

RESPIRATORY VIRUS DETECTION REPORT

August 20 to August 26, 2023
(Surveillance Week 2023-34)



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 34 (week ending August 26, 2023) in Canada, participating RVDSS laboratories reported 3,133 detections of SARS-CoV-2 from 23,381 tests (13.4% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 4,447 to 13,226 tests), activity of enterovirus/rhinovirus is highest.

- There has been an observed increase in national SARS-CoV-2 percent positivity over the latest seven reporting weeks.
- While activity of enterovirus/rhinovirus is highest, it remains below expected levels typical of this time of year (570 detections; 12.5% positive).
- Activity of all other non-SARS-CoV-2 respiratory viruses is low and near expected levels typical of this time of year.
- 33/35 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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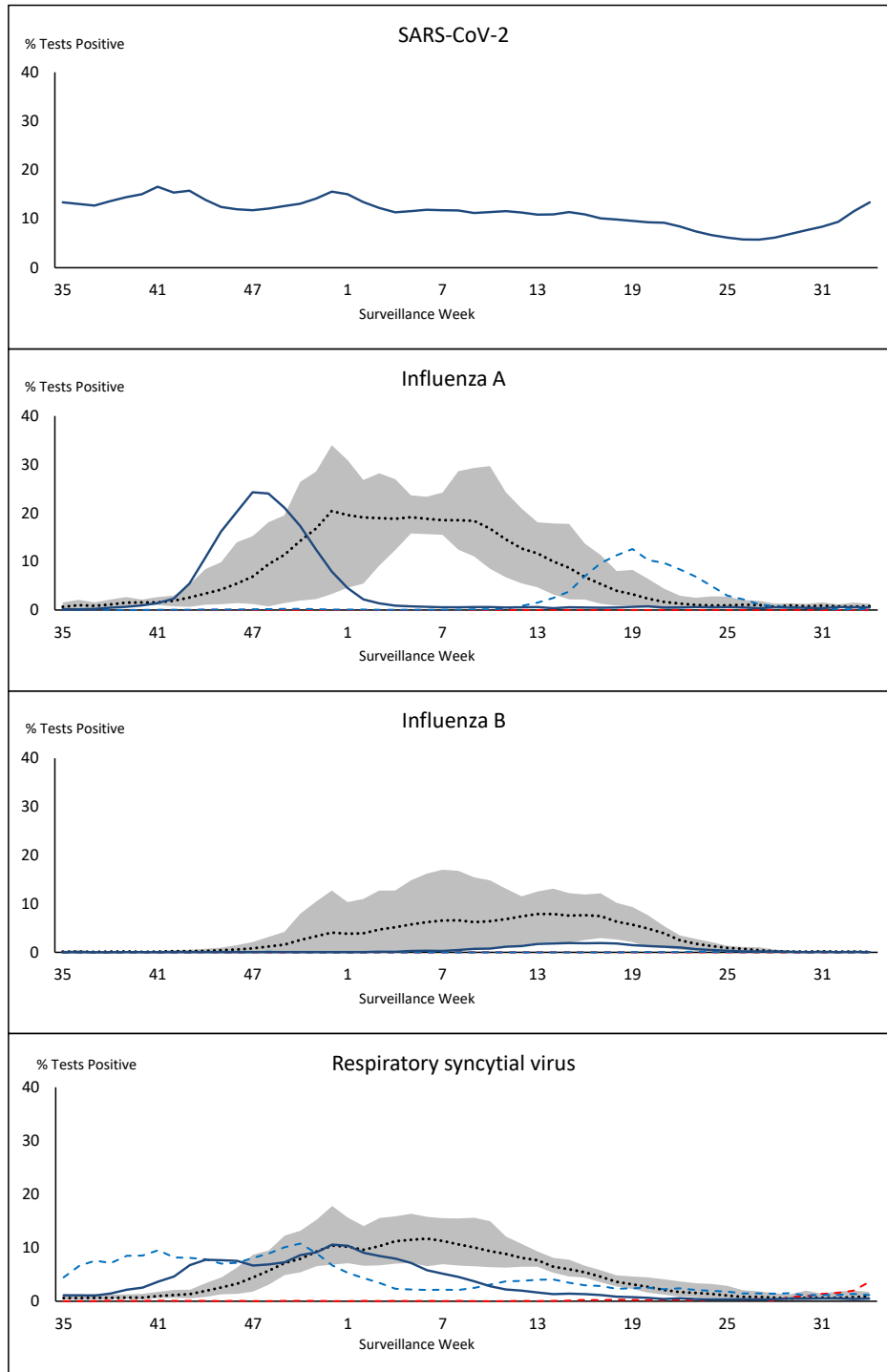


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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



