

RESPIRATORY VIRUS DETECTION REPORT

January 7 to January 13, 2024
(Surveillance Week 2024-02)



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 2 (week ending January 13, 2024) in Canada, participating RVDSS laboratories reported 5,734 detections of SARS-CoV-2 from 44,057 tests (13.0% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 10,144 to 39,214 tests), activity of flu is highest but decreasing.

- National SARS-CoV-2 percent positivity has decreased over the most recent four surveillance weeks. Trends currently vary by region.
- Activity of influenza decreased for the second straight week, but remains within expected levels for this time of year (4,622 detections; 11.8% positive).
- Activity of RSV is slightly below expected levels for this time of year (2,134 detections; 6.2% positive).
- Activity of all other non-SARS-CoV-2 respiratory viruses is low and near 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

© His Majesty the King in Right of Canada, as represented by the Minister of Health, 2021

ISSN: 2564-2359 | Cat.: HP38-7E-PDF | Pub.: 210284

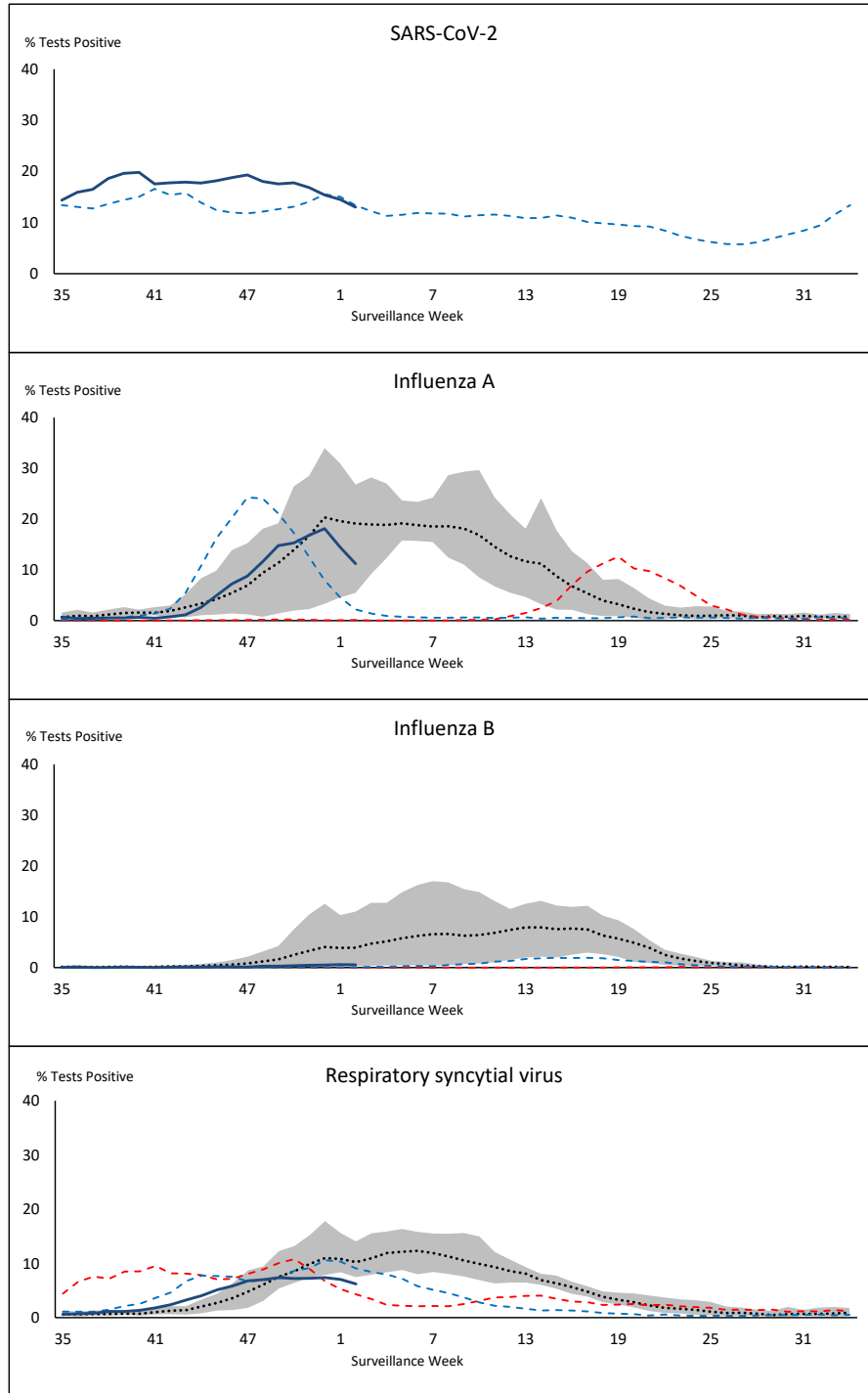


Public Health
Agency of Canada

Agence de la santé
publique du Canada

Canada

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



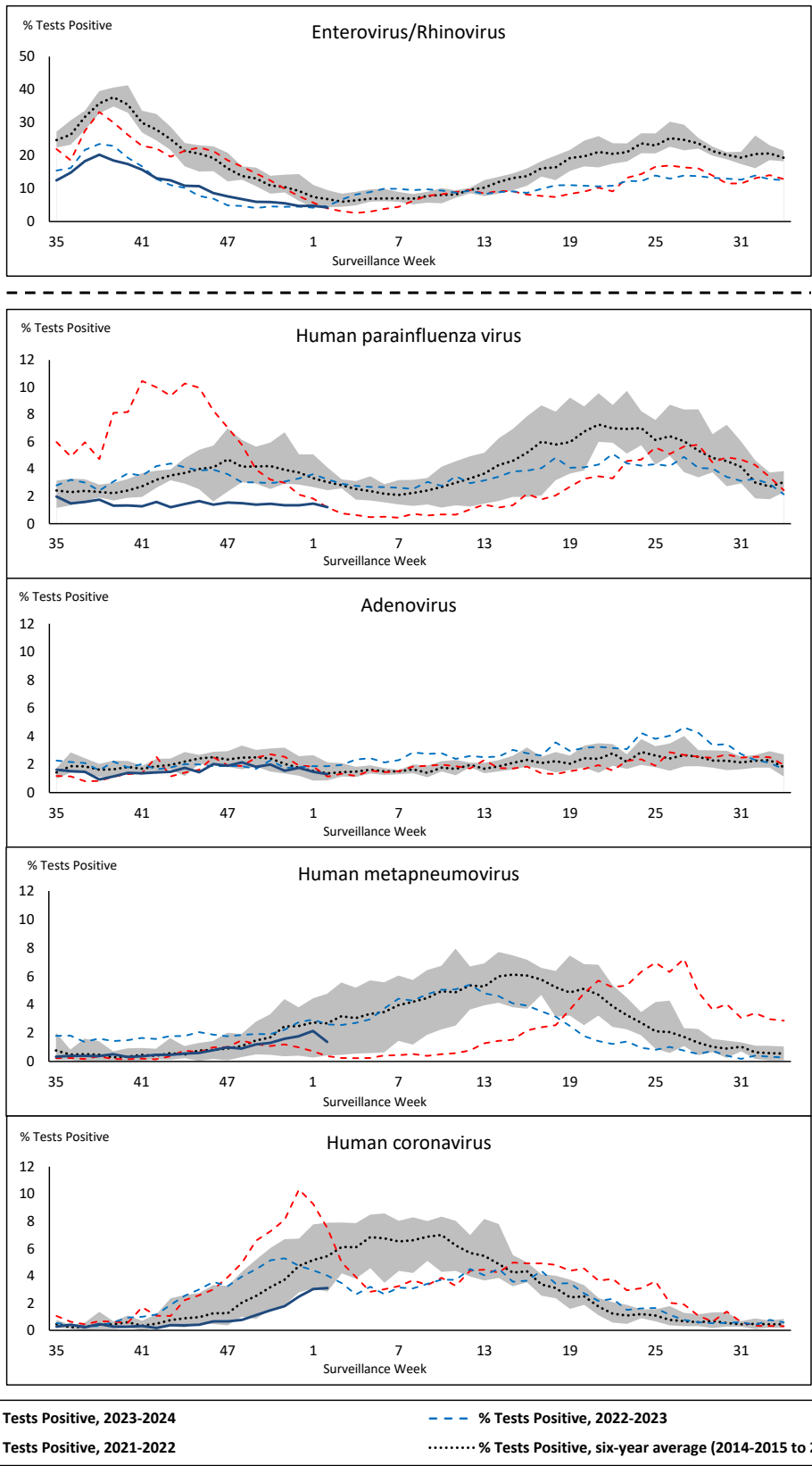
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 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 January 13, 2024 (surveillance week 2024-02)

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/IV Tested	EV/IV Positive	HCoV Tested	HCoV Positive	
Newfoundland	974	146	752	0	0	107	107	0	752	88	752	1	4	4	7	0	752	9	752	13	752	23	752	24	
Prince Edward Island	330	17	294	0	0	90	90	0	294	21	22	0	0	0	0	0	22	1	22	0	22	3	22	0	
Nova Scotia	1684	235	1465	0	0	191	191	10	1010	93	41	0	0	0	0	0	41	2	41	0	41	3	41	0	
New Brunswick	1345	121	1353	49	4	169	222	2	1327	108	109	0	0	0	0	0	109	2	109	0	109	10	109	4	
Atlantic	4333	519	3864	49	4	557	610	12	3383	310	924	1	4	4	7	0	924	14	924	13	924	39	924	28	
Région Nord-Est	2114	205	2143	1	0	428	429	2	968	69	67	0	0	0	0	0	67	4	67	3	N.C.	N.C.	67	2	
Québec-Chaudière-Appalaches	1998	275	2272	0	0	462	462	5	2159	153	792	0	0	1	0	0	809	13	794	14	N.C.	N.C.	618	12	
Centre-du-Québec	3033	500	1586	0	0	211	211	3	1012	53	25	0	0	1	1	0	25	2	25	0	N.C.	N.C.	26	0	
Montréal-Laval	3242	501	3889	1	0	485	486	7	2113	128	968	1	1	4	0	0	968	22	971	13	N.C.	N.C.	968	28	
Ouest du Québec	1736	279	856	0	0	109	109	4	847	33	20	1	0	0	0	0	20	3	20	0	N.C.	N.C.	20	0	
Montérégie	1767	292	1882	0	0	222	222	3	1851	114	9	0	0	0	0	0	9	0	9	0	N.C.	N.C.	9	0	
Province of Québec	13890	2052	12628	2	0	1917	1919	24	8950	550	1881	2	1	6	1	0	1898	44	1886	30	N.C.	N.C.	1708	42	
