

RESPIRATORY VIRUS DETECTION REPORT

December 12 to December 18, 2021
(Surveillance Week 2021-50)



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 50 (December 12 to December 18, 2021), activity of almost all respiratory viruses is within expected levels for this time of year.

- Respiratory syncytial virus (2,139 detections; 10.8% positive) and enterovirus/rhinovirus (617 detections; 11.9% 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 most viruses are above expected levels.
- 32/34 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

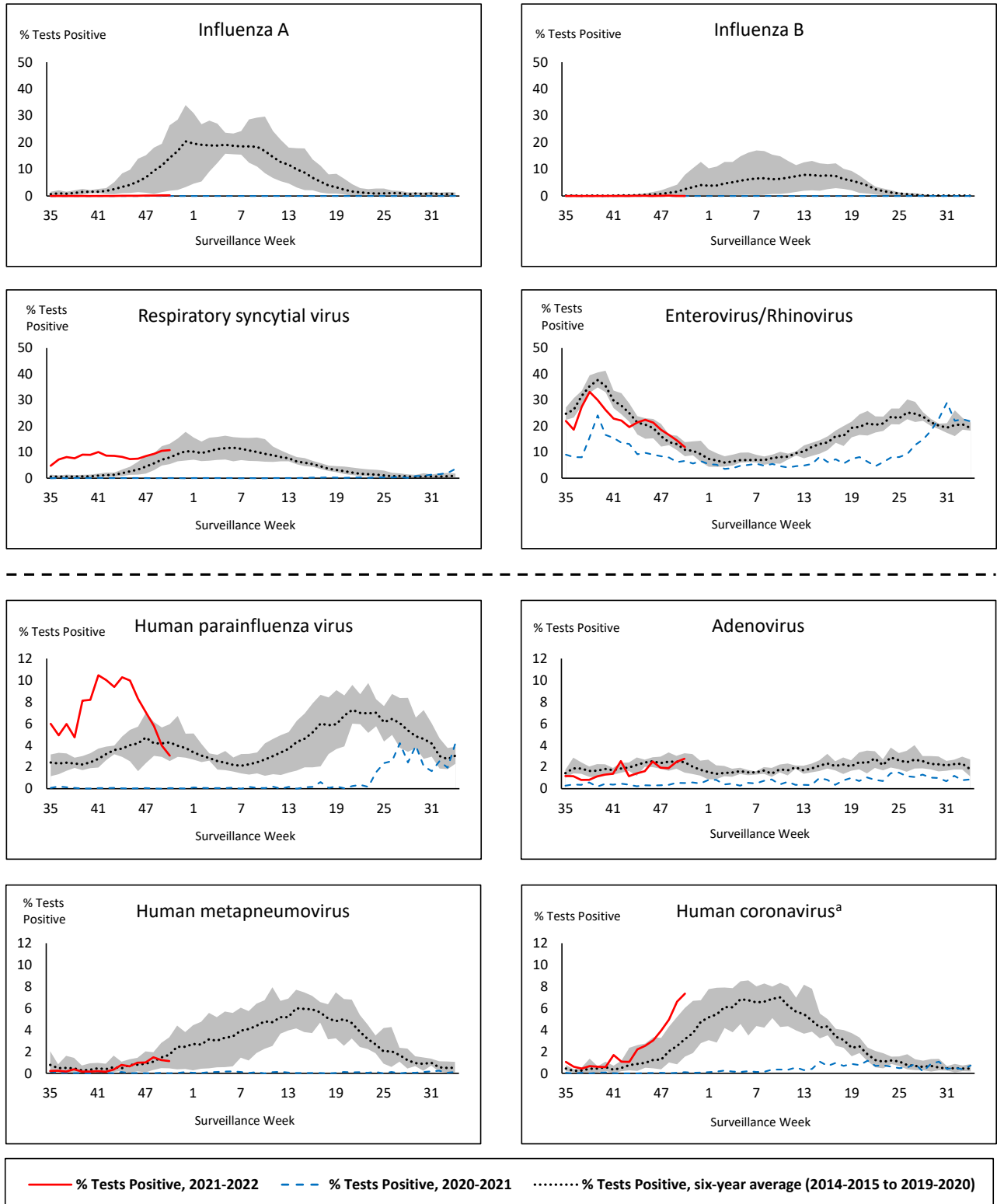
QC: Quebec

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 18, 2021 (surveillance week 2021-50)

