

RESPIRATORY VIRUS DETECTION REPORT

December 5 to December 11, 2021
(Surveillance Week 2021-49)



In this Respiratory Virus Report, the number of detections of coronavirus reflects only seasonal human coronaviruses, not the novel pandemic coronavirus (SARS-CoV-2) that causes COVID-19. For information on COVID-19, see the [Coronavirus disease \(COVID-19\): Outbreak update](#).

Overall Summary

In week 49 (December 5 to December 11, 2021), activity of almost all respiratory viruses are within expected levels for this time of year.

- Respiratory syncytial virus (1,749 detections; 10.3% positive) and enterovirus/rhinovirus (680 detections; 14.6% positive) are the most common seasonal respiratory viruses detected in Canada.
 - Activity of respiratory syncytial virus is within expected levels. Activity has been either stable or slowly increasing in most regions of Canada.
 - Activity of enterovirus/rhinovirus is within expected levels for this time of year.
- Detections of other respiratory viruses are low, but activity of seasonal human coronavirus has been increasing in recent weeks and is above expected levels.
- The number of tests performed for all viruses are above expected levels.
- 31/34 sentinel laboratories reported surveillance data.

Abbreviations

Flu: Influenza

Flu A(H1N1)pdm09: Influenza A(H1N1)pdm09

Flu A(H3): Influenza A(H3N2)

Flu A (UnS): Influenza A(Unsubtyped)

RSV: Respiratory syncytial virus

HPIV: Human parainfluenza virus

HMPV: Human metapneumovirus

ADV: Adenovirus

EV/RV: Enterovirus/Rhinovirus

HCoV: Human coronavirus

Atl: Atlantic Canada

BC: British Columbia

Can: Canada

EORLA: Eastern Ontario Regional Laboratory Association

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

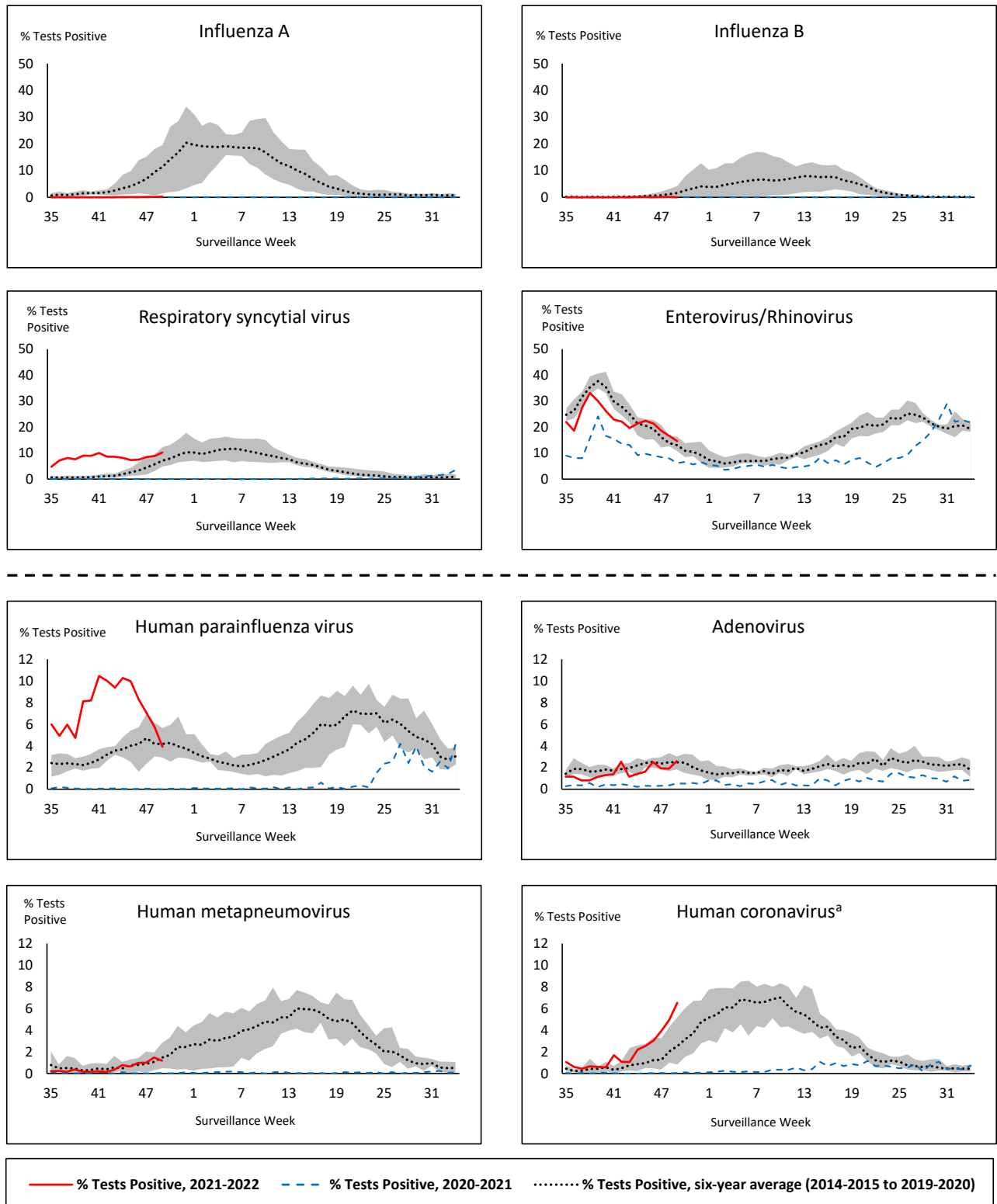
QC: Quebec

Terr: Territories of Canada

UHN: University Health Network



Figure 1: Positive respiratory 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: 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

^a Human coronavirus excludes human coronaviruses SARS-CoV, MERS-CoV and SARS-CoV-2; Includes seasonal human coronaviruses HCoV-229E, HCoV-OC43, HCoV-NL63, HCoV-HKU1.

