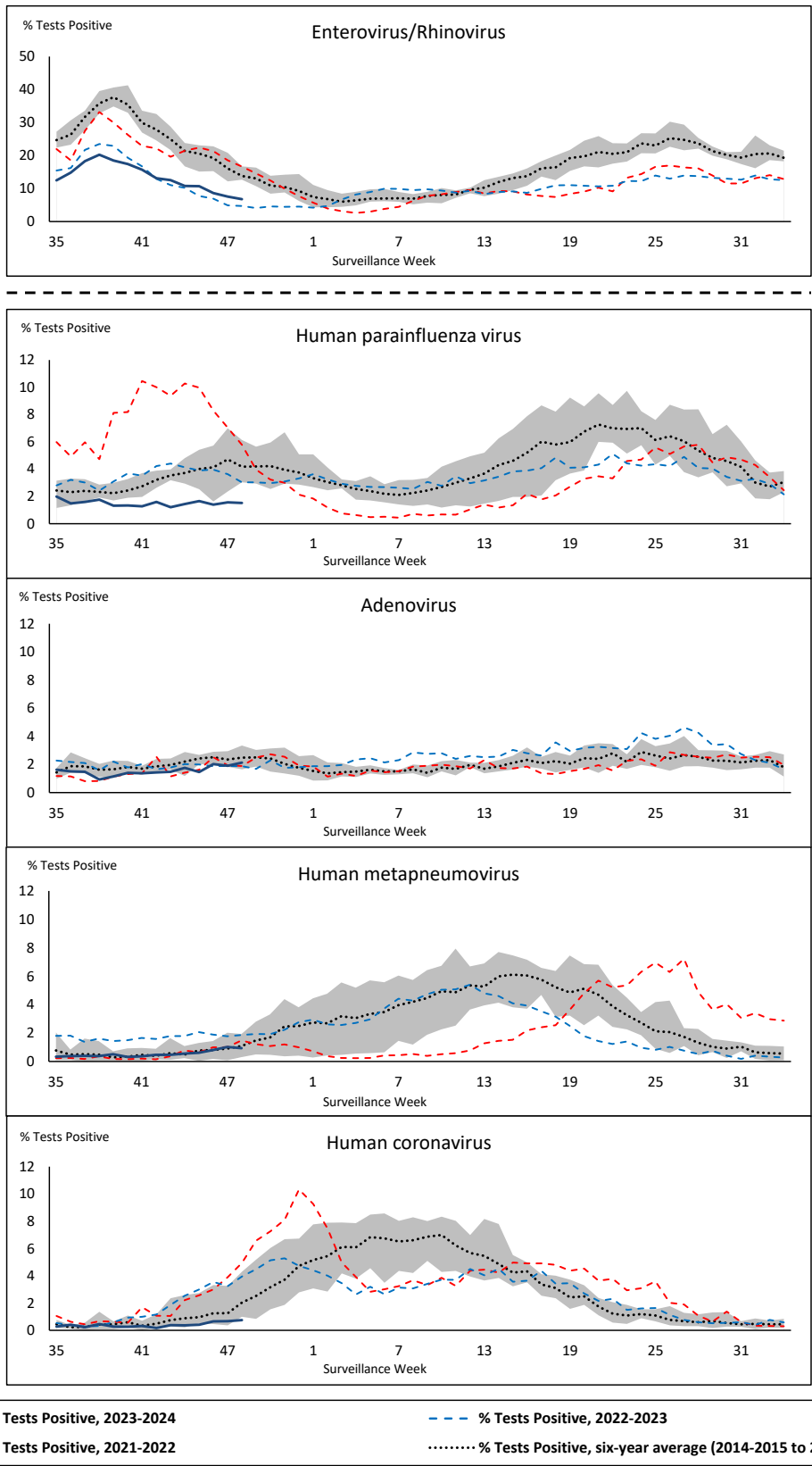
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 December 2, 2023 (surveillance week 2023-48)