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	321	0	0	0	0	0	321	21	321	0	0	2	0	11	321	0	321	2	321	25	N.C.	N.C.
Prince Edward Island	150	0	0	0	0	0	150	19	150	0	0	3	0	0	150	3	150	0	150	22	150	14
Nova Scotia	892	0	0	1	1	0	586	24	28	0	0	0	1	0	28	2	28	0	28	4	28	6
New Brunswick	803	0	0	4	4	0	385	54	178	0	0	0	0	0	178	0	178	0	178	1	178	2
Atlantic	2166	0	0	5	5	0	1442	118	677	0	0	5	1	11	677	5	677	2	677	52	356	22
Région Nord-Est	695	0	0	0	0	0	346	26	1	0	0	0	0	0	107	1	1	0	N.C.	N.C.	107	2
Québec-Chaudière-Appalaches	307	0	0	0	0	0	296	18	45	0	0	0	2	0	86	7	86	10	N.C.	N.C.	79	4
Centre-du-Québec	579	0	0	1	1	0	545	25	19	0	0	0	0	0	19	3	19	1	N.C.	N.C.	19	2
Montréal-Laval	769	0	0	1	1	0	762	29	291	1	0	1	2	0	291	22	291	33	N.C.	N.C.	291	7
Ouest du Québec	222	0	0	1	1	0	222	25	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Montérégie	187	0	0	1	1	0	183	9	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	2759	0	0	4	4	0	2354	132	356	1	0	1	4	0	503	33	397	44	N.C.	N.C.	496	15
P.H.O.L. - Ottawa	323	1	0	0	1	0	323	72	323	0	0	0	0	16	323	40	323	5	323	94	323	46
EORLA	300	0	0	0	0	0	300	49	26	0	0	0	0	0	26	1	26	0	26	3	26	0
P.H.O.L. - Kingston	37	0	0	0	0	0	37	9	37	0	0	0	0	0	37	0	37	0	37	1	37	5
UHN / Mount Sinai Hospital	557	0	0	0	0	0	557	13	9	0	0	0	0	0	9	0	9	0	9	0	9	1
P.H.O.L. - Toronto	302	0	3	0	3	0	296	24	296	0	0	0	0	6	296	7	296	0	296	25	296	19
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	2	15	0	0	0	0	1	15	0	15	0	15	2	15	1
P.H.O.L. - Timmins	24	0	0	0	0	0	24	1	24	0	0	0	0	0	24	0	24	0	24	7	24	2
St. Joseph's - London	820	0	0	7	7	0	820	123	820	0	0	0	0	4	820	12	820	2	820	59	7	0
P.H.O.L. - London	189	0	3	0	3	0	186	62	186	0	0	0	0	6	186	6	186	4	186	17	186	19
P.H.O.L. - Orillia	53	0	0	0	0	0	53	17	53	0	0	0	0	0	53	4	53	1	53	8	53	5
P.H.O.L. - Thunder Bay	13	0	0	0	0	0	13	4	13	0	0	0	0	1	13	0	13	0	13	5	13	0
P.H.O.L. - Sudbury	6	0	0	0	0	0	6	1	6	0	0	0	0	0	6	0	6	0	6	2	6	0
P.H.O.L. - Hamilton	76	0	0	0	0	0	76	11	76	0	0	0	0	4	76	0	76	0	76	16	76	5
P.H.O.L. - Peterborough	44	0	0	0	0	0	44	6	44	0	0	0	0	1	44	0	43	0	44	3	43	5
St. Joseph's - Hamilton	1063	0	0	0	0	0	1063	198	1063	0	0	9	0	0	1063	17	1063	2	1063	86	0	0
Province of Ontario	3822	1	6	7	14	0	3813	592	2991	0	0	9	0	39	2991	87	2990	14	2991	328	1114	108
Province of Manitoba	1927	0	0	0	0	0	1927	75	59	0	0	5	0	0	59	1	87	0	59	3	87	1
Province of Saskatchewan	713	0	0	1	1	0	712	5	139	0	0	18	2	0	139	2	139	0	139	28	139	11
Province of Alberta	2037	0	1	4	5	1	749	170	749	0	0	23	7	0	749	13	749	3	749	93	749	86
Prairies	4677	0	1	5	6	1	3388	250	947	0	0	46	9	0	947	16	975	3	947	124	975	98
British Columbia	8631	0	4	0	30	3	8604	1009	534	0	0	30	3	9	534	15	534	0	527	103	527	12
Yukon	59	0	0	0	0	0	59	37	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	33	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	33	10	0	0
Nunavut	156	0	0	0	0	0	155	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	248	0	0	0	0	0	247	38	0	0	0	0	0	0	0	0	0	0	33	10	0	0
CANADA	22303	1	11	21	59	4	19848	2139	5505	1	0	91	17	59	5652	156	5573	63	5175	617	3468	255

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 18, 2021 (surveillance week 2021-35 to 2021-50)

