BCCDC Weekly Data Summary

27 May 2021

Purpose

The weekly surveillance deck is a summary of COVID-19 related indicators that can help inform the pandemic response in British Columbia. This surveillance monitoring constitutes the medical chart for population health assessment that guides the public health community of practice. As such this is a working document that reflects a snapshot in time and may differ from other published reports.

Data Sources

The collection, use and disclosure of case data is subject to the Public Health Act. COVID-19 cases are reported under the Public Health Act to the health authority of residence. Public health case notification, clinical management, contact tracing and follow-up contributes surveillance data for regional and provincial COVID-19 monitoring. Each regional health authority have their own workflows and information systems for capture of relevant data. This data foremost serves the public health and clinical management of the case and their contacts.

Disclaimer

- Data and key messages within these documents are not finalized and considered to be work in progress that is subject to retroactive changes as more data and information become available.

- Accurate interpretation of figures may be difficult with the limited inclusion of data notes and methodology descriptions in this document.

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Overall Weekly Summary

- Case rates are stable or declining in all HAs, and provincially cases are at the lowest count since October 2020 ; test positivity is declining, ~7% provincially for publicly funded tests and 6% for all tests.

- New hospitalizations are elevated, but continuing to decline; hospital/critical care census is declining across BC; new deaths are stable and low.

  - Majority of hospitalizations continue to be among individuals aged >40 years

- The share of VOCs among screened cases in BC is ~84% in epi week 20 (May 16-22). Among sequenced samples provincially based on information for epi week 19, P.1 (~40%) and B.1.1.7 (~56%) remain two dominant VOCs.

  - B.1.617 (newly declared by WHO as a VOC) currently represents ~3% of VOCs

- As of May 25, two thirds of the adult population in BC has received at least one dose of vaccine; ~80% of individuals ≥50 years have received at least one dose.

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May 20 to May 26: BC COVID-19 Profile

142,886	total cases
2,290	new this week

1,683	total deaths
25	new this week

7,583	ever hospitalized
156	new this week

137,517	removed from isolation
3,532	new this week

New daily COVID-19 cases, hospitalizations and deaths, Aug 01 2020 - May 25 2021
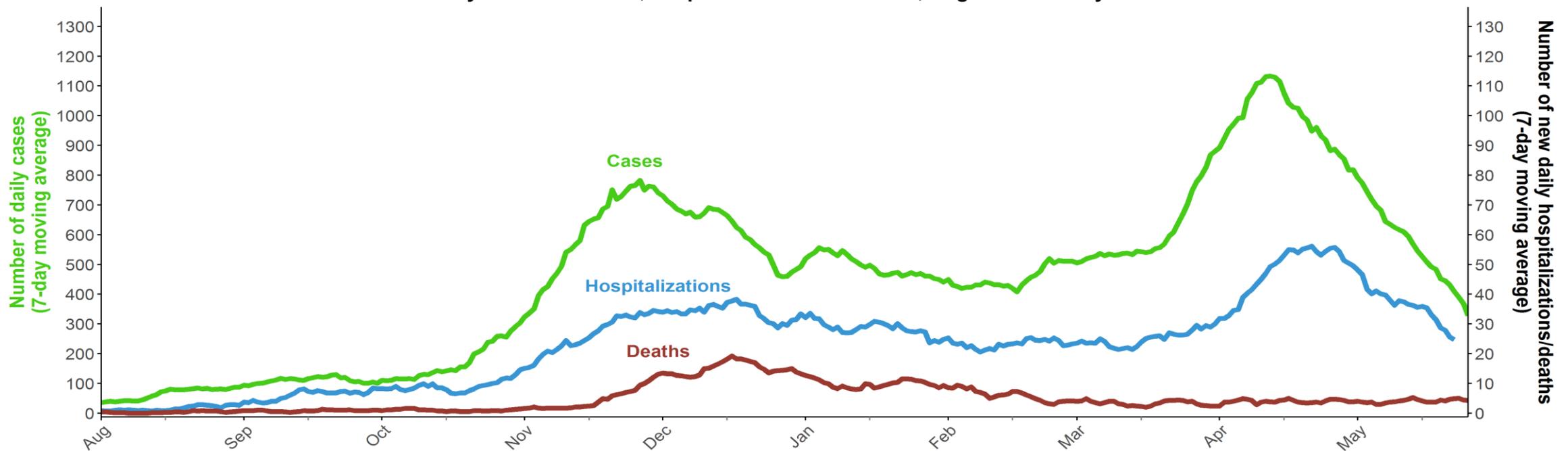
Cases
Hospitalizations
Deaths

Number of daily cases (7-day moving average)
Number of new daily hospitalizations/deaths (7-day moving average)

* Data are by surveillance date for cases and deaths, and admission date for hospitalizations
Data source: PHRDW May-26-2021

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Case rates are declining or stable in all HAs; new hospitalizations continue to decline and are below Fall 2020 peaks; new deaths are stable and low.


Rate of COVID-19 case, hospitalization and death, Aug 01 2020 - May 25 2021
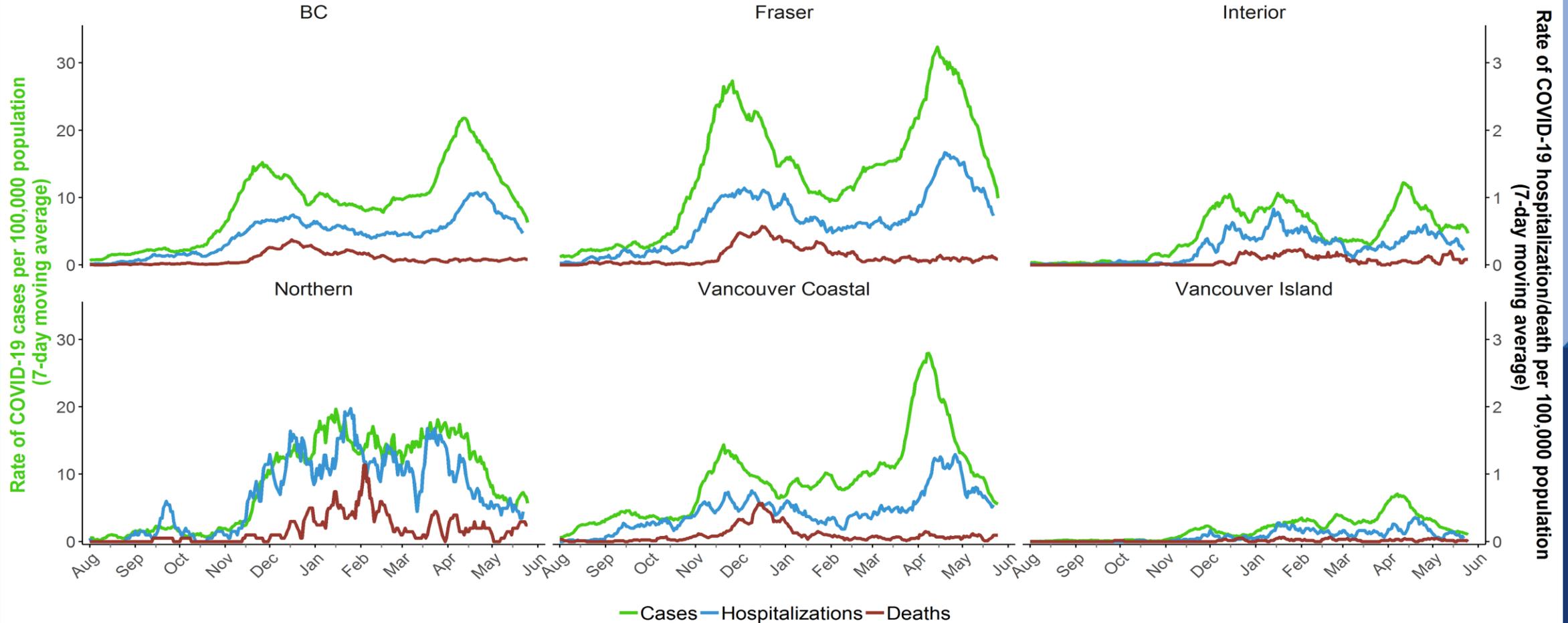
Cases *Hospitalizations* *Deaths*

* Data are by surveillance date for cases and deaths, and admission date for hospitalizations
Data source: PHRDW May-26-2021

For latest version of a graph similar to this one (difference: hospital census, not new hospitalizations), see the Epi App

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Hospital and critical care census is declining in all regions.

Current COVID-19 hospitalizations, Apr 01 2020 - May 25 2021

Legend: In the hospital but not in critical care | In critical care
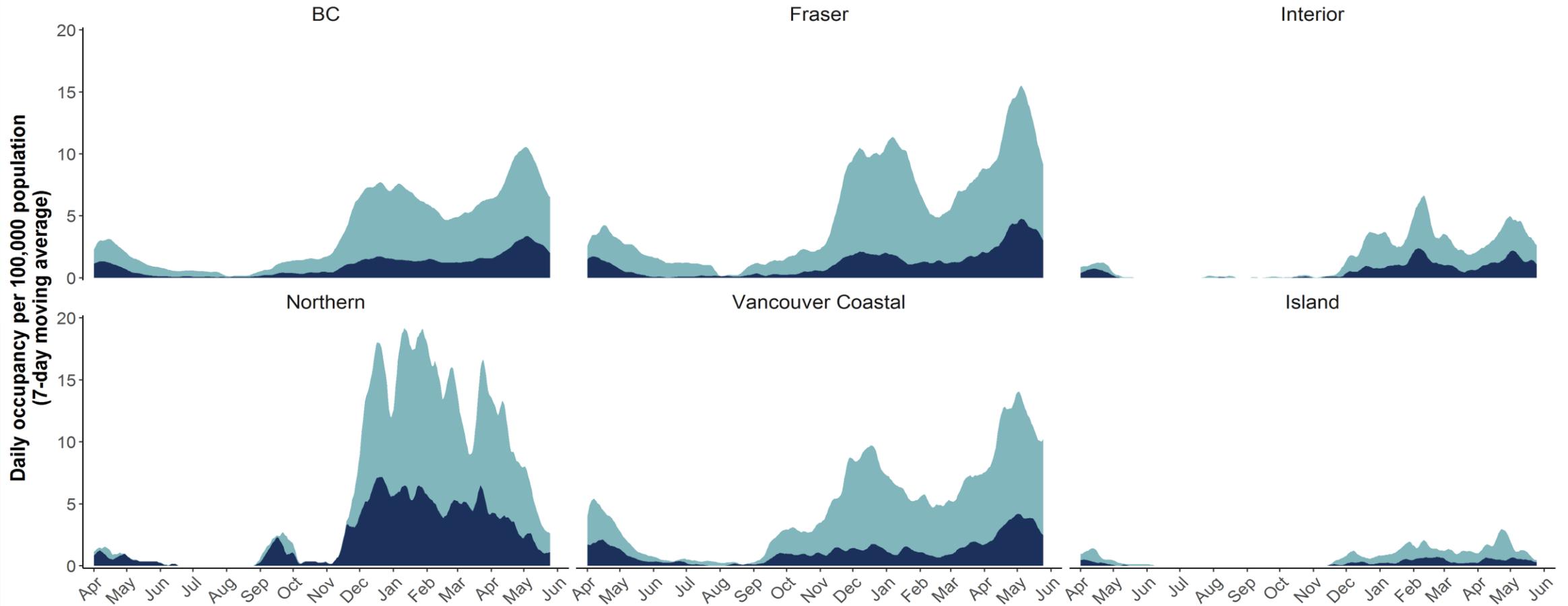
* Data are by census date for hospitalizations
Data source: PHSA Provincial COVID19 Monitoring Solution (PCMS) May-26-2021

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Number of hospitalizations decreasing in all age groups < 80 years. The number of hospitalizations among individuals <40 years is low. Deaths are decreasing and mostly among individuals ≥ 60 years.
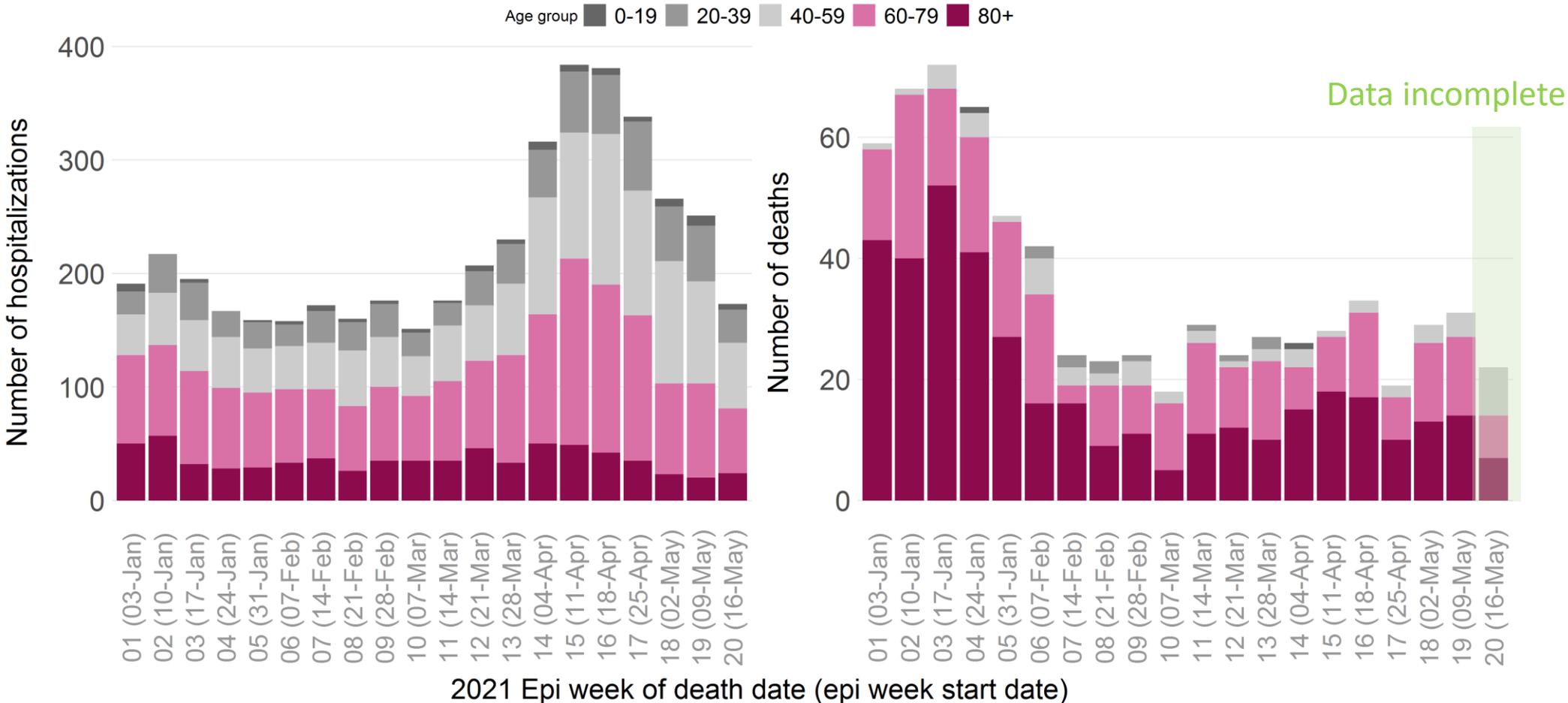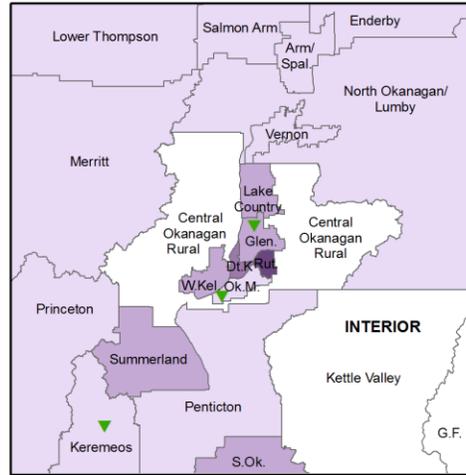
Data extracted on 27 May 2021; hospitalization and death data from BCCDC
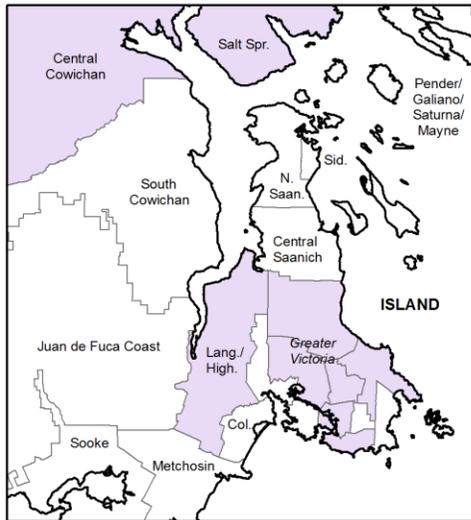
Geographic Distribution of COVID-19 by LHA and CHSA of Case Residence

