

RESPIRATORY VIRUS DETECTION REPORT

April 14 to April 20, 2024
(Surveillance Week 2024-16)



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 16 (week ending April 20, 2024) in Canada, percent positivity is currently highest for enterovirus/rhinovirus among respiratory viruses under surveillance. The following results were reported from RVDSS laboratories:

- Following several months of decrease, national SARS-CoV-2 percent positivity is currently stable (1,280 detections; 4.8% positive) and below the most recent peak recorded in November 2023 (19.3% positive).
- Influenza percent positivity is decreasing (1,647 detections; 6.4% positive) as percent positivity has decreased in recent weeks for both influenza A (348 detections; 1.3% positive) and influenza B (1,299 detections; 5.0% positive).
- RSV percent positivity is stable (373 detections; 1.7% positive).
- Percent positivity of all other non-SARS-CoV-2 respiratory viruses is near expected levels typical of this time of year.
- 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

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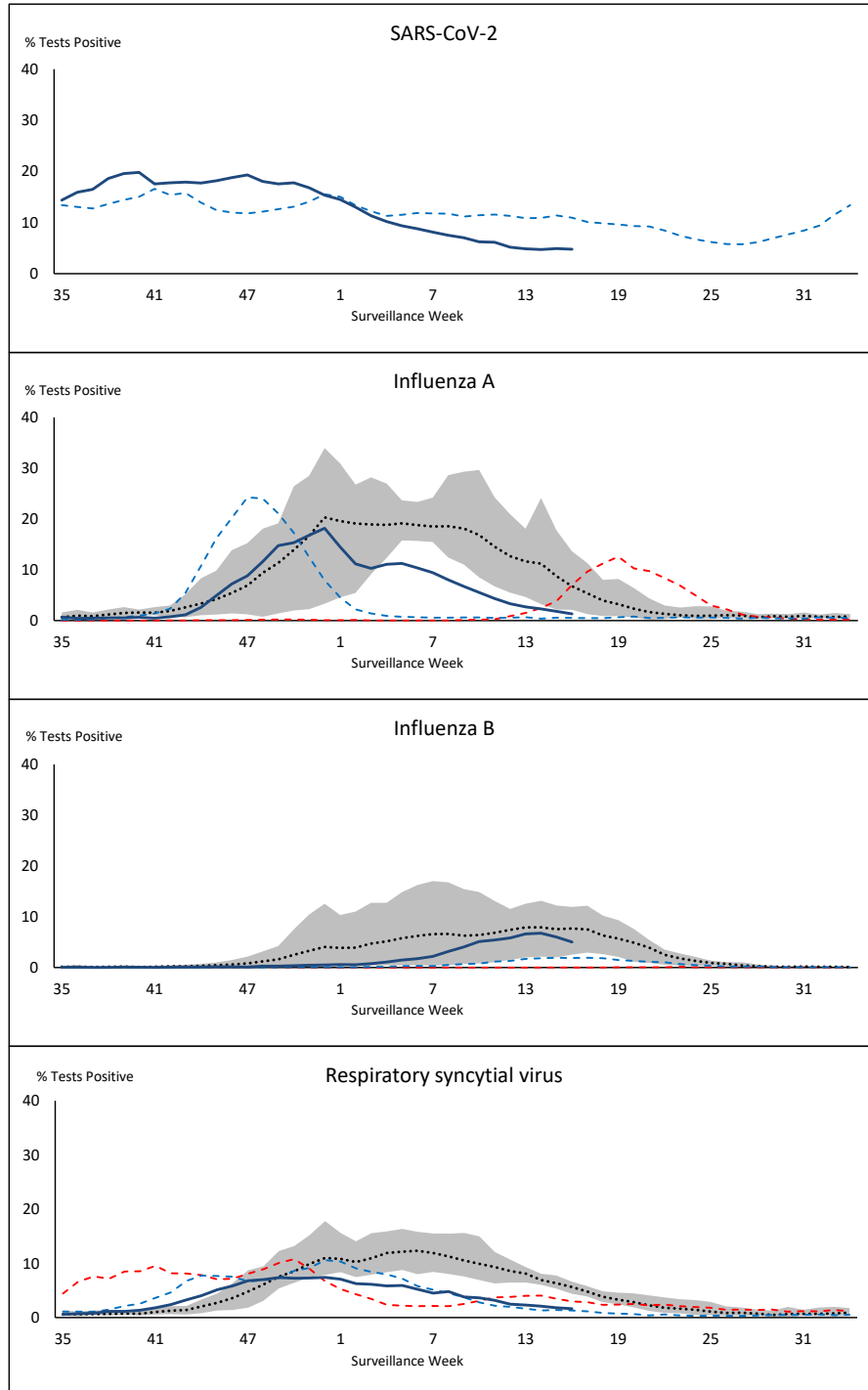


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Figure 1: Positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), influenza, and respiratory syncytial virus tests (%) reported by participating laboratories in Canada by surveillance week compared to average and range from 2014-2015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