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	749	173	524	0	0	28	28	1	524	27	524	0	6	1	4	0	524	13	524	6	524	34	524	2	
Prince Edward Island	229	76	163	0	0	2	2	0	163	5	13	0	0	0	0	0	13	1	13	0	13	3	13	1	
Nova Scotia	1476	397	1014	0	0	24	24	2	828	81	33	0	0	0	1	0	33	1	33	0	33	7	33	0	
New Brunswick	1081	156	1042	27	0	53	80	0	1034	37	106	1	1	0	2	0	106	7	106	0	106	22	106	2	
Atlantic	3535	802	2743	27	0	107	134	3	2549	150	676	1	7	1	7	0	676	22	676	6	676	66	676	5	
Région Nord-Est	1492	300	1295	0	0	47	47	0	422	41	64	1	1	1	0	0	64	6	61	6	N.C.	N.C.	64	2	
Québec-Chaudière-Appalaches	2414	540	1178	0	0	25	25	3	1179	130	577	1	1	1	0	0	598	31	577	16	N.C.	N.C.	496	7	
Centre-du-Québec	2762	538	1155	0	0	51	51	1	798	122	59	0	0	0	1	0	59	3	59	4	N.C.	N.C.	67	0	
Montréal-Laval	3750	841	1989	0	0	82	82	2	1583	183	865	5	3	5	1	0	865	17	866	10	N.C.	N.C.	865	7	
Ouest du Québec	1783	483	432	0	0	16	16	3	431	56	17	0	0	0	0	0	17	3	17	1	N.C.	N.C.	17	0	
Montérégie	1652	354	1178	0	0	53	53	2	1141	102	11	0	0	0	0	0	11	1	11	0	N.C.	N.C.	11	0	
Province of Québec	13853	3056	7227	0	0	274	274	11	5554	634	1593	7	5	7	2	0	1614	61	1591	37	N.C.	N.C.	1520	16	
P.H.O.L. - Ottawa	370	178	243	13	1	1	10	0	243	15	152	0	0	0	0	3	152	1	152	2	152	4	152	0	
EORLA	1744	259	762	0	0	77	77	1	762	87	40	0	0	0	0	0	40	0	40	0	40	5	40	0	
P.H.O.L. - Kingston	239	107	147	1	0	0	1	0	147	24	116	0	0	0	0	2	116	2	116	0	116	16	116	0	
UHN / Mount Sinai Hospital	1428	203	765	13	0	0	13	2	765	16	21	0	0	0	0	0	21	0	21	0	21	0	21	0	
P.H.O.L. - Toronto	733	280	1248	50	20	0	60	3	1248	97	1136	0	0	0	0	40	1136	21	1136	8	1136	76	1136	8	
Sick Kids Hospital - Toronto	147	18	134	4	5	9	18	0	134	27	134	0	0	2	2	0	134	2	134	1	134	19	134	1	
Shared Hospital Laboratory	2214	301	1791	39	20	11	70	5	1792	116	1787	0	0	0	0	6	1787	22	1790	4	1790	31	1790	6	
P.H.O.L. - Sault Ste. Marie	5	3	5	0	0	0	0	0	5	0	5	0	0	0	0	0	5	0	5	0	5	1	5	0	
P.H.O.L. - Timmins	19	1	26	1	0	0	1	0	26	7	22	0	0	0	0	0	22	0	22	0	22	1	22	0	
St. Joseph's - London	951	204	580	0	0	28	28	0	580	64	51	0	0	0	0	1	51	2	51	0	51	6	51	0	
P.H.O.L. - London	576	202	448	29	3	7	20	1	447	47	366	0	0	0	0	7	366	3	366	2	366	9	366	2	
P.H.O.L. - Orillia	16	8	45	0	0	0	0	0	45	8	42	0	0	0	0	0	42	0	42	0	42	2	42	0	
P.H.O.L. - Thunder Bay	48	15	23	1	0	0	1	0	23	0	22	0	0	0	0	2	22	1	22	1	22	2	22	0	
P.H.O.L. - Sudbury	36	20	41	0	0	0	0	0	41	0	23	0	0	0	0	0	23	0	23	0	23	0	23	0	
P.H.O.L. - Hamilton	249	83	170	1	0	0	1	0	170	21	122	0	0	0	0	2	122	4	122	2	122	10	122	1	
P.H.O.L. - Peterborough	140	51	129	5	3	0	8	0	129	27	93	0	0	0	0	3	93	5	93	2	93	11	93	0	
St. Joseph's - Hamilton	1966	259	1724	0	0	76	76	2	1724	155	1724	0	0	9	0	0	1724	15	1724	6	1724	105	0	0	
Sault Area Hospital	304	48	173	4	0	4	8	0	173	7	117	3	0	0	1	0	117	3	117	0	117	12	117	0	
Province of Ontario	11185	2240	8454	161	52	213	392	14	8454	718	5973	3	0	11	3	66	5973	81	5976	28	5976	310	4252	18	
Manitoba	1845	314	1436	0	9	137	146	2	1436	35	109	0	0	1	4	0	109	11	132	1	109	19	132	2	
Saskatchewan	2912	327	2483	0	0	806	806	9	2268	58	549	3	0	0	0	0	549	12	549	8	549	29	549	3	
Alberta	6170	747	4881	729	30	71	830	21	4589	196	1170	5	5	2	0	0	1170	14	1156	0	1152	75	1170	7	
Prairies	10927	1388	8800	729	39	1014	1782	32	8293	289	1828	8	5	3	4	0	1828	37	1837	9	1810	123	1851	12	
British Columbia	3636	371	3675	85	21	4	384	8	3622	231	834	9	10	2	5	0	834	26	834	22	810	129	810	17	
Yukon	45	2	32	1	0	0	3	0	32	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.	
Northwest Territories	43	3	36	11	0	0	11	0	36	3	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	36	3	N.C.	N.C.
Nunavut	161	14	81	0	3	26	29	0	81	6	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	249	19	149	12	3	26	43	0	149	10	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	36	3	N.C.	N.C.	
CANADA	43385	7876	31048	1014	115	1638	3009	68	28621	2032	10904	28	27	24	21	66	10961	234	10950	103	9308	631	9109	68	

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 December 2, 2023 (surveillance weeks 2023-35 to 2023-48)