P.H.O.L. - Ottawa	413	120	280	36	11	16	36	1	280	7	181	0	0	0	0	6	181	2	181	3	181	5	181	6	
EORLA	1565	178	857	0	0	102	102	7	857	37	61	0	0	1	0	0	61	0	61	1	61	3	61	0	
P.H.O.L. - Kingston	217	48	127	15	6	9	24	0	127	4	98	0	0	0	0	2	98	1	98	0	98	2	98	1	
UHN / Mount Sinai Hospital	1220	125	844	0	0	51	51	7	844	6	20	0	0	0	0	0	20	0	20	0	20	1	20	0	
P.H.O.L. - Toronto	847	245	1975	120	117	25	181	7	1973	76	1819	0	0	0	0	32	1820	14	1819	16	1819	63	1819	101	
Sick Kids Hospital - Toronto	131	18	118	5	5	0	10	2	118	6	118	0	0	3	1	0	118	2	118	1	118	13	118	4	
Shared Hospital Laboratory	2308	187	1828	34	53	14	101	10	1828	40	1818	0	0	0	0	6	0	0	1823	5	1823	21	1823	27	
P.H.O.L. - Sault Ste. Marie	19	3	38	10	0	1	11	0	38	6	36	0	0	0	0	0	36	0	36	0	36	1	36	0	
P.H.O.L. - Timmins	37	9	41	3	1	3	5	0	41	3	37	0	0	0	0	0	37	0	37	0	37	1	37	0	
St. Joseph's - London	1037	135	764	0	0	68	68	6	764	29	49	0	0	0	0	1	51	0	51	1	51	1	51	1	
P.H.O.L. - London	463	125	380	30	18	7	37	4	380	17	319	0	0	0	0	5	319	1	319	2	319	11	319	9	
P.H.O.L. - Orillia	37	4	63	7	3	1	11	0	63	1	61	0	0	0	0	2	61	0	61	0	61	2	61	1	
P.H.O.L. - Thunder Bay	95	22	76	3	0	1	3	0	75	3	44	0	0	0	0	0	44	0	44	0	44	1	44	0	
P.H.O.L. - Sudbury	19	1	29	0	0	0	0	0	29	5	25	0	0	0	0	0	25	0	25	0	25	2	25	1	
P.H.O.L. - Hamilton	301	84	243	19	10	9	26	1	243	8	160	0	0	0	0	2	160	0	160	4	160	21	160	5	
P.H.O.L. - Peterborough	59	14	68	32	39	0	12	0	66	5	58	0	0	0	0	0	58	3	58	0	58	2	58	2	
St. Joseph's - Hamilton	2386	282	2114	0	0	223	223	14	2114	60	2114	0	0	20	0	0	2114	9	2114	10	2114	76	0	0	
Sault Area Hospital	201	21	145	7	1	7	15	0	145	13	110	1	0	0	1	0	110	0	110	0	110	2	110	0	
Province of Ontario	11355	1621	9990	321	264	537	916	59	9985	326	7128	1	0	24	2	56	5313	32	7135	43	7135	228	5021	158	
Manitoba	1805	142	1391	4	10	120	134	4	1391	104	117	0	0	0	0	0	117	4	135	12	117	7	135	5	
Saskatchewan	2079	205	1183	0	0	37	37	36	1000	72	131	1	0	0	0	0	131	2	131	28	131	11	131	1	
Alberta	5555	592	5132	234	24	21	279	67	4802	376	1229	5	4	12	0	0	1229	16	1167	1	1213	62	1229	47	
Prairies	9439	939	7706	238	34	178	450	107	7193	552	1477	6	4	12	0	0	1477	22	1433	41	1461	80	1495	53	
British Columbia	4862	593	4866	118	22	7	482	16	4640	364	1035	2	5	9	5	0	1033	27	1033	44	996	102	996	33	
Yukon	51	5	40	1	0	0	6	1	39	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	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.R.	N.R.	N.C.	N.C.
Nunavut	127	5	120	0	1	19	20	0	120	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	178	10	160	1	1	19	26	1	159	32	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	44057	5734	39214	729	325	3215	4403	219	34310	2134	12445	12	14	55	15	56	10645	139	12411	171	10516	449	10144	314	

