

# BCCDC Data Summary

10 June 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.

# Table of Contents

Overall Summary .....	4
Surveillance .....	5
BC Epidemiology.....	5
Vaccinations.....	15
Labs/Genomics.....	21
BC in Canadian and Global Context.....	30
Modelling.....	32
Additional Resources.....	35

# Overall Summary

- **Case rates** are declining in all HAs, and provincially **cases are at the lowest count** since October 2020; **test positivity** is declining, ~5% provincially for publicly funded tests and 3.6% for all tests.
  - Percent positivity <10% in all HAs and age groups
- **New hospitalizations** continue to decline; **hospital/critical care census** is declining or stable across BC; **new deaths** are stable and low.
  - Majority of hospitalizations continue to be among individuals aged >40 years
- The share of **VOCs** among all positive tests in BC is ~78% in epi week 22 (May 30 to June 5). Among sequenced samples provincially based on information for epi week 22, P.1(Gamma) (~46%) and B.1.1.7 (Alpha) (~45%) remain two dominant VOCs, with B.1.617.2 (Delta) representing ~9% of VOCs.
- BC, as of June 9: ~72% of those 12+ have received at least 1 dose; 8% have received 2 doses.

# Jun 03 to Jun 09: BC COVID-19 Profile



**145,843** total cases  
**1,176** new this week



**1,725** total deaths  
**18** new this week

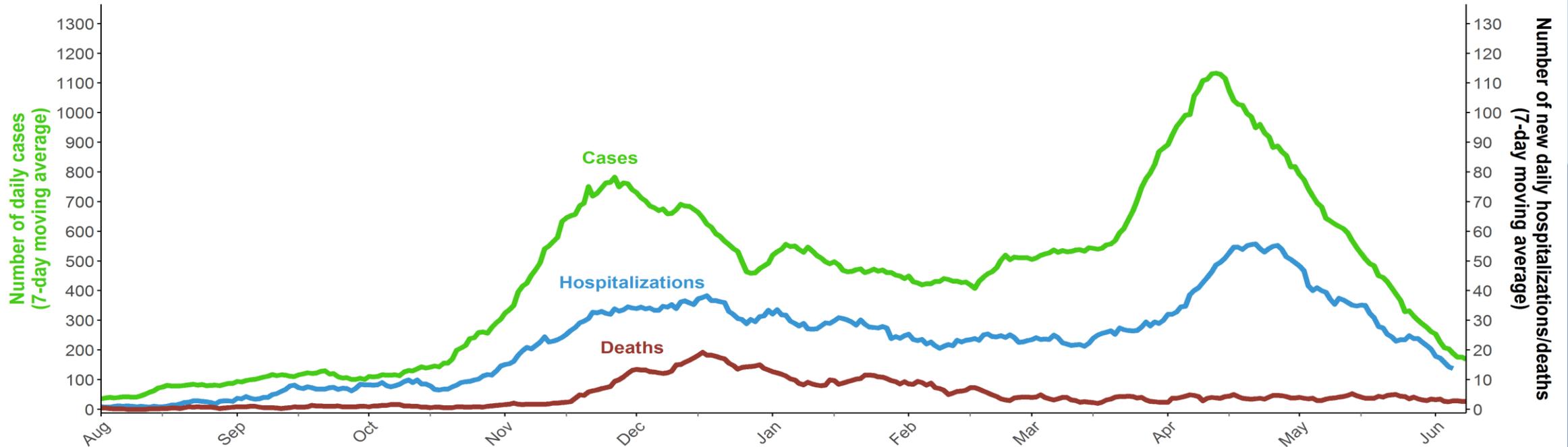


**7,807** ever hospitalized  
**81** new this week



**142,106** removed from isolation  
**1,868** new this week

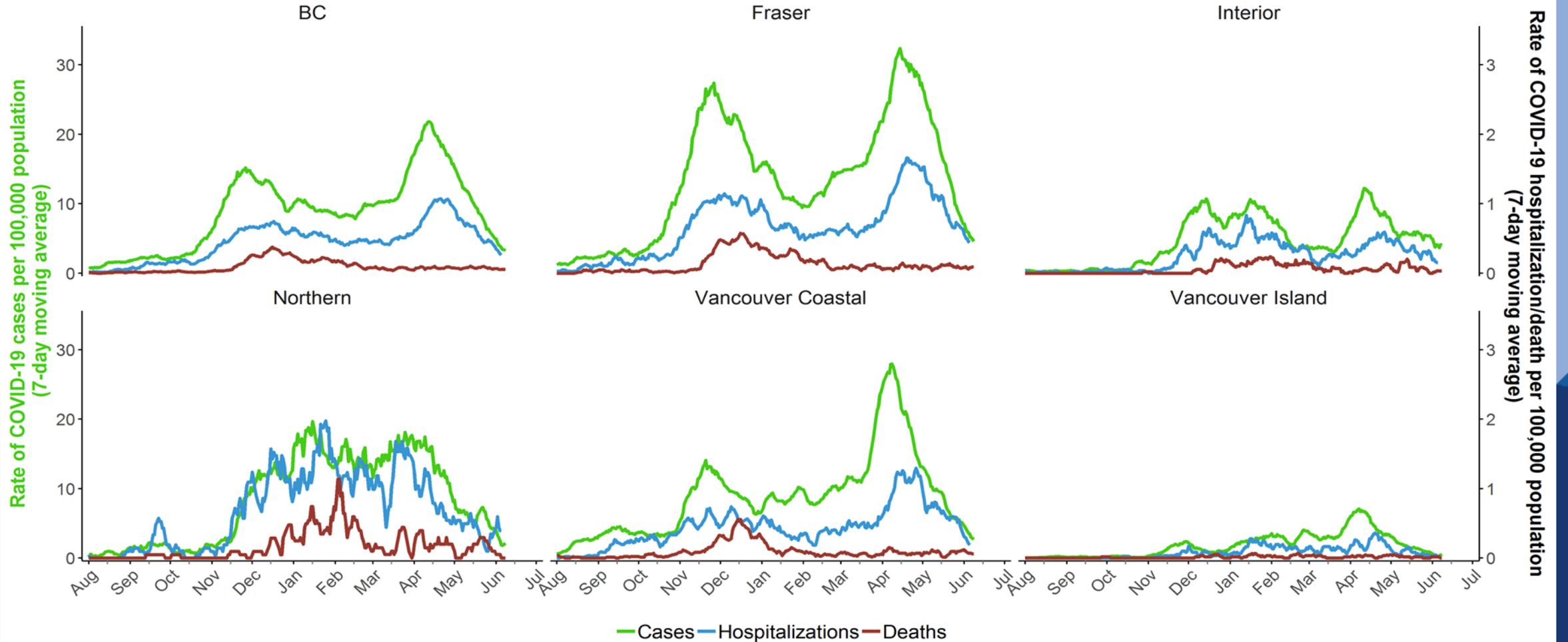
New daily COVID-19 cases, hospitalizations and deaths, Aug 01 2020 - Jun 08 2021



\* Data are by surveillance date for cases and deaths, and admission date for hospitalizations  
Data source: PHRDW Jun-09-2021

Case rates are declining in all HAs; new hospitalizations are declining or stable in all HAs; new deaths are stable and low.

Rate of COVID-19 case, hospitalization and death, Aug 01 2020 - Jun 08 2021



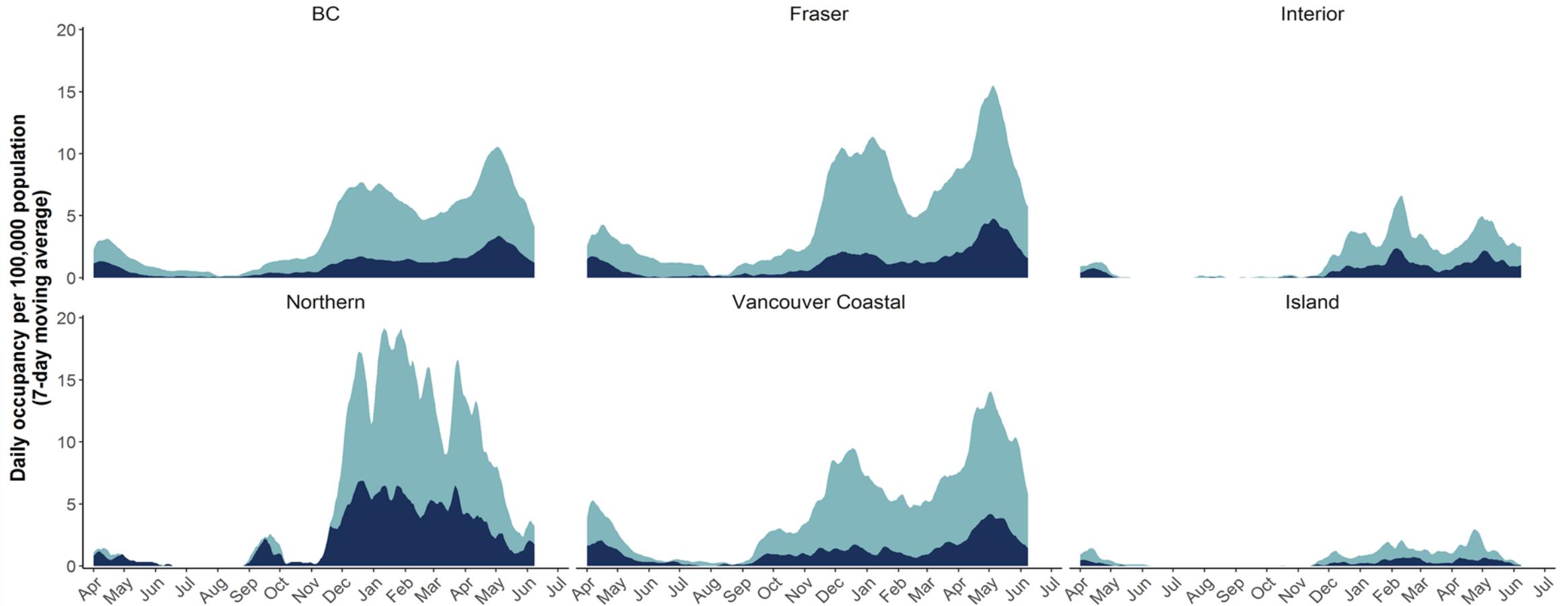
\* Data are by surveillance date for cases and deaths, and admission date for hospitalizations  
Data source: PHRDW Jun-09-2021