Recent 7-Days Cases
May 19 to 25, 2021

Okanagan Inset
(Community Health Service Areas)

Greater Victoria Inset
(Community Health Service Areas)
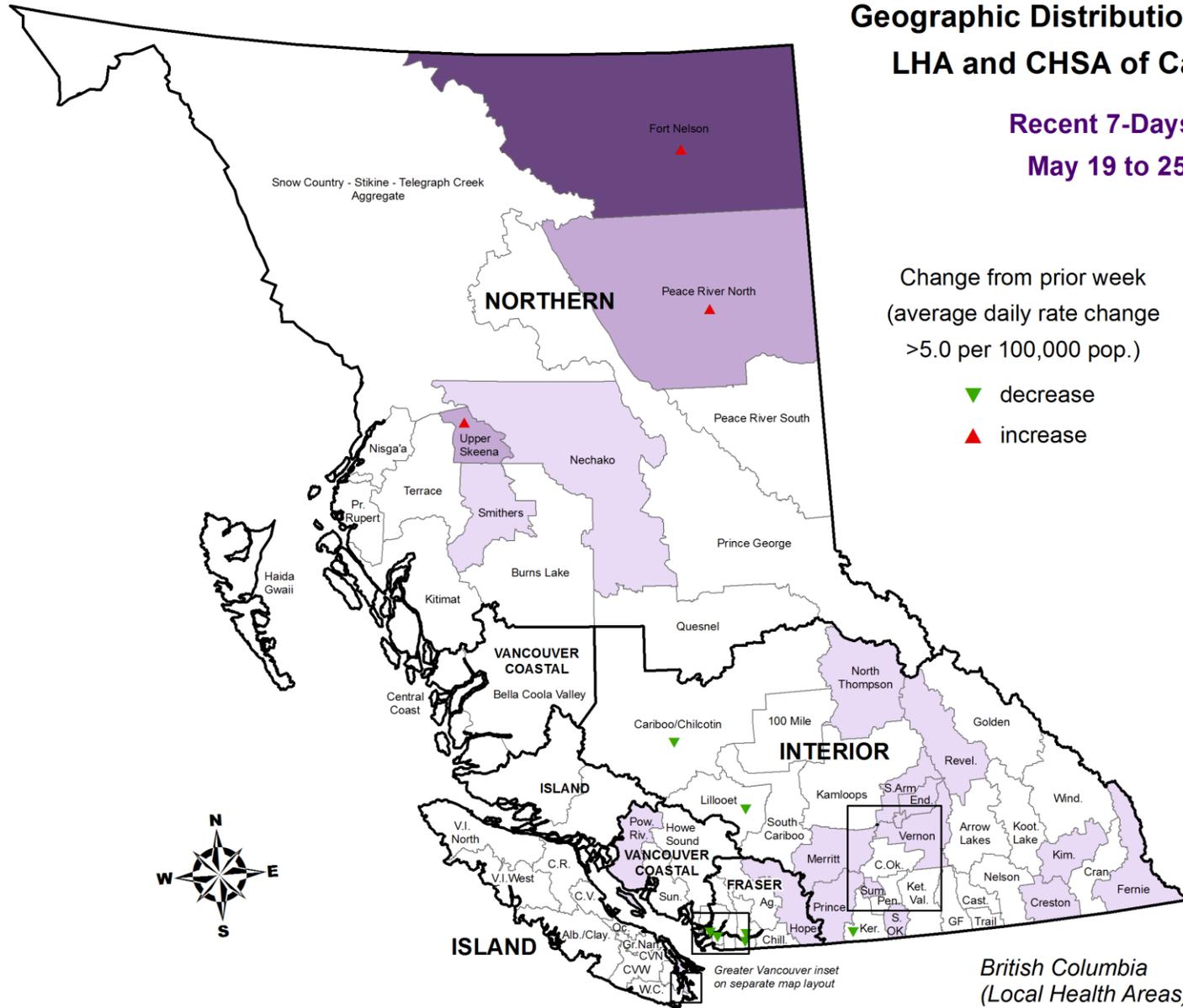
Change from prior week
(average daily rate change
>5.0 per 100,000 pop.)

▼ 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

Data source: Public Health Reporting Data Warehouse (PHRDW) integrated COVID dataset; we operate in a live database environment and case information is updated as it becomes available. Cases are mapped by location of residence; cases with unknown residence and from out of province are not mapped. Data are by date of first positive test, or date reported to public health for epi-linked cases. Population denominator from BC Stats PEOPLE estimates for 2021.

British Columbia
(Local Health Areas)

For latest version of this map, see the new (note: change symbols not included) COVID-19 Surveillance Dashboard

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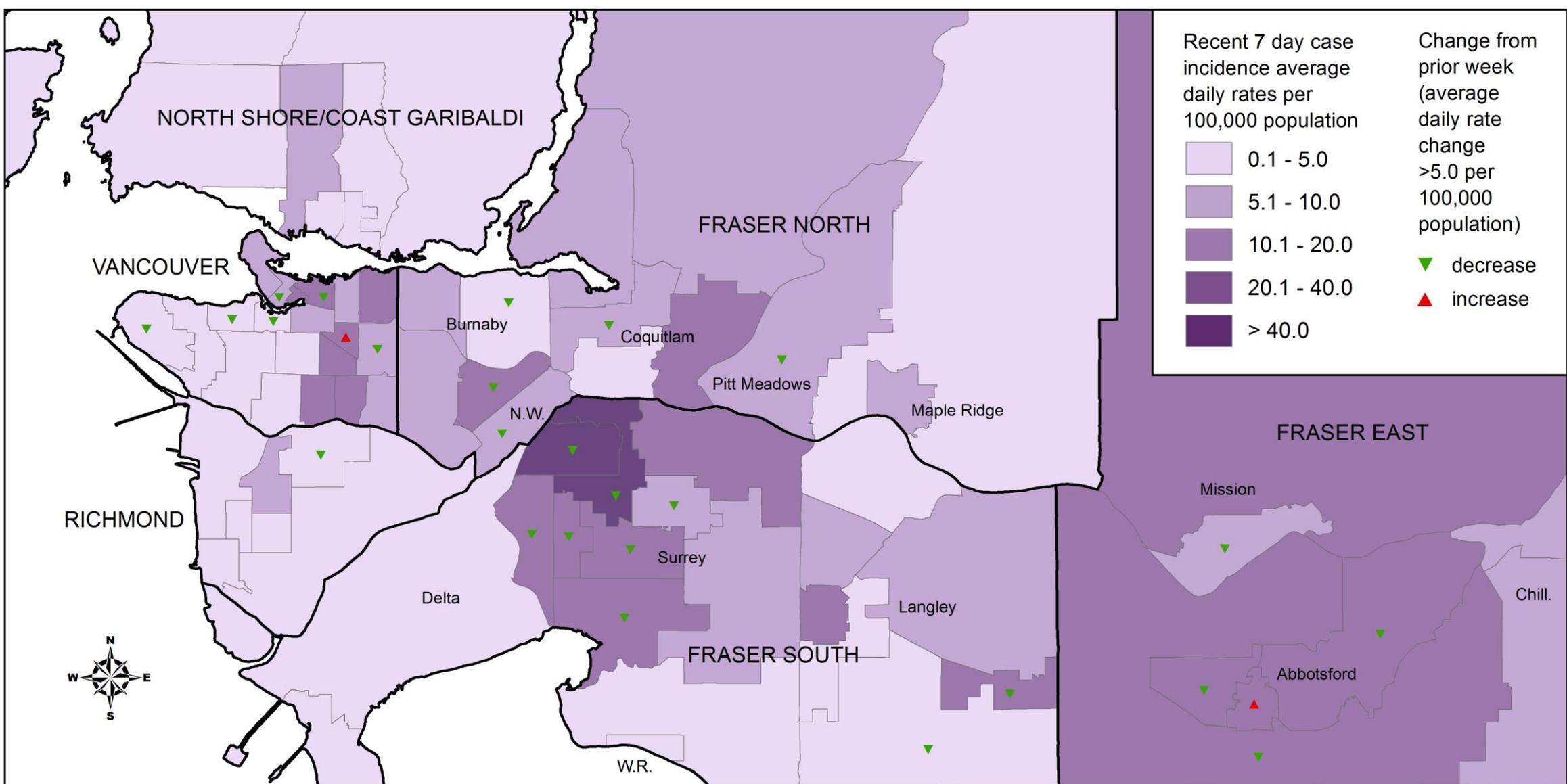
COVID-19 Recent 7-Day Case Incidence Rates by CHSA (May 19 to 25, 2021)

Legend:
Recent 7 day case incidence average daily rates per 100,000 population
- 0.1 - 5.0
- 5.1 - 10.0
- 10.1 - 20.0
- 20.1 - 40.0
- > 40.0

Change from prior week (average daily rate change >5.0 per 100,000 population)
- ▼ decrease
- ▲ increase

Map labels: NORTH SHORE/COAST GARIBALDI, VANCOUVER, RICHMOND, FRASER NORTH, Burnaby, Coquitlam, Pitt Meadows, Maple Ridge, N.W., Delta, Surrey, Langley, FRASER SOUTH, W.R., FRASER EAST, Mission, Chill., Abbotsford

For latest version of this map, see the new (note: change symbols not included) COVID-19 Surveillance Dashboard

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Proportion to total cases & population by local health area, May 19 - May 25, 2021

For latest version of this map, see the new COVID-19 Surveillance Dashboard

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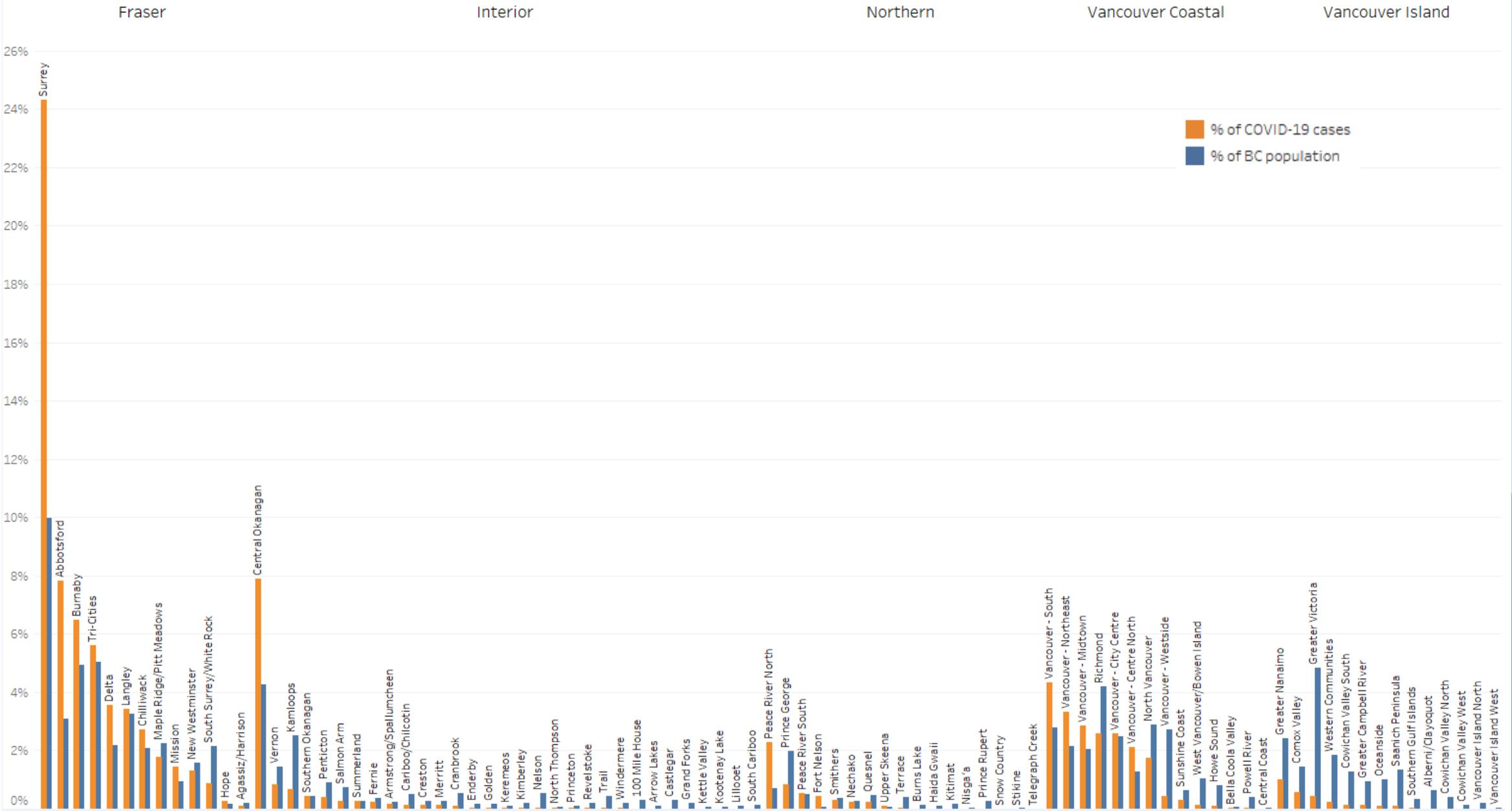
Total cases by local health area, May 19 - May 25, 2021

1 in 4 cases over the last week were among Surrey residents. The case rate over the past week declined >3x faster in Surrey than the rest of BC (>2x faster over the past 2 weeks).