Table 1: Respiratory virus detections for the week ending December 11, 2021 (surveillance week 2021-49)

Reporting Laboratory	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	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.C.	N.C.
Prince Edward Island	117	0	0	0	0	0	117	16	117	0	0	0	0	0	117	3	117	0	117	37	117	18
Nova Scotia	2106	0	0	1	1	0	2106	38	101	0	0	0	0	0	101	0	101	0	101	5	101	1
New Brunswick	879	0	0	2	2	0	441	45	151	0	0	0	0	0	151	1	151	0	151	4	151	1
Atlantic	3102	0	0	3	3	0	2664	99	369	0	0	0	0	0	369	4	369	0	369	46	369	20
Région Nord-Est	797	0	0	0	0	0	481	54	5	0	0	0	0	0	5	0	5	0	N.C.	N.C.	5	0
Québec-Chaudière-Appalaches	365	0	0	1	1	1	365	26	39	0	0	0	0	0	133	3	133	12	N.C.	N.C.	78	1
Centre-du-Québec	532	0	0	0	0	2	503	26	19	0	0	0	0	0	19	2	19	0	N.C.	N.C.	19	2
Montréal-Laval	741	0	0	5	5	1	739	34	254	0	0	2	0	0	254	15	254	29	N.C.	N.C.	254	4
Ouest du Québec	197	0	1	2	3	0	186	18	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Montérégie	248	0	0	0	0	0	245	17	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	2880	0	1	8	9	4	2519	175	317	0	0	2	0	0	411	20	411	41	N.C.	N.C.	356	7
P.H.O.L. - Ottawa	369	0	0	0	0	0	369	99	369	0	0	0	0	37	369	46	369	4	369	112	369	32
EORLA	237	0	0	0	0	0	237	47	26	0	0	2	0	0	26	1	26	0	26	11	26	3
P.H.O.L. - Kingston	36	0	0	0	0	0	36	10	36	0	0	0	0	0	36	0	36	0	36	11	36	6
UHN / Mount Sinai Hospital	429	0	0	2	2	0	429	9	13	0	0	0	0	0	13	0	13	0	13	0	13	1
P.H.O.L. - Toronto	328	0	0	0	0	0	328	41	328	0	0	0	0	5	328	7	327	4	328	41	327	14
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.
Sunnybrook & Women's College HSC	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.
P.H.O.L. - Sault Ste. Marie	15	0	0	0	0	0	15	0	15	0	0	0	0	0	15	0	15	0	15	5	15	0
P.H.O.L. - Timmins	9	0	0	0	0	0	9	0	9	0	0	0	0	2	9	0	9	0	9	1	9	0
St. Joseph's - London	525	0	0	2	2	0	529	95	454	0	0	0	0	6	454	10	454	1	445	44	9	0
P.H.O.L. - London	182	0	0	0	0	0	182	60	182	0	0	0	0	6	182	6	182	2	182	25	182	12
P.H.O.L. - Orillia	47	0	0	0	0	0	47	13	47	0	0	0	0	3	47	2	47	0	47	15	47	5
P.H.O.L. - Thunder Bay	10	0	0	0	0	0	10	1	10	0	0	0	0	1	10	0	10	0	10	4	10	1
P.H.O.L. - Sudbury	16	0	0	0	0	0	16	3	16	0	0	0	0	2	16	1	16	0	16	1	16	1
P.H.O.L. - Hamilton	110	0	1	0	1	0	110	10	110	0	0	0	0	3	110	3	110	0	110	20	110	12
P.H.O.L. - Peterborough	43	0	0	0	0	0	43	5	43	0	0	0	0	0	43	0	43	0	43	8	43	2
St. Joseph's - Hamilton	995	0	0	3	3	0	995	248	995	0	0	12	0	0	995	10	995	4	995	72	0	0
Province of Ontario	3351	0	1	7	8	0	3355	641	2653	0	0	14	0	65	2653	86	2652	15	2644	370	1212	89
Province of Manitoba	1745	0	0	0	0	0	1745	41	40	0	0	9	0	0	40	0	85	1	40	10	85	0
Province of Saskatchewan	645	0	0	0	0	0	645	5	146	0	0	17	0	0	146	3	146	0	146	22	146	17
Province of Alberta	2251	0	1	11	12	0	816	152	816	0	1	32	11	0	816	8	816	3	816	117	816	92
Prairies	4641	0	1	11	12	0	3206	198	1002	0	1	58	11	0	1002	11	1047	4	1002	149	1047	109
British Columbia	4920	0	3	0	14	5	4882	616	630	0	1	23	10	10	630	10	630	1	613	106	612	10
Yukon	243	0	0	0	0	0	243	19	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	32	0	0	0	0	0	30	0	1	0	0	0	0	0	1	0	1	0	30	9	1	0
Nunavut	162	0	0	0	0	0	162	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	437	0	0	0	0	0	435	20	1	0	0	0	0	0	1	0	1	0	30	9	1	0
CANADA	19331	0	6	29	46	9	17061	1749	4972	0	2	97	21	75	5066	131	5110	61	4658	680	3597	235

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.

The reporting laboratory previously listed as CHEO - Ottawa is now listed as EORLA to better reflect data submitted by this provider.

Specimens from Yukon (YT) and Northwest Territories (NT) are sent to reference laboratories in other provinces and reported results reflect specimens identified as originating from YT or NT.

