

RESPIRATORY VIRUS DETECTION REPORT

March 10 to March 16, 2024
(Surveillance Week 2024-11)



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 11 (week ending March 16, 2024) in Canada, participating RVDSS laboratories reported 1,972 detections of SARS-CoV-2 from 32,252 tests (6.1% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 6,719 to 25,733 tests), activity of influenza and human coronavirus are highest.

- National SARS-CoV-2 percent positivity has been decreasing since mid-December 2023.
- Influenza A percent positivity has decreased in recent weeks (1,156 detections; 4.5% positive) and is now lower than influenza B which is currently stable (1,262 detections; 4.9% positive).
- RSV percent positivity has decreased in recent weeks (718 detections; 3.2% positive).
- Among other respiratory viruses, human coronavirus percent positivity is above average levels for of this time of year (485 detections; 7.2% positive).
- 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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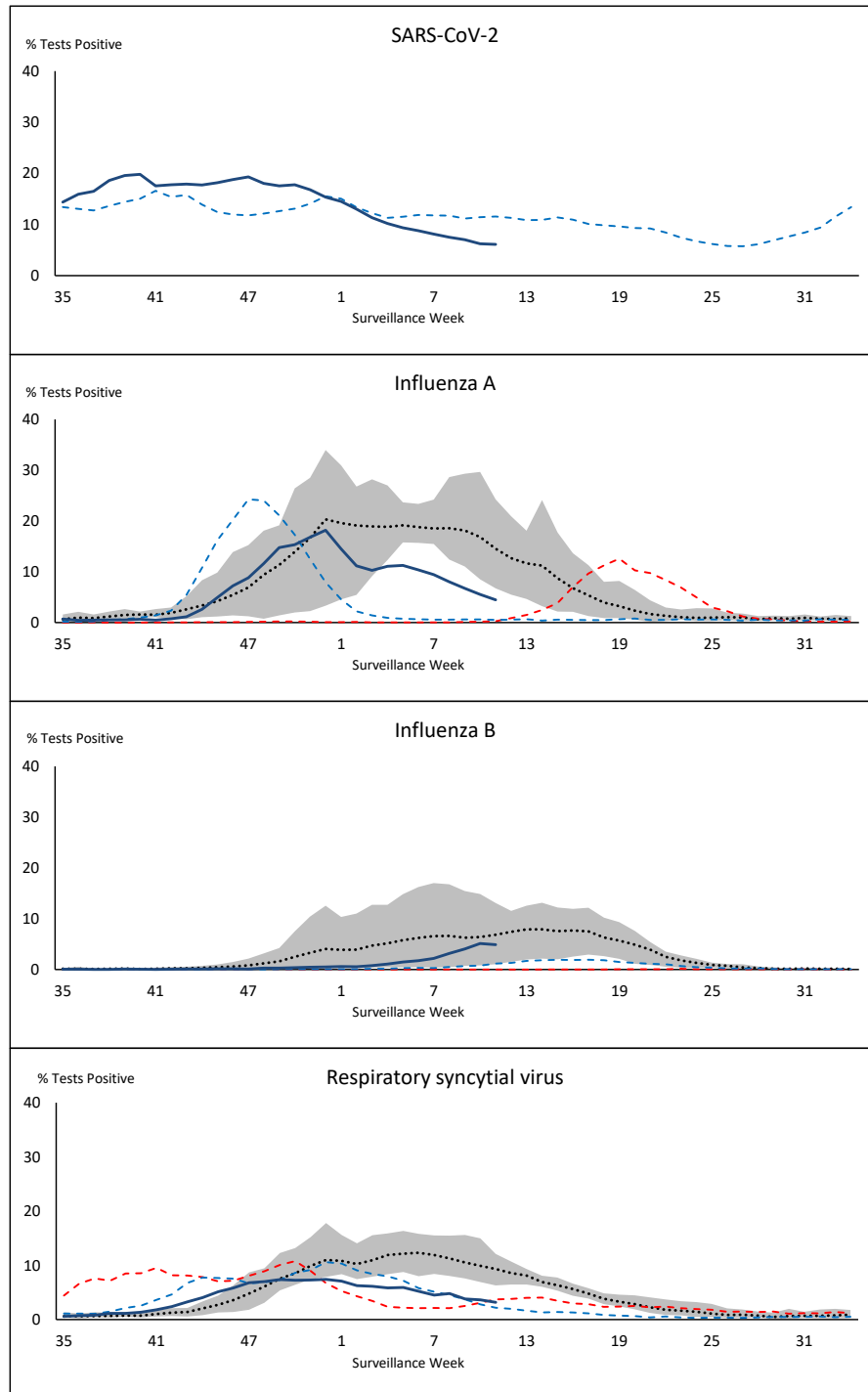


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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