COVID-19 Rates in Surrey vs the rest of BC

Percent of total cases
- < 1%
- 1.0% - 2.9%
- 3.0% - 4.9%
- 5.0% - 9.9%
- 10% +
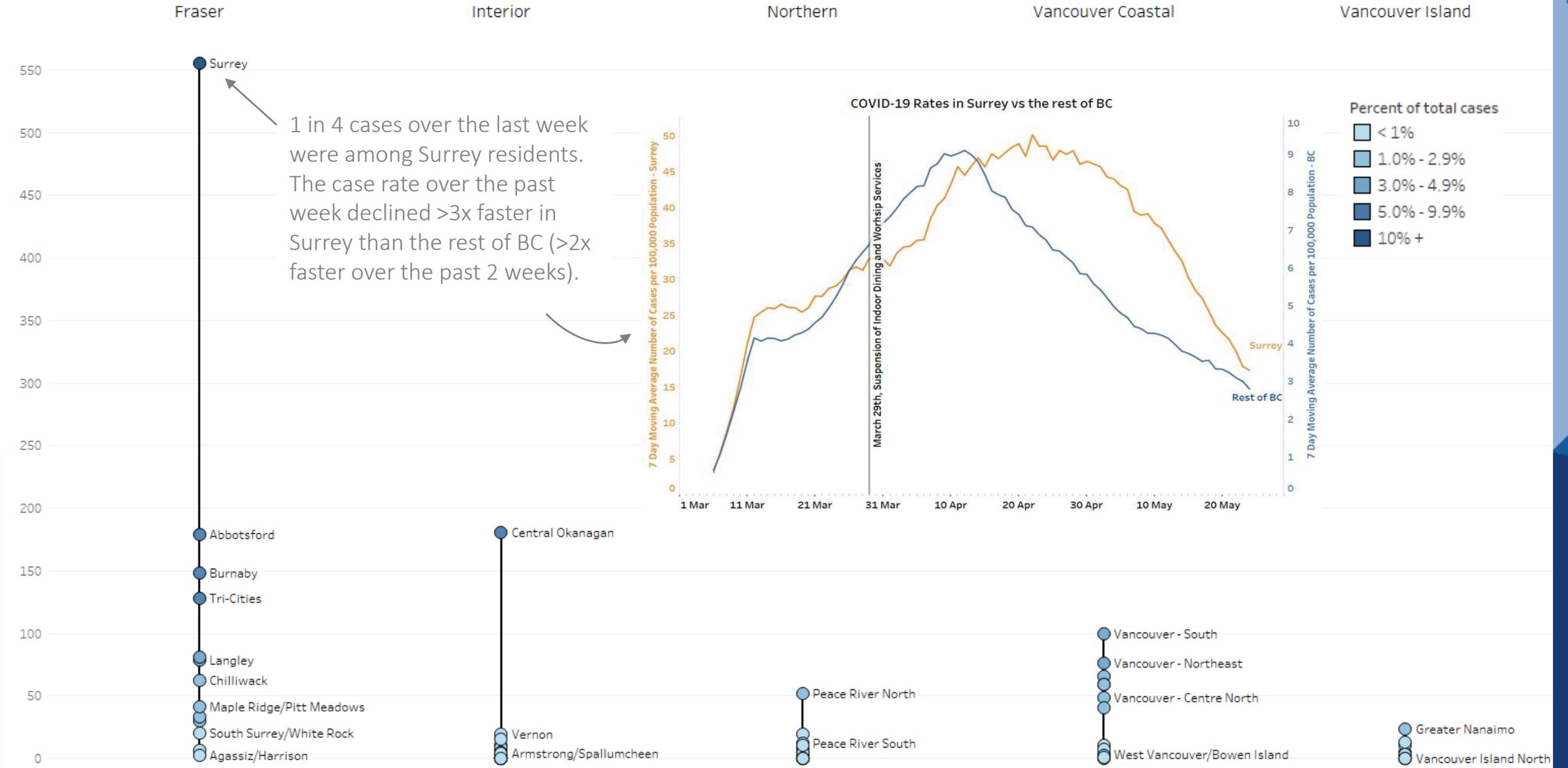
Average daily rate of new cases per 100,000 population, by local health area, May 19 - May 25, 2021

Legend:
- 0.0
- 0.1 - 5.0
- 5.1 - 10.0
- 10.1 - 15.0
- 15.1 - 20.0
- 20.0 +

Fraser, Interior, Northern, Vancouver Coastal, Vancouver Island

For latest version of this map, see the new COVID-19 Surveillance Dashboard

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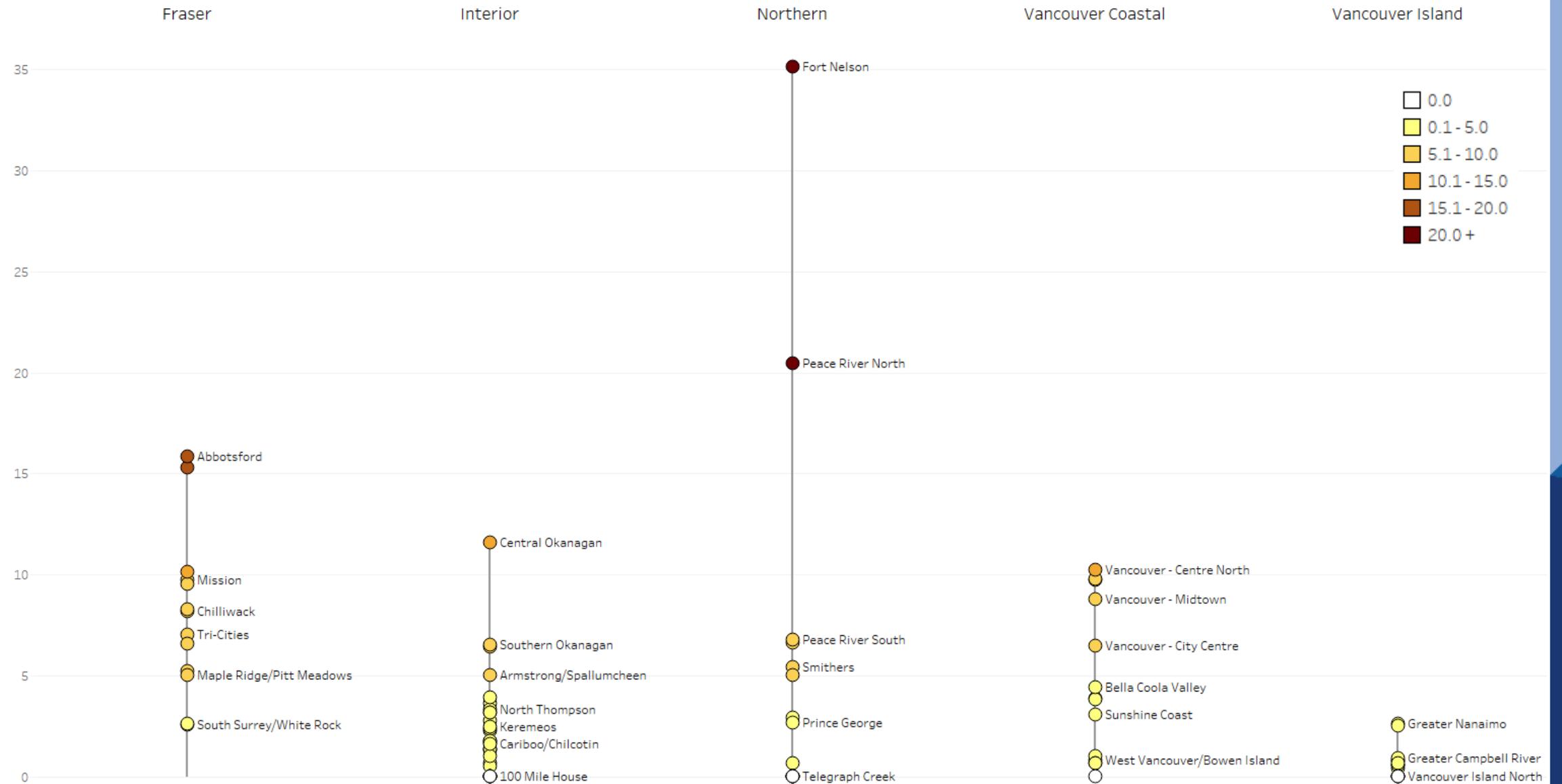
Incidence is decreasing or stable in all HAs. Percent positivity is at or below 10% in all HAs.

Case incidence rate, test percent positivity, and testing rate (Public Payers Only). Aug 1 2020 - May 25, 2021.

Incidence Rate of Positive Cases per 100,000 Population (7-day rolling average)

Testing Rate per 100K (7-Day Rolling Average)

BC: 6.5%
Fraser: 7.6%
Interior: 6.0%
Northern: 10.0%
Vancouver Coastal: 5.9%
Vancouver Island: 1.8%

Result Date

7-Day Rolling Average Percent Positivity
- <0.1%
- 0.1% to <1%
- 1% to <2%
- 2% to <3%
- 3% to <5%
- 5% to <10%
- 10% to <20%
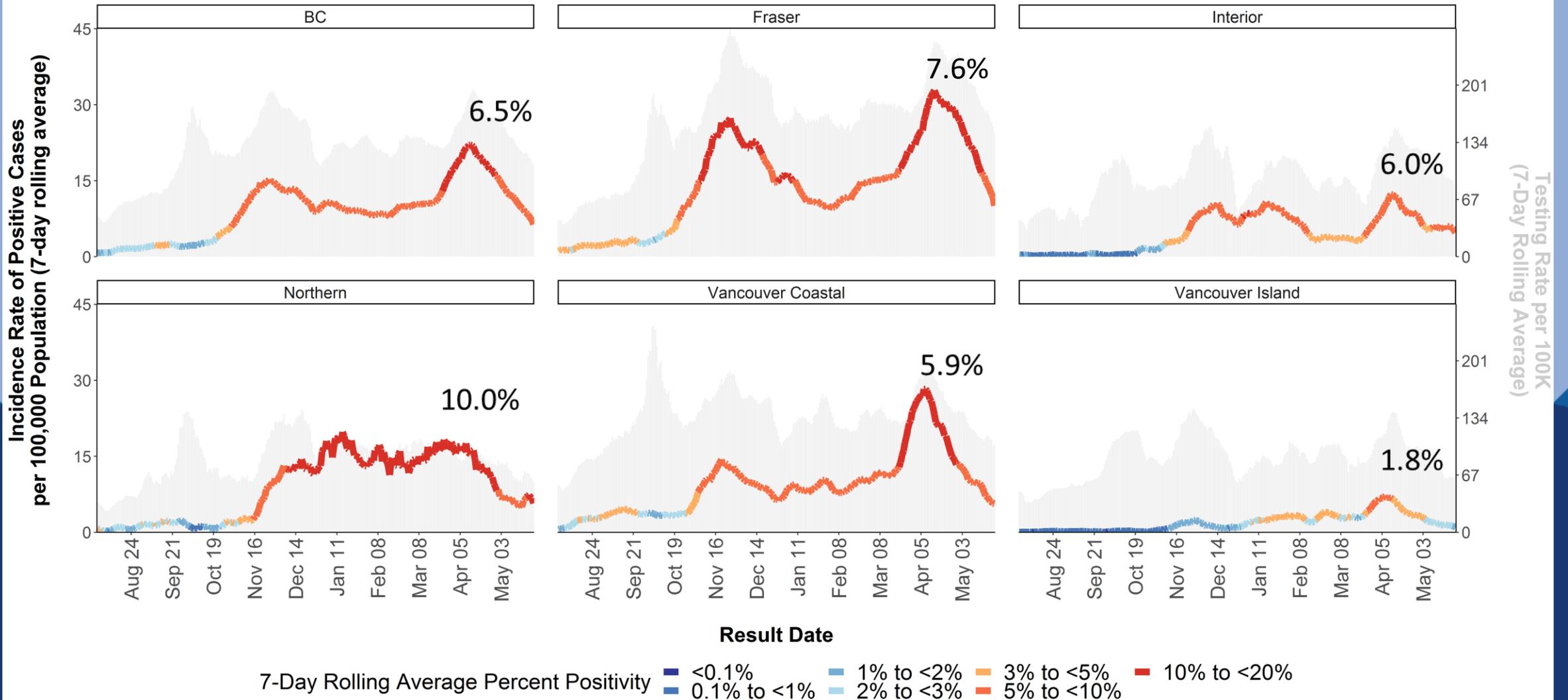
Data source: PLOVER 25-May-2021

For latest version of a graph similar to this one (difference: all tests, not public tests), see the Epi App

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BC, as of May 25th:
~80% of those 50+ are now vaccinated, ~2/3 of 18+ and >50% total population.
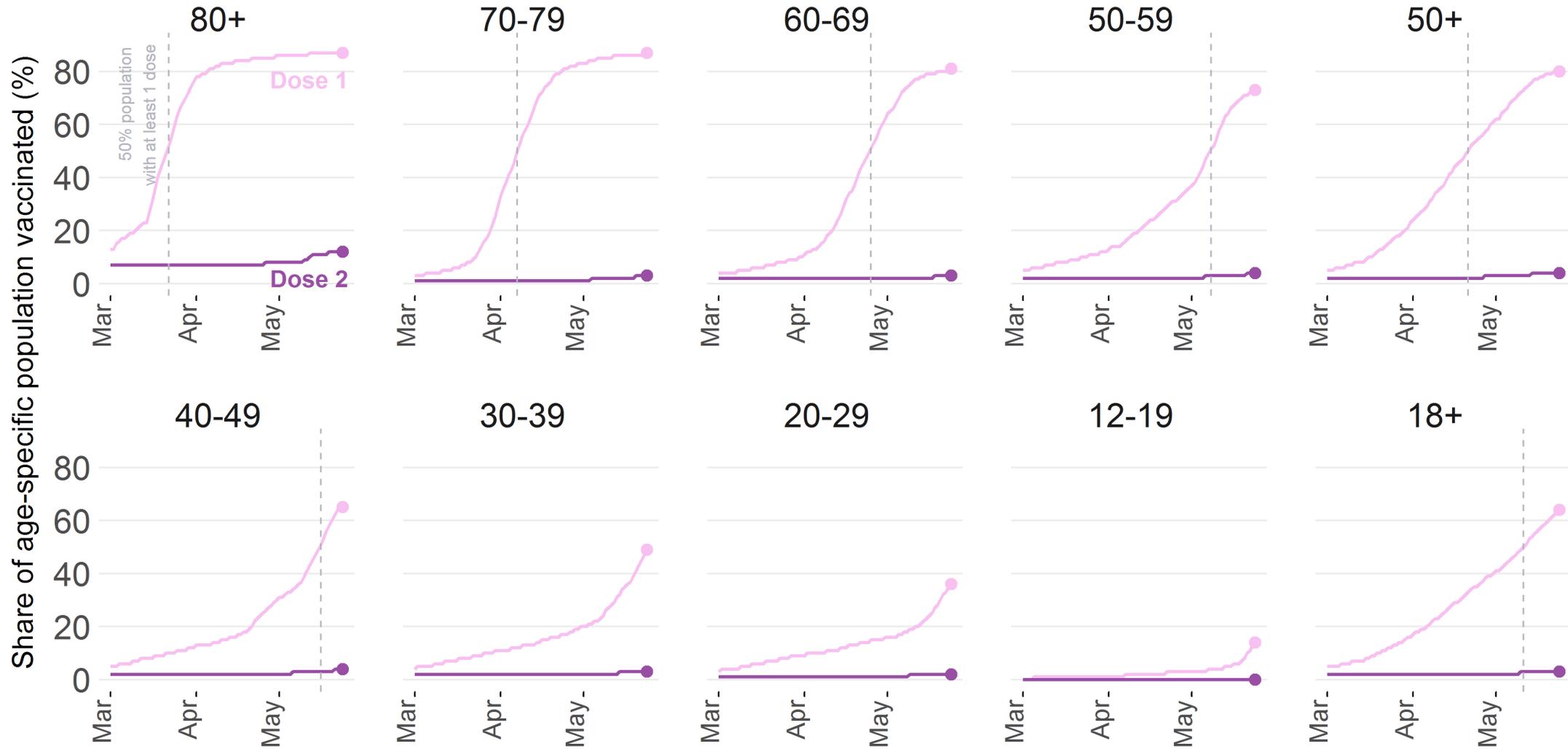
Share of age-specific population vaccinated (%)

80+ — Dose 1, Dose 2, 50% population with at least 1 dose
70-79
60-69
50-59
50+
40-49
30-39
20-29
12-19
18+

