

RESPIRATORY VIRUS DETECTION REPORT

February 18 to February 24, 2024
(Surveillance Week 2024-08)



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 8 (week ending February 24, 2024) in Canada, participating RVDSS laboratories reported 2,542 detections of SARS-CoV-2 from 33,570 tests (7.6% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 8,094 to 32,760 tests), activity of influenza and human coronavirus are highest.

- National SARS-CoV-2 percent positivity has been decreasing since mid-December 2023.
- Activity of influenza A has decreased in recent weeks (2,648 detections; 8.1% positive) but remains higher than activity of influenza B which is currently increasing (998 detections; 3.0% positive).
- Activity of RSV remains stable (1,276 detections; 4.5% positive).
- Among other respiratory viruses, activity of human coronavirus is increasing and above expected levels for this time of year (672 detections; 8.3% positive).
- 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

© 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

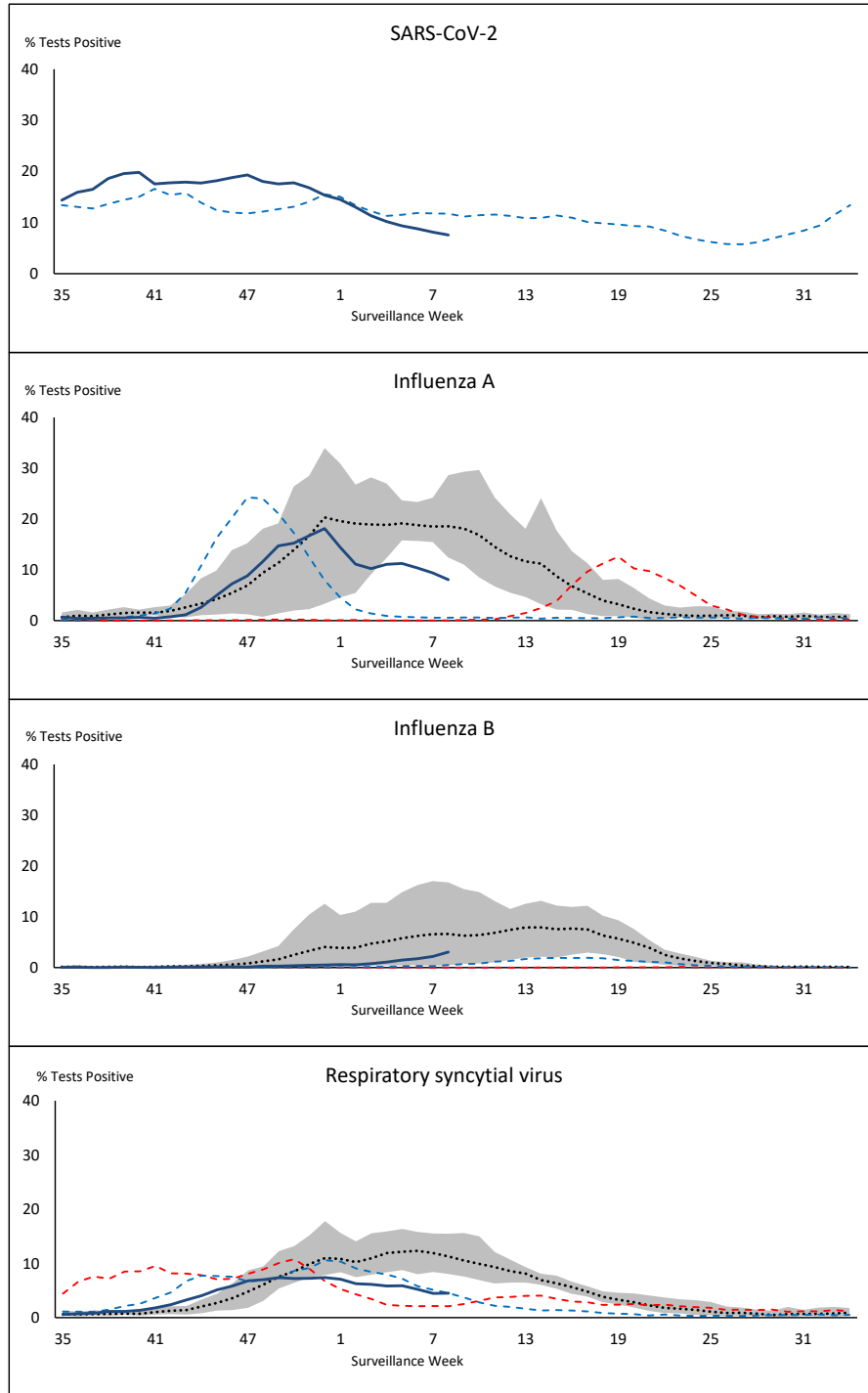


Public Health
Agency of Canada

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



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

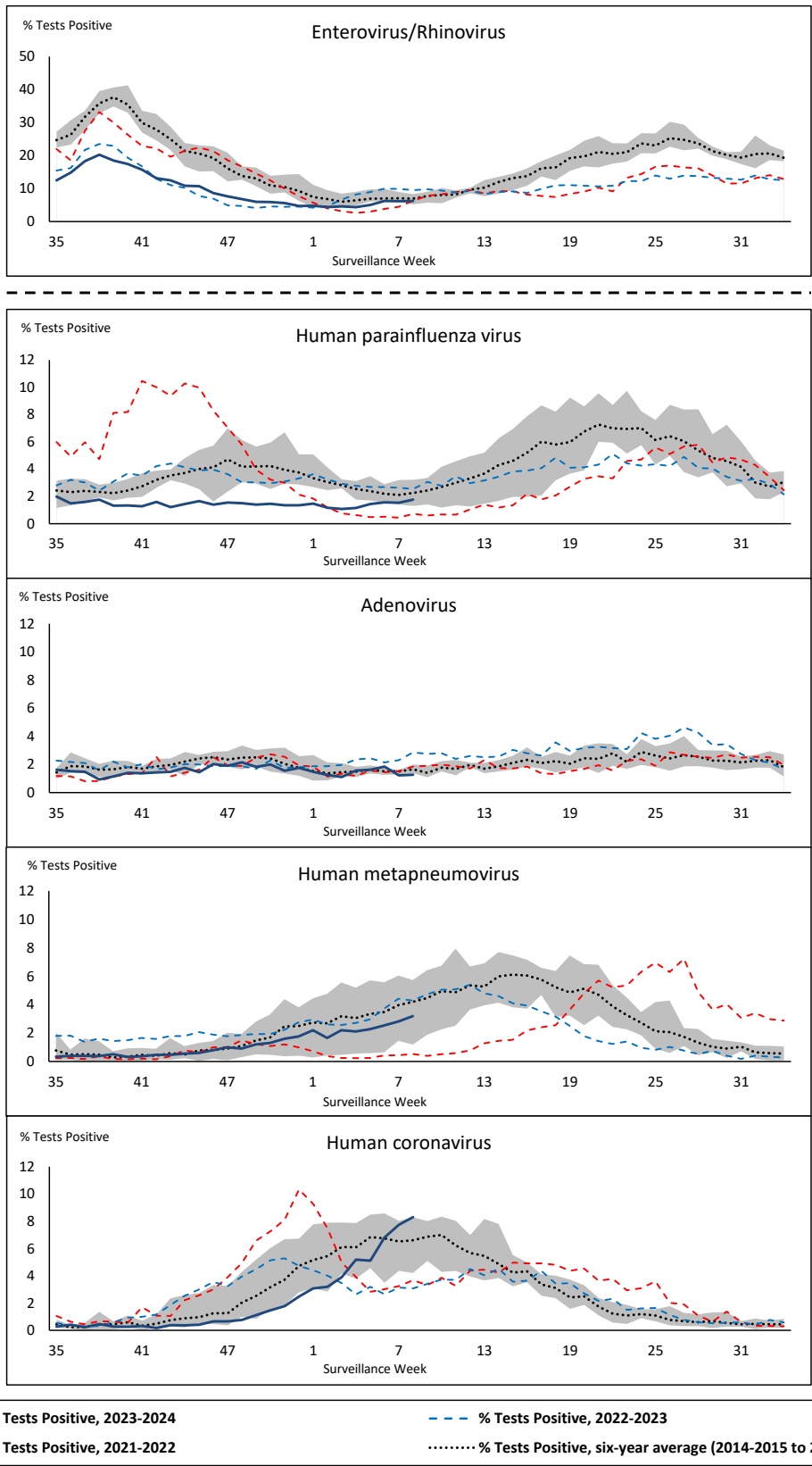
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 February 24, 2024 (surveillance week 2024-08)

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	584	34	481	0	0	48	48	8	481	41	481	1	1	0	0	0	481	8	481	19	481	16	481	30
Prince Edward Island	181	19	170	0	0	11	11	7	170	23	9	0	0	0	0	0	9	2	9	0	9	1	9	3
Nova Scotia	1205	115	1097	0	0	121	121	11	898	32	38	0	0	0	0	0	38	0	38	0	38	1	38	3
New Brunswick	1128	87	1166	28	2	6	36	58	1166	99	104	0	0	0	1	0	104	3	104	6	104	19	104	10
Atlantic	3098	255	2914	28	2	186	216	84	2715	195	632	1	1	0	1	0	632	13	632	25	632	37	632	46
Région Nord-Est	1619	58	1751	0	0	182	182	80	815	74	101	0	1	0	0	0	101	5	99	1	N.C.	N.C.	101	15
Québec-Chaudière-Appalaches	1578	73	1973	0	0	353	353	93	1837	76	673	1	0	4	0	0	682	12	673	22	N.C.	N.C.	489	53
Centre-du-Québec	2356	106	2244	0	0	406	406	67	1082	65	43	0	0	0	0	0	43	1	43	1	N.C.	N.C.	43	1
Montréal-Laval	2410	136	3303	1	1	359	361	35	1970	89	986	1	0	20	0	0	986	15	988	25	N.C.	N.C.	986	94
Ouest du Québec	1432	92	874	0	0	124	124	14	866	30	10	0	0	1	1	0	10	2	10	1	N.C.	N.C.	10	2
Montérégie	1532	93	1611	0	0	241	241	20	1608	39	8	0	0	0	0	0	8	0	8	0	N.C.	N.C.	8	0
Province of Québec	10927	558	11756	1	1	1665	1667	309	8178	373	1821	2	1	25	1	0	1830	35	1821	50	N.C.	N.C.	1637	165