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	7565	1487	5009	0	0	150	150	2	5009	97	5009	6	18	7	51	0	5009	93	5009	24	5009	781	5009	18
Prince Edward Island	2746	422	901	0	0	10	10	0	901	10	131	0	0	0	5	0	130	6	120	0	130	55	114	1
Nova Scotia	20038	5032	9233	0	0	92	92	8	8915	261	511	15	2	1	9	0	511	23	504	2	511	164	510	0
New Brunswick	12588	1888	10082	74	4	109	187	2	9907	152	983	7	3	0	18	0	983	31	983	0	983	266	983	5
Atlantic	42937	8829	25225	74	4	361	439	12	24732	520	6634	28	23	8	83	0	6633	153	6616	26	6633	1266	6616	24
Région Nord-Est	22563	4361	16707	0	0	98	98	1	4770	196	851	14	8	4	14	0	851	43	835	23	N.C.	N.C.	851	3
Québec-Chaudière-Appalaches	30729	5709	9790	0	0	62	62	10	9798	643	4512	17	8	2	9	0	4711	212	4514	76	N.C.	N.C.	4170	15
Centre-du-Québec	32324	6560	8359	0	0	119	119	8	6615	545	540	12	7	5	5	0	540	29	540	14	N.C.	N.C.	554	2
Montréal-Laval	44128	7610	19535	0	0	213	213	11	17016	1060	9895	83	32	43	20	0	9895	205	9919	142	N.C.	N.C.	9895	78
Ouest du Québec	24767	6237	7324	1	0	71	72	11	7305	424	295	9	3	2	5	0	295	22	295	4	N.C.	N.C.	295	1
Montérégie	22189	4345	12110	0	0	160	160	13	11384	548	84	1	0	0	1	0	84	3	84	0	N.C.	N.C.	84	0
Province of Québec	176700	34822	73825	1	0	723	724	54	56888	3416	16177	136	58	56	54	0	16376	514	16187	259	N.C.	N.C.	15849	99
P.H.O.L. - Ottawa	5302	2039	3169	45	7	4	30	0	3168	61	1909	0	0	0	0	27	1909	3	1909	10	1909	308	1909	24
EORLA	18990	2434	7124	0	0	167	167	9	7124	742	453	2	3	2	3	0	428	4	453	1	453	113	453	2
P.H.O.L. - Kingston	3614	1199	1828	3	0	0	2	0	1828	67	1394	0	0	0	0	29	1394	8	1394	0	1394	263	1394	1
UHN / Mount Sinai Hospital	14900	1439	8577	34	0	14	48	15	8577	81	324	0	0	4	1	0	324	1	324	0	324	18	324	1
P.H.O.L. - Toronto	8882	3105	13869	241	93	14	273	7	13868	344	12510	0	0	0	0	360	12515	141	12506	70	12510	1986	12506	44
Sick Kids Hospital - Toronto	1718	126	1496	23	21	34	78	1	1496	204	1496	11	7	11	13	0	1496	37	1496	7	1496	305	1496	8
Shared Hospital Laboratory	19982	2241	18264	103	65	22	190	8	18267	830	18230	0	0	0	0	112	18228	150	18238	23	18265	970	18240	39
P.H.O.L. - Sault Ste. Marie	206	154	163	0	0	0	0	0	163	1	96	0	0	0	0	1	96	0	96	0	96	16	96	0
P.H.O.L. - Timmins	489	172	373	1	0	0	1	0	373	17	300	0	0	0	0	12	300	4	300	0	300	35	300	0
St. Joseph's - London	11428	1823	3104	0	0	49	49	4	3104	258	1069	0	0	0	0	13	1086	12	1086	1	1086	156	1086	4
P.H.O.L. - London	7287	2516	4879	57	14	8	41	2	4878	204	3835	0	0	0	0	81	3835	21	3835	4	3835	525	3835	3
P.H.O.L. - Orillia	252	63	597	3	1	0	4	0	596	40	580	0	0	0	0	16	580	11	580	3	580	123	580	0
P.H.O.L. - Thunder Bay	897	325	454	1	0	0	1	0	454	0	372	0	0	0	0	17	372	3	372	2	372	45	372	1
P.H.O.L. - Sudbury	338	177	326	0	0	0	0	0	324	1	222	0	0	0	0	4	223	1	222	0	222	36	222	0
P.H.O.L. - Hamilton	3656	1257	2898	15	1	0	8	1	2898	101	2084	0	0	0	0	56	2084	30	2084	17	2084	376	2084	4
P.H.O.L. - Peterborough	1085	407	1064	8	3	1	12	1	1064	159	919	0	0	0	0	26	919	19	919	4	919	201	919	3
St. Joseph's - Hamilton	24575	2792	21047	0	0	211	211	16	21047	988	21047	0	0	64	0	0	21047	137	21047	53	21047	1713	0	0
Sault Area Hospital	2265	329	1475	11	3	5	19	0	1468	12	1094	10	0	3	8	0	1094	14	1094	0	1094	155	1104	0
Province of Ontario	125866	22598	90707	545	208	529	1134	64	90697	4110	67934	23	10	84	25	754	67930	596	67955	195	67986	7344	46920	134
Manitoba	21855	4188	16919	1	15	355	371	7	16919	130	1070	0	5	6	38	0	1070	59	1607	6	1070	340	1607	7
Saskatchewan	31066	4220	17352	49	5	2902	2956	29	16452	201	5914	11	4	2	9	0	5914	161	5914	66	5914	826	5914	12
Alberta	74399	11285	52748	3161	209	191	3561	115	48982	919	15594	69	47	42	3	0	15591	181	15401	7	15307	2049	15593	93
Prairies	127320	19693	87019	3211	229	3448	6888	151	82353	1250	22578	80	56	50	50	0	22575	401	22922	79	22291	3215	23114	112
British Columbia	48384	8279	45320	708	145	42	1339	39	45177	984	10498	72	74	34	99	0	10502	278	10387	139	10014	2053	9991	62
Yukon	795	92	470	2	3	0	7	0	470	11	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	313	36	257	20	4	0	24	0	257	3	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	257	61	N.C.
Nunavut	1447	184	903	0	4	38	42	0	903	33	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	2555	312	1630	22	11	38	73	0	1630	47	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	257	61	N.C.	N.C.
CANADA	523762	94533	323726	4561	597	5141	10597	320	301477	10327	123821	339	221	232	311	754	124074	1952	124125	700	107181	13939	102490	431