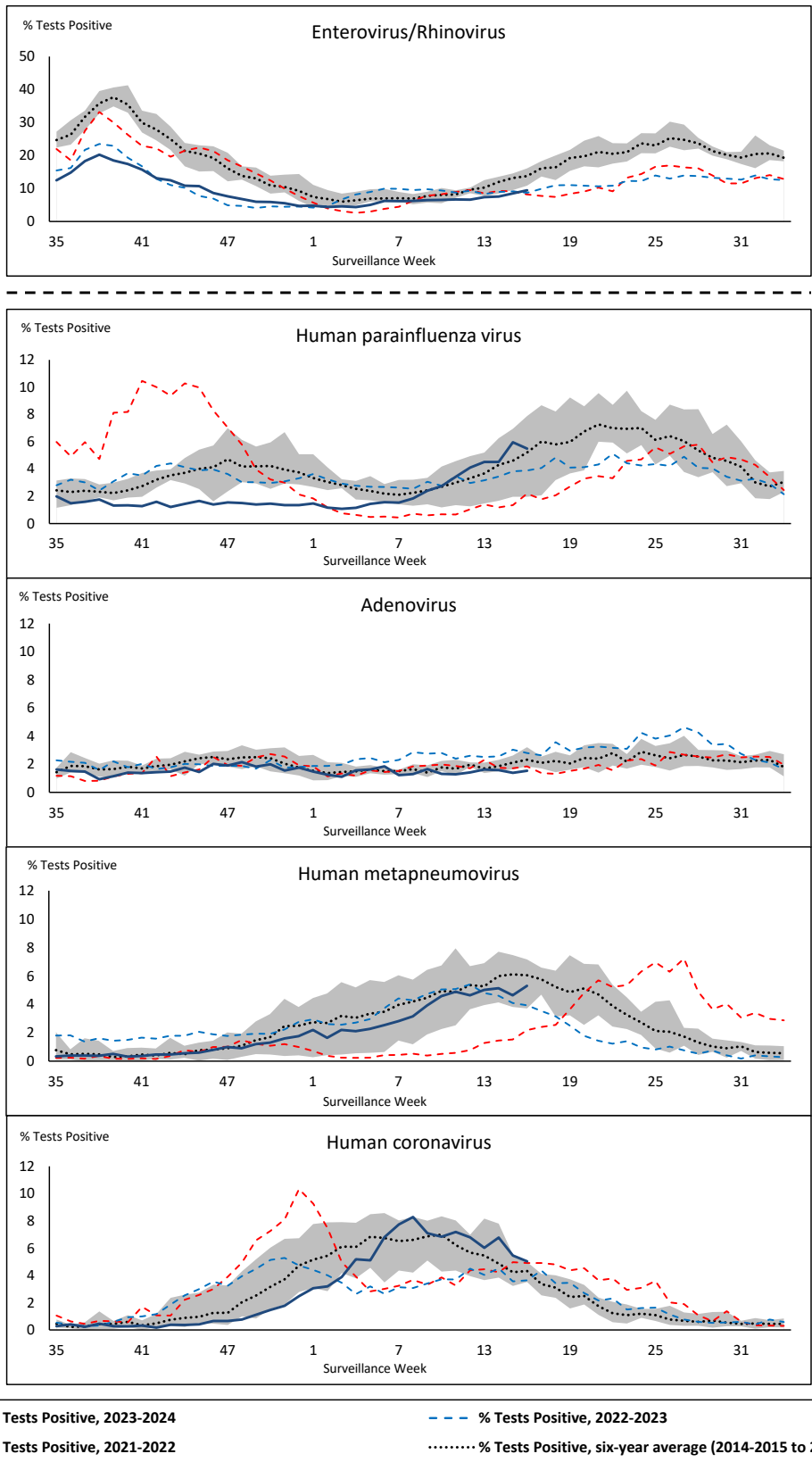
Shaded area represents the maximum and minimum % of respiratory virus tests positive reported by week from seasons 2014-2015 to 2019-2020

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 April 20, 2024 (surveillance week 2024-16)

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	582	70	437	0	0	7	7	7	437	16	437	1	1	30	0	0	437	9	437	31	437	36	437	29
Prince Edward Island	108	5	98	0	0	0	0	6	98	1	14	0	0	3	0	0	14	0	14	0	14	5	14	0
Nova Scotia	1325	80	1393	0	0	61	61	62	985	15	35	0	0	1	0	0	35	1	35	1	35	4	35	6
New Brunswick	955	38	950	3	1	0	4	59	950	11	82	0	0	8	0	0	82	4	82	3	82	21	82	1
Atlantic	2970	193	2878	3	1	68	72	134	2470	43	568	1	1	42	0	0	568	14	568	35	568	66	568	36
Région Nord-Est	1251	29	1294	0	0	0	0	136	645	21	99	0	0	5	0	0	99	4	95	10	N.C.	N.C.	99	7
Québec-Chaudière-Appalaches	1283	44	1599	0	0	13	13	140	1508	33	651	0	0	5	0	0	668	11	651	43	N.C.	N.C.	494	30
Centre-du-Québec	1580	30	1470	0	0	17	17	104	645	19	22	0	0	1	0	0	22	0	22	1	N.C.	N.C.	22	0
Montréal-Laval	1734	44	2326	0	0	35	35	123	1401	42	797	0	0	38	1	0	797	18	801	60	N.C.	N.C.	797	26
Ouest du Québec	1049	21	681	0	0	15	15	42	679	4	22	0	0	1	0	0	22	3	22	6	N.C.	N.C.	22	0
Montérégie	1024	21	1237	0	0	11	11	52	1234	29	9	0	0	0	0	0	9	0	9	0	N.C.	N.C.	9	0
Province of Québec	7921	189	8607	0	0	91	91	597	6112	148	1600	0	0	50	1	0	1617	36	1600	120	N.C.	N.C.	1443	63
P.H.O.L. - Ottawa	253	42	172	1	0	2	3	3	172	9	108	0	0	0	0	9	108	0	108	12	108	4	108	10
EORLA	762	9	511	0	0	10	10	24	511	7	42	1	0	2	0	0	42	0	42	1	42	4	42	2
P.H.O.L. - Kingston	126	19	113	1	0	0	1	1	113	0	70	0	0	0	0	4	70	1	70	9	70	3	70	10
UHN / Mount Sinai Hospital	870	28	659	0	0	7	7	3	659	3	82	0	0	2	0	0	82	0	82	0	82	4	82	0
P.H.O.L. - Toronto	325	30	874	12	5	14	24	8	874	2	816	0	0	0	0	89	816	9	816	76	816	80	816	69
Sick Kids Hospital - Toronto	96	1	87	1	0	0	1	8	87	0	87	0	0	1	0	0	87	1	87	5	87	34	87	2
Shared Hospital Laboratory	1317	43	971	3	6	1	10	17	971	1	969	0	0	0	0	14	969	6	971	27	971	46	971	11
P.H.O.L. - Sault Ste. Marie	23	0	34	0	0	0	0	1	34	0	21	0	0	0	0	5	21	0	21	0	21	1	21	2
P.H.O.L. - Timmins	19	2	25	1	0	0	1	3	25	0	23	0	0	0	0	2	23	0	23	0	23	1	23	2
St. Joseph's - London	589	9	477	0	0	11	11	7	477	5	69	0	0	0	0	1	69	4	69	4	69	7	65	5
P.H.O.L. - London	241	25	218	5	3	0	4	6	218	2	202	0	0	0	0	18	202	2	202	17	202	11	202	22
P.H.O.L. - Orillia	14	2	10	1	0	0	1	0	10	0	9	0	0	0	0	0	9	0	9	1	9	0	9	1
P.H.O.L. - Thunder Bay	44	14	34	0	1	0	1	6	34	0	28	0	0	0	0	3	28	0	28	0	28	4	28	1
P.H.O.L. - Sudbury	29	4	39	0	0	0	0	0	39	0	35	0	0	0	0	1	35	0	35	3	35	8	35	2
P.H.O.L. - Hamilton	50	4	91	0	0	0	0	1	91	0	84	0	0	0	0	3	84	4	84	5	84	15	84	4
P.H.O.L. - Peterborough	67	19	80	0	0	0	0	1	80	0	58	0	0	0	0	11	58	1	58	4	58	3	58	1
St. Joseph's - Hamilton	1502	31	1460	0	0	16	16	50	1460	11	1460	0	0	68	0	0	1460	14	1460	75	1460	95	0	0
Sault Area Hospital	142	16	121	0	4	1	5	1	121	0	106	1	0	7	0	0	106	0	106	11	106	14	106	2
Province of Ontario	6469	298	5976	25	19	62	95	140	5976	40	4269	2	0	80	0	160	4269	42	4271	250	4271	334	2807	146
Manitoba	1260	94	869	0	1	11	12	51	869	10	108	1	0	4	0	0	108	3	109	6	108	14	109	6
Saskatchewan	1347	50	980	0	0	4	4	75	816	33	335	0	0	29	0	0	335	5	335	9	335	30	335	28
Alberta	3497	176	4055	4	11	0	21	235	3868	45	1041	3	0	47	0	0	1041	9	959	3	1022	94	1041	47
Prairies	6104	320	5904	4	12	15	37	361	5553	88	1484	4	0	80	0	0	1484	17	1403	18	1465	138	1485	81
British Columbia	3013	267	2320	28	10	3	53	53	2238	37	776	3	1	52	1	0	771	24	771	35	755	125	755	29
Yukon	41	0	27	0	0	0	0	3	27	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	29	0	28	0	0	0	0	4	28	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.
Nunavut	164	13	136	0	0	0	0	7	136	17	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	234	13	191	0	0	0	0	14	191	17	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	28	1	28	0	28	6	N.C.	N.C.
CANADA	26711	1280	25876	60	42	239	348	1299	22540	373	8697	10	2	304	2	160	8737	134	8641	458	7087	669	7058	355