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

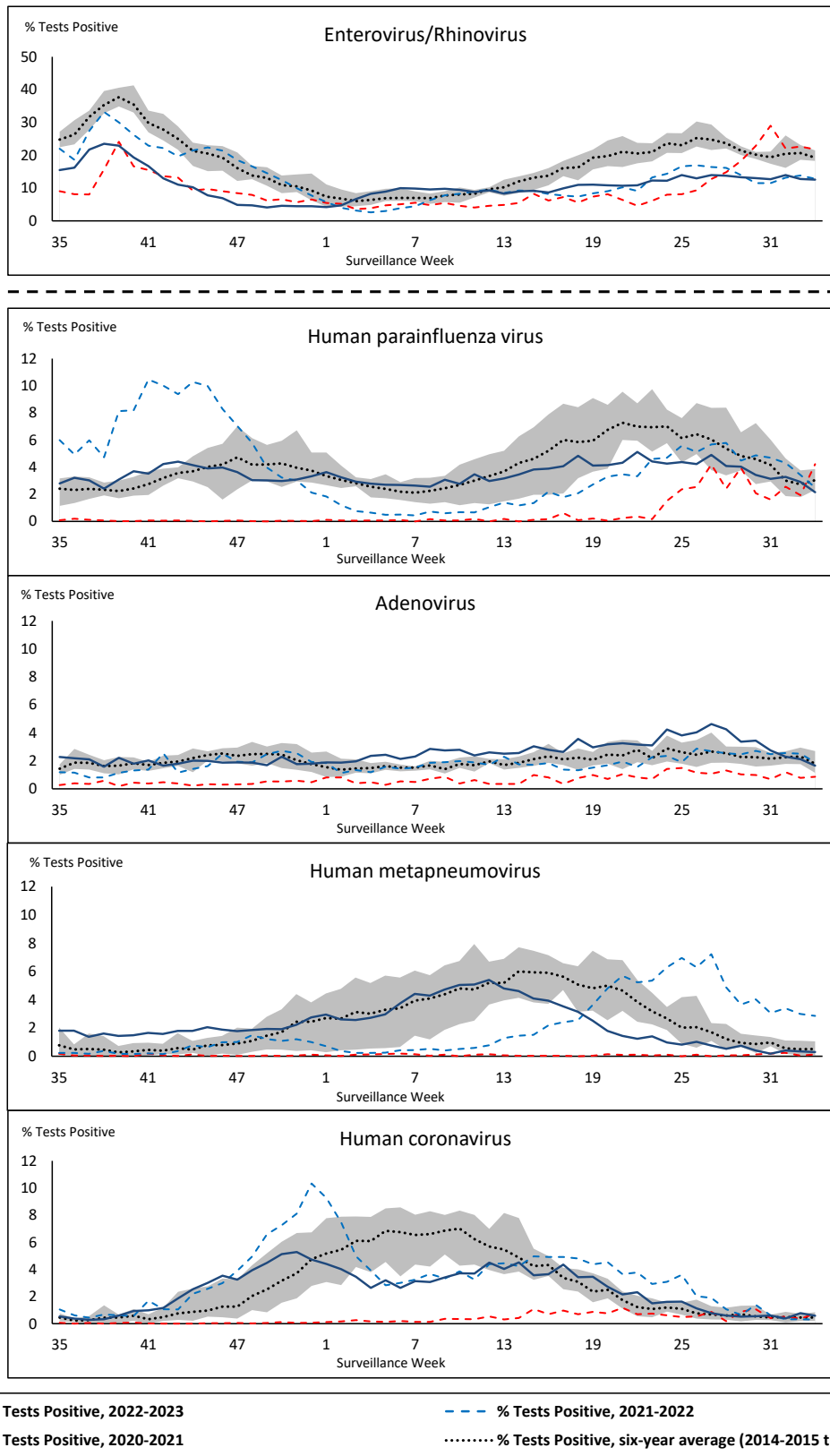
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 appropriate 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 August 26, 2023 (surveillance week 2023-34)

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	377	47	217	0	0	0	0	0	217	1	217	0	0	0	3	0	217	5	217	0	217	39	217	2	
Prince Edward Island	116	13	11	0	0	0	0	0	11	0	5	0	0	0	0	0	5	0	5	0	5	1	5	0	
Nova Scotia	816	141	353	0	0	0	0	0	353	2	32	1	0	0	3	0	32	0	32	0	32	6	32	1	
New Brunswick	516	53	324	0	0	0	0	0	312	0	42	0	0	1	0	0	42	2	42	0	42	6	42	1	
Atlantic	1825	254	905	0	0	0	0	0	893	3	296	1	0	1	6	0	296	7	296	0	296	52	296	4	
Région Nord-Est	1158	178	917	0	0	1	1	0	184	1	67	2	1	1	3	0	67	5	66	1	N.C.	N.C.	67	0	
Québec-Chaudière-Appalaches	1621	252	424	0	0	1	1	0	424	5	186	1	0	0	0	0	204	7	186	1	N.C.	N.C.	186	1	
Centre-du-Québec	1250	206	200	0	0	0	0	0	200	6	36	1	0	0	1	0	36	2	36	0	N.C.	N.C.	36	0	
Montréal-Laval	2491	337	1046	0	0	5	5	2	988	12	581	0	2	3	6	0	581	8	581	8	N.C.	N.C.	581	0	
Ouest du Québec	1050	170	254	0	0	4	4	1	254	1	20	1	1	1	2	0	20	1	20	1	N.C.	N.C.	20	1	
Montréal	1010	140	536	0	0	1	1	0	535	5	8	0	0	0	0	0	8	0	8	0	N.C.	N.C.	8	0	
Province of Québec	8580	1283	3377	0	0	12	12	3	2585	30	898	5	4	5	12	0	916	23	897	11	N.C.	N.C.	898	2	
P.H.O.L. - Ottawa	337	125	194	0	0	0	0	0	194	0	89	0	0	0	0	2	89	0	89	1	89	9	89	1	
EOCLA	1263	104	271	0	0	2	2	0	271	8	25	0	0	0	0	0	25	0	25	0	25	7	25	0	
P.H.O.L. - Kingston	307	96	81	0	0	0	0	0	81	0	53	0	0	0	0	2	53	0	53	0	53	12	53	0	
UHN / Mount Sinai Hospital	527	32	495	0	1	2	3	0	495	0	19	0	0	0	0	0	19	0	19	0	19	0	19	1	
P.H.O.L. - Toronto	367	78	744	11	3	0	13	0	744	3	689	0	0	0	0	40	690	9	689	1	689	140	689	1	
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	691	42	691	2	0	1	3	0	691	5	694	0	0	0	0	7	694	5	698	1	697	51	698	0	
P.H.O.L. - Sault Ste. Marie	2	1	4	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	0	4	0	4	0	
P.H.O.L. - Timmins	21	1	7	0	0	0	0	0	7	0	7	0	0	0	0	0	7	1	7	0	7	0	7	0	
St. Joseph's - London	517	44	24	0	0	0	0	0	24	0	24	0	0	0	0	0	24	0	24	0	24	0	24	0	
P.H.O.L. - London	223	32	153	1	0	0	1	0	153	0	136	0	0	0	0	10	136	0	136	0	136	32	136	0	
P.H.O.L. - Orillia	41	14	26	0	0	0	0	0	26	0	17	0	0	0	0	0	17	2	17	0	17	4	17	0	
P.H.O.L. - Thunder Bay	30	4	18	0	0	0	0	0	18	0	9	0	0	0	0	0	9	0	9	0	9	1	9	0	
P.H.O.L. - Sudbury	17	5	18	0	0	0	0	0	18	0	18	0	0	0	0	0	18	0	18	0	18	4	18	0	
P.H.O.L. - Hamilton	204	55	117	0	0	0	0	0	117	0	98	0	0	0	0	1	98	1	98	0	98	9	98	0	
P.H.O.L. - Peterborough	24	4	23	1	0	0	1	0	23	0	16	0	0	0	0	0	16	4	16	0	16	2	16	0	
St. Joseph's - Hamilton	1273	94	1041	0	0	3	3	1	1041	3	1041	0	0	1	0	0	1041	8	1041	1	1041	53	0	0	
Sault Area Hospital	52	7	42	0	0	0	0	0	42	0	42	0	0	0	0	0	42	0	42	0	42	8	52	0	
Province of Ontario	5896	738	3949	15	4	8	26	1	3949	19	2981	0	0	1	0	62	2982	30	2985	4	2984	332	1954	3	
Manitoba	987	138	858	0	0	1	1	0	858	3	66	1	2	0	0	0	66	4	92	0	66	22	92	0	
Saskatchewan	1024	76	474	0	0	0	0	1	462	1	218	0	2	0	0	0	218	5	218	0	218	28	218	5	
Alberta	2805	256	1897	4	0	0	4	1	1797	5	552	1	2	1	0	0	552	9	49	0	546	67	552	7	
Prairies	4816	470	3229	4	0	1	5	2	3117	9	836	2	6	1	0	0	836	18	359	0	830	117	862	12	
British Columbia	2163	378	1706	1	0	0	23	0	1706	1	469	6	2	0	4	0	469	13	469	0	437	69	437	5	
Yukon	39	7	17	0	0	0	0	0	17	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	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.	0	0	N.C.	N.C.
Nunavut	62	3	43	0	0	0	0	0	43	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.	
Territories	101	10	60	0	0	0	0	0	60	1	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	0	0	N.C.	N.C.	
CANADA	23381	3133	13226	20	4	21	66	6	12310	63	5480	14	12	8	22	62	5499	91	5006	15	4547	570	4447	26	