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 January 13, 2024 (surveillance weeks 2023-35 to 2024-02)

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	12191	2228	8662	0	0	692	692	17	8662	424	8662	8	42	14	87	0	8662	145	8662	90	8662	926	8662	77	
Prince Edward Island	4641	615	2224	0	0	308	308	0	2224	92	270	0	0	0	8	0	269	13	259	0	269	87	253	1	
Nova Scotia	29906	6915	17373	0	0	887	887	44	14745	937	698	15	2	1	10	0	698	35	691	3	698	186	697	0	
New Brunswick	21422	2959	18836	570	11	1563	2144	10	18472	769	1615	7	4	0	22	0	1615	47	1615	10	1615	333	1615	30	
Atlantic	68160	12717	47095	570	11	3450	4031	71	44103	2222	11245	30	48	15	127	0	11244	240	11227	103	11244	1532	11227	108	
Région Nord-Est	35963	6211	29415	5	0	2730	2735	14	10622	723	1479	14	11	9	16	0	1479	70	1454	41	N.C.	N.C.	1479	17	
Québec-Chaudière-Appalaches	44304	8307	21036	0	0	2069	2069	27	20630	1716	8733	18	9	6	10	0	9021	351	8735	174	N.C.	N.C.	7627	75	
Centre-du-Québec	51968	10969	16863	0	0	1249	1249	13	12219	1100	786	15	8	11	7	0	786	39	786	24	N.C.	N.C.	811	11	
Montréal-Laval	66818	12380	40505	2	1	2665	2668	37	29226	2068	15715	90	37	76	22	0	15715	321	15767	256	N.C.	N.C.	15715	213	
Ouest du Québec	36362	8873	13150	4	0	1051	1055	34	13057	826	417	11	3	2	6	0	417	33	417	7	N.C.	N.C.	417	7	
Montérégie	34043	6905	23136	0	0	1491	1491	29	22109	1197	125	1	0	0	1	0	125	3	125	1	N.C.	N.C.	125	0	
Province of Québec	269458	53645	144105	11	1	11255	11267	154	107863	7630	27255	149	68	104	62	0	27543	817	27284	503	N.C.	N.C.	26174	323	
P.H.O.L. - Ottawa	7584	2900	4845	218	45	54	202	3	4843	109	2910	0	0	0	0	41	2910	5	2908	28	2910	361	2908	41	
EORLA	28143	3732	11983	0	0	980	980	44	11983	1011	740	2	3	5	4	0	715	7	740	6	740	151	740	10	
P.H.O.L. - Kingston	5408	1826	2818	68	14	23	85	1	2818	130	2055	0	0	0	0	39	2055	10	2055	0	2055	297	2055	6	
UHN / Mount Sinai Hospital	22898	2430	13535	40	8	312	360	35	13535	153	494	0	0	5	1	0	494	1	494	0	494	19	494	4	
P.H.O.L. - Toronto	13688	4665	22633	840	740	95	1108	52	22630	836	20562	0	0	0	0	573	20569	228	20547	172	20562	2372	20547	348	
Sick Kids Hospital - Toronto	2658	227	2312	82	73	20	175	5	2312	287	2312	14	12	26	17	0	2312	59	2312	28	2312	415	2312	32	
Shared Hospital Laboratory	33894	3840	29383	500	379	129	1008	46	29385	1195	29240	0	0	0	0	168	22884	229	29267	60	29312	1147	29289	174	
P.H.O.L. - Sault Ste. Marie	281	173	296	30	0	8	32	0	296	21	209	0	0	0	0	1	209	1	209	0	209	19	209	0	
P.H.O.L. - Timmins	698	219	613	29	8	5	31	0	613	53	509	0	0	0	0	14	509	4	509	1	509	43	509	0	