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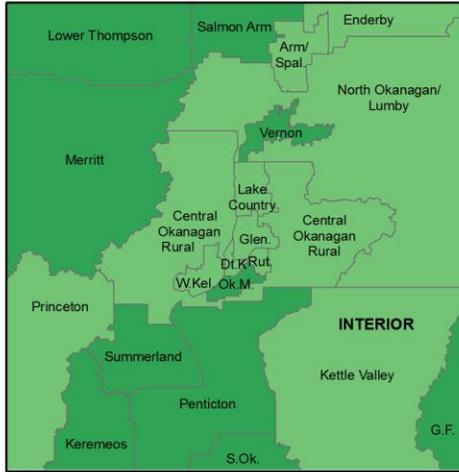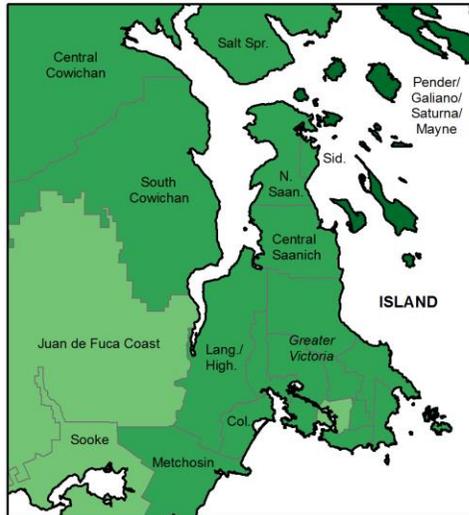
Geographic Distribution of COVID-19 Vaccination Coverage by LHA and CHSA

Ages 18+: 1st Dose up to May 24, 2021

Vaccination coverage rate (%) of adults 18+
- 1 - 20%
- 21 - 40%
- 41 - 60%
- 61 - 80%
- > 80%
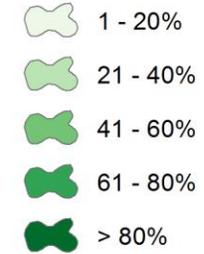
Notes: Vaccine coverage data from MoH HSIAR; population 18+ data from Client Roster.
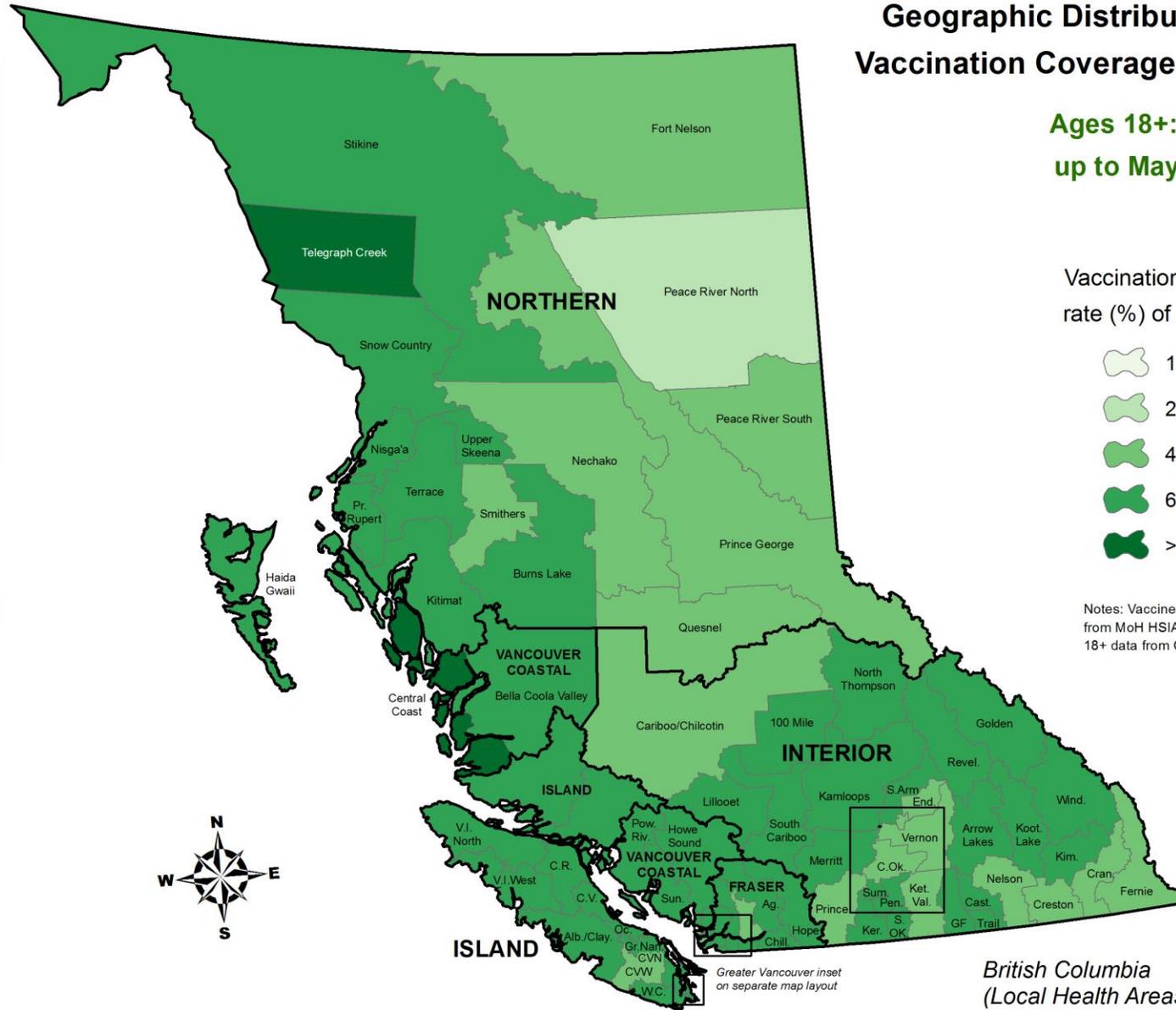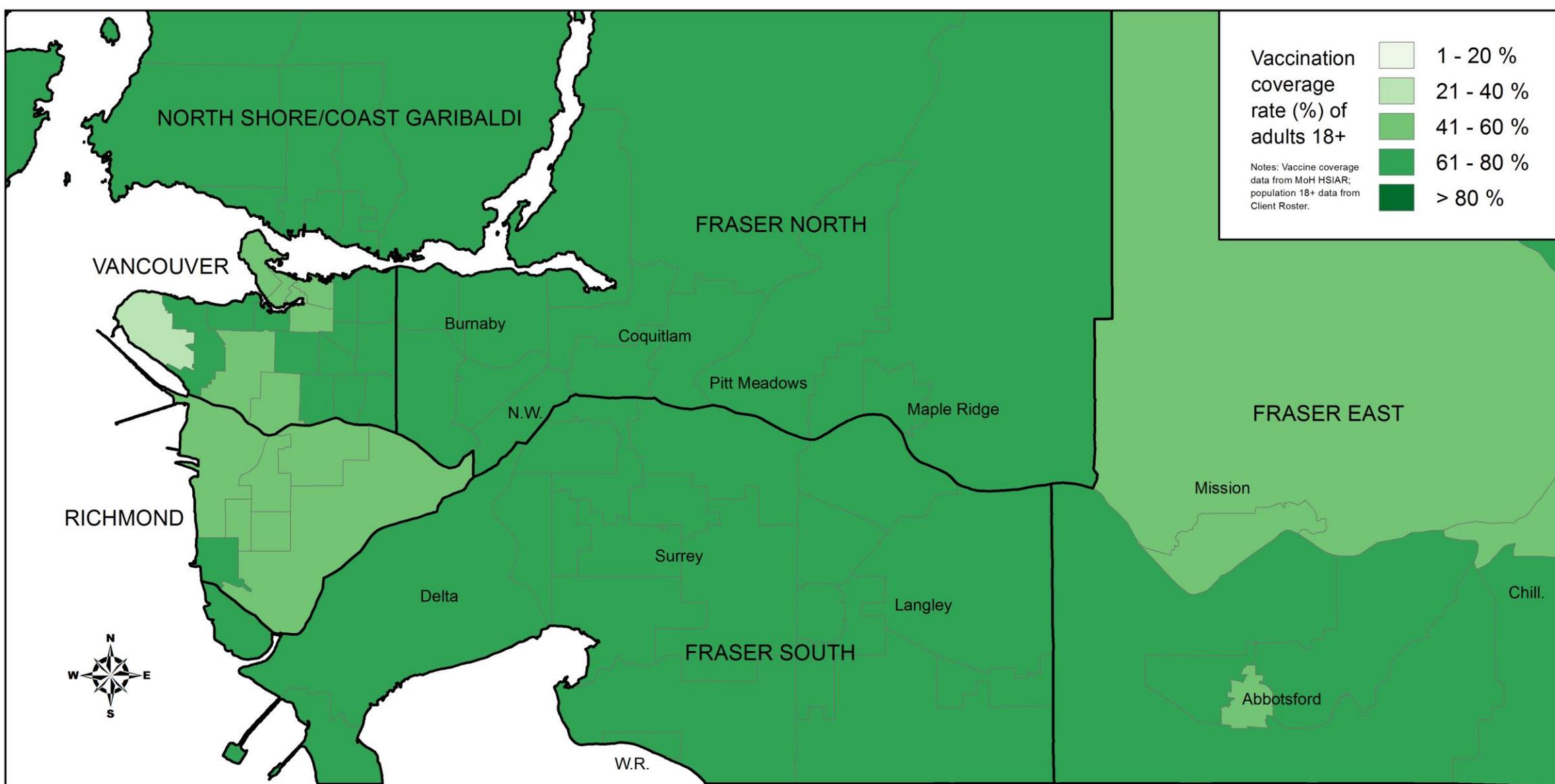
COVID-19 Vaccination Coverage by CHSA: Ages 18+ 1st Dose (up to May 24, 2021)
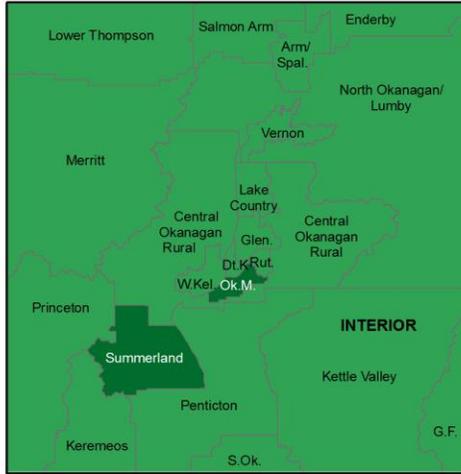
Geographic Distribution of COVID-19 Vaccination Coverage by LHA and CHSA

Ages 50+: 1st Dose up to May 24, 2021

Vaccination coverage rate (%) of adults 50+
- 1 - 20%
- 21 - 40%
- 41 - 60%
- 61 - 80%
- > 80%
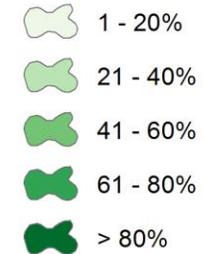
Notes: Vaccine coverage data from MoH HSIAR; population 50+ data from Client Roster.
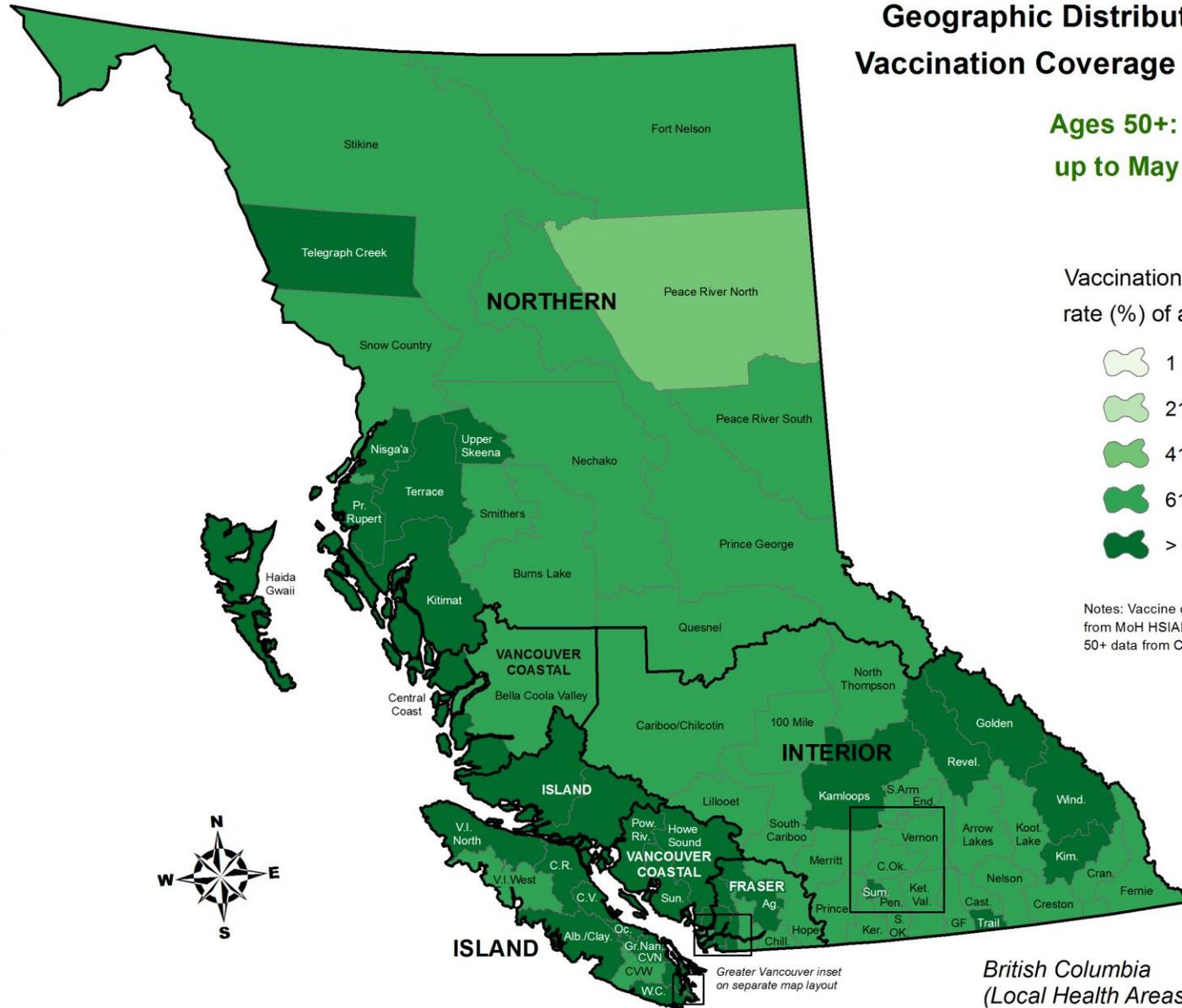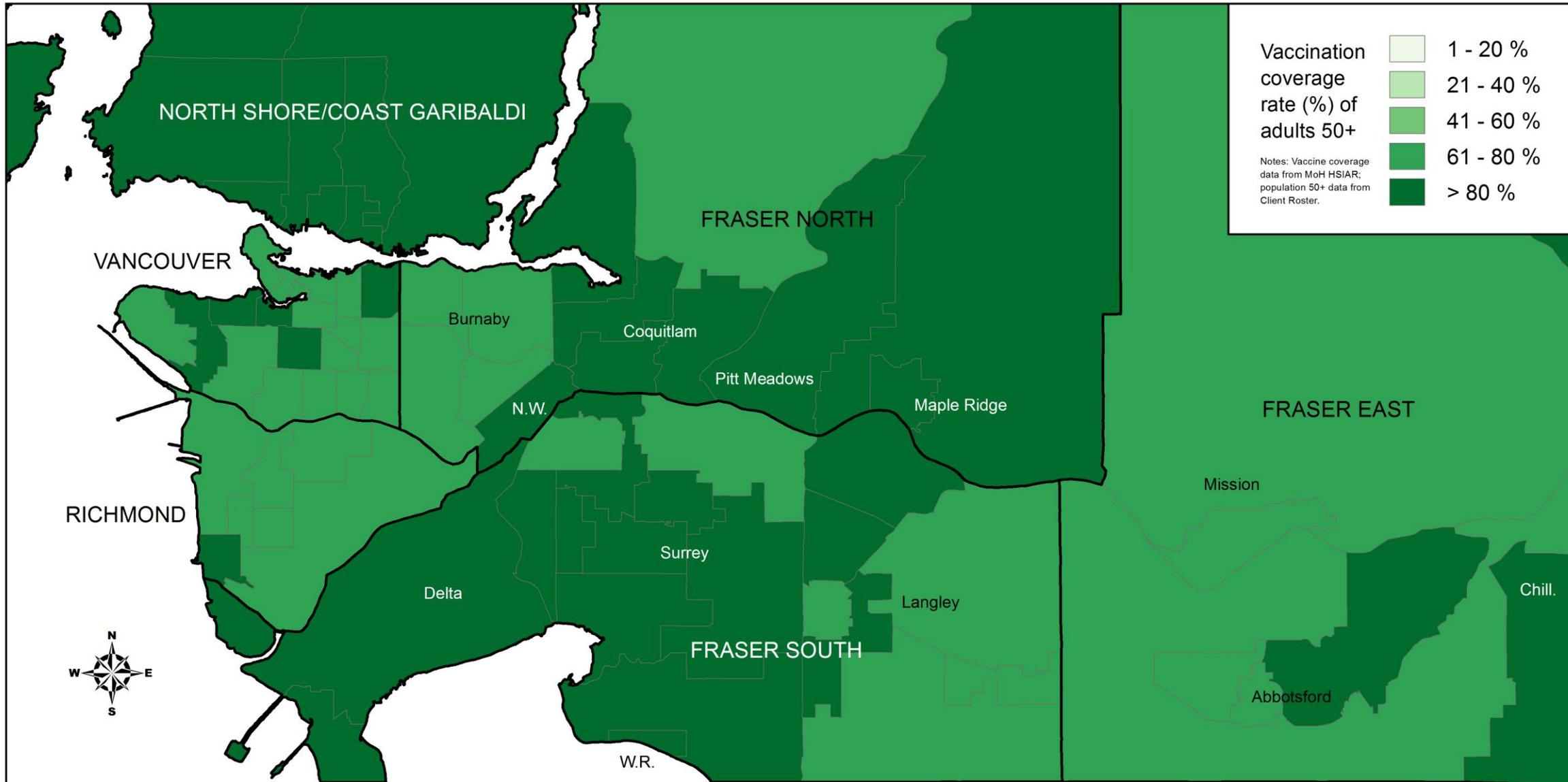
COVID-19 Vaccination Coverage by CHSA: Ages 50+ 1st Dose (up to May 24, 2021)