P.H.O.L. - Ottawa	245	31	206	1	0	25	26	1	206	2	138	0	0	0	0	4	138	0	138	3	138	7	138	25
EORLA	939	67	540	0	0	56	56	22	540	9	39	0	0	1	0	0	39	2	39	4	39	8	39	7
P.H.O.L. - Kingston	191	8	98	4	0	15	19	0	98	0	58	0	0	0	0	0	58	0	58	1	58	4	58	11
UHN / Mount Sinai Hospital	1014	60	638	0	1	27	28	3	638	3	72	0	0	0	0	0	72	0	72	2	72	4	72	2
P.H.O.L. - Toronto	374	48	960	17	5	9	29	15	960	12	892	0	0	0	0	35	892	9	892	31	892	55	892	115
Sick Kids Hospital - Toronto	113	4	109	2	4	0	6	5	109	0	109	0	0	5	0	0	109	3	109	7	109	20	109	9
Shared Hospital Laboratory	1772	44	1434	29	14	18	61	39	1434	8	1433	0	0	0	0	11	1433	5	1432	23	1432	28	1432	37
P.H.O.L. - Sault Ste. Marie	23	0	32	3	0	0	3	0	32	0	17	0	0	0	0	1	17	0	17	0	17	0	17	5
P.H.O.L. - Timmins	47	19	60	1	0	1	2	0	60	0	45	0	0	0	0	4	45	0	45	0	45	0	45	7
St. Joseph's - London	809	61	703	0	0	57	57	23	703	8	60	0	0	0	0	1	60	1	60	1	60	11	60	6
P.H.O.L. - London	311	51	292	17	0	6	23	2	292	2	219	0	0	0	0	8	219	0	219	6	219	9	219	21
P.H.O.L. - Orillia	16	1	18	11	0	4	15	0	18	0	11	0	0	0	0	0	11	0	11	1	11	0	11	0
P.H.O.L. - Thunder Bay	34	6	32	2	0	0	2	1	32	4	21	0	0	0	0	1	21	0	21	2	21	0	21	1
P.H.O.L. - Sudbury	13	3	19	1	0	0	1	1	19	0	13	0	0	0	0	1	13	0	13	0	13	0	13	3
P.H.O.L. - Hamilton	144	22	162	4	0	3	7	4	162	0	129	0	0	0	0	3	129	5	129	6	129	10	129	13
P.H.O.L. - Peterborough	35	3	46	0	0	5	5	1	46	1	31	0	0	0	0	2	31	1	31	2	31	7	31	4
St. Joseph's - Hamilton	1787	73	1697	0	0	117	117	50	1697	18	1697	0	0	16	0	0	1697	14	1697	42	1697	89	0	0
Sault Area Hospital	211	50	144	0	2	0	2	2	144	15	121	0	0	0	0	0	121	1	121	3	121	3	121	11
Province of Ontario	8078	551	7190	92	26	343	459	169	7190	82	5105	0	22	0	71	5105	41	5104	134	5104	255	3407	277	
Manitoba	1366	159	1028	0	0	14	14	22	1028	63	93	0	1	2	0	0	93	2	97	8	93	10	97	7
Saskatchewan	1769	164	1363	0	0	4	4	100	1205	109	462	1	0	8	0	0	462	1	462	30	462	37	462	36
Alberta	4180	350	4260	29	15	4	52	231	4040	237	1058	0	3	15	0	0	1058	9	982	1	1050	72	1058	70
Prairies	7315	673	6651	29	15	22	70	353	6273	409	1613	1	4	25	0	0	1613	12	1541	39	1605	119	1617	113
British Columbia	3869	476	4061	40	20	5	235	68	3893	170	835	3	1	16	2	0	835	27	835	71	801	94	801	71
Yukon	71	10	31	0	0	0	1	1	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	59	2	58	0	0	0	0	9	58	29	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	58	0	58	0	58	7	N.C.	N.C.
Nunavut	153	17	99	0	0	0	0	5	99	18	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	283	29	188	0	0	0	1	15	187	47	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	58	0	58	0	58	7	N.C.	N.C.
CANADA	33570	2542	32760	190	64	2221	2648	998	28436	1276	10006	7	7	88	4	71	10073	128	9991	319	8200	512	8094	672