St. Joseph's - London	18106	2899	7574	0	0	508	508	27	7574	614	1377	0	0	0	0	16	1396	20	1396	6	1396	176	1396	7	
P.H.O.L. - London	10329	3509	7157	301	102	37	279	10	7155	382	5656	0	0	0	0	126	5656	31	5654	18	5656	611	5654	39	
P.H.O.L. - Orillia	404	121	986	43	14	3	60	0	983	68	945	0	0	0	0	25	945	15	945	5	945	138	945	4	
P.H.O.L. - Thunder Bay	1264	398	699	48	0	3	24	0	698	10	563	0	0	0	0	24	563	5	563	5	563	49	563	1	
P.H.O.L. - Sudbury	445	203	494	10	0	0	10	0	492	14	345	0	0	0	0	6	346	1	345	0	345	42	345	2	
P.H.O.L. - Hamilton	5161	1754	4016	87	47	22	112	5	4016	160	2950	0	0	0	0	79	2950	50	2949	32	2950	438	2949	40	
P.H.O.L. - Peterborough	1606	605	1558	178	158	1	62	6	1555	207	1310	0	0	0	0	38	1310	31	1310	9	1310	235	1310	15	
St. Joseph's - Hamilton	39367	4790	34005	0	0	1884	1884	107	34005	1543	34005	0	0	169	0	0	34005	223	34005	139	34005	2169	0	0	
Sault Area Hospital	3681	516	2463	136	4	38	178	0	2456	104	1903	21	0	7	16	0	1854	27	1854	0	1854	201	1864	2	
Province of Ontario	195615	34807	147370	2610	1592	4122	7098	341	147349	6897	108085	37	15	212	38	1150	101682	947	108062	509	108127	8883	74089	725	
Manitoba	34085	5640	25657	10	121	1740	1871	52	25657	607	1869	0	6	6	40	0	1869	95	2466	55	1869	413	2466	30	
Saskatchewan	45450	5788	29765	84	5	5205	5294	180	27175	635	8788	20	8	8	17	0	8788	194	8788	331	8788	990	8788	52	
Alberta	115105	15493	95303	11098	501	546	12145	542	88502	3746	26350	98	76	121	3	0	26345	319	25842	15	25920	2622	26349	306	
Prairies	194640	26921	150725	11192	627	7491	19310	774	141334	4988	37007	118	90	135	60	0	37002	608	37096	401	36577	4025	37603	388	
British Columbia	75451	11049	74166	3195	409	153	5583	115	73015	3566	17114	99	133	83	142	0	17116	505	17001	379	16409	2874	16386	240	
Yukon	1125	136	718	23	10	0	41	1	713	36	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	441	43	383	87	4	0	91	0	383	15	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	383	72	N.C.	N.C.
Nunavut	2603	260	1763	0	26	452	478	0	1763	144	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.	N.C.
Territories	4169	439	2864	110	40	452	610	1	2859	195	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	383	72	N.C.	N.C.	
CANADA	807493	139578	566325	17688	2680	26923	47899	1456	516523	25498	200706	433	354	549	429	1150	194771	3130	200854	1897	172740	17386	165479	1784	

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.

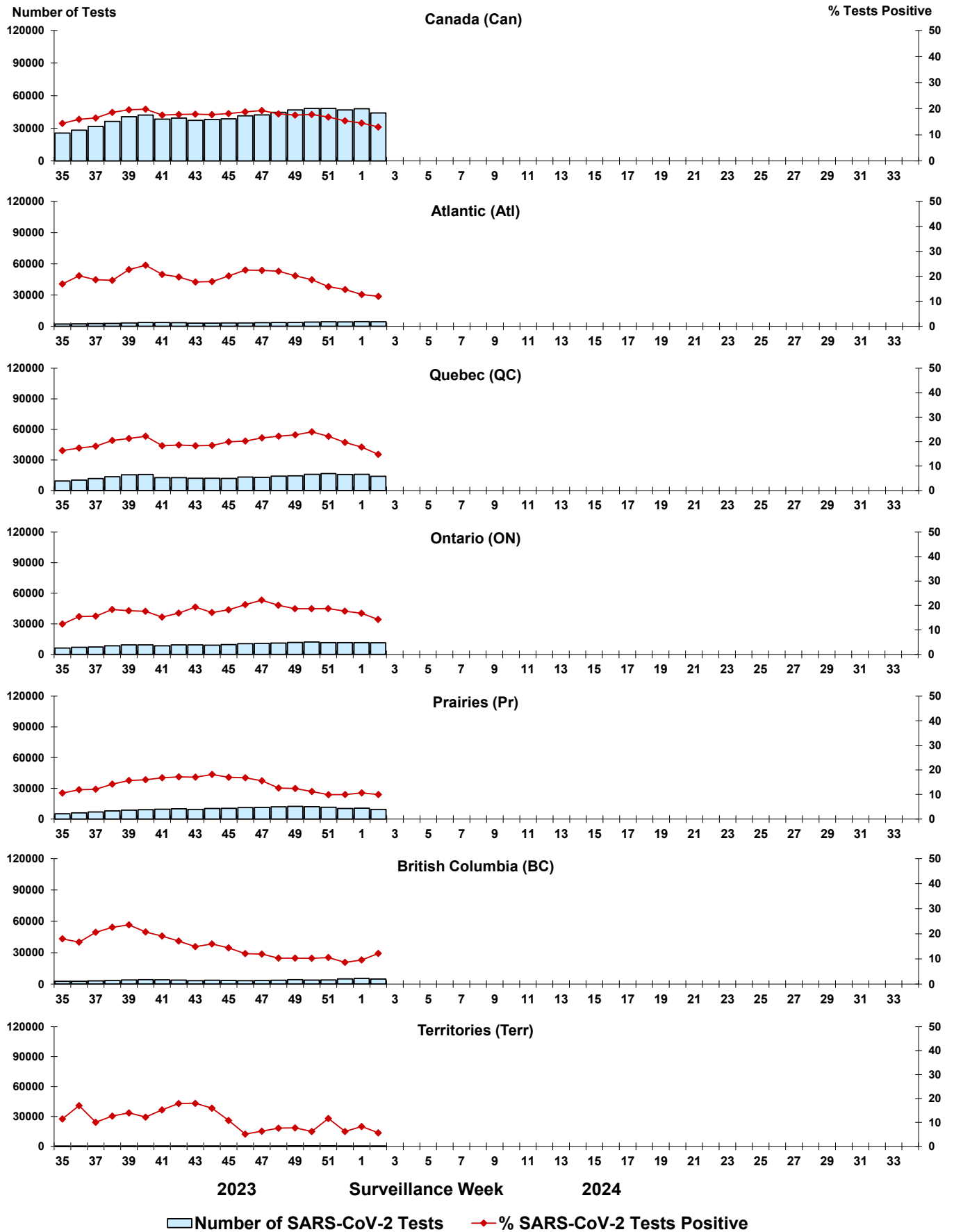
Some specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