Nationally, BC's vaccination rate is very close to Canadian average; internationally, Canada is one of the countries with the highest proportion of the population with at least one dose.
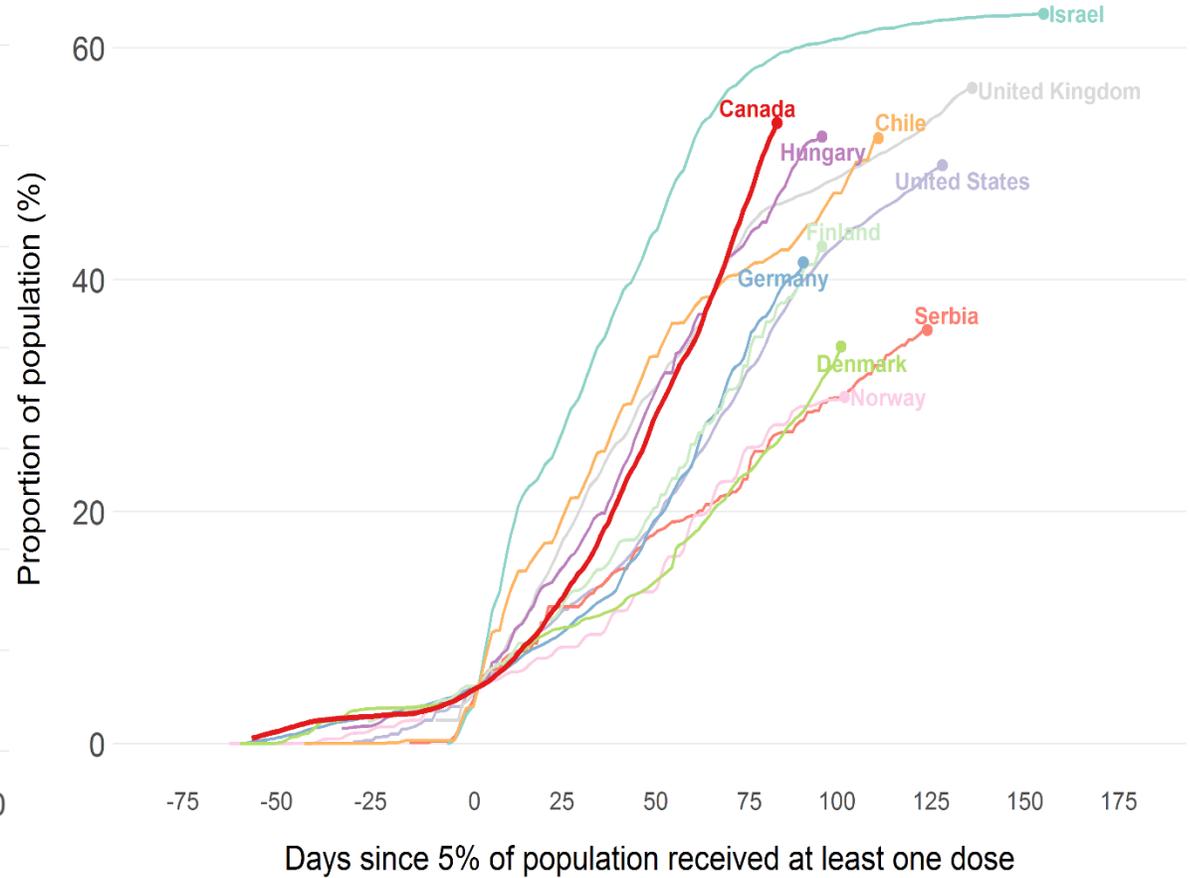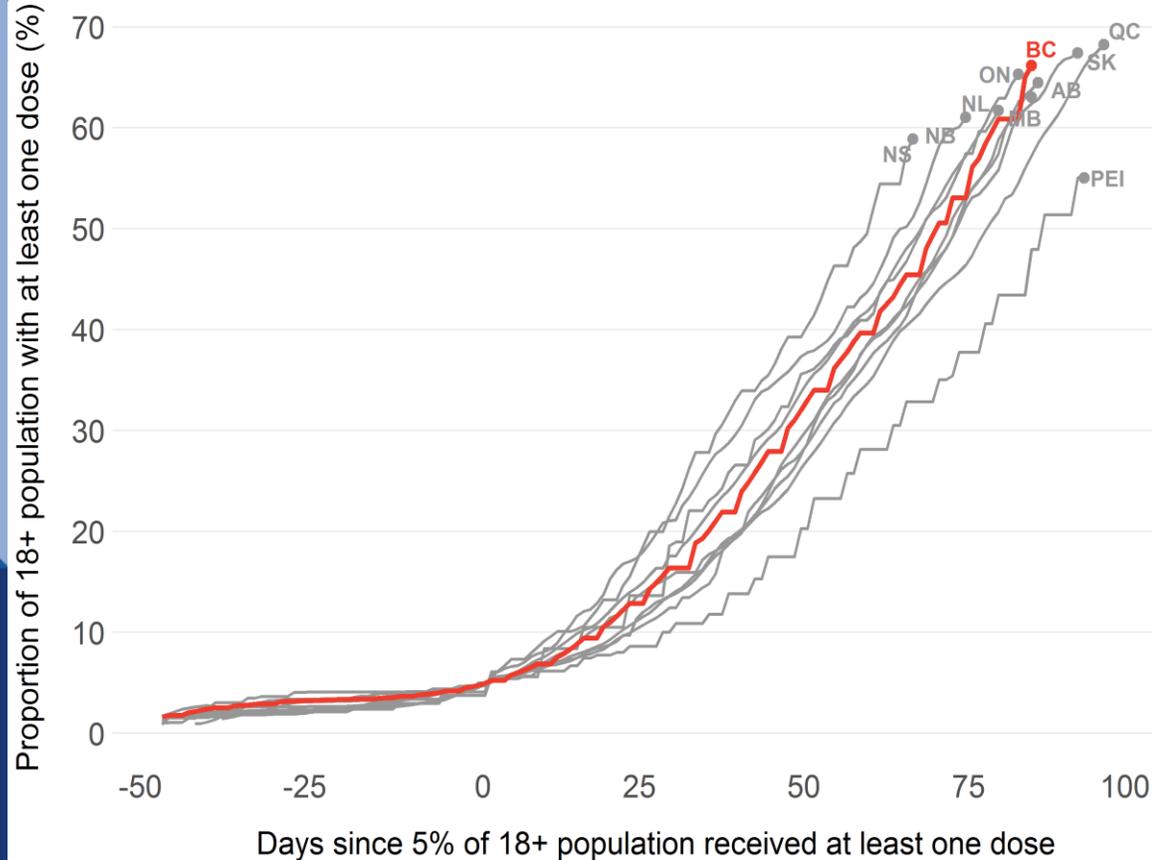
Data source: COVID-19 Tracker Canada
Visualization: BCCDC
Extracted: 2021-05-27

Data source: Our World in Data
Visualization: BCCDC
Extracted: 2021-05-27

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Lab - Key Messages

1. Percent positivity among publicly funded tests is 7% and among all tests, it is 6%.
   - Testing rates decreased 11% this week (~49,000 total tests May 16 to 22)

2. There are regional differences in percent positivity, which range from 1.8% in VIHA to 10% in NH.

3. Incidence continues to decline in all age groups. Percent positivity is >10% in individuals aged 13 to 24 years.

4. The provincial weekly median turnaround time (time from specimen collection to lab result) is 13 hours, indicating good testing capacity; only 1 in 4 tests took ≥21 hours to result.

5. Among SARS-COV-2 screened samples, the proportion that were presumptive or confirmed VOCs for the past epi week was ~84%.

6. VOCs have been detected in all regions of the province.
   - Among sequenced samples provincially based on information for epi week 19, P.1 and B.1.1.7 remain two dominant VOCs, accounting for roughly 40% and 56% of VOCs respectively.
   - B.1.617 (newly declared by WHO as a VOC) currently represents ~3% of VOCs

Weekly Summary of ALL lab tests performed

2,706,180	total specimens tested
49,442	new this epi week

↓ **11%** relative to last week

149,814	total positive specimens
2,898	new positive this epi week

5.9% positivity
↓ **1.0%** absolute change from last week

14 hr	mean turnaround time (TAT)
13 [8-21]	Median [Q1 – Q3] TAT

↓ **10%** TAT relative to last week

Weekly Summary of Lab tests paid Publicly

2,230,331	total specimens tested
40,952	new this epi week

↓ **8%** relative to last week

148,453	total positive specimens
2,881	new positive this epi week

7.0% positivity
↓ **1.5%** absolute change from last week

22
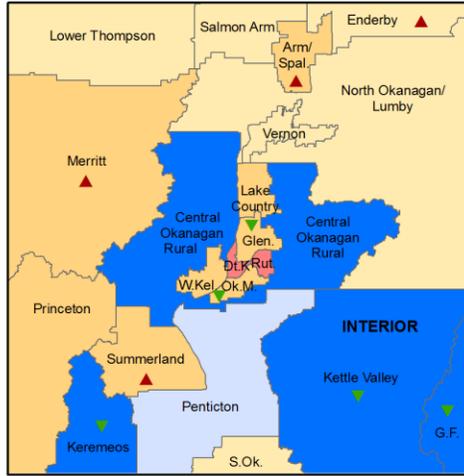
**Data source:** PLOVER extract at 10:30am on May 26, 2021.
Epi week 20 (May 16 – 22)

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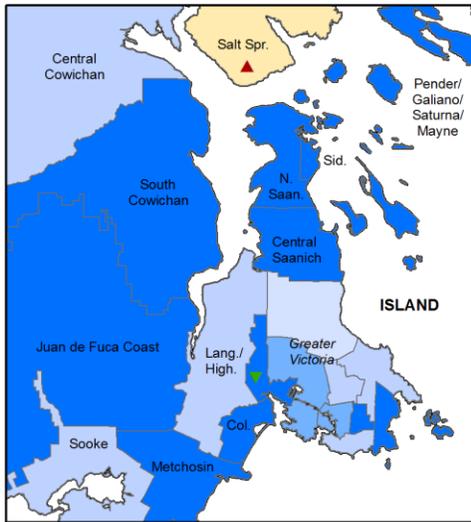
Geographic Distribution of COVID-19 Testing Positivity by LHA and CHSA

Recent 7-Days Testing
May 19 to 25, 2021

Okanagan Inset
(Community Health Service Areas)

Greater Victoria Inset
(Community Health Service Areas)
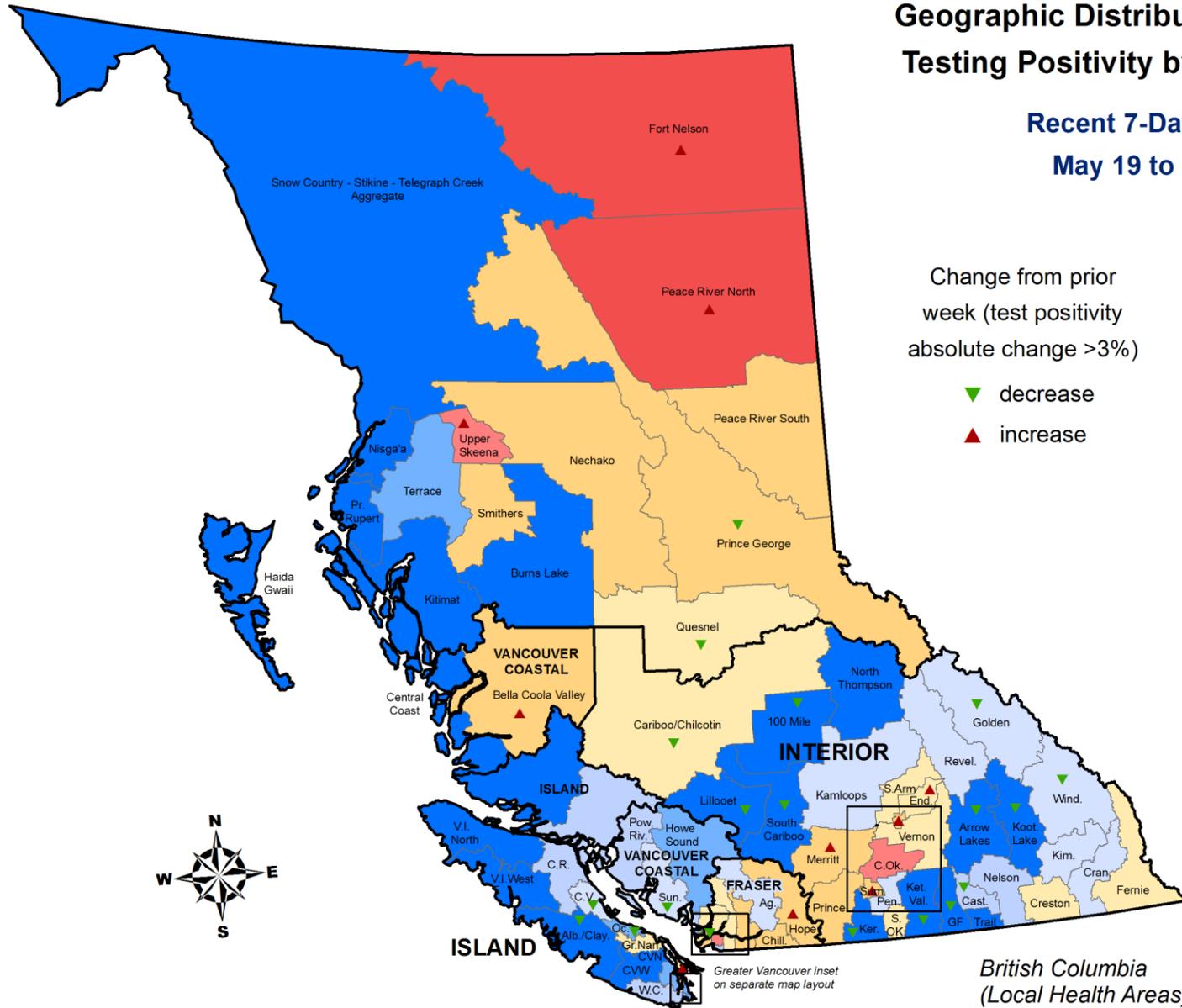
Change from prior week (test positivity absolute change >3%)

▼ 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 %

Data source: BCCDC Public Health Laboratory PLOVER system (all tests performed). Data are by testing result date, and location of client's residence or if missing, physician's address.