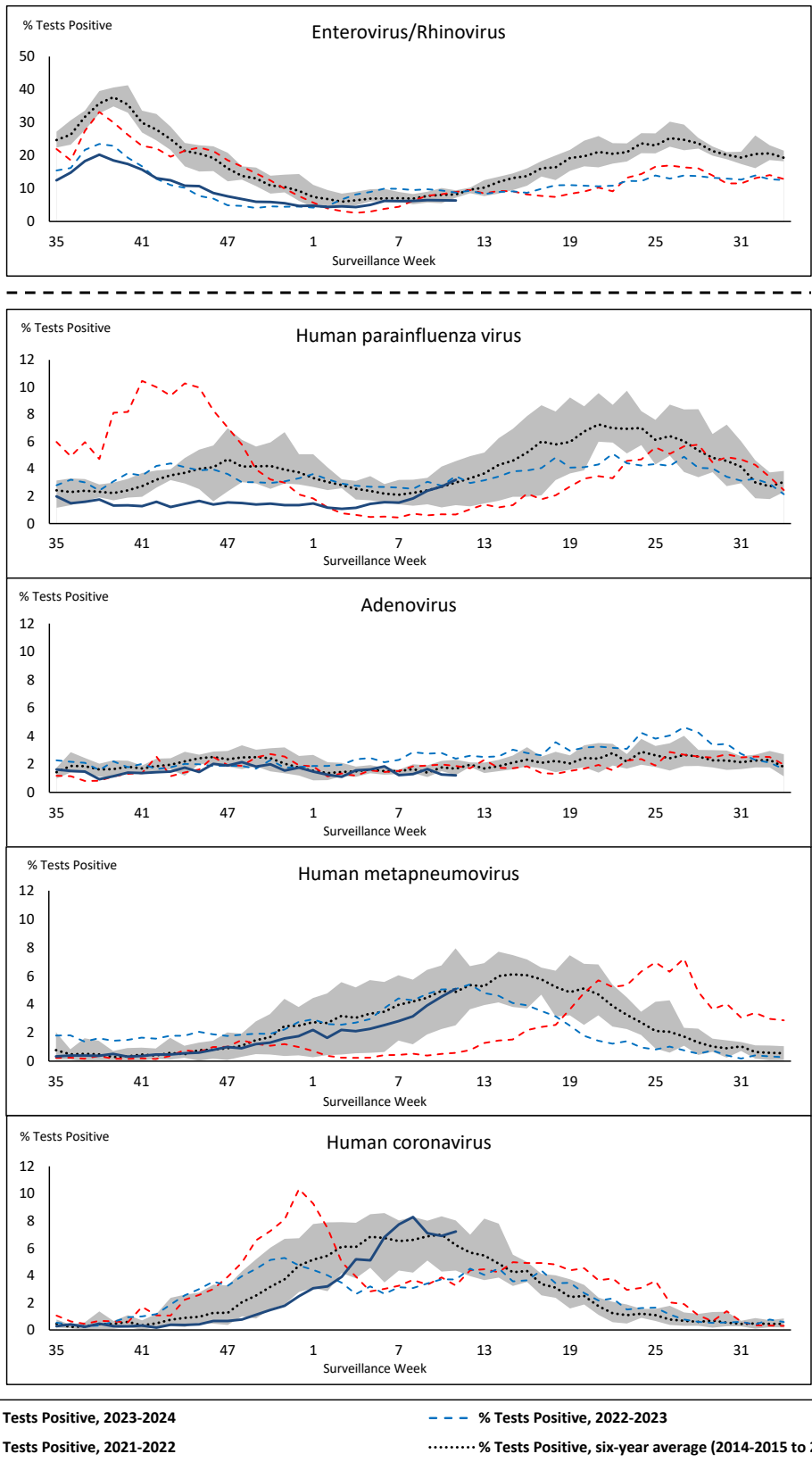
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 March 16, 2024 (surveillance week 2024-11)

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	565	37	452	0	0	19	19	7	452	36	452	1	6	0	0	0	452	5	452	33	452	16	452	21	
Prince Edward Island	275	21	265	0	0	9	9	43	265	20	24	0	0	0	0	0	24	2	24	2	24	4	24	4	
Nova Scotia	1306	127	1251	0	0	127	127	31	1099	23	34	1	0	1	0	0	34	0	34	2	34	5	34	2	
New Brunswick	1200	46	1202	14	1	21	36	76	1203	76	116	0	0	2	1	0	116	2	116	11	116	16	116	4	
Atlantic	3346	231	3170	14	1	176	191	157	3019	155	626	2	6	3	1	0	626	9	626	48	626	41	626	31	
Région Nord-Est	1436	52	1181	0	0	54	54	63	538	29	76	1	0	5	0	0	76	4	75	6	N.C.	N.C.	76	13	
Québec-Chaudière-Appalaches	1433	40	1186	0	0	63	63	134	1099	52	422	0	0	6	0	0	435	7	422	26	N.C.	N.C.	305	28	
Centre-du-Québec	2038	68	1495	0	0	129	129	89	687	24	18	0	0	0	0	0	18	0	18	1	N.C.	N.C.	18	0	
Montréal-Laval	2104	56	2122	0	0	125	125	55	1116	38	614	0	0	12	0	0	614	8	617	26	N.C.	N.C.	614	32	
Ouest du Québec	1134	32	543	0	0	28	28	30	539	17	11	0	0	1	0	0	11	0	11	2	N.C.	N.C.	11	1	
Montérégie	1238	37	1136	0	0	61	61	27	1129	30	11	0	0	0	0	0	11	0	11	0	N.C.	N.C.	11	0	
Province of Québec	9383	285	7663	0	0	460	460	398	5108	190	1152	1	0	24	0	0	1165	19	1154	61	N.C.	N.C.	1035	74	
P.H.O.L. - Ottawa	281	42	287	11	1	16	28	5	287	2	185	0	0	0	0	19	185	0	185	9	185	12	185	25	
EORLA	914	40	566	0	0	35	35	49	566	8	38	0	0	1	0	0	38	2	38	5	38	6	38	3	
P.H.O.L. - Kingston	128	19	93	2	0	1	3	0	93	1	59	0	0	0	0	3	59	0	59	4	59	3	59	12	
UHN / Mount Sinai Hospital	851	22	561	1	0	7	8	6	561	6	72	0	0	3	0	0	72	0	72	0	72	5	72	4	
P.H.O.L. - Toronto	350	20	890	22	2	27	50	18	890	4	868	0	0	0	0	52	869	15	868	69	868	50	868	110	
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	1751	34	1370	17	4	8	29	39	1370	8	1362	0	0	0	0	19	1362	9	1375	27	1375	44	1375	27	
P.H.O.L. - Sault Ste. Marie	4	0	11	0	0	0	0	0	11	1	11	0	0	0	0	11	0	11	0	11	0	11	2	2	