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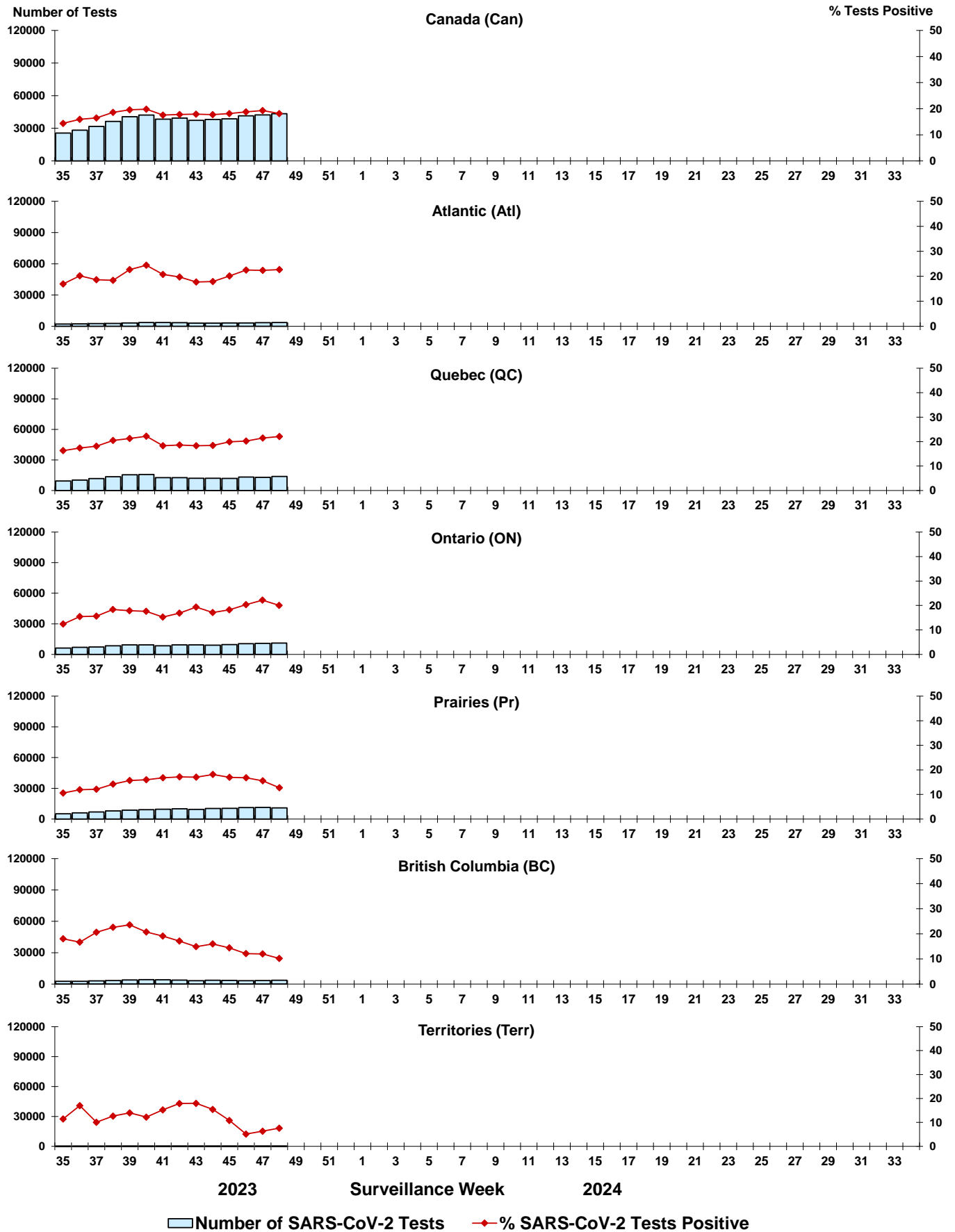
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Results from British Columbia comprise of specimens from the following sites: Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Vancouver Coastal Health sites, Victoria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