British Columbia
(Local Health Areas)

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CDC
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23
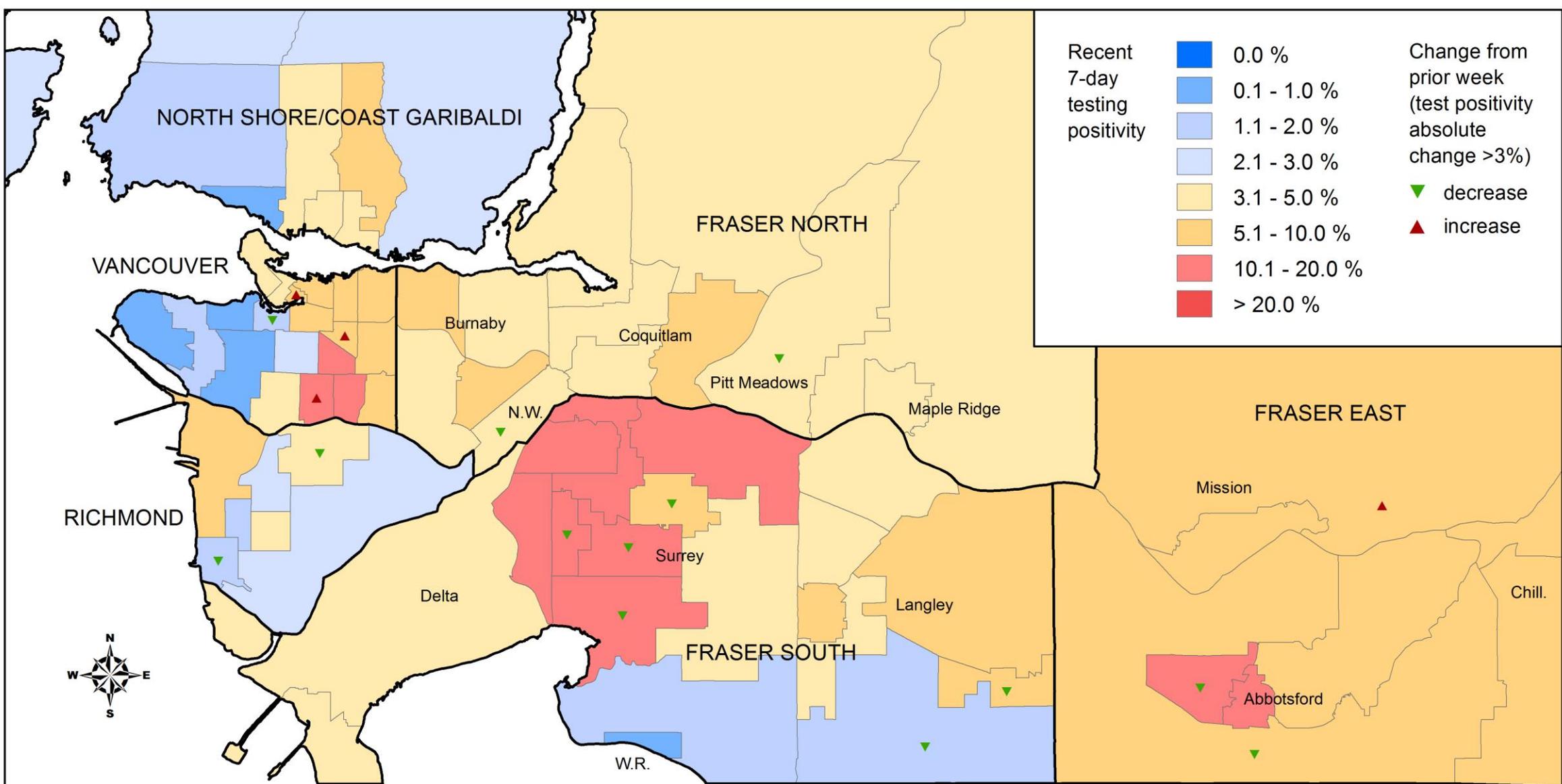
COVID-19 Recent 7-Day Test Positivity by CHSA (May 19 to 25, 2021)

Includes all tests

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

Case incidence rate, test percent positivity, and testing rate by HSDA (Public Payers Only).
Aug 1 2020 - May 25, 2021.
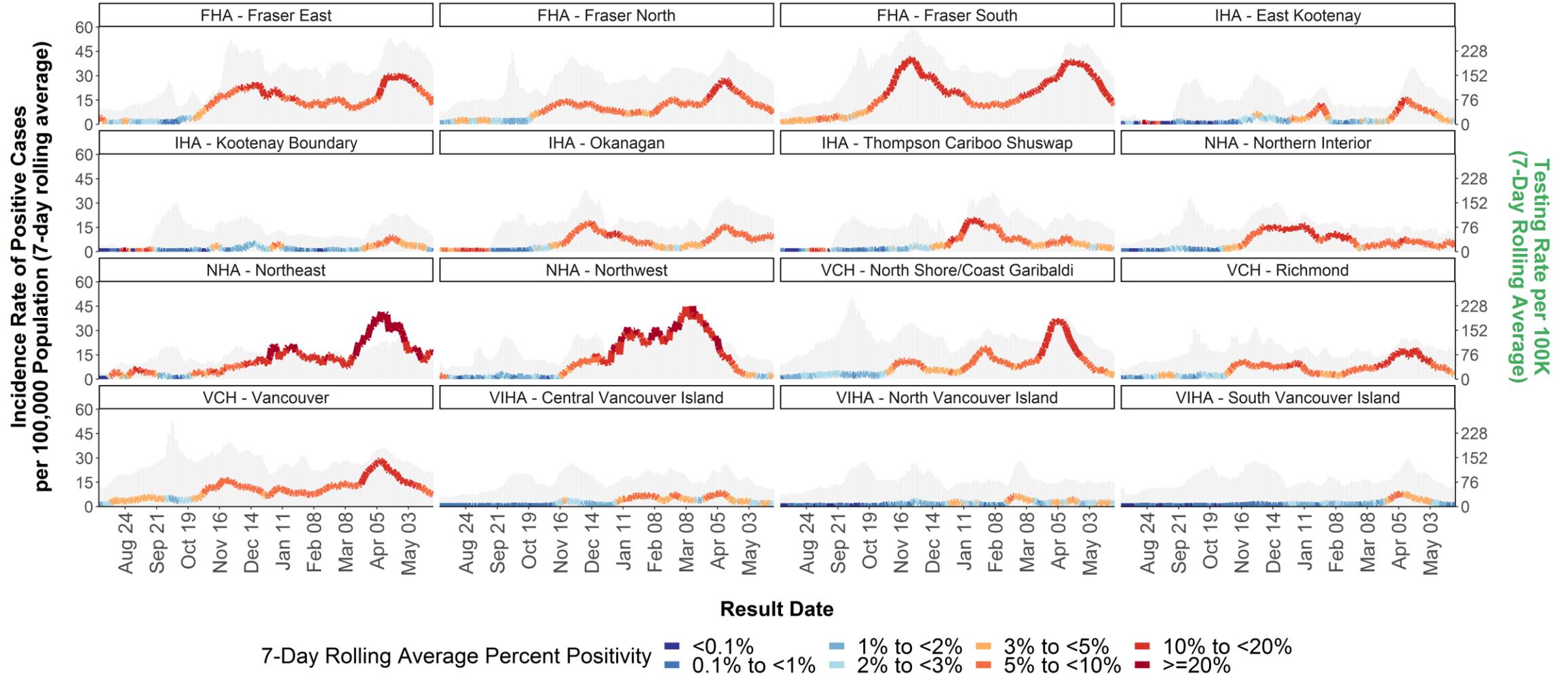
7-Day Rolling Average Percent Positivity: <0.1%, 0.1% to <1%, 1% to <2%, 2% to <3%, 3% to <5%, 5% to <10%, 10% to <20%, >=20%

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For latest version of a graph similar to this one
(difference: all tests, not public tests), see the Epi App

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Incidence continues to decline in all age groups. Percent positivity is >10% in individuals aged 19 to 24 years.

Case incidence rate, test percent positivity, and testing rate by age (Public Payers Only). Aug 1 2020 - May 25, 2021.

7-Day Rolling Average Percent Positivity
- <0.1%
- 0.1% to <1%
- 1% to <2%
- 2% to <3%
- 3% to <5%
- 5% to <10%
- 10% to <20%

Data source: PLOVER 25-May-2021

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23
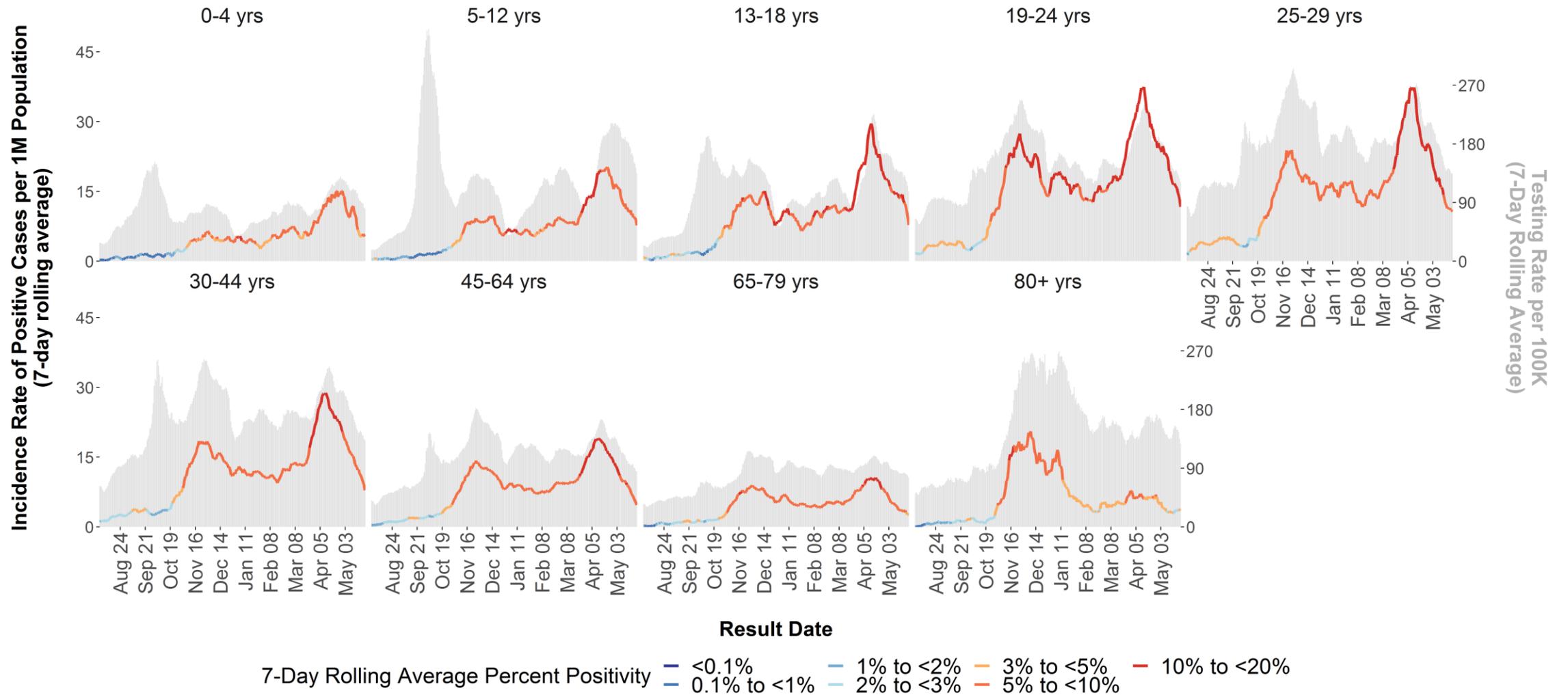
The proportion of screened samples remains high >80%

Presumptive VoC, Screening and overall testing proportions, Jan 3, 2021 - May 22, 2021
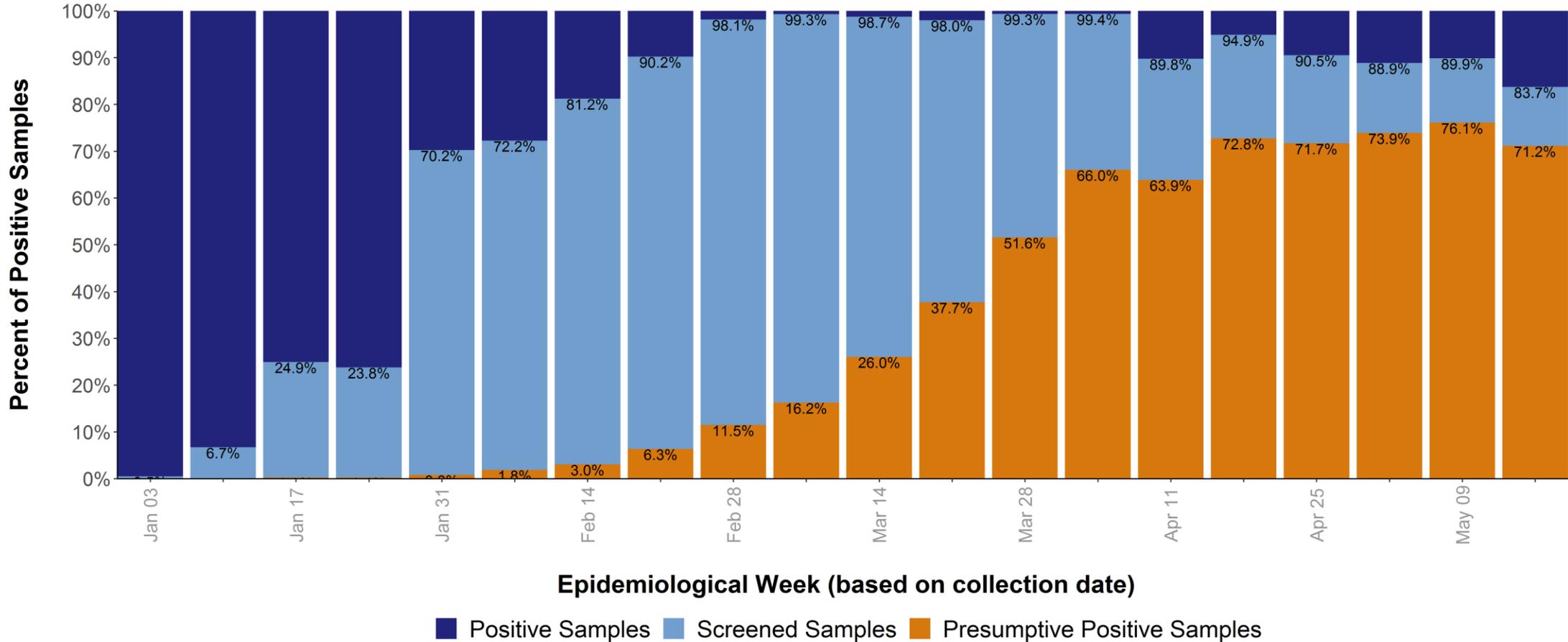
Data source: PLOVER 27-May-2021

As of week 13, we now include dual assay qPCR SNP screening for N501Y and E484K mutations for BCCDC PHL

