

RESPIRATORY VIRUS DETECTION REPORT

February 5 to February 11, 2023
(Surveillance Week 2023-06)



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 6 (week ending February 11, 2023) in Canada, participating RVDSS laboratories reported 6,570 detections of SARS-CoV-2 from 54,717 tests (12.0% positive). Among non-SARS-CoV-2 respiratory viruses, where test volumes are lower (range of 7,509 to 27,514 tests), activity of nearly all viruses is within or below expected levels.

- Activity of influenza remains low and stable at inter-seasonal levels. Influenza A accounts for the majority of influenza detections in Canada (190 detections; 0.7% positive) compared to influenza B (92 detections; 0.3% positive).
- Activity of respiratory syncytial virus (RSV) is decreasing. Compared to pre-pandemic seasons, RSV activity is now below expected levels typical of this time of year (1,361 detections; 5.7% positive).
- Activity of all other non-SARS-CoV-2 respiratory viruses is 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

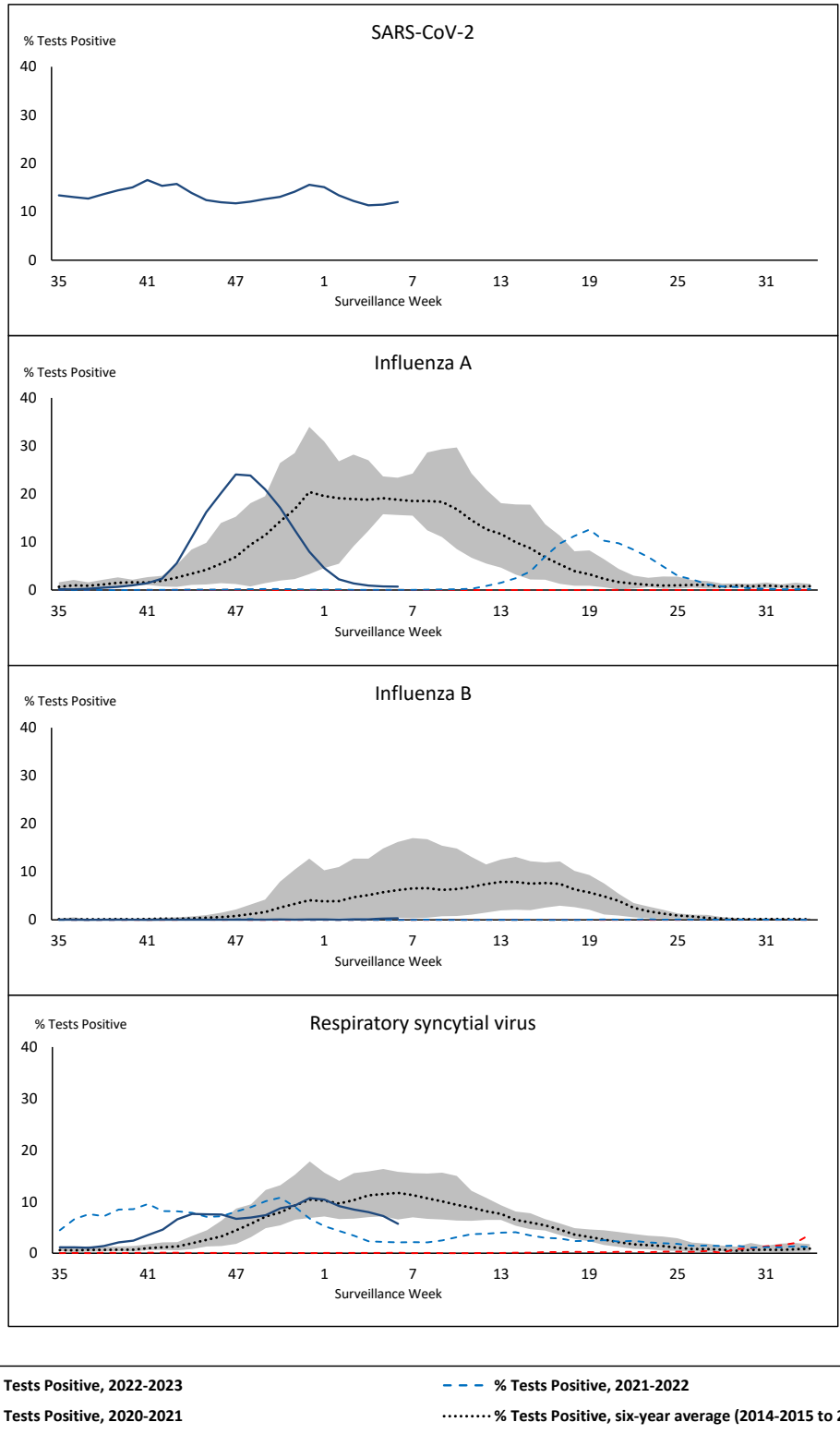
SARS-CoV-2: Severe acute respiratory syndrome coronavirus 2