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	6802	0	0	0	0	0	6801	48	6804	1	3	116	0	152	6806	16	6801	14	6805	1699	N.C.	N.C.
Prince Edward Island	1419	0	0	0	0	0	1419	59	1419	0	0	150	0	0	1419	29	1419	0	1419	407	1419	84
Nova Scotia	7147	0	1	6	7	4	6841	129	943	0	2	37	2	0	957	7	957	0	957	89	957	13
New Brunswick	6685	0	0	6	6	0	3925	171	2236	0	0	21	0	0	2229	6	2236	3	2236	31	2145	3
Atlantic	22053	0	1	12	13	4	18986	407	11402	1	5	324	2	152	11411	58	11413	17	11417	2226	4521	100
Région Nord-Est	8994	0	0	0	0	1	4838	1340	585	0	0	6	1	0	596	12	23	0	N.C.	N.C.	596	6
Québec-Chaudière-Appalaches	3497	0	0	2	2	4	4054	971	559	0	1	6	4	0	750	29	662	31	N.C.	N.C.	575	15
Centre-du-Québec	3552	0	0	3	3	3	3730	1031	314	0	0	9	0	0	314	11	322	5	N.C.	N.C.	307	7
Montréal-Laval	11012	0	0	11	11	4	11001	2350	3389	3	1	20	3	0	3389	199	3389	219	N.C.	N.C.	3389	25
Ouest du Québec	2823	0	1	3	4	0	2780	873	12	0	0	0	0	0	8	1	11	1	N.C.	N.C.	11	1
Montérégie	1881	0	0	1	1	0	1874	380	0	0	0	0	0	0	0	0	0	0	N.C.	N.C.	0	0
Province of Québec	31759	0	1	20	21	12	28277	6945	4859	3	2	41	8	0	5057	252	4407	256	N.C.	N.C.	4878	54
P.H.O.L. - Ottawa	5997	2	1	0	3	0	5997	1407	5997	0	0	0	0	726	5997	309	5996	38	5997	2198	5996	219
EORLA	3035	0	0	0	0	0	3010	474	431	0	0	17	0	0	431	6	112	0	431	98	108	8
P.H.O.L. - Kingston	809	0	0	0	0	0	808	73	807	0	0	0	0	129	807	13	806	2	807	267	806	43
UHN / Mount Sinai Hospital	6896	0	0	6	6	0	6896	52	212	0	0	0	0	0	212	0	212	0	212	8	212	2
P.H.O.L. - Toronto	4442	0	10	0	10	0	4430	191	4430	0	0	0	0	241	4431	45	4429	8	4430	751	4430	87
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	147	0	1	0	1	0	145	2	145	0	0	0	0	6	145	0	145	0	145	46	145	1
P.H.O.L. - Timmins	137	0	0	0	0	0	137	4	137	0	0	0	0	14	137	1	137	0	137	24	137	2
St. Joseph's - London	3329	0	0	10	10	0	3332	337	1775	0	0	7	0	67	1775	34	1775	4	1729	223	453	1
P.H.O.L. - London	1537	0	3	0	3	0	1534	258	1534	0	0	0	0	134	1534	31	1534	7	1534	352	1534	46
P.H.O.L. - Orillia	441	0	1	0	1	0	441	59	441	0	0	0	0	39	441	16	439	4	441	145	439	14
P.H.O.L. - Thunder Bay	112	0	0	0	0	0	112	5	112	0	0	0	0	8	112	0	112	0	112	42	112	2
P.H.O.L. - Sudbury	188	0	0	0	0	0	188	7	188	0	0	0	0	6	188	1	188	2	188	28	188	4
P.H.O.L. - Hamilton	726	0	7	0	7	0	719	47	719	0	0	0	0	42	719	7	719	4	719	183	719	23
P.H.O.L. - Peterborough	407	0	0	0	0	0	407	37	406	0	0	0	0	10	406	1	404	0	406	73	404	13
St. Joseph's - Hamilton	8344	0	4	5	9	0	8338	1090	8338	2	0	620	0	0	8338	68	8338	18	8338	1362	0	0
Province of Ontario	37249	2	27	21	50	0	36494	4043	26374	2	0	712	0	1422	26375	541	26048	88	26328	6009	16385	470
Manitoba	27785	1	3	3	7	0	27785	292	464	1	2	53	0	0	464	7	1344	4	464	164	1150	3
Province of Saskatchewan	9086	0	1	1	2	0	9065	40	1585	0	0	107	10	0	1585	28	1585	1	1585	309	1584	40
Province of Alberta	30810	0	5	20	25	1	11816	775	11816	0	11	591	97	0	11816	114	11816	22	11816	2177	11816	582
Prairies	67681	1	9	24	34	1	48666	1107	13865	1	13	751	107	0	13865	149	14745	27	13865	2650	14550	625
British Columbia	51697	0	21	3	114	75	51482	4110	9198	0	1	954	90	119	9198	129	9194	41	8972	2006	9021	73
Yukon	3111	0	1	0	4	6	3176	72	N.C.	N.C.	N.C.	N.C.	N.C.	N.C.	41	2	41	0	300	62	41	0
Northwest Territories	332	0	0	0	0	0	301	0	41	0	0	0	0	0	41	2	41	0	300	62	41	0
Nunavut	4206	0	0	0	0	0	4201	6	10	0	0	0	0	0	10	1	10	0	10	6	10	0
Territories	7649	0	1	0	4	6	7678	78	51	0	0	0	0	0	51	3	51	0	310	68	51	0
CANADA	218088	3	60	80	236	98	191583	16690	65749	7	21	2782	207	1693	65957	1132	65858	429	60892	12959	49406	1322