P.H.O.L. - Timmins	44	22	55	0	0	0	0	2	55	1	37	0	0	0	0	0	37	0	37	2	37	0	37	3	
St. Joseph's - London	756	28	636	0	0	19	19	26	636	3	70	0	0	0	0	1	70	1	70	5	70	6	70	4	
P.H.O.L. - London	368	62	332	17	1	5	23	12	332	2	284	0	0	0	0	16	284	0	284	14	284	13	284	39	
P.H.O.L. - Orillia	11	2	14	0	0	0	0	0	14	0	13	0	0	0	0	1	13	0	13	0	13	1	13	7	
P.H.O.L. - Thunder Bay	37	7	38	0	0	0	0	1	38	1	33	0	0	0	0	1	33	0	33	3	33	2	33	6	
P.H.O.L. - Sudbury	16	0	27	3	0	1	4	0	27	0	26	0	0	0	0	0	26	0	26	1	26	1	26	11	
P.H.O.L. - Hamilton	153	35	163	3	0	0	3	6	163	2	147	0	0	0	0	9	147	2	147	9	147	15	147	10	
P.H.O.L. - Peterborough	42	0	66	0	0	2	2	2	66	0	57	0	0	0	0	3	57	1	57	3	57	2	57	11	
St. Joseph's - Hamilton	1711	60	1608	0	0	64	64	88	1608	15	1608	0	0	38	0	0	1608	7	1608	76	1608	85	0	0	
Sault Area Hospital	170	22	120	1	3	2	6	3	120	5	88	1	0	1	0	0	88	0	88	2	88	5	88	3	
Province of Ontario	7587	415	6837	77	11	187	274	257	6837	59	4958	1	0	43	0	124	4959	37	4971	229	4971	250	3363	277	
Manitoba	1549	187	1115	2	0	8	10	38	1115	23	94	0	0	1	0	0	94	4	124	8	94	8	124	12	
Saskatchewan	1727	103	1236	0	0	23	23	153	1017	58	407	1	0	13	3	0	407	7	407	22	407	21	407	27	
Alberta	4466	281	1543	11	6	1	26	101	1504	51	323	0	0	12	0	0	323	4	294	0	318	28	323	17	
Prairies	7742	571	3894	13	6	32	59	292	3636	132	824	1	0	26	3	0	824	15	825	30	819	57	854	56	
British Columbia	3901	448	3941	26	11	4	171	138	3799	141	873	1	4	28	3	0	873	22	873	62	841	108	841	47	
Yukon	46	2	37	1	0	0	1	1	37	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	33	1	33	0	0	0	0	3	33	9	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	33	1	33	1	33	6	N.C.	N.C.	
Nunavut	214	19	158	0	0	0	0	16	158	31	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	293	22	228	1	0	0	1	20	228	41	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	33	1	33	1	33	6	N.C.	N.C.	
CANADA	32252	1972	25733	131	29	859	1156	1262	22627	718	8433	6	10	124	7	124	8480	103	8482	431	7290	462	6719	485	

