

BCCDC Weekly Data Summary

30 April 2021

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Overall Weekly Summary

- **Case rates** remain elevated across BC, but are continuing to decline in each HA; **test positivity** is stable at 11% for publicly funded tests.
- **New hospitalizations** continue to be elevated, but early signs of slowing; **hospital/ critical care census** are increasing in FH, VCH, IH; **new deaths** are stable and low.
 - Majority of hospitalizations among individuals aged >40 years
 - Majority of deaths in individuals aged >80 years
- The share of **VOCs** among screened cases in BC is ~78% in epi week 16. VOCs have been detected in all regions of the province. Among sequenced samples provincially based on information for epi week 15, P.1 (~40%) and B.1.1.7 (~60%) remain two dominant VOCs.
- **Alberta's** case rate is currently the highest in Canada and at similar levels to the Dec peak. Potential for importation into BC.
- As of April 29, >39% of adult population in BC has been **vaccinated**; > 80% of those over 70 years have been vaccinated.
 - Vaccine coverage varies regionally
 - The number of outbreaks in LTCFs remains very low.

Apr 24 to Apr 30: BC COVID-19 Profile



129,482 total cases
5,724 new this week



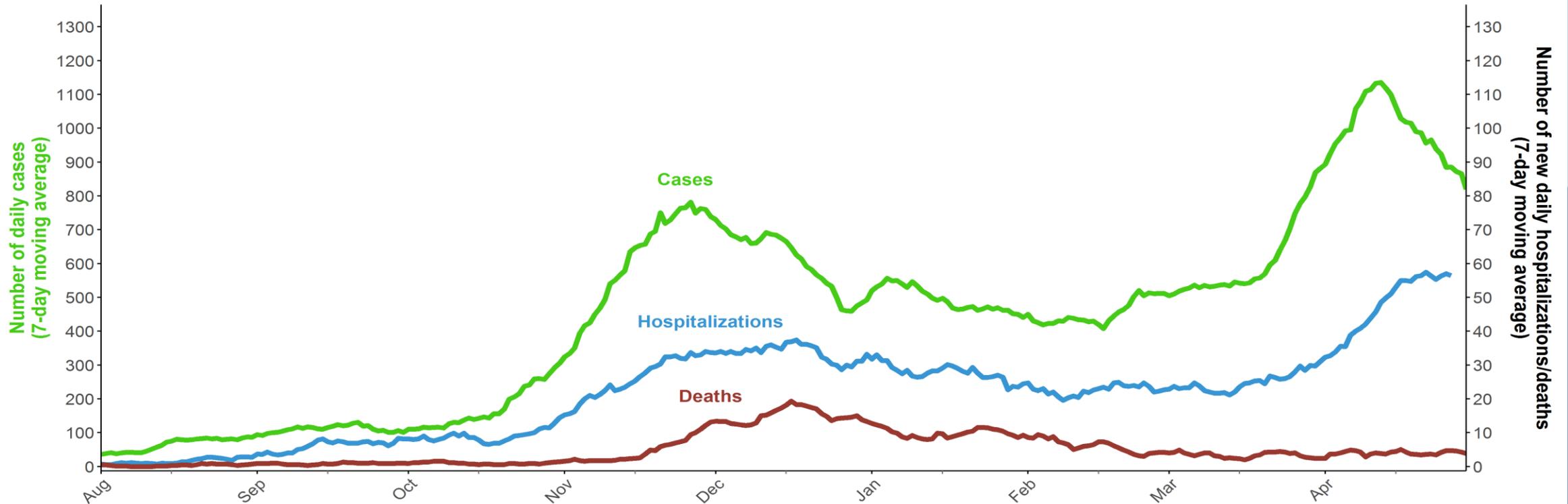
1,581 total deaths
27 new this week



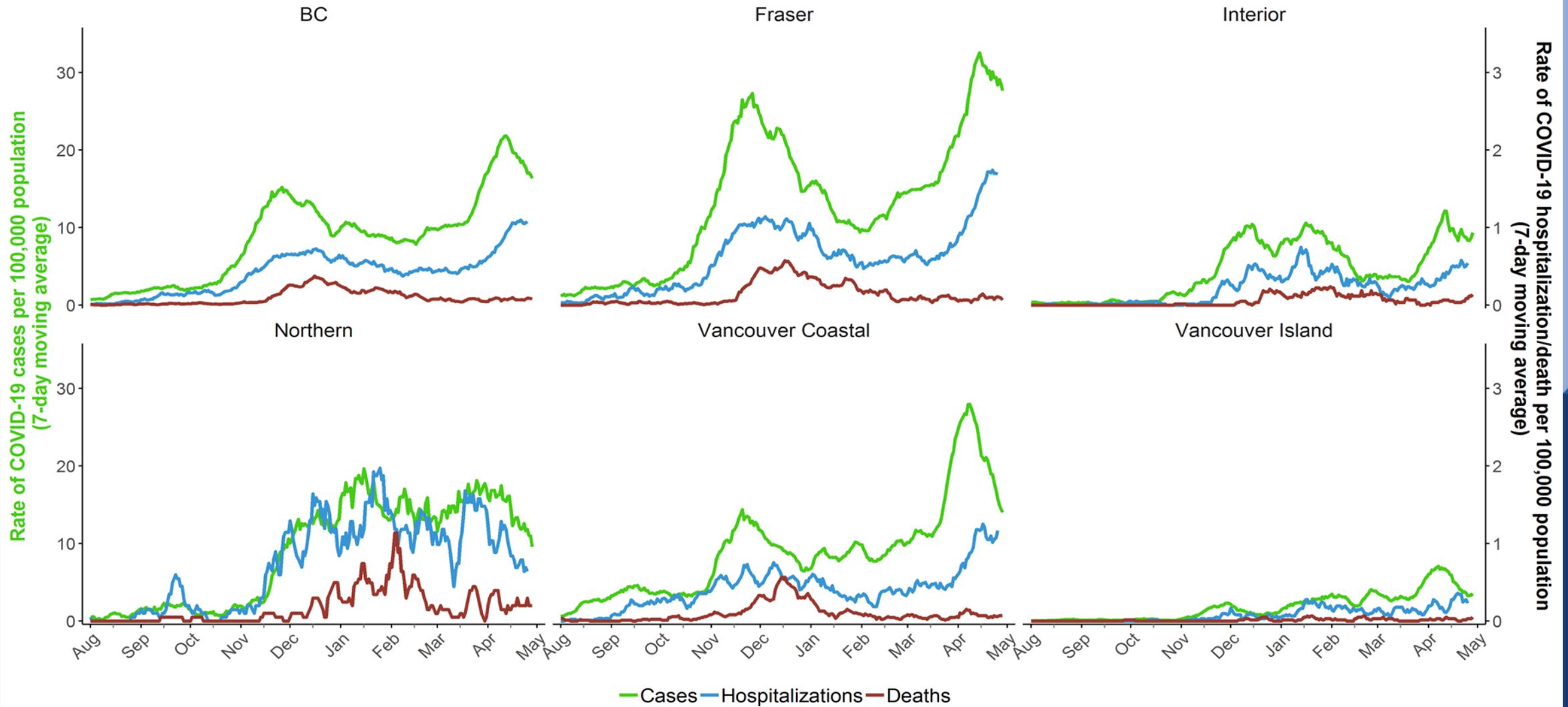
6,669 ever hospitalized
388 new this week



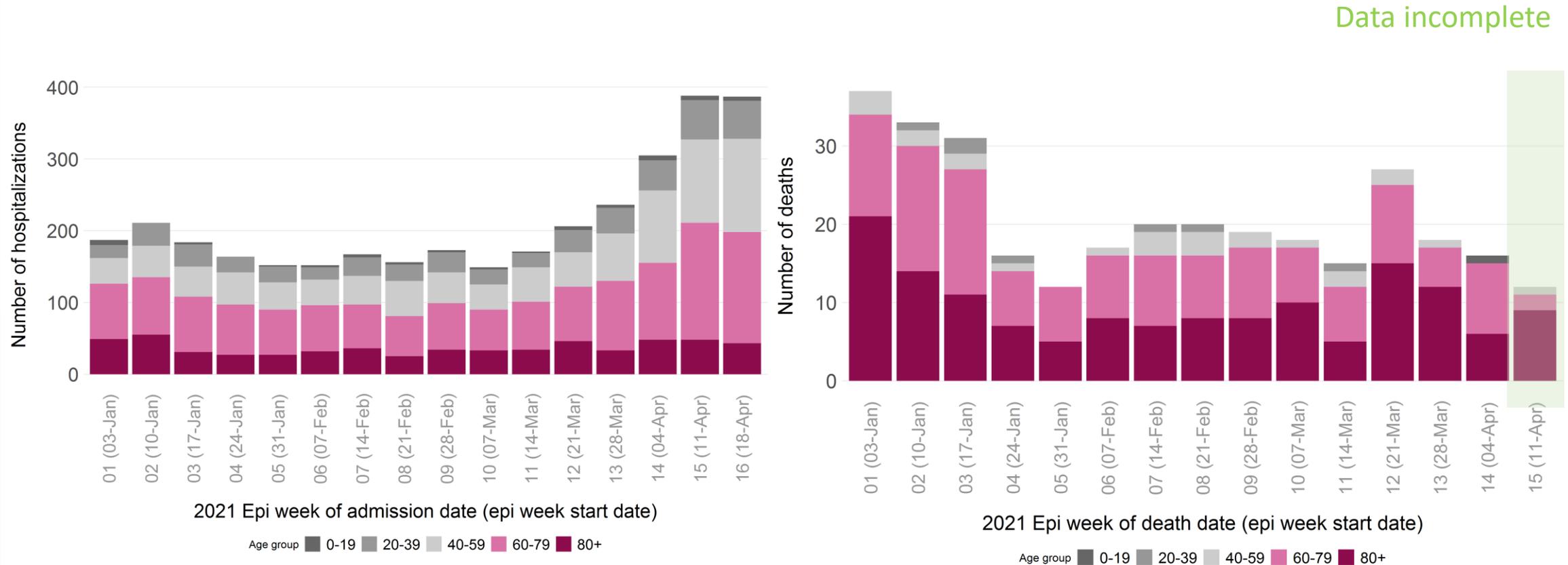
119,785 removed from isolation
6,646 new this week



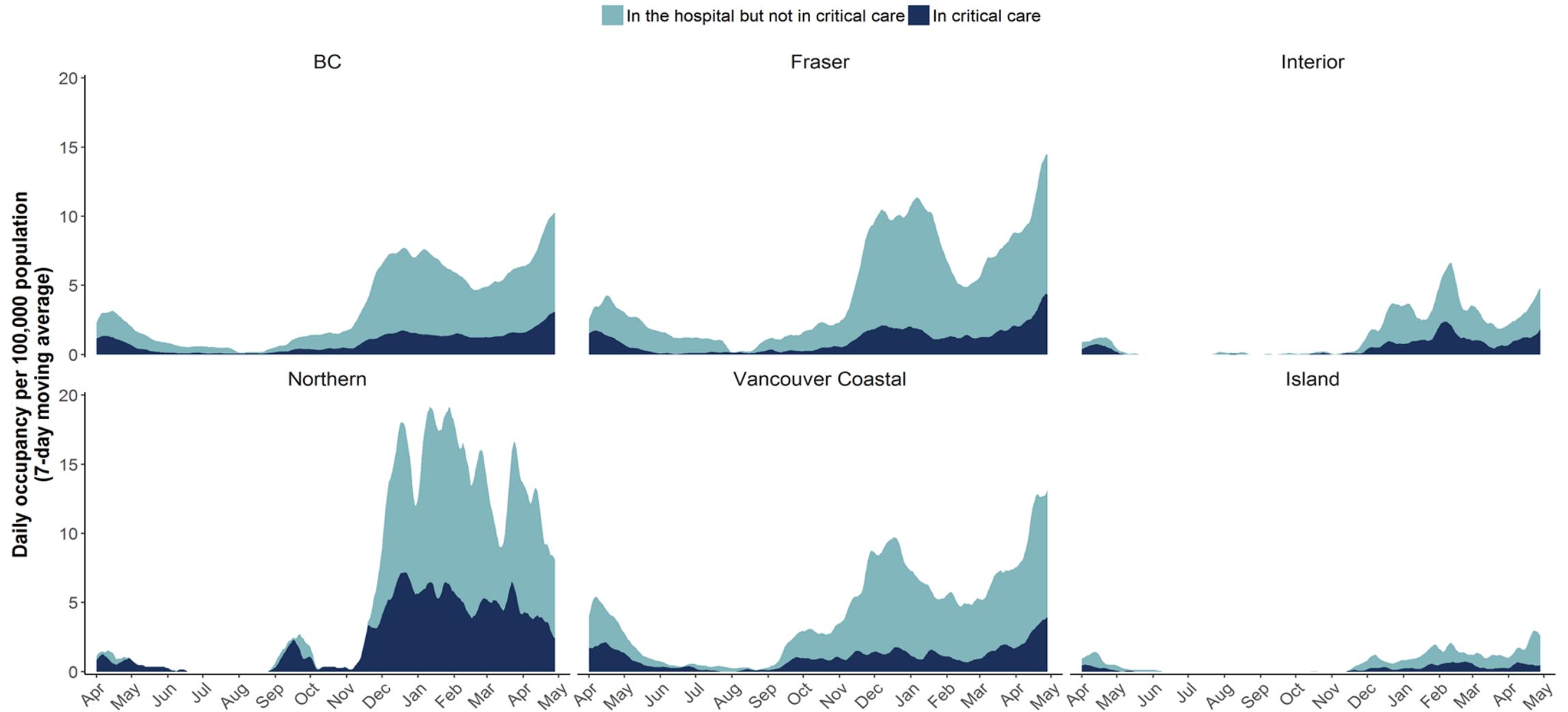
Case rates are elevated across BC, but continuing to decline in each HA; **new hospitalizations** continue to be elevated, but stabilizing; **new deaths** are stable and low.



New hospitalizations are elevated and stable, primarily among 40-79 years. The number of hospitalizations among <40 years remain relatively low. Deaths decreasing and mostly in individuals ≥80 years.



Hospital and critical care census continues to increase in BC, driven by FH, VCH and IH.



Geographic Distribution of COVID-19 by LHA and CHSA of Case Residence

Recent 7-Days Cases
April 23 to 29, 2021

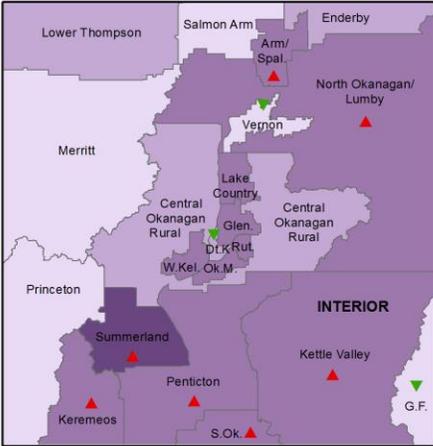
Change from prior week
(average daily rate change
>5.0 per 100,000 pop.)

- ▼ decrease
- ▲ increase

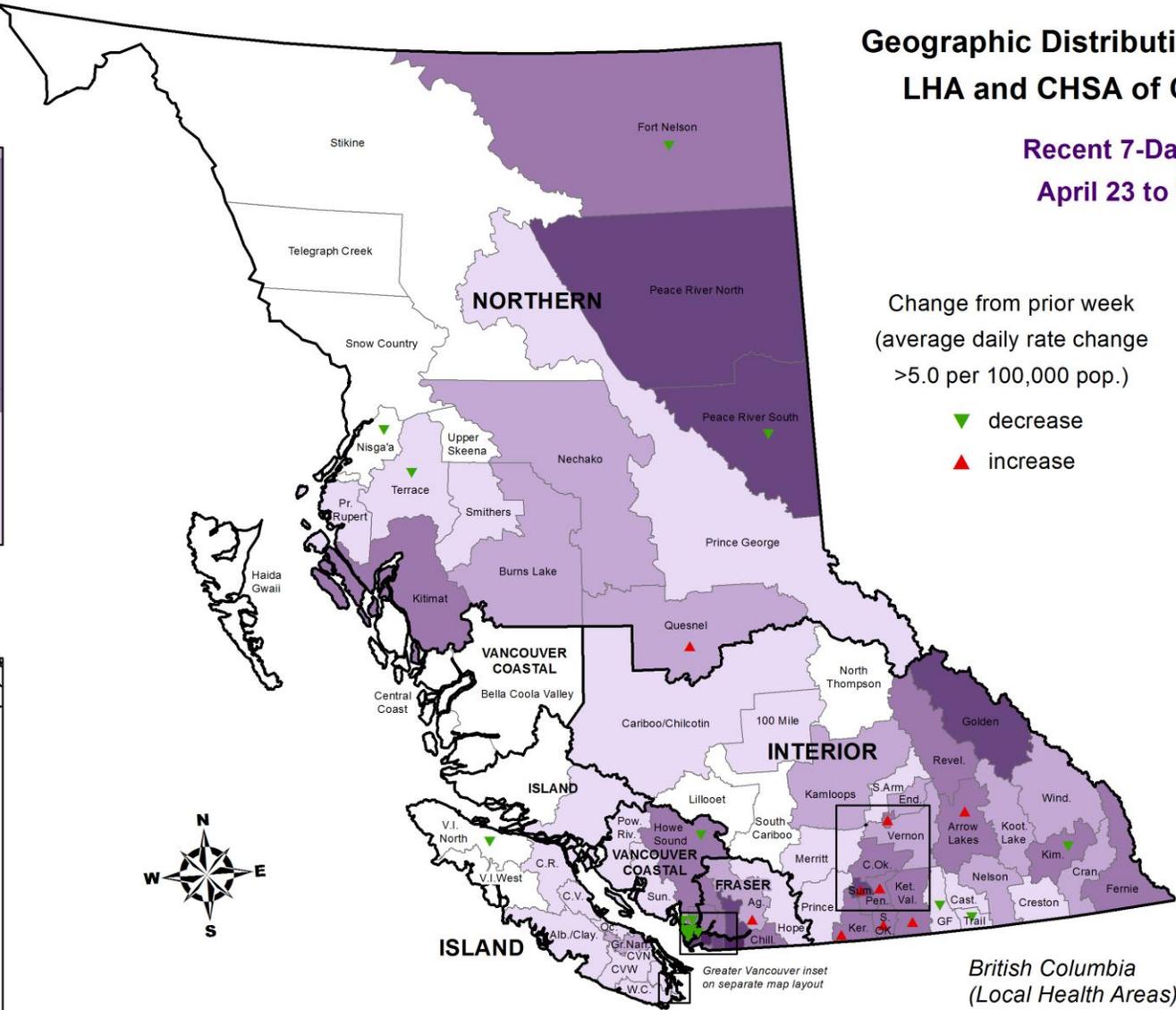
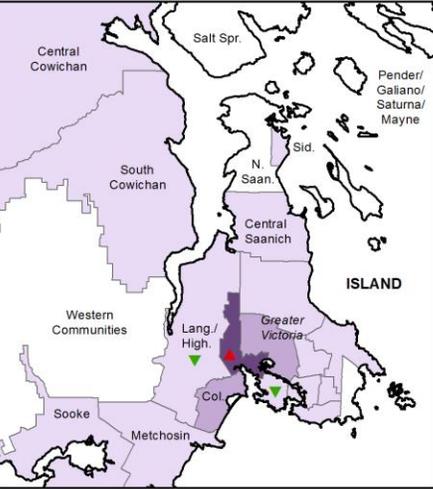
Average daily rate per
100,000 population

- 0.0
- 0.1 - 5.0
- 5.1 - 10.0
- 10.1 - 20.0
- 20.1 - 40.0
- > 40.0

Okanagan Inset
(Community Health Service Areas)



Greater Victoria Inset
(Community Health Service Areas)