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 February 24, 2024 (surveillance weeks 2023-35 to 2024-08)

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	16620	2602	12045	0	0	1236	1236	48	12045	774	12045	10	56	22	98	0	12045	198	12045	176	12045	1021	12045	257
Prince Edward Island	5974	690	3487	0	0	500	500	23	3487	281	386	2	0	0	8	0	385	21	375	5	385	109	369	9
Nova Scotia	38371	7816	25126	0	0	2068	2068	201	20533	1257	899	15	2	2	10	0	899	39	892	3	899	203	898	5
New Brunswick	28419	3556	25954	829	22	1764	2615	178	25550	1520	2280	7	4	1	25	0	2280	88	2280	31	2280	457	2280	82
Atlantic	89384	14664	66612	829	22	5568	6419	450	61615	3832	15610	34	62	25	141	0	15609	346	15592	215	15609	1790	15592	353
Région Nord-Est	45591	6808	40042	5	0	4349	4354	152	15405	1149	1965	14	12	10	16	0	1965	87	1923	56	N.C.	N.C.	1965	52
Québec-Chaudière-Appalaches	54608	9099	33130	0	0	4852	4852	262	31986	2296	12990	21	9	11	11	0	13351	433	12989	298	N.C.	N.C.	10881	288
Centre-du-Québec	66722	12083	28643	0	0	3657	3657	192	18059	1408	1003	15	8	13	7	0	1003	50	1003	36	N.C.	N.C.	1031	36
Montréal-Laval	81558	13566	61853	4	2	5641	5647	128	40797	2589	21606	93	38	123	24	0	21606	433	21667	386	N.C.	N.C.	21606	633
Ouest du Québec	44706	9792	17953	4	0	1753	1757	96	17796	1002	503	11	3	7	7	0	503	39	503	11	N.C.	N.C.	503	19
Montérégie	42543	7743	32550	0	0	2737	2737	87	31487	1574	172	1	0	0	1	0	172	6	172	3	N.C.	N.C.	172	1
Province of Québec	335728	59091	214171	13	2	22989	23004	917	155530	10018	38239	155	70	164	66	0	38600	1048	38257	790	N.C.	N.C.	36158	1029
P.H.O.L. - Ottawa	9394	3473	6289	259	53	139	328	13	6283	127	3726	0	0	0	0	62	3726	11	3724	45	3726	389	3724	126
EORLA	34818	4272	15743	0	0	1411	1411	122	15743	1086	1006	2	4	10	4	0	981	11	1006	13	1006	190	1006	24
P.H.O.L. - Kingston	6584	2009	3575	111	17	78	180	3	3575	166	2518	0	0	0	0	40	2518	10	2518	8	2518	315	2518	37
UHN / Mount Sinai Hospital	29403	2899	18111	40	10	489	539	51	18111	191	900	0	0	7	2	0	900	1	900	2	900	39	900	28
P.H.O.L. - Toronto	16575	5303	29208	1084	880	266	1589	120	29199	1004	26654	0	0	0	0	749	26661	301	26639	308	26654	2621	26639	984
Sick Kids Hospital - Toronto	3404	283	3022	99	93	20	212	21	3022	304	3022	14	12	50	18	0	3022	73	3022	58	3022	527	3022	83
Shared Hospital Laboratory	45176	4349	38503	745	495	254	1494	153	38508	1308	38335	0	0	0	0	228	32681	277	38370	139	38415	1300	38392	383
P.H.O.L. - Sault Ste. Marie	407	186	478	48	3	15	60	0	478	43	325	0	0	0	0	4	325	1	325	0	325	21	325	28
P.H.O.L. - Timmins	926	268	883	56	8	24	77	0	883	60	713	0	0	0	0	21	713	4	713	4	713	46	713	16
St. Joseph's - London	23380	3287	11728	0	0	873	873	89	11728	693	1722	0	0	0	0	19	1741	26	1741	11	1743	208	1741	42
P.H.O.L. - London	12571	3897	9098	414	125	101	465	32	9095	458	7257	0	0	0	0	185	7257	34	7255	50	7257	659	7255	207
P.H.O.L. - Orillia	510	137	1196	70	17	11	98	0	1193	74	1134	0	0	0	0	26	1134	15	1134	18	1134	144	1134	11
P.H.O.L. - Thunder Bay	1616	471	977	57	0	7	36	2	974	27	804	0	0	0	0	26	804	5	804	22	804	53	804	6
P.H.O.L. - Sudbury	608	238	713	31	1	19	51	1	711	21	482	0	0	0	0	7	483	1	482	1	482	43	482	8
P.H.O.L. - Hamilton	6401	2011	5135	129	62	78	215	21	5134	170	3794	0	0	0	0	108	3794	69	3793	56	3794	493	3793	149
P.H.O.L. - Peterborough	2024	663	2008	201	202	61	134	9	1998	217	1597	0	0	0	0	46	1597	35	1597	24	1597	265	1597	32
St. Joseph's - Hamilton	50542	5512	44449	0	0	2796	2796	290	44449	1699	44449	0	0	260	0	0	44449	276	44449	291	44449	2594	0	0
Sault Area Hospital	4950	699	3344	166	10	49	225	6	3337	183	2629	24	0	11	16	0	2580	32	2580	5	2580	238	2590	33
Province of Ontario	249289	39957	194460	3510	1976	6691	10783	933	194421	7831	141067	40	16	338	40	1521	135366	1182	141052	1055	141119	10145	96635	2197
Manitoba	43002	6486	32590	140	11	1784	1935	130	32590	1194	2446	0	10	12	41	0	2446	105	3156	108	2446	481	3156	72
Saskatchewan	56028	6787	38737	101	8	5300	5409	686	35160	1259	11945	25	9	30	20	0	11945	241	11945	642	11945	1206	11945	228
Alberta	144238	18264	123957	11585	661	574	12887	1417	115468	5467	34154	116	84	238	3	0	34146	412	33290	23	33617	3147	34153	666
Prairies	243268	31537	195284	11826	680	7658	20231	2233	183218	7920	48545	141	103	280	64	0	48537	758	48391	773	48008	4834	49254	966
British Columbia	100001	13825	100194	3856	637	230	7754	404	97942	5119	23077	110	156	155	158	0	23079	721	22964	743	22126	3490	22103	542
Yukon	1456	168	936	30	12	0	50	2	928	42	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	964	63	904	166	6	1	173	17	904	126	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	3241	288	2247	426	30	51	507	22	2247	277	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	5661	519	4087	622	48	52	730	41	4079	445	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	705	33	705	7	904	117	N.C.	N.C.
CANADA	1023331	159593	774808	20656	3365	43188	68921	4978	696805	35165	266538	480	407	962	469	1521	261896	4088	266961	3583	227766	20376	219742	5087