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 March 16, 2024 (surveillance weeks 2023-35 to 2024-11)

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	18172	2708	13242	0	0	1299	1299	68	13242	857	13242	16	64	23	100	0	13242	226	13242	233	13242	1070	13242	307
Prince Edward Island	6692	728	4164	0	0	535	535	106	4164	350	465	3	0	1	8	0	464	27	454	13	464	120	448	22
Nova Scotia	42000	8149	28482	0	0	2431	2431	270	23490	1360	1002	16	2	4	10	0	1002	39	995	7	1002	217	1001	11
New Brunswick	31970	3751	29554	877	25	1843	2745	460	29150	1770	2597	7	4	7	28	0	2597	97	2597	58	2597	505	2597	106
Atlantic	98834	15336	75442	877	25	6108	7010	904	70046	4337	17306	42	70	35	146	0	17305	389	17288	311	17305	1912	17288	446
Région Nord-Est	50013	6976	44513	5	0	4651	4656	392	17466	1301	2221	15	12	17	16	0	2221	96	2172	79	N.C.	N.C.	2221	79
Québec-Chaudière-Appalaches	59037	9252	38252	0	0	5359	5359	832	36753	2506	14676	21	9	25	13	0	15102	472	14676	399	N.C.	N.C.	12135	389
Centre-du-Québec	73011	12314	34158	0	0	4285	4285	482	20613	1527	1076	15	8	15	7	0	1076	54	1076	43	N.C.	N.C.	1105	39
Montréal-Laval	87857	13767	70085	5	2	6338	6345	303	45630	2743	24146	94	39	167	24	0	24146	470	24213	498	N.C.	N.C.	24146	801
Ouest du Québec	48432	9968	20142	4	0	1949	1953	187	19946	1066	558	11	3	11	7	0	558	41	558	15	N.C.	N.C.	558	25
Montérégie	46706	7937	36823	0	0	3065	3065	174	35751	1691	199	1	0	0	1	0	199	6	199	3	N.C.	N.C.	199	3
Province of Québec	365056	60214	243973	14	2	25647	25663	2370	176159	10834	42876	157	71	235	68	0	43302	1139	42894	1037	N.C.	N.C.	40364	1336
P.H.O.L. - Ottawa	10105	3600	6896	283	54	171	385	23	6890	130	4148	0	0	0	0	89	4148	12	4146	66	4148	415	4146	196
EORLA	37619	4420	17364	0	0	1537	1537	246	17364	1108	1132	2	5	17	4	0	1107	13	1132	23	1132	207	1132	32
P.H.O.L. - Kingston	6978	2039	3868	128	17	94	213	4	3868	168	2714	0	0	0	0	48	2714	11	2714	14	2714	326	2714	79
UHN / Mount Sinai Hospital	31864	2977	19857	41	10	527	578	63	19857	214	1146	0	0	14	2	0	1146	1	1146	3	1146	52	1146	41
P.H.O.L. - Toronto	17933	5384	31988	1131	900	325	1711	198	31979	1039	29254	0	0	0	0	889	29262	338	29239	522	29254	2765	29239	1352
Sick Kids Hospital - Toronto	3527	292	3139	100	95	20	215	26	3139	305	3139	14	12	55	19	0	3139	77	3139	65	3139	550	3139	88
Shared Hospital Laboratory	50632	4475	42781	812	514	283	1609	277	42787	1333	42584	0	0	0	0	278	36930	309	42641	208	42686	1410	42663	474
P.H.O.L. - Sault Ste. Marie	423	186	514	49	3	16	62	0	514	45	360	0	0	0	0	5	360	1	360	0	360	21	360	35
P.H.O.L. - Timmins	1054	315	1042	58	10	27	84	2	1042	61	829	0	0	0	0	22	829	4	829	8	829	50	829	26
St. Joseph's - London	25859	3417	13746	0	0	948	948	179	13746	710	1928	0	0	0	0	22	1947	30	1947	23	1949	222	1947	50
P.H.O.L. - London	13804	4073	10170	473	141	160	589	76	10167	468	8117	0	0	0	0	219	8117	35	8115	83	8117	698	8115	300
P.H.O.L. - Orillia	548	144	1235	71	17	11	99	0	1232	74	1170	0	0	0	0	30	1170	15	1170	18	1170	145	1170	24
P.H.O.L. - Thunder Bay	1738	494	1071	57	0	8	37	5	1068	29	899	0	0	0	0	27	899	5	899	27	899	56	899	17
P.H.O.L. - Sudbury	671	238	798	39	1	21	61	1	796	22	555	0	0	0	0	14	556	1	555	2	555	44	555	33
P.H.O.L. - Hamilton	6813	2072	5535	139	65	87	237	33	5534	172	4144	0	0	0	0	130	4144	77	4143	77	4144	536	4143	180
P.H.O.L. - Peterborough	2153	665	2172	204	204	69	147	14	2162	221	1725	0	0	0	0	55	1725	36	1725	29	1725	279	1725	51
St. Joseph's - Hamilton	55752	5694	49352	0	0	3047	3047	514	49352	1744	49352	0	0	368	0	0	49352	307	49352	494	49352	2838	0	0
Sault Area Hospital	5496	767	3686	173	14	51	238	12	3679	196	2889	26	0	14	17	0	2840	33	2840	12	2840	247	2850	56
Province of Ontario	272969	41252	215214	3758	2045	7402	11797	1673	215176	8039	156085	42	17	468	42	1828	150385	1305	156092	1674	156159	10861	106772	3034
Manitoba	47474	7020	35724	142	11	1818	1971	222	35724	1304	2704	0	10	18	41	0	2704	119	3479	130	2704	511	3479	109
Saskatchewan	61053	7136	41256	117	10	5323	5450	1108	37116	1458	13333	30	9	58	23	0	13333	263	13333	723	13333	1287	13333	310
Alberta	158731	19225	135001	11697	720	581	13070	2087	125899	5839	37155	126	89	339	3	0	37146	442	36091	26	36577	3374	37154	818
Prairies	267258	33381	211981	11956	741	7722	20491	3417	198739	8601	53192	156	108	415	67	0	53183	824	52903	879	52614	5172	53966	1237
British Columbia	111733	15221	112690	3987	744	252	8337	751	110044	5653	26178	112	170	226	167	0	26180	799	26065	965	25108	3867	25085	711
Yukon	1595	176	1037	34	15	0	59	4	1028	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	1107	70	1046	166	6	1	173	45	1046	167	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	847	43	847	9	1046	128	N.C.	N.C.
Nunavut	3774	329	2629	426	30	52	508	60	2629	398	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	6476	575	4712	626	51	53	740	109	4703	611	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	847	43	847	9	1046	128	N.C.	N.C.
CANADA	1122326	165979	864012	21218	3608	47184	74038	9224	774867	38075	295637	509	436	1379	490	1828	291202	4499	296089	4875	252232	21940	243475	6764