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 28, 2022 to August 26, 2023 (surveillance weeks 2022-35 to 2023-34)

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	25987	4363	15322	8	246	680	934	11	15322	649	15322	75	33	388	173	0	15322	328	15322	386	15322	1442	15322	575
Prince Edward Island	34030	7371	4138	1	119	248	368	4	4138	384	1208	21	27	81	8	0	1208	82	1208	39	1208	351	1208	35
Nova Scotia	142197	27023	49046	0	4	3661	3665	15	49037	2436	1686	16	17	36	11	0	1693	69	1683	45	1693	333	1693	66
New Brunswick	114035	16307	54271	25	133	4439	4597	31	46170	2066	4408	41	35	167	8	0	4408	302	4408	188	4408	814	4353	237
Atlantic	316249	55064	122777	34	502	9028	9564	61	114667	5535	22624	153	112	672	200	0	22631	781	22621	658	22631	2940	22576	913
Région Nord-Est	107483	12445	66489	2	4	3897	3903	112	18833	1411	2285	35	14	97	20	0	2286	189	2262	101	N.C.	N.C.	2286	113
Québec-Chaudière-Appalaches	210932	19834	30861	0	0	2911	2911	185	30179	1984	9525	27	7	98	28	0	10406	817	9525	372	N.C.	N.C.	9525	346
Centre-du-Québec	172407	22627	18061	0	0	1788	1788	124	16291	1014	1441	18	3	57	23	0	1441	146	1441	78	N.C.	N.C.	1441	72
Montréal-Laval	243080	28663	118709	2	9	6414	6425	1595	69122	2877	29448	159	45	638	140	0	29459	1173	29612	873	N.C.	N.C.	29141	824
Ouest du Québec	128960	16067	27412	0	7	2211	2218	194	26495	1495	1291	23	2	71	17	0	1290	212	1291	66	N.C.	N.C.	1292	64
Montréal	160719	17867	55068	0	0	3121	3121	286	48660	1914	220	0	0	2	0	0	220	5	220	6	N.C.	N.C.	220	6
Province of Québec	1023581	117503	316600	4	20	20342	20366	2496	209580	10695	44210	262	71	963	228	0	45102	2542	44351	1496	N.C.	N.C.	43905	1425
P.H.O.L. - Ottawa	30948	7863	6722	28	136	66	224	3	6722	355	4710	0	0	0	0	145	4710	21	4710	116	4710	491	4710	213
EOURLA	100180	9324	19886	0	0	1428	1428	61	19886	1340	1665	13	14	61	20	0	1665	58	1665	64	1665	361	1665	102
P.H.O.L. - Kingston	32827	5193	3781	9	92	38	138	3	3778	180	3003	0	0	0	0	159	3004	32	3003	81	3003	394	3003	106
UHN / Mount Sinai Hospital	108748	7896	30428	7	45	366	418	62	30428	326	2522	2	2	65	4	0	2489	9	2522	16	2522	104	2522	99
P.H.O.L. - Toronto	56190	11862	36828	204	2423	157	1200	77	36791	1367	32896	0	0	0	0	1596	32901	720	32893	1110	32896	3712	32893	1399
Sick Kids Hospital - Toronto	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shared Hospital Laboratory	97192	6552	97191	152	1479	732	2363	393	97192	2249	74498	4	0	16	0	986	74511	830	74817	970	74764	2809	74657	1076
P.H.O.L. - Sault Ste. Marie	1910	347	781	1	52	15	58	0	781	25	688	0	0	0	0	54	688	5	688	31	688	58	688	44
P.H.O.L. - Timmins	9650	925	1227	0	161	6	156	0	1225	98	1120	0	0	0	0	56	1120	15	1120	29	1120	103	1120	49
St. Joseph's - London	132325	15715	21614	0	0	886	886	76	21614	1016	2775	0	0	0	0	96	2809	93	2809	74	2809	381	2398	108
P.H.O.L. - London	40513	8341	13303	19	587	63	651	28	13302	891	10885	0	0	0	0	576	10886	153	10886	267	10885	1194	10886	330
P.H.O.L. - Orillia	764	302	2720	6	261	23	290	16	2720	238	2631	0	0	0	0	157	2632	90	2631	83	2631	404	2631	108
P.H.O.L. - Thunder Bay	9034	1809	1285	0	107	3	110	0	1284	96	1125	0	0	0	0	38	1125	21	1125	29	1125	153	1126	40
P.H.O.L. - Sudbury	2239	332	921	1	65	14	67	0	921	79	800	0	0	0	0	30	800	9	800	51	800	67	800	25
P.H.O.L. - Hamilton	28203	7335	11019	38	305	92	418	41	11016	560	8418	0	0	0	0	377	8420	230	8418	268	8418	891	8418	302
P.H.O.L. - Peterborough	5780	1062	2225	5	69	11	85	19	2223	118	1857	0	0	0	0	80	1857	60	1857	50	1857	368	1857	50
St. Joseph's - Hamilton	115001	14464	62728	0	0	2786	2786	532	62728	2312	62728	0	0	1191	0	0	62728	1060	62728	976	62728	4019	0	0
Sault Area Hospital	13299	2184	9200	1	262	258	521	8	9200	173	3359	38	9	74	4	0	3359	62	3359	101	3359	378	3376	88
Province of Ontario	784803	101506	321859	471	6044	6944	11799	1319	321811	11423	215680	57	25	1407	28	4350	215704	3468	216031	4316	215980	15887	152750	4139
Manitoba	84112	12683	53509	18	205	1820	2043	87	53509	1814	6310	49	58	179	16	0	6300	194	6930	229	6310	1160	6930	225
Saskatchewan	182305	14257	49015	7	41	3997	4045	83	40707	2219	16904	169	137	534	116	0	16906	507	16906	688	16907	2090	16902	549
Alberta	271820	36063	160049	1124	7312	2855	11291	796	143803	7697	55243	405	202	991	155	0	55223	866	53917	1268	54331	5635	55242	1366
Prairies	538237	63003	262573	1149	7558	8672	17379	966	238019	11730	78457	623	397	1704	287	0	78429	1567	77753	2185	77548	8885	79074	2140
British Columbia	263844	28259	158560	616	4366	314	9245	331	150473	8280	36423	452	250	1196	356	6	36391	1320	36391	1222	35199	5532	35219	1213
Yukon	5672	431	1119	3	136	0	142	9	1117	61	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	1824	195	1658	10	147	1	158	5	1658	115	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1658	351	N.C.
Nunavut	5812	402	3538	8	230	3	241	234	3538	167	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	13308	1028	6315	21	513	4	541	248	6313	343	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1658	351	N.C.	N.C.
CANADA	2940022	366363	1188684	2295	19003	45304	68894	5421	1040863	48006	397394	1547	855	5942	1099	4356	396257	9678	397147	9877	353016	33595	333524	9830