Terr: Territories of Canada

UHN: University Health Network



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



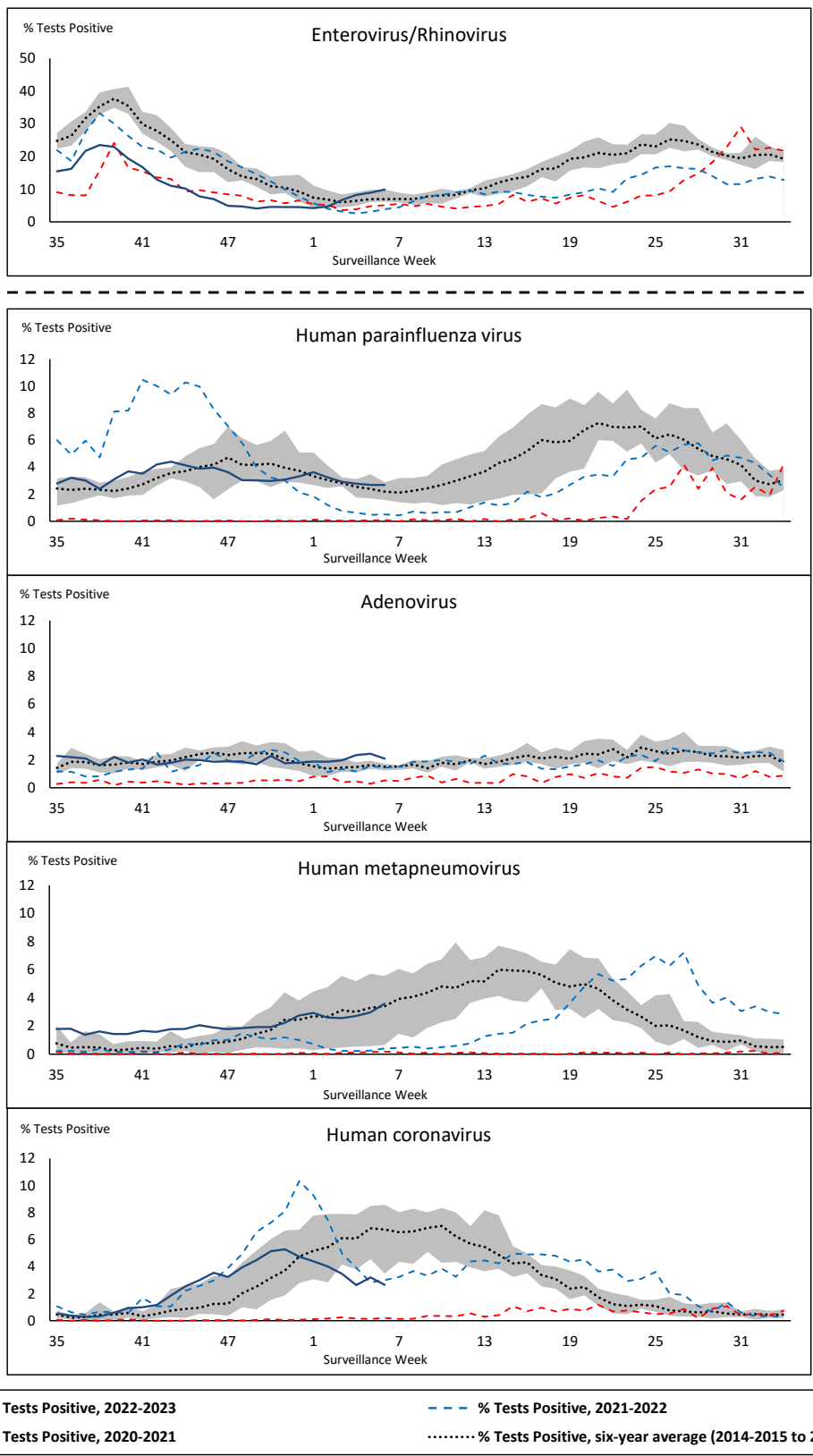
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 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 February 11, 2023 (surveillance week 2023-06)

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	510	58	291	0	0	0	0	0	291	11	291	0	0	20	1	0	291	1	291	8	291	24	291	13	
Prince Edward Island	679	88	115	0	0	0	0	0	115	22	18	0	0	0	0	0	18	1	18	3	18	2	18	0	
Nova Scotia	2642	565	1287	0	0	1	1	1	1287	99	36	0	0	2	0	0	36	1	36	1	36	7	36	3	
New Brunswick	2273	399	1423	0	0	2	2	0	1260	87	75	0	1	1	0	0	75	7	75	11	75	20	75	6	
Atlantic	6104	1110	3116	0	0	3	3	1	2953	219	420	0	1	23	1	0	420	10	420	23	420	53	420	22	
Région Nord-Est	1973	165	1768	0	1	21	22	2	417	31	38	0	0	3	0	0	38	8	38	3	N.C.	N.C.	38	3	
Québec-Chaudière-Appalaches	4142	405	721	0	0	8	8	0	686	30	186	0	0	4	0	0	199	22	186	7	N.C.	N.C.	186	7	
Centre-du-Québec	3523	468	329	0	0	0	0	2	295	15	30	0	0	2	0	0	30	4	30	2	N.C.	N.C.	30	4	
Montréal-Laval	4511	581	3357	0	0	36	36	25	1793	49	528	0	0	14	1	0	528	33	529	13	N.C.	N.C.	528	34	
Ouest du Québec	2670	329	745	0	0	5	5	5	715	35	28	0	0	2	0	0	28	7	28	5	N.C.	N.C.	28	5	
Montérégie	2831	339	694	0	1	5	5	0	694	17	1	0	0	0	0	0	1	0	1	0	N.C.	N.C.	1	0	
Province of Québec	19650	2287	7614	0	1	75	76	34	4600	177	811	0	0	25	1	0	824	74	812	30	N.C.	N.C.	811	53	
P.H.O.L. - Ottawa	587	108	209	3	0	0	3	0	209	17	131	0	0	0	0	6	131	2	131	1	131	26	131	6	
EOURLA	1842	137	420	0	0	7	7	1	420	19	45	0	0	3	0	0	45	0	45	3	45	6	45	1	
P.H.O.L. - Kingston	766	134	63	0	0	0	0	0	63	5	53	0	0	0	0	1	53	1	53	2	53	5	53	2	
UHN / Mount Sinai Hospital	2239	177	726	0	0	0	0	1	726	7	128	0	0	2	0	0	128	0	128	2	128	4	128	2	
P.H.O.L. - Toronto	852	220	765	1	1	0	1	6	764	48	677	0	0	0	0	23	677	11	677	15	677	82	677	25	
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	2113	116	2113	3	1	3	7	8	2114	31	2107	0	0	0	0	12	2107	16	2124	33	2124	119	2124	19	
P.H.O.L. - Sault Ste. Marie	39	12	18	0	0	0	0	0	18	1	16	0	0	0	0	1	16	0	16	0	16	0	16	3	
P.H.O.L. - Timmins	186	12	19	0	0	0	0	0	19	9	18	0	0	0	0	1	18	0	18	0	18	0	18	0	
St. Joseph's - London	2885	322	757	0	0	2	2	2	757	17	43	0	0	0	0	0	43	1	43	0	43	7	43	0	
P.H.O.L. - London	836	175	413	1	2	1	4	1	413	37	269	0	0	0	0	14	269	2	269	9	269	39	269	2	
P.H.O.L. - Orillia	2	0	41	0	0	0	0	0	41	2	41	0	0	0	0	1	41	1	41	8	41	8	41	1	
P.H.O.L. - Thunder Bay	172	24	33	0	0	0	0	0	33	6	27	0	0	0	0	0	27	1	27	1	27	0	27	0	
P.H.O.L. - Sudbury	35	10	20	0	0	0	0	0	20	3	20	0	0	0	0	0	20	0	20	1	20	1	20	0	
P.H.O.L. - Hamilton	480	146	285	0	1	1	1	0	285	7	196	0	0	0	0	3	196	7	196	6	196	29	196	5	
P.H.O.L. - Peterborough	146	19	31	0	0	0	0	0	31	1	19	0	0	0	0	1	19	0	19	0	19	1	19	0	
St. Joseph's - Hamilton	2591	316	1414	0	1	7	7	5	1414	24	1414	0	0	26	0	0	1414	18	1414	51	1414	103	0	0	
Sault Area Hospital	255	56	126	0	2	0	2	0	126	5	69	0	0	1	0	0	69	0	69	0	69	4	69	4	
Province of Ontario	16026	1984	7453	8	6	21	34	24	7453	239	5273	0	0	32	0	63	5273	60	5290	132	5290	434	3876	70	
Manitoba	1532	157	1325	0	1	5	6	0	1325	64	106	0	0	3	0	0	106	0	111	5	106	7	111	5	
Saskatchewan	2840	178	1007	0	0	6	6	0	898	106	364	2	0	17	0	0	364	11	364	16	364	43	363	6	
Alberta	4168	388	3377	19	2	30	51	21	3133	202	1221	8	0	21	0	0	1219	16	1218	56	1207	122	1221	19	
Prairies	8540	723	5709	19	3	41	63	21	5356	372	1691	10	0	41	0	0	1689	27	1693	77	1677	172	1695	30	
British Columbia	4138	444	3502	0	2	0	14	12	3327	341	737	5	3	31	4	0	737	16	737	59	707	138	707	23	
Yukon	101	5	24	0	0	0	0	0	24	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.	
Northwest Territories	47	9	44	0	0	0	0	0	44	6	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	44	7	N.C.	N.C.
Nunavut	111	8	52	0	0	0	0	0	52	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	259	22	120	0	0	0	0	0	120	13	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	44	7	N.C.	N.C.	
CANADA	54717	6570	27514	27	12	140	190	92	23809	1361	8932	15	4	152	6	63	8943	187	8952	321	8138	804	7509	198	