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

# Hospital and critical care census is declining or stable in all regions.

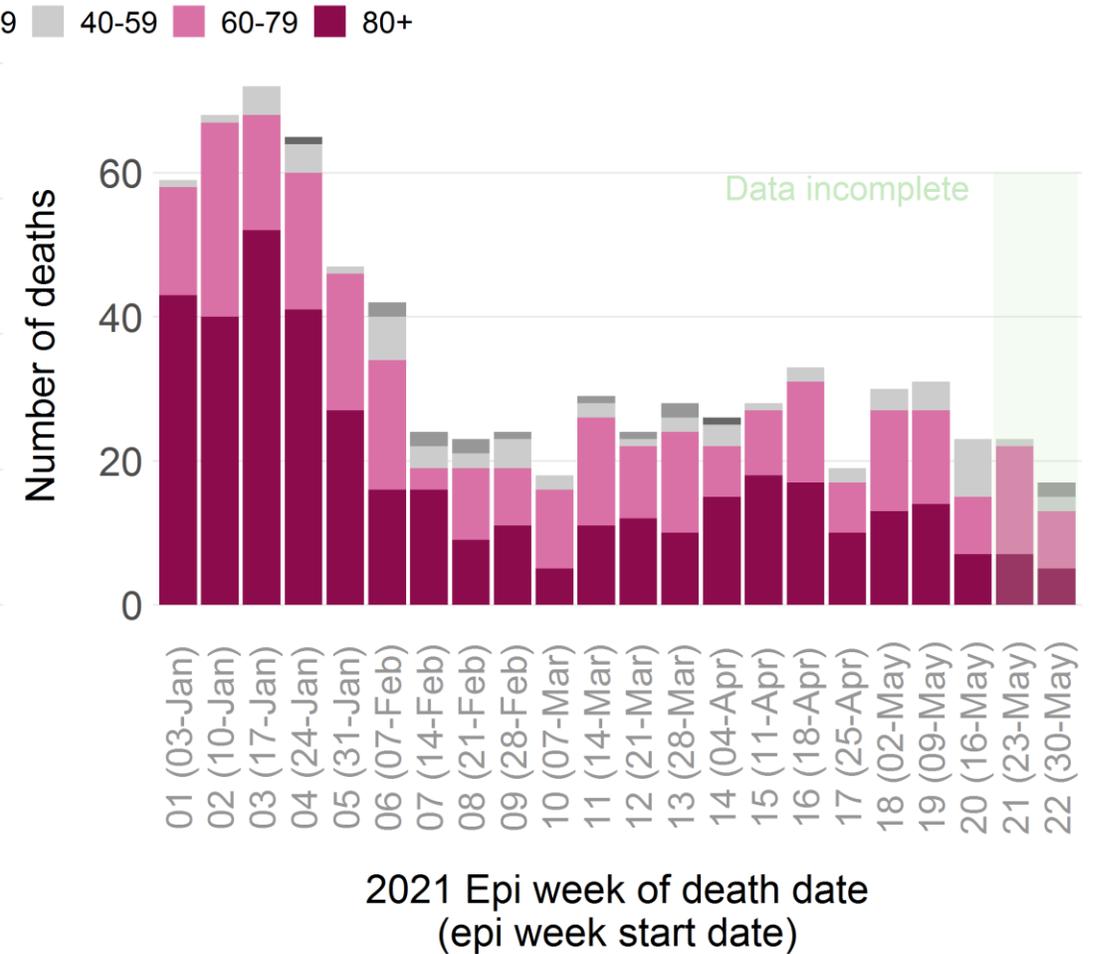
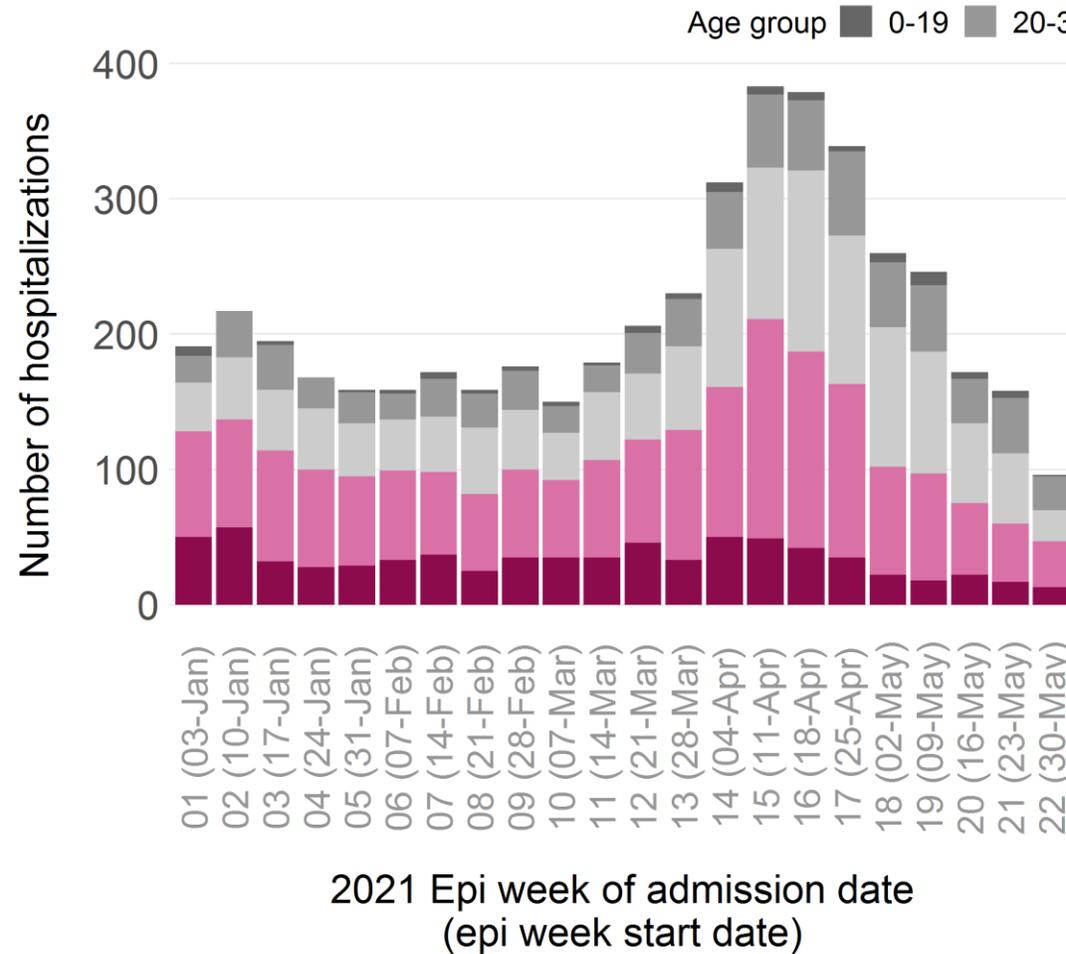
Current COVID-19 hospitalizations, Apr 01 2020 - Jun 08 2021

■ In the hospital but not in critical care ■ In critical care



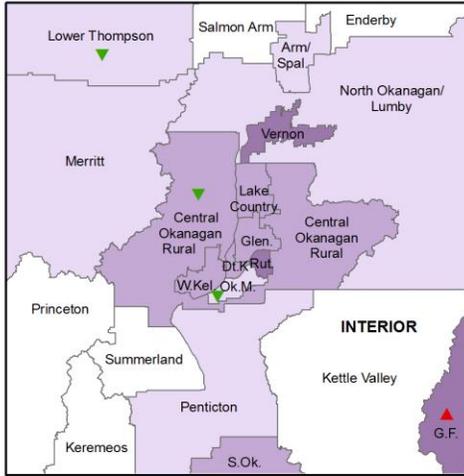
\* Data are by census date for hospitalizations  
Data source: PHSA Provincial COVID19 Monitoring Solution (PCMS) Jun-09-2021

Number of hospitalizations continues to decrease. The number of hospitalizations among individuals <40 years is low. Deaths are low and mostly among individuals ≥ 60 years.

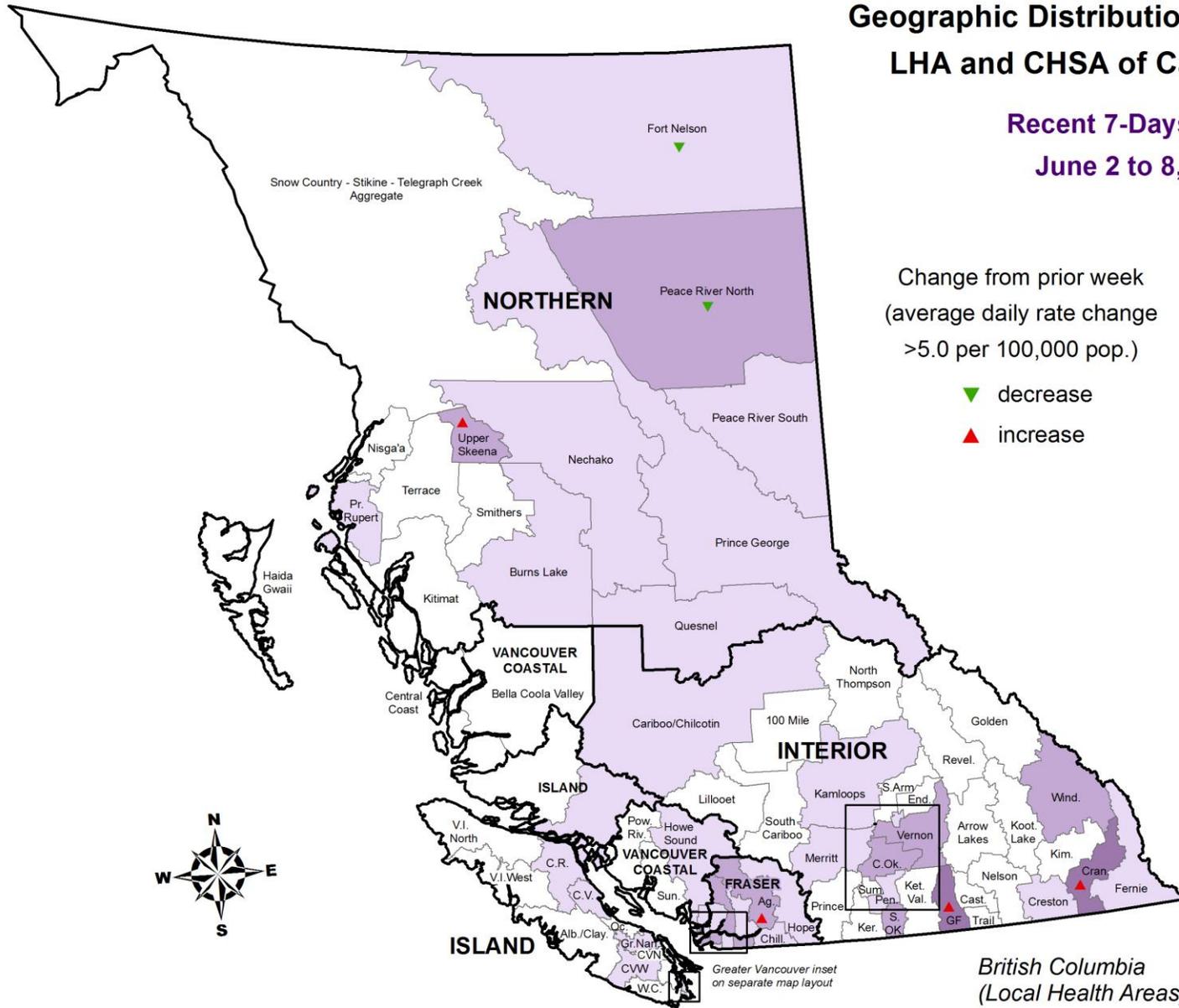
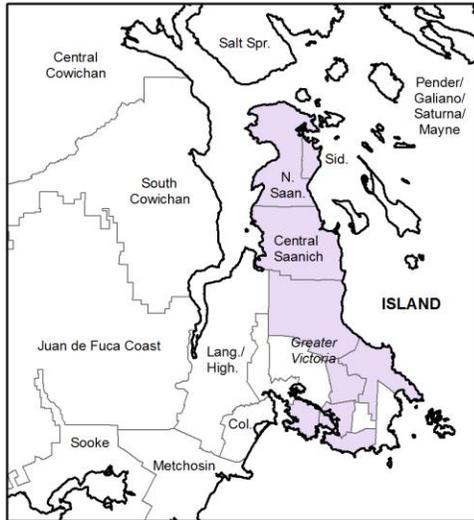


Data extracted on 2021-06-10; hospitalization and death data from health authority case line list data

Okanagan Inset  
(Community Health Service Areas)



Greater Victoria Inset  
(Community Health Service Areas)



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

Recent 7-Days Cases  
June 2 to 8, 2021

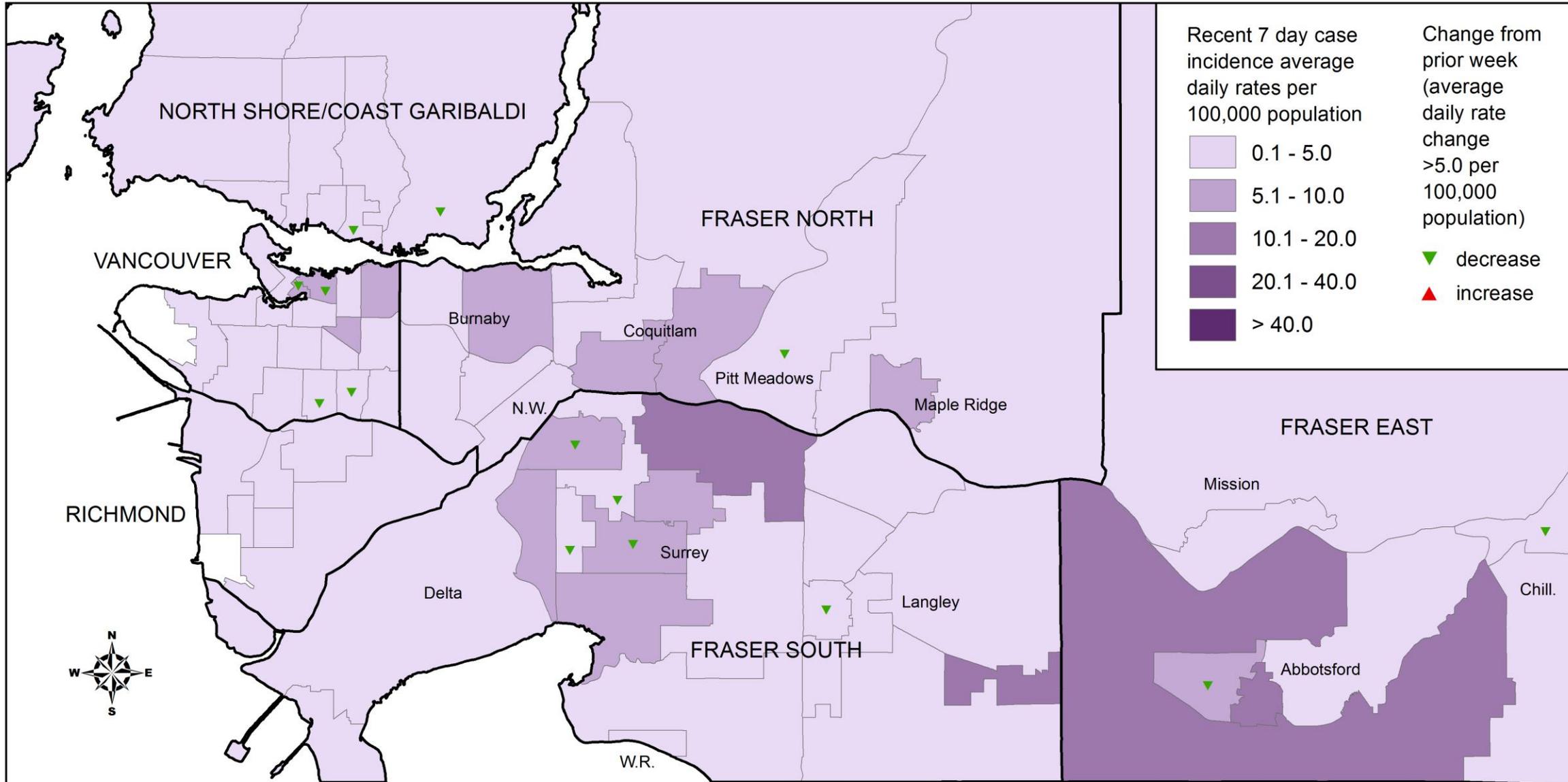
Change from prior week  
(average daily rate change  
>5.0 per 100,000 pop.)