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.

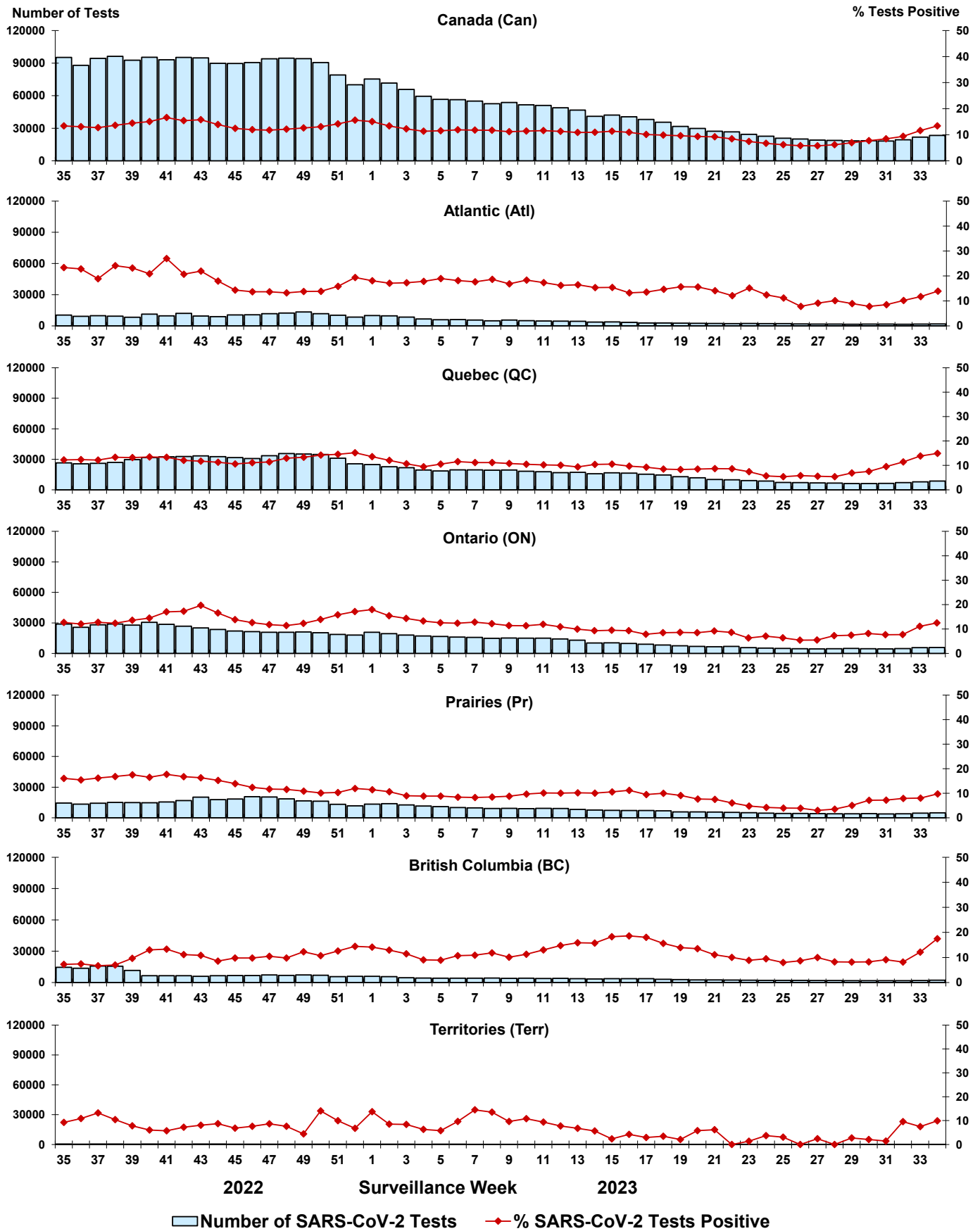
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Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts. Total influenza A and B positive counts are used to calculate percentage of tests positive.