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.

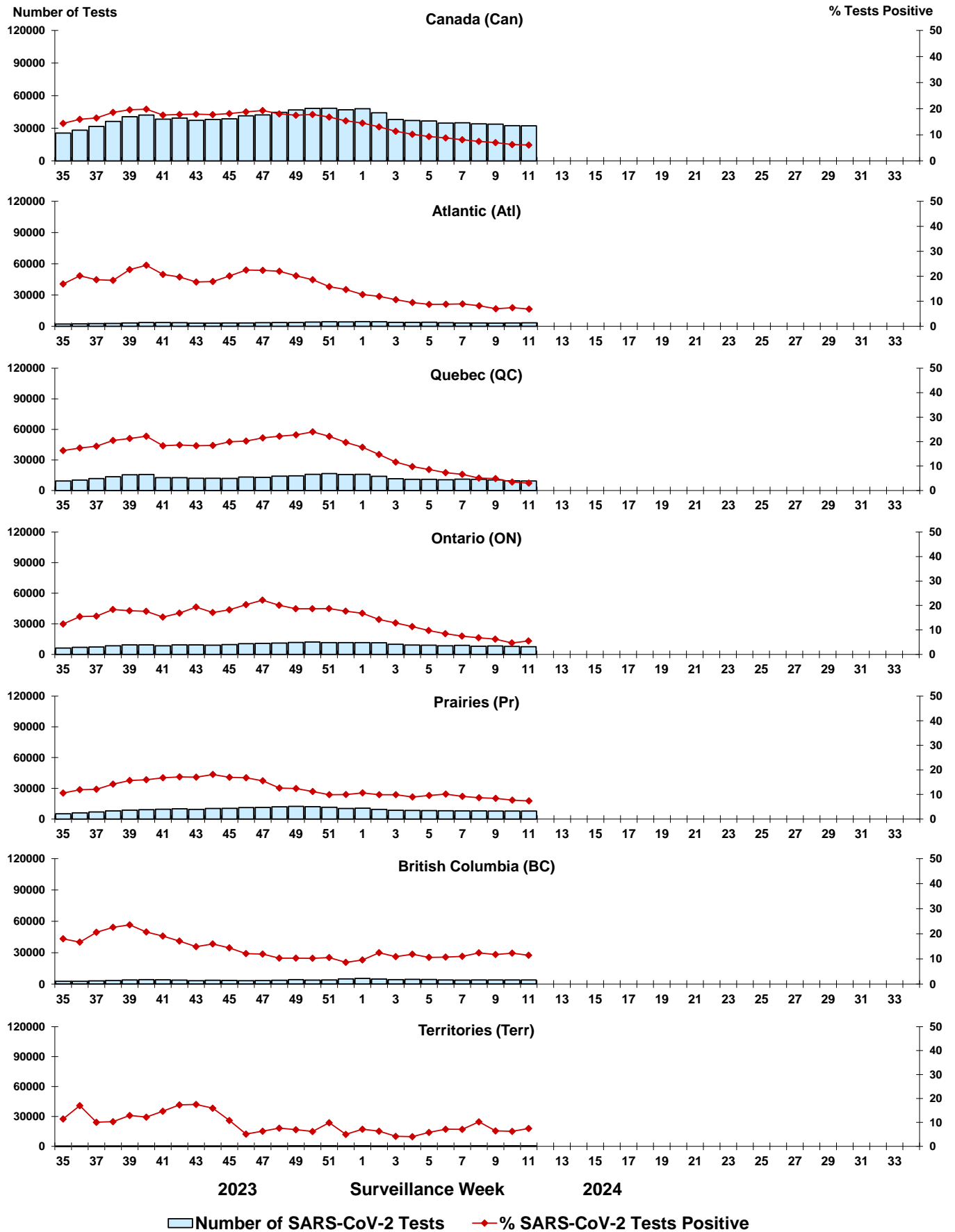
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Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts. Total influenza A and B positive counts are used to calculate percentage of tests positive.