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.

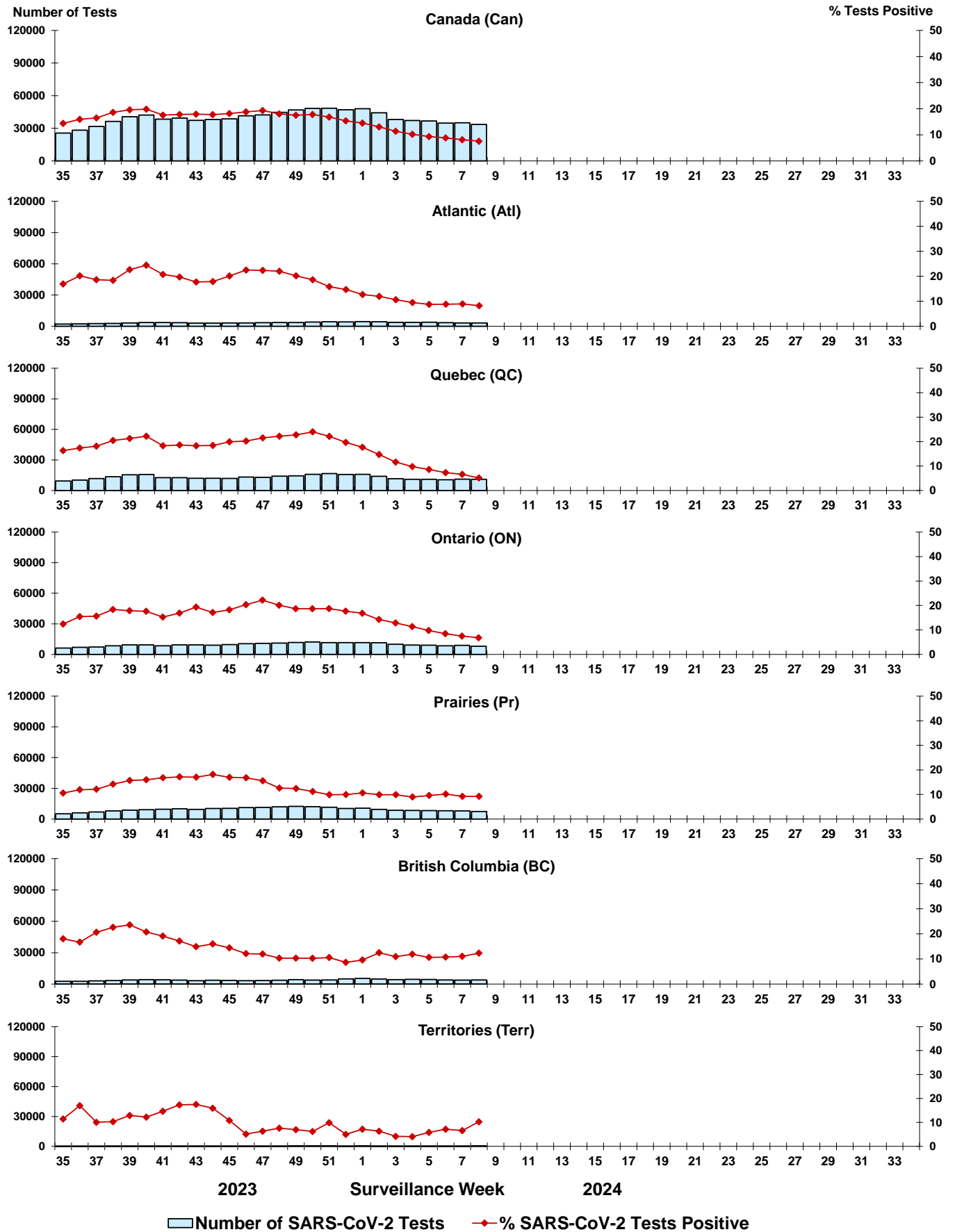
Some specimens from Yukon (YT) are sent to reference laboratories in British Columbia and reported results reflect specimens identified as originating from YT.