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

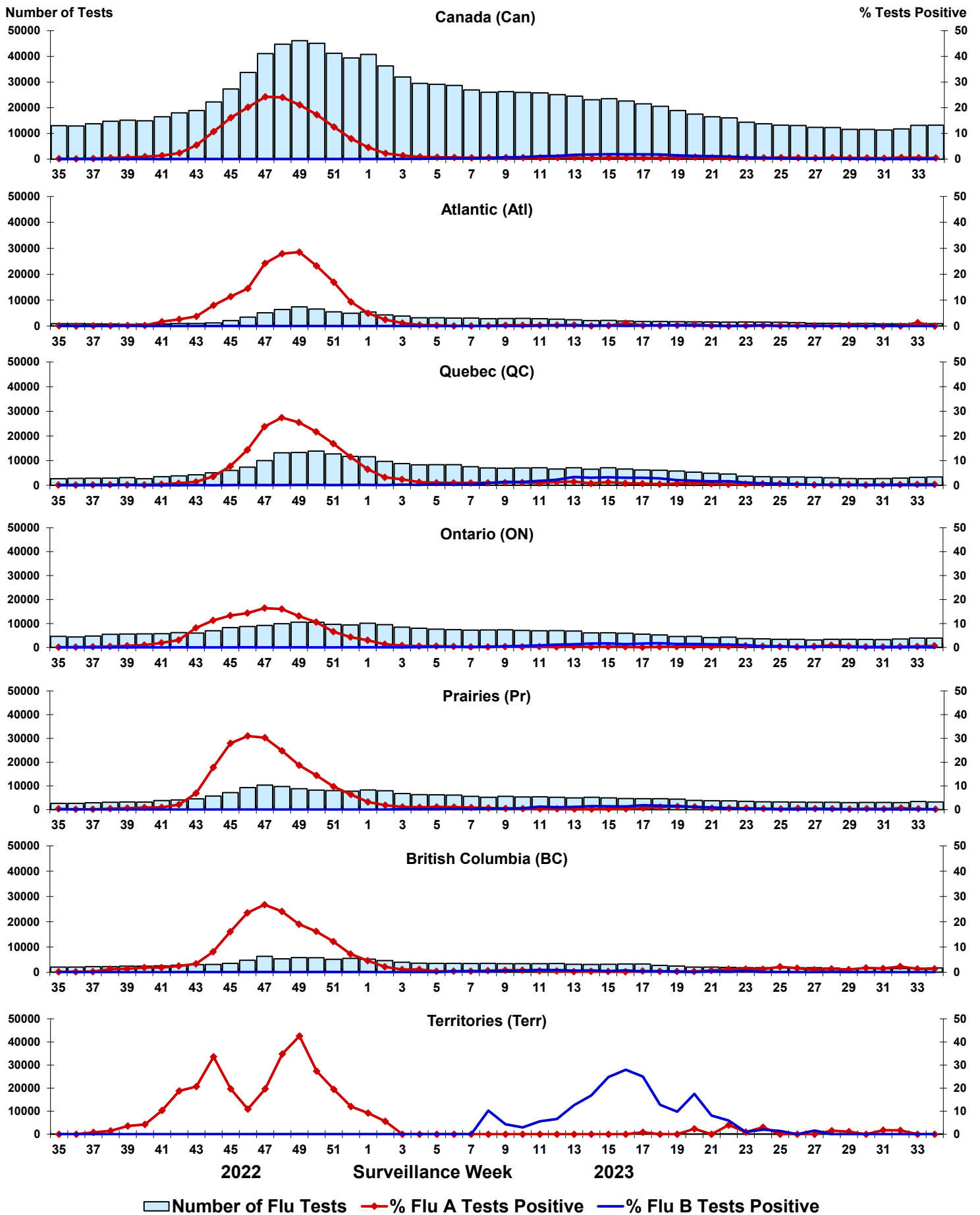


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