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 April 20, 2024 (surveillance weeks 2023-35 to 2024-16)

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	20960	3011	15404	0	0	1335	1335	140	15404	965	15404	19	74	101	106	0	15404	255	15404	369	15404	1216	15404	444
Prince Edward Island	7645	789	5038	0	0	542	542	231	5038	373	563	3	0	19	8	0	562	35	552	22	563	145	547	28
Nova Scotia	48549	8588	35016	0	0	2795	2795	515	28603	1453	1176	16	3	6	10	0	1176	43	1169	13	1176	232	1175	26
New Brunswick	36894	3968	34862	899	26	1906	2831	911	34458	1906	3127	8	4	44	32	0	3127	115	3127	97	3127	616	3127	128
Atlantic	114048	16356	90320	899	26	6578	7503	1797	83503	4697	20270	46	81	170	156	0	20269	448	20252	501	20270	2209	20253	626
Région Nord-Est	56532	7157	51909	5	0	4729	4734	1094	20985	1474	2707	16	12	38	18	0	2707	114	2636	121	N.C.	N.C.	2707	133
Québec-Chaudière-Appalaches	65341	9397	46493	0	0	5572	5572	1767	44566	2782	17857	22	9	47	14	0	18396	548	17857	614	N.C.	N.C.	14613	550
Centre-du-Québec	81883	12508	43143	0	0	4595	4595	1138	24601	1668	1212	15	8	24	7	0	1212	60	1212	54	N.C.	N.C.	1244	45
Montréal-Laval	97630	14008	83963	5	2	6734	6741	996	53540	2983	28483	95	43	362	25	0	28483	561	28560	755	N.C.	N.C.	28483	1011
Ouest du Québec	53710	10086	23775	4	0	2120	2124	406	23544	1116	650	11	3	25	7	0	650	51	650	28	N.C.	N.C.	650	29
Monterégie	52411	8076	44015	0	0	3261	3261	454	42931	1847	240	1	0	1	2	0	240	8	240	5	N.C.	N.C.	240	3
Province of Québec	407507	61232	293298	14	2	27011	27027	5855	210167	11870	51149	160	75	497	73	0	51688	1342	51155	1577	N.C.	N.C.	47937	1771
P.H.O.L. - Ottawa	11371	3861	8058	300	54	197	426	44	8052	147	4814	0	0	0	0	137	4814	13	4812	134	4814	436	4812	300
EORLA	41753	4578	20001	0	0	1628	1628	447	20001	1140	1340	3	5	37	4	0	1315	14	1340	37	1340	238	1340	44
P.H.O.L. - Kingston	7796	2151	4514	139	19	96	228	8	4514	168	3098	0	0	0	0	85	3098	12	3098	37	3098	335	3098	164
UHN / Mount Sinai Hospital	36288	3085	23099	41	10	568	619	88	23099	229	1599	0	0	25	2	0	1599	3	1599	17	1599	77	1599	47
P.H.O.L. - Toronto	19583	5536	36395	1203	917	359	1822	264	36386	1056	33439	0	0	0	0	1264	33447	397	33424	860	33439	3092	33424	1785
Sick Kids Hospital - Toronto	4293	319	3867	106	100	20	226	72	3867	313	3867	15	12	97	21	0	3867	103	3867	128	3867	739	3867	119
Shared Hospital Laboratory	58337	4625	48768	869	537	295	1701	445	48775	1345	48530	0	0	0	0	346	42876	352	48617	321	48635	1585	48639	552
P.H.O.L. - Sault Ste. Marie	515	207	645	55	3	17	69	3	645	46	442	0	0	0	0	10	442	1	442	0	442	27	442	46
P.H.O.L. - Timmins	1168	331	1212	67	10	30	96	11	1212	67	968	0	0	0	0	29	968	5	968	14	968	59	968	50
St. Joseph's - London	29323	3522	16468	0	0	1000	1000	257	16454	736	2274	0	0	0	0	40	2293	39	2293	47	2295	250	2293	73