- ▼ decrease
- ▲ increase

Average daily rate per  
100,000 population

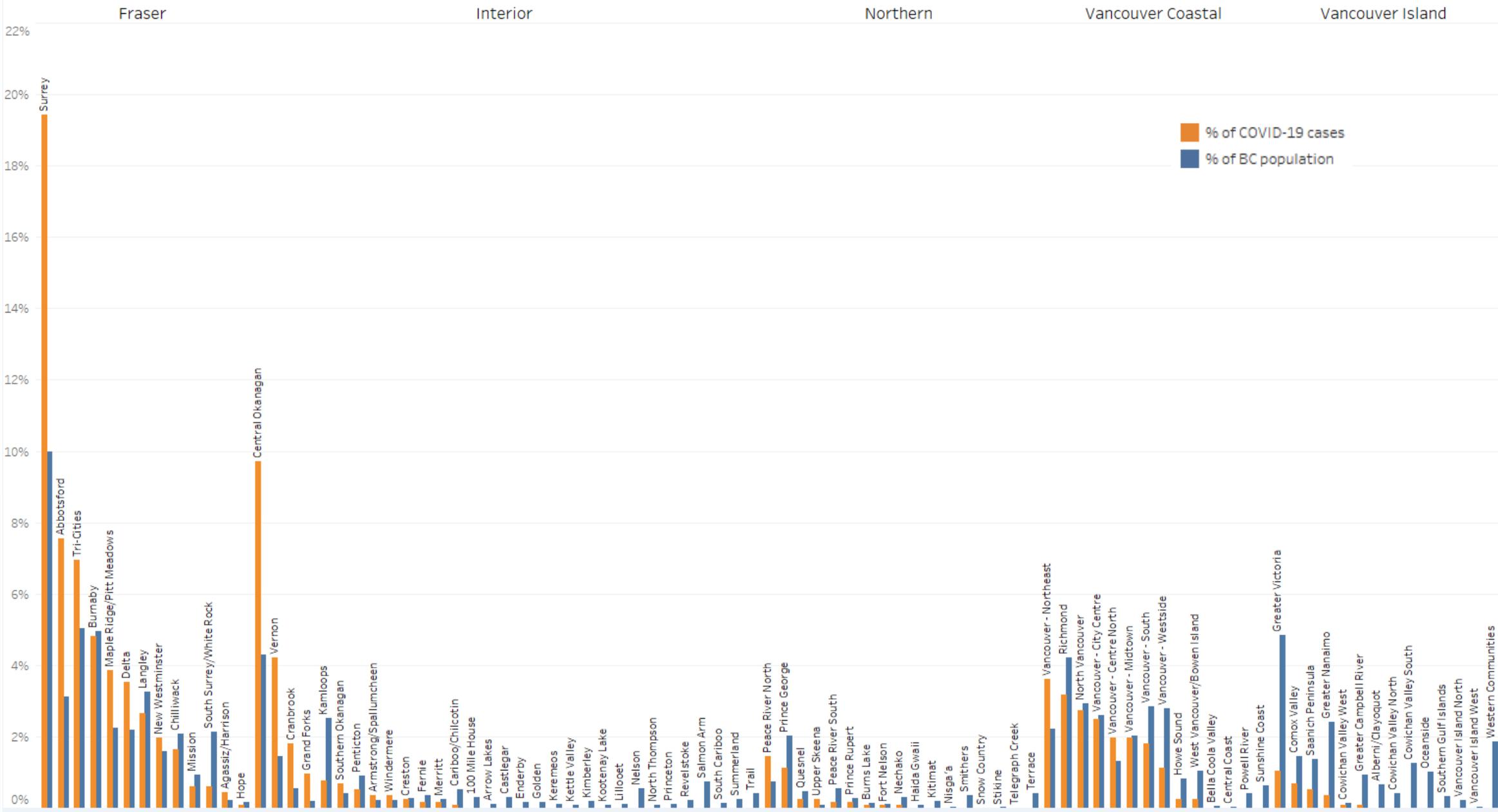
- 0.0
- 0.1 - 5.0
- 5.1 - 10.0
- 10.1 - 20.0
- 20.1 - 40.0
- > 40.0

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.

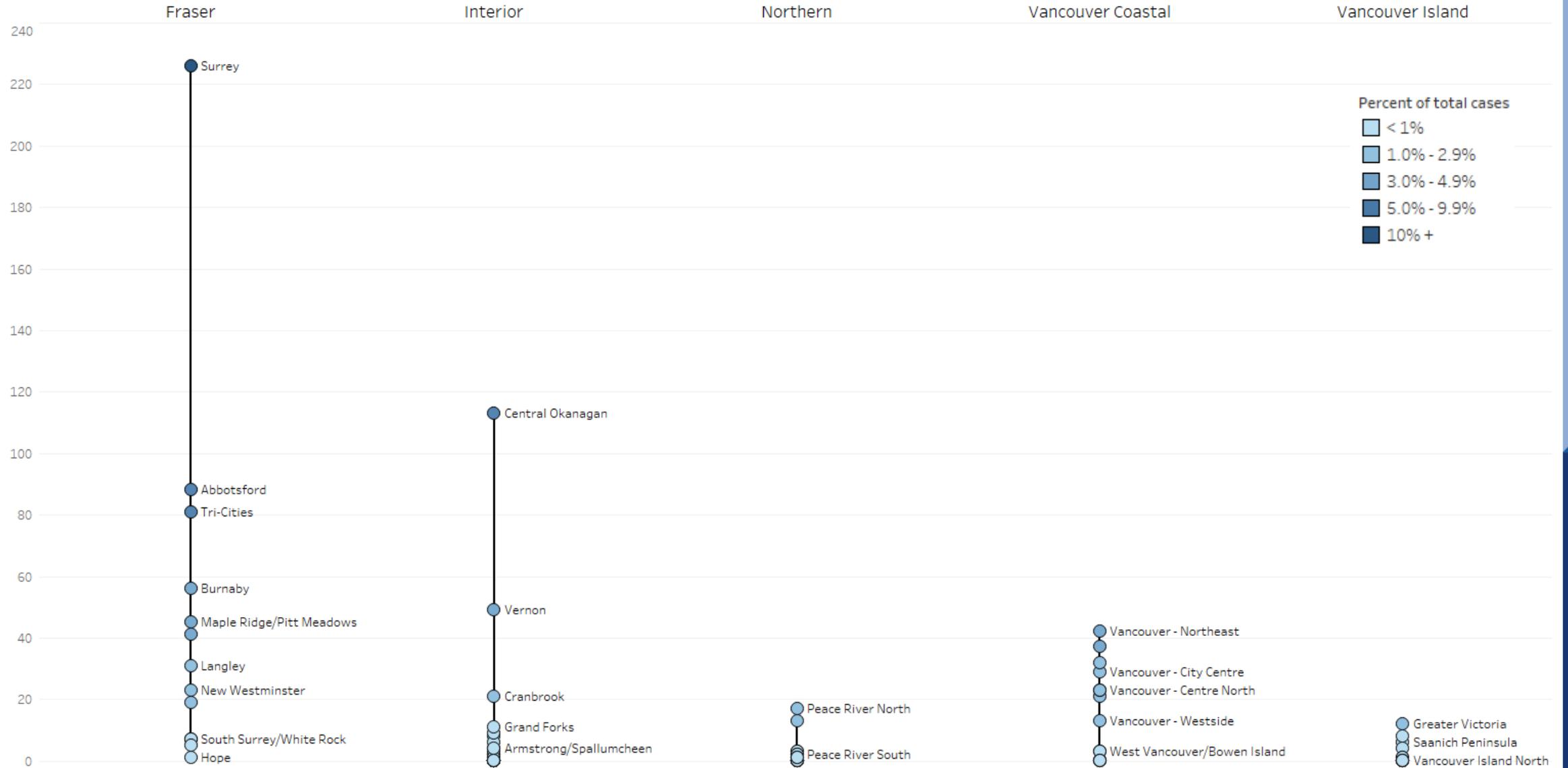


COVID-19 Recent 7-Day Case Incidence Rates by CHSA (June 2 to 8, 2021)

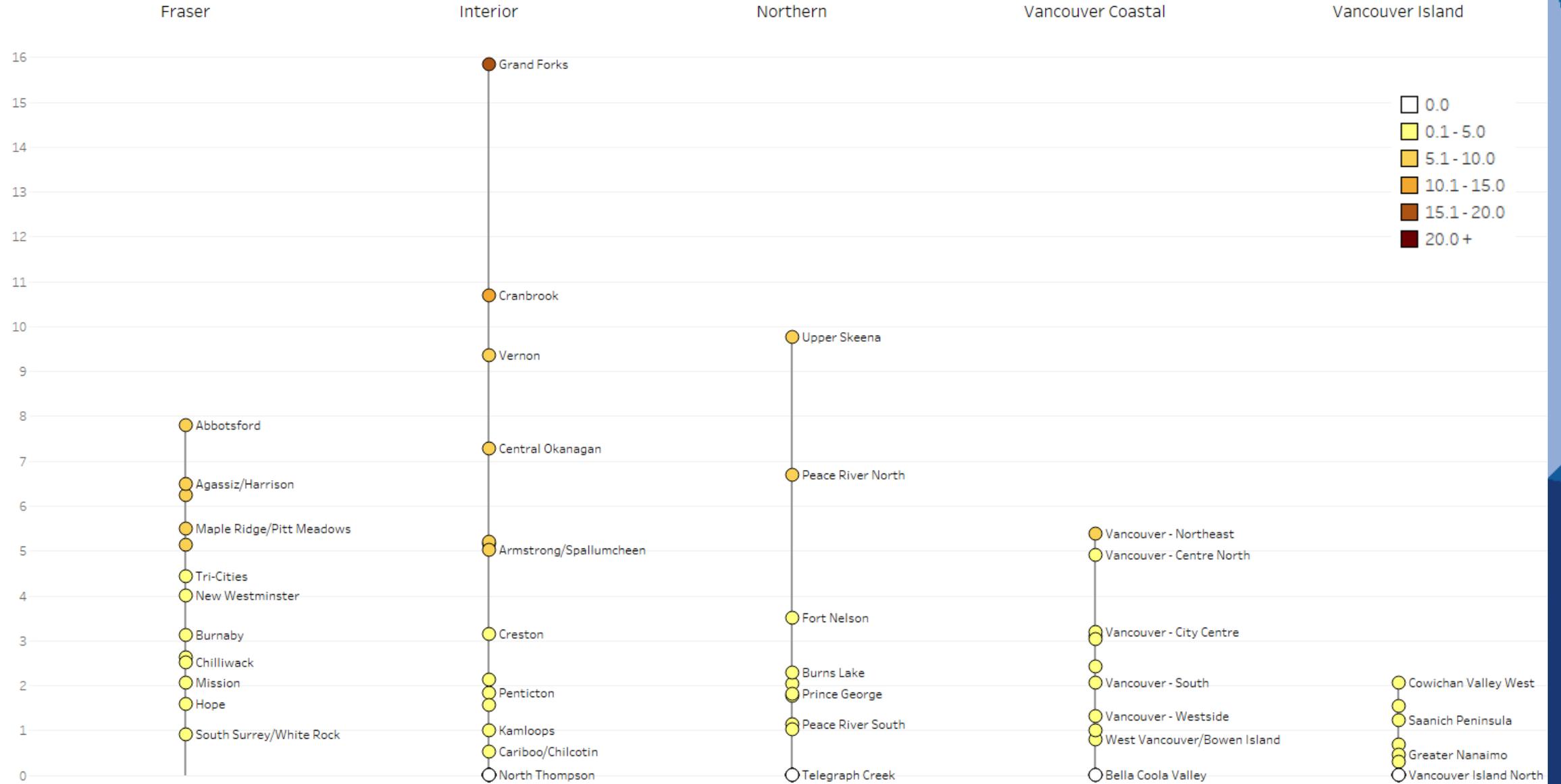
# Proportion to total cases & population by local health area, Jun 02 - Jun 08, 2021



Total cases by local health area, Jun 02 - Jun 08, 2021

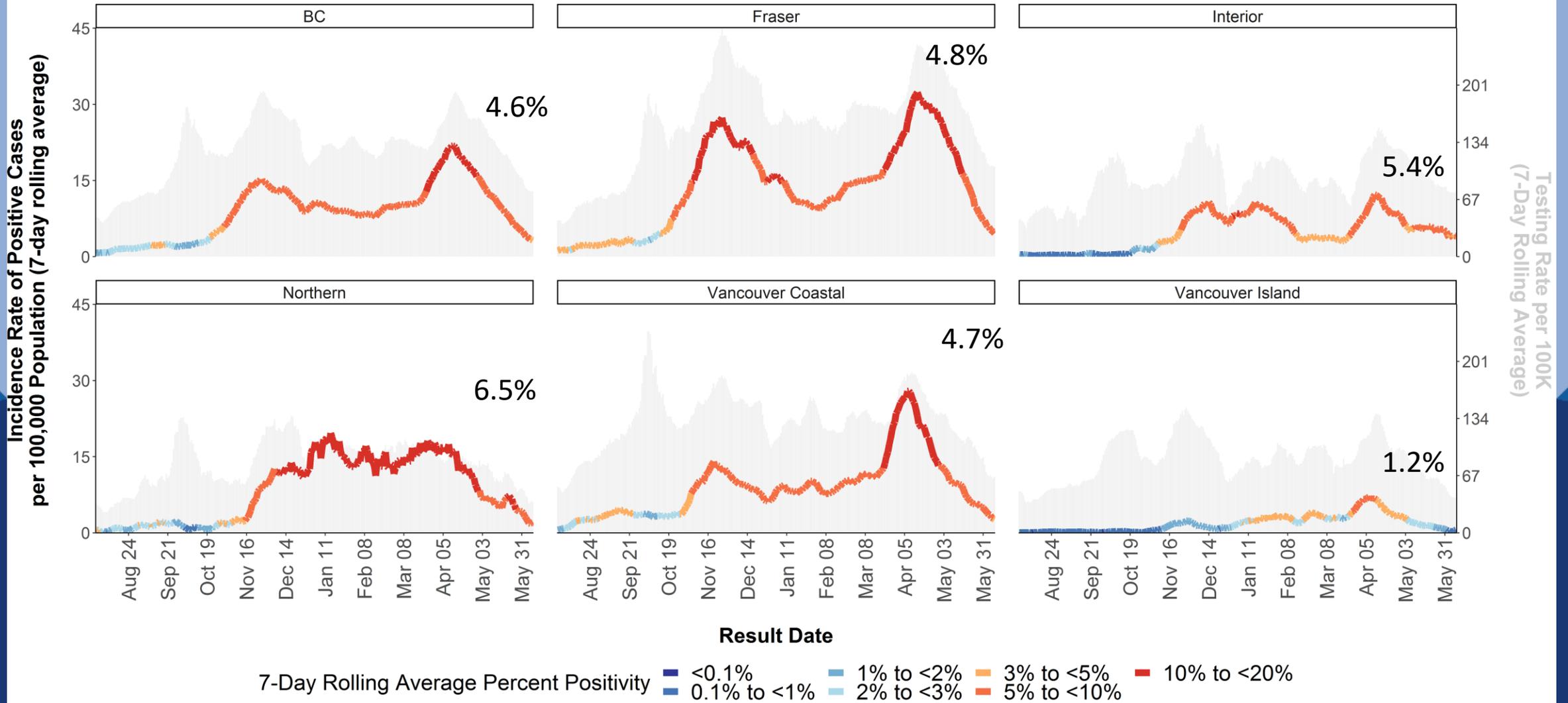


Average daily **rate** of new cases per 100,000 population, by local health area, Jun 02 - Jun 08, 2021