Results from British Columbia comprise of specimens from the following sites: BC Children's and Women's Hospital, Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital , St. Paul's Hospital , Vancouver General Hospital, Victoria General Hospital, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites.

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

For British Columbia, only data from subtyped influenza A specimens are included in the weekly number of influenza detections. The sum of A(H1N1)pdm09, A(H3), and A(UnS) positive results may not equal the sum of total Flu A positive results.

Table 2: Cumulative respiratory virus detections from August 29, 2021 to December 11, 2021 (surveillance week 2021-35 to 2021-49)

Reporting Laboratory	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	6166	0	0	0	0	0	6165	18	6168	1	3	113	0	135	6170	14	6165	6	6169	1644	N.C.	N.C.
Prince Edward Island	1269	0	0	0	0	0	1269	40	1269	0	0	147	0	0	1269	26	1269	0	1269	385	1269	70
Nova Scotia	6253	0	1	3	4	4	6253	105	915	0	2	37	1	0	929	5	929	0	929	85	929	7
New Brunswick	5882	0	0	2	2	0	3540	117	2058	0	0	21	0	0	2051	6	2058	3	2058	30	1967	1
Atlantic	19570	0	1	5	6	4	17227	280	10410	1	5	318	1	135	10419	51	10421	9	10425	2144	4165	78
Région Nord-Est	8299	0	0	0	0	1	4492	1314	584	0	0	6	1	0	489	11	22	0	N.C.	N.C.	489	4
Québec-Chaudière-Appalaches	3190	0	0	2	2	4	3758	953	514	0	1	6	2	0	664	22	576	21	N.C.	N.C.	496	11
Centre-du-Québec	2973	0	0	2	2	3	3185	1006	295	0	0	9	0	0	295	8	303	4	N.C.	N.C.	288	5
Montréal-Laval	10243	0	0	10	10	4	10239	2321	3098	2	1	19	1	0	3098	177	3098	186	N.C.	N.C.	3098	18
Ouest du Québec	2601	0	1	2	3	0	2558	848	12	0	0	0	0	0	8	1	11	1	N.C.	N.C.	11	1
Montérégie	1694	0	0	0	0	0	1691	371	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	29000	0	1	16	17	12	25923	6813	4503	2	2	40	4	0	4554	219	4010	212	N.C.	N.C.	4382	39
P.H.O.L. - Ottawa	5674	1	1	0	2	0	5674	1335	5674	0	0	0	0	710	5674	269	5673	33	5674	2104	5673	173
EORLA	2735	0	0	0	0	0	2710	425	405	0	0	17	0	0	405	5	86	0	405	95	82	8
P.H.O.L. - Kingston	772	0	0	0	0	0	772	64	771	0	0	0	0	129	771	13	770	2	771	266	770	38
UHN / Mount Sinai Hospital	6339	0	0	6	6	0	6339	39	203	0	0	0	0	0	203	0	203	0	203	8	203	1
P.H.O.L. - Toronto	4141	0	7	0	7	0	4135	167	4135	0	0	0	0	235	4136	38	4134	8	4135	726	4135	68
Sick Kids Hospital - Toronto	702	0	0	0	0	0	0	0	702	0	0	68	0	0	702	9	702	1	702	209	702	5
Sunnybrook & Women's College HSC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P.H.O.L. - Sault Ste. Marie	132	0	1	0	1	0	130	0	130	0	0	0	0	5	130	0	130	0	130	44	130	0
P.H.O.L. - Timmins	113	0	0	0	0	0	113	3	113	0	0	0	0	14	113	1	113	0	113	17	113	0
St. Joseph's - London	2509	0	0	3	3	0	2512	214	955	0	0	7	0	63	955	22	955	2	909	164	446	1
P.H.O.L. - London	1349	0	0	0	0	0	1349	196	1349	0	0	0	0	129	1349	25	1349	3	1349	335	1349	27
P.H.O.L. - Orillia	388	0	1	0	1	0	388	42	388	0	0	0	0	39	388	12	386	3	388	137	386	9
P.H.O.L. - Thunder Bay	99	0	0	0	0	0	99	1	99	0	0	0	0	7	99	0	99	0	99	37	99	2
P.H.O.L. - Sudbury	182	0	0	0	0	0	182	6	182	0	0	0	0	6	182	1	182	2	182	26	182	4
P.H.O.L. - Hamilton	651	0	7	0	7	0	644	36	644	0	0	0	0	38	644	7	644	4	644	167	644	18
P.H.O.L. - Peterborough	363	0	0	0	0	0	363	31	362	0	0	0	0	9	362	1	361	0	362	70	361	8
St. Joseph's - Hamilton	7281	0	4	5	9	0	7275	892	7275	2	0	611	0	0	7275	51	7275	16	7275	1276	0	0
Province of Ontario	33430	1	21	14	36	0	32685	3451	23387	2	0	703	0	1384	23388	454	23062	74	23341	5681	15275	362
Manitoba	25858	1	3	3	7	0	25858	217	405	1	2	48	0	0	405	6	1257	4	405	161	1063	2
Province of Saskatchewan	8328	0	1	0	1	0	8308	35	1446	0	0	89	8	0	1446	26	1446	1	1446	281	1445	29
Province of Alberta	28678	0	4	16	20	0	11006	598	11006	0	11	563	87	0	11006	101	11006	17	11006	2076	11006	483
Prairies	62864	1	8	19	28	0	45172	850	12857	1	13	700	95	0	12857	133	13709	22	12857	2518	13514	514
British Columbia	42656	0	19	3	84	72	42468	2945	8561	0	1	915	87	110	8561	110	8557	41	8342	1878	8391	60
Yukon	3413	0	1	0	4	6	3478	35	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	41	2	41	0	267	52	41	0
Northwest Territories	289	0	0	0	0	0	268	0	41	0	0	0	0	0	41	2	41	0	267	52	41	0
Nunavut	3982	0	0	0	0	0	3978	5	10	0	0	0	0	0	10	1	10	0	10	6	10	0
Territories	7684	0	1	0	4	6	7724	40	51	0	0	0	0	0	51	3	51	0	277	58	51	0
CANADA	195204	2	51	57	175	94	171199	14379	59769	6	21	2676	187	1629	59830	970	59810	358	55242	12279	45778	1053

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.