P.H.O.L. - London	15081	4194	11365	492	146	169	618	112	11362	476	9191	0	0	0	0	304	9191	42	9189	162	9191	787	9189	394
P.H.O.L. - Orillia	594	152	1272	73	17	11	101	0	1269	74	1202	0	0	0	0	31	1202	16	1202	20	1202	145	1202	27
P.H.O.L. - Thunder Bay	1958	529	1255	64	1	8	45	11	1252	30	1047	0	0	0	0	33	1047	6	1047	32	1047	63	1047	29
P.H.O.L. - Sudbury	793	243	960	45	1	23	69	2	958	26	690	0	0	0	0	25	691	2	690	14	690	60	690	65
P.H.O.L. - Hamilton	7183	2116	6006	149	66	98	258	41	6005	172	4545	0	0	0	0	147	4545	89	4544	123	4545	580	4544	218
P.H.O.L. - Peterborough	2462	698	2547	207	205	73	155	32	2537	222	1982	0	0	0	0	86	1982	40	1982	62	1982	301	1982	60
St. Joseph's - Hamilton	63674	5904	57007	0	0	3246	3246	860	57007	1786	57007	0	0	663	0	0	57007	366	57007	856	57007	3283	0	0
Sault Area Hospital	6182	822	4244	182	24	56	262	21	4237	205	3354	28	0	35	17	0	3305	40	3305	60	3305	288	3315	74
Province of Ontario	308354	42873	247683	3992	2110	7894	12569	2718	247632	8238	179389	46	17	857	44	2537	173689	1540	179426	2924	179466	12345	122451	4047
Manitoba	54074	7518	40756	146	13	1891	2050	573	40756	1396	3192	4	11	34	42	0	3192	128	3967	161	3192	563	3967	149
Saskatchewan	69050	7506	47876	142	22	5427	5591	1983	42583	1688	15526	31	9	181	25	0	15526	287	15526	801	15526	1482	15526	456
Alberta	179951	20229	159958	11815	822	588	13299	4027	149654	6279	44123	145	93	740	3	0	44111	502	42542	35	43415	3984	44122	1200
Prairies	303075	35253	248590	12103	857	7906	20940	6583	232993	9363	62841	180	113	955	70	0	62829	917	62035	997	62133	6029	63615	1805
British Columbia	128041	16785	129208	4119	846	268	8809	1237	126067	5968	30651	122	186	452	188	0	30648	953	30533	1236	29458	4392	29435	953
Yukon	1795	180	1176	35	15	0	63	17	1167	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	1265	77	1202	167	7	1	175	58	1202	173	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1003	46	1003	10	1202	148	N.C.	N.C.
Nunavut	4770	397	3468	433	34	52	519	226	3468	504	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	7830	654	5846	635	56	53	757	301	5837	723	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	1003	46	1003	10	1202	148	N.C.	N.C.
CANADA	1268855	173153	1014945	21762	3897	49710	77605	18491	906199	40859	344300	554	472	2931	531	2537	340126	5246	344404	7245	292529	25123	283691	9202

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.

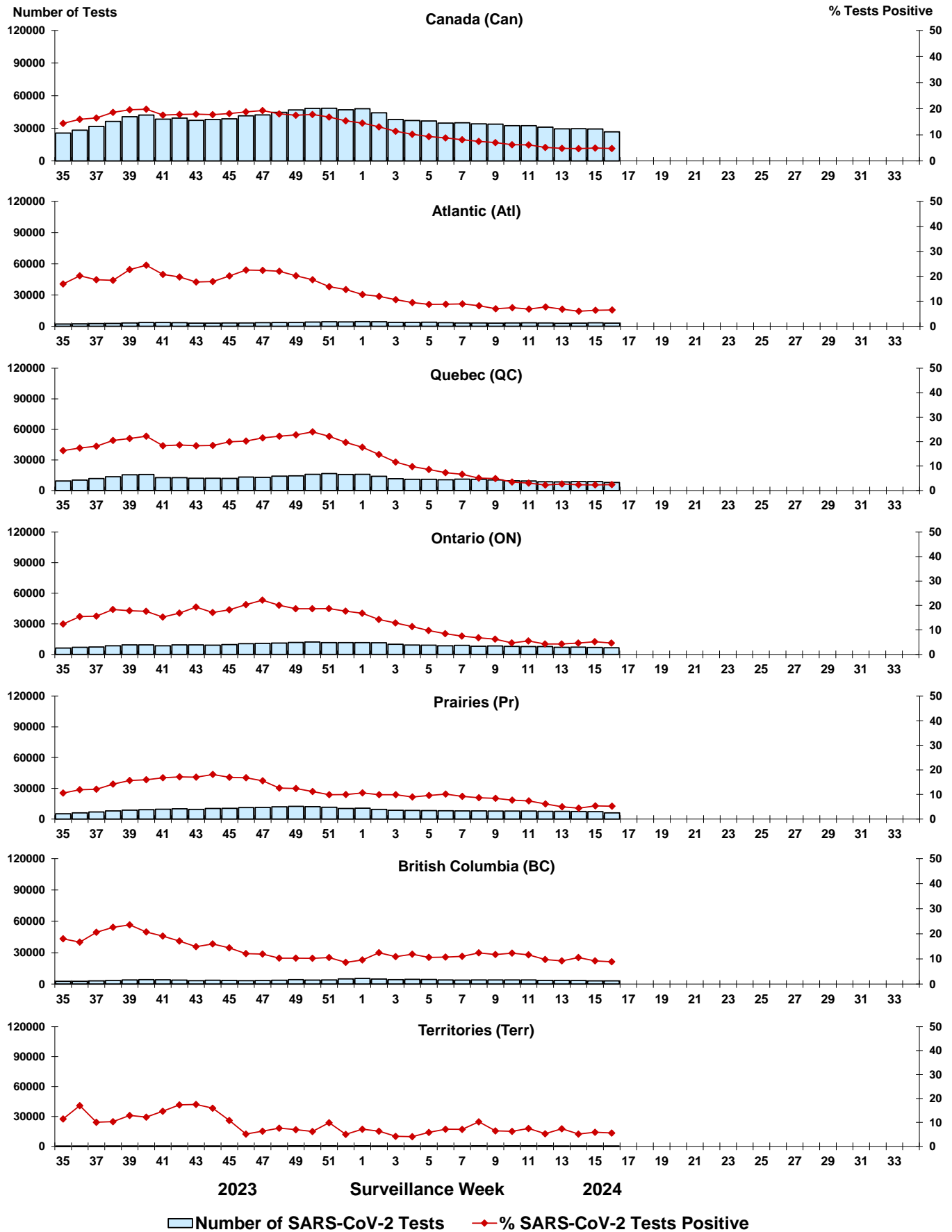
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Results from British Columbia comprise of specimens from the following sites: Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Vancouver Coastal Health sites, Victoria 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