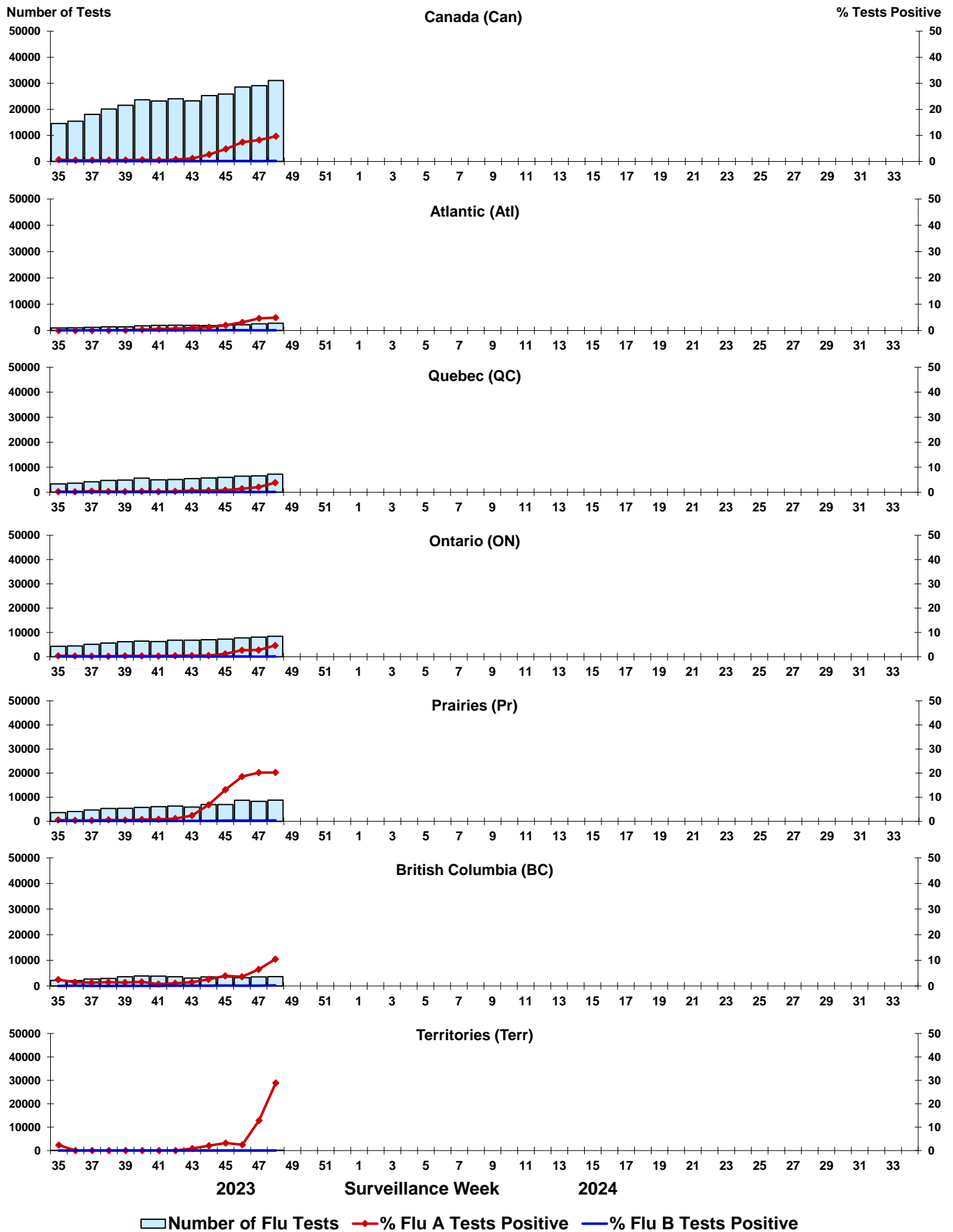


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

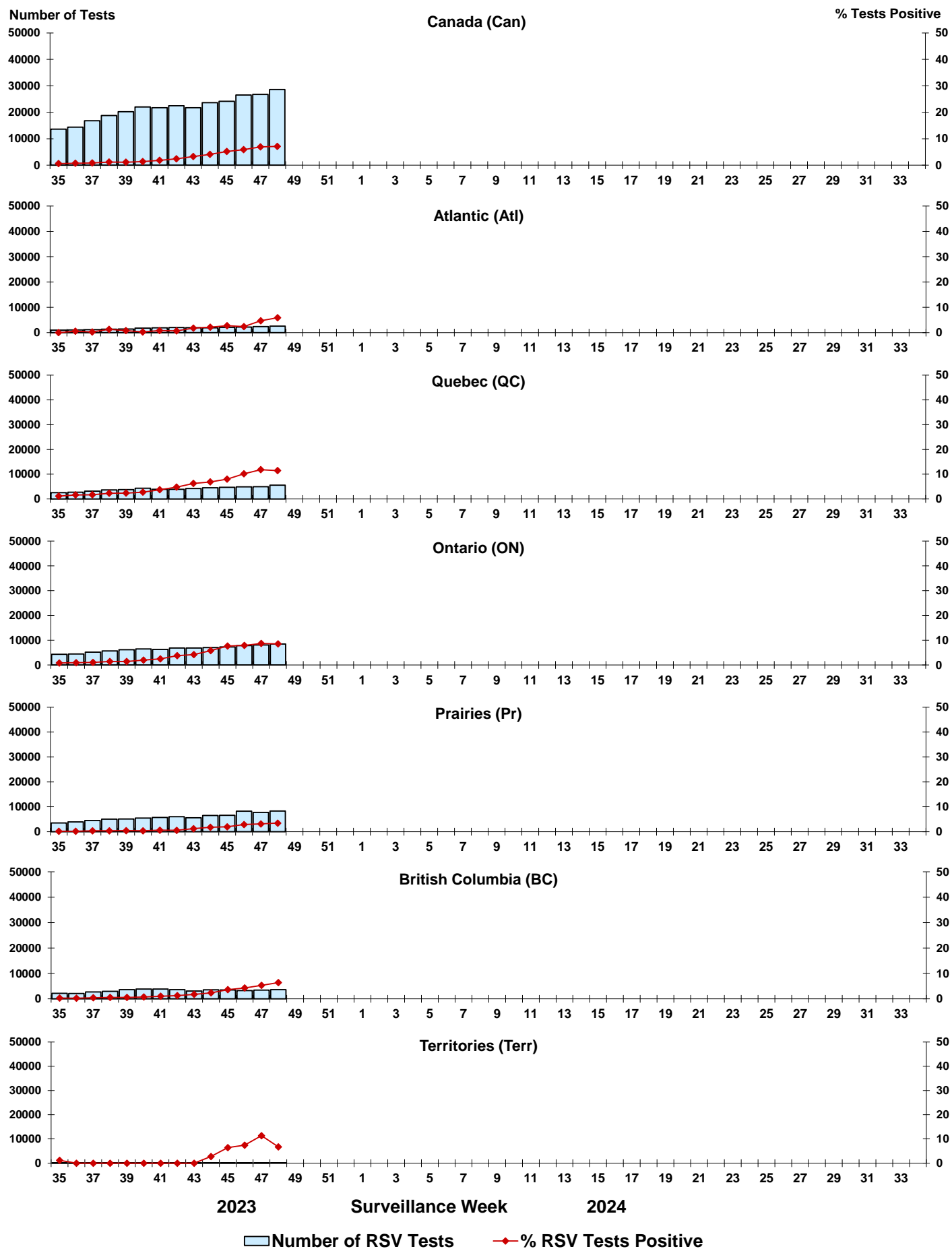