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

Delays in the reporting of data may cause data to change retrospectively.

Table 2: Cumulative respiratory virus detections from August 28, 2022 to February 11, 2023 (surveillance weeks 2022-35 to 2023-06)

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	14261	2786	7855	1	246	667	914	0	7855	293	7855	10	29	92	20	0	7855	158	7855	275	7855	626	7855	294	
Prince Edward Island	26557	6297	2559	1	119	240	360	0	2559	245	1027	15	25	75	6	0	1027	60	1027	20	1027	319	1027	31	
Nova Scotia	103612	21087	28609	0	4	3609	3613	2	28599	2136	941	4	16	24	3	0	944	37	934	7	944	183	944	31	
New Brunswick	89694	12795	34528	4	132	4402	4538	6	27354	1735	2536	4	22	123	7	0	2536	186	2536	64	2536	466	2481	154	
Atlantic	234124	42965	73551	6	501	8918	9425	8	66367	4409	12359	33	92	314	36	0	12362	441	12352	366	12362	1594	12307	510	
Région Nord-Est	66394	8661	35000	0	3	3604	3607	10	11627	1161	907	7	3	55	0	0	907	58	899	61	N.C.	N.C.	907	46	
Québec-Chaudière-Appalaches	143755	14154	18277	0	0	2785	2785	12	17885	1771	5023	21	5	47	0	0	5325	366	5023	247	N.C.	N.C.	5023	201	
Centre-du-Québec	114563	16275	12204	0	0	1745	1745	18	10492	869	651	13	0	28	2	0	651	57	651	60	N.C.	N.C.	651	33	
Montréal-Laval	157562	20729	65923	0	9	5977	5986	156	35541	2359	15331	123	13	286	11	0	15340	652	15443	639	N.C.	N.C.	15016	491	
Ouest du Québec	87901	12000	15817	0	7	2154	2161	16	13774	1168	781	20	0	58	1	0	780	146	781	47	N.C.	N.C.	782	39	
Montérégie	111928	13218	16250	0	0	1635	1635	13	15635	999	90	0	0	2	0	0	90	2	90	4	N.C.	N.C.	90	2	
Province of Québec	682103	85037	163471	0	19	17900	17919	225	104954	8327	22783	184	21	476	14	0	23093	1281	22887	1058	N.C.	N.C.	22469	812	
P.H.O.L. - Ottawa	23259	5856	3608	17	134	65	211	0	3608	295	2548	0	0	0	0	64	2548	10	2548	36	2548	183	2548	90	
EOURLA	67385	7141	11629	0	0	1386	1386	5	11629	1219	926	8	3	40	16	0	926	43	926	29	926	205	926	62	
P.H.O.L. - Kingston	23882	4048	1966	2	88	38	128	1	1965	169	1632	0	0	0	0	67	1633	22	1633	26	1632	170	1633	57	
UHN / Mount Sinai Hospital	73153	5881	15402	4	43	345	392	17	15402	246	1180	0	0	6	0	0	1147	4	1180	3	1180	37	1180	52	
P.H.O.L. - Toronto	44400	9509	18989	83	2395	141	1093	8	18959	1130	16476	0	0	0	0	684	16479	259	16476	234	16476	1309	16476	685	
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	61948	4651	61950	71	1455	719	2245	35	61950	2054	39153	4	0	16	0	453	39166	348	39405	282	39353	1234	39245	608	
P.H.O.L. - Sault Ste. Marie	1450	287	484	1	52	15	58	0	484	14	422	0	0	0	0	42	422	1	422	26	422	16	422	16	
P.H.O.L. - Timmins	7379	774	775	0	161	6	156	0	774	79	752	0	0	0	0	43	752	12	752	11	752	50	752	32	