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

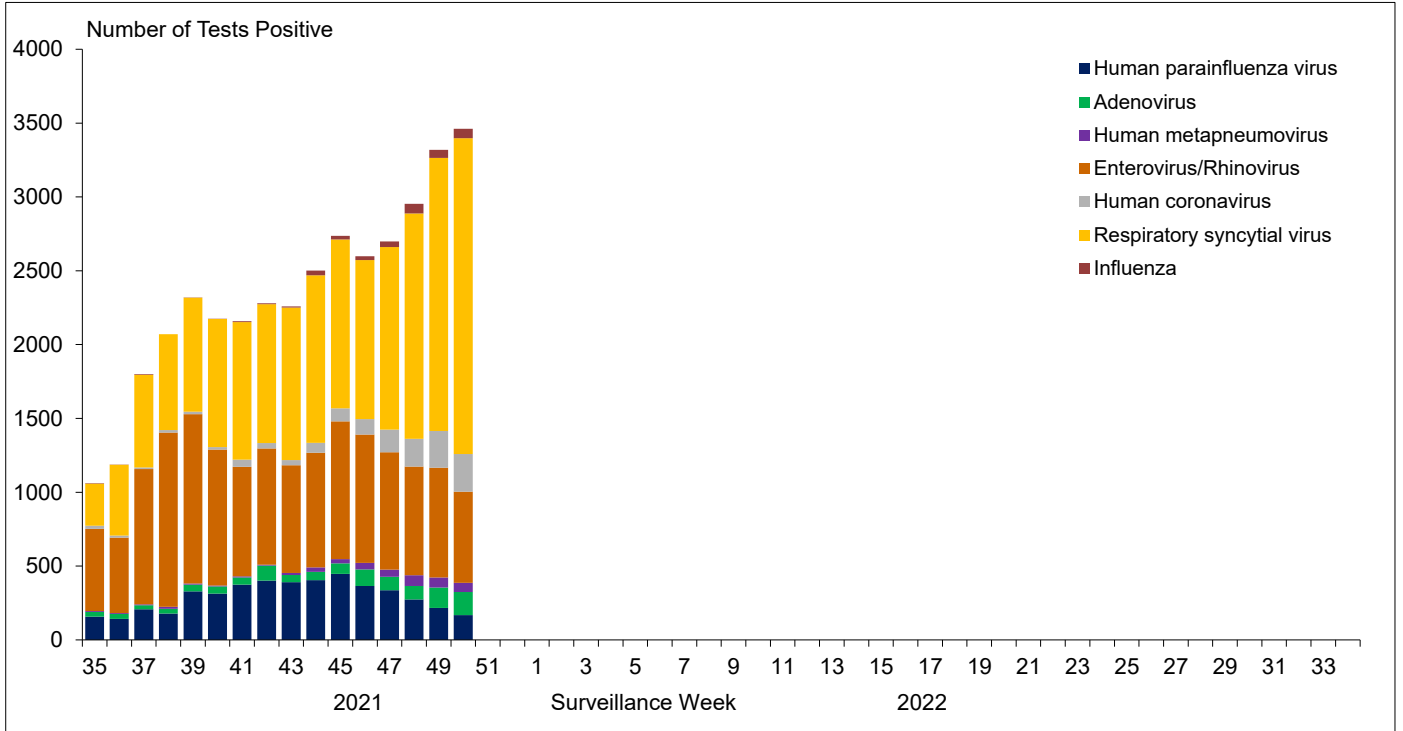


Figure 3: Positive Influenza (Flu) tests (%) in Canada by region by surveillance week