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

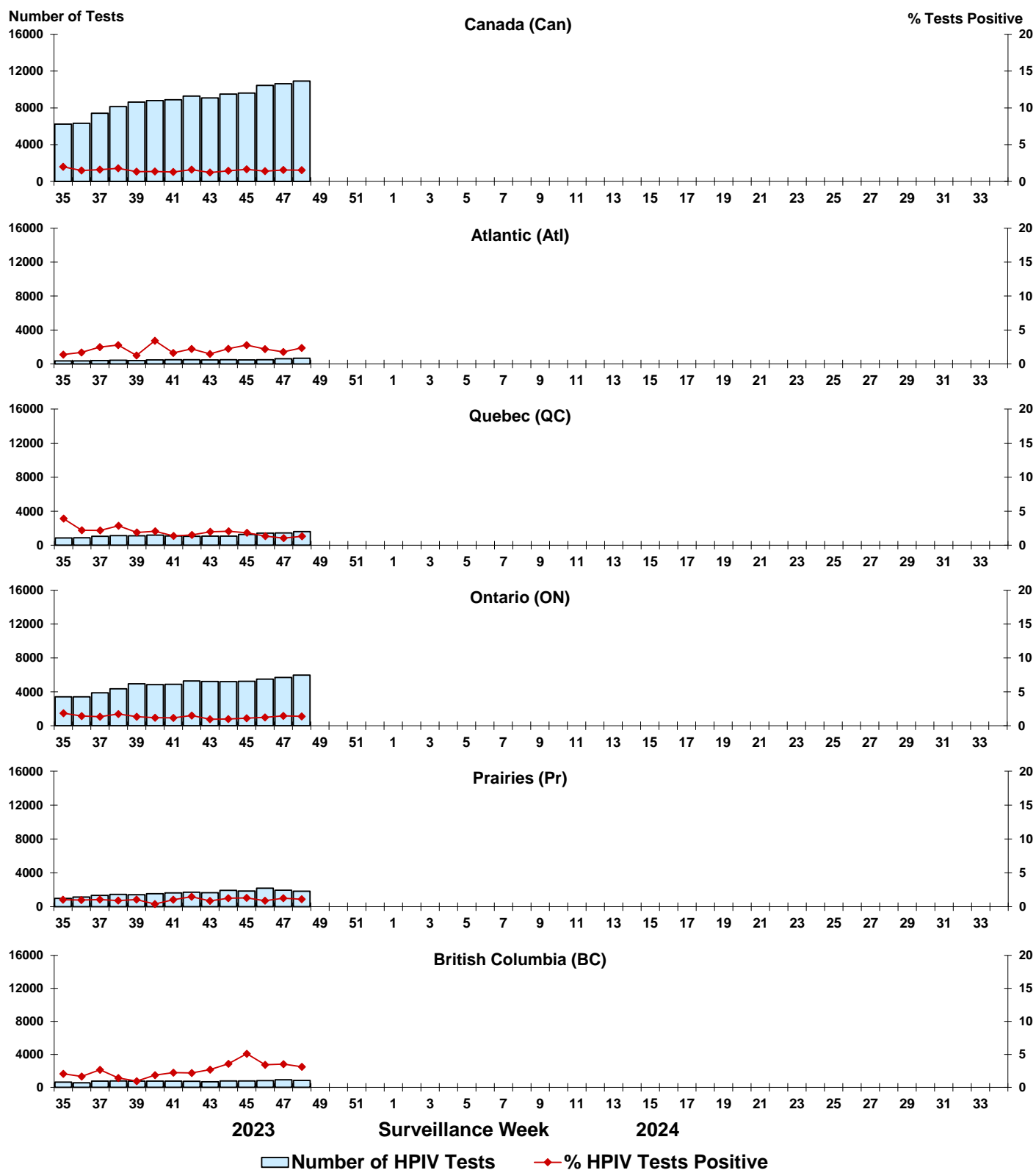


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