St. Joseph's - London	97512	12688	12695	0	0	872	872	20	12695	937	1380	0	0	0	0	50	1414	45	1414	7	1414	206	1002	61	
P.H.O.L. - London	28892	6288	7732	10	583	62	637	6	7731	790	6292	0	0	0	0	327	6293	74	6293	69	6292	465	6293	231	
P.H.O.L. - Orillia	467	235	1829	6	260	23	289	0	1829	220	1770	0	0	0	0	109	1770	35	1770	46	1770	233	1770	89	
P.H.O.L. - Thunder Bay	7159	1505	788	0	107	3	110	0	787	84	693	0	0	0	0	32	693	16	693	10	693	45	693	16	
P.H.O.L. - Sudbury	1732	261	583	1	65	14	67	0	583	60	482	0	0	0	0	20	482	5	482	18	482	30	482	20	
P.H.O.L. - Hamilton	21379	5679	6480	7	299	92	398	11	6477	495	4638	0	0	0	0	193	4640	62	4638	58	4638	402	4638	168	
P.H.O.L. - Peterborough	3657	645	938	0	64	9	73	0	938	98	769	0	0	0	0	28	769	7	769	27	769	102	769	27	
St. Joseph's - Hamilton	71724	10947	30668	0	0	2690	2690	20	30668	2176	30668	0	0	828	0	0	30668	279	30668	255	30668	2082	0	0	
Sault Area Hospital	10467	1807	6652	1	262	256	519	0	6652	83	1980	35	0	46	2	0	1980	36	1980	88	1980	195	1980	48	
Province of Ontario	545845	78202	183168	203	5968	6736	11324	123	183131	10149	111761	47	3	936	18	2112	111782	1258	112049	1225	111995	6964	80809	2262	
Manitoba	51666	9233	26603	16	200	1757	1973	2	26603	1457	3916	4	4	139	6	0	3906	113	4035	166	3916	578	4035	157	
Saskatchewan	135011	10913	30450	2	41	3838	3881	8	23395	1740	10036	33	40	457	8	0	10039	244	10041	530	10039	888	10035	352	
Alberta	176819	28428	89718	896	7273	2746	10915	83	77225	7011	31342	173	62	652	34	0	31329	370	31293	784	30815	2749	31342	900	
Prairies	363496	48574	146771	914	7514	8341	16769	93	127223	10208	45294	210	106	1248	48	0	45274	727	45369	1480	44770	4215	45412	1409	
British Columbia	185055	18185	91170	339	4326	298	8720	62	85007	6792	19497	149	164	712	131	6	19485	445	19485	488	18911	2921	18908	762	
Yukon	4243	284	579	2	136	0	138	0	576	28	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	1323	159	1212	2	147	1	150	0	1212	73	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1212	245	N.C.	N.C.
Nunavut	3402	326	1734	3	230	3	236	0	1734	43	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	8968	769	3525	7	513	4	524	0	3522	144	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1212	245	N.C.	N.C.	
CANADA	2019591	273732	661656	1469	18841	42197	64681	511	570204	40029	211694	623	386	3686	247	2118	211996	4152	212142	4617	189250	15939	179905	5755	

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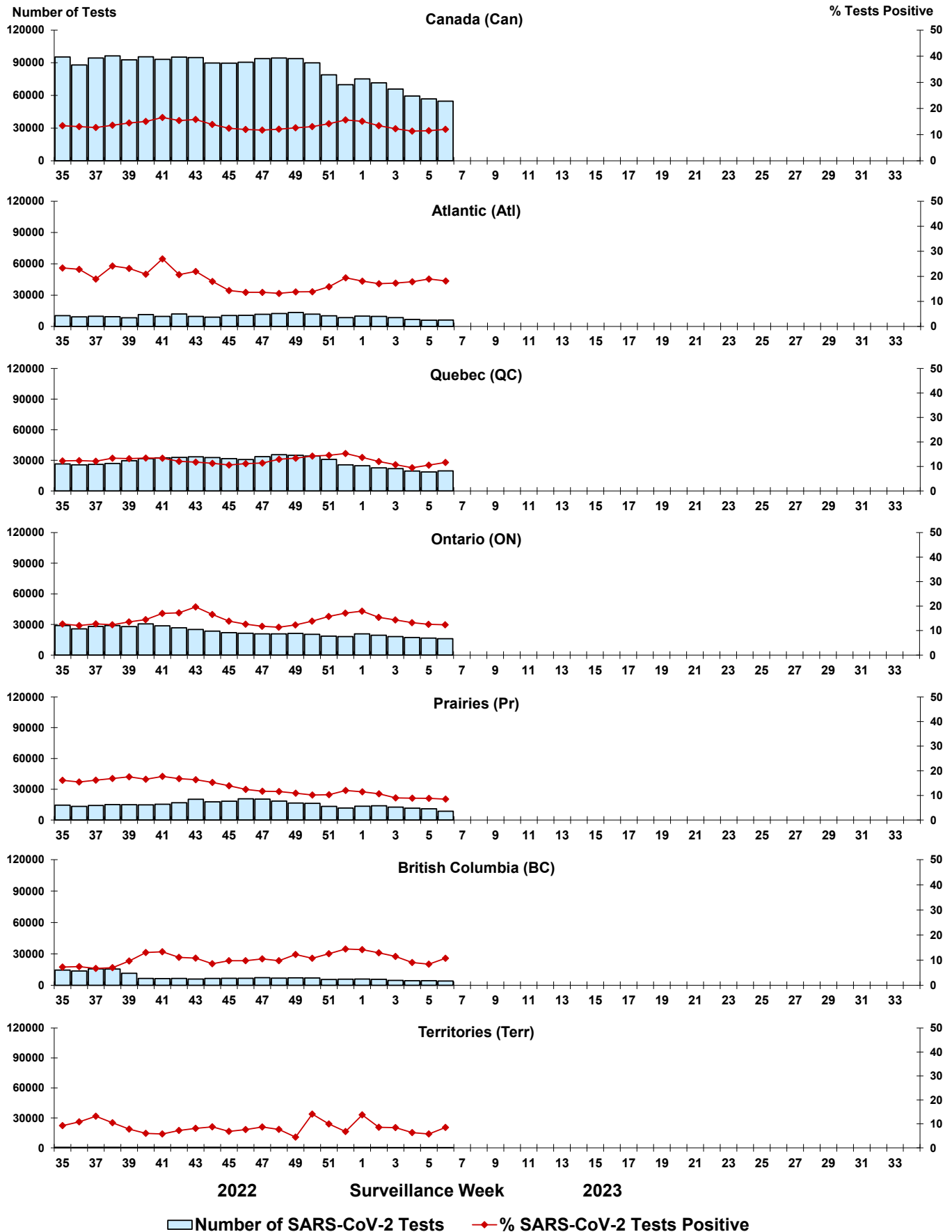
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Due to different testing protocols of laboratories across Canada, influenza A subtype detection counts may not be included in total influenza A detection counts. Total influenza A and B positive counts are used to calculate percentage of tests