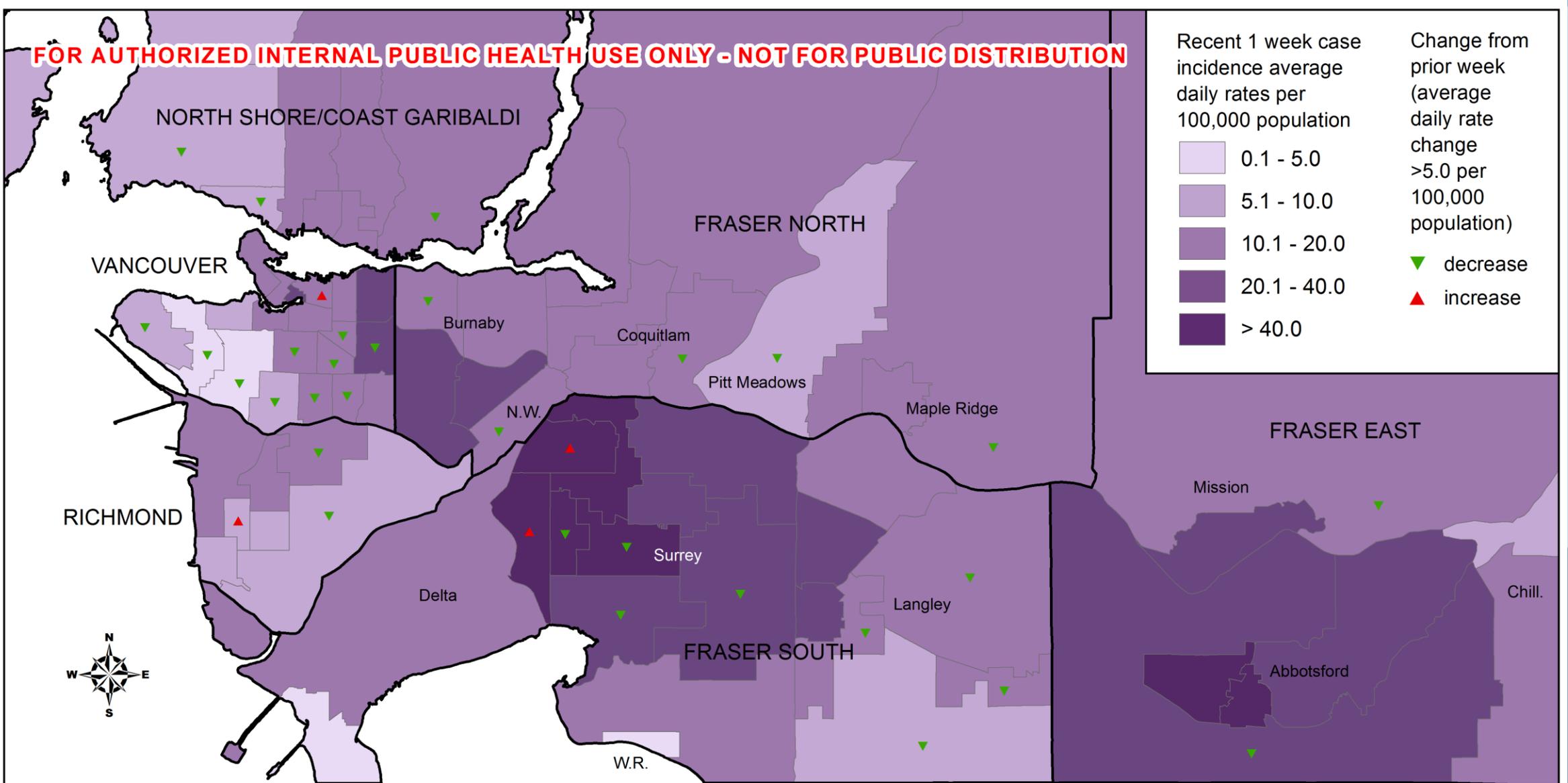


Greater Vancouver inset
on separate map layout

British Columbia
(Local Health Areas)

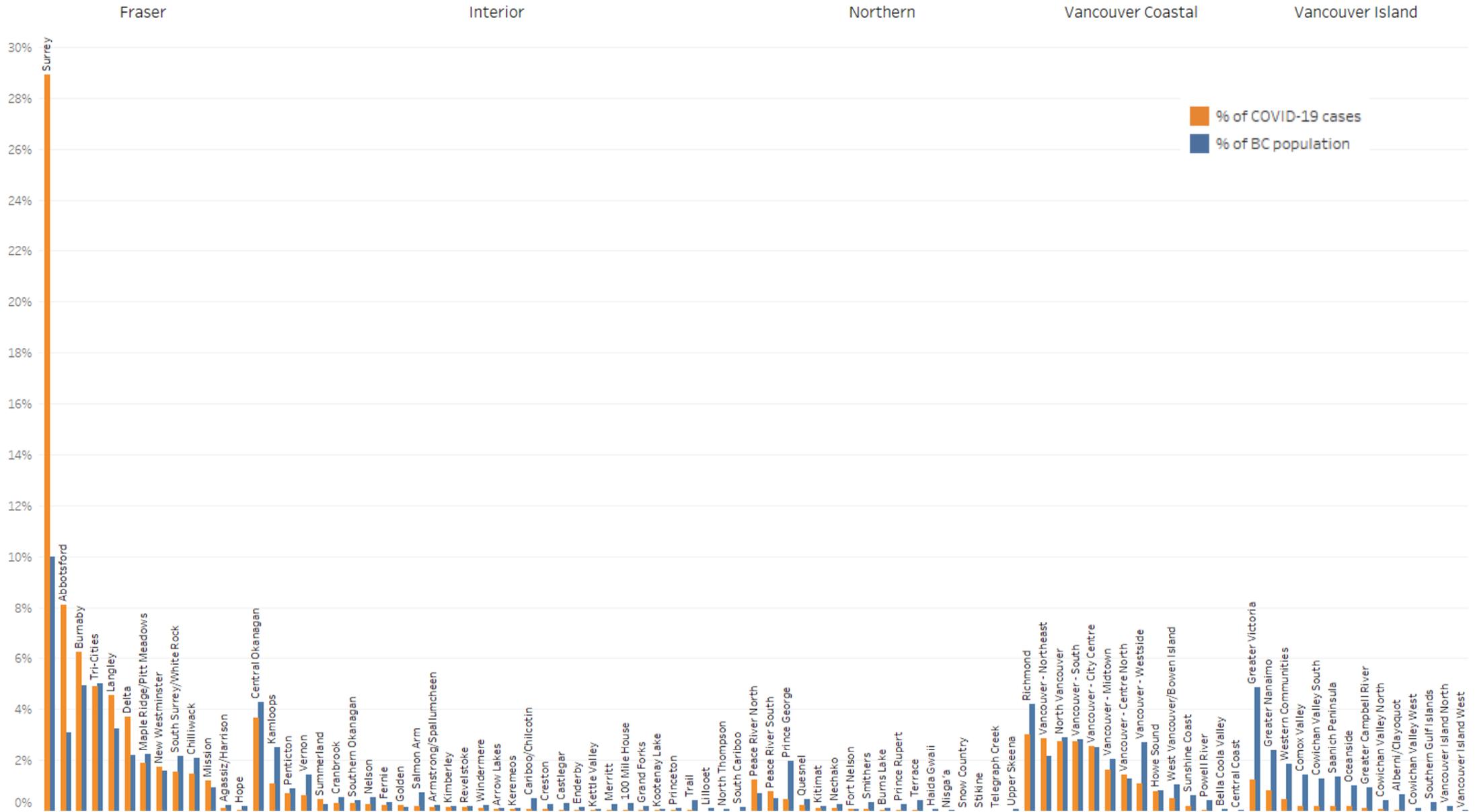
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COVID-19 Recent 1 Week Case Incidence Rates by CHSA (April 23 to 29, 2021)

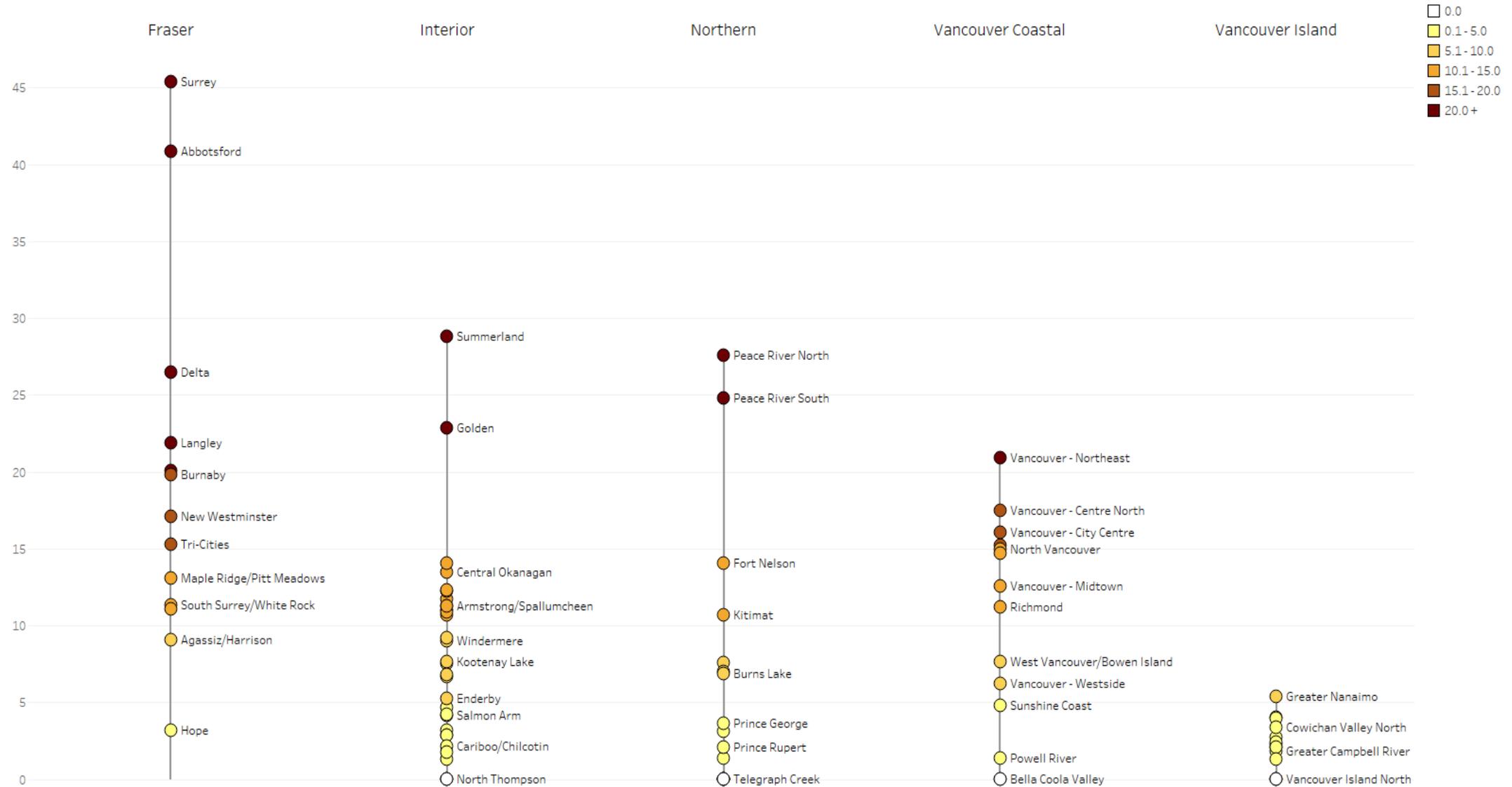
Proportion to total cases & population by local health area, Apr. 23 - Apr. 29, 2021



Total cases by local health area, Apr. 23 - Apr. 29, 2021

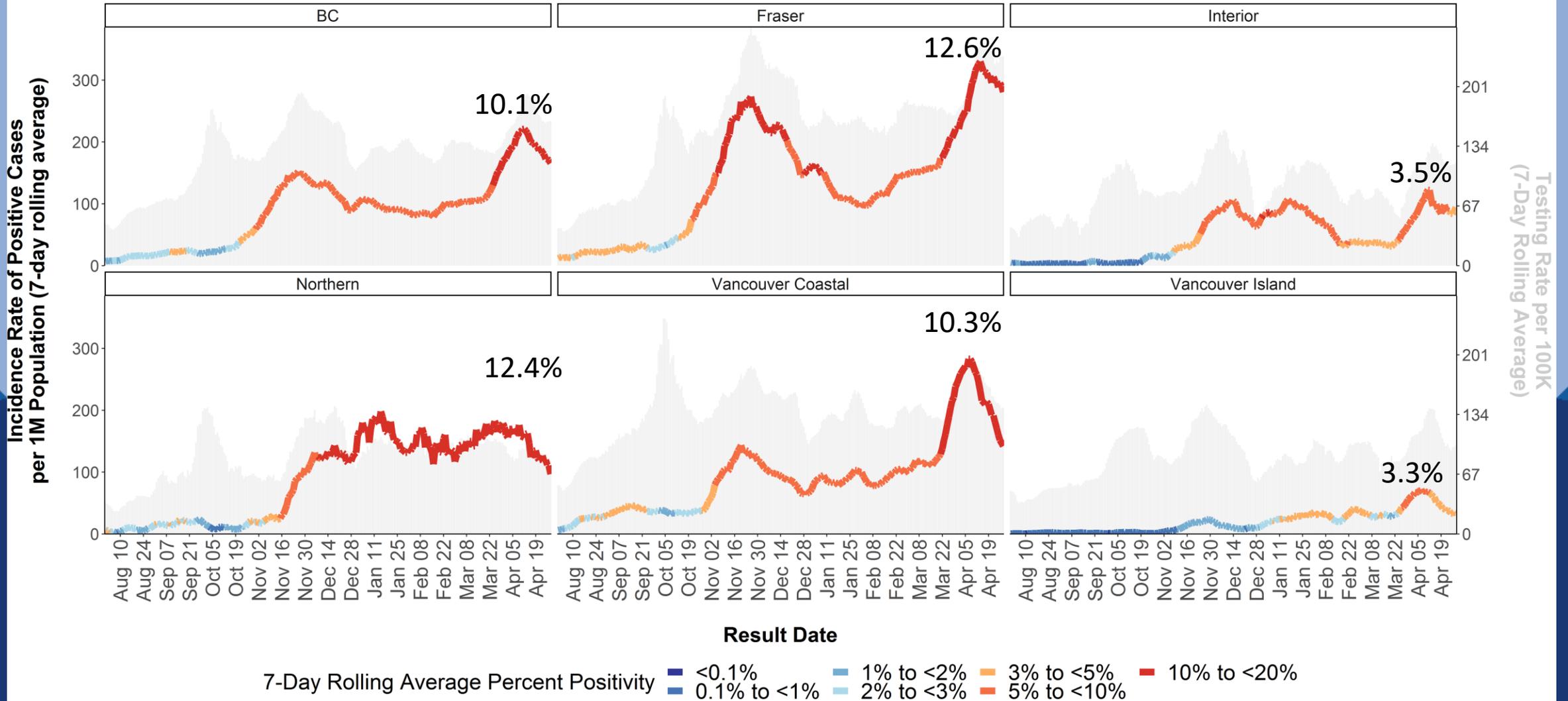


Average daily rate of new cases per 100,000 population, by local health area, Apr. 23 - Apr. 29, 2021



Incidence is elevated in BC, but decreasing (FH, VCH, NH) or stable (IH). Percent positivity remains >10% in FH, VCH and NH.

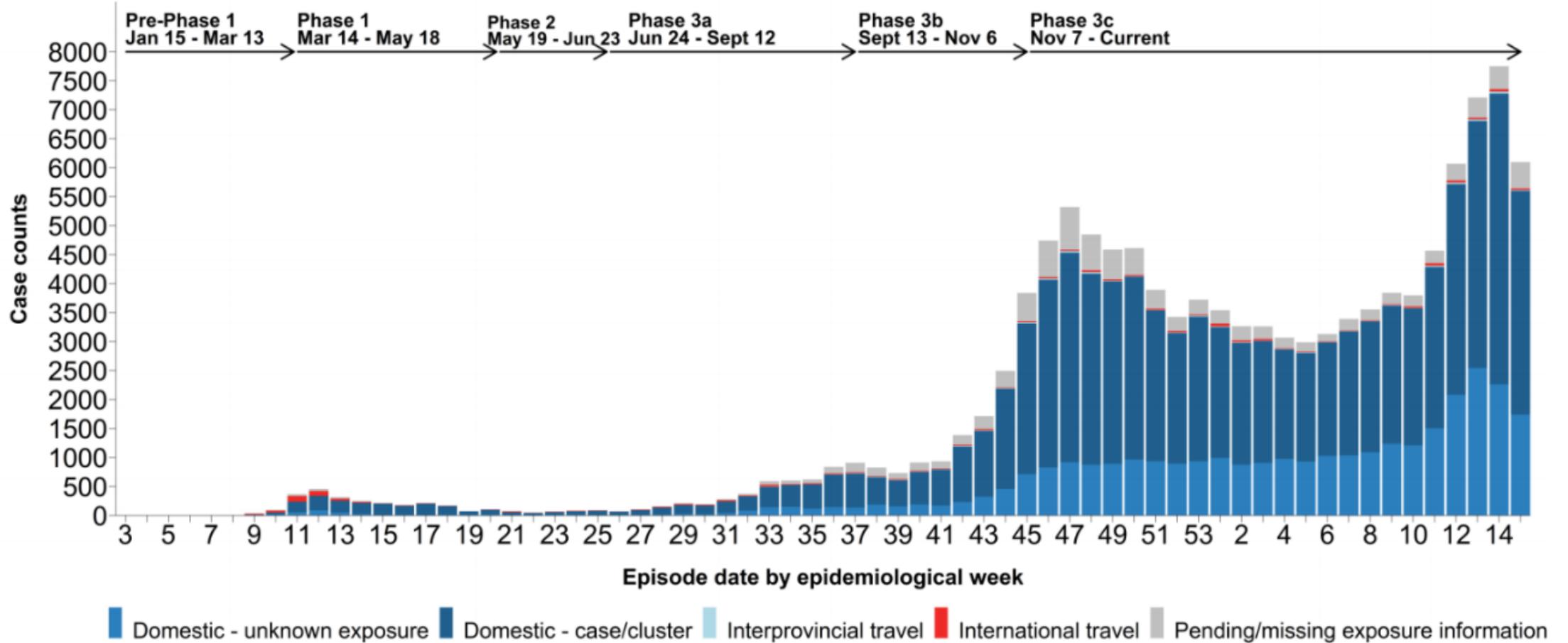
Case incidence rate, test percent positivity, and testing rate (Public Payers Only). Aug 1 2020 - Apr 28, 2021.



Data source: PLOVER 28-Apr-2021

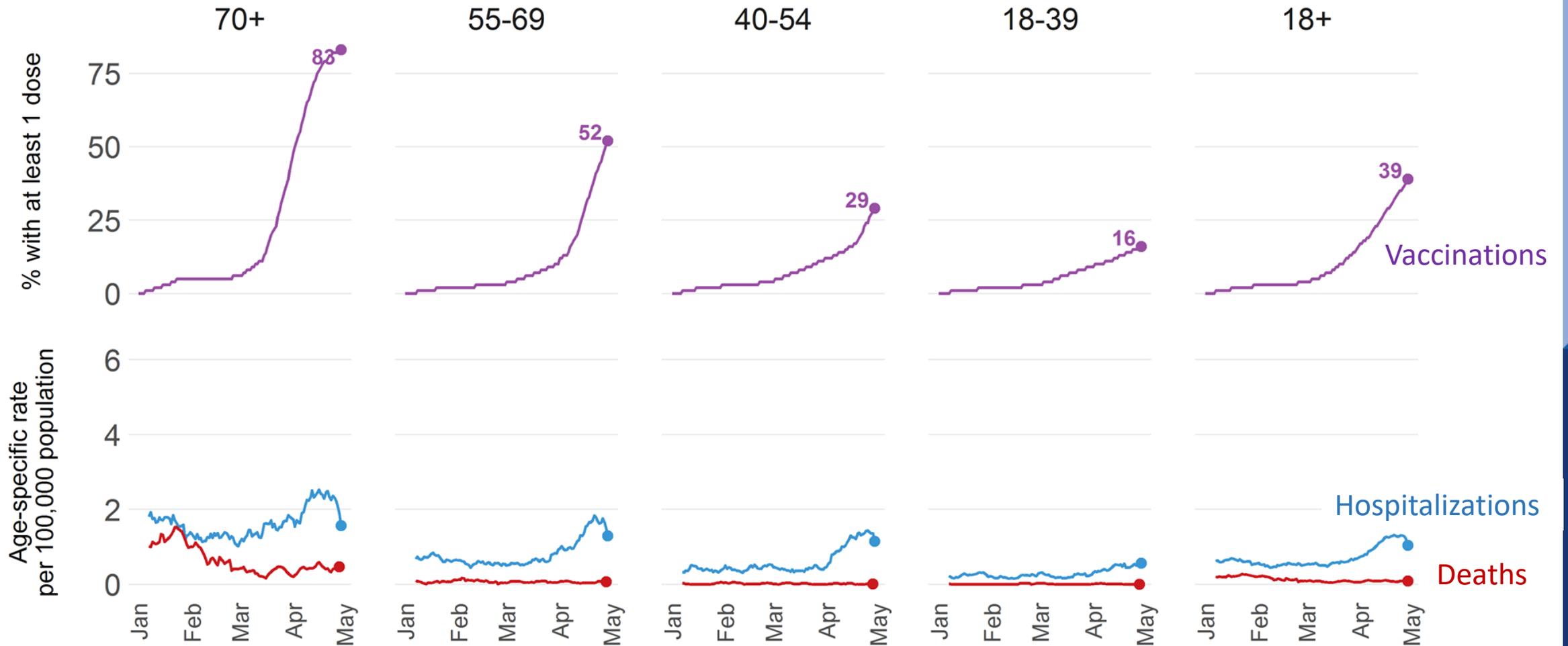
The majority of cases continue to be related to local acquisition through a known case or cluster