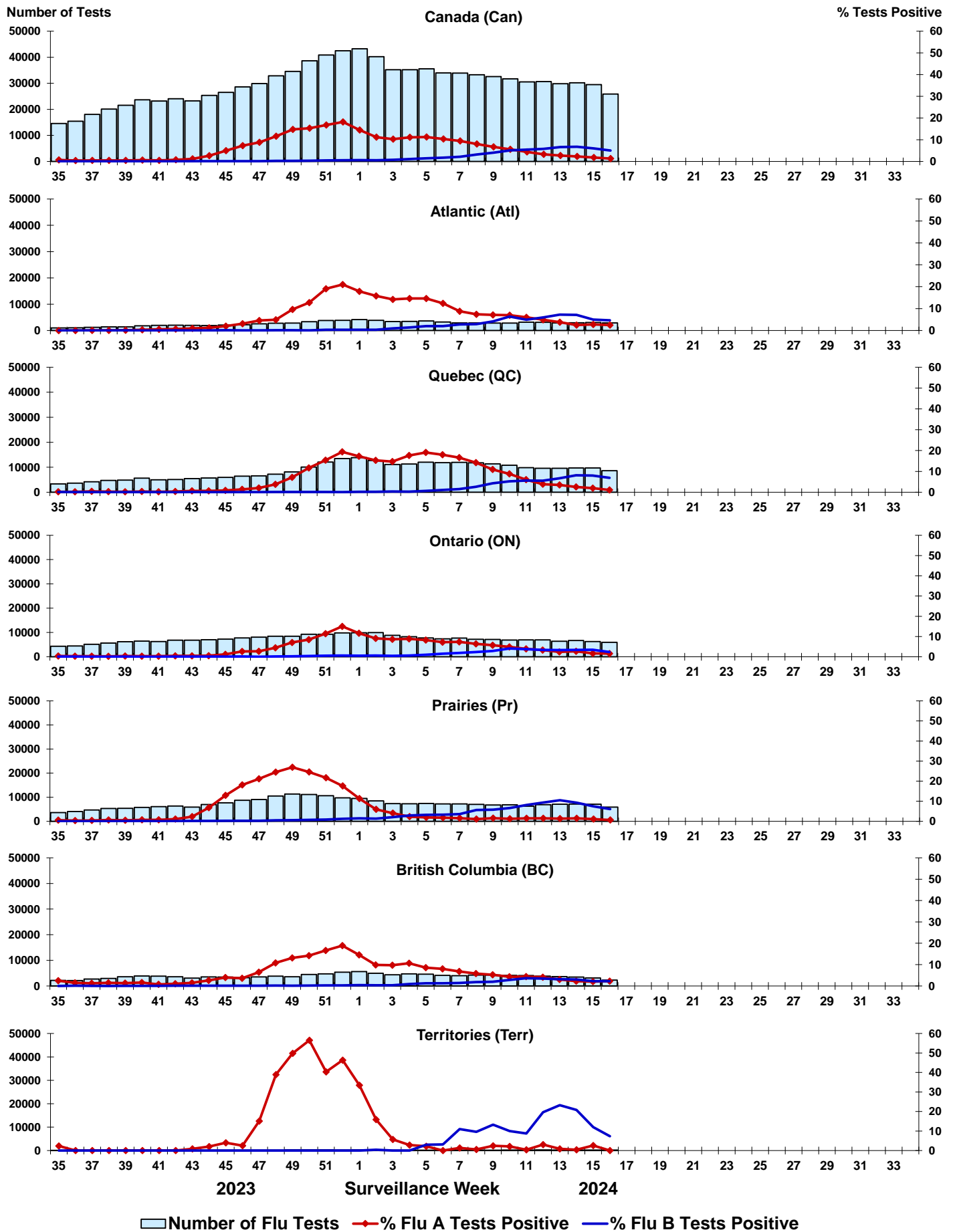


Figure 5: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

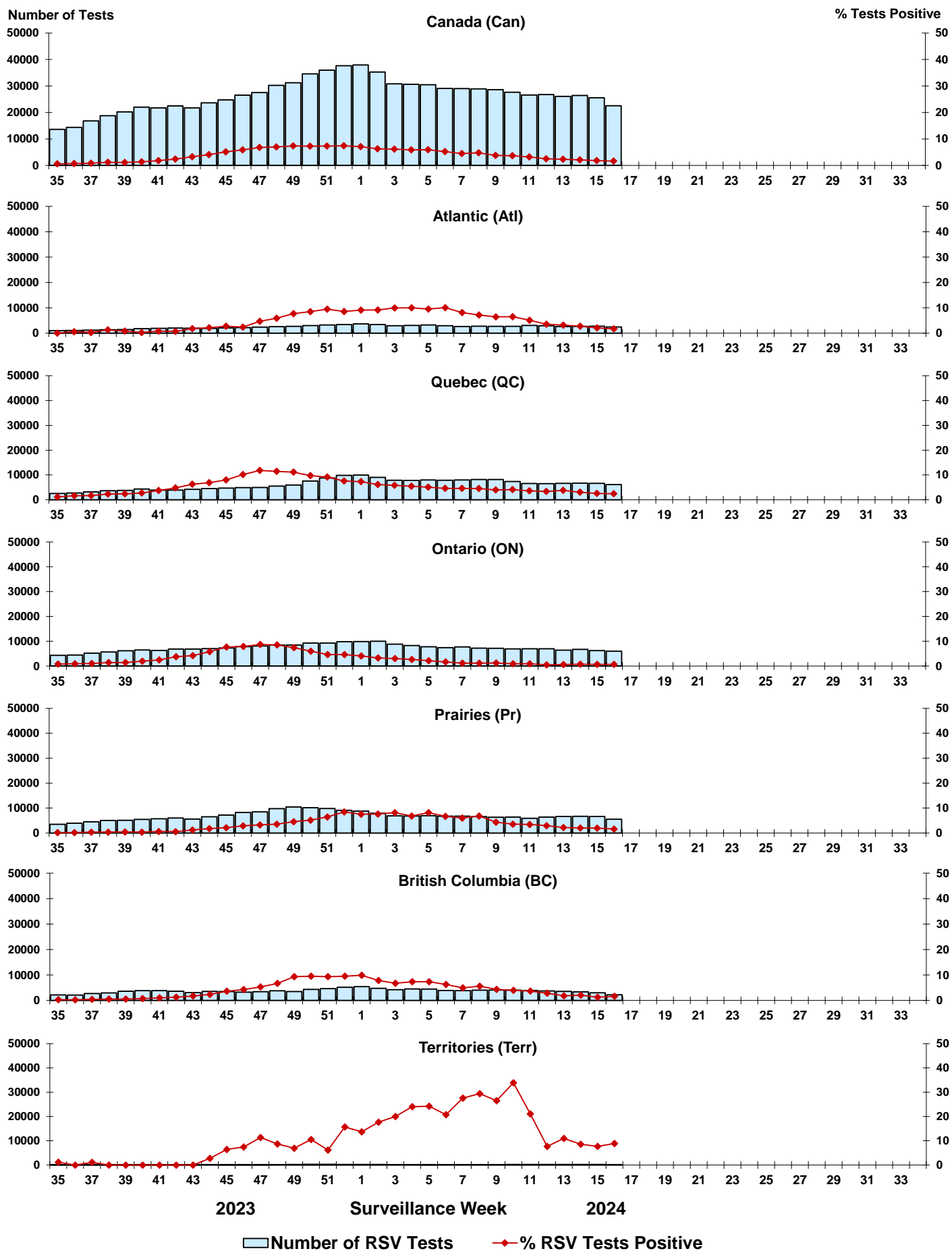