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Of all COVID-19 positive test samples in epi week 20 (May 16 - May 22) in BC, ~84% were presumptive VOCs. Note that in Northern Health the proportion was lower, ~61%.
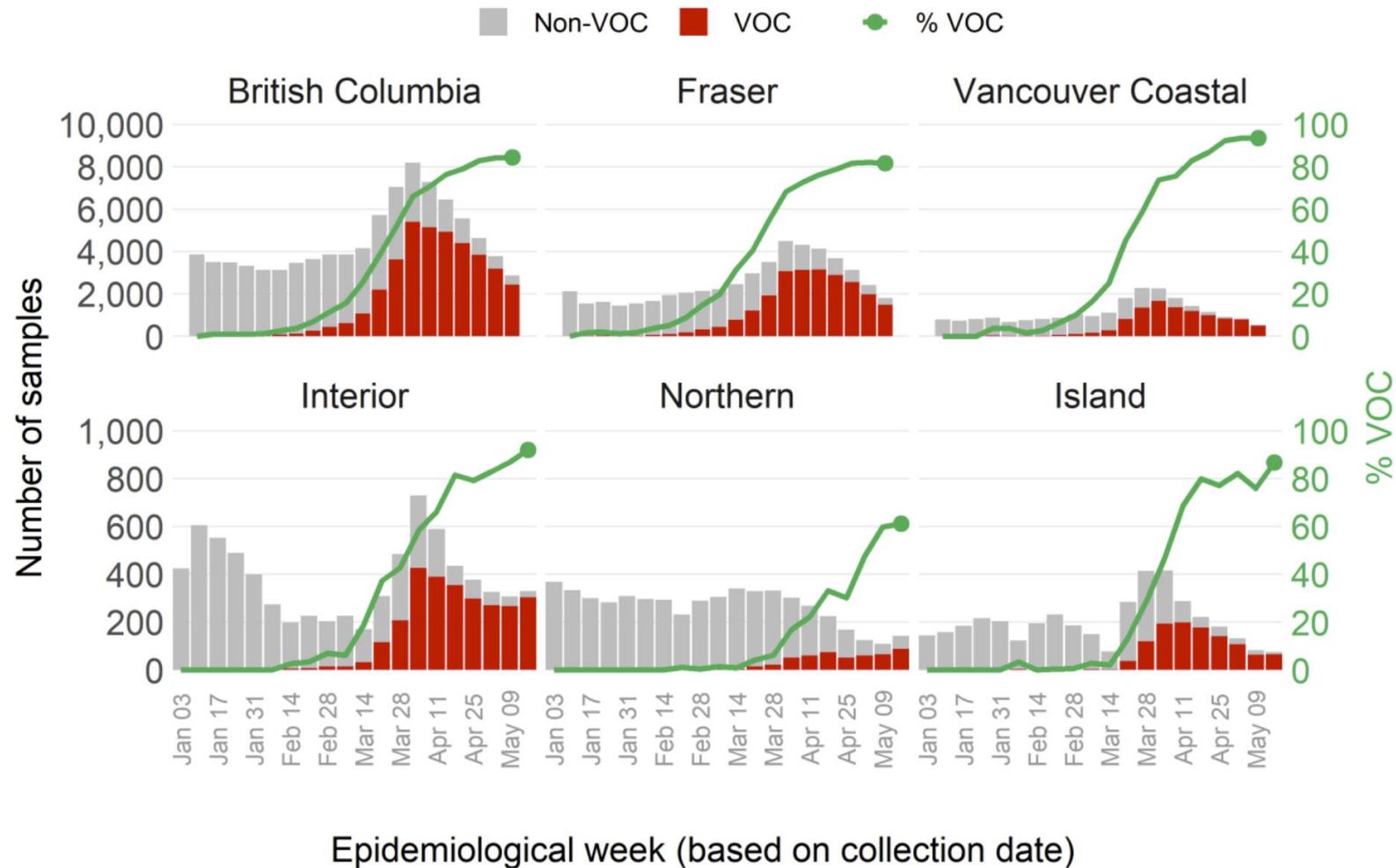
Data from the PLOVER system at the BCCDC Public Health Lab.

Among sequenced samples provincially based on information for epi week 18, P.1 (~40%) and B.1.1.7 (~56%) remain two dominant VOCs. B.1.617 (newly declared by WHO as a VOC) currently represents ~3% of VOCs

Relative Proportion of VoCs in BC Detected through Quasi-Random Sample Selection by Epiweek of Collection Date

Epidemiological Week (based on collection date)

Legend: B.1.1.7 (purple), B.1.351 (green), B.1.617 (blue), P.1 (orange)

* the B.1.1.7 VoC lineage is captured either by qPCR SNP screen or WGS for randomly selected samples; all other circulating VoCs are WGS confirmed and exclude samples sequenced for cluster and/outbreak investigation. In week 12, we used a qPCR SNP that is comprised of a dual N501Y and E484K assay

Weeks 13 onward include specimens from qPCR SNP screening that resulted as presumptive positive for B.1.1.7 and P.1.

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Overview of the screening and sequencing process applied to positive COVID-19 tests in BC, May 2021
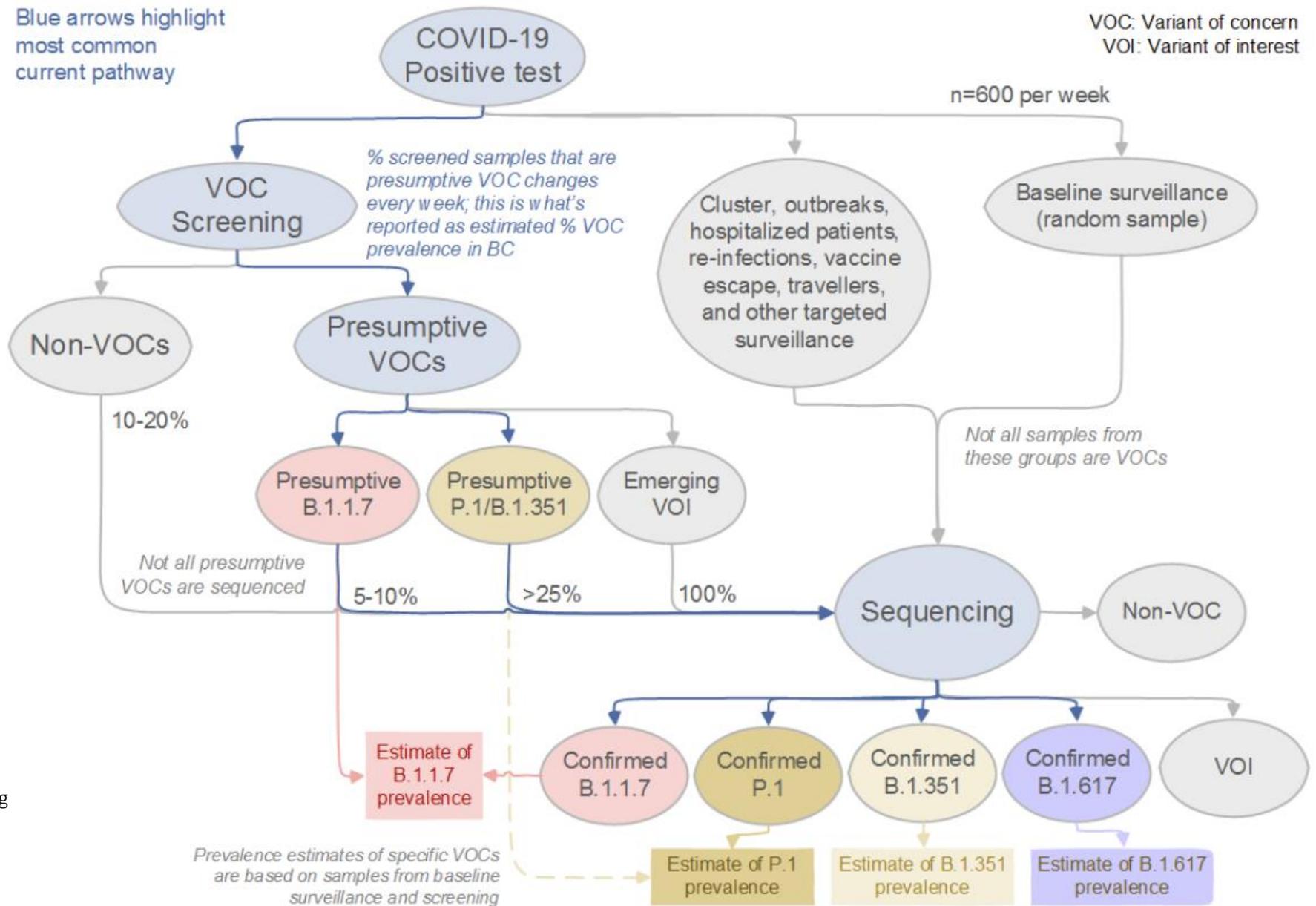
Please note the differences in turnaround time for screening and sequencing: screening results usually come back within 1-2 days, while sequencing results come back after approximately one week, but it could also take longer if there are lab backlogs.

Across Canada, cases are stabilizing in MB and declining or low everywhere else. Hospital census increasing in MB and declining or stable everywhere else. Deaths rates are low and stable.

New daily rates per 100K population
(7-day moving average)
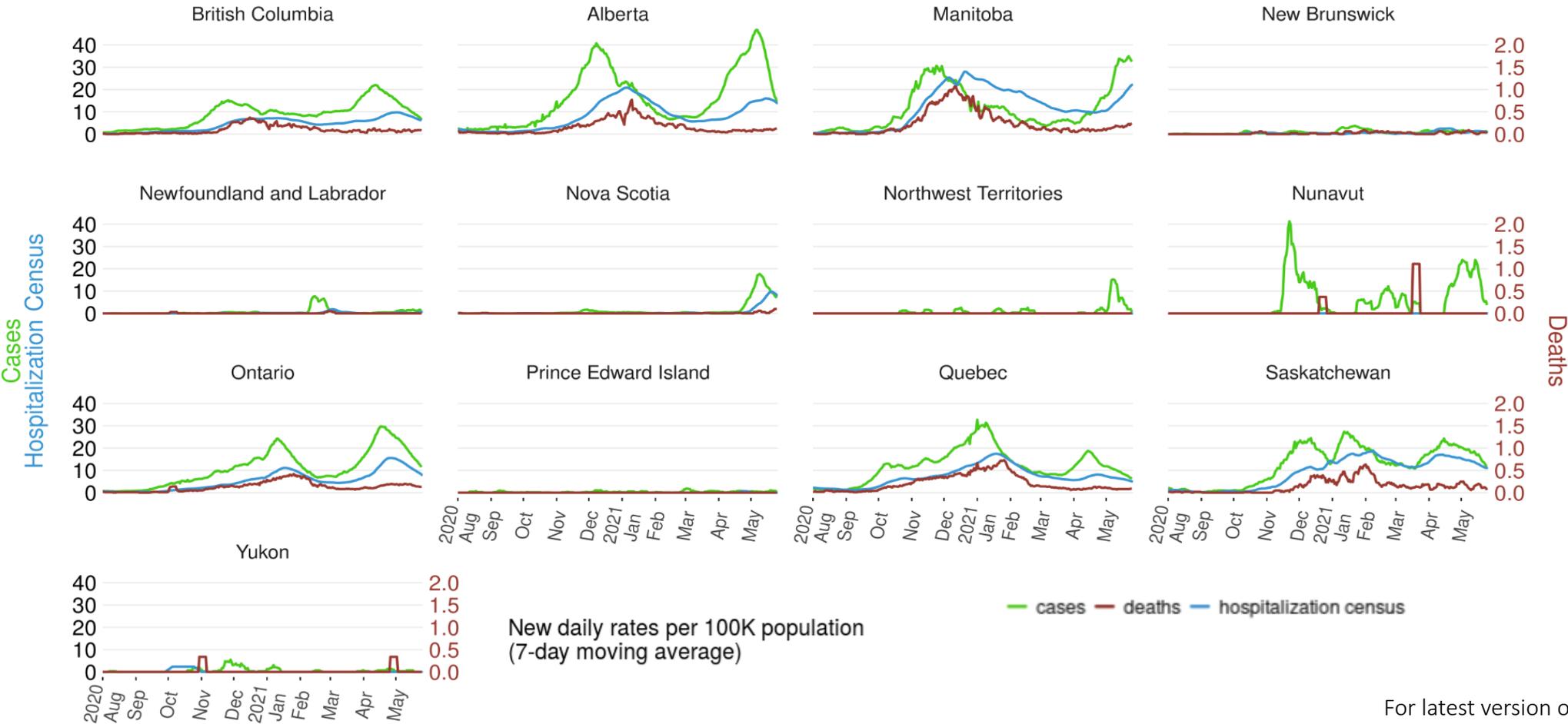
For latest version of this graph and data notes, see the Epi App

Compared with other large provinces, BC has the lowest case rate similar to QC and 2nd lowest hospitalization census

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

Data up to 2021-05-25

Manitoba
Alberta
Saskatchewan
Ontario
British Columbia
Quebec

New daily **hospitalization census** per 100K population (7-day moving average)