January 15, 2020 (week 3) – April 17, 2021 (week 15) (N= 121,382)

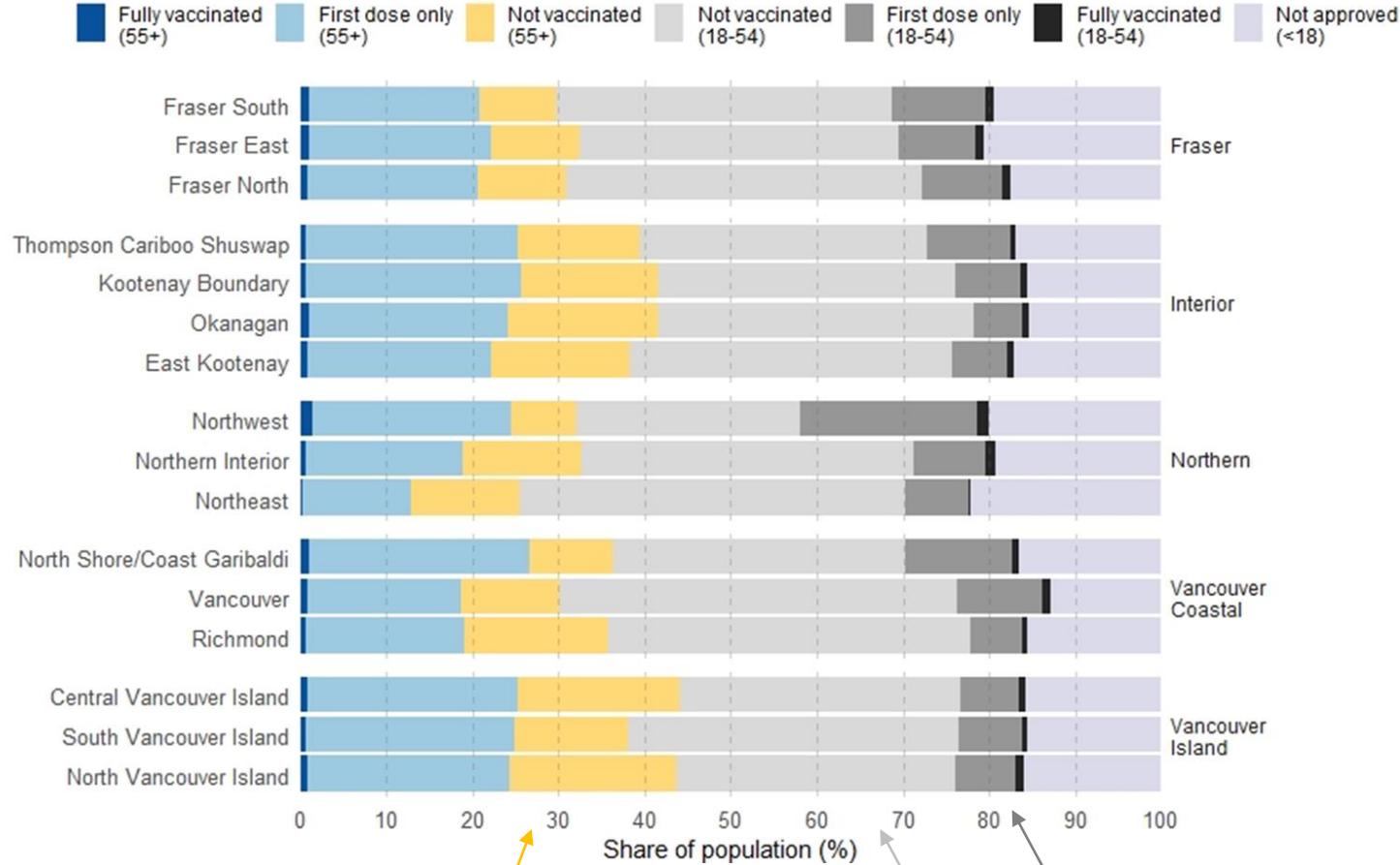


Likely source of COVID-19 infection by episode date, BC January 15,2020 (week3) to April 17, 2021 (week15)

Vaccination progress in BC by age group up to 29 April 2021



Vaccination progress in BC by HSDA up to 29 April 2021



Already eligible or soon to be eligible for mRNA vaccine, age-based rollout

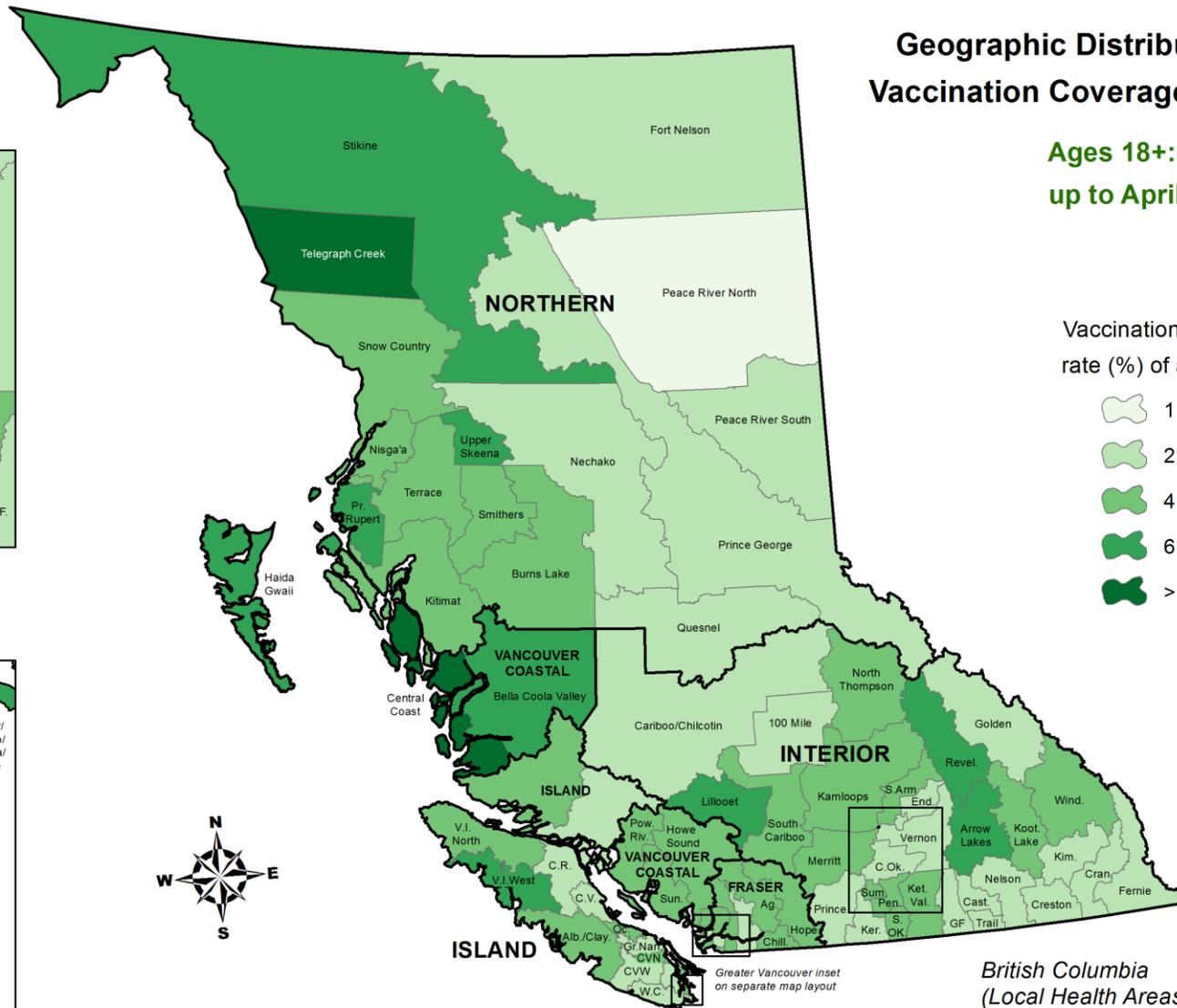
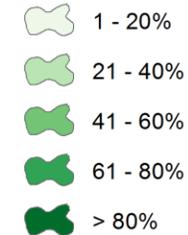
Not eligible yet for mRNA vaccine, age-based rollout

Vaccinated priority populations (HCWs, CEVs, outbreaks, etc.) and AstraZeneca recipients

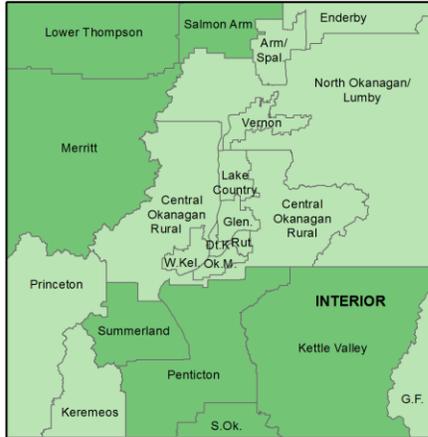
Geographic Distribution of COVID-19 Vaccination Coverage by LHA and CHSA

**Ages 18+: 1st Dose
up to April 29, 2021**

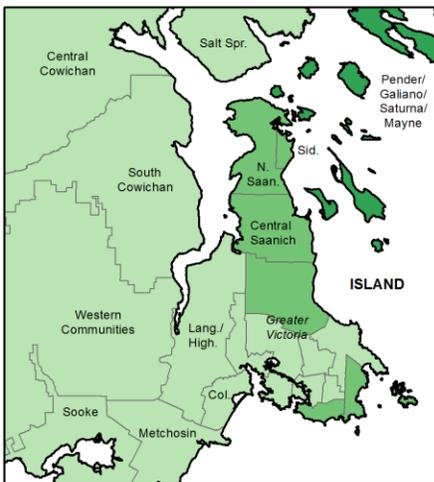
Vaccination coverage
rate (%) of adults 18+



*Okanagan Inset
(Community Health Service Areas)*



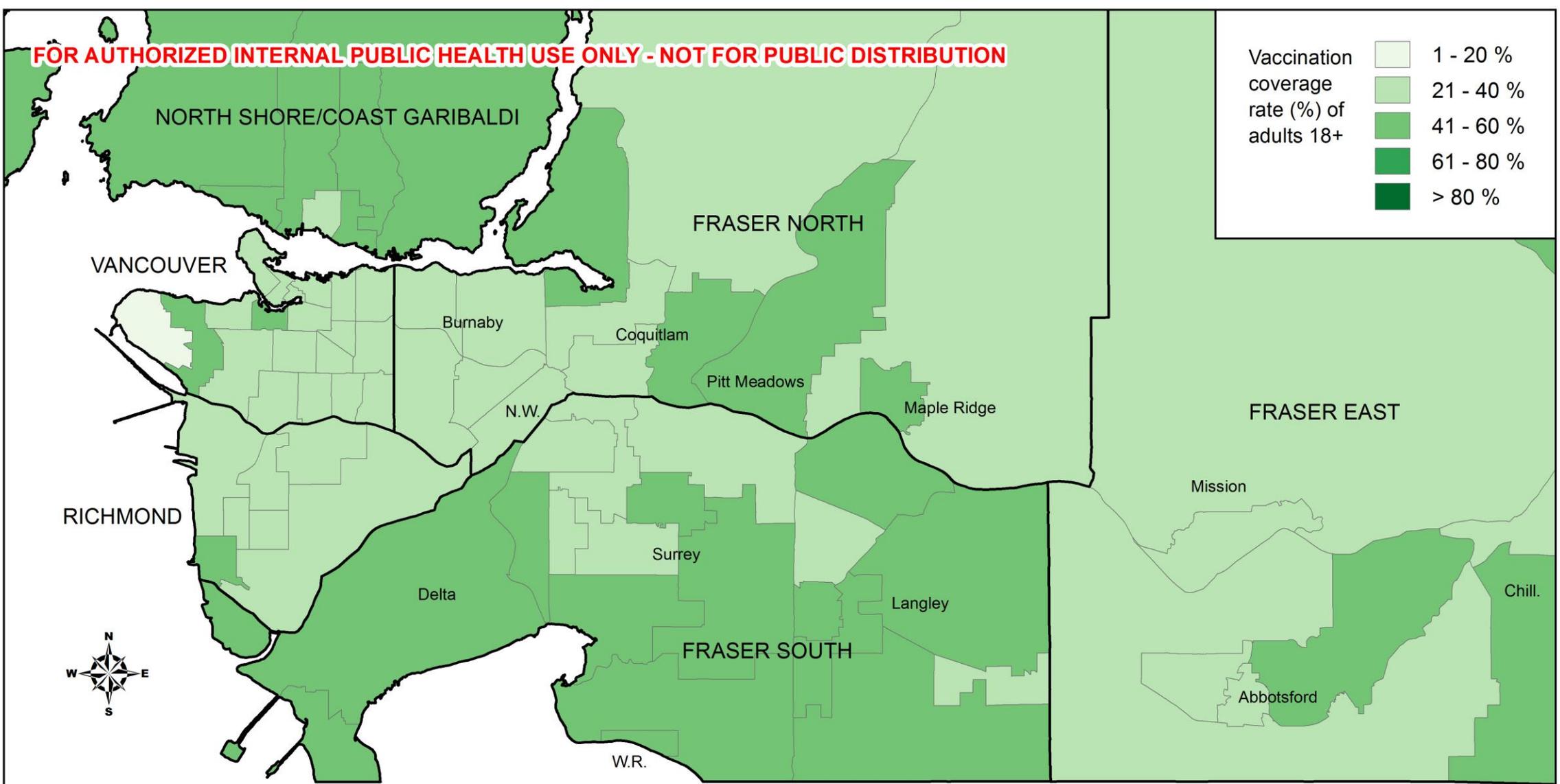
*Greater Victoria Inset
(Community Health Service Areas)*



*British Columbia
(Local Health Areas)*

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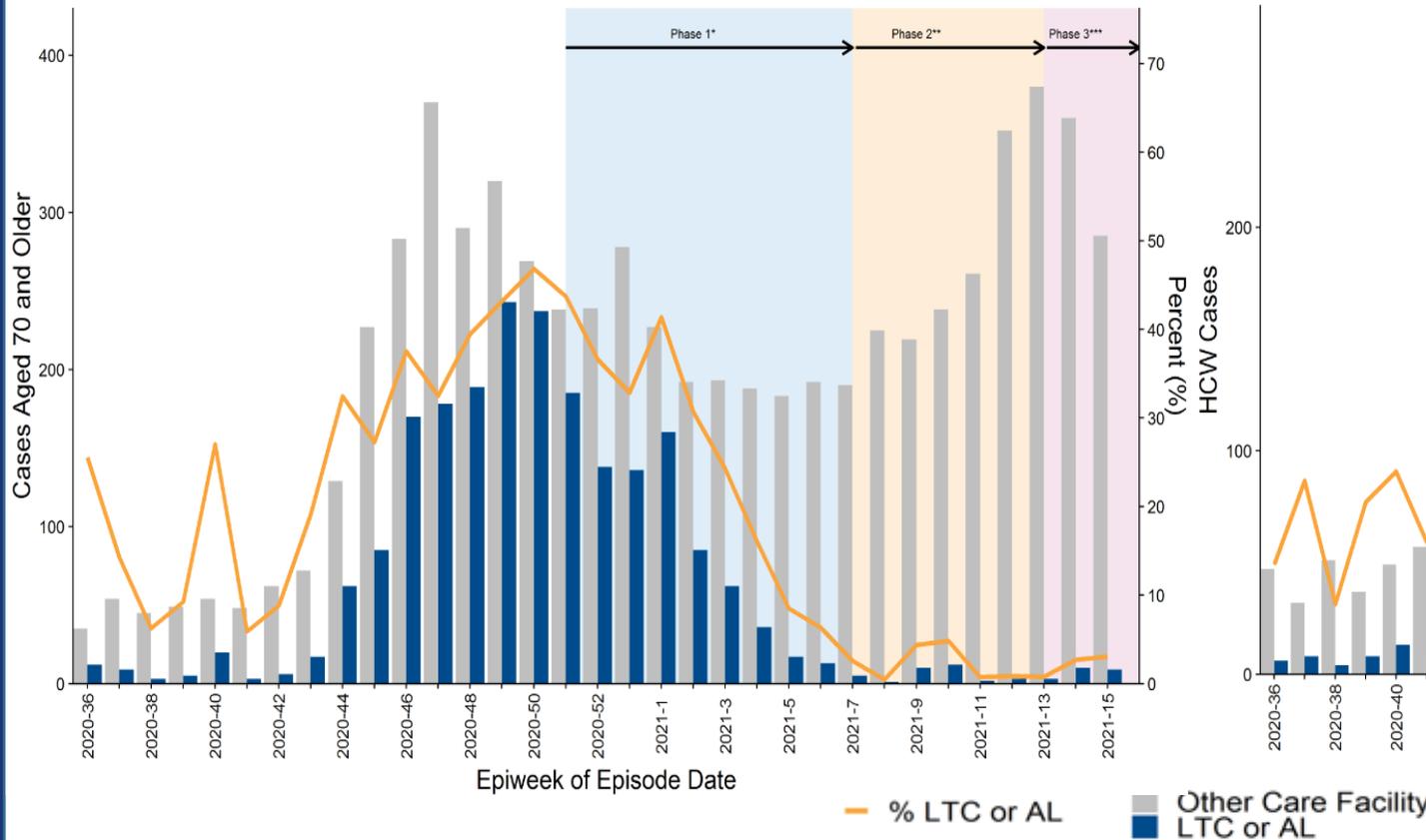
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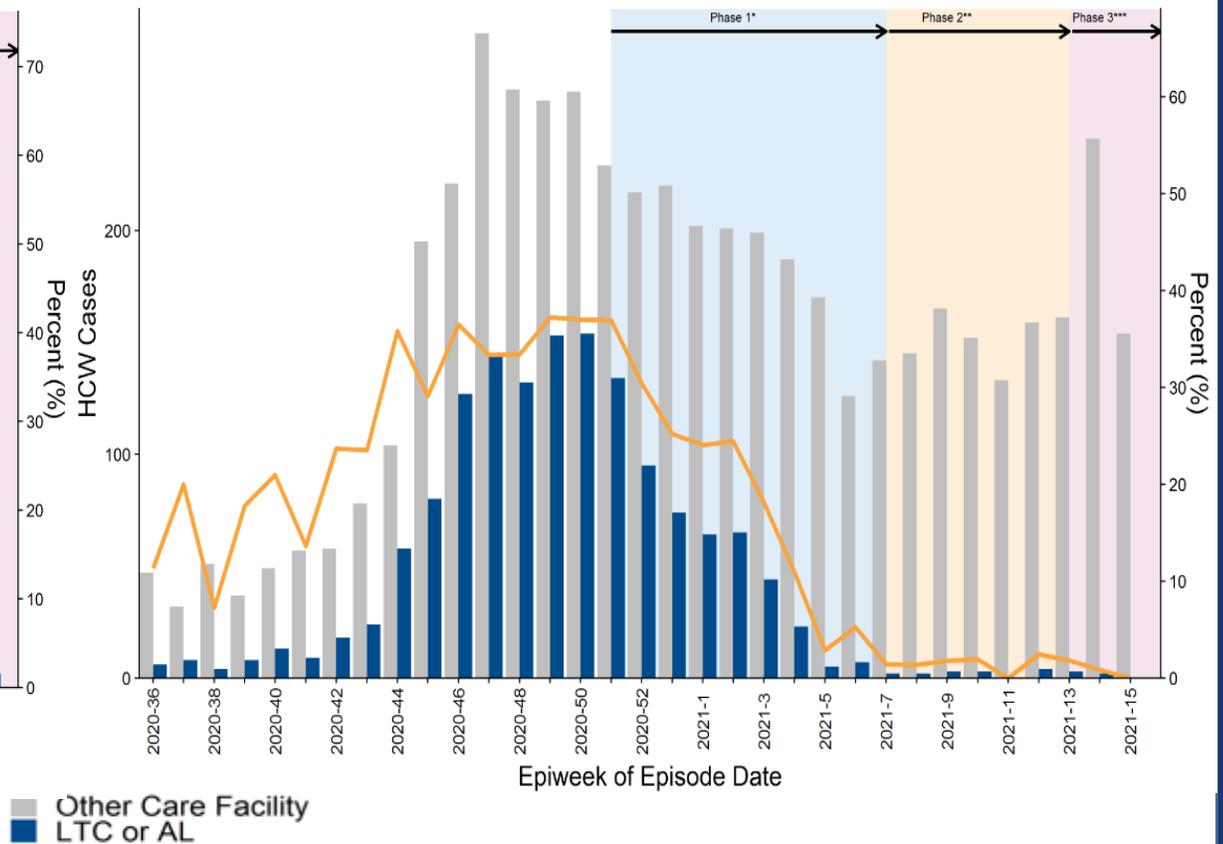
COVID-19 Vaccination Coverage by CHSA: Ages 18+ - 1st Dose (up to April 29, 2021)

The number of cases among individuals aged ≥ 70 years and HCWs working in long-term care or assisted living facilities is very low following vaccination roll-out compared with individuals not living or working in these settings.