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. 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

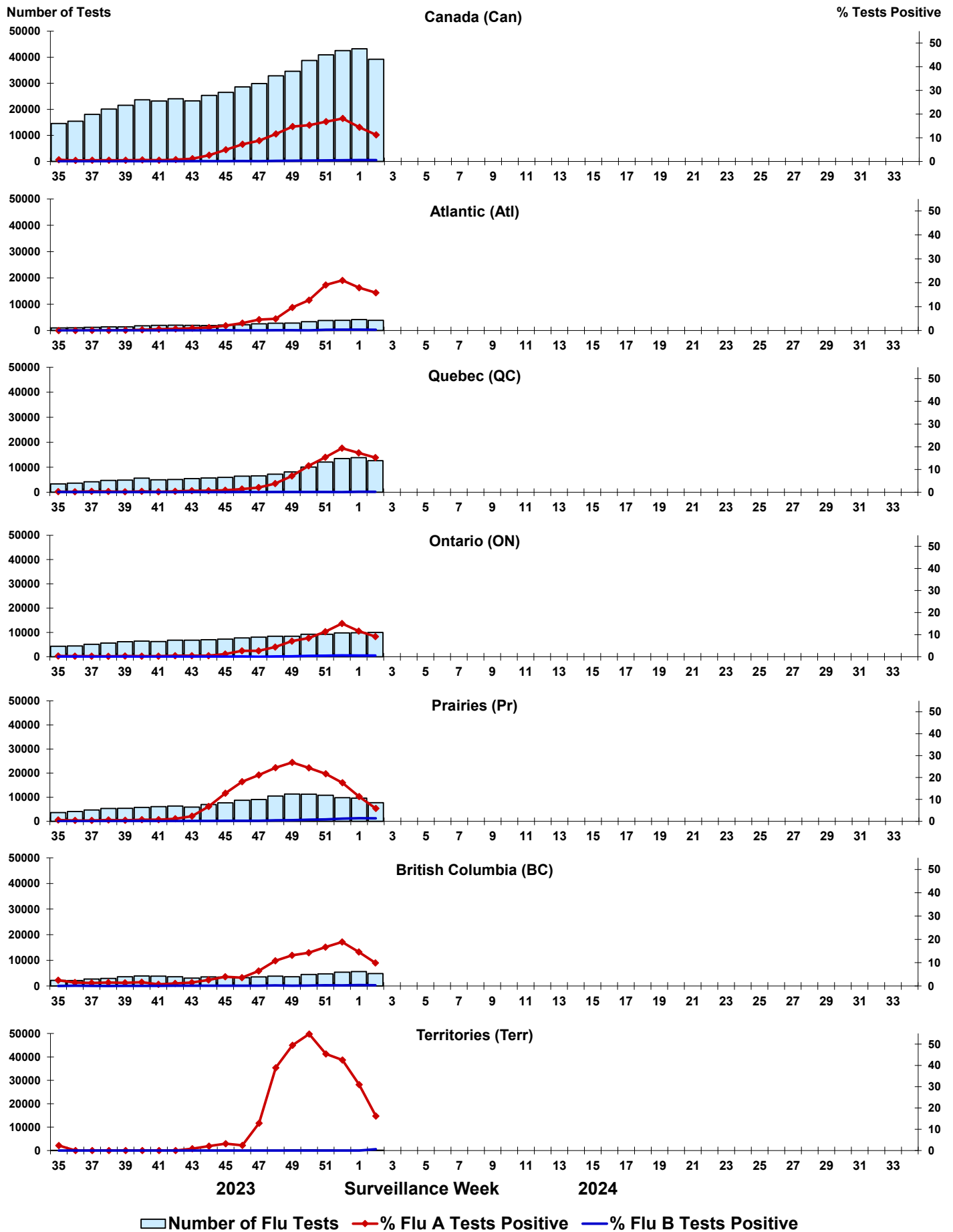