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

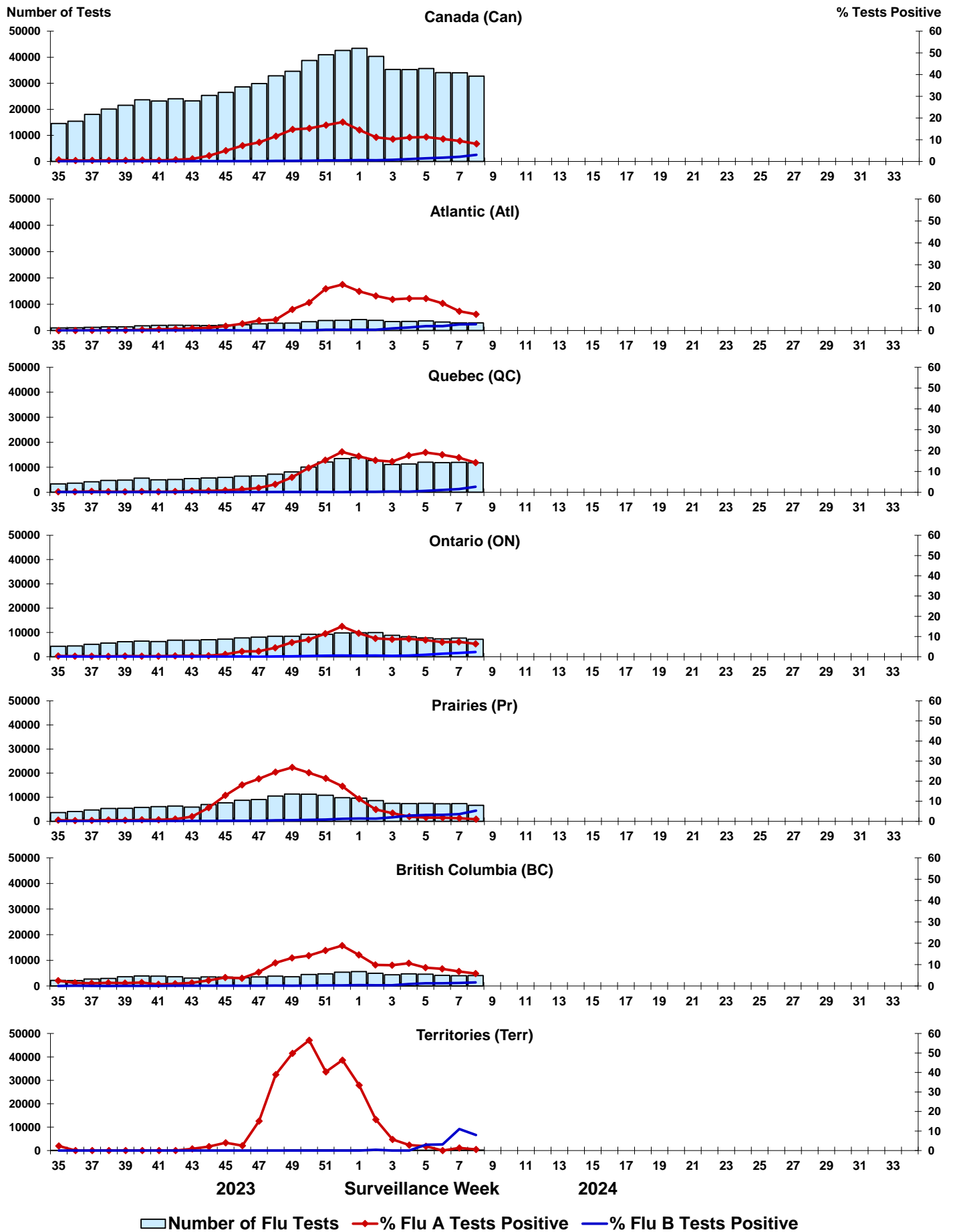
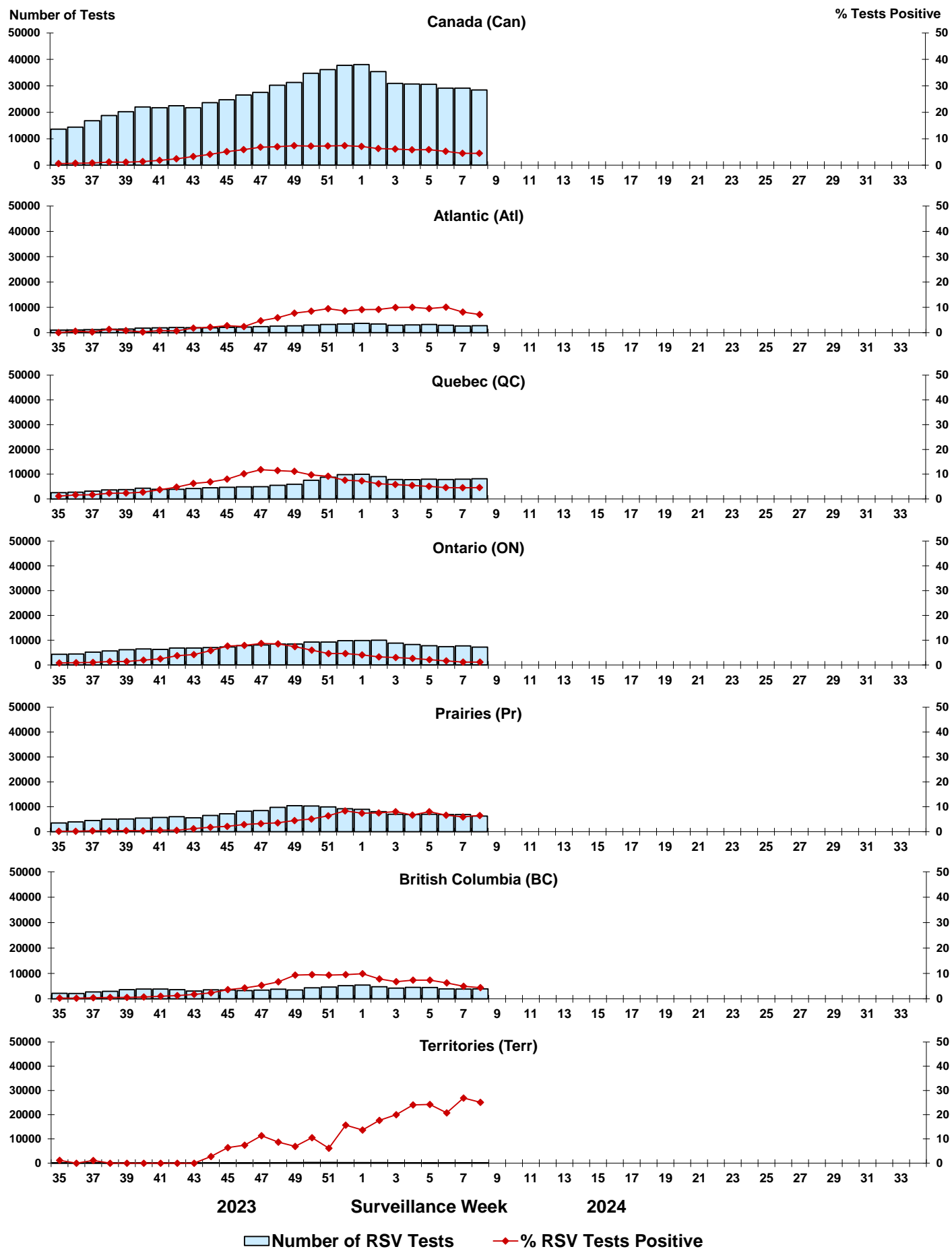