Number and proportion of LTC or AL residents amongst cases aged 70 and over by epidemiological week of episode date (N=8873)



Number and proportion of health care workers in LTC or AL outbreaks amongst all health care workers by epidemiological week of episode date (N=6671)



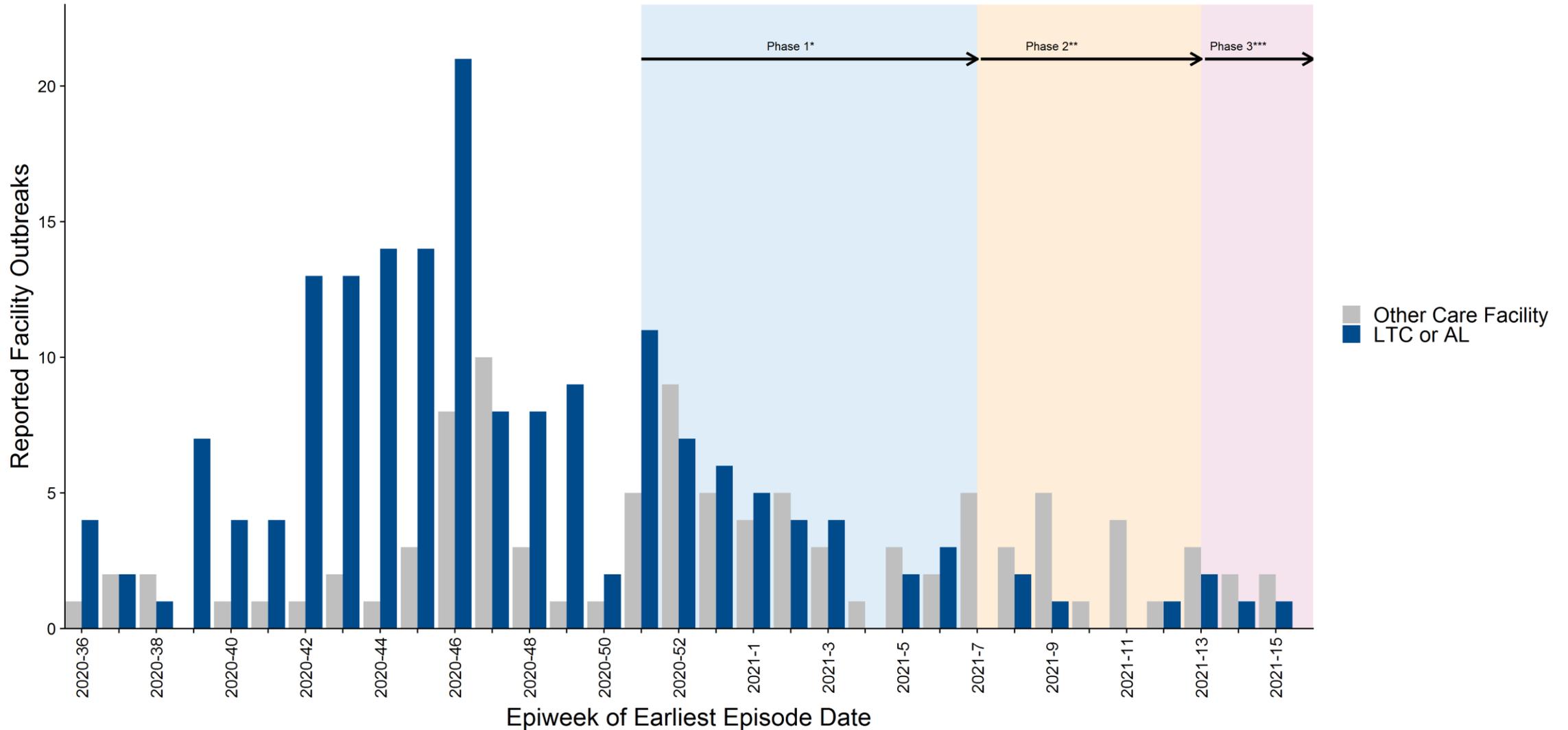
*Phase 1 COVID-19 vaccinations start in FHA and VCH

** Phase 1 COVID-19 vaccinations start in IHA, NHA, and VIHA

Note: Phase 1 target populations include residents and staff of long term care and assisted living facilities, individuals being assessed for long term care, essential visitors of long term care and assisted living residents, hospital health care workers who may provide care for COVID-19 patients, and remote and isolated Indigenous communities. Immunizations of target populations may have been staggered depending on vaccine availability and health region.

Number of LTC or AL facility outbreaks amongst all facility outbreaks by epidemiological week of earliest episode date

(N=274)

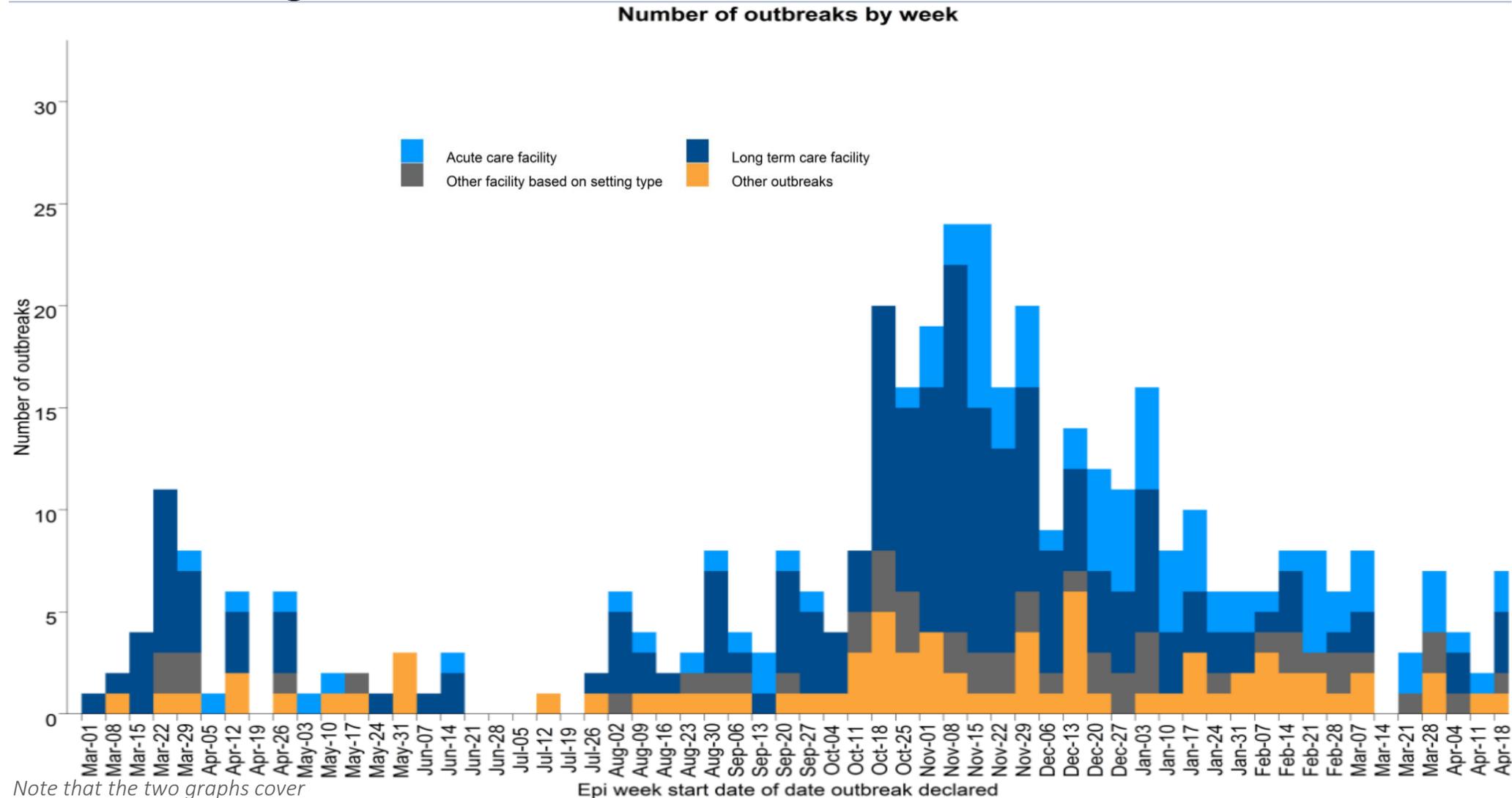


* Phase 1 COVID-19 vaccinations started December 2020-February 2021. Phase 1 target populations include residents, staff and essential visitors to long-term care and assisted-living residences; individuals assessed and awaiting a long-term care placement; health care workers providing care for COVID-19 patients; and remote and isolated Indigenous communities.

** Phase 2 COVID-19 vaccinations started February-April 2021. Phase 2 target populations include seniors, age 80 and over; Indigenous peoples age 65 and over and Indigenous Elders; Indigenous communities; hospital staff, community general practitioners (GPs) and medical specialists; vulnerable populations in select congregate settings; and staff in community home support and nursing services for seniors. Immunizations of target populations within each phase may be staggered depending on vaccine availability and health region.

*** Phase 3 COVID-19 vaccinates started April 2021-Present. Phase 3 target populations include people aged 60-79 years, Indigenous peoples aged 18-64 and people aged 16-74 who are clinically extremely vulnerable.

The number of new outbreaks declared remains low, but a handful of new outbreaks declared in acute care and long-term care facilities this week.



Note that the two graphs cover different time periods

Lab - Key Messages

1. **Percent positivity** among publicly funded tests remains elevated for the last epi week (11%)
 - Testing rates have decreased over the past two weeks (~70,000 total tests April 18 to 24)
2. There are regional differences in percent positivity, which range from 3.3% in VIHA to 12.6% in FH.
3. Incidence and positivity are elevated and declining in individuals aged 5 to 65 years. Incidence is increasing slowly in children 0-4 years is increasing, and is low and stable in individuals >65 years.
4. The provincial weekly median **turnaround time** (time from specimen collection to lab result) is 17 hours, indicating good testing capacity; only 1 in 4 tests took ≥ 24 hours to result.
5. Among SARS-COV-2 screened samples, the proportion that were **presumptive VOCs** for the past epi week 16 was ~78%.
6. VOCs have been detected in all regions of the province.
 - Among sequenced samples provincially based on information for epi week 15, P.1 and B.1.1.7 remain two dominant VOCs, accounting for roughly 40% and 60% of VOCs respectively.

Weekly Summary of ALL lab tests performed

2,463,067	total specimens tested
69,708	new this epi week
132,455	total positive specimens
6,272	new positive this epi week
17 hr	mean turnaround time (TAT)
17 [11-24]	Median [Q ₁ – Q ₃] TAT

↓ **10%** relative to last week

↓ **9.0%** positivity
↓ **0.4%** absolute change from last week

↓ **14%** TAT relative to last week

Weekly Summary of Lab tests paid Publicly

2,030,054	total specimens tested
56,753	new this epi week
131,174	total positive specimens
6,131	new positive this epi week

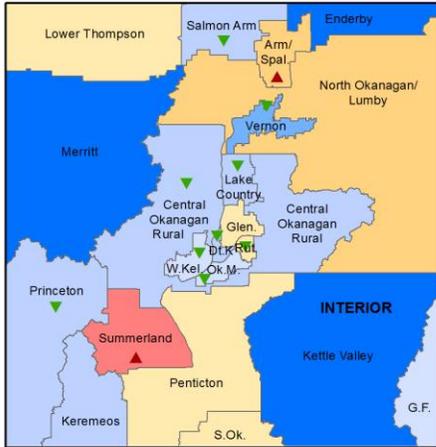
↓ **12%** relative to last week

↓ **11.0%** positivity
↓ **0.2%** absolute change from last week²³

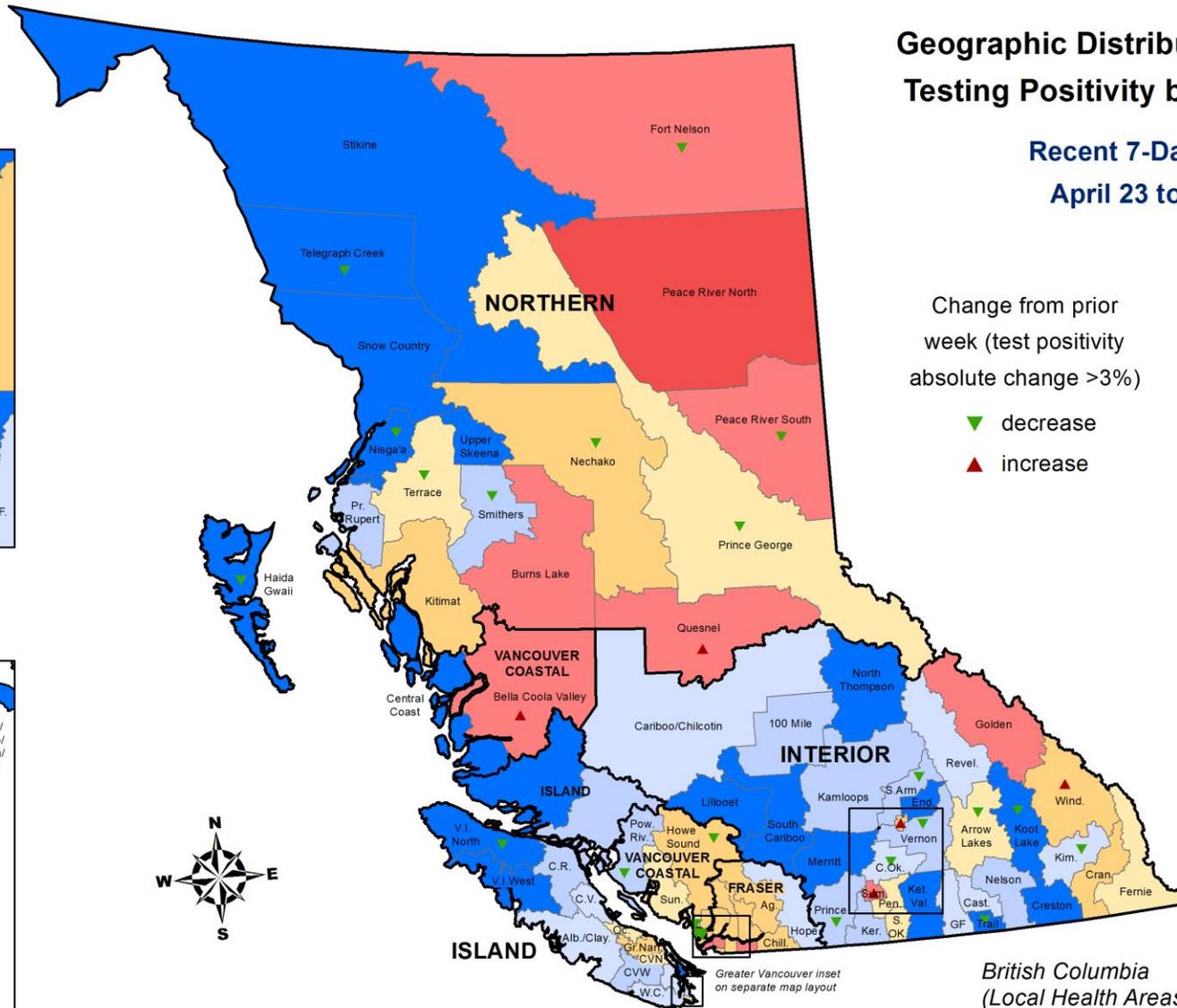
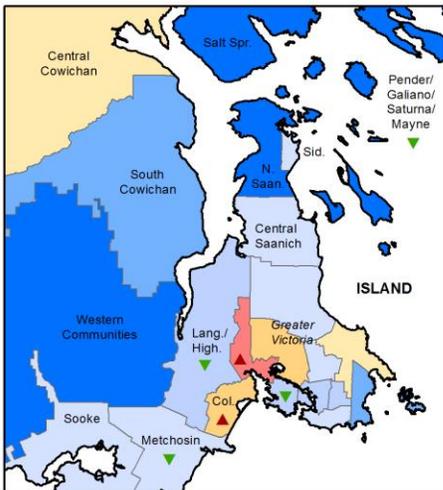
Geographic Distribution of COVID-19 Testing Positivity by LHA and CHSA

Recent 7-Days Testing
April 23 to 29, 2021

Okanagan Inset
(Community Health Service Areas)



Greater Victoria Inset
(Community Health Service Areas)



Change from prior week (test positivity absolute change >3%)

- ▼ decrease
- ▲ increase

Test positivity rate

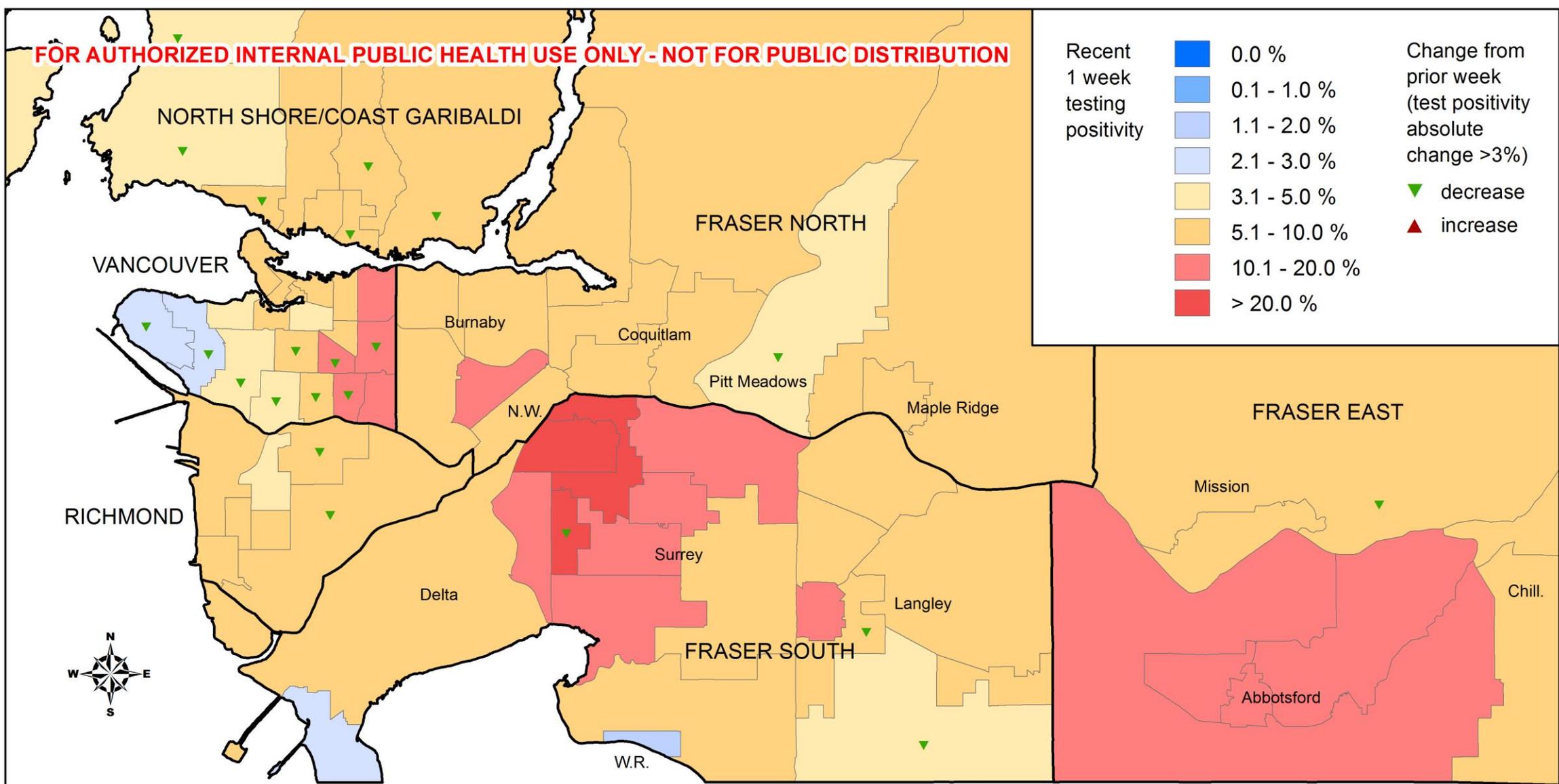
- 0.0 %
- 0.1 - 1.0 %
- 1.1 - 2.0 %
- 2.1 - 3.0 %
- 3.1 - 5.0 %
- 5.1 - 10.0 %
- 10.1 - 20.0 %
- > 20.0 %