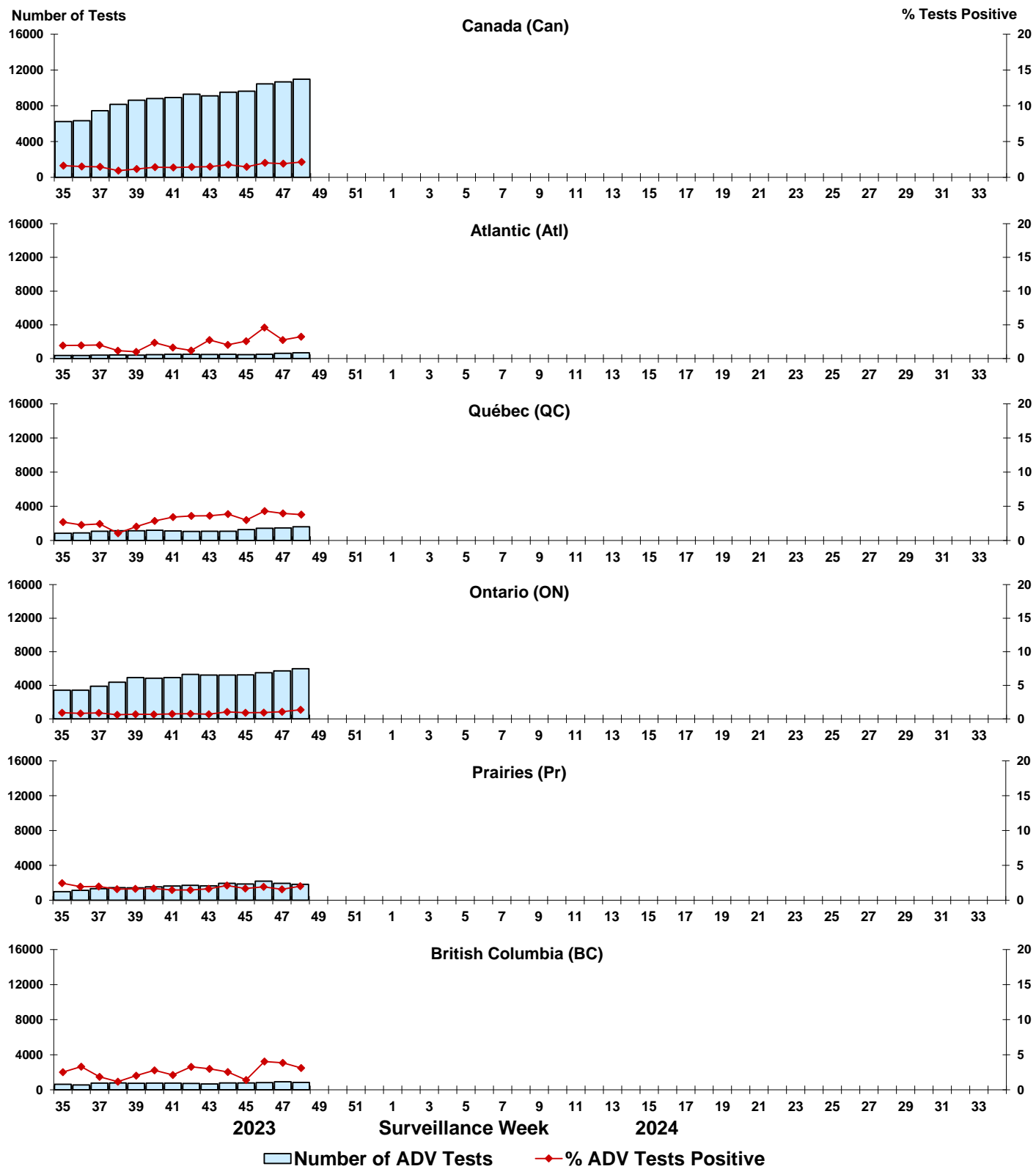


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

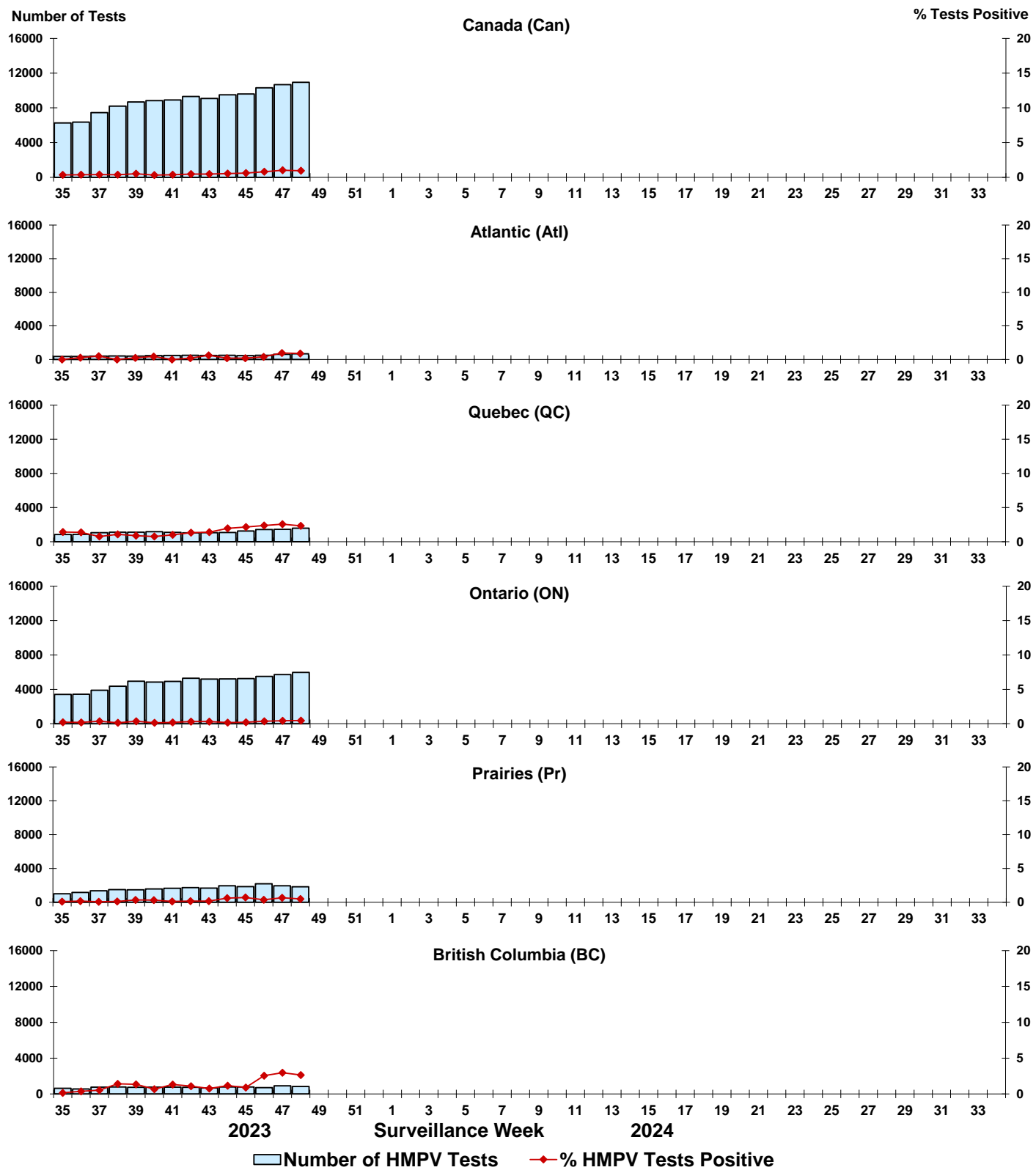