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

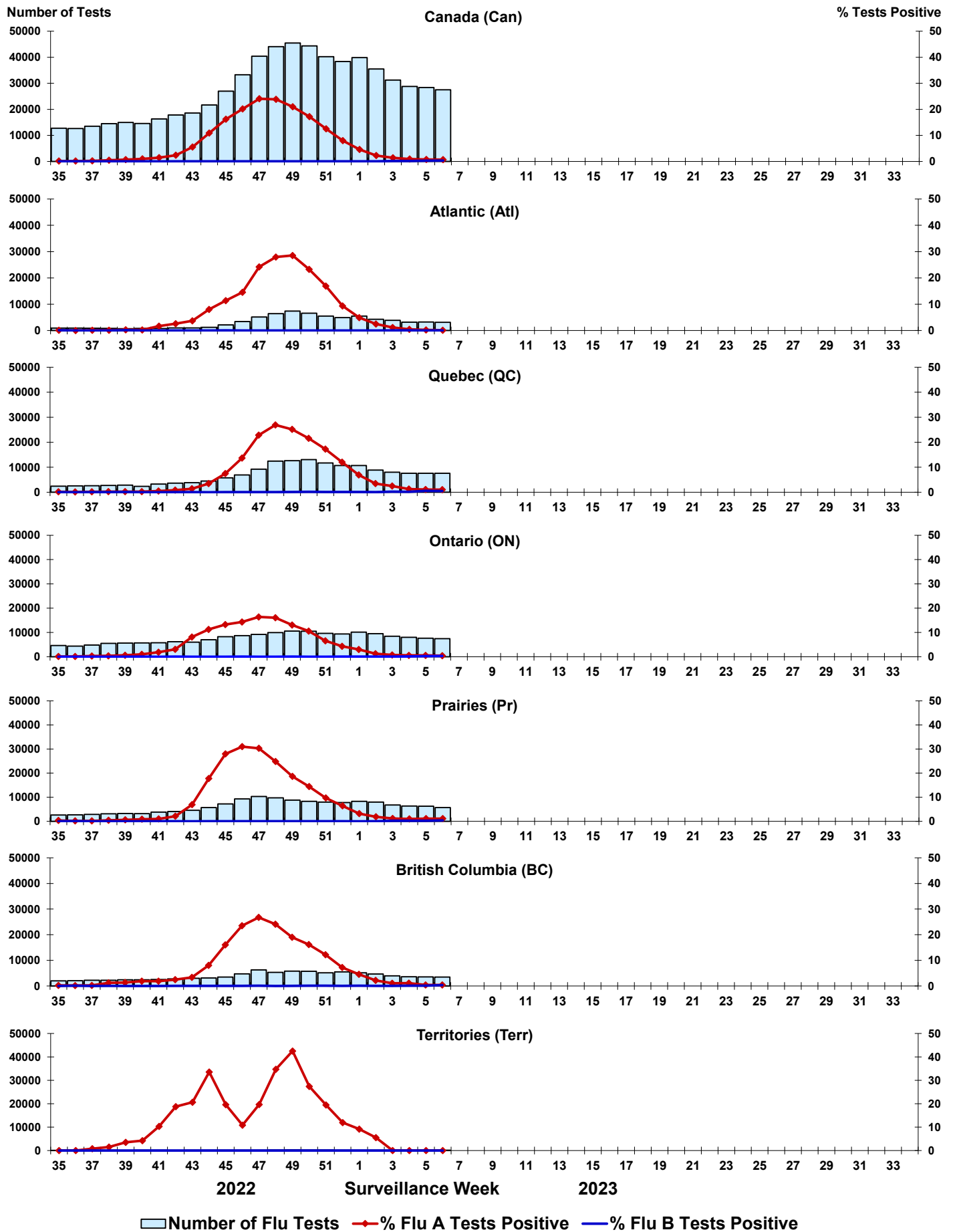


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