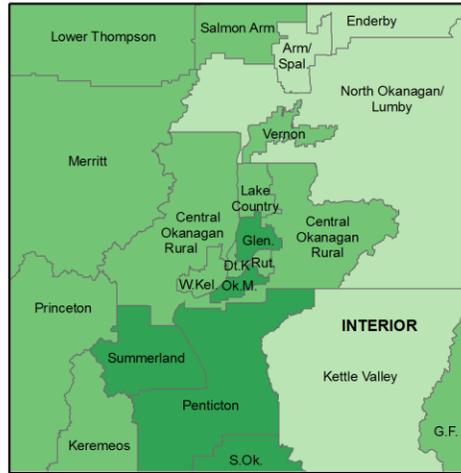
# Case incidence decreasing or stable in all HAs. Percent positivity <10% in all HAs.

Case incidence rate, test percent positivity, and testing rate (Public Payers Only). Aug 1 2020 - Jun 8, 2021.

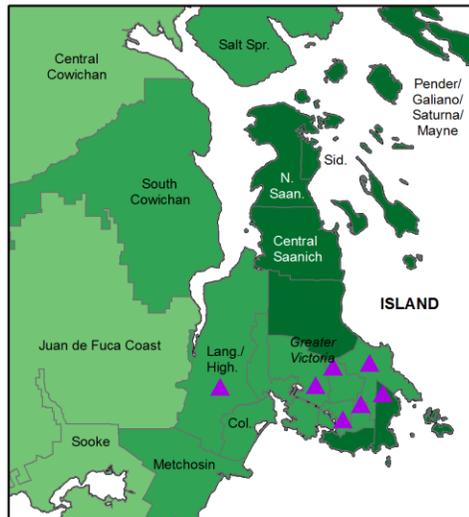


Data source: PLOVER 08-Jun-2021

Okanagan Inset  
(Community Health Service Areas)

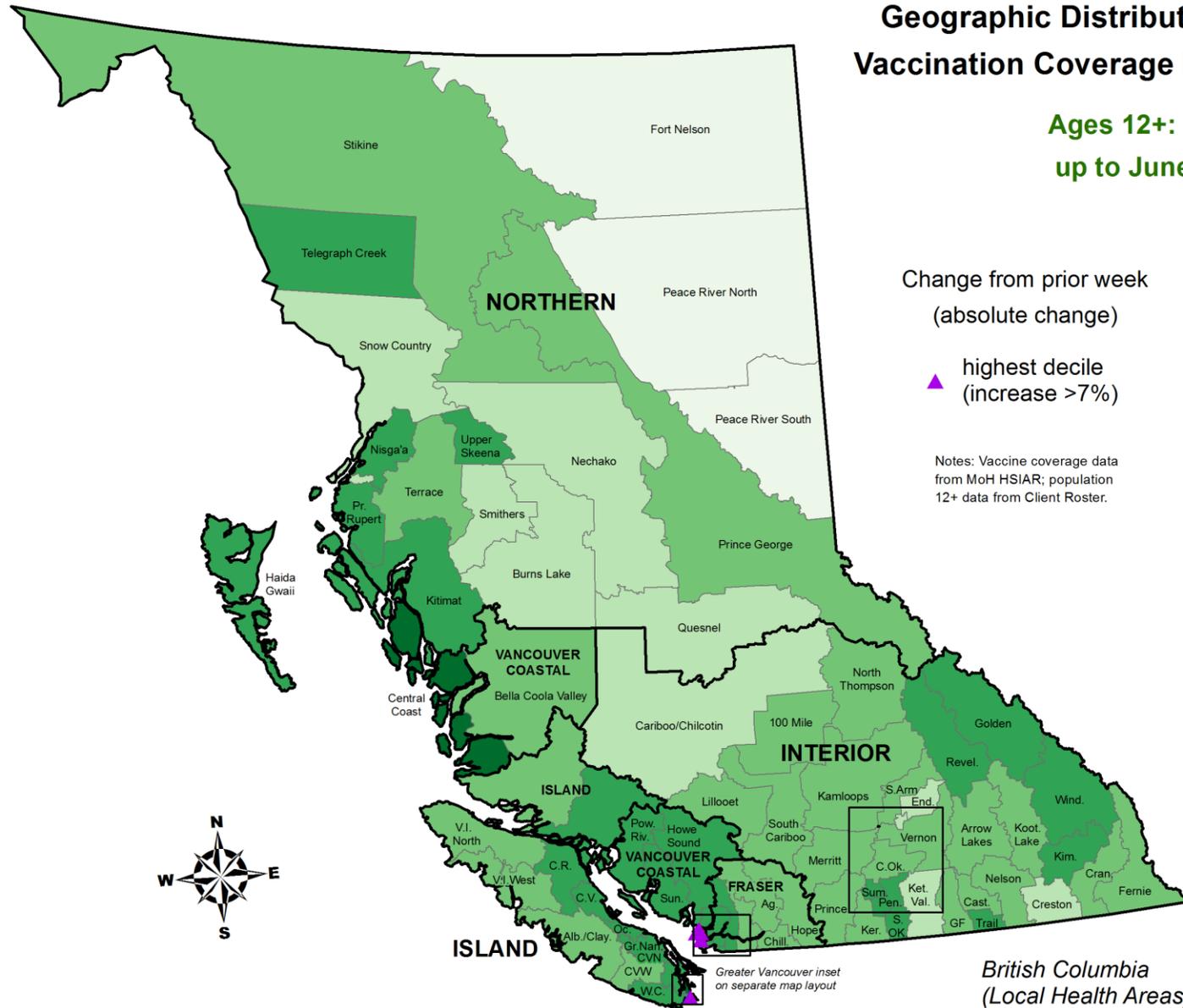


Greater Victoria Inset  
(Community Health Service Areas)



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

**Ages 12+: 1st Dose  
up to June 7, 2021**



Change from prior week  
(absolute change)

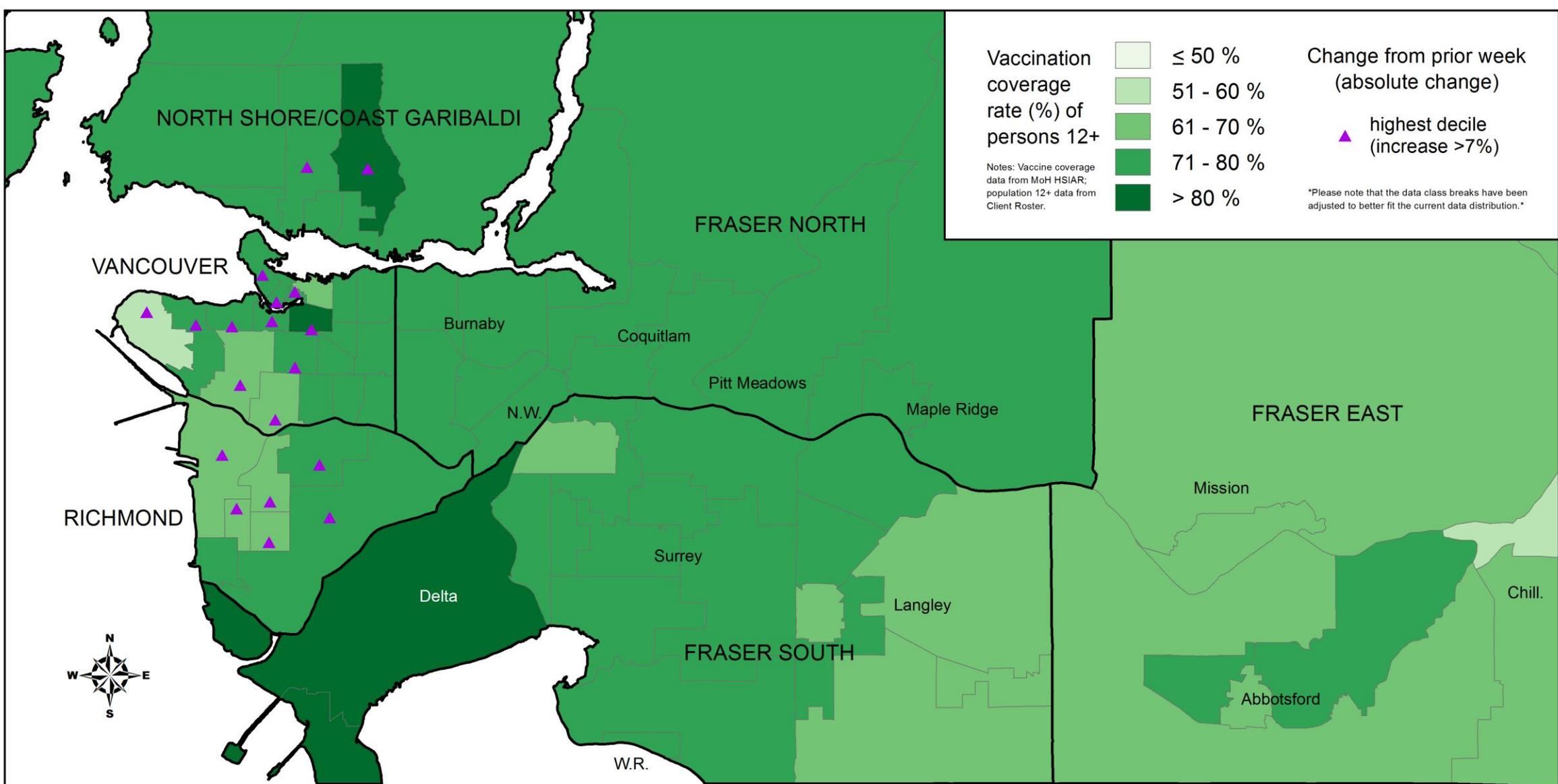
▲ highest decile  
(increase >7%)

Notes: Vaccine coverage data  
from MoH HSIAR; population  
12+ data from Client Roster.

Vaccination coverage  
rate (%) of persons 12+

- ≤ 50 %
- 51 - 60 %
- 61 - 70 %
- 71 - 80 %
- > 80 %

\*Please note that the data  
class breaks have been  
adjusted to better fit the  
current data distribution.\*



COVID-19 Vaccination Coverage by CHSA: Ages 12+ 1st Dose (up to June 7, 2021)

Okanagan Inset  
(Community Health Service Areas)

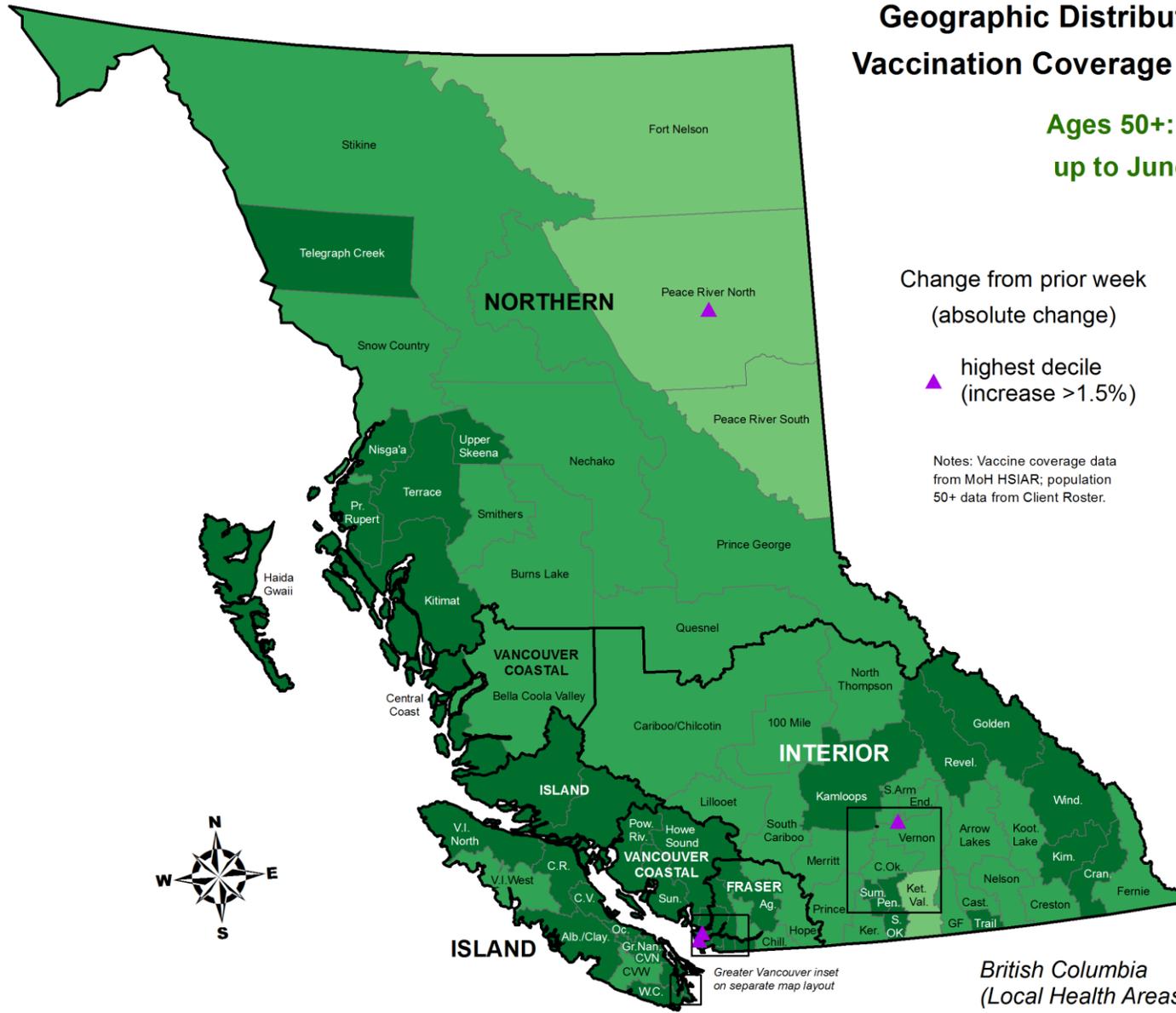


Greater Victoria Inset  
(Community Health Service Areas)