Greater Vancouver inset on separate map layout

British Columbia
(Local Health Areas)

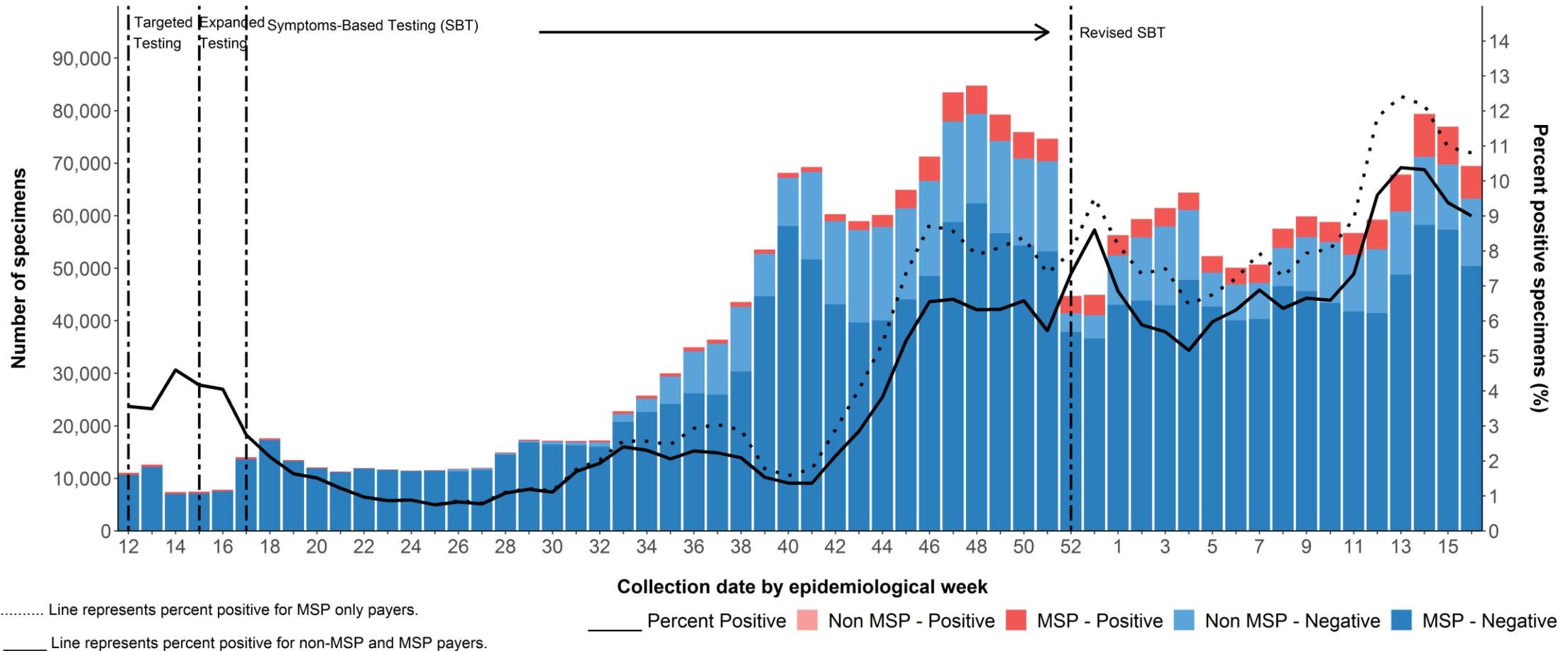
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COVID-19 Recent 1 Week Test Positivity by CHSA (April 23 to 29, 2021)

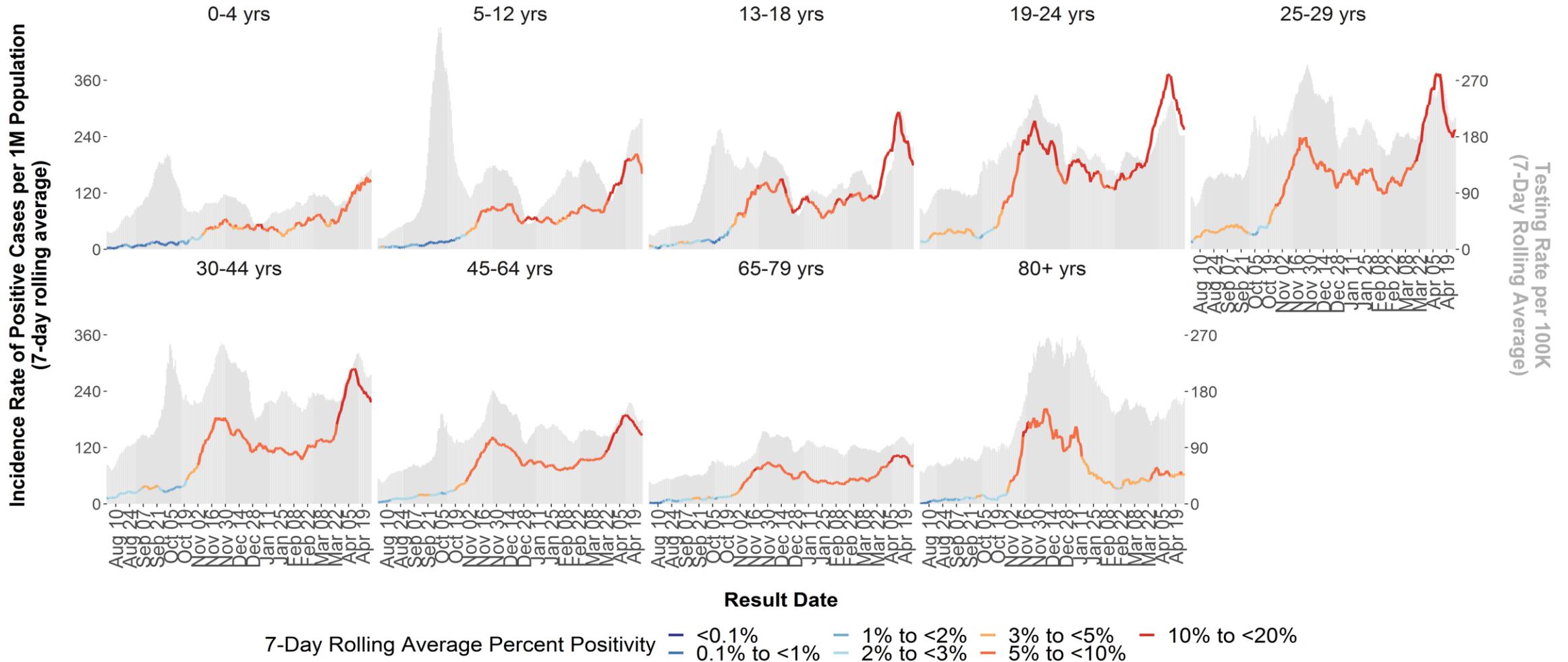
Percent positivity among publicly funded tests remains stable compared to the previous epi week and continues to be elevated (11%). The total number of tests resulted has decreased relative to the previous epi week.



Note: Invalid (n = 1263) and indeterminate (n = 6560) results have been excluded

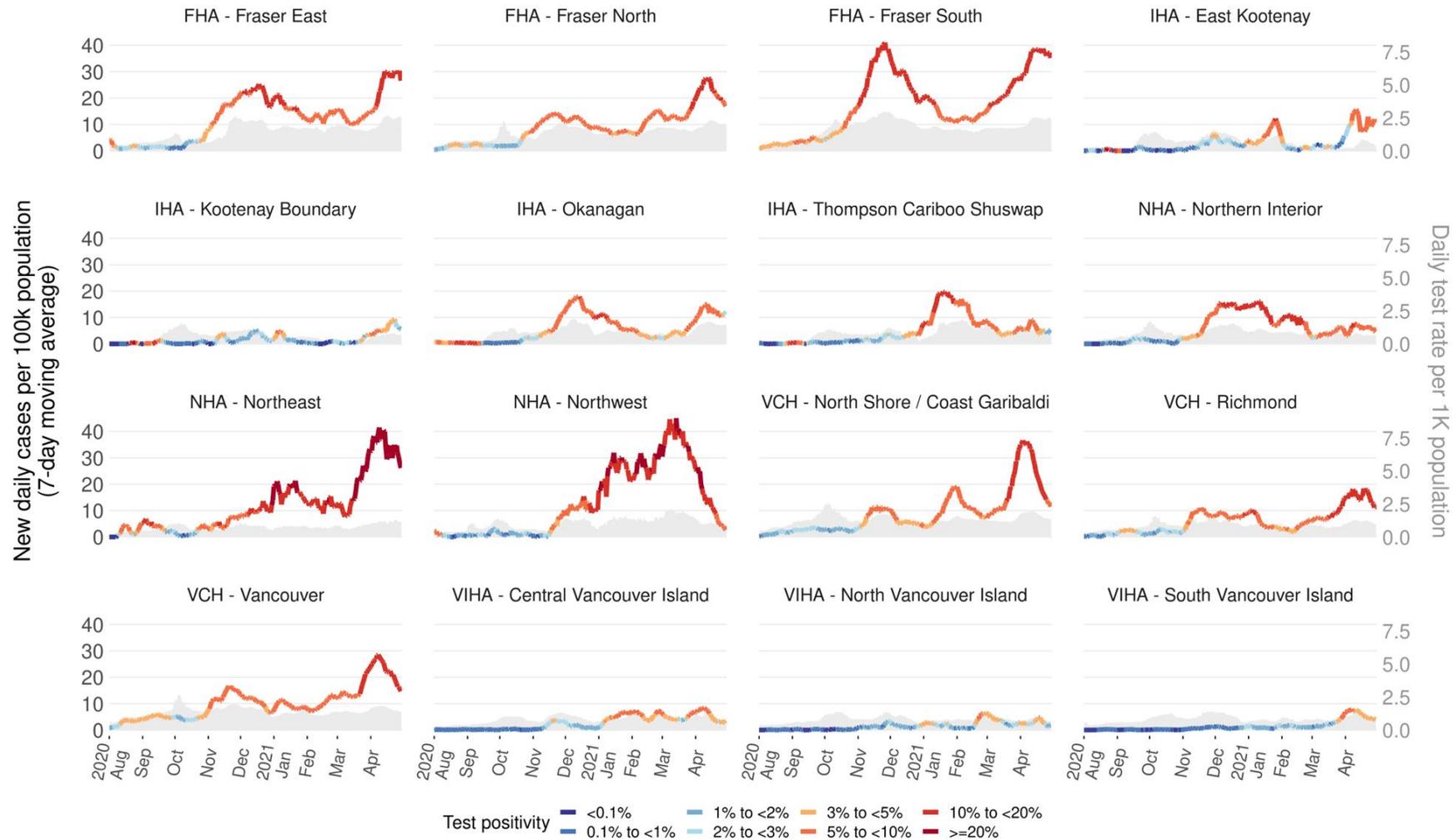
Incidence and positivity are elevated and declining in individuals aged 5 to 65 years. Incidence in children 0-4 years continues to increase slowly, and is low and stable in individuals >65 years.

Case incidence rate, test percent positivity, and testing rate by age (Public Payers Only). Aug 1 2020 - Apr 28, 2021.

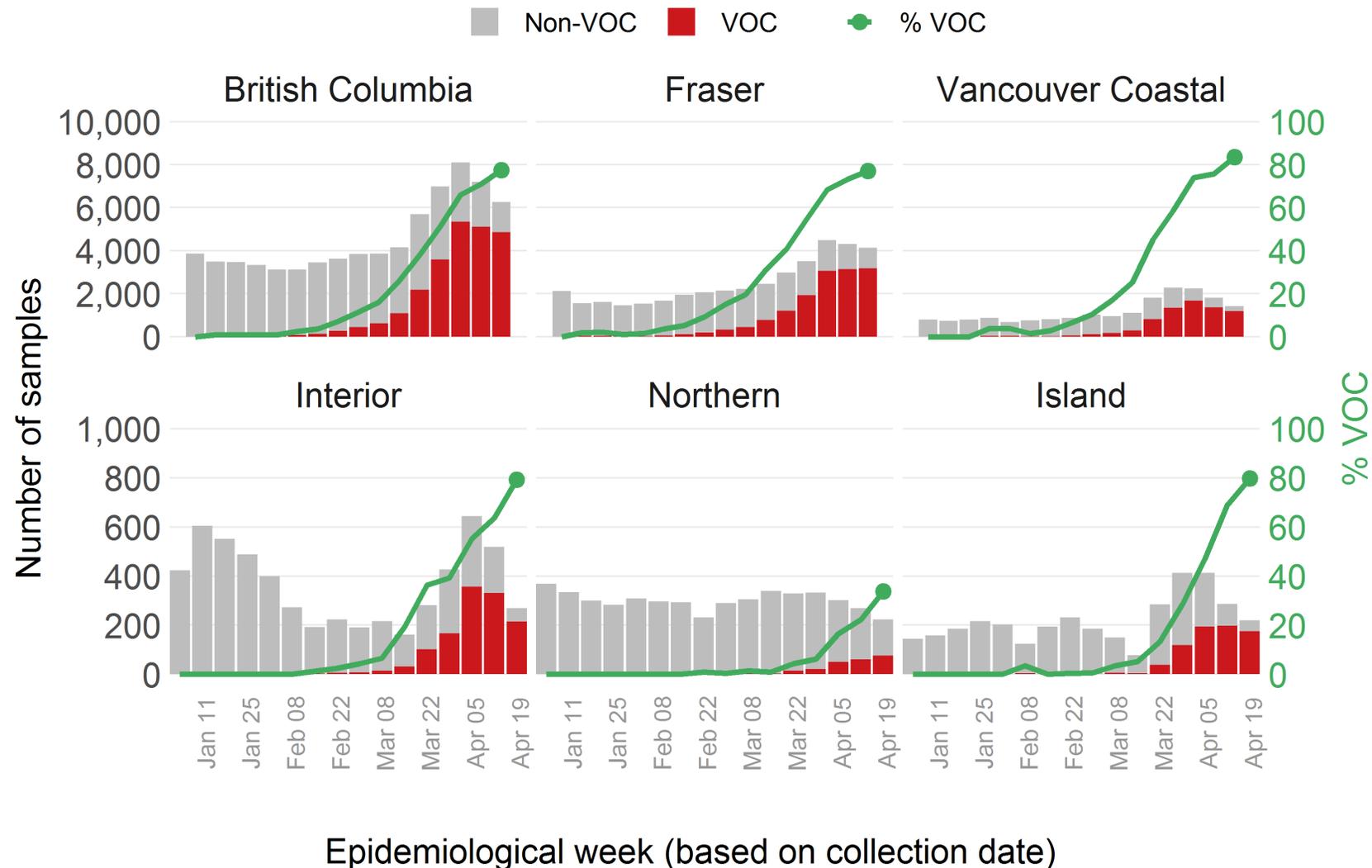


Data source: PLOVER 28-Apr-2021

Incidence remains elevated, but is stable or decreasing across regions; positivity is >10% in health service delivery areas in FH, VCH and NH

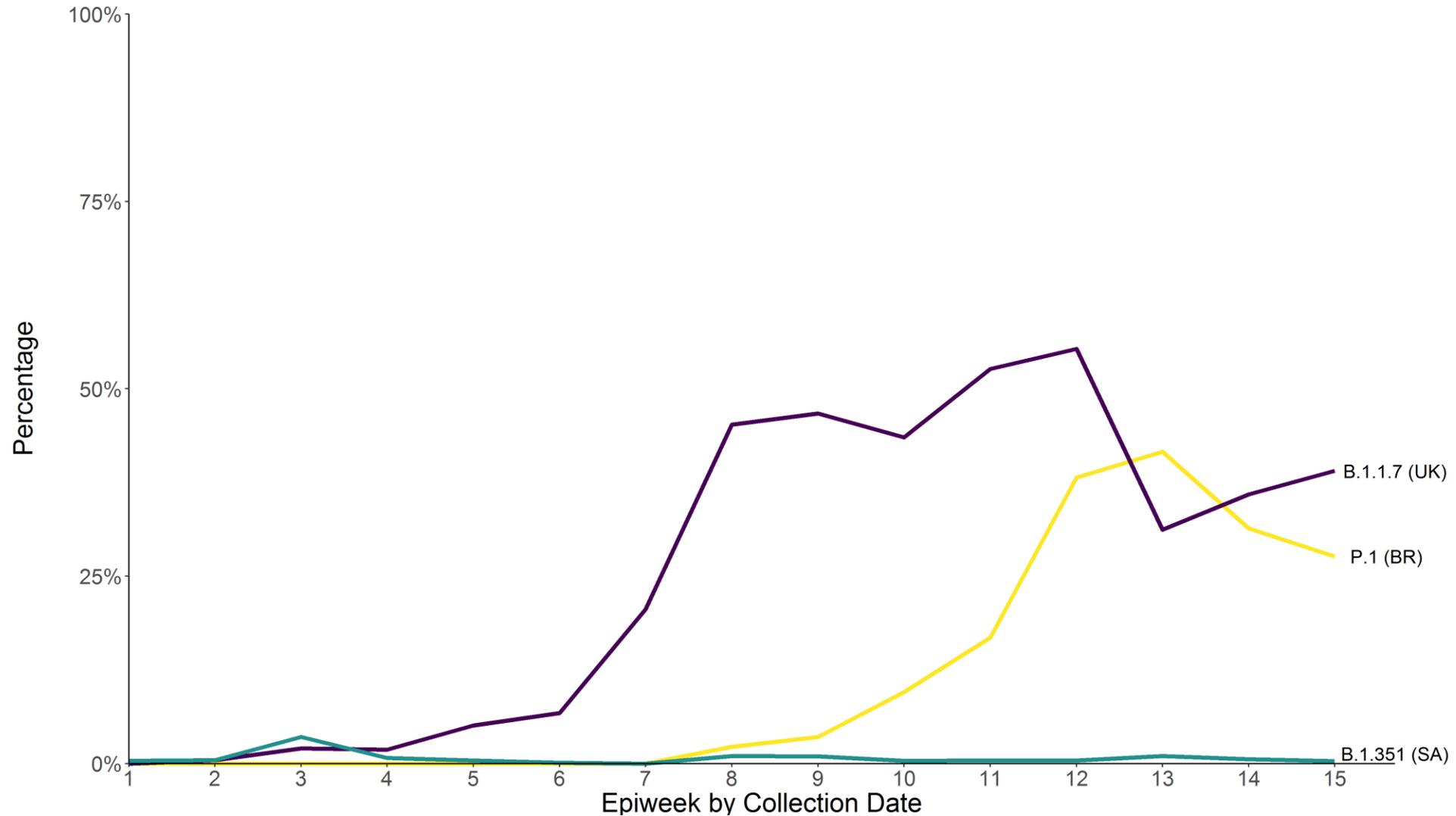


Of all COVID-19 positive test samples in epi week 16 (Apr 18-25) in BC, ~78% were presumptive VOCs. Note that in Northern, the proportion was substantially lower, ~34%.