Note: Included in the cumulative detections this season are 11 co-infections of influenza A and B (total of 22 detections) that are suspected to be associated with recent live attenuated influenza vaccine (LAIV) receipt. Co-infections known or reported to be associated with recent LAIV are removed by the submitting laboratory or by PHAC beginning in week 44 as they do not represent community transmission of seasonal influenza viruses.

The reporting laboratory previously listed as CHEO - Ottawa is now listed as EORLA to better reflect data submitted by this provider.

Specimens from Yukon (YT) and Northwest Territories (NT) are sent to reference laboratories in other provinces and reported results reflect specimens identified as originating from YT or NT.

Results from British Columbia comprise of specimens from the following sites: BC Children's and Women's Hospital, Children's and Women's Hospital Laboratory, Fraser Health Medical Microbiology Laboratory, Island Health, Providence Health Care, Powell River Hospital, St. Paul's Hospital, Vancouver General Hospital, Victoria General Hospital, BCCDC Public Health Laboratory, Interior Health Authority sites and Northern Health Authority sites.

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.

For British Columbia, only data from subtyped influenza A specimens are included in the weekly number of influenza detections. The sum of A(H1N1)pdm09, A(H3), and A(UnS) positive results may not equal the sum of total Flu A positive results.

Figure 2: Number of positive respiratory virus tests reported by participating laboratories in Canada by surveillance week