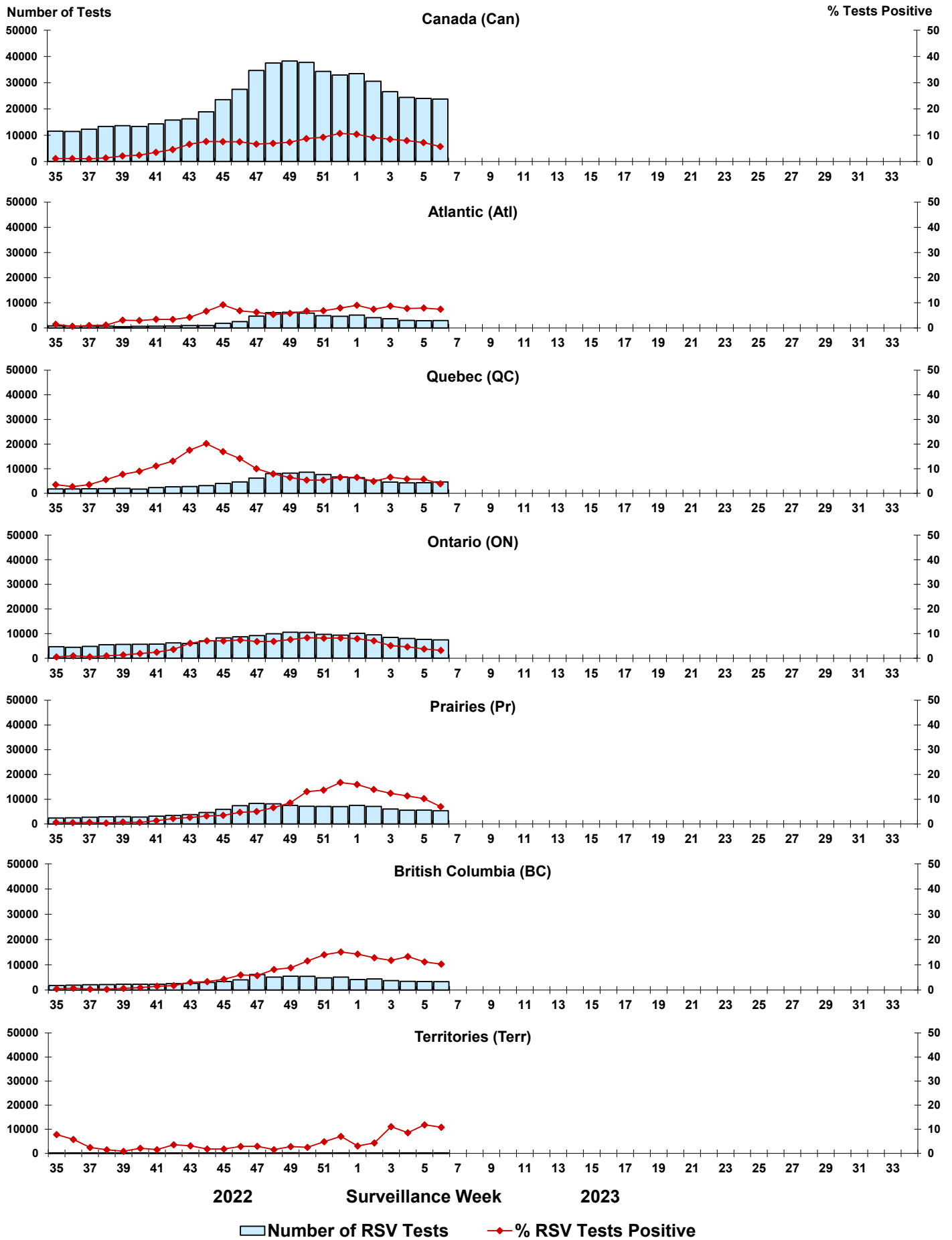


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

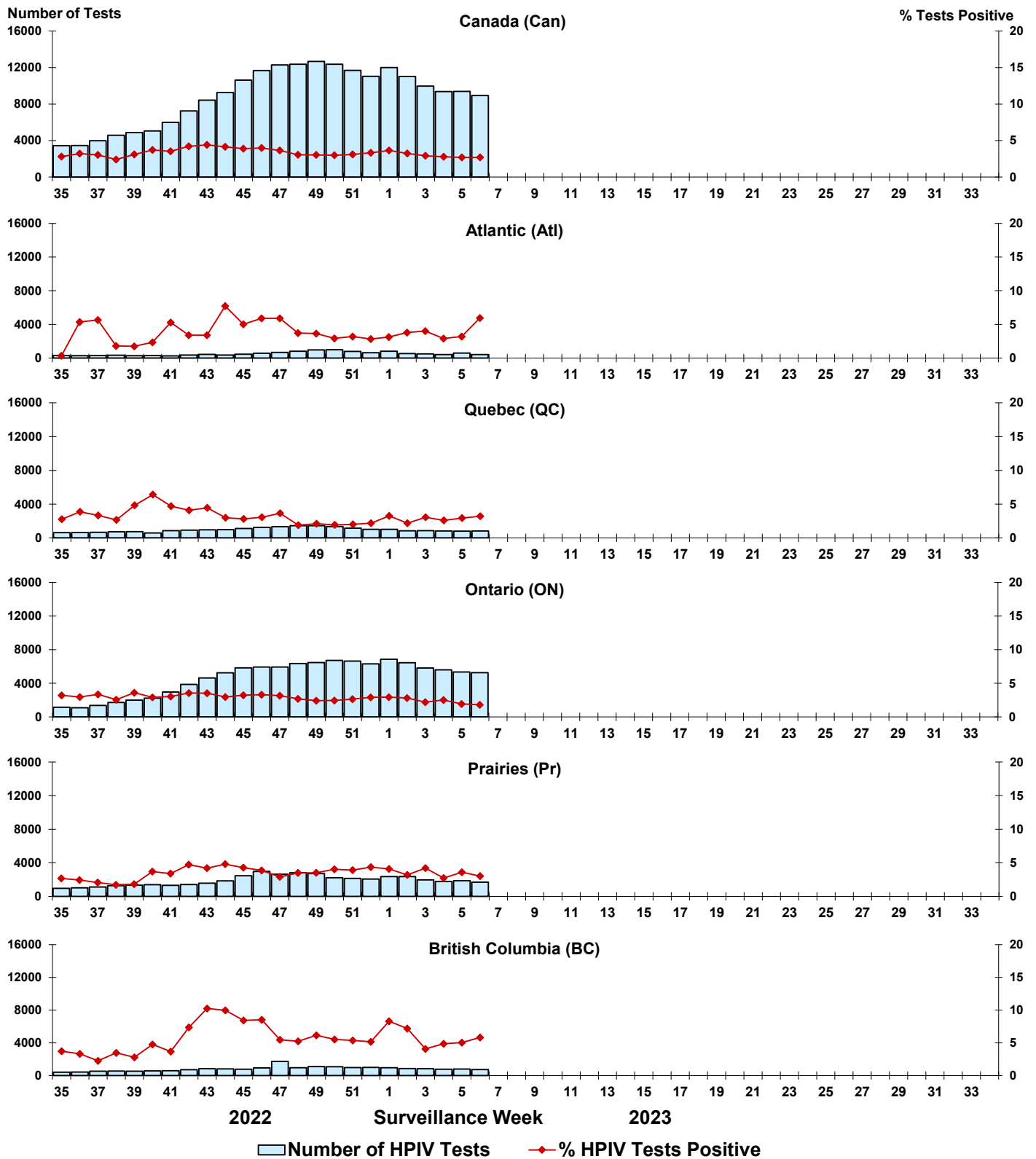


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