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

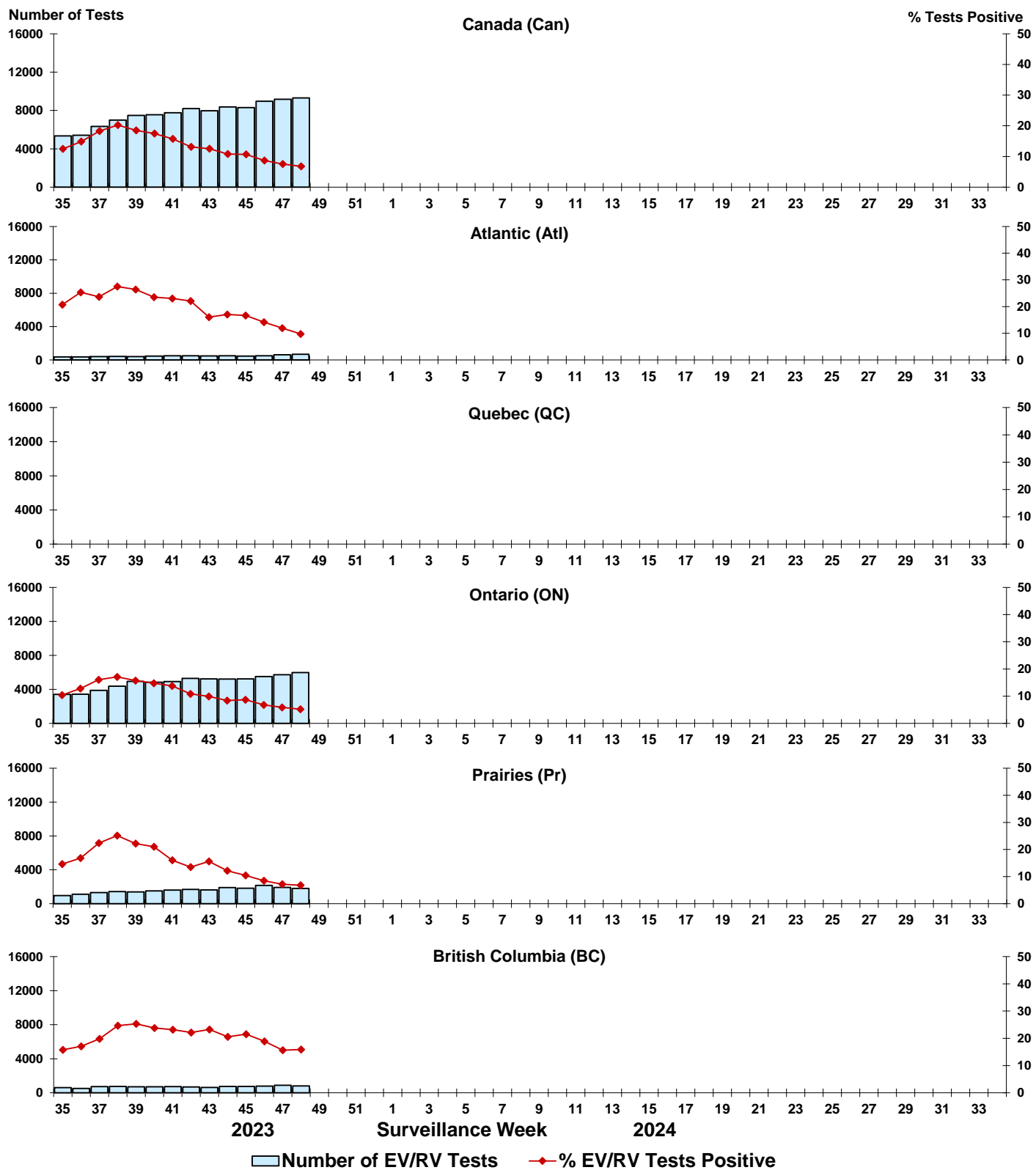


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