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

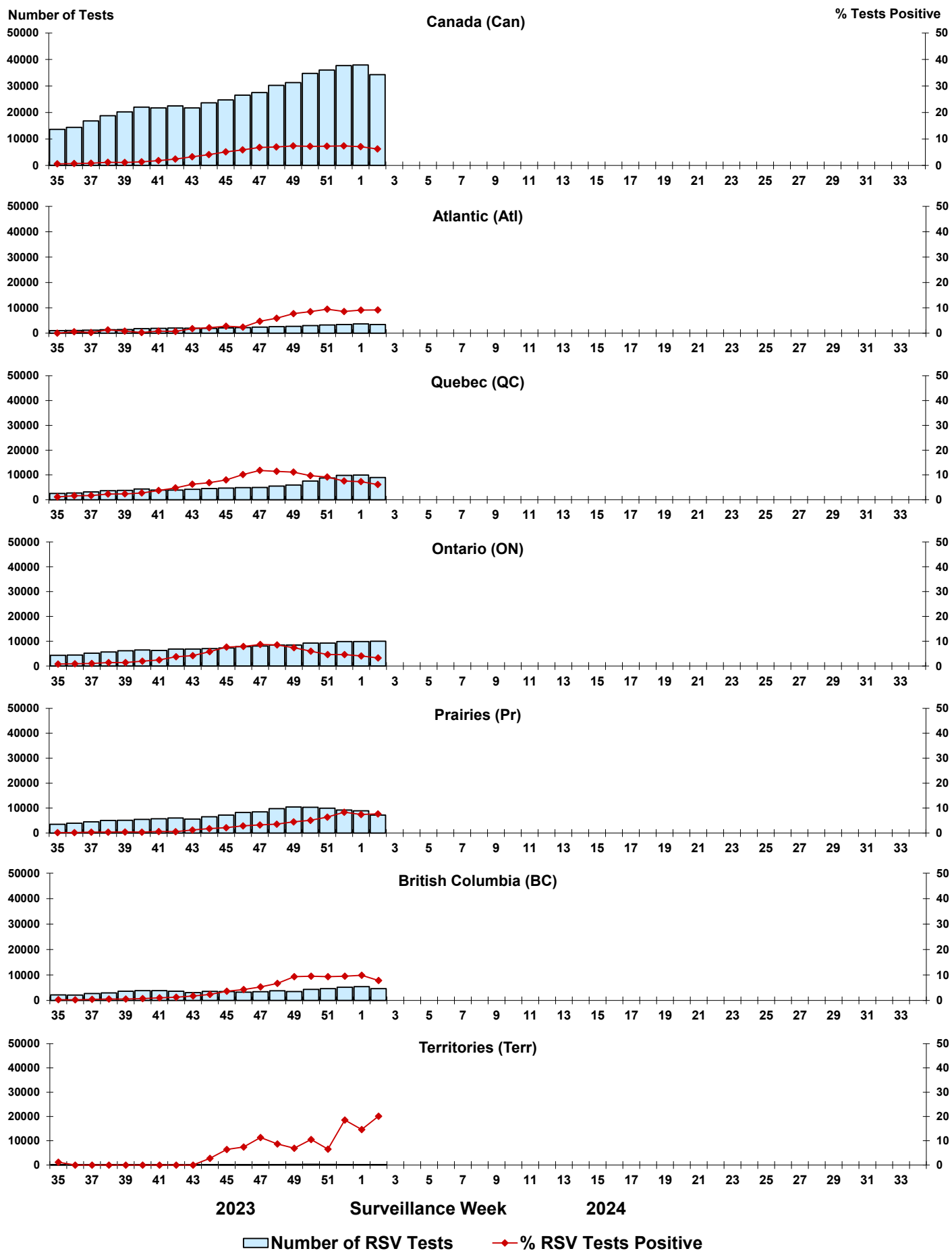


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

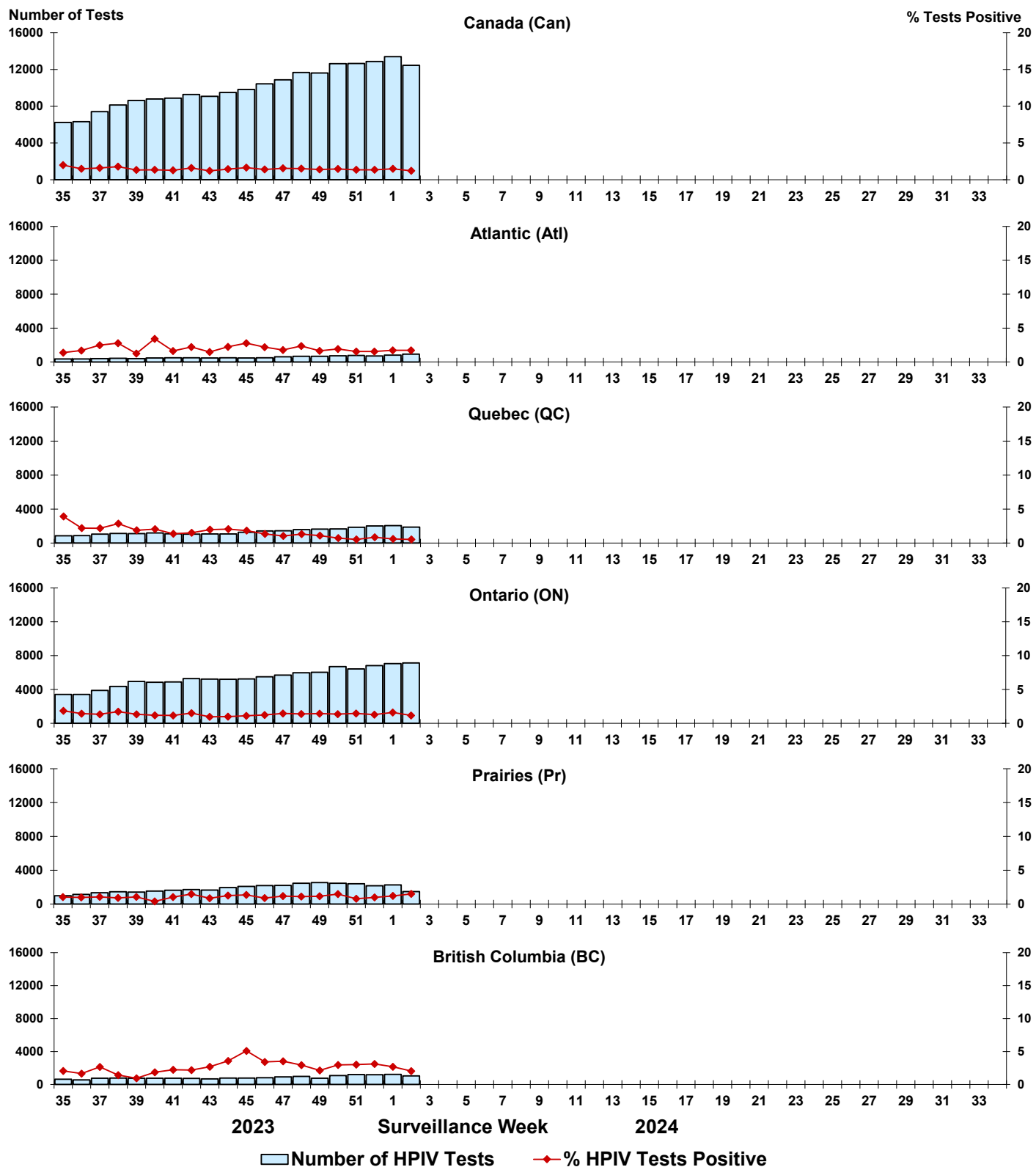