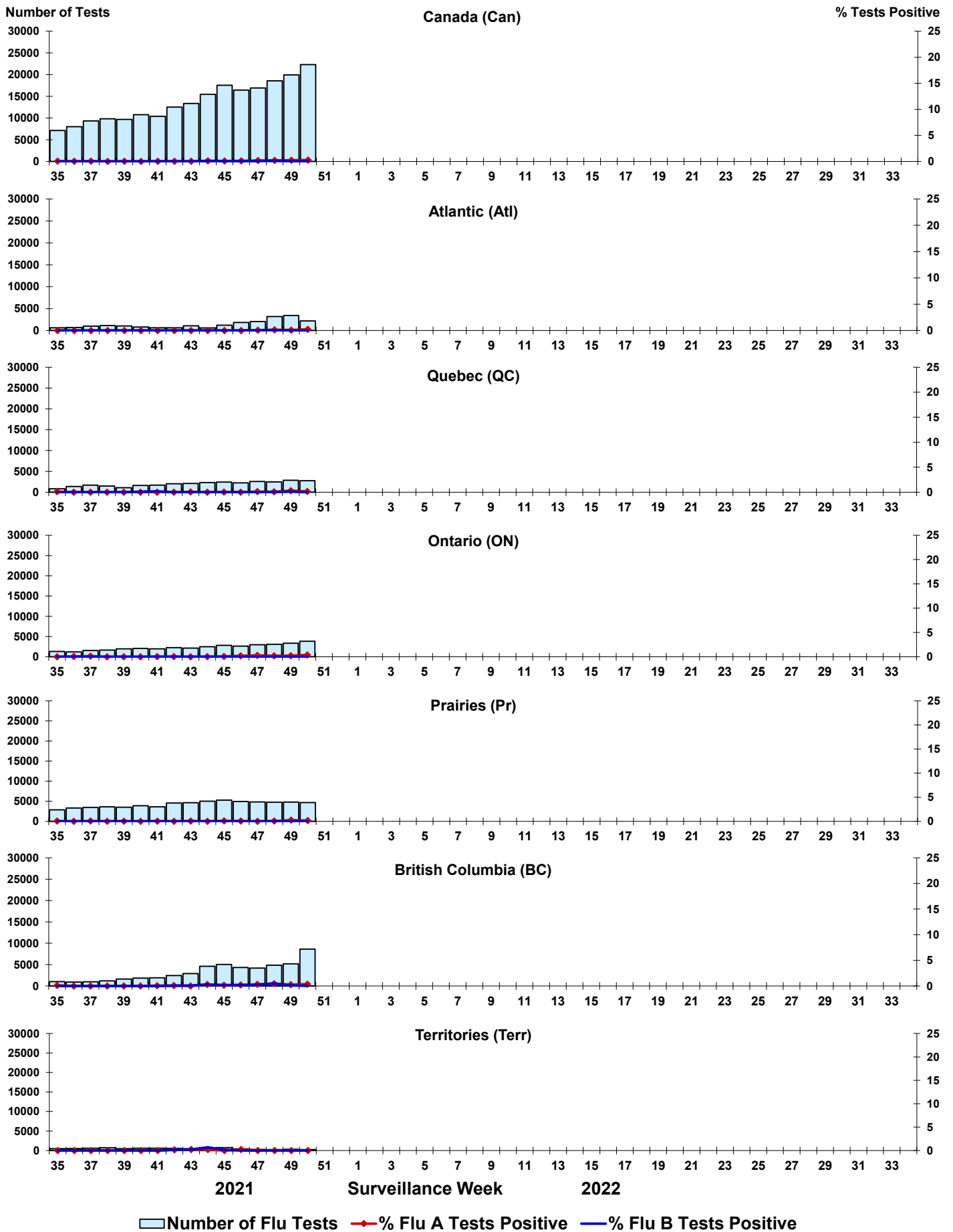


Figure 4: Positive Respiratory syncytial virus (RSV) tests (%) in Canada by region by surveillance week

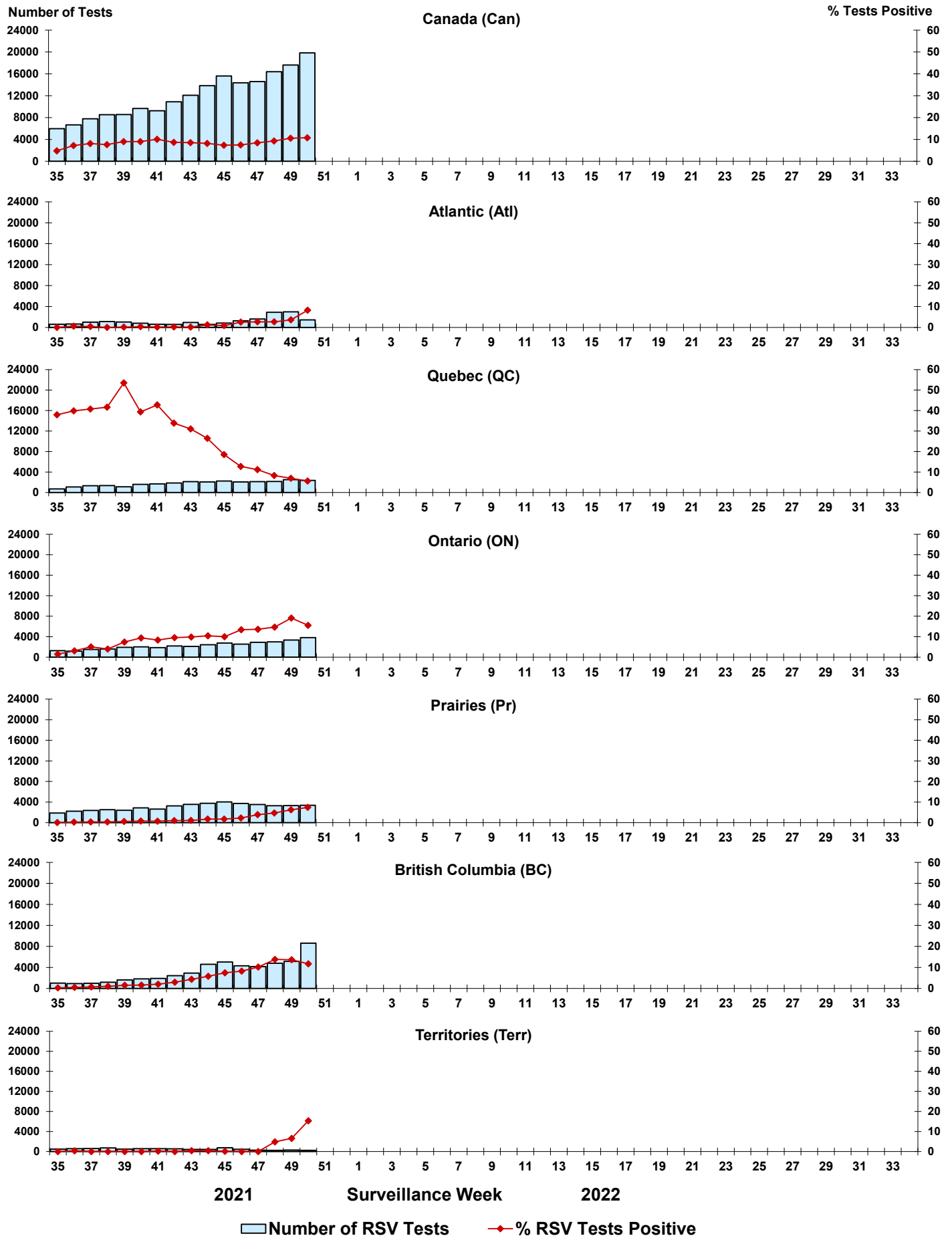


Figure 5: Positive Human parainfluenza virus (HPIV) tests (%) in Canada by region by surveillance week