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

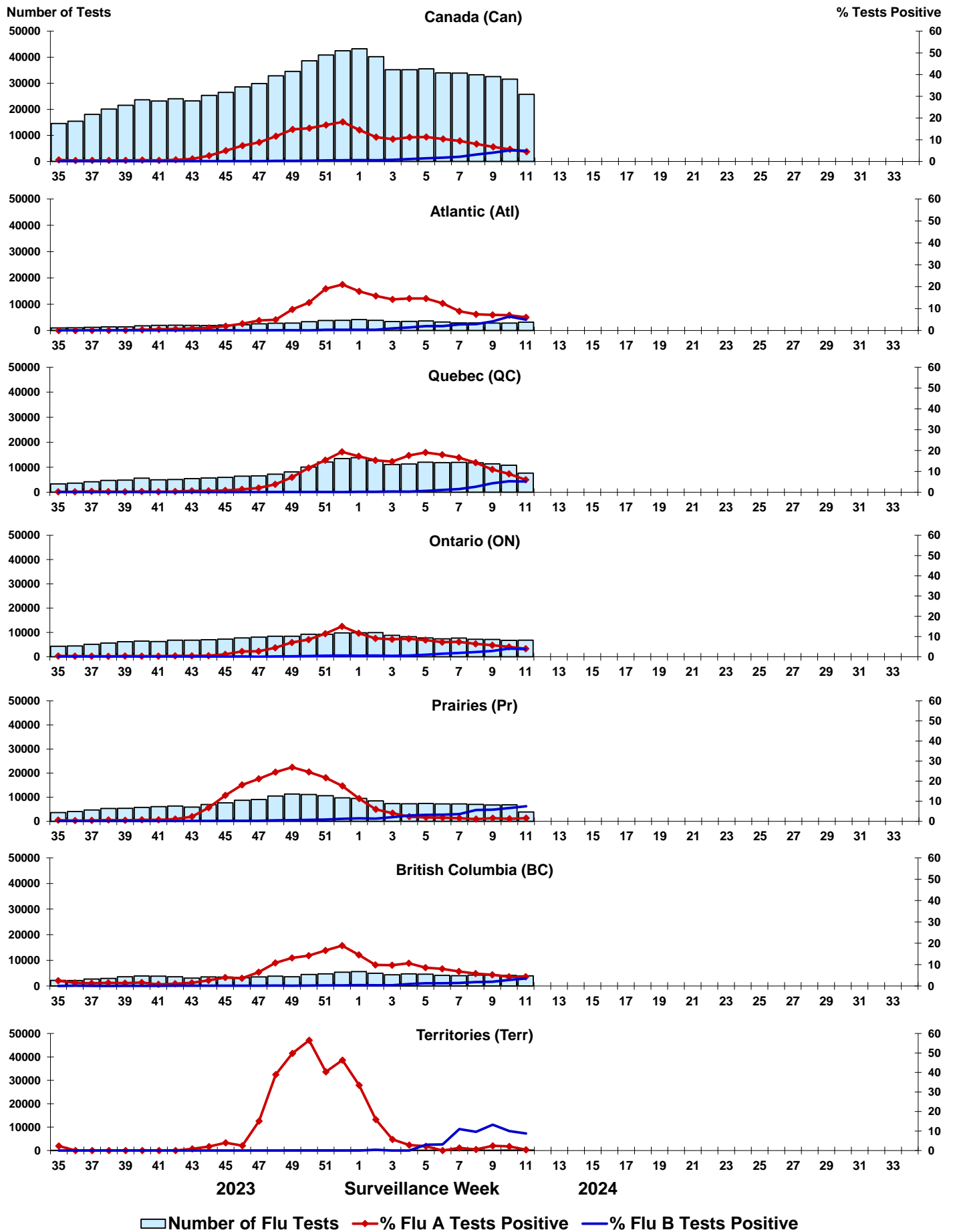
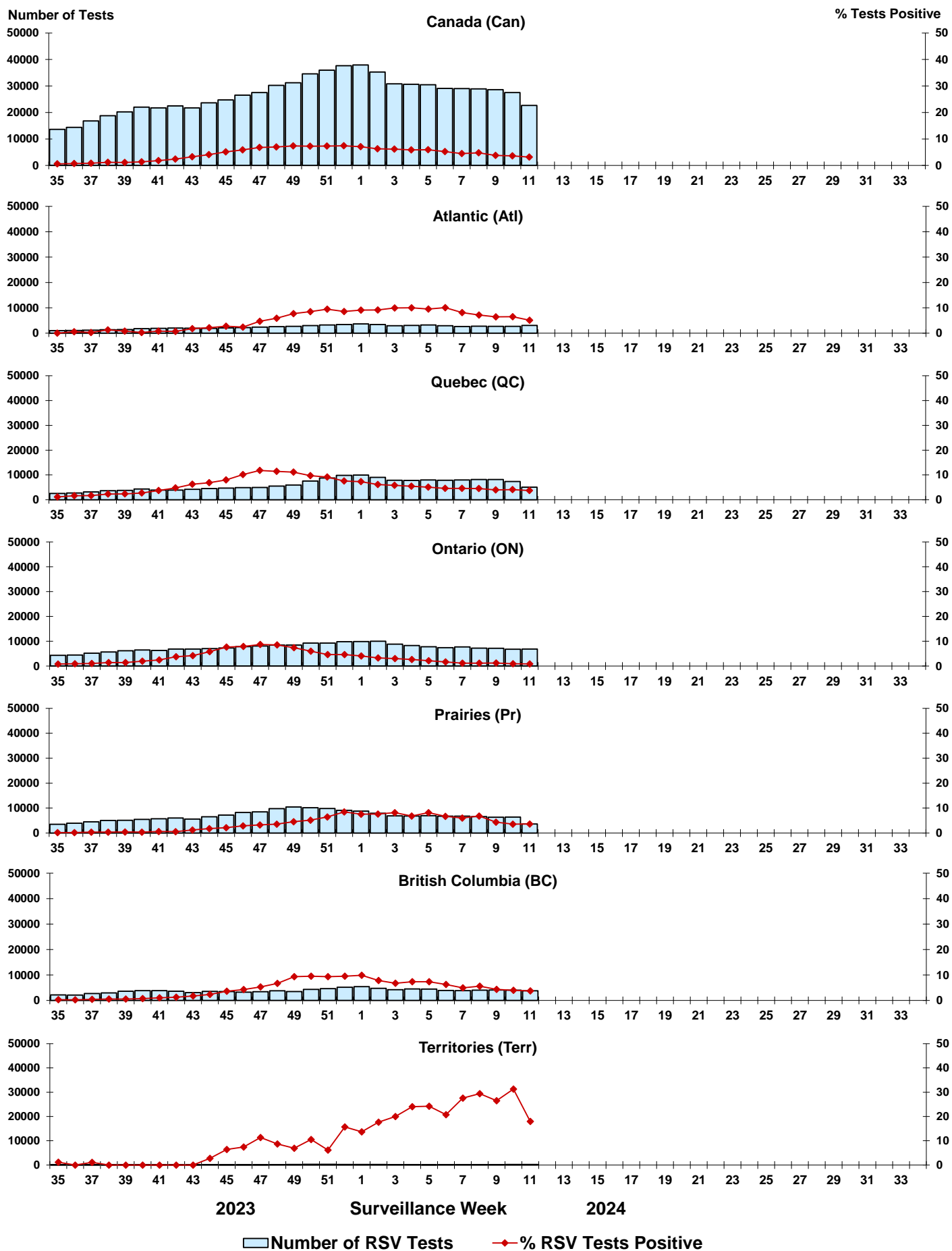