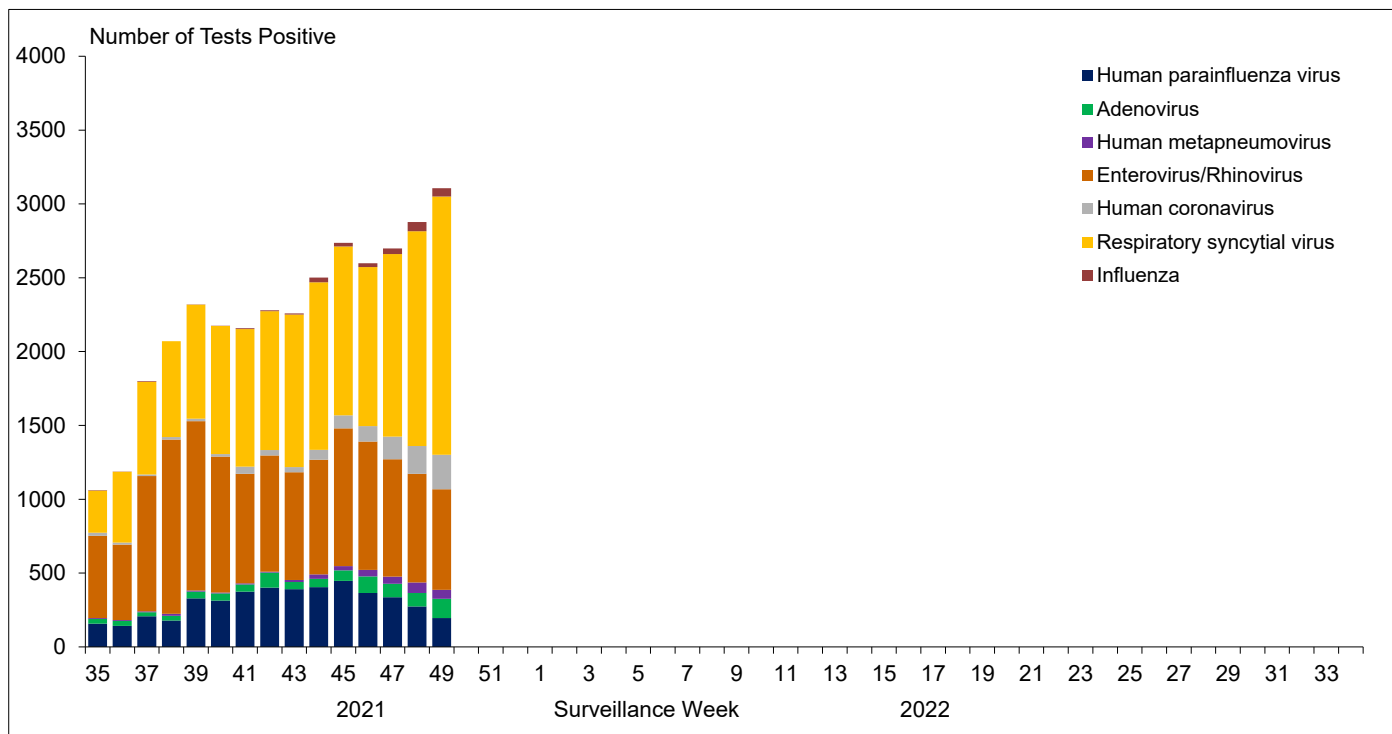


Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week

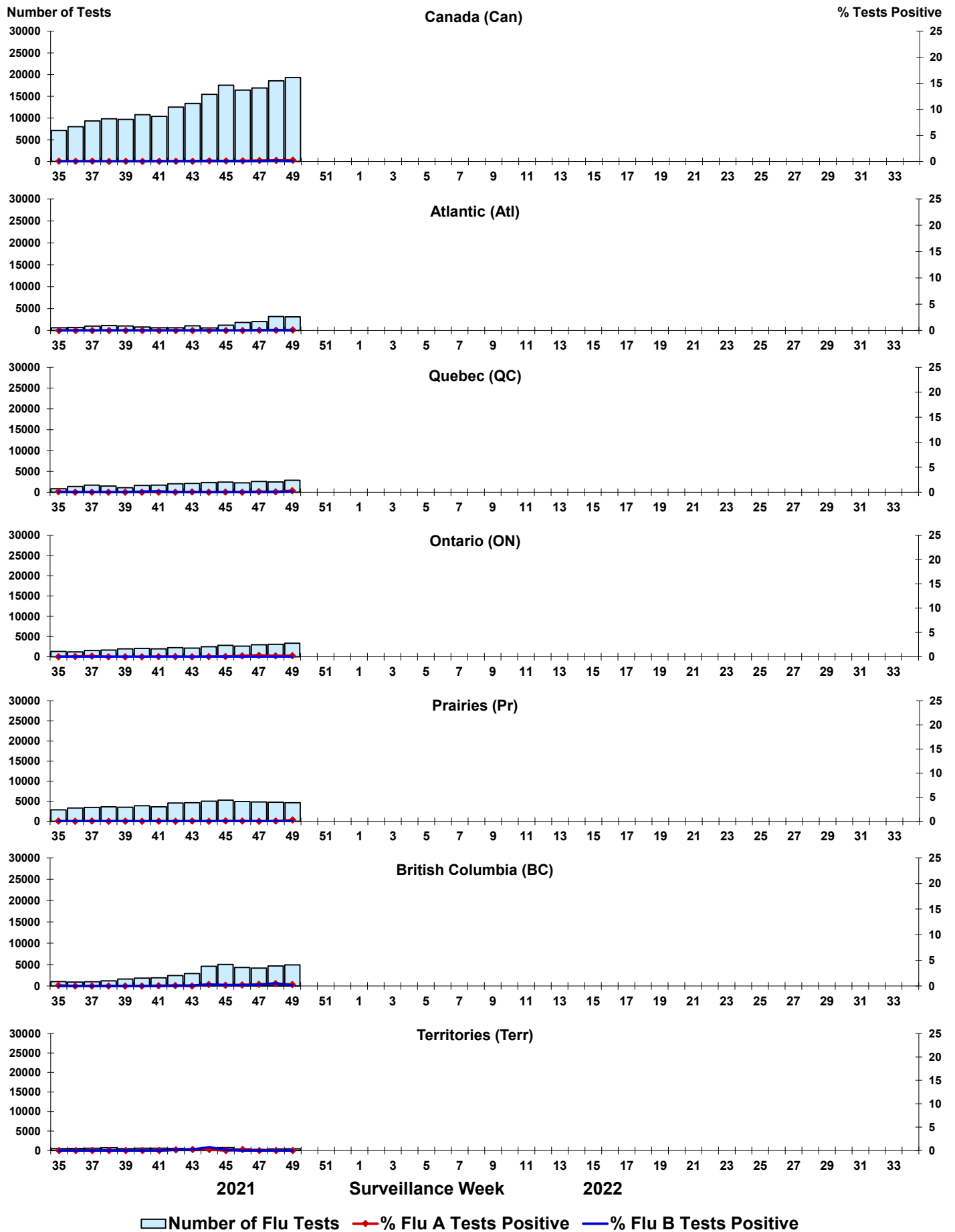


Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