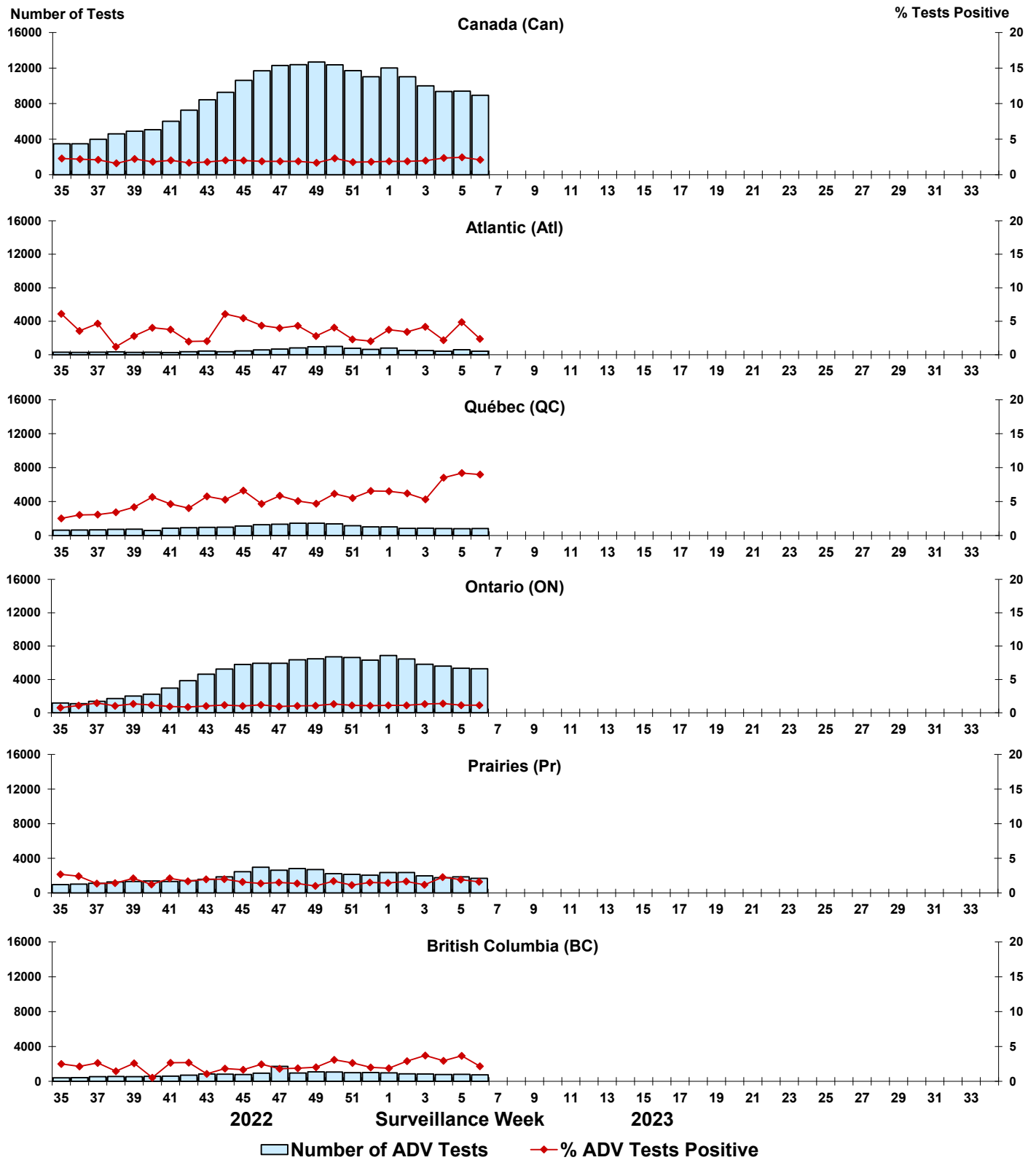


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

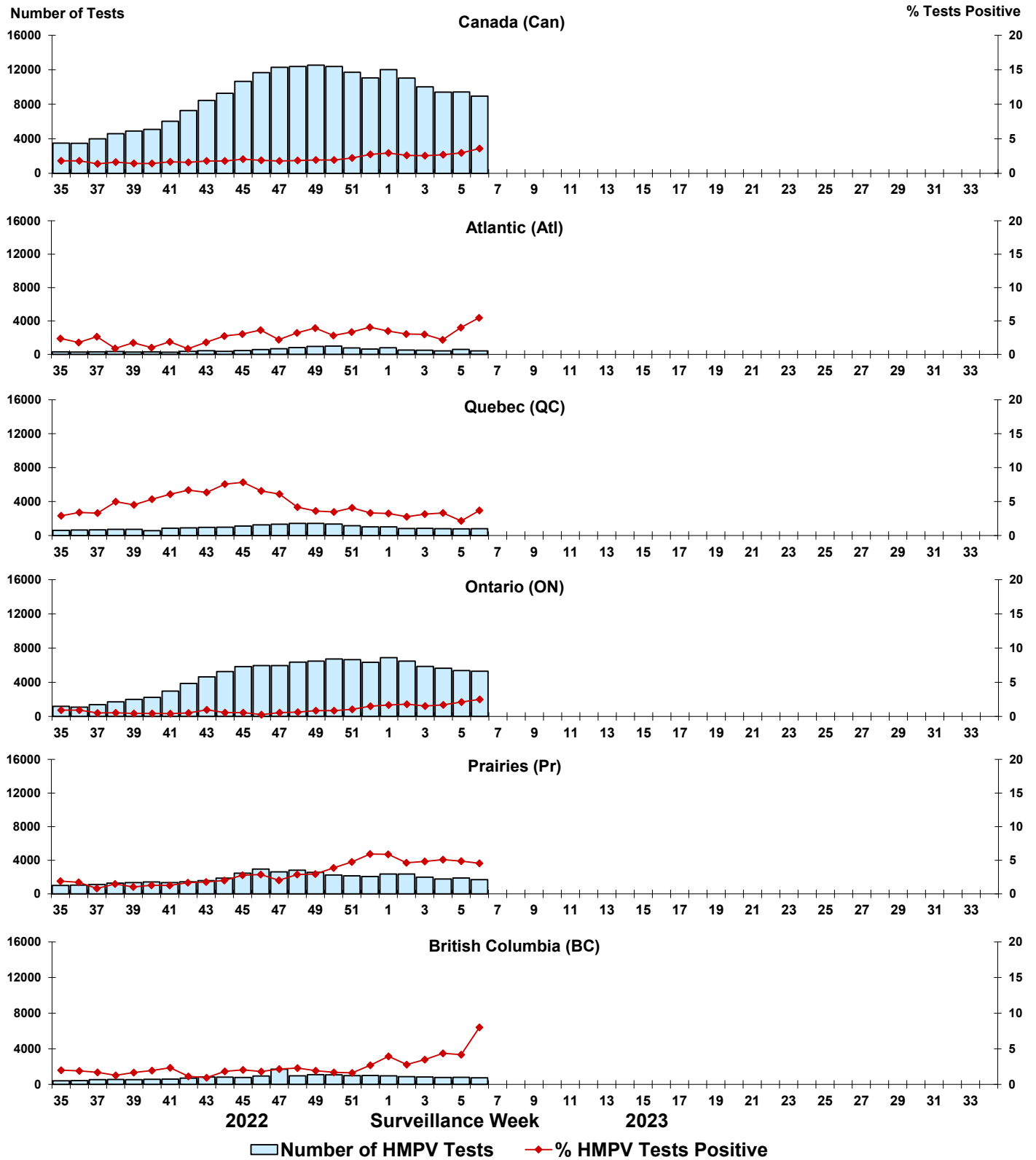