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week



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

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

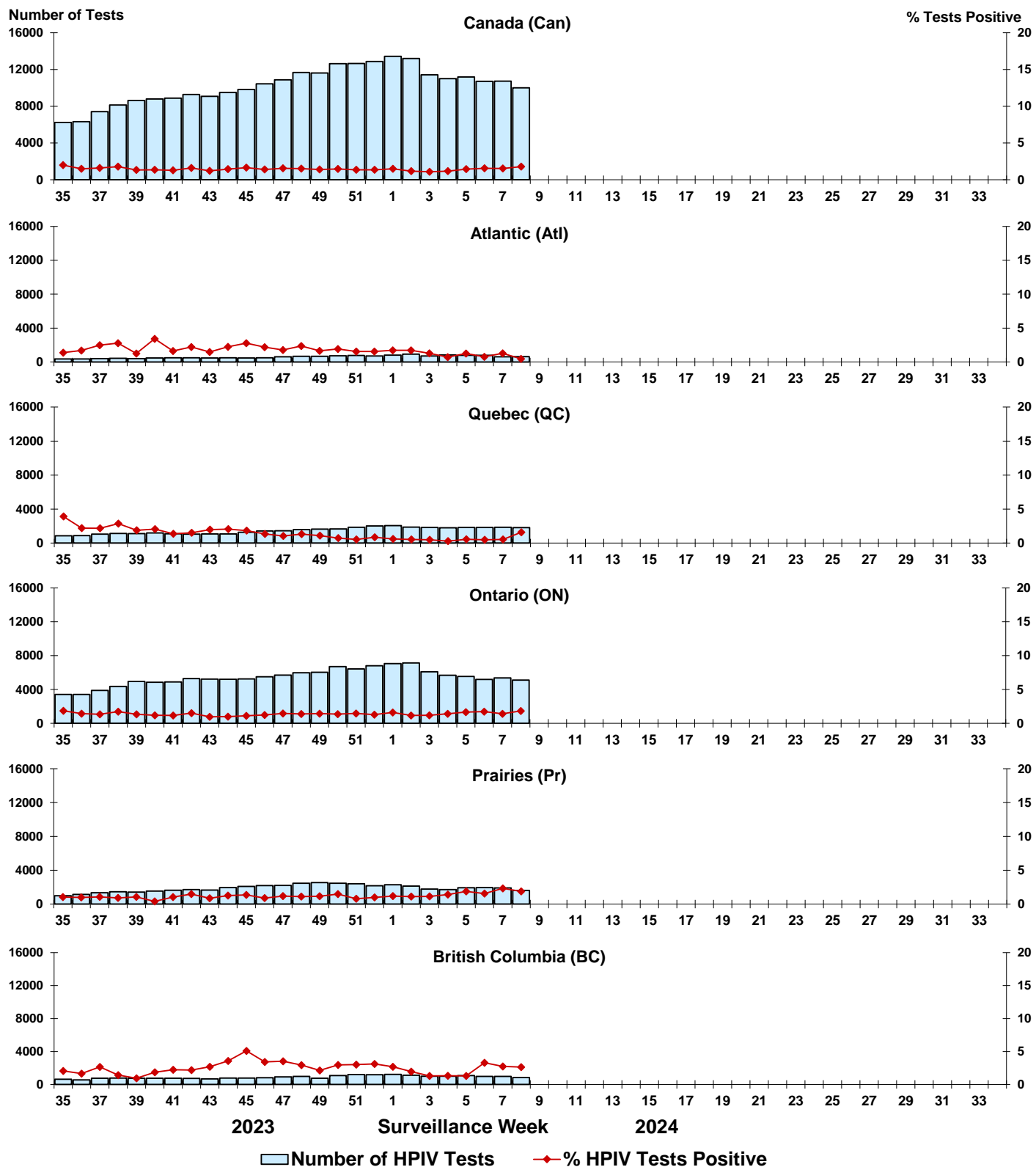


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

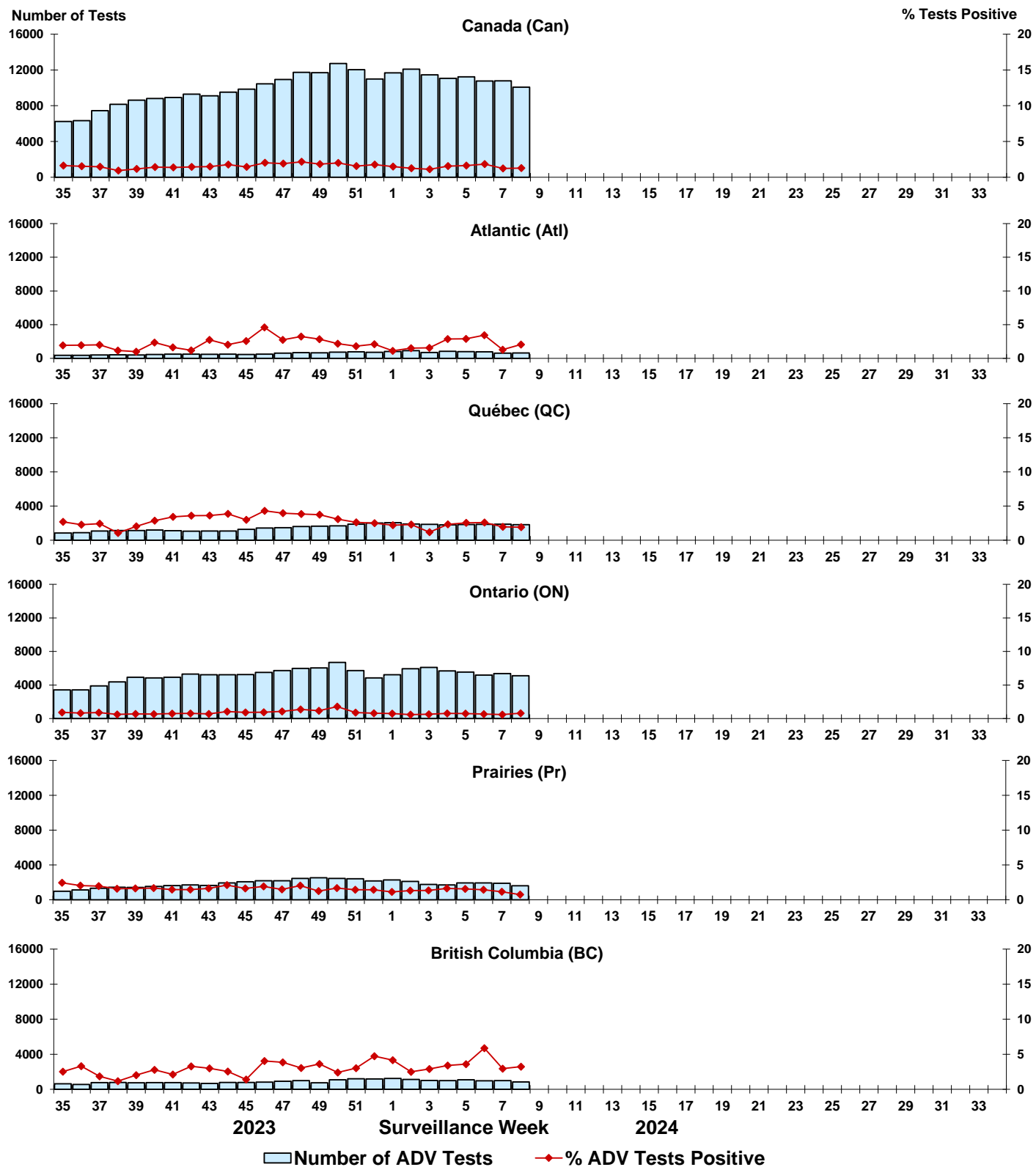


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