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

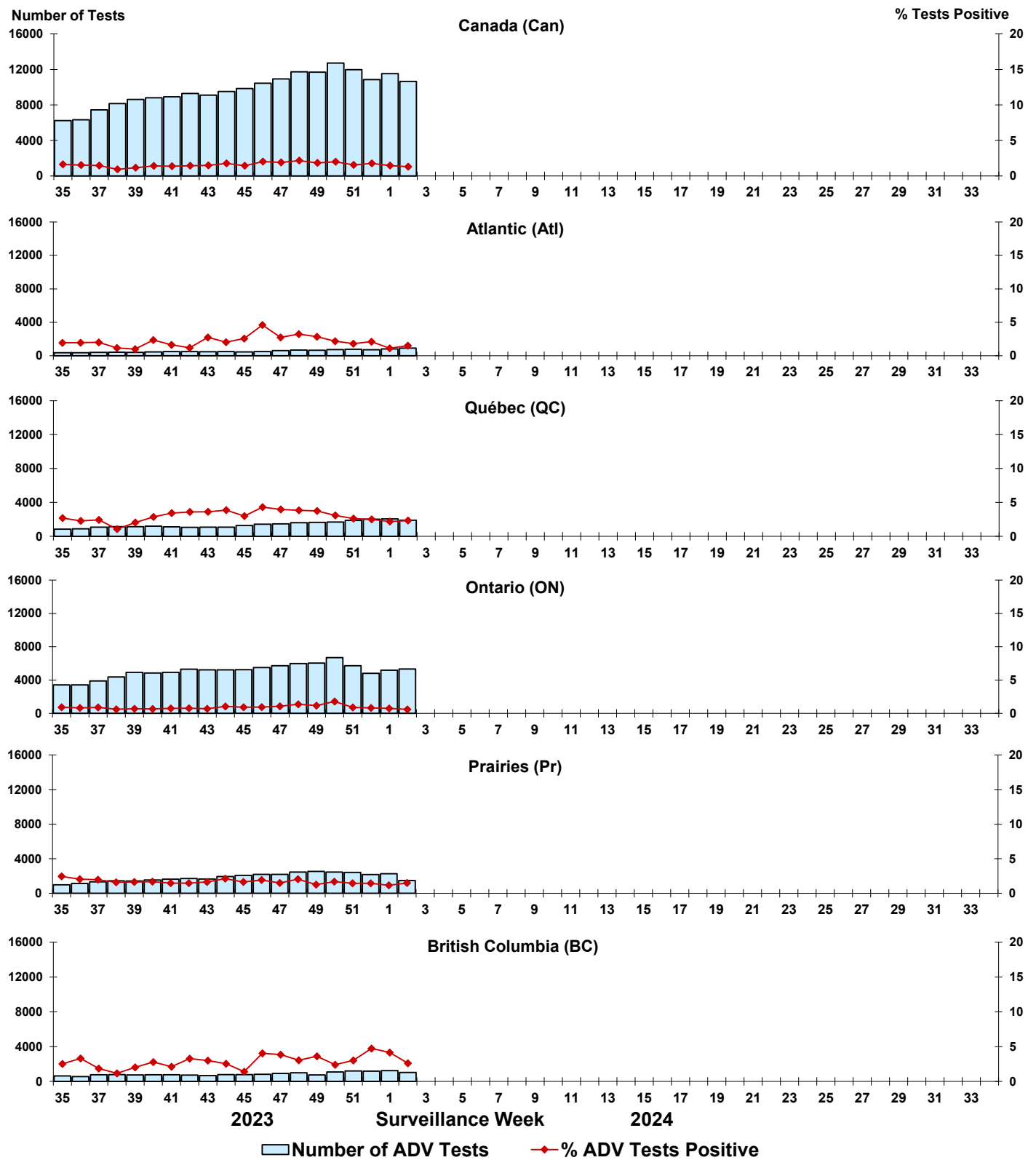


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