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week



Legend: █ Number of RSV Tests ◆ % RSV Tests Positive

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

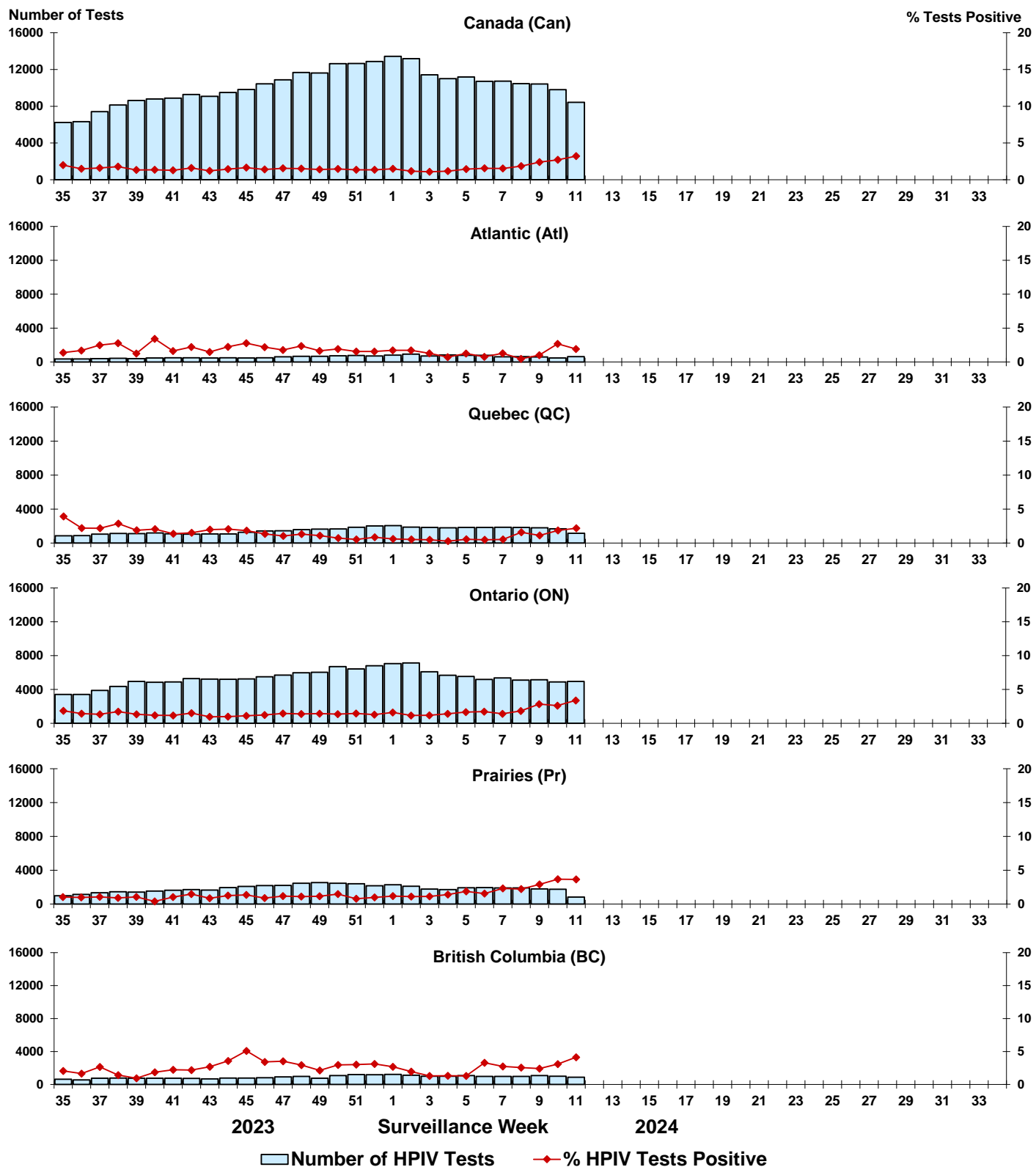


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