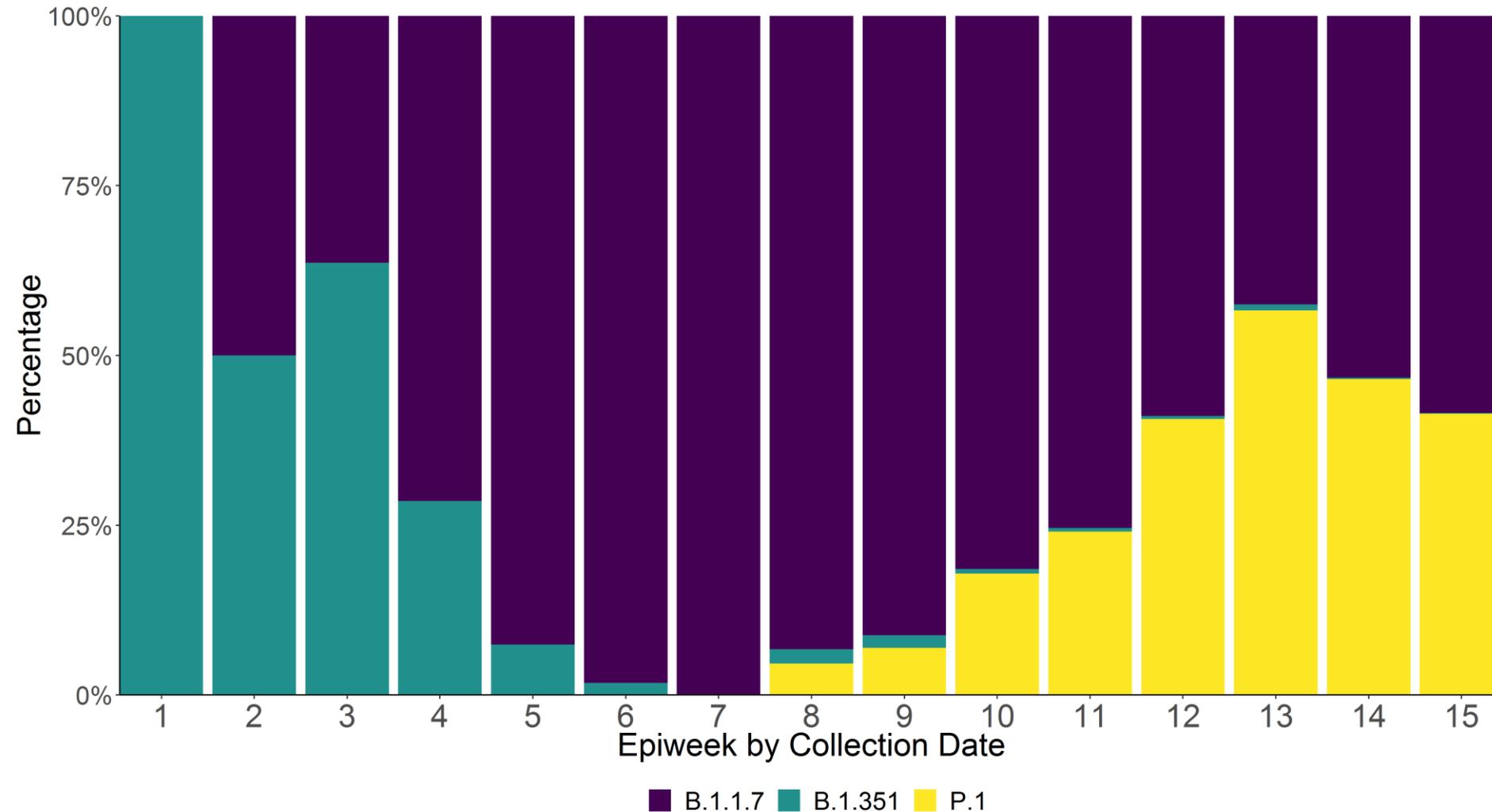
- The proportion of variants sequenced **can be** interpreted at the population level, given that it includes only samples sequenced from background surveillance and random screening.
- Weeks 13 onward include specimens from qPCR SNP screening that resulted as presumptive positive for B.1.1.7 and P.1.

Sample Prevalence of VoCs by Epiweek of Collection Date

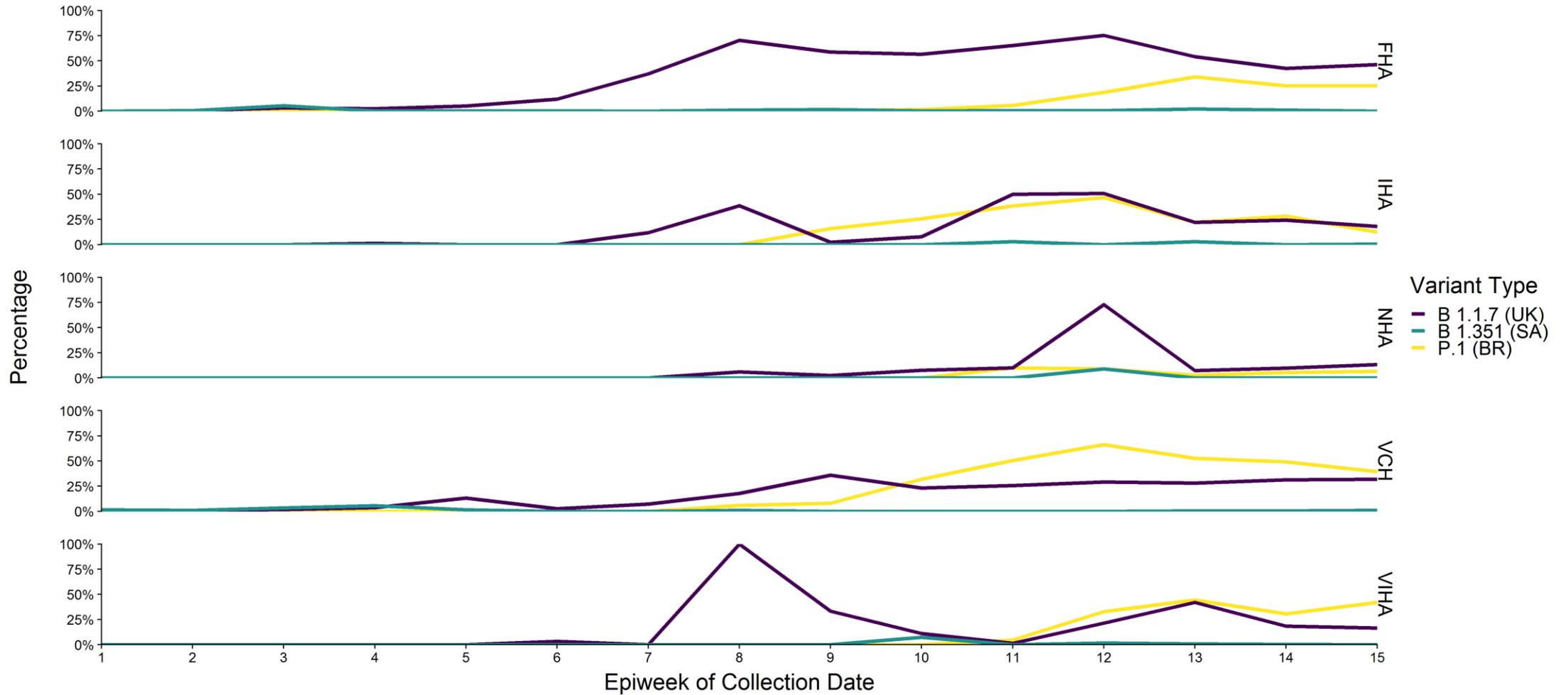


- This shows the relative proportion of variants over time. B.1.117 was the most predominant variant in the last two epi weeks, with P.1 being the second most predominant.
- Weeks 13 onward include specimens from qPCR SNP screening that resulted as presumptive positive for B.1.1.7 and P.1.

Relative Proportion of VoC by Epiweek in BC



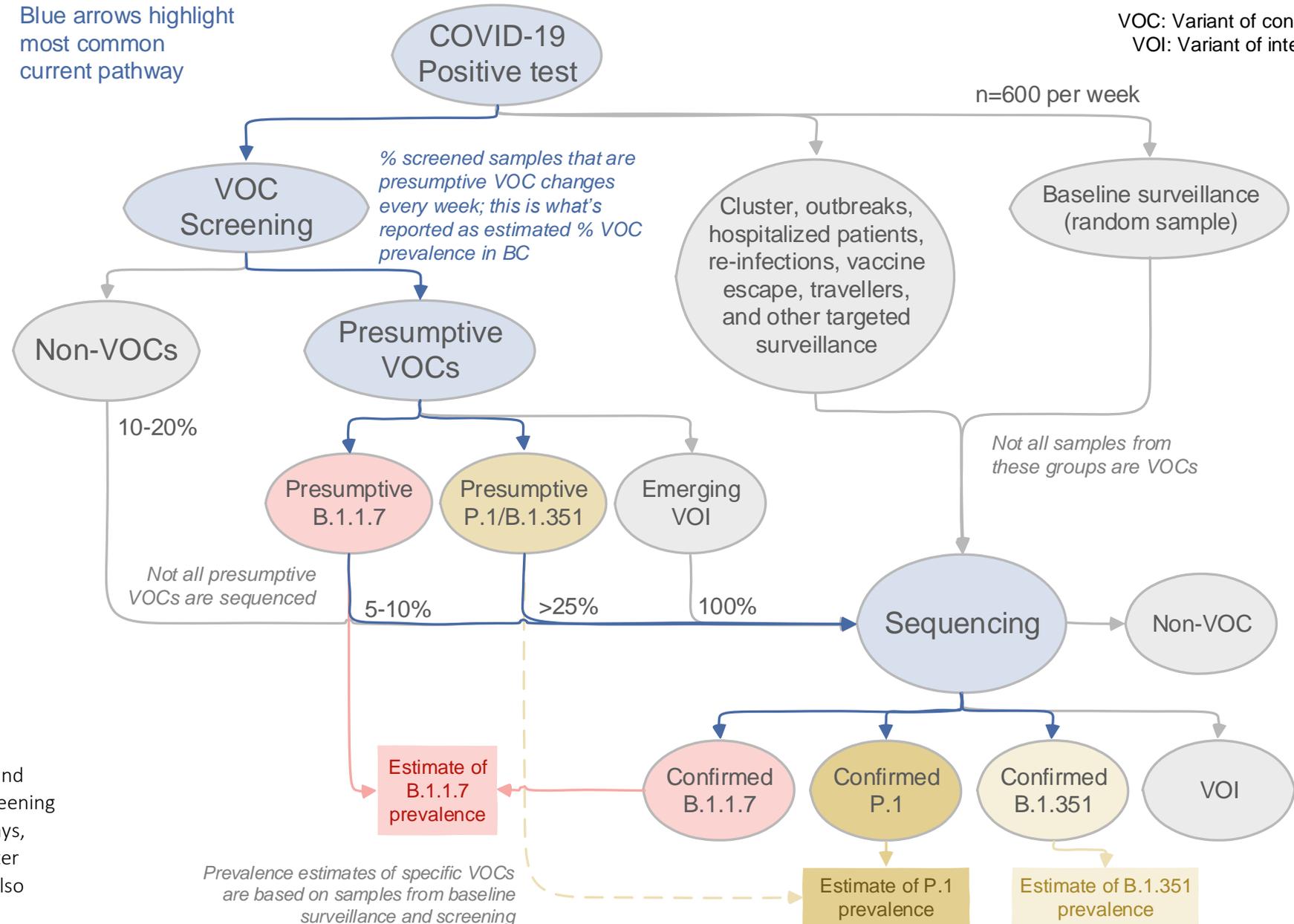
Percentage of Total Number of VoCs by Epiweek of Collection Date



Overview of the screening and sequencing process applied to positive COVID-19 tests in BC, April 2021

Blue arrows highlight most common current pathway

VOC: Variant of concern
VOI: Variant of interest



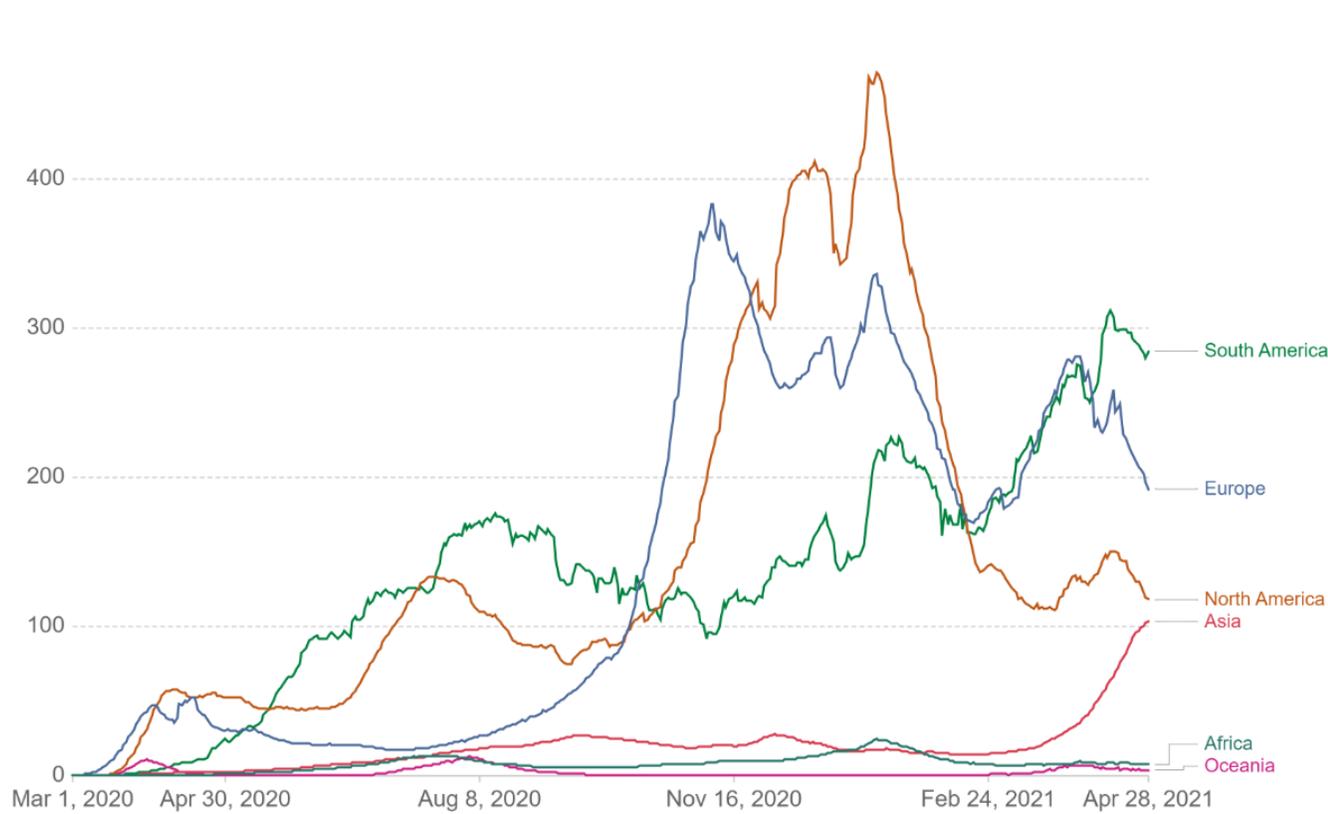
Please note the differences in turnaround time for screening and sequencing: screening results usually come back within 1-2 days, while sequencing results come back after approximately one week, but it could also take longer if there are lab backlogs.

BC in Canadian and Global Context - Key Messages

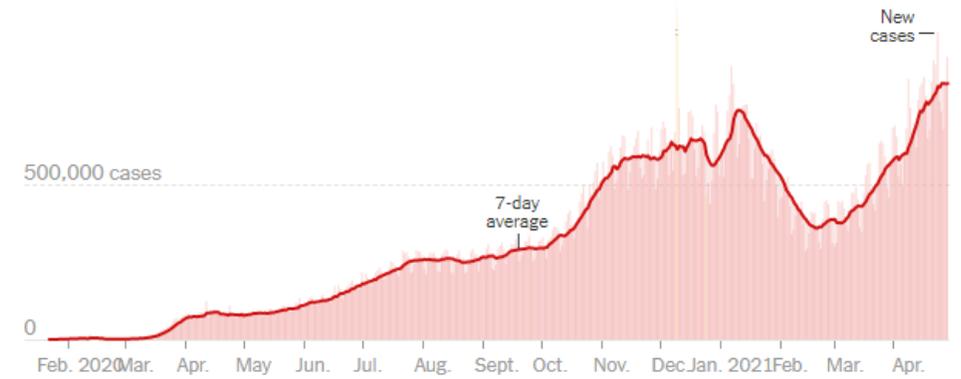
1. **Globally**, growth in cases in South America, Europe, and North America have declined while it has increased in parts of Asia, driven by recent resurgence in India.
2. **Across Canada**, cases are trending up in AB and MB. BC, ON, QC and SK have turned the corner. Death rates are trending up in ON; stable in other jurisdictions, overall very low. Hospital census increasing in AB; recent stabilization observed in BC, MB, ON, QC, and SK.
3. **Alberta's** case rate is currently the highest in Canada and at similar levels to the Dec peak. Potential for importation into BC.
4. **VOCs** are now dominant in ON; BC is expected to follow suit by early May.
5. **Canadian vaccination update**: >50% population vaccinated in the YK and NWT; QC ~35%; BC ~31%; Canada overall ~32%.
6. **Global vaccination update**: % population that has been vaccinated with at least one dose: Israel ~62%, UK ~50%, US ~43%, Chile ~42%, Europe 20-30%.

Globally, growth in cases in South America, Europe, and North America have declined while it has increased in parts of Asia, driven by recent resurgence in India

Daily new confirmed COVID-19 cases per million people

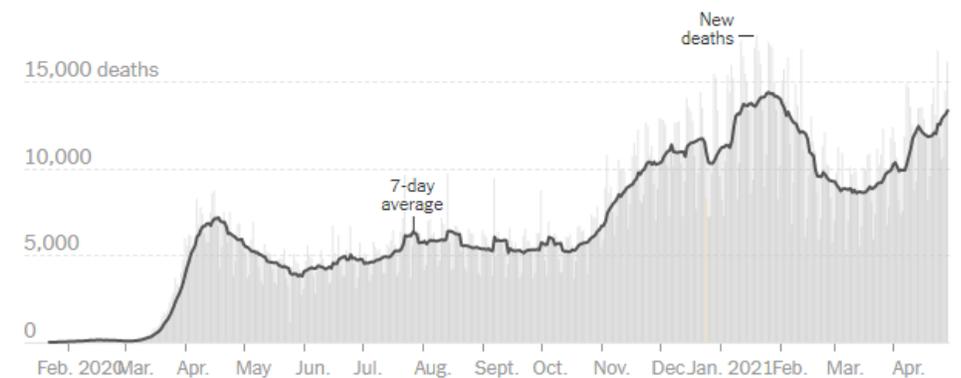


New reported cases by day across the world

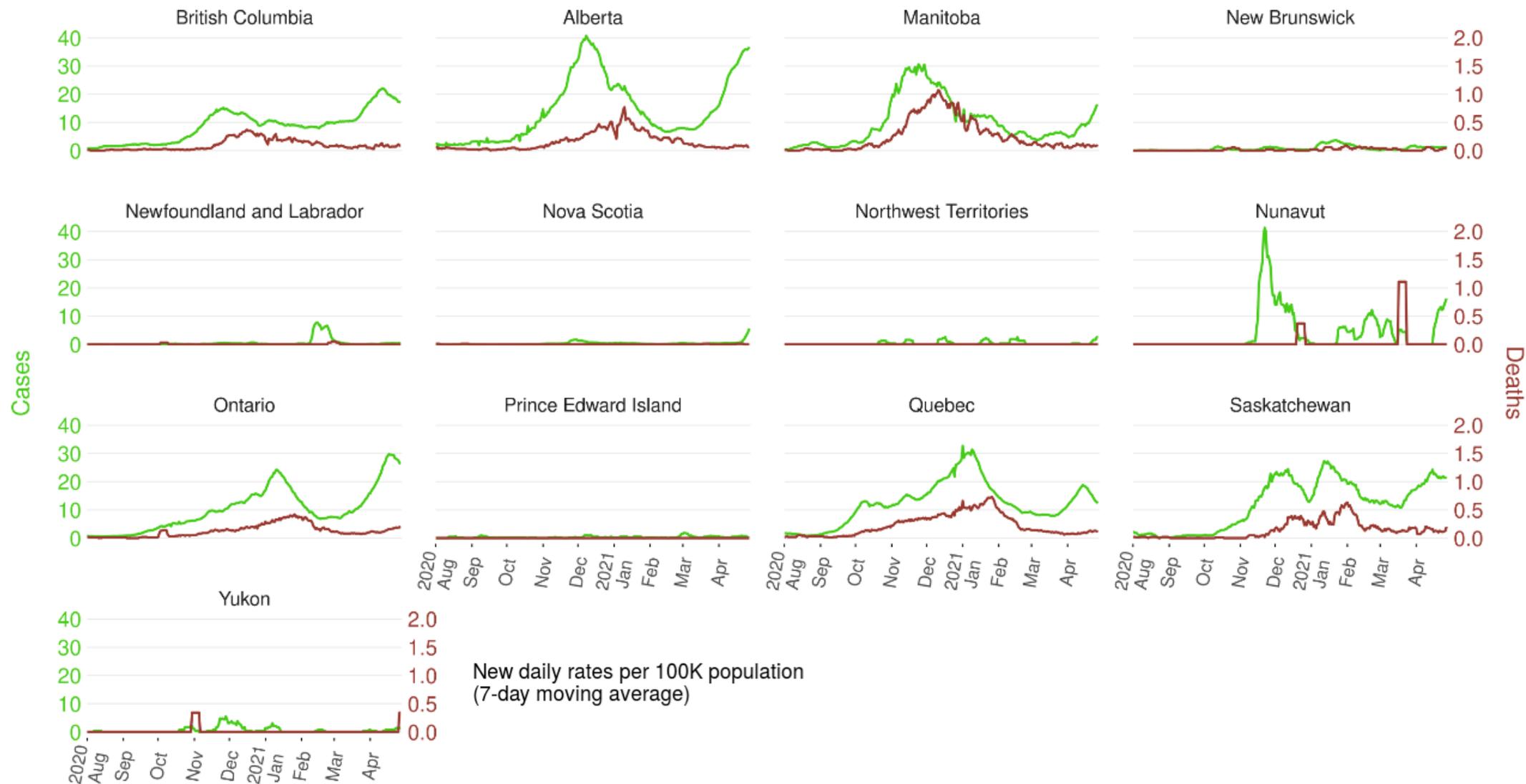


■ These are days with a reporting anomaly. Read more [here](#).
 Note: The seven-day average is the average of a day and the previous six days of data.