Figure 6: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

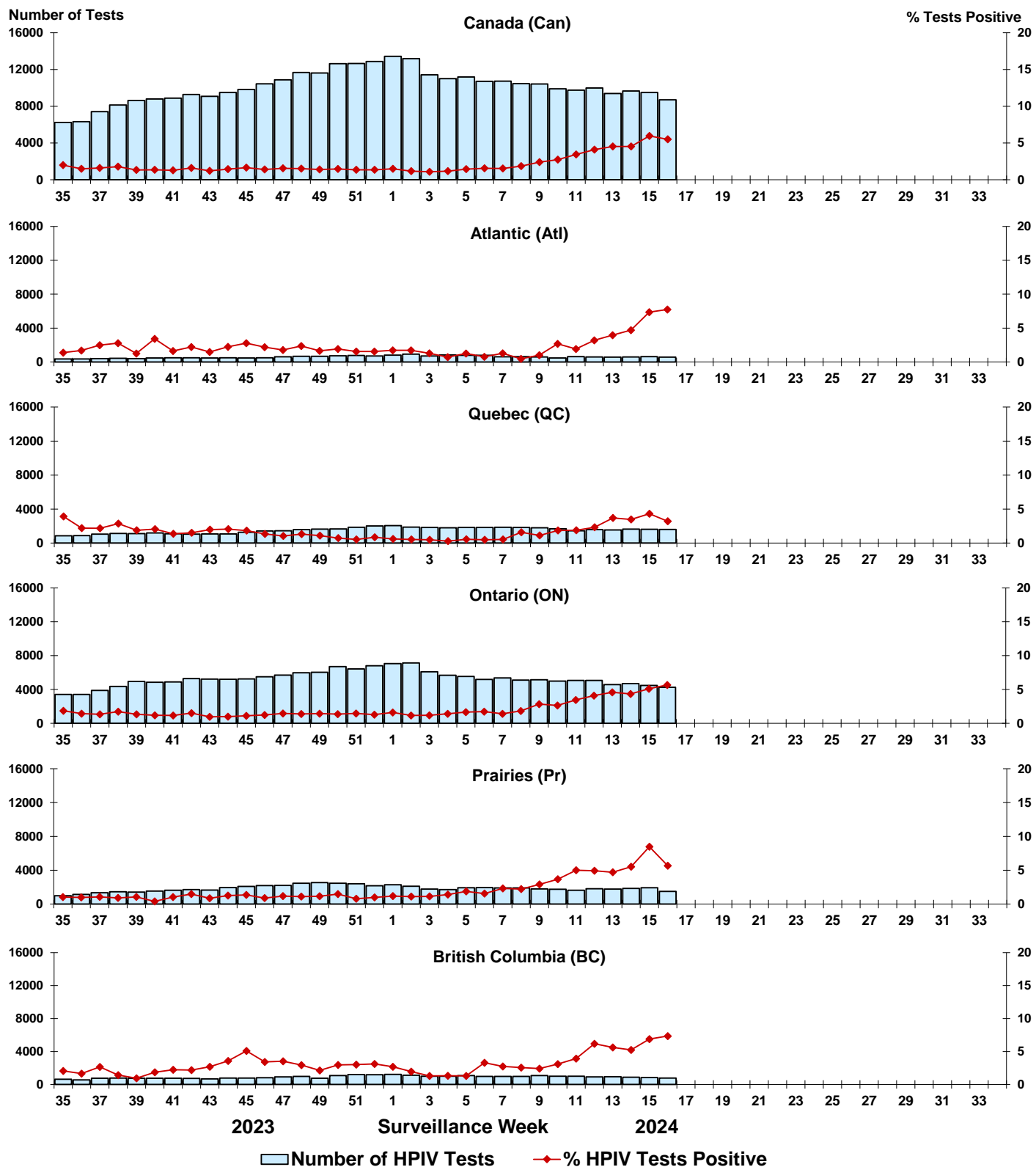


Figure 7: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