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

**Ages 50+: 1st Dose  
up to June 7, 2021**

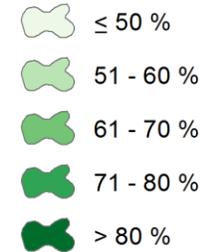


Change from prior week  
(absolute change)

▲ highest decile  
(increase >1.5%)

Notes: Vaccine coverage data  
from MoH HSIAR; population  
50+ data from Client Roster.

Vaccination coverage  
rate (%) of adults 50+

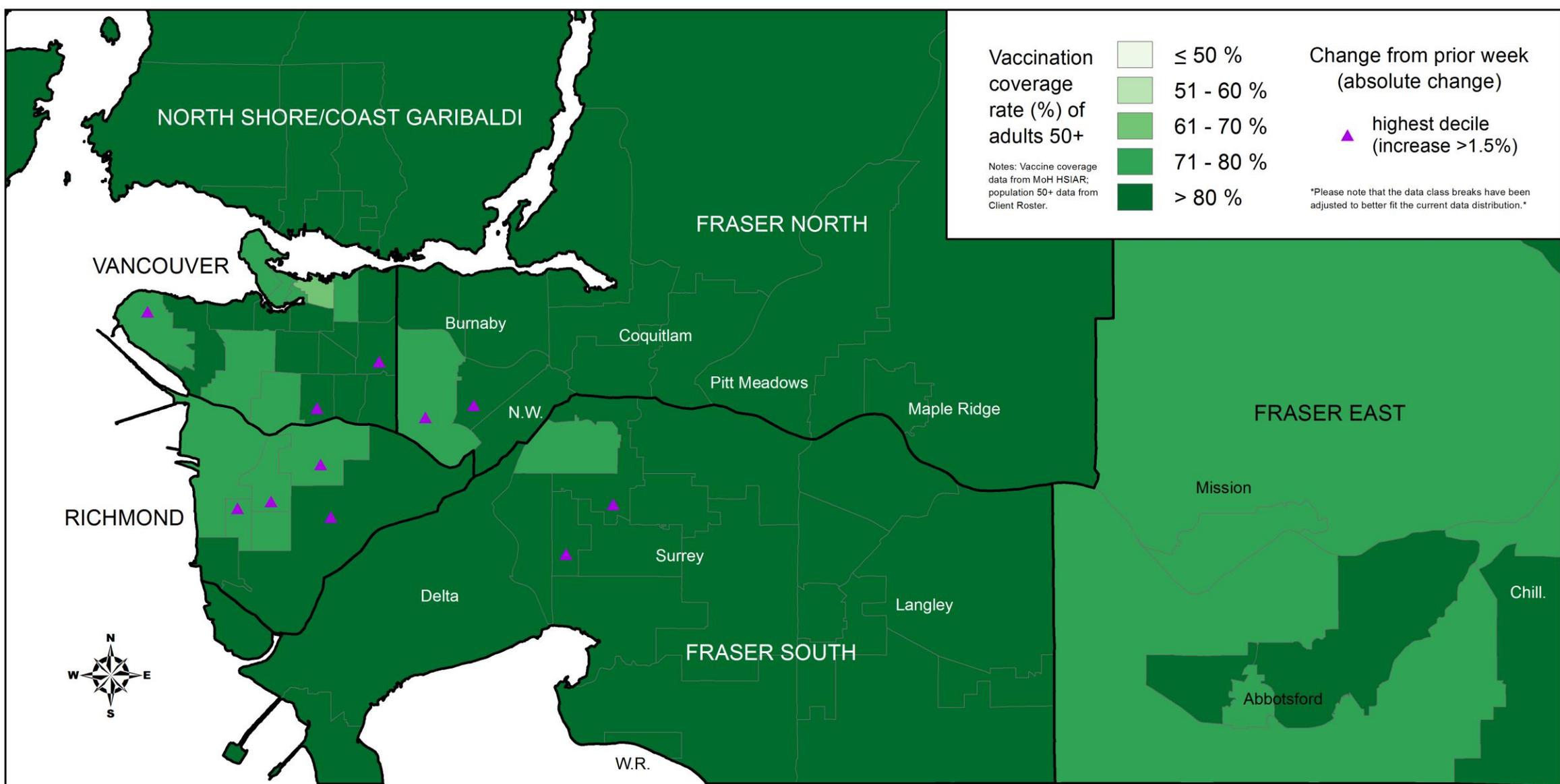


\*Please note that the data  
class breaks have been  
adjusted to better fit the  
current data distribution.\*



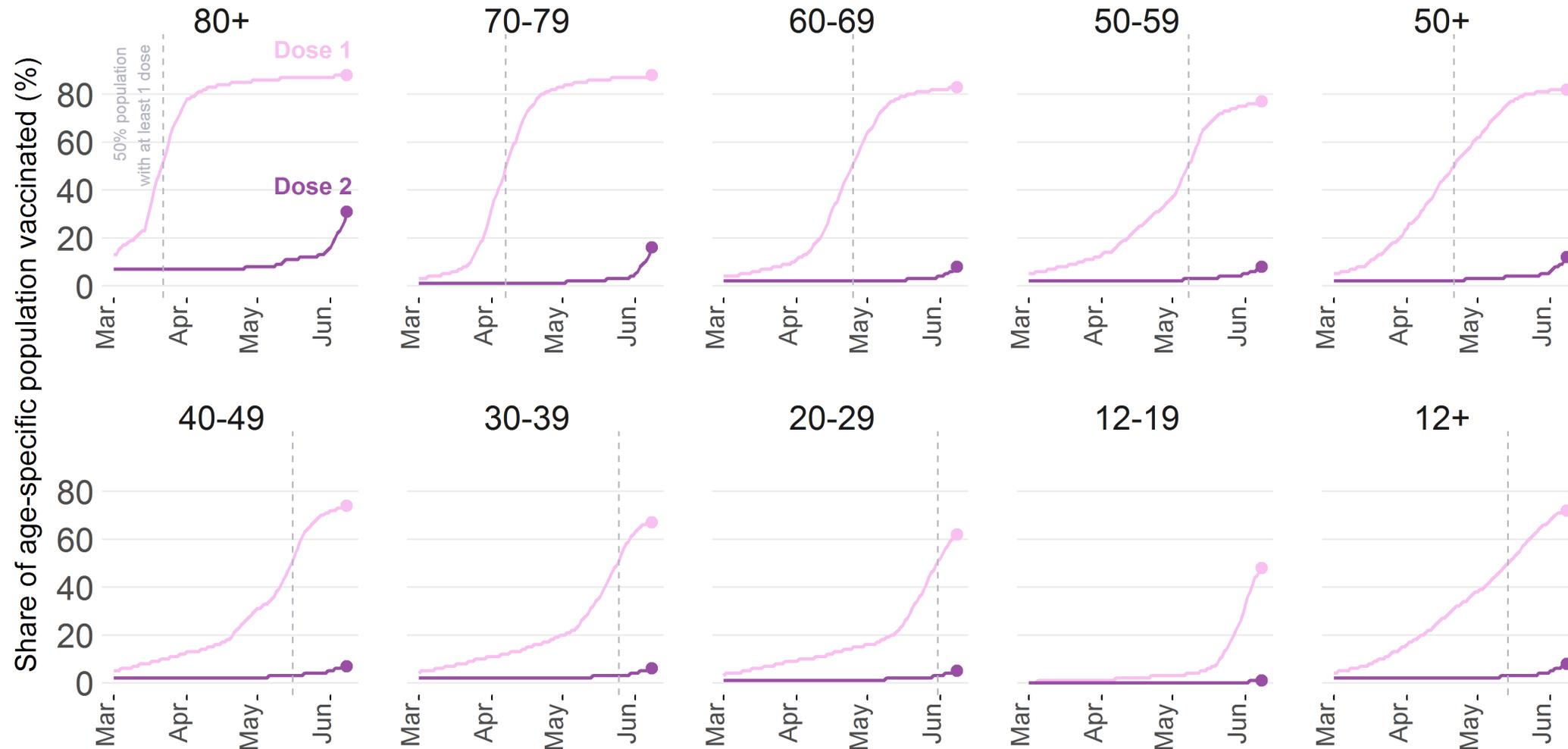
Greater Vancouver inset  
on separate map layout

British Columbia  
(Local Health Areas)



COVID-19 Vaccination Coverage by CHSA: Ages 50+ 1st Dose (up to June 7, 2021)

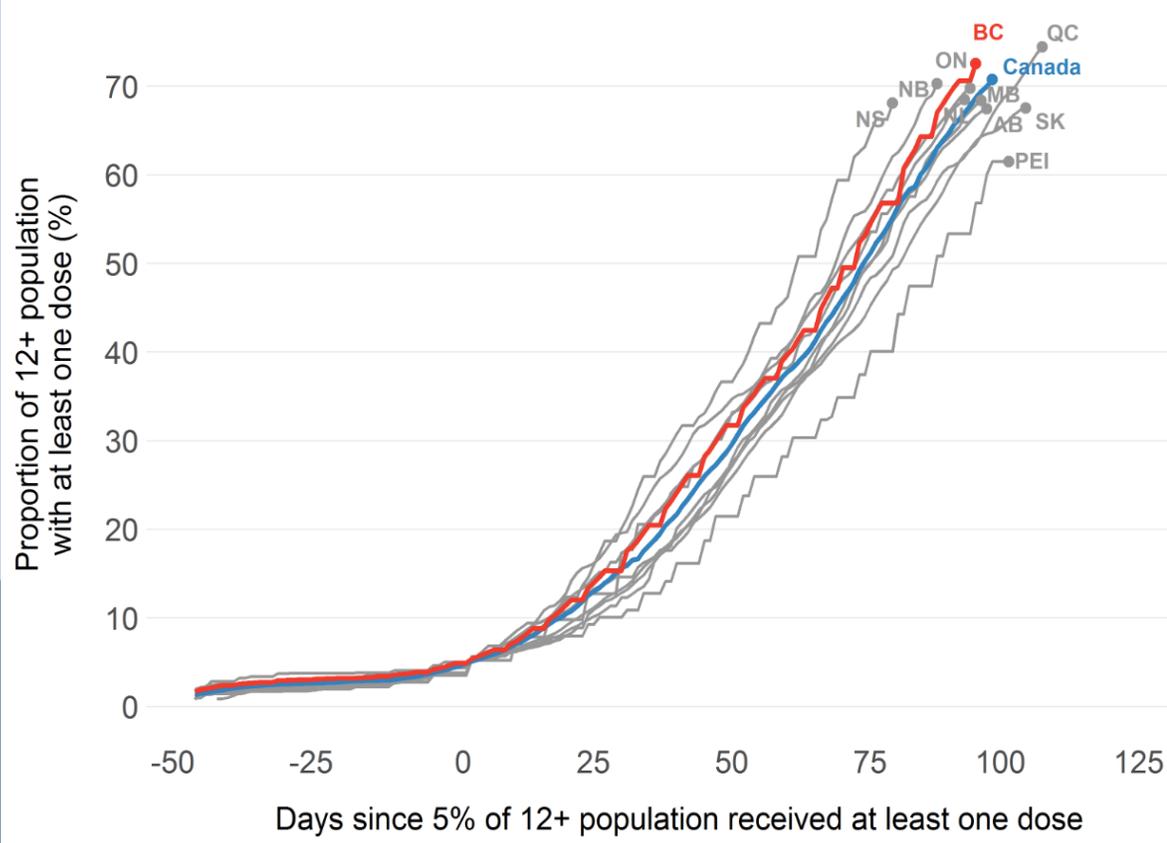
# Vaccination progress in BC by age group up to June 9, 2021