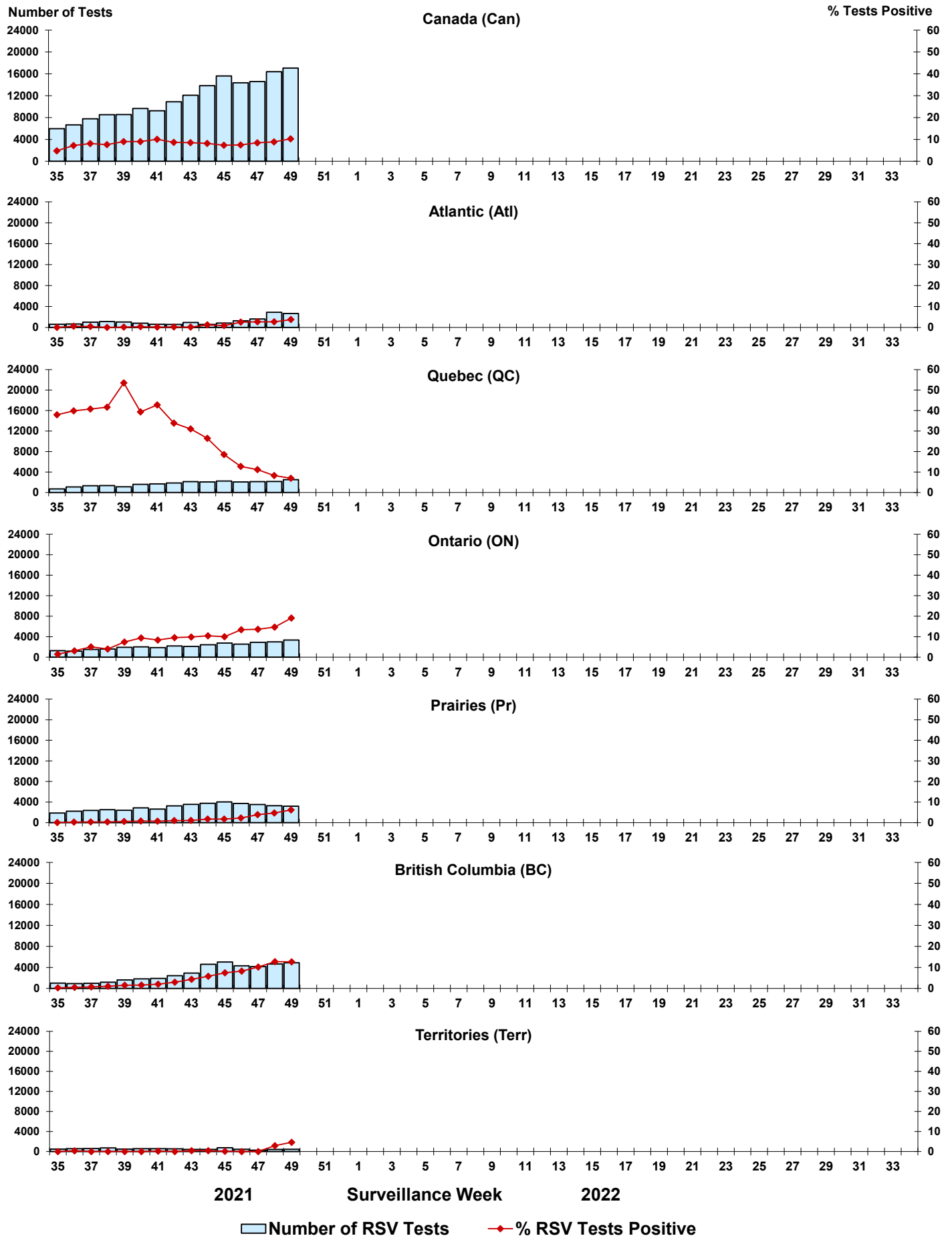


Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

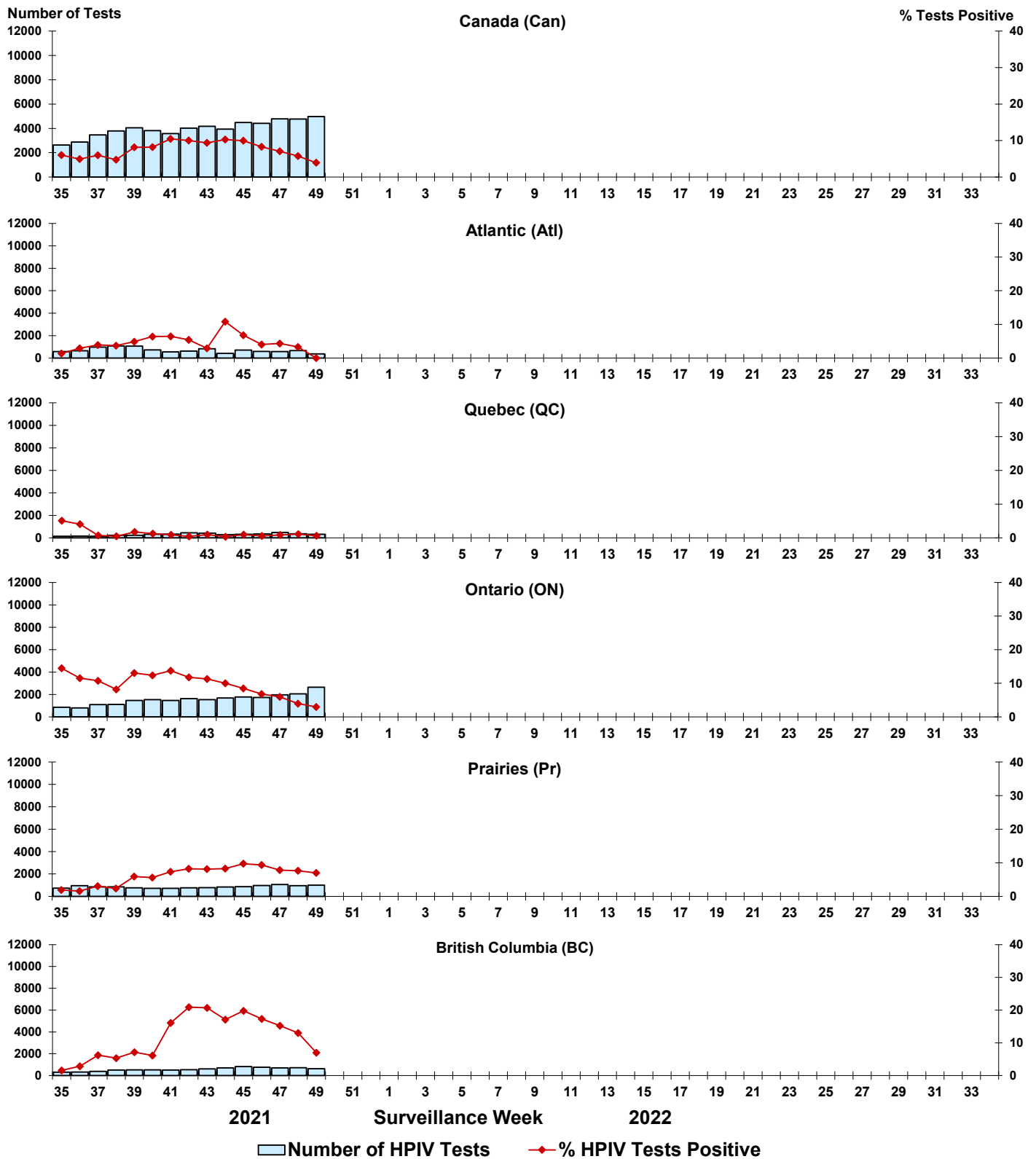


Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

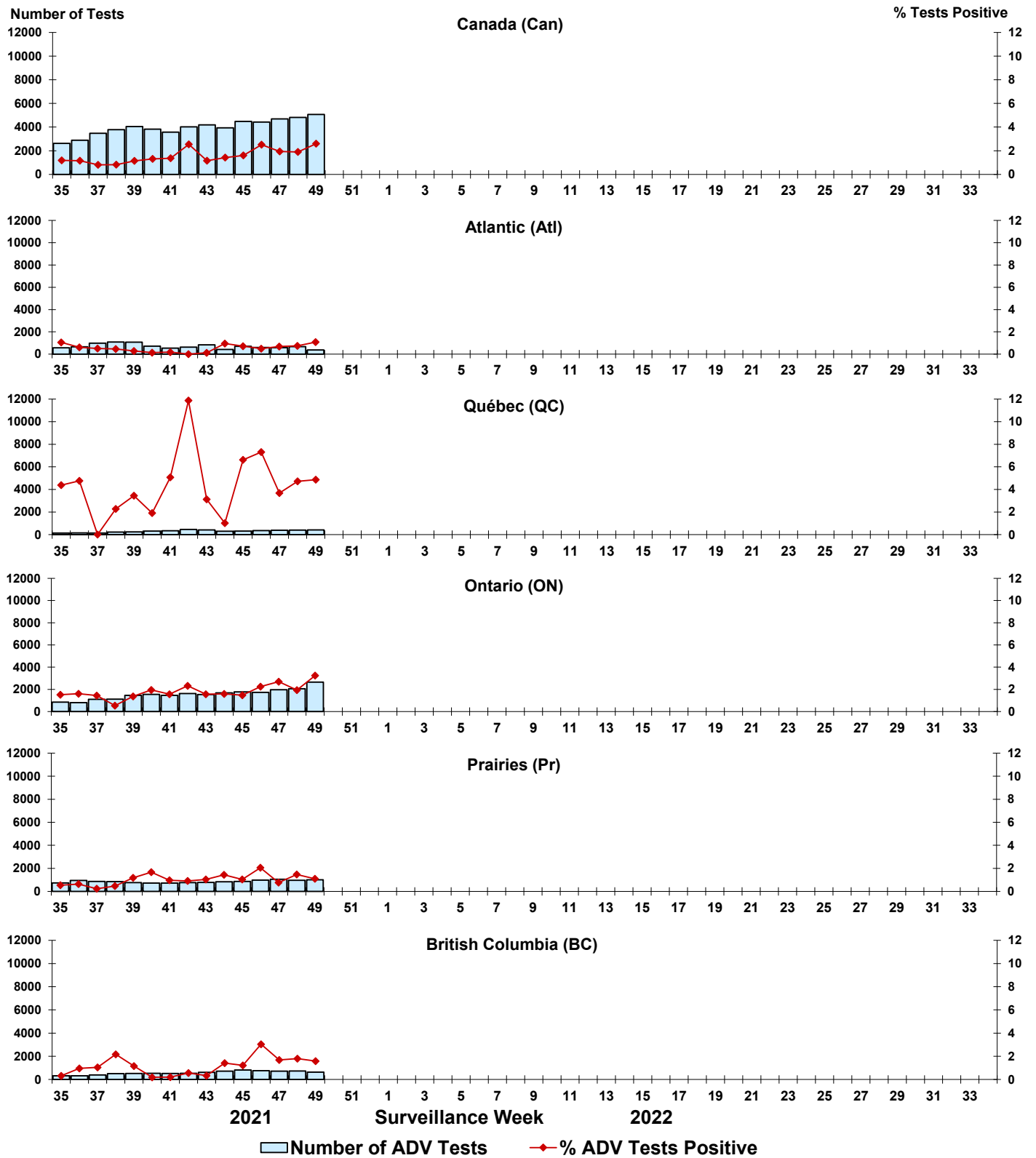


Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

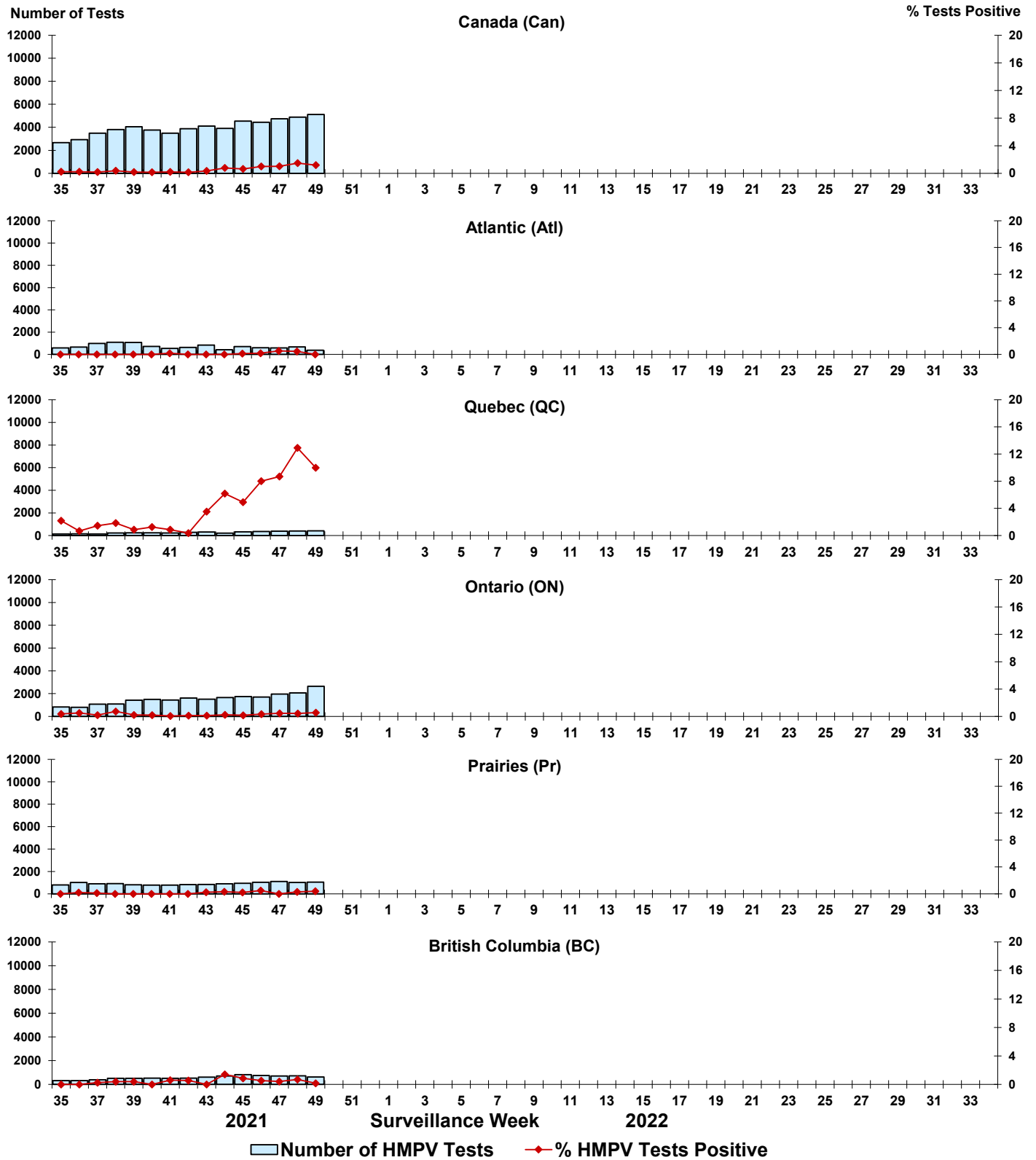


Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

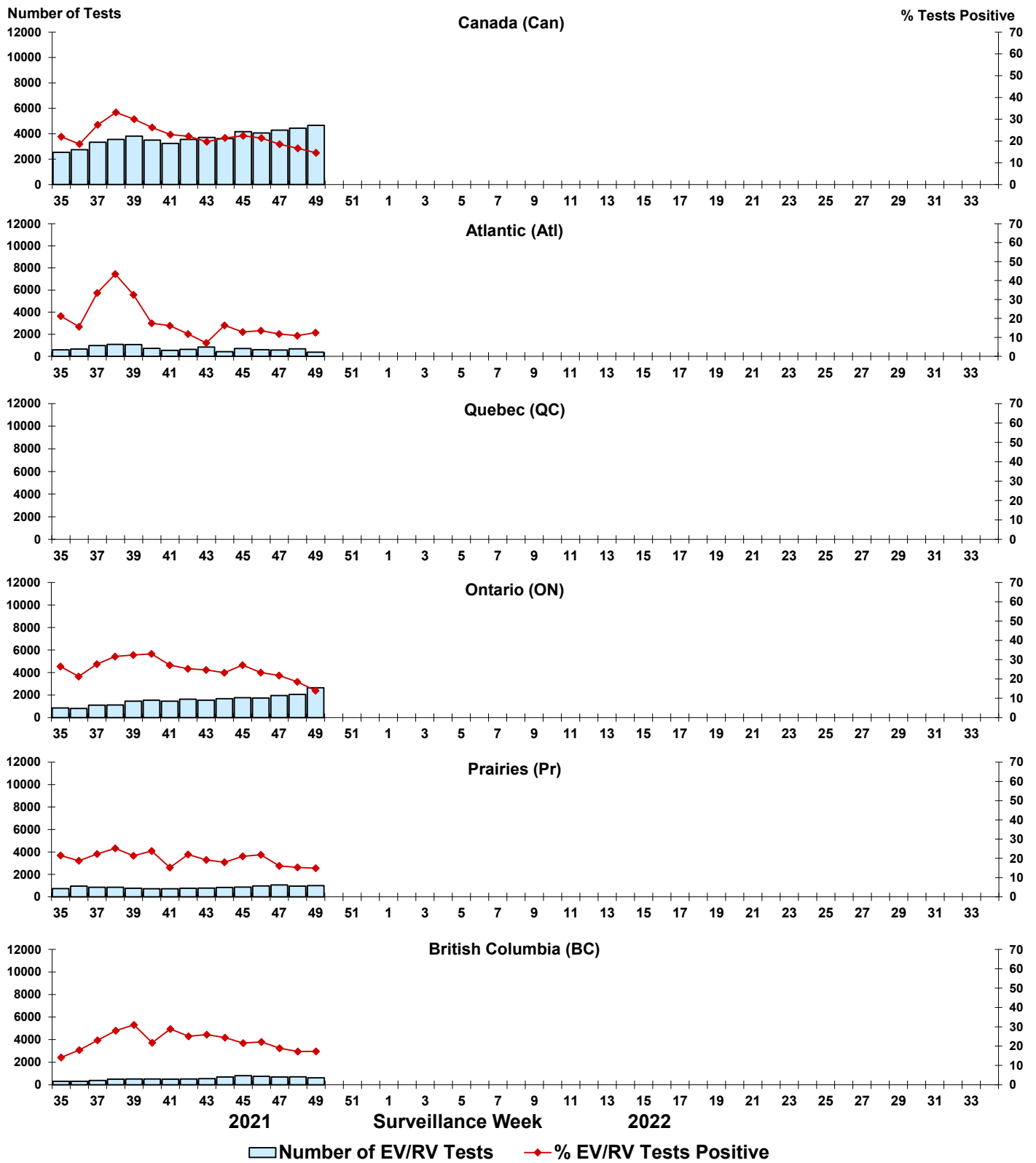


Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