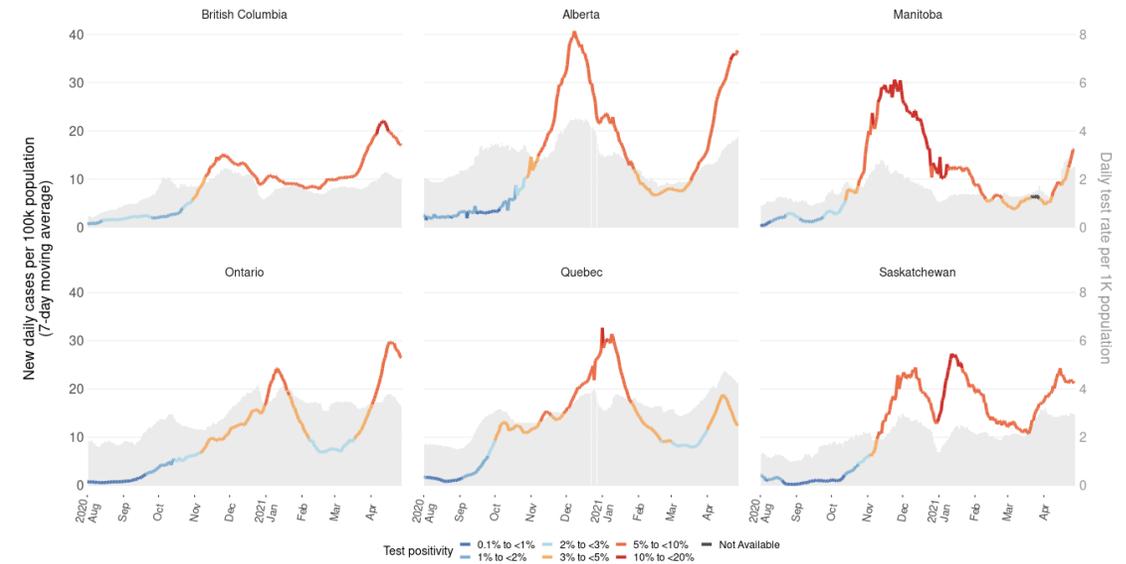
Reported deaths by day across the world



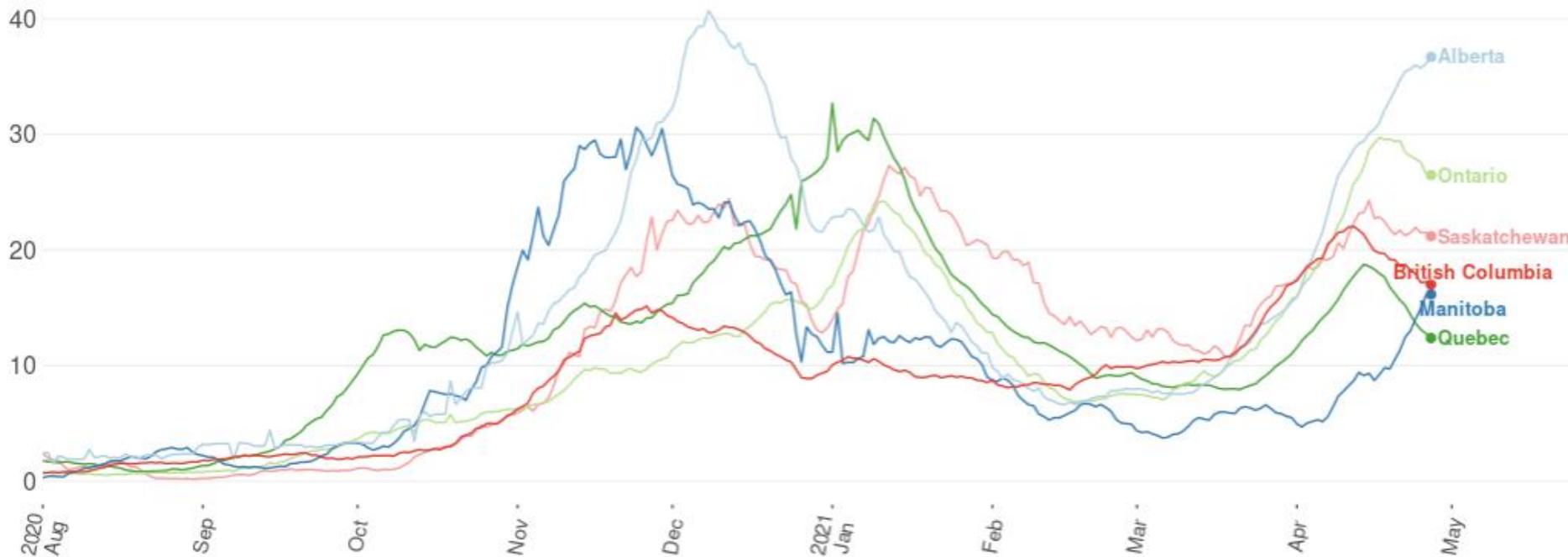
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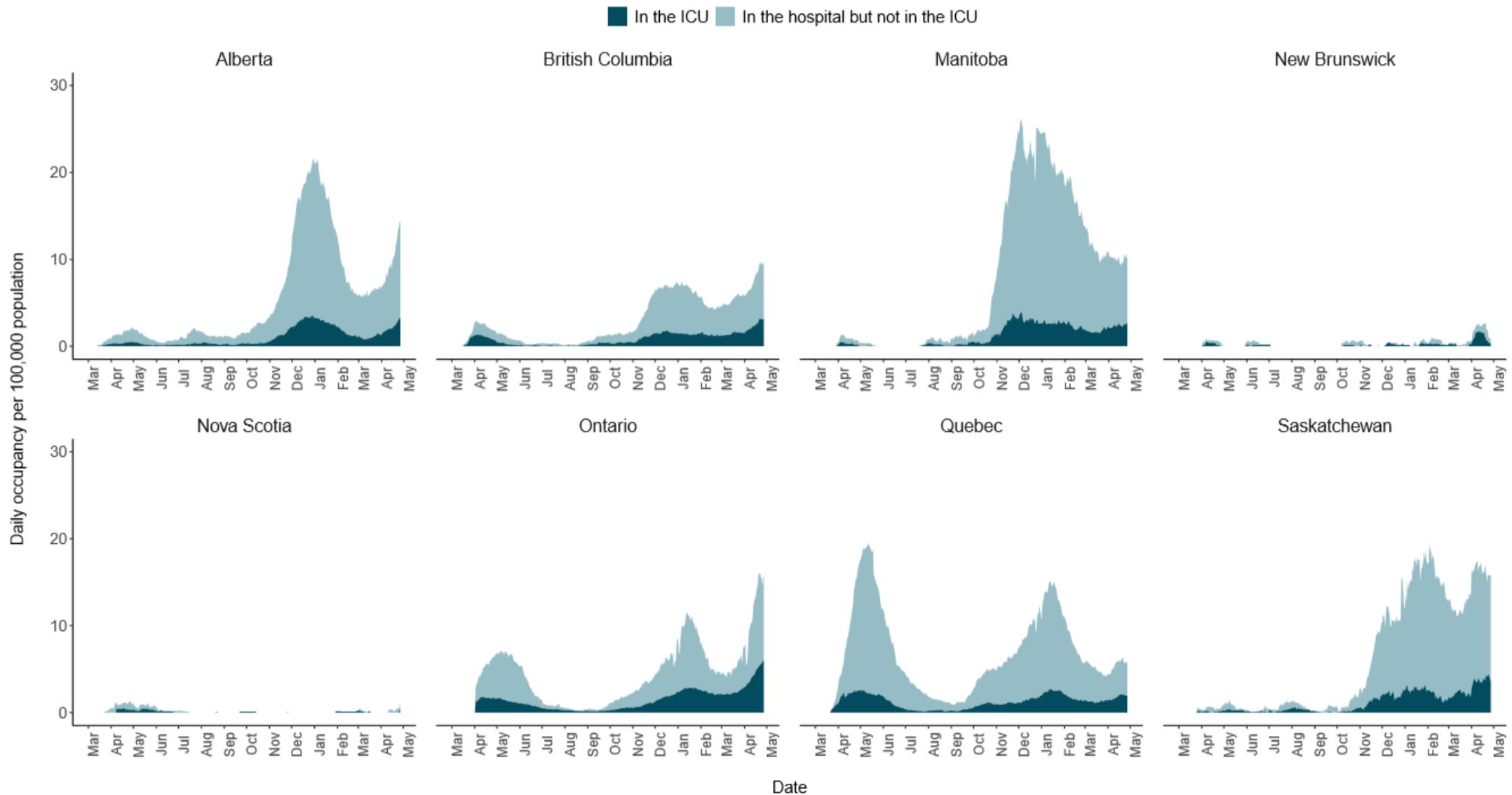
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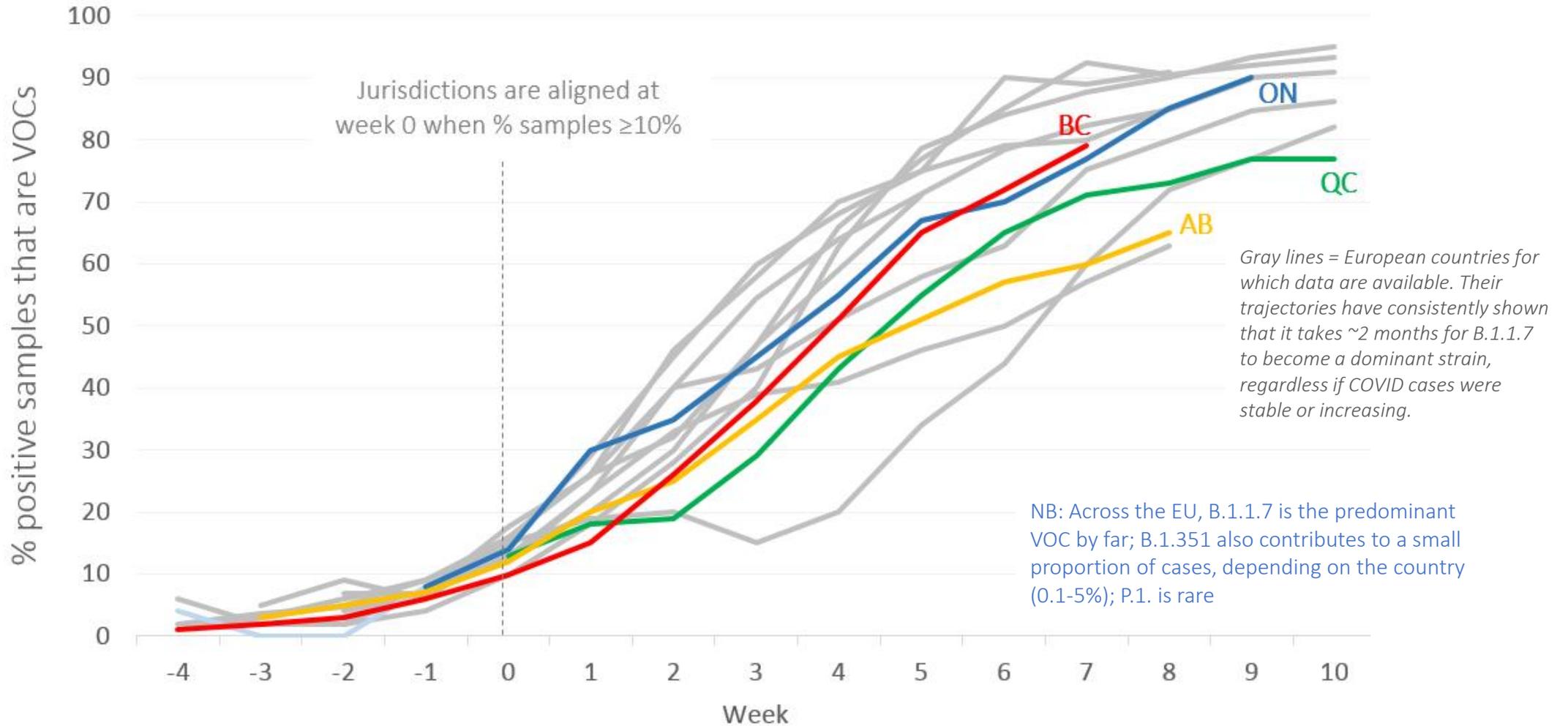
New daily cases per 100K population (7-day moving average)



Hospital census increasing in AB; recent stabilization observed in BC, MB, ON, QC, and SK



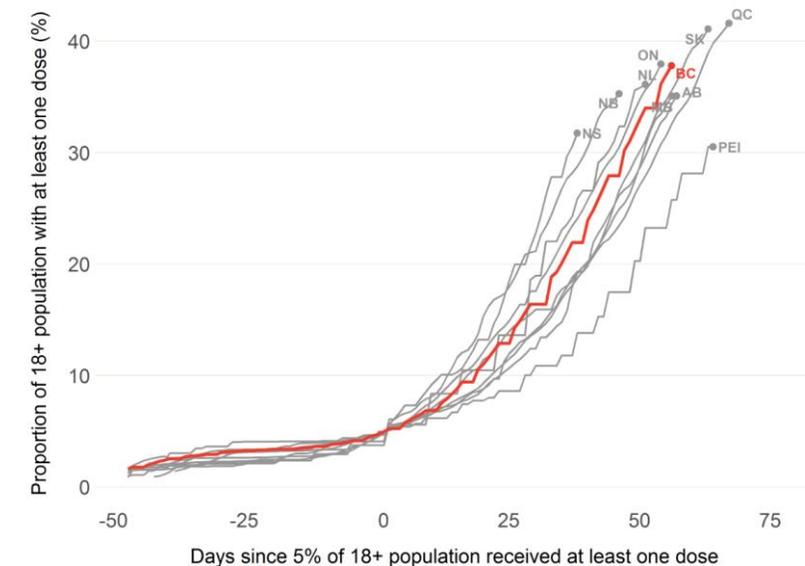
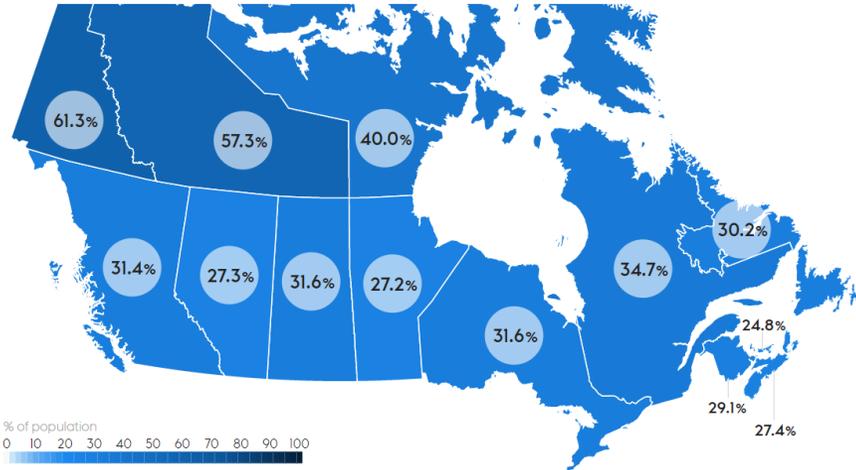
VOCs are now dominant in ON; BC is expected to follow suit by early May



Please note that these are **approximate estimates only and may not be accurate**. Data across jurisdictions are not directly comparable due to different sampling methodologies. There were likely changes in methodology over time within the same jurisdiction, especially during the early part of the curve. Some data points were extrapolated/approximated to complete the visualization.

Canadian vaccination update, 29 April: >50% population vaccinated in the YK and NWT; QC ~35%; BC ~31%; Canada overall ~32%.

Percentage of total population vaccinated (at least one dose)

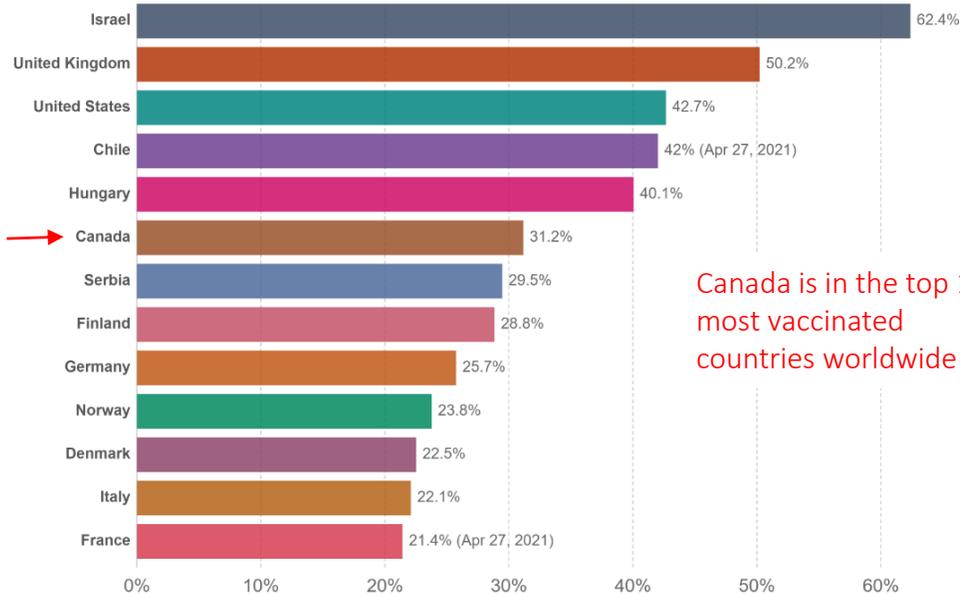


Province/Territory	% of population vaccinated (at least one dose)	% of eligible population (16+)	First doses	Updated
Yukon	61.3%	74.8%	25,788	Apr. 28
Northwest Territories	57.3%	72.8%	25,857	Apr. 26
Nunavut	40.0%	60.0%	15,734	Apr. 29
Quebec	34.7%	41.7%	2,973,299	Apr. 29
Ontario	31.6%	37.9%	4,659,367	Apr. 29
Saskatchewan	31.6%	39.8%	372,072	Apr. 28
Canada	31.5%	37.9%	11,964,363	Apr. 29
British Columbia	31.4%	36.9%	1,615,684	Apr. 28
Newfoundland and Labrador	30.2%	35.3%	157,626	Apr. 28
New Brunswick	29.1%	34.4%	227,657	Apr. 28
Nova Scotia	27.4%	32.2%	268,193	Apr. 29
Alberta	27.3%	34.1%	1,208,661	Apr. 28
Manitoba	27.2%	34.0%	374,820	Apr. 28
Prince Edward Island	24.8%	29.7%	39,605	Apr. 27

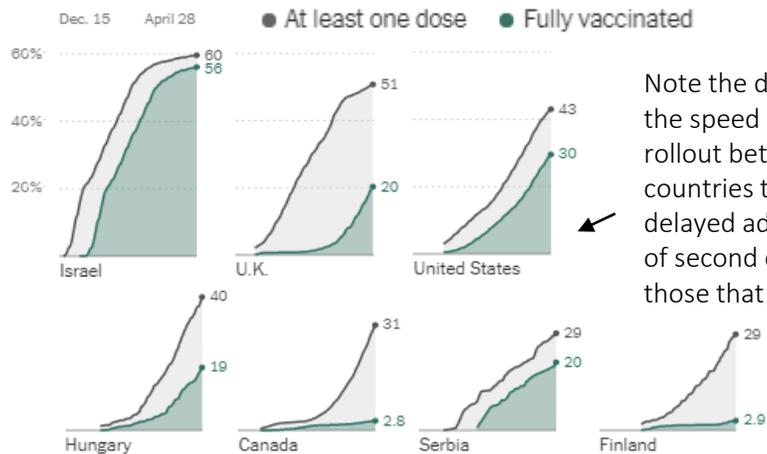
Province/Territory	Received doses administered
SK	97%
AB	95%
QC	92%
NB	91%
CAN	91%
ON	89%
NFL	89%
→ BC	89%
YK	88%
NS	88%
MB	87%
PEI	86%
NWT	83%
NU	67%