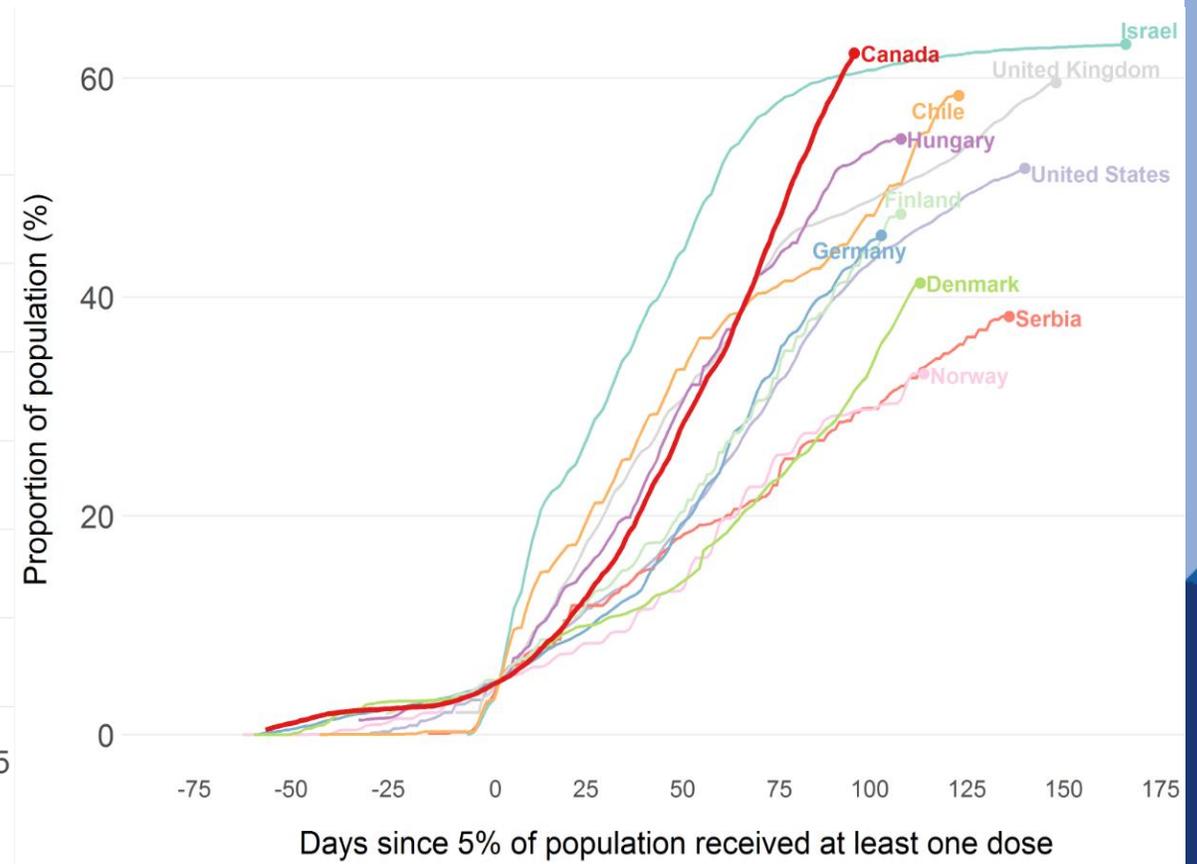
This figure can also be found in the [weekly data summary](#)

Data updated 2021-06-09  
Data Source: Provincial Immunization Registry, PHSA

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 from COVID-19 Canada Open Data Working Group and extracted 2021-06-08  
Population denominator from Statistics Canada table 17-10-0005-01; 12-14 year old age group estimated



Data from Our World in Data and extracted on 2021-06-08

Data source: [Open Data](#)  
Visualization: BCCDC

Data source: [Our World in Data](#)  
Visualization: BCCDC

# Lab - Key Messages

1. **Percent positivity** among publicly funded tests is 6% and among all tests, it is 5%.
  - Testing rates decreased 6% this week (~39,000 total tests May 30 to June 5)
2. There are regional differences in percent positivity, ranging from 1.2% in VIHA to 6.5% in NH.
3. Incidence continues to decline in all age groups; percent positivity is <10% in all age groups.
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  $\geq 24$  hours to result.
5. The share of **VOCs** among all positive tests in BC is ~78% in epi week 22 (May 30-June 5).
6. Sequencing-based VOC prevalence for epi week 22 shows distribution of lineages: P.1 (Gamma)~46%, B.1.1.7 (Alpha)~45% and B.1.617.2 (Delta) ~9%.

## Weekly Summary of ALL lab tests performed

<b>2,784,932</b>	total specimens tested
<b>39,420</b>	new this epi week
<b>153,173</b>	total positive specimens
<b>1,419</b>	new positive this epi week
<b>15 hr</b>	mean turnaround time (TAT)
<b>13 [8-24]</b>	Median [Q1 – Q3] TAT

↓ **6%** relative to last week

↓ **3.6%** positivity  
↓ **1.4%** absolute change from last week

↑ **8%** TAT relative to last week

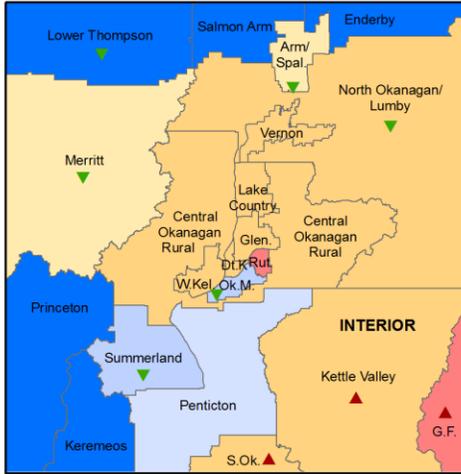
## Weekly Summary of Lab tests paid Publicly

<b>2,289,964</b>	total specimens tested
<b>28,234</b>	new this epi week
<b>151,791</b>	total positive specimens
<b>1,403</b>	new positive this epi week

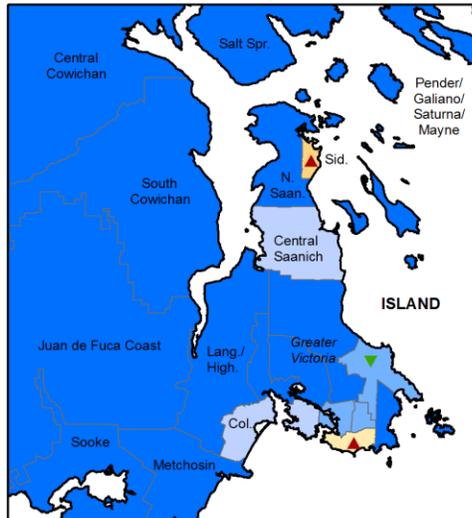
↓ **17%** relative to last week

↓ **5.0%** positivity  
↓ **1.2%** absolute change from last week

Okanagan Inset  
(Community Health Service Areas)

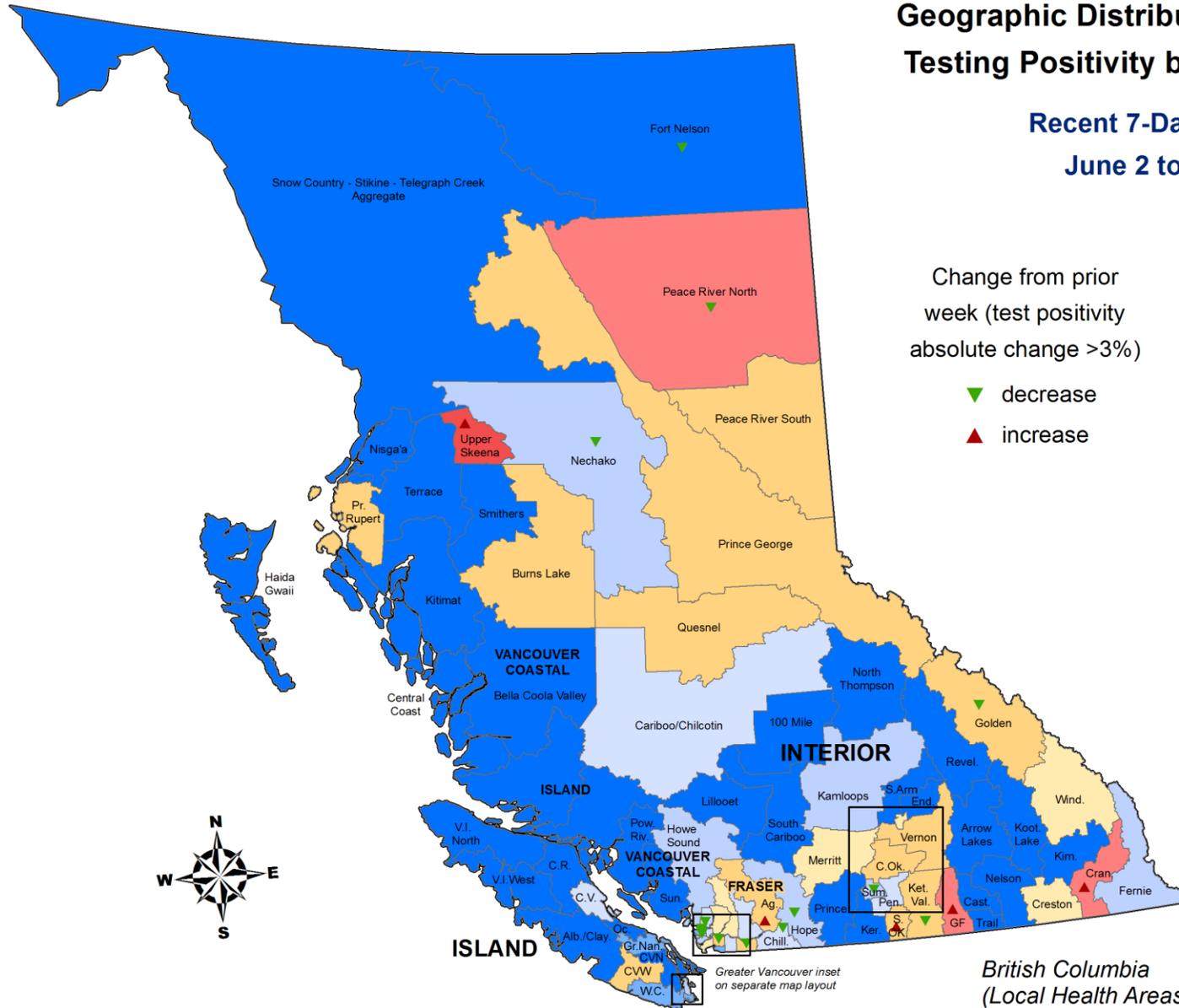


Greater Victoria Inset  
(Community Health Service Areas)



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

Recent 7-Days Testing  
June 2 to 8, 2021



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

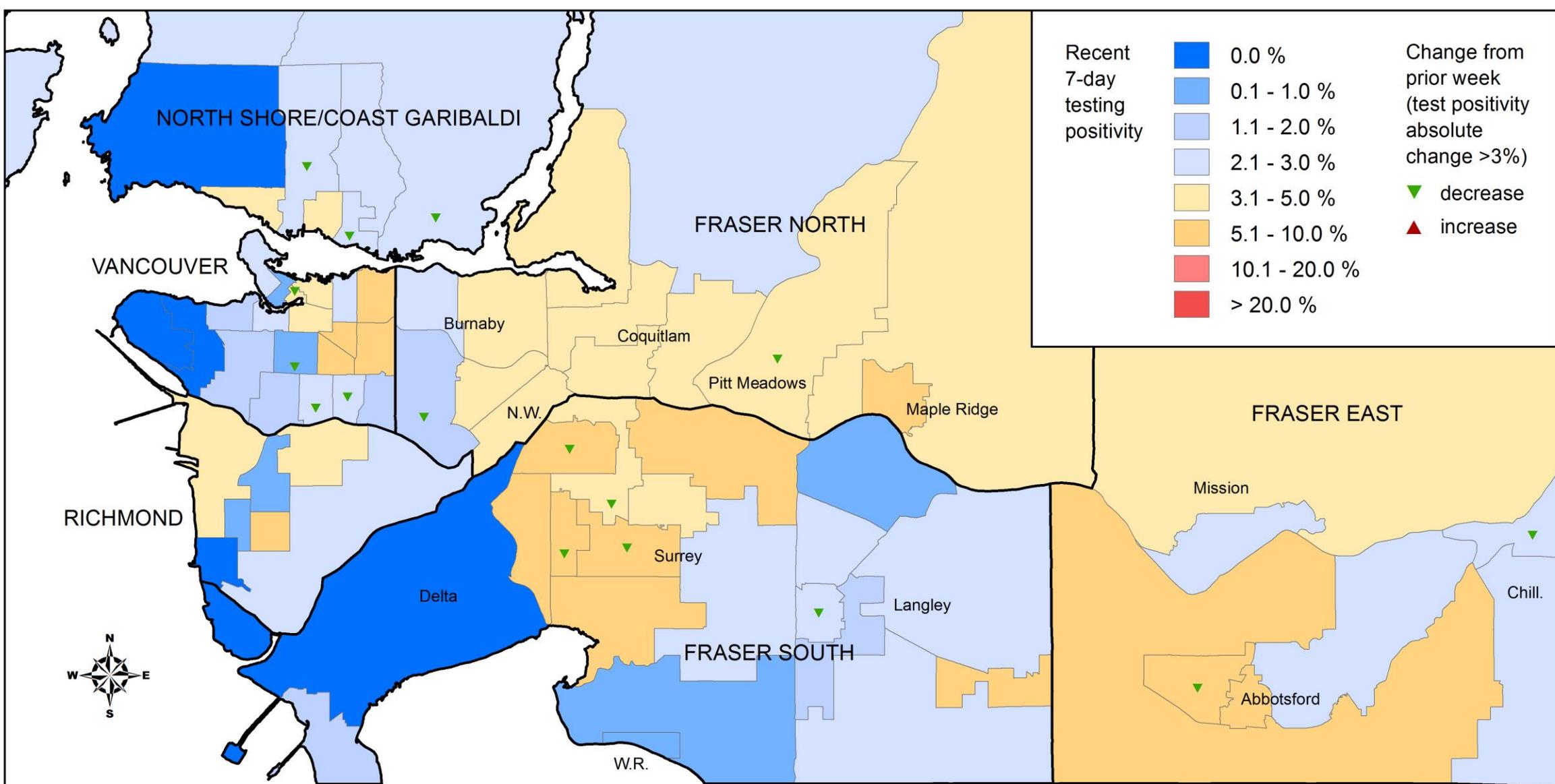
- ▼ decrease
- ▲ increase

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)