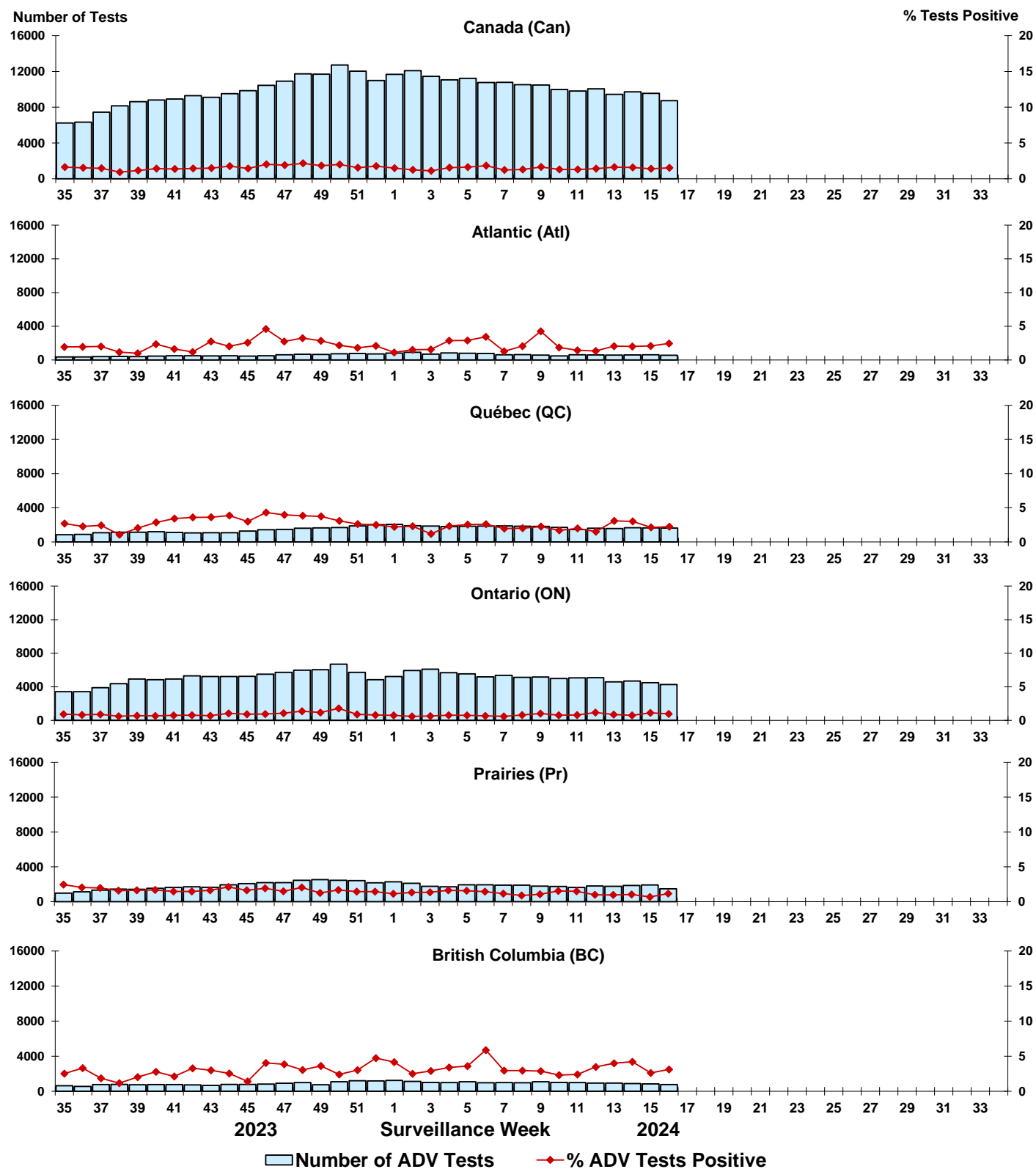


Figure 8: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

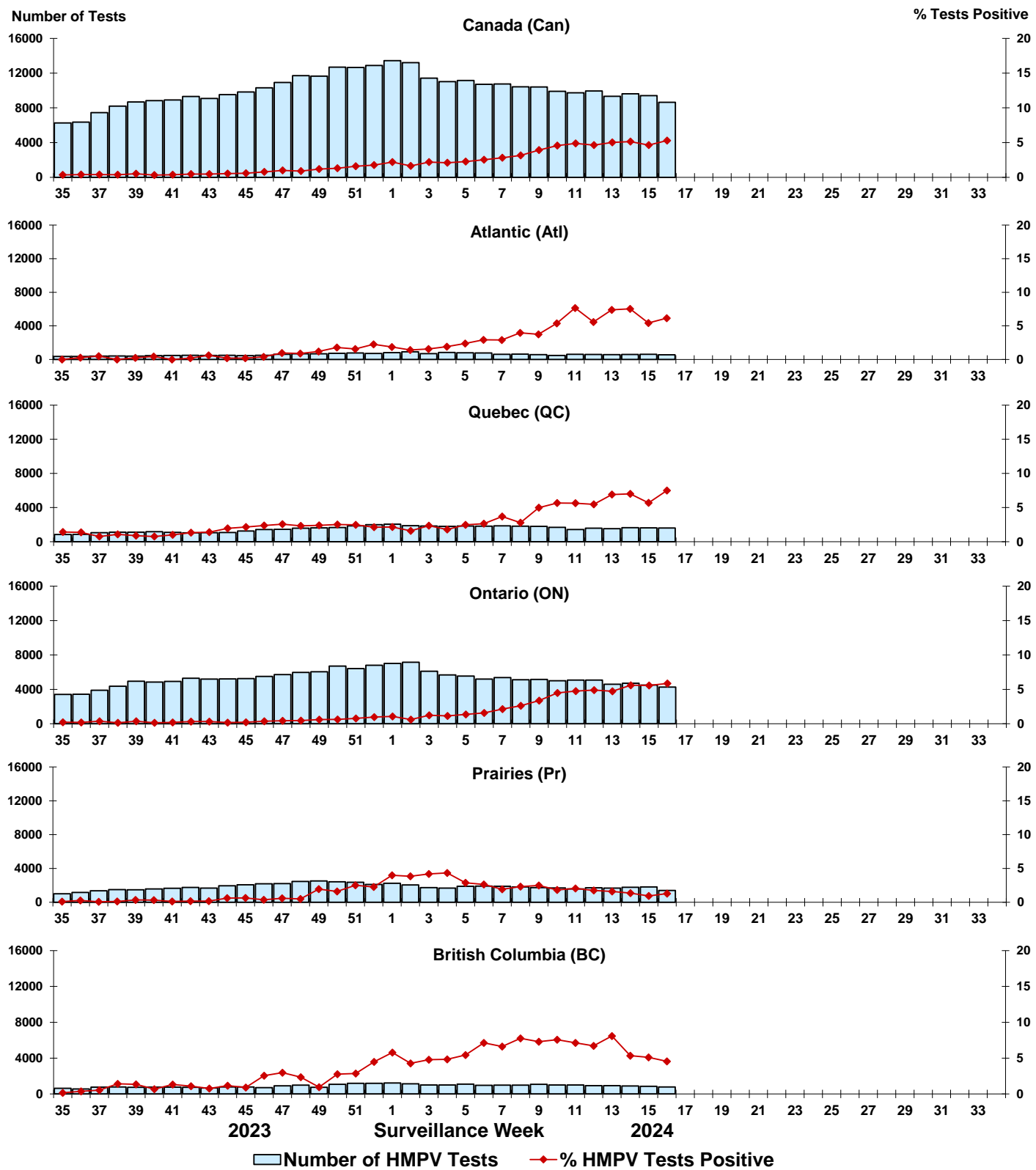