Data up to 2021-05-26

Manitoba
Alberta
Saskatchewan
Ontario
British Columbia
Quebec

For latest version of this graph and data notes, see the Epi App

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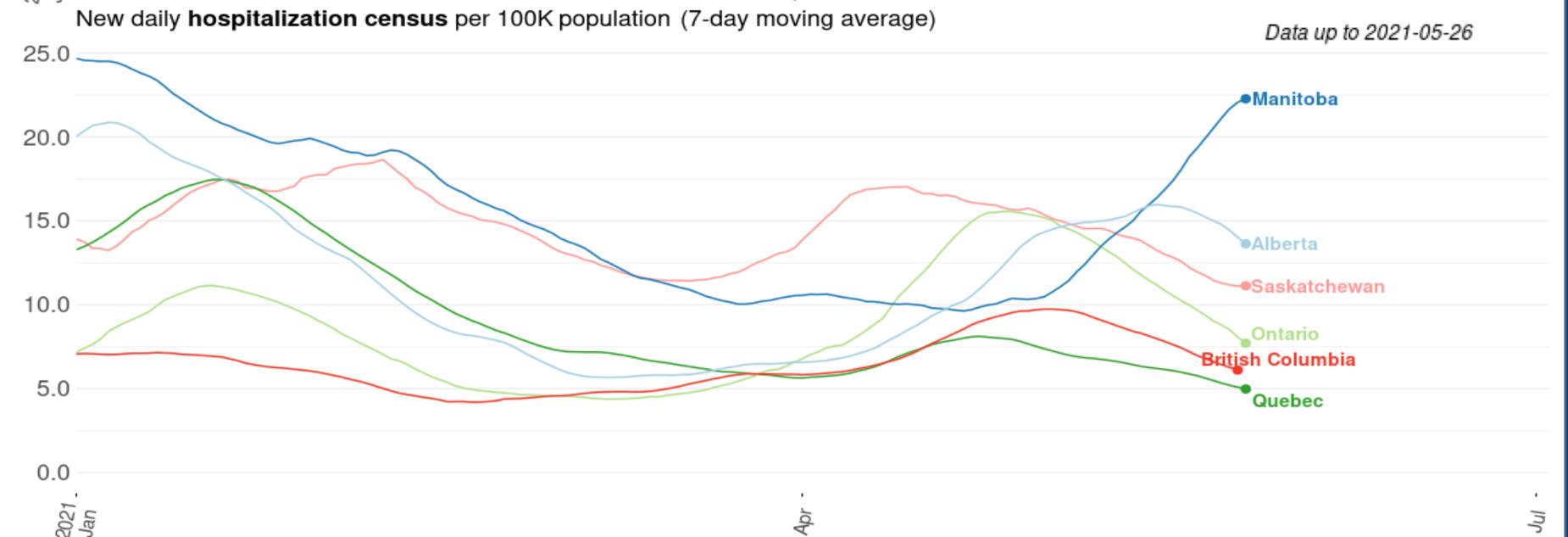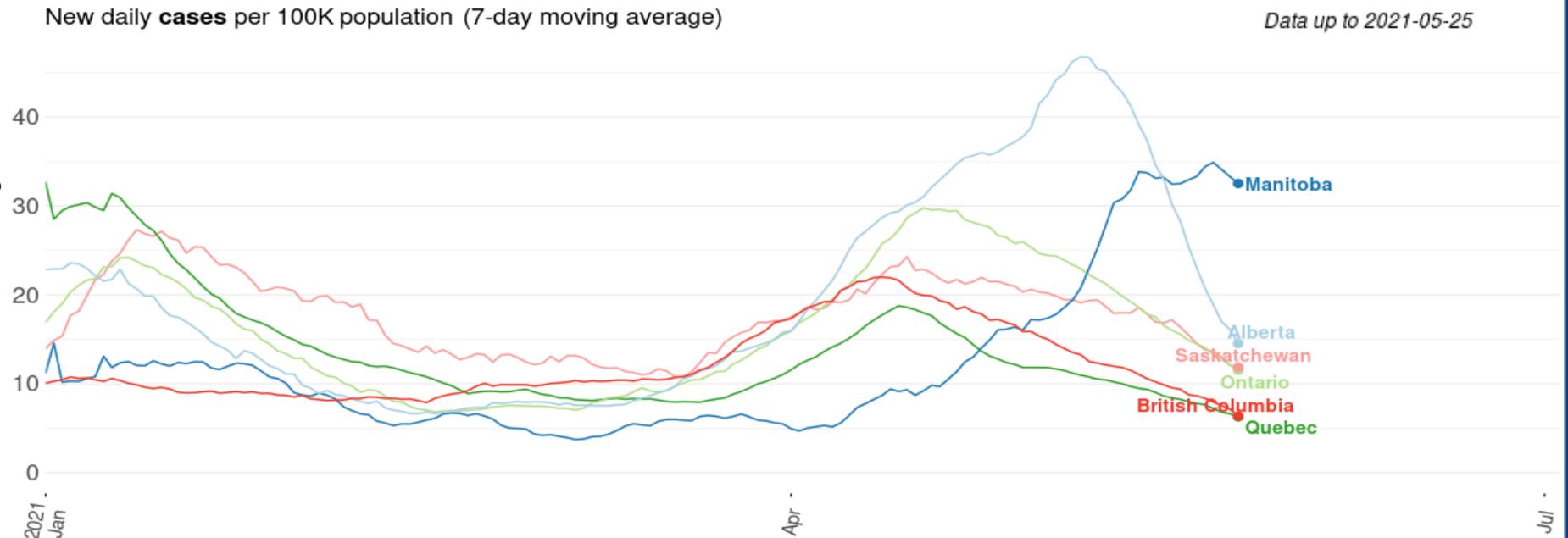
BC's case rate and hospitalization census is similar to what is observed in the Nordic countries
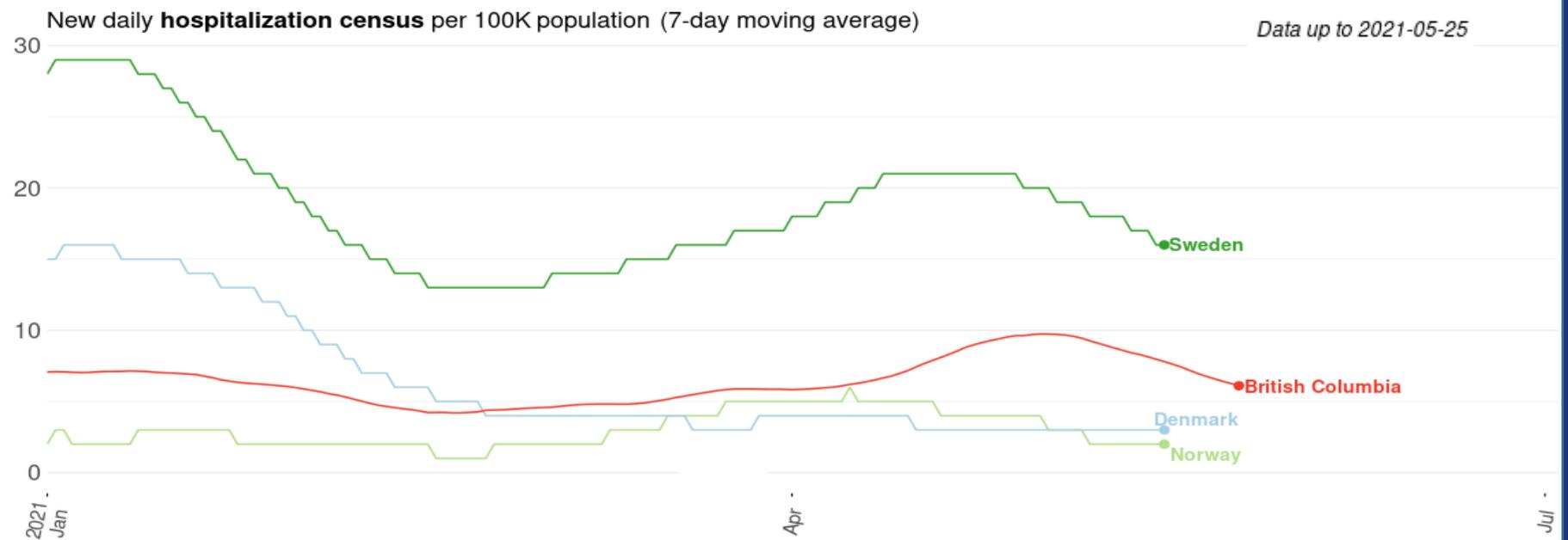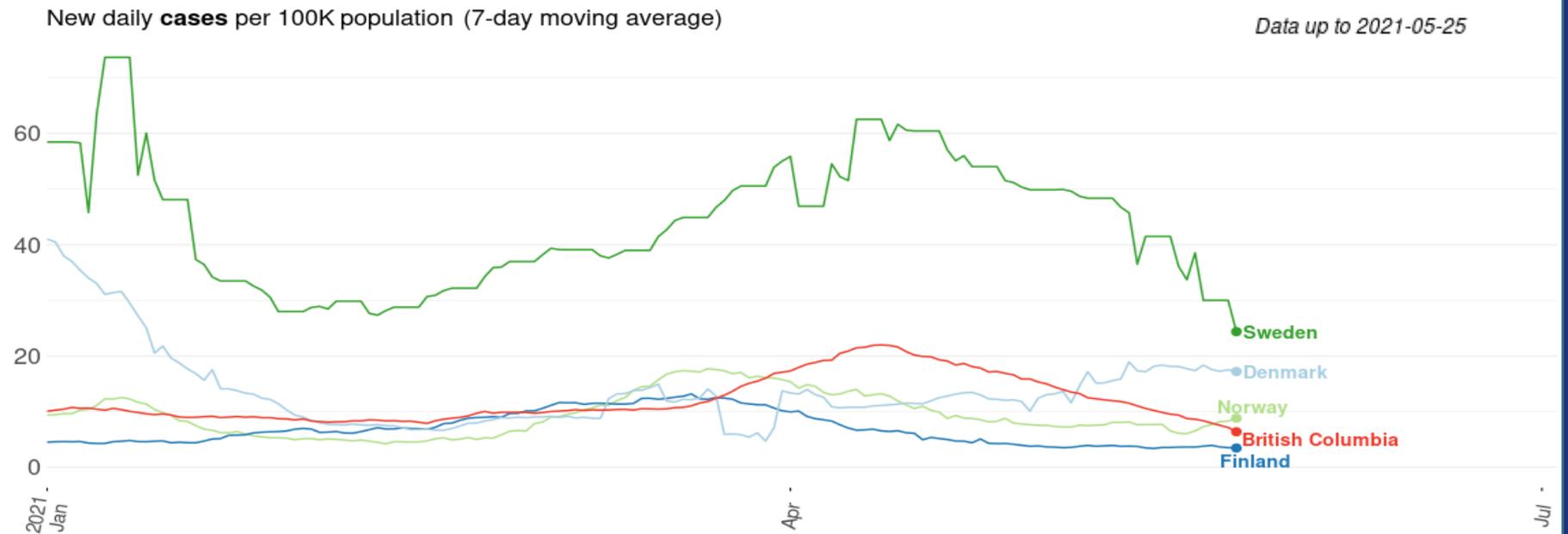
New daily **cases** per 100K population (7-day moving average)
Data up to 2021-05-25
Sweden, Denmark, Norway, British Columbia, Finland

New daily **hospitalization census** per 100K population (7-day moving average)
Data up to 2021-05-25
Sweden, British Columbia, Denmark, Norway

For latest version of this graph and data notes, see the Epi App

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# Dynamic compartmental modeling: recent trends

Our model shows that Rt remains below 1 in all regions in BC.
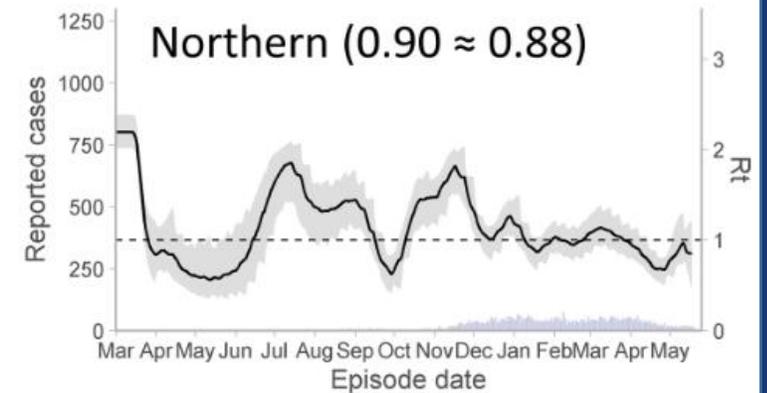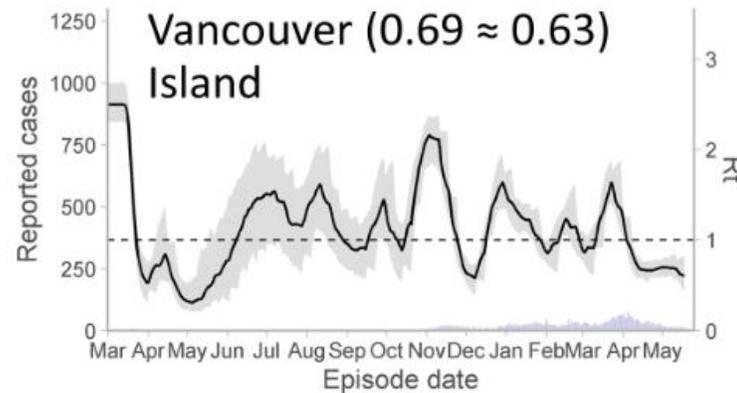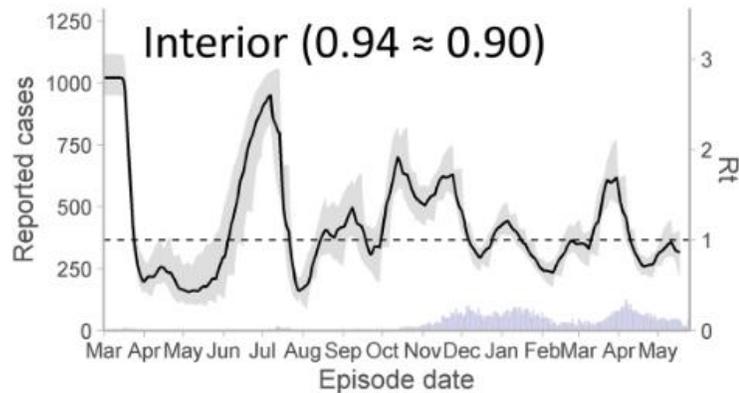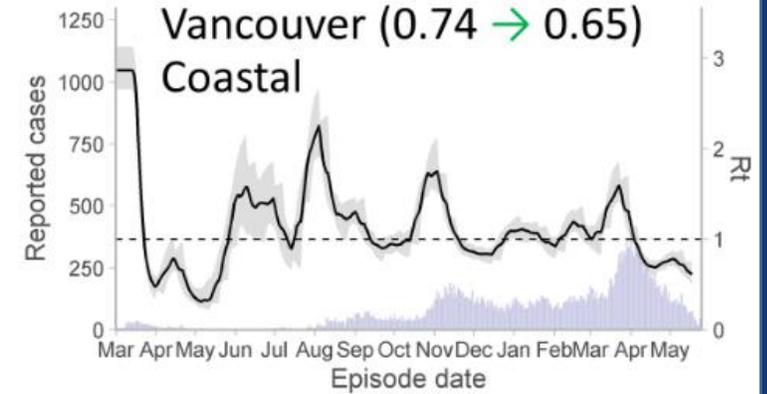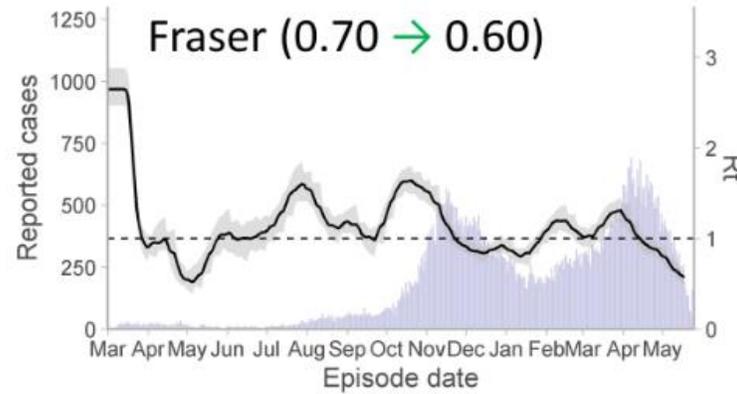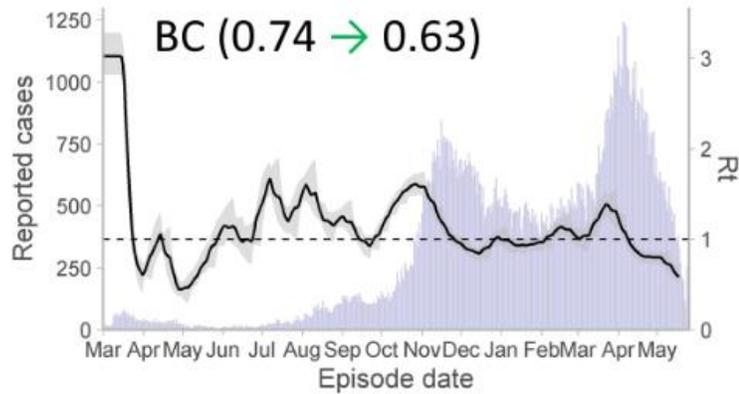
Solid black line: median R_t, modeled using all reported cases up to May 25, 2021; Grey band: 5%-95% credible interval; Purple bars: all reported cases. Due to lag from symptom onset to reporting, most recent case counts and Rt are not shown. Recent trend shown comparing 7 day average R_t from (last week → this week). Data source: BCCDC HA linelist.

Model notes and assumptions

- R_t **modelling**: 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 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

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Additional Resources

- BCCDC COVID-19 Surveillance Dashboard showing maps, vertical plots, and trends by LHA can be found [here](#)

- More BC COVID-19 data, including the latest Situation Report, maps, and BC COVID-19 public dashboard, can be found [here](#)

- For more information on variants of concern and whole genome sequencing, the latest report is posted [here](#)

- To put BC provincial, Health Authority, and HSDA trajectories into national and international context, see [BCCDC COVID-19 Epidemiology app](#)

- [COVID SPEAK 2020 Round 1 Survey results](#)

- Slides for previous public and modelling briefings by Dr. Bonnie Henry can be found [here](#)

- PHAC's COVID-19 Epidemiology update can be found [here](#)