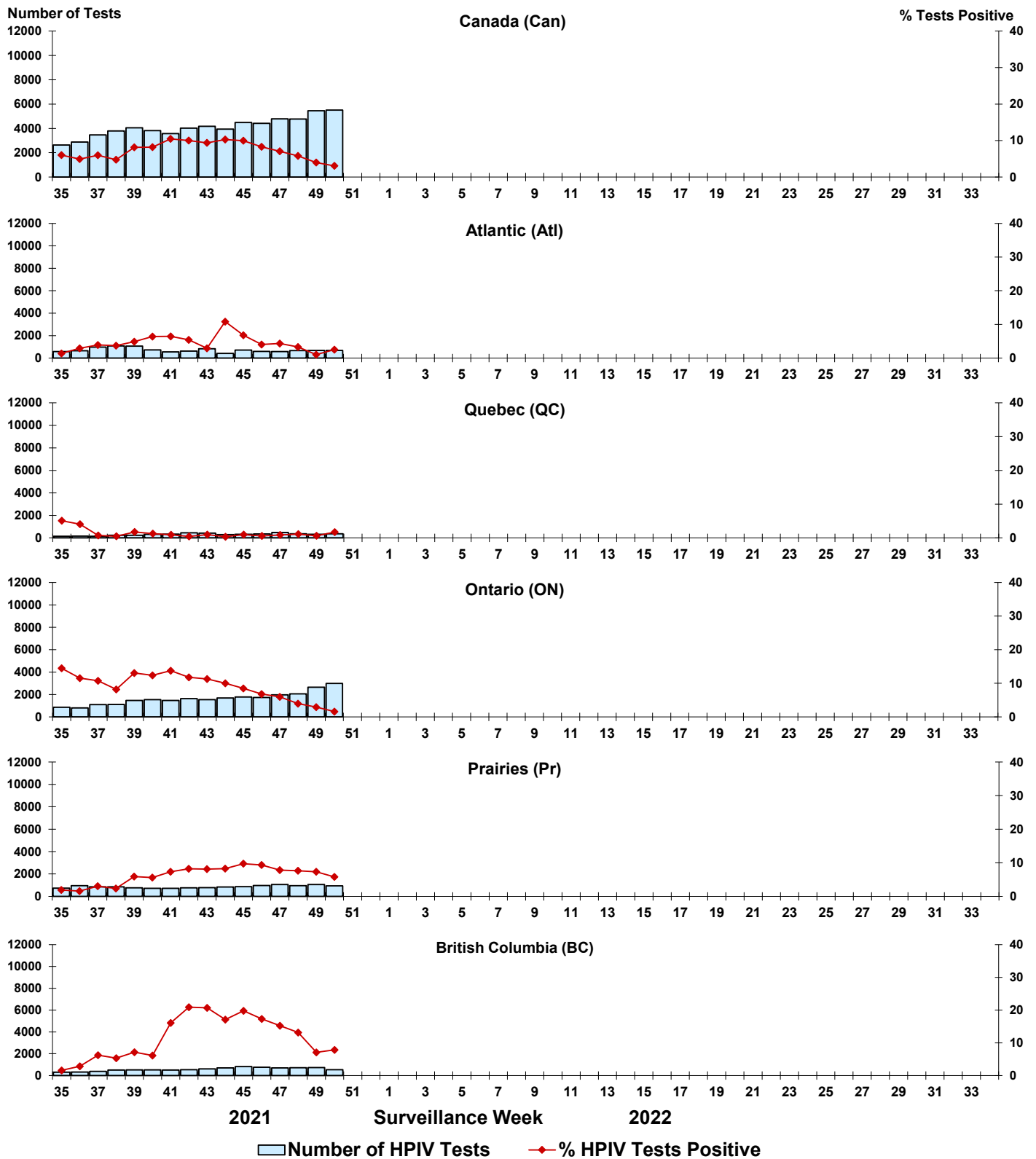


Figure 6: Positive Adenovirus (ADV) tests (%) in Canada by region by surveillance week