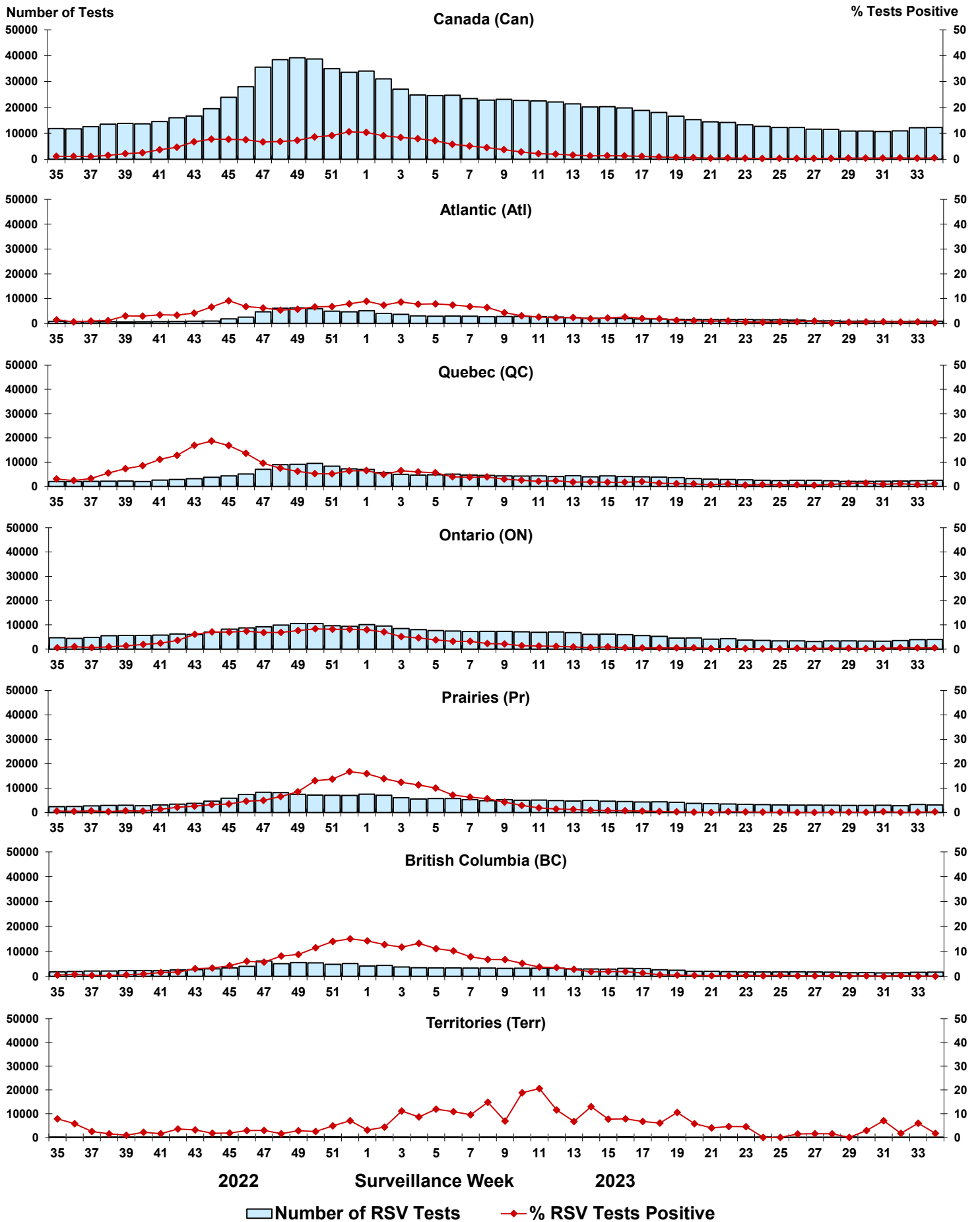


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

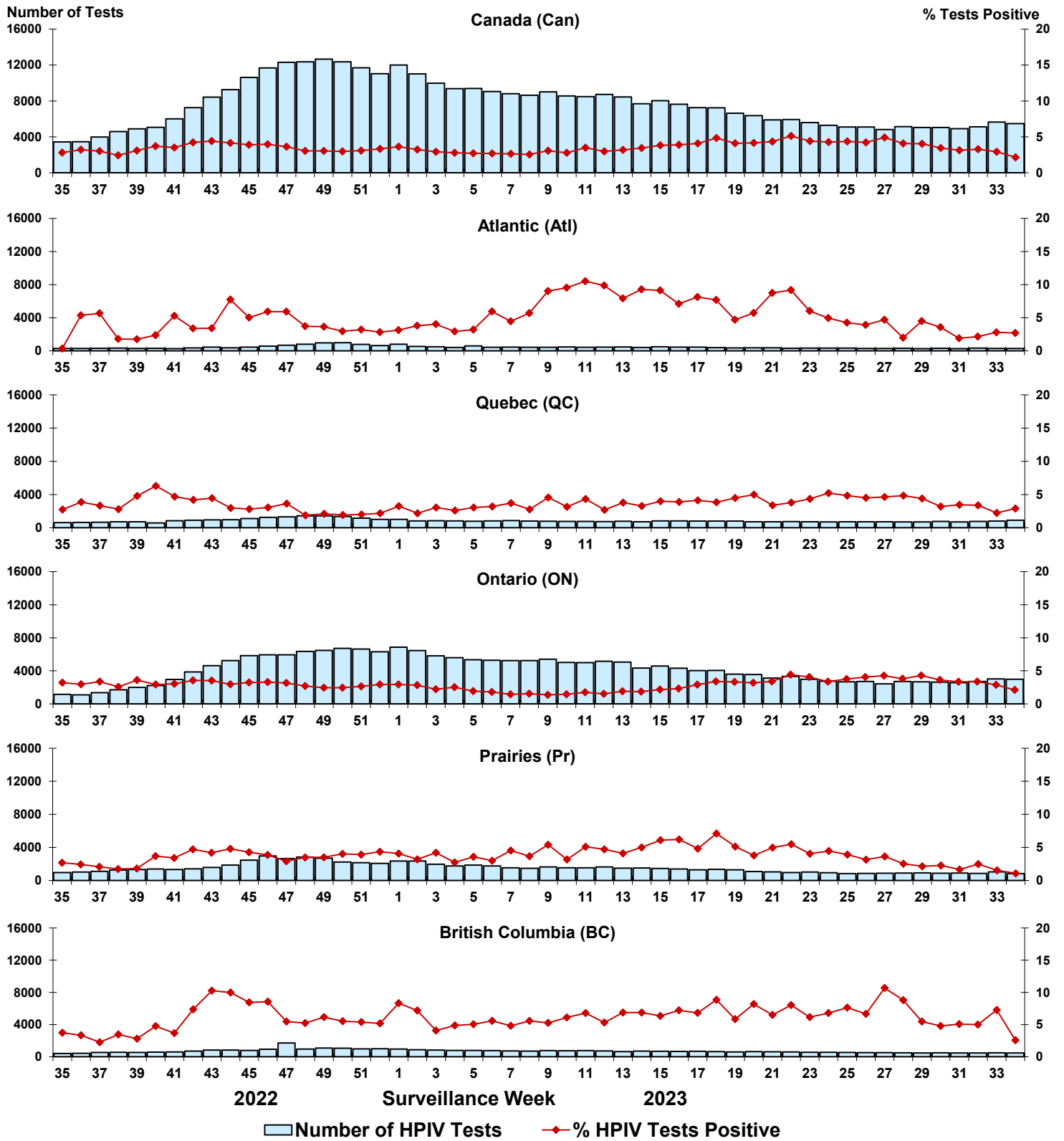


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