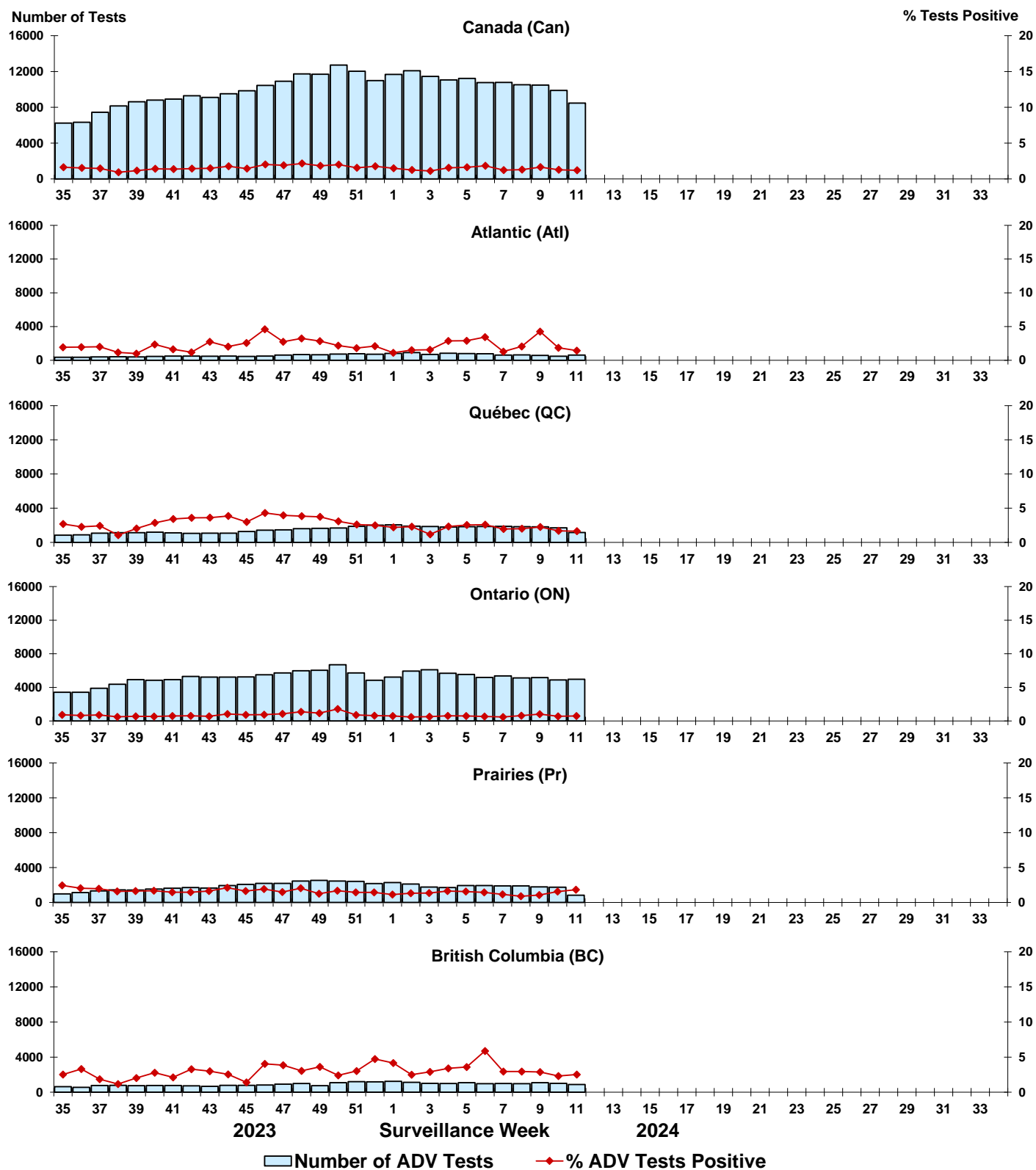


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

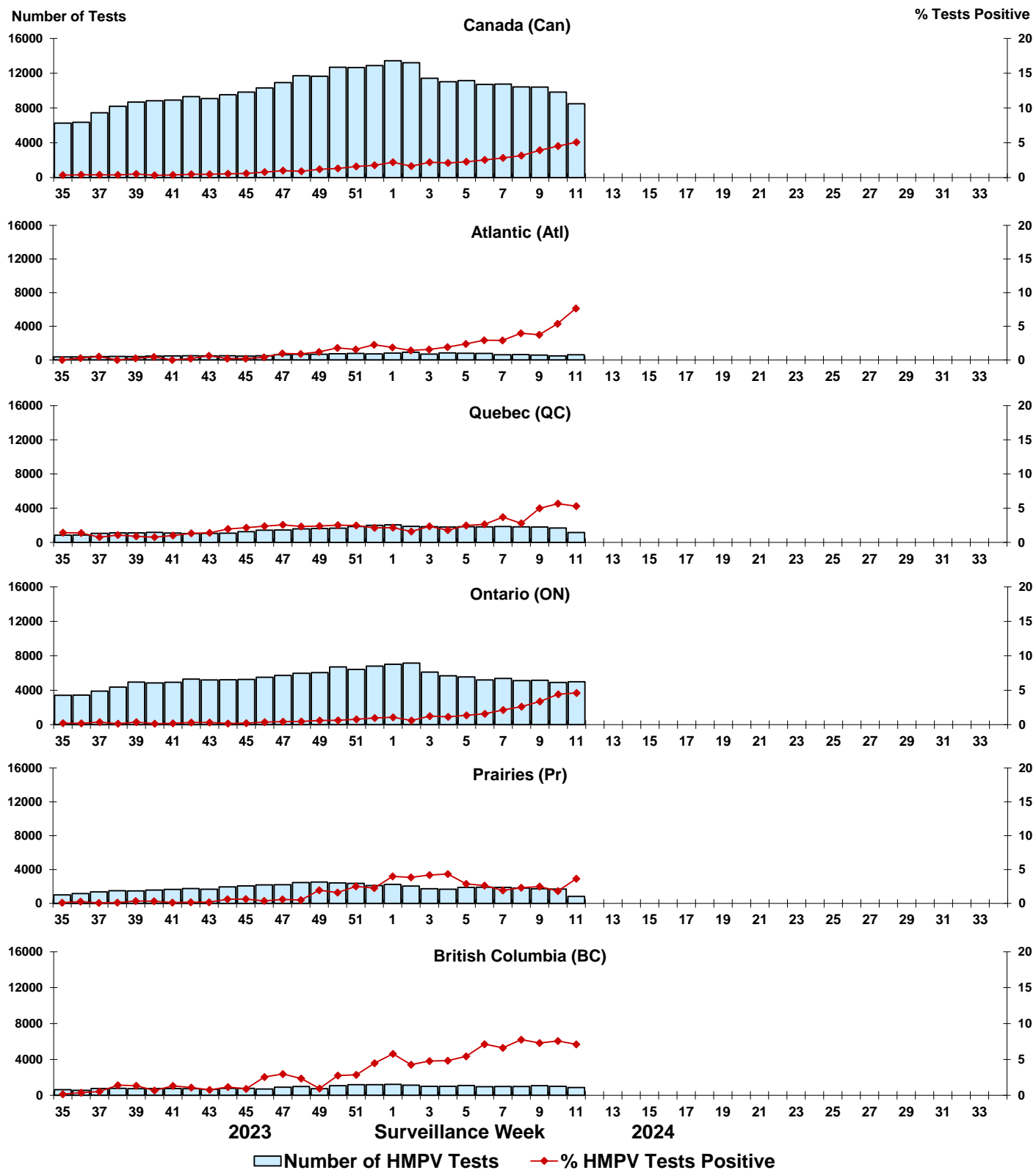


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

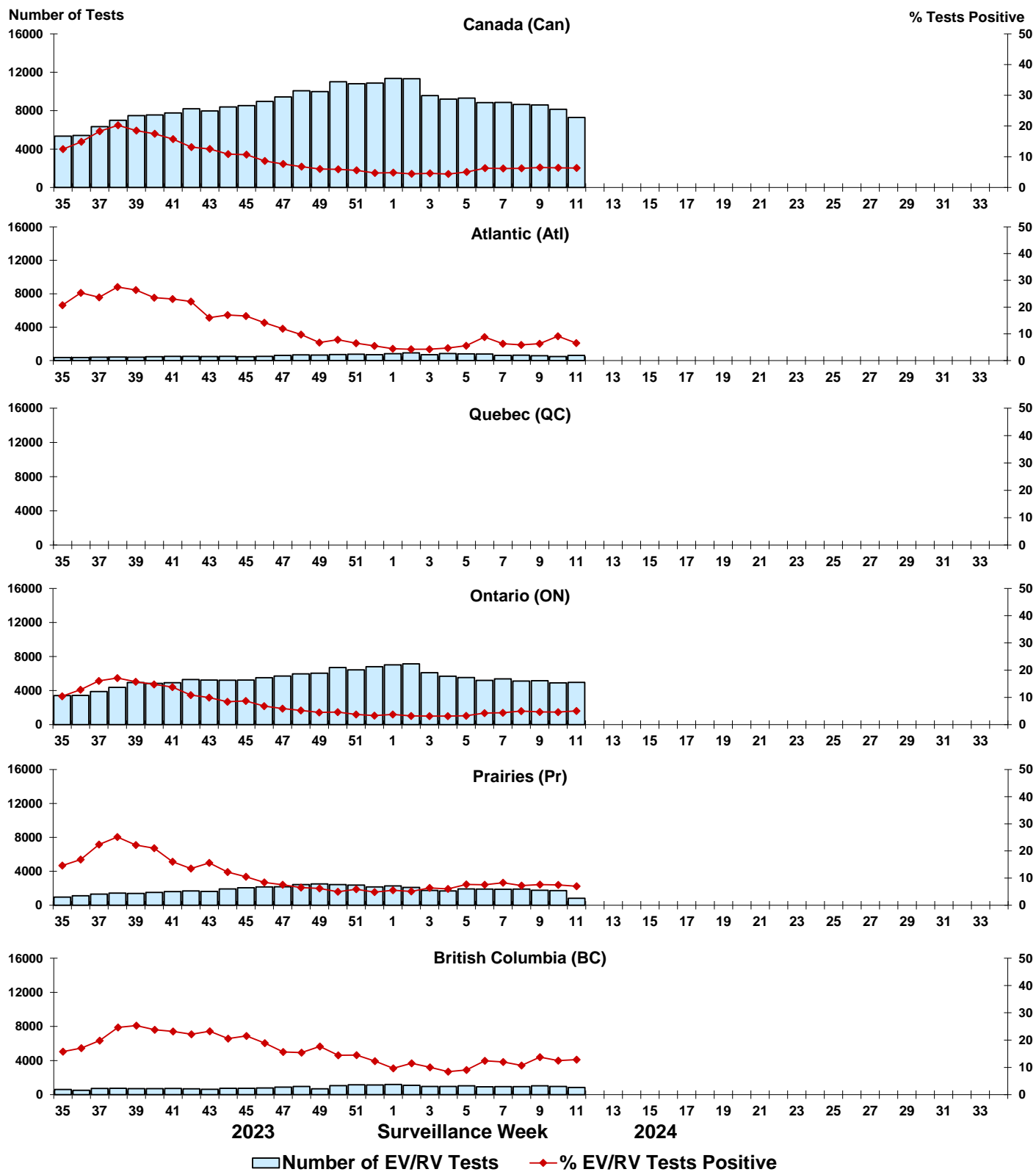


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