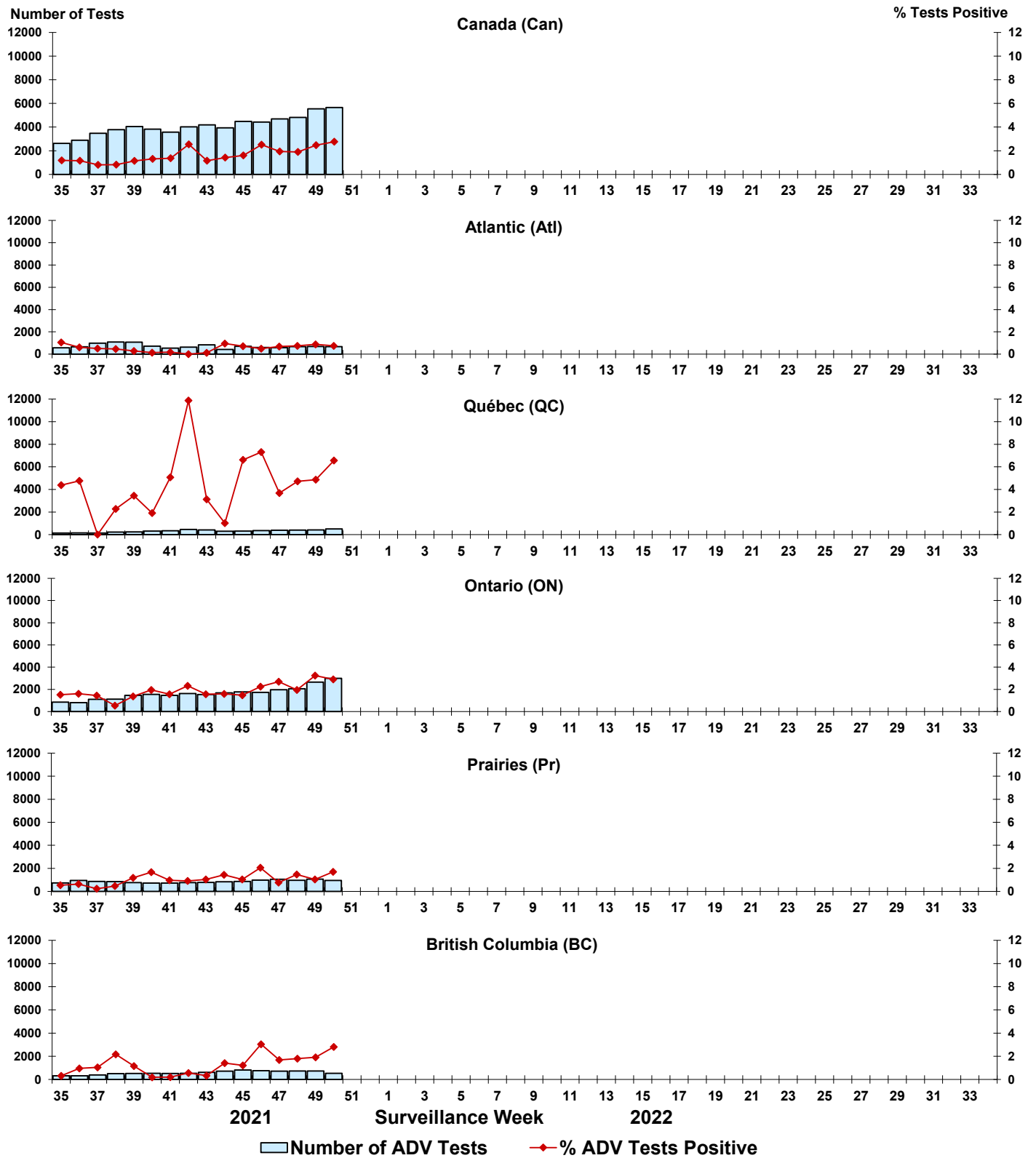


Figure 7: Positive Human metapneumovirus (HMPV) tests (%) in Canada by region by surveillance week