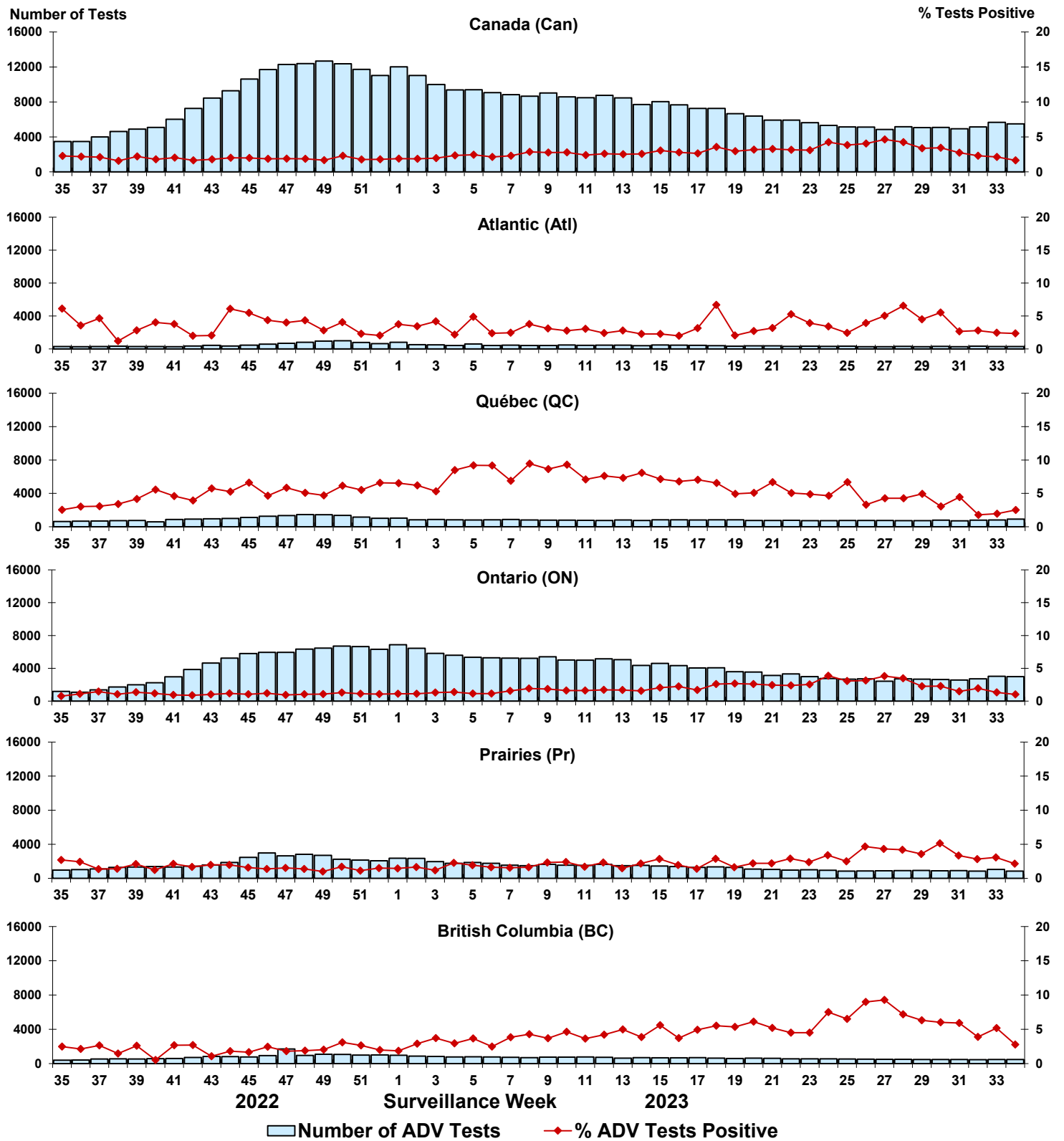


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

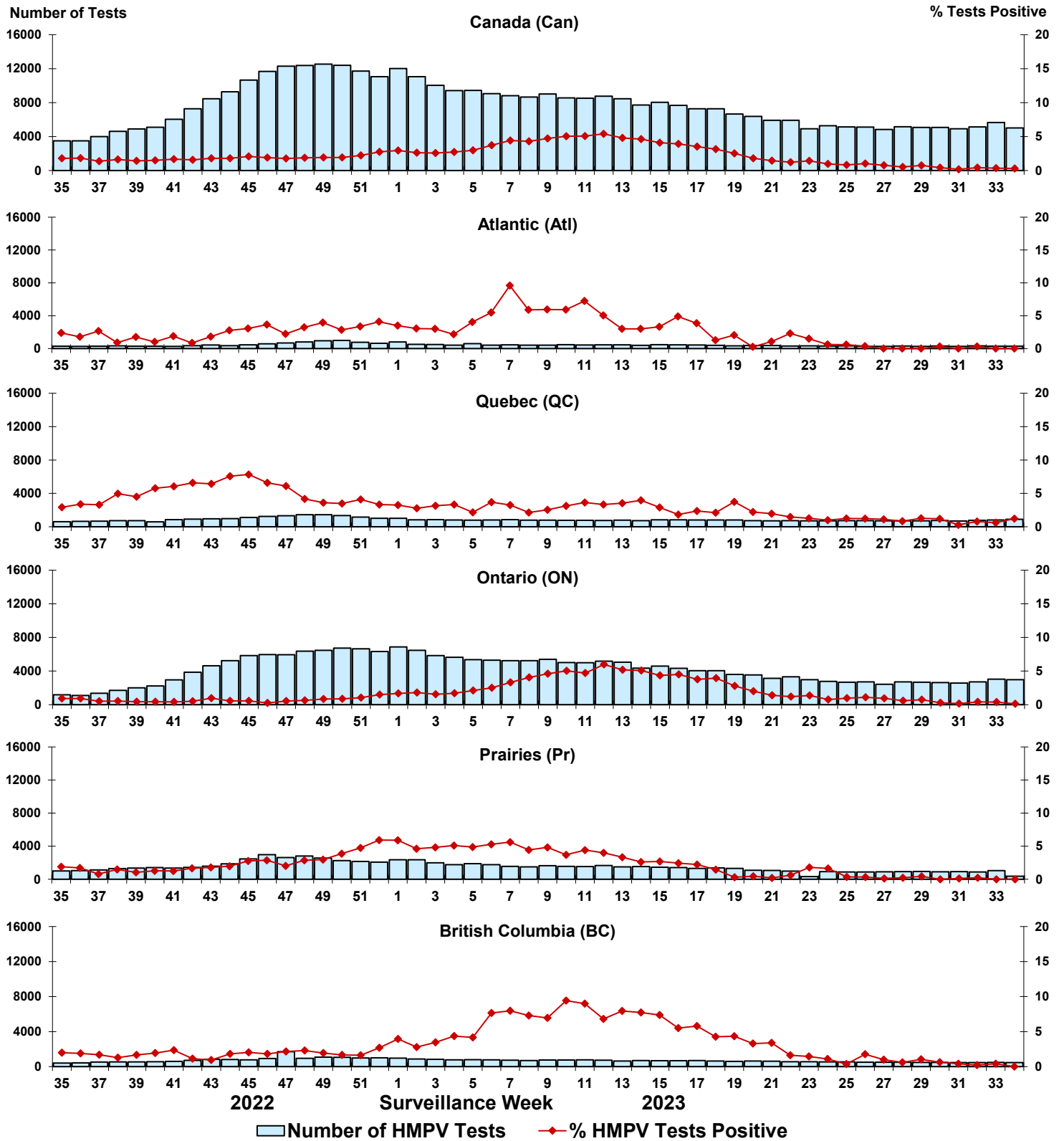