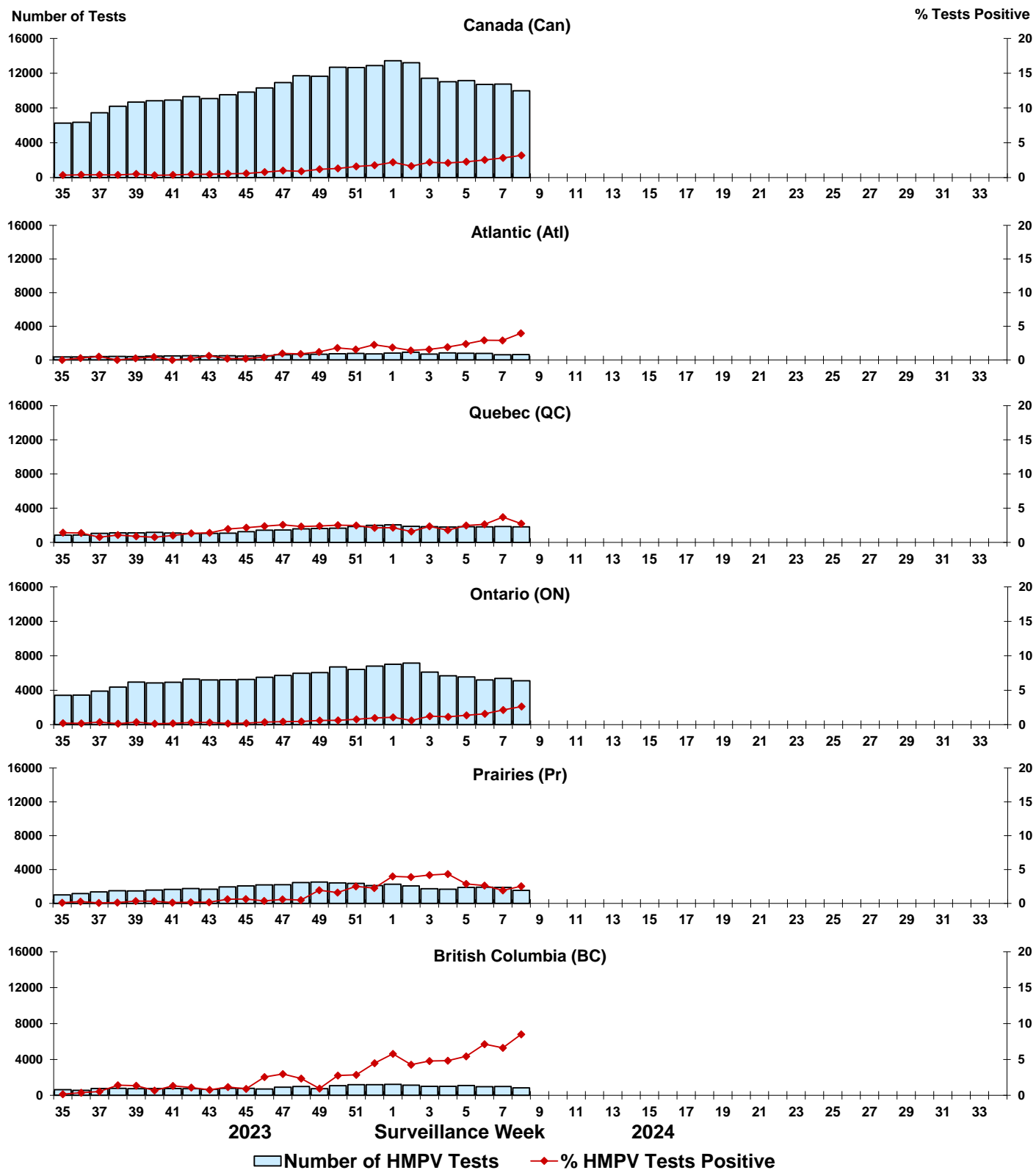


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

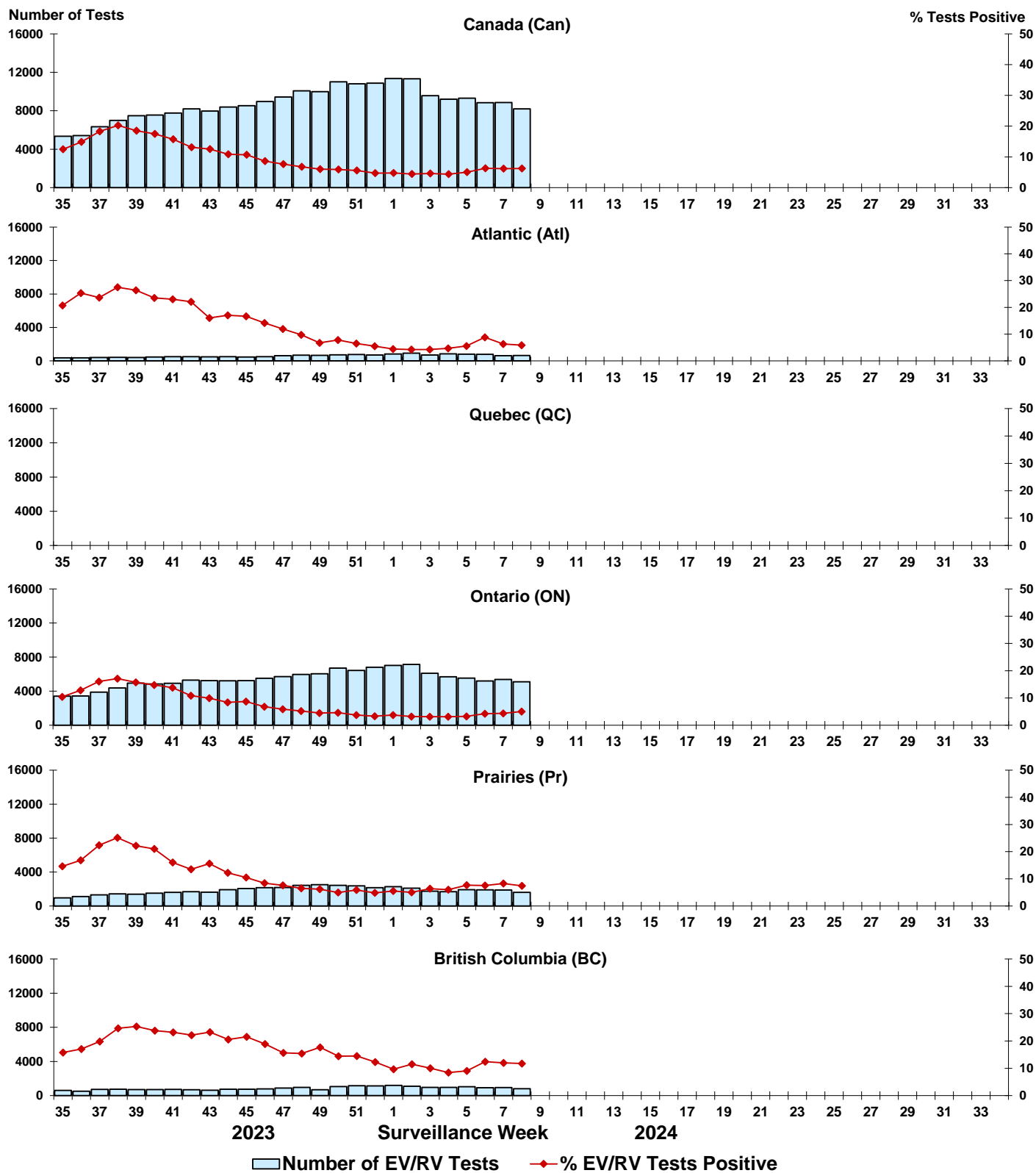


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