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

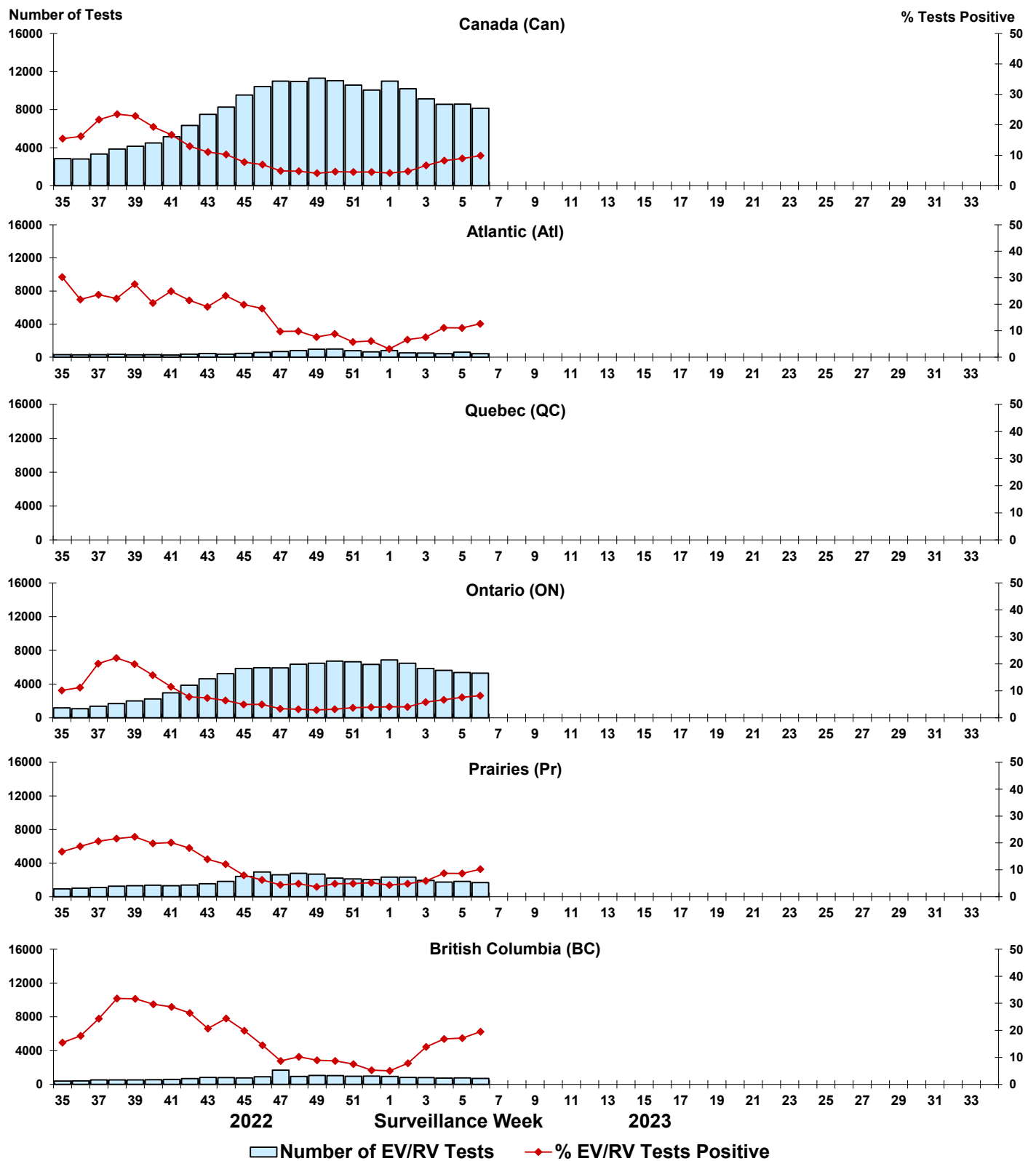


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