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

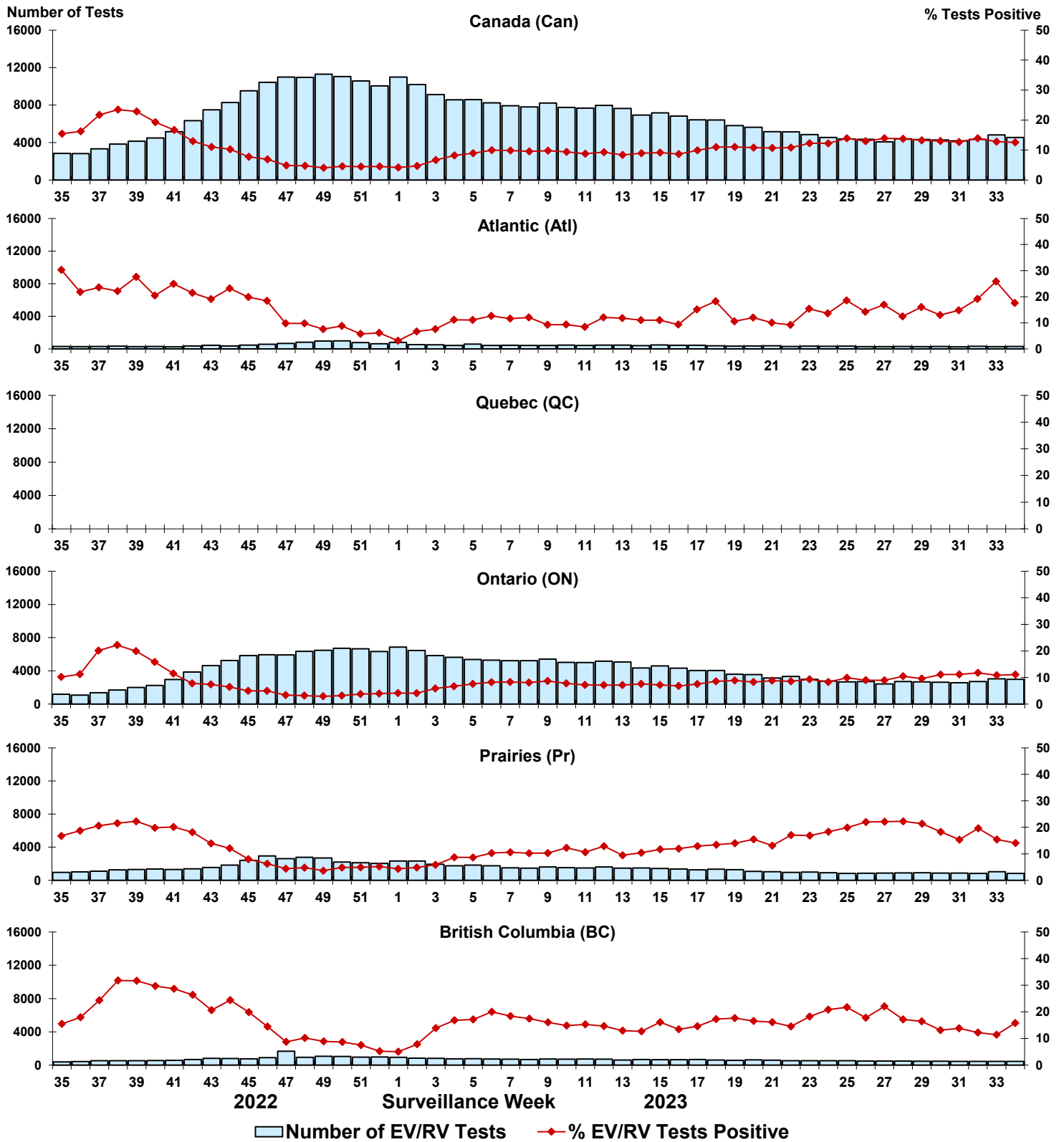


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