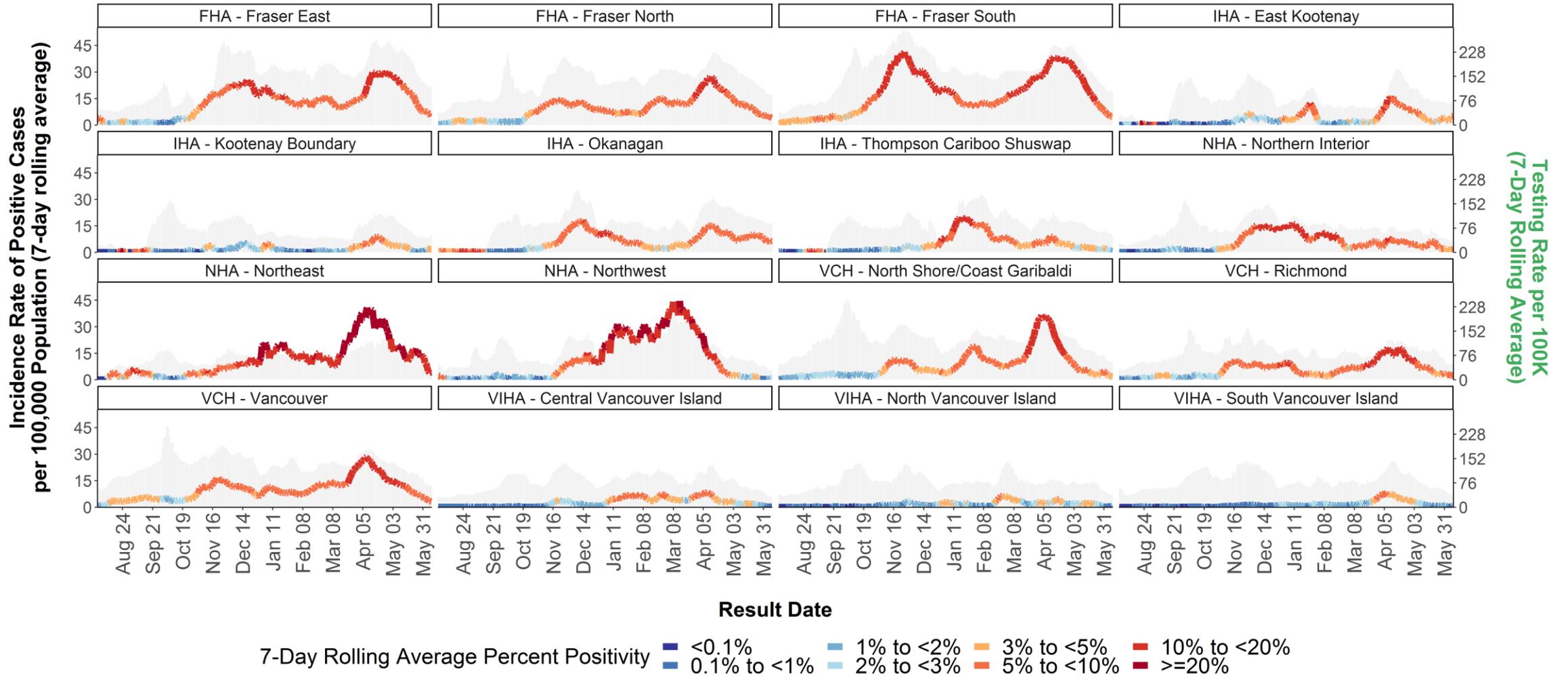


COVID-19 Recent 7-Day Test Positivity by CHSA (June 2 to 8, 2021)

Includes all tests

# Incidence is stable or decreasing across regions; positivity is >10% in Northeast HSDA.

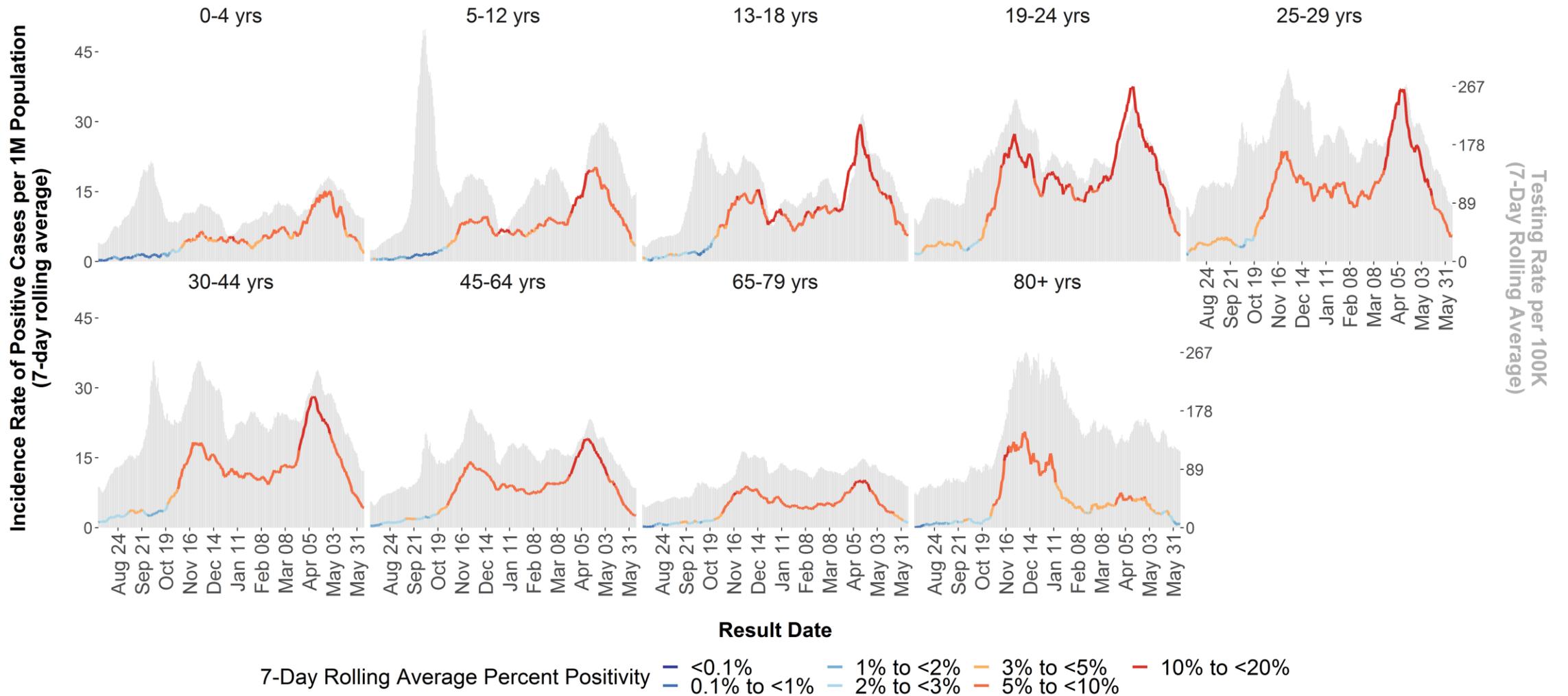
Case incidence rate, test percent positivity, and testing rate by HSDA (Public Payers Only).  
Aug 1 2020 - Jun 8, 2021.



Data source: PLOVER 08-Jun-2021

# Incidence continues to decline in all age groups; percent positivity is <10% in all age groups.

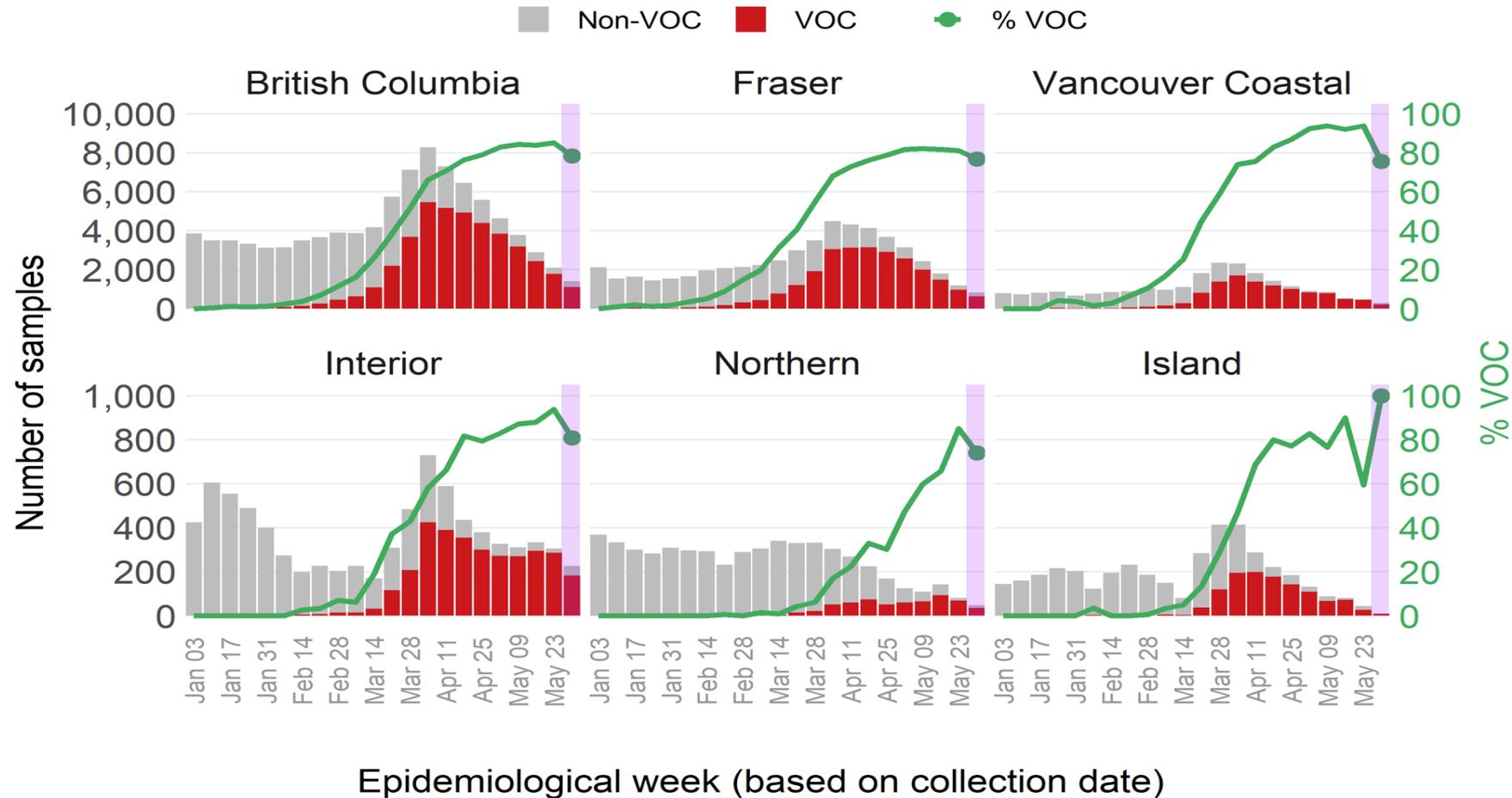
Case incidence rate, test percent positivity, and testing rate by age (Public Payers Only). Aug 1 2020 - Jun 8, 2021.



Data source: PLOVER 08-Jun-2021

Of all COVID-19 positive test samples in epi week 22 (May 30 – June 5) in BC, ~78% were confirmed VOCs.