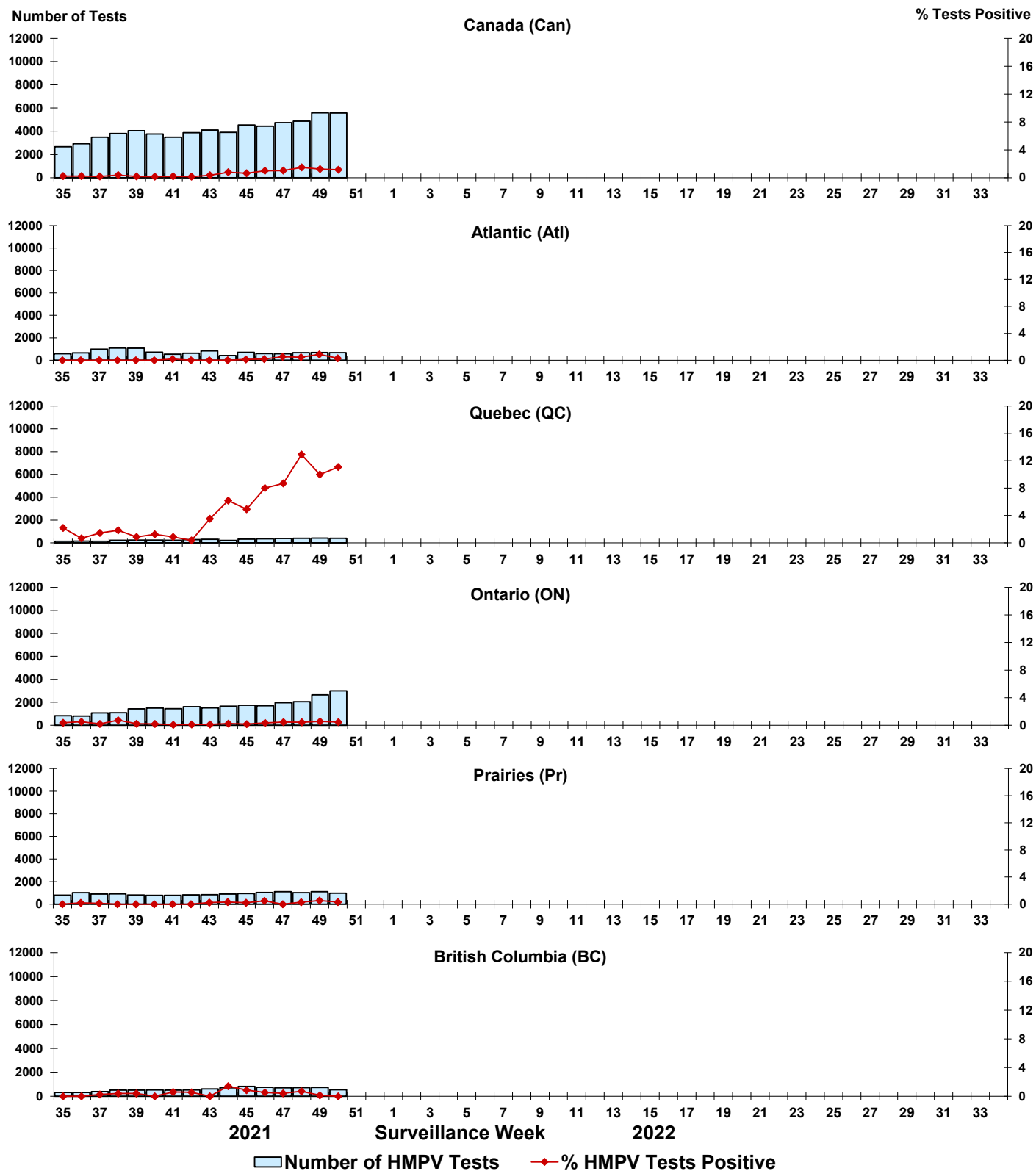


Figure 8: Positive Enterovirus/Rhinovirus (EV/RV) tests (%) in Canada by region by surveillance week

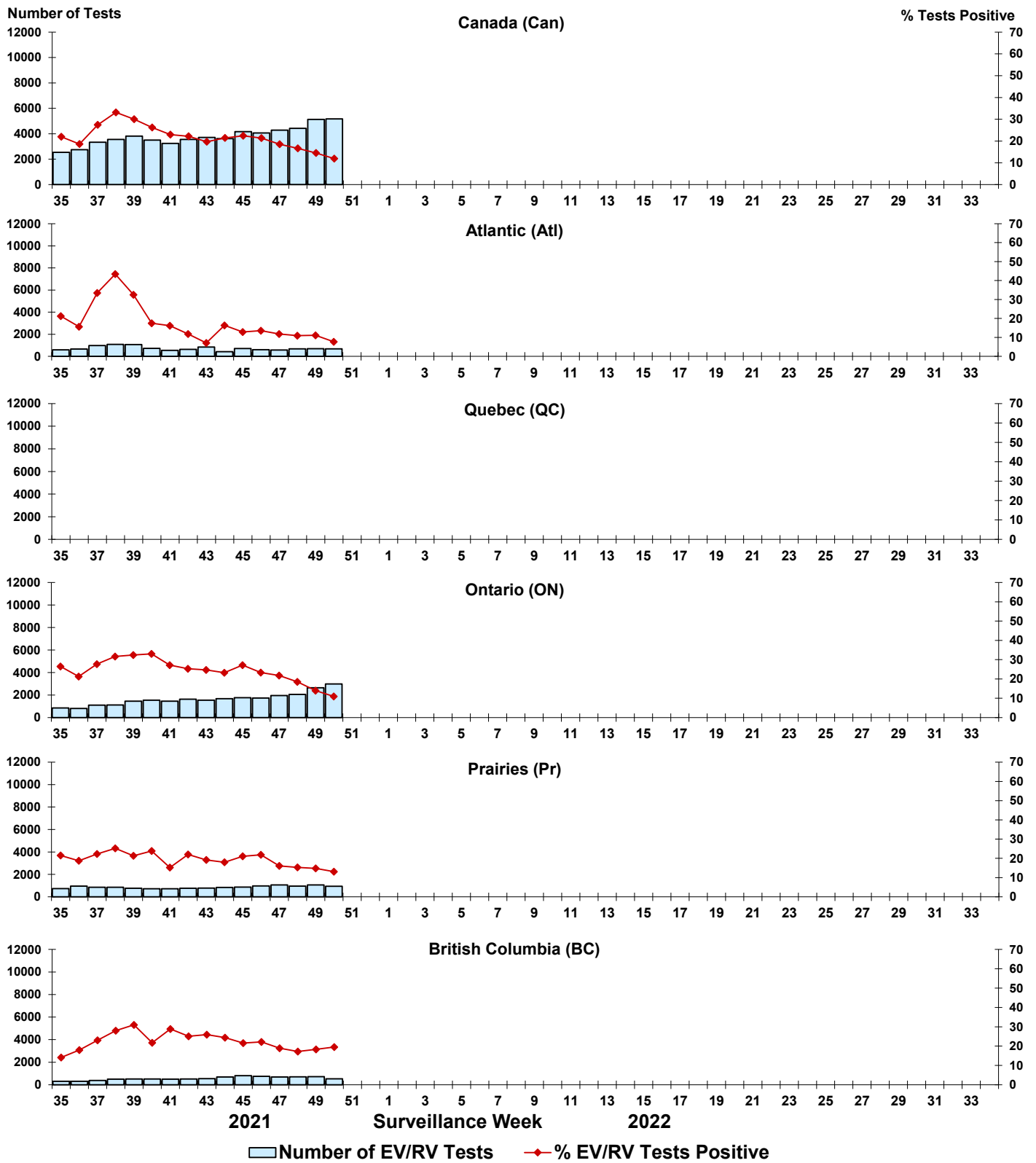


Figure 9: Positive Human coronavirus (HCoV) tests (%) in Canada by region by surveillance week