Global vaccination update, April 28

Share of people who received at least one dose

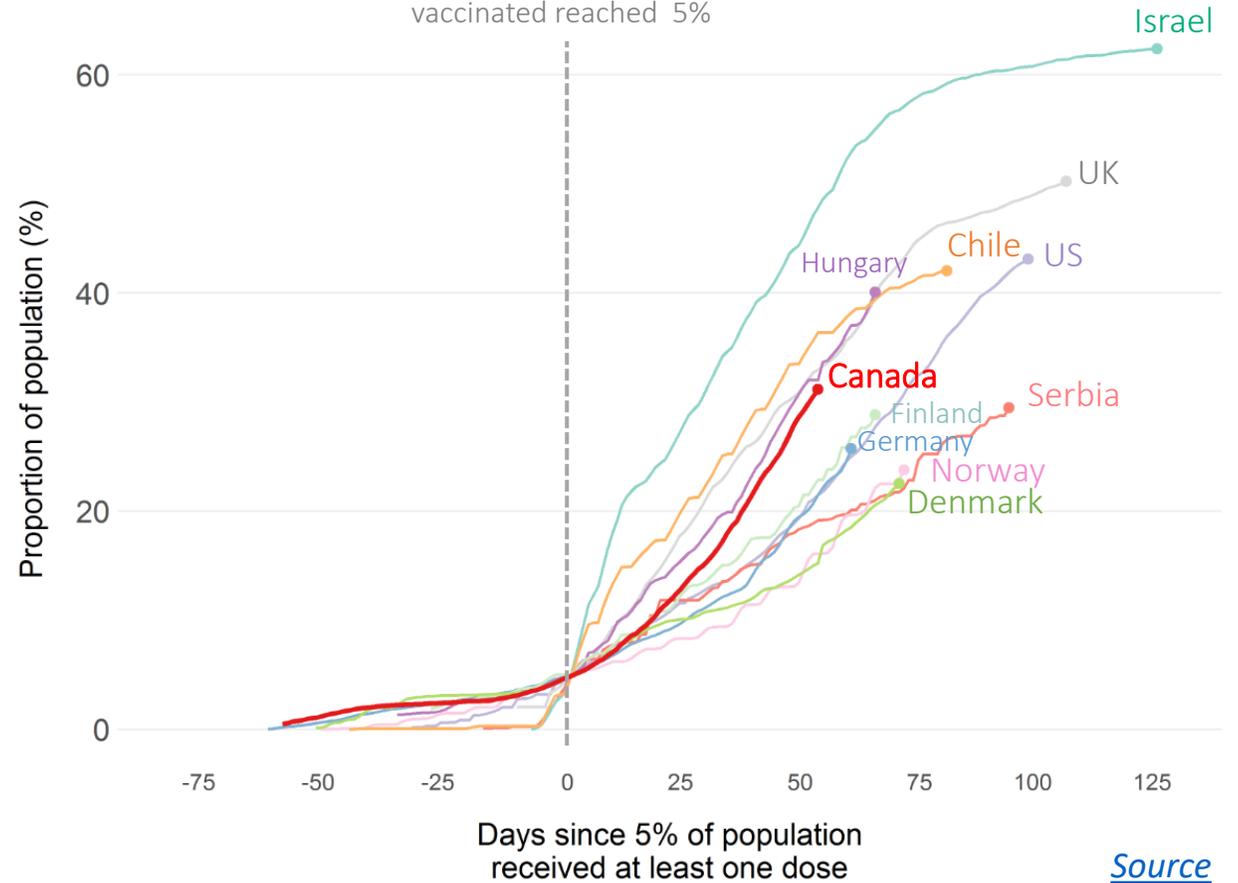


Canada is in the top 10 most vaccinated countries worldwide



Note the differences in the speed of vaccine rollout between countries that have delayed administration of second dose have vs those that haven't

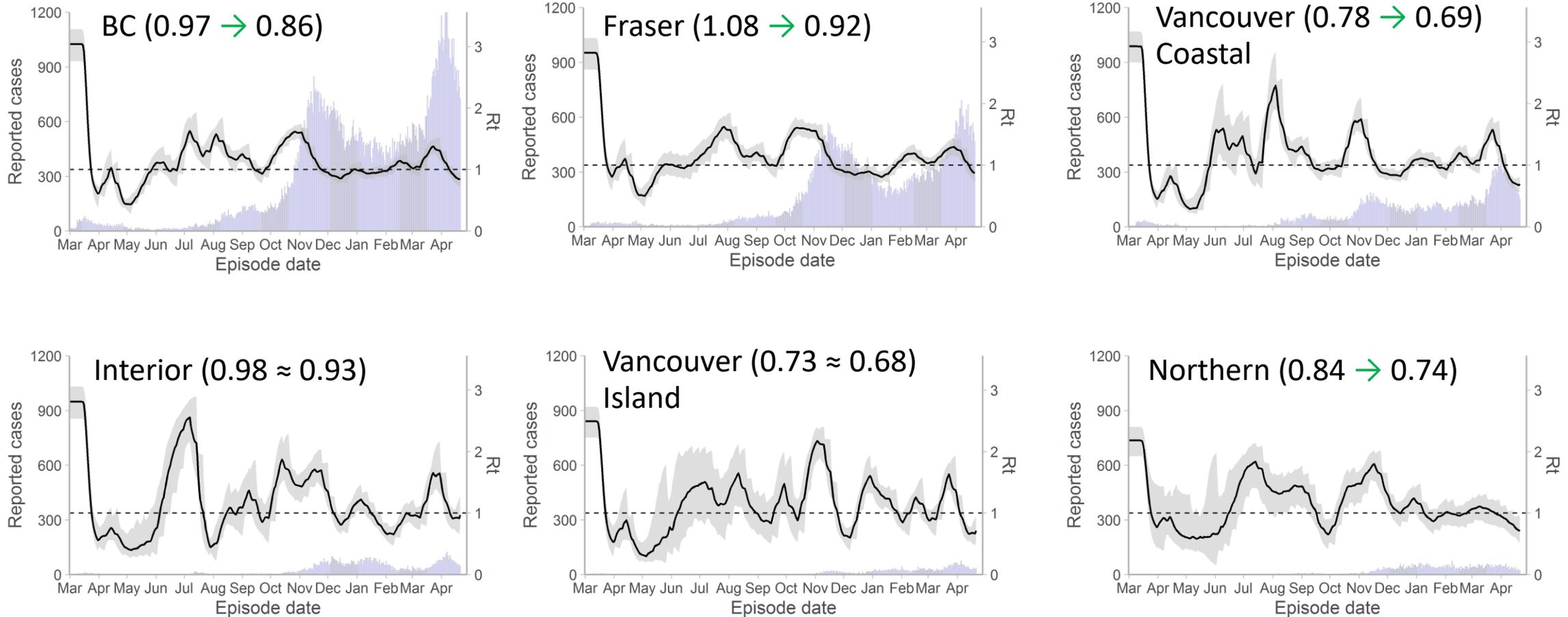
Jurisdictions are aligned at day 0 when % population vaccinated reached 5%



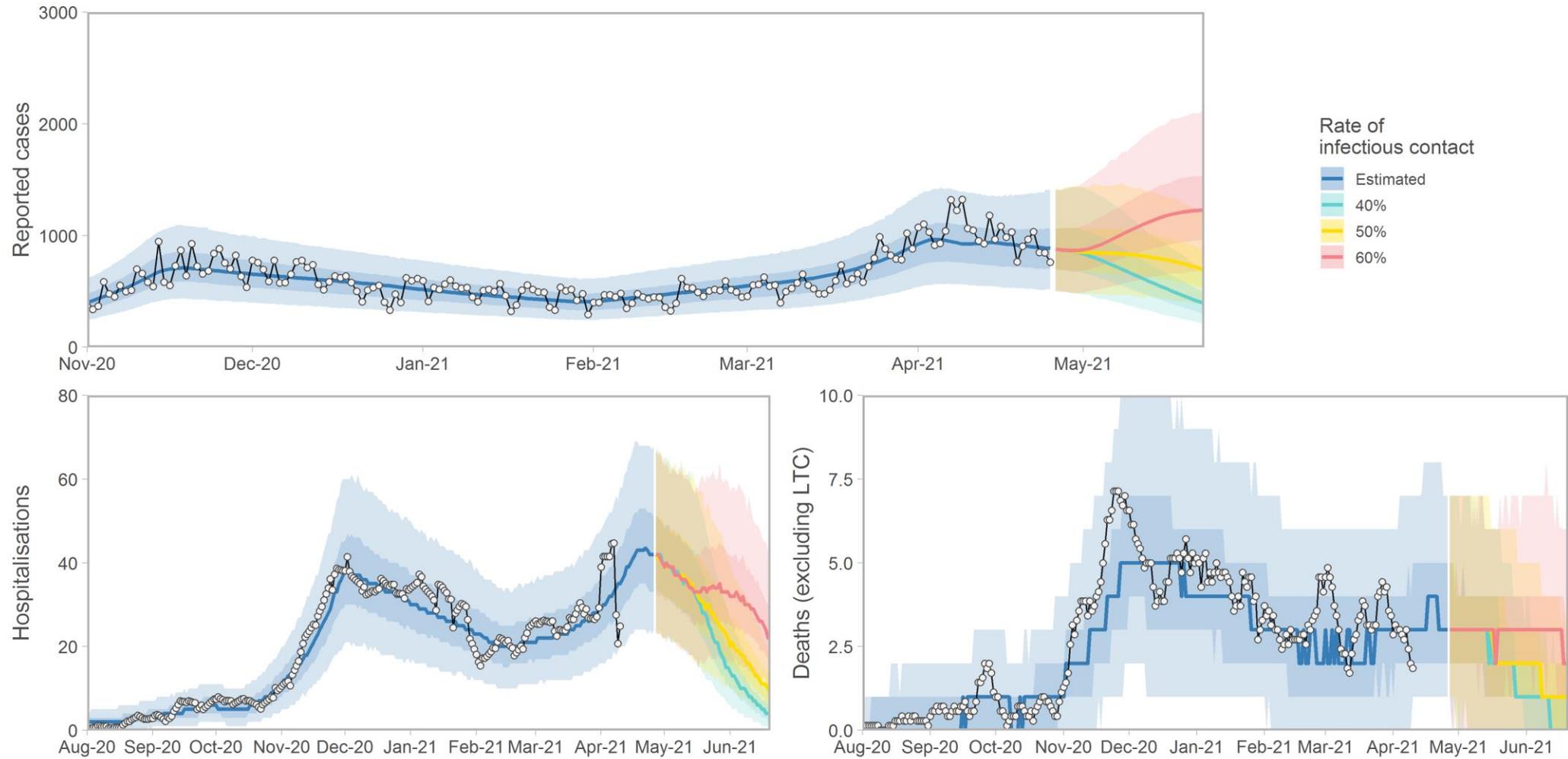
Source

Dynamic compartmental modeling: recent trends

Our model shows that R_t is below 1 in all regions of BC. Whenever $R_t > 1$, there is a risk that the number of new cases will grow.

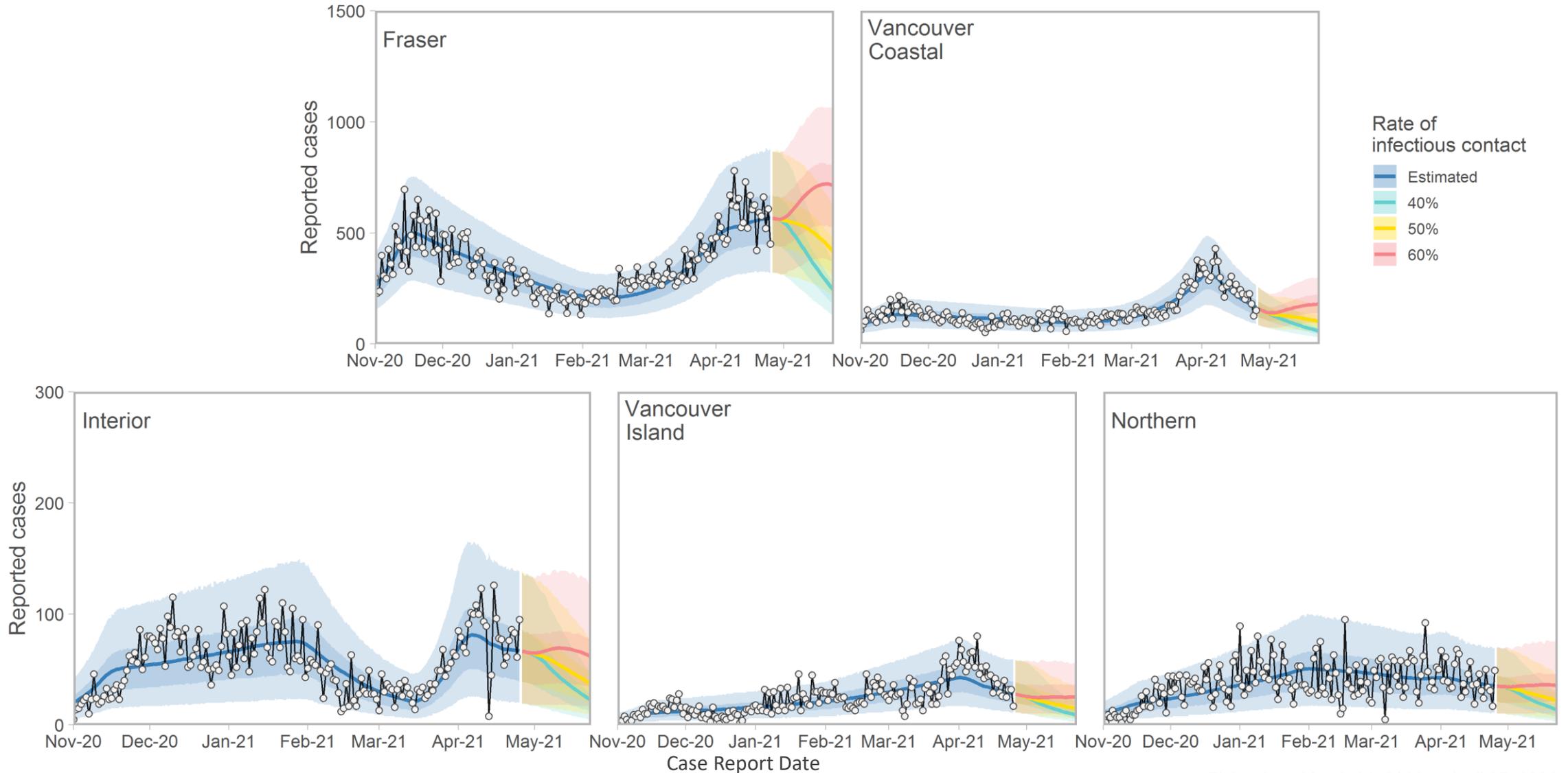


Scenarios of trajectory in cases, hospitalizations, and deaths in BC based on infectious contact



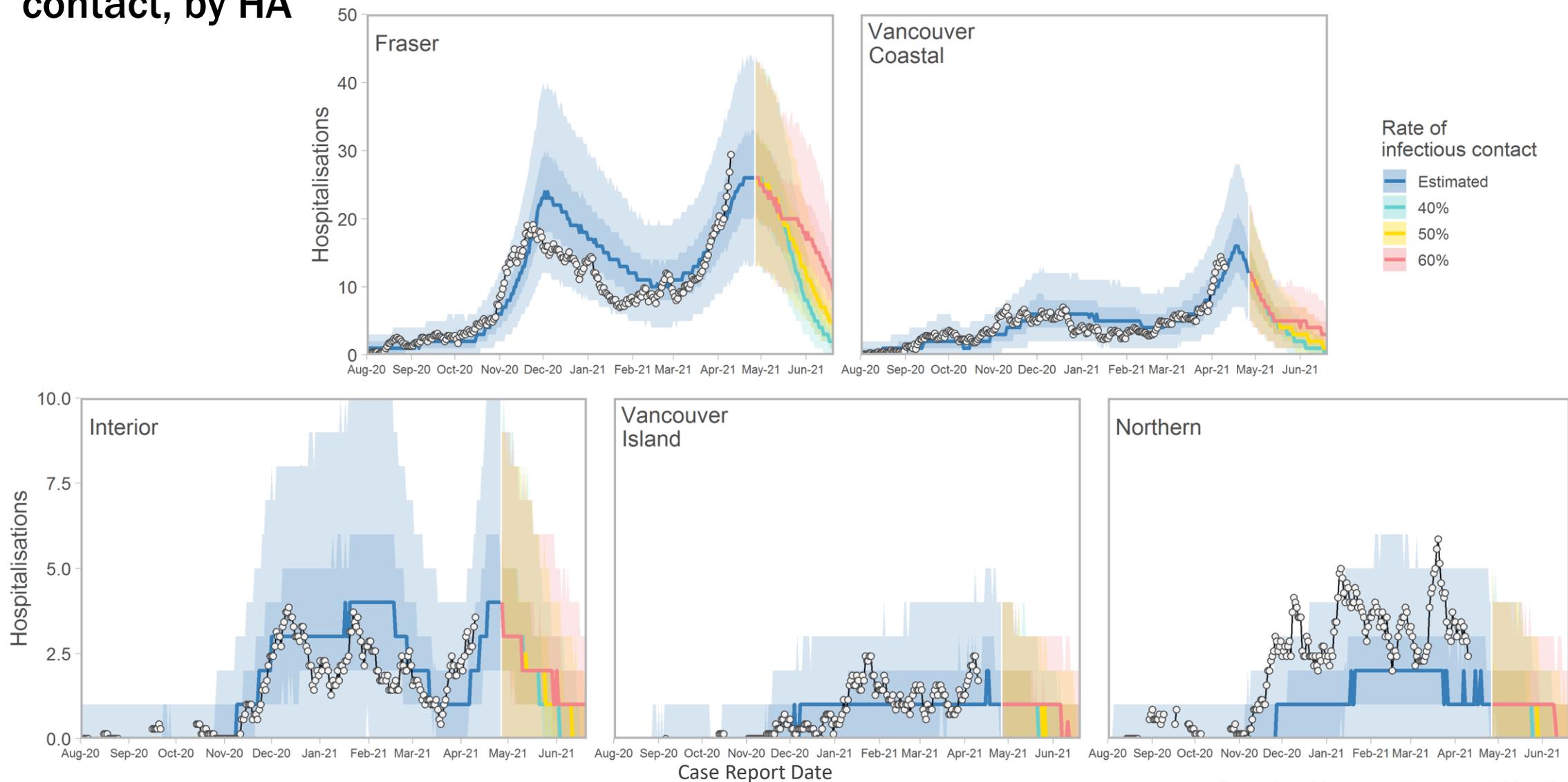
Fitting from March 01, 2020 to April 25, 2021

Scenarios of trajectories in cases based on infectious contact, by HA



Fitting from March 01, 2020 to April 25, 2021

Scenarios of trajectories in hospitalizations incidence based on infectious contact, by HA



Fitting from March 01, 2020 to April 25, 2021

R_t modelling methods

- A dynamic compartmental model was fit to COVID-19 data for BC using a Bayesian framework (Anderson et al. 2020. PLoS Comp. Biol. 16(12): e1008274)
- Results are presented as provincial and regional time-varying estimates of average daily transmission rate (R_t)
- The following caveats apply to these results
 - the model does not consider importation of cases, hence all transmission is assumed to arise from local cases
 - the model does not distinguish cases arising from variants of concern (VoCs) versus 'wild-type' COVID-19, hence model estimates represent average rates of transmission

Model notes and assumptions

- Levels of infectious contact characterized by historic estimated rates:
 - 40% would be similar to what was observed after the 8th September, 2020 announcement
 - 50% would be similar to changes observed after 7th November 2020 announcement
 - 60% would be similar rate of contact observed at beginning of 2021.
- Current BC Vaccination schedule incorporated into model fitting and projections incorporating variable rates of contact and susceptibility by age. Note vaccination of higher contact workers not explicitly included, which may under-estimate total impact of vaccination.
- Vaccination was modeled using the current proposed one dose schedule by age group, with all eligible age groups vaccinated by end of June, adjusting for age-dependent impact on transmission. Further assumed a 15% hesitancy of all age groups.
- Establishment of VoC varied by region and estimated from sequencing of cases. Estimates used were: Fraser: 20th January, Vancouver Coastal: 7th February, Interior: 15th March, and 25th March Vancouver Island and Northern.
- Dominance of VoC assumed to be 7 weeks in line with other jurisdictions. 50% increased transmission and disease severity selected to reflect experienced changes in other jurisdictions.

Additional Resources

- ***NEW*** [BCCDC COVID-19 Epidemiology app](#) (public) has been updated with provincial and international vaccination data.
- ***NEW*** [CHSA Case/Vaccine Dashboard](#) - Internal HA use only – needs a Tableau license. If you would like access, please contact rose.jose@bccdc.ca
- [LHA Trends Dashboard](#) – Internal HA use only – needs a Tableau license. If you would like access, please contact rose.jose@bccdc.ca
- More BC COVID-19 data, including the latest Situation Report, maps, and BC COVID-19 public dashboard, can be found [here](#) (public)
- [COVID SPEAK Survey results](#) (public)
- PHAC's COVID-19 Epidemiology update can be found [here](#) (public)
- For the most up to date BC, Canadian and global mobility data and to compare jurisdictions of interest to you, please visit [BCCDC Mobility app](#) (note: **not for public release**)