Prevalence of Presumptive and Sequenced VOCs, by epi week in BC and Health Authorities Jan 3 – May 30, 2021



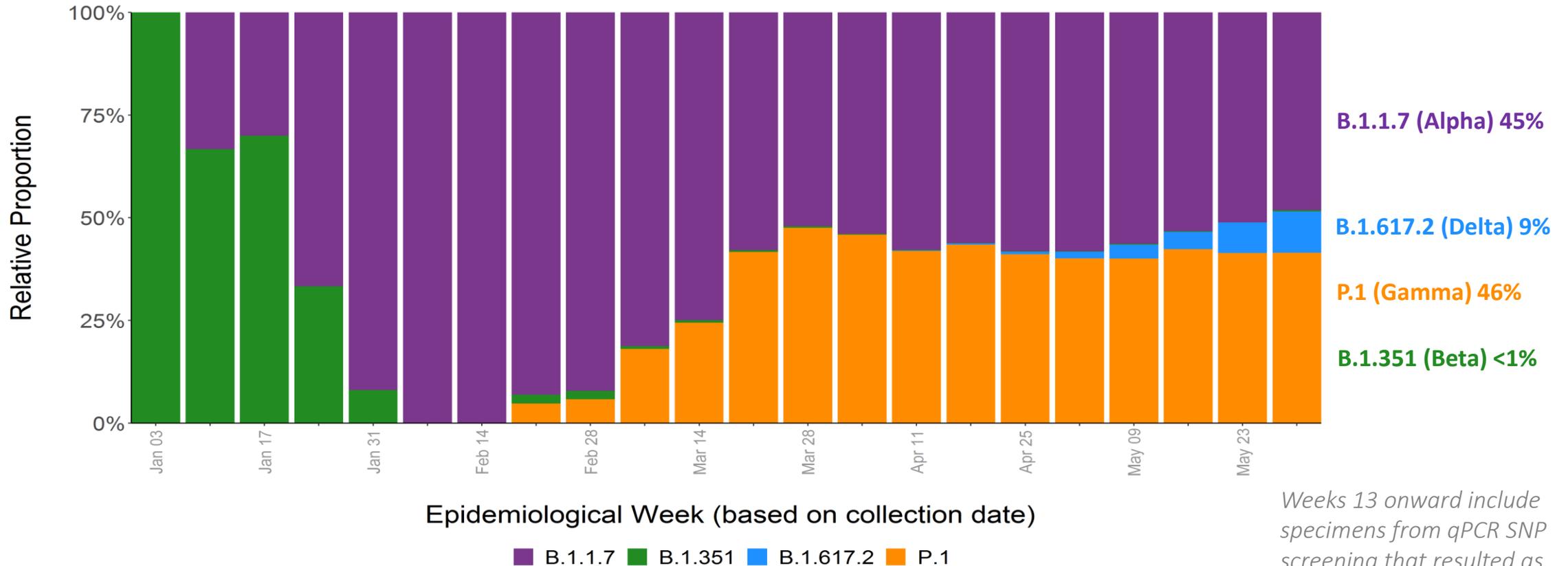
Shaded Area reflects partial data and is subject to change

Data from the Plover system at the BCCDC Public Health Lab

This figure can also be found in the [weekly VOC report](#)

Among sequenced samples provincially based on information for epi week 22, P.1 (~46%) and B.1.1.7 (~45%) remain two dominant VOCs. B.1.617 increasing, currently represents ~9% of VOCs

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

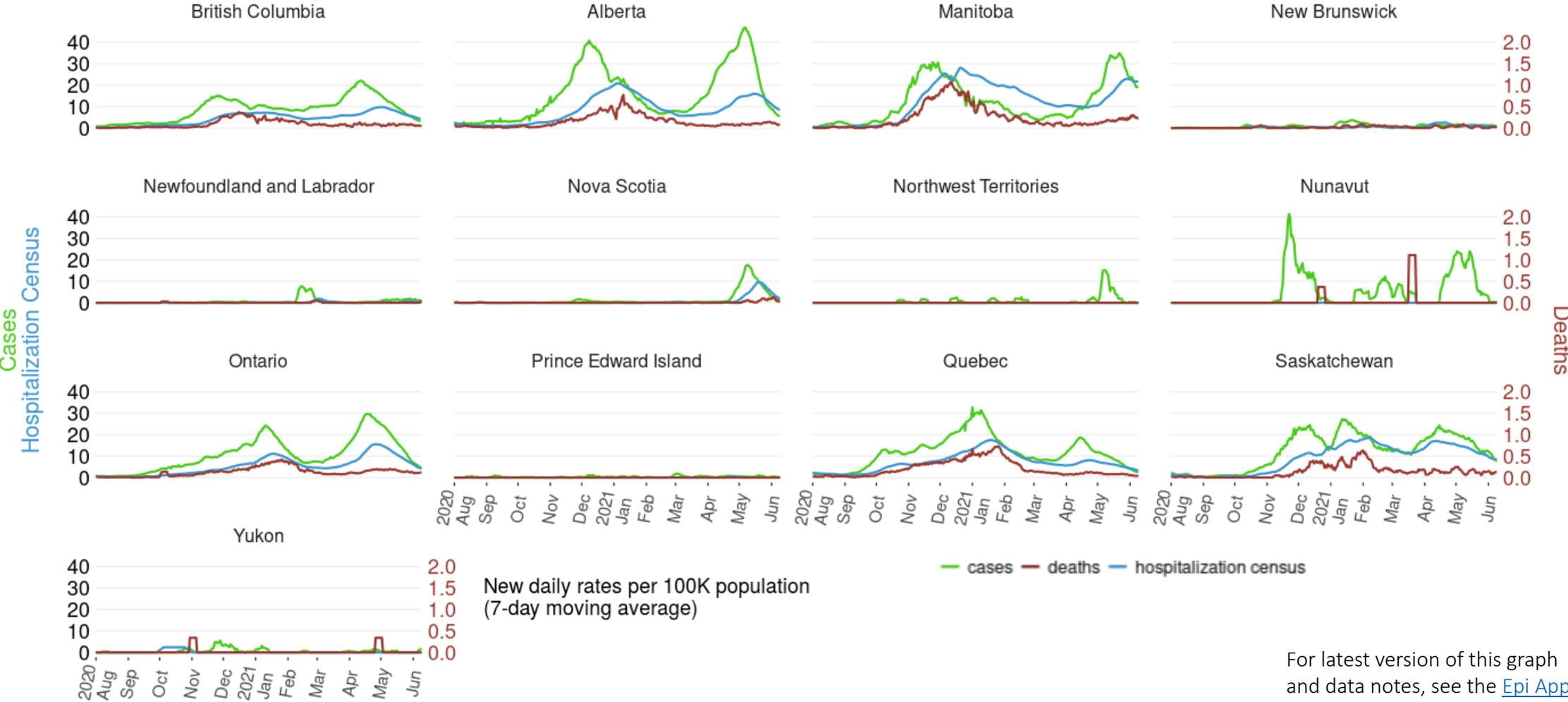


\* the B.1.1.7 and P.1 VoC lineages are captured either by qPCR SNP screen or WGS for randomly selected samples up to epiweek 22; all other circulating VoCs are WGS confirmed and exclude samples sequenced for cluster and/outbreak investigation. In week 12, we used a qPCR SNP that is comprised of a dual 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.*

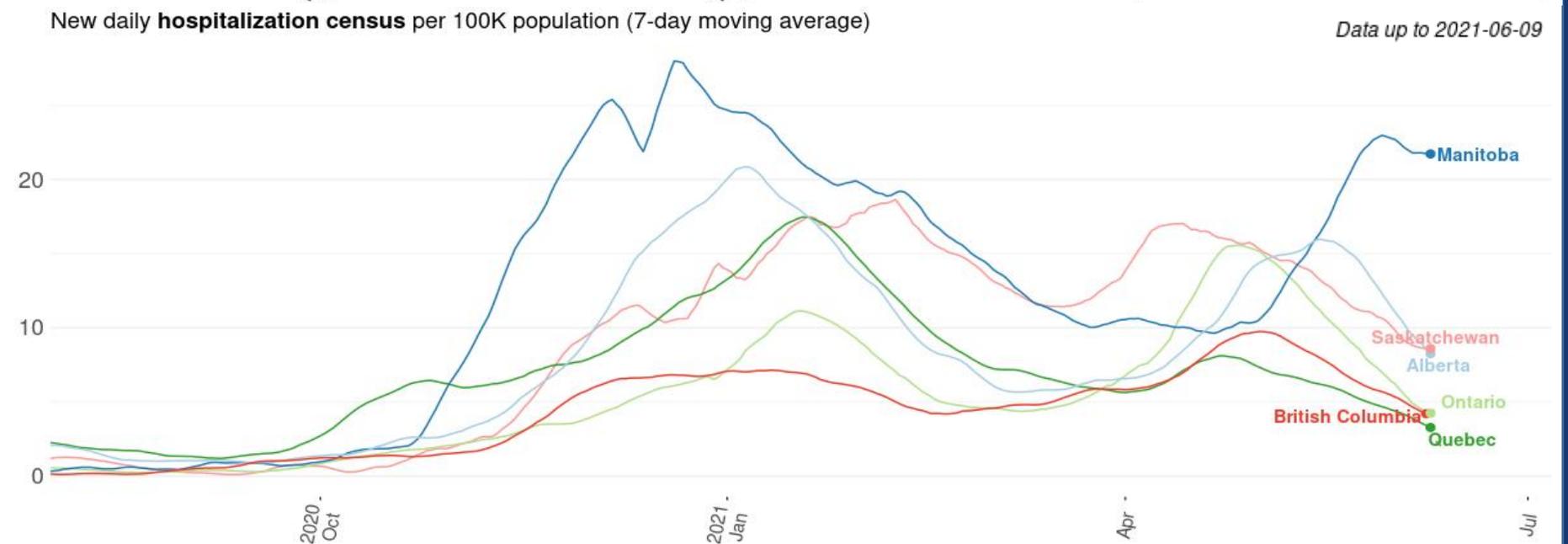
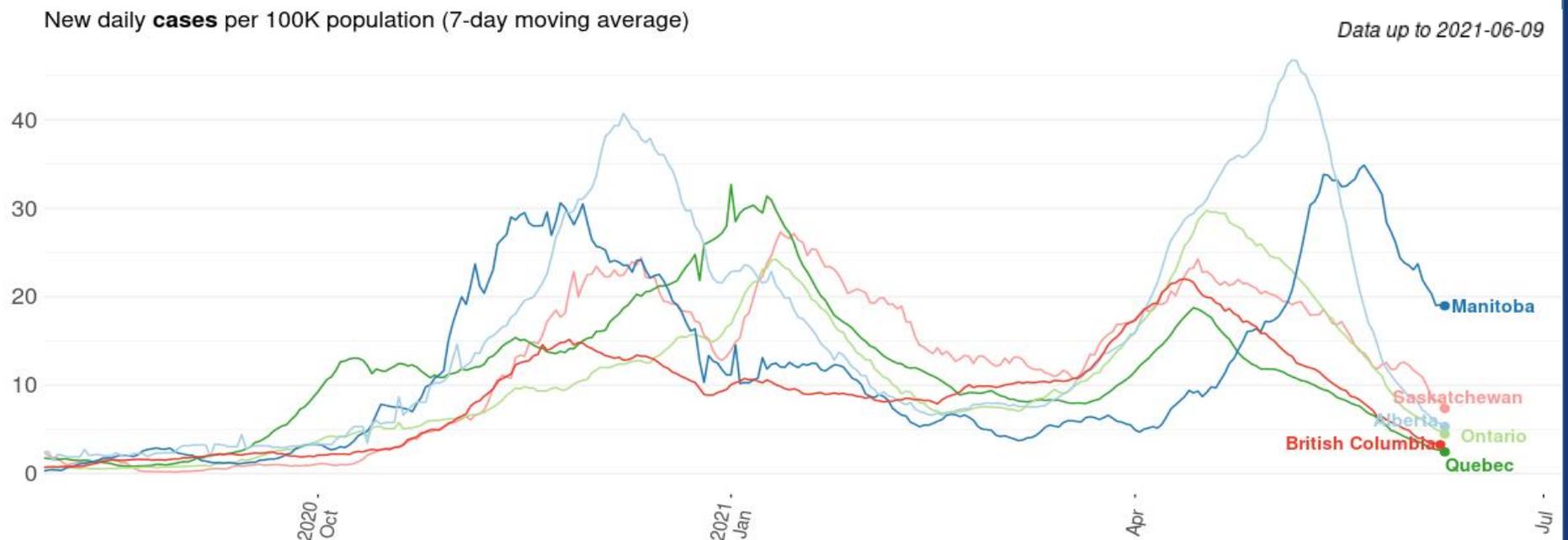
**Across Canada, cases are declining everywhere. Hospital census declining or stable in all provinces. Death rates are low and stable.**

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 one of lowest hospitalization census, similar to ON and QC

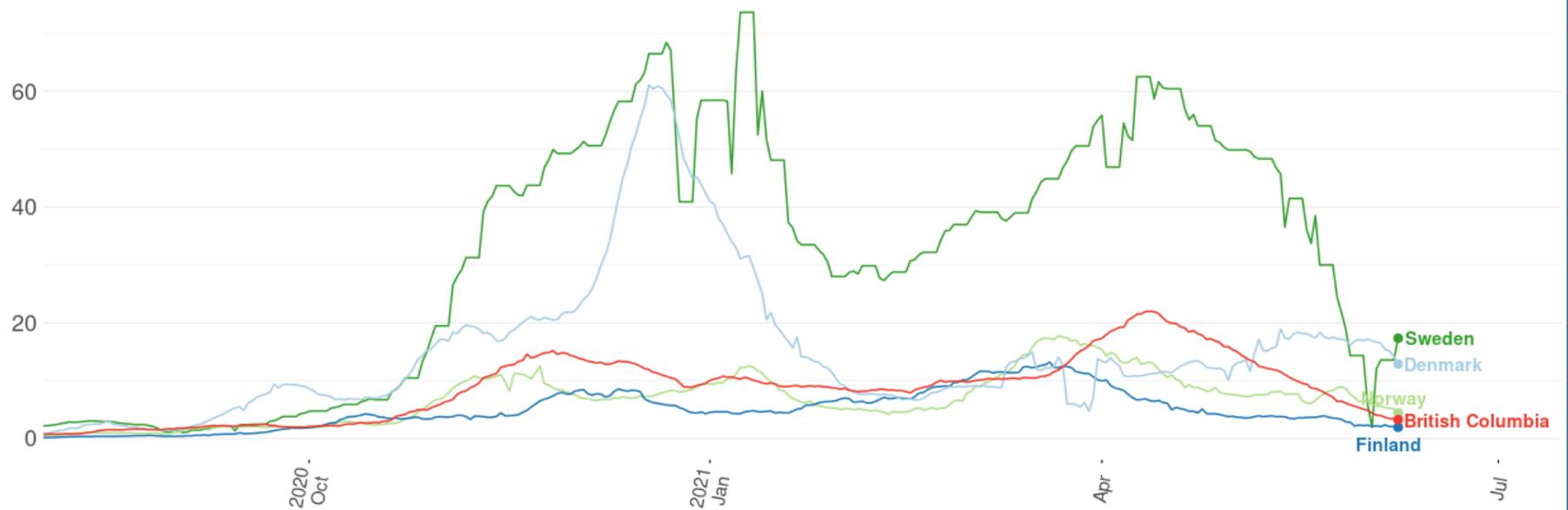


For latest version of this graph and data notes, see the [Epi App](#)

# BC's case rate and hospitalization census is similar to what is observed in the Nordic countries