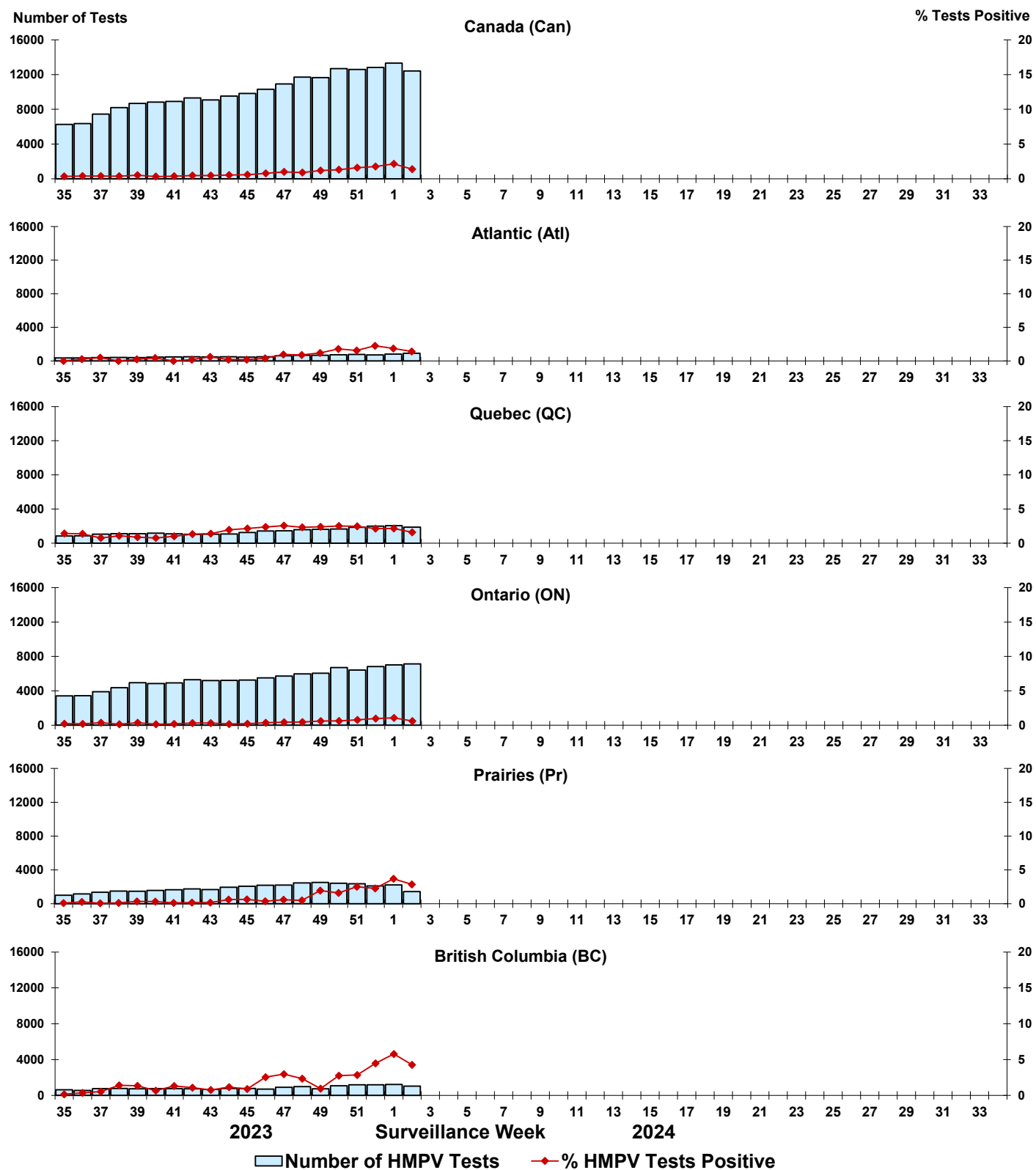


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

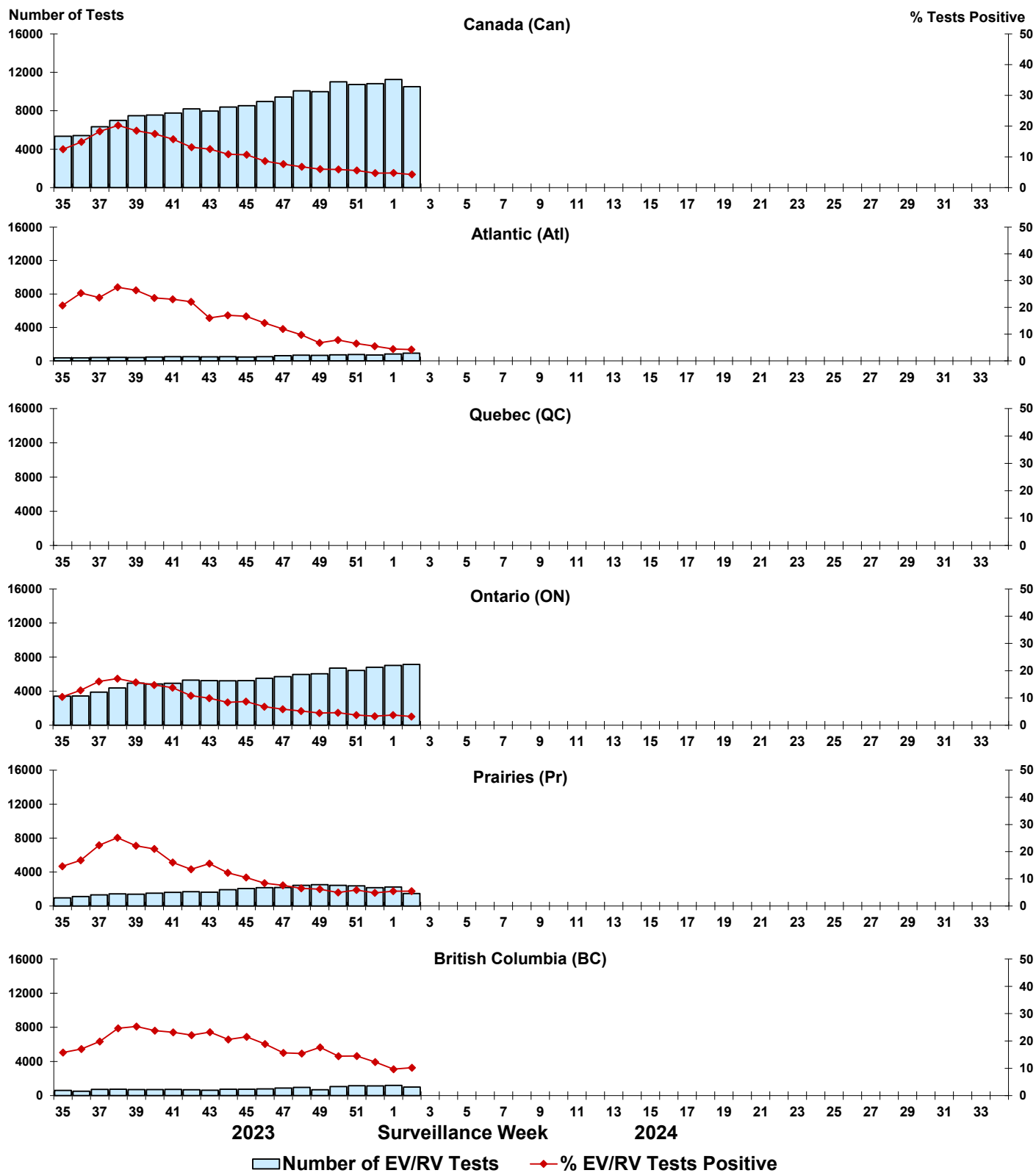


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