Figure 9: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

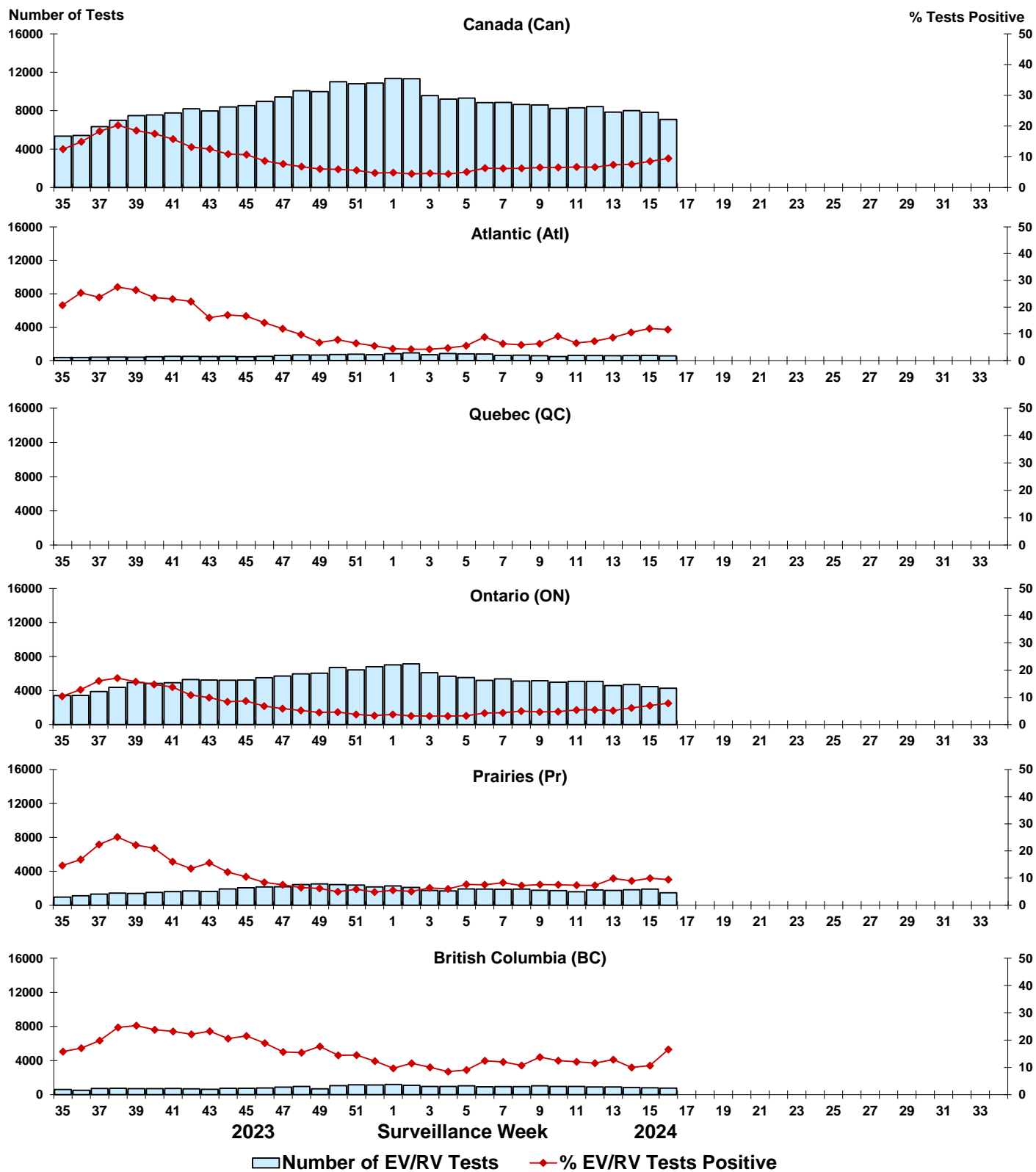


Figure 10: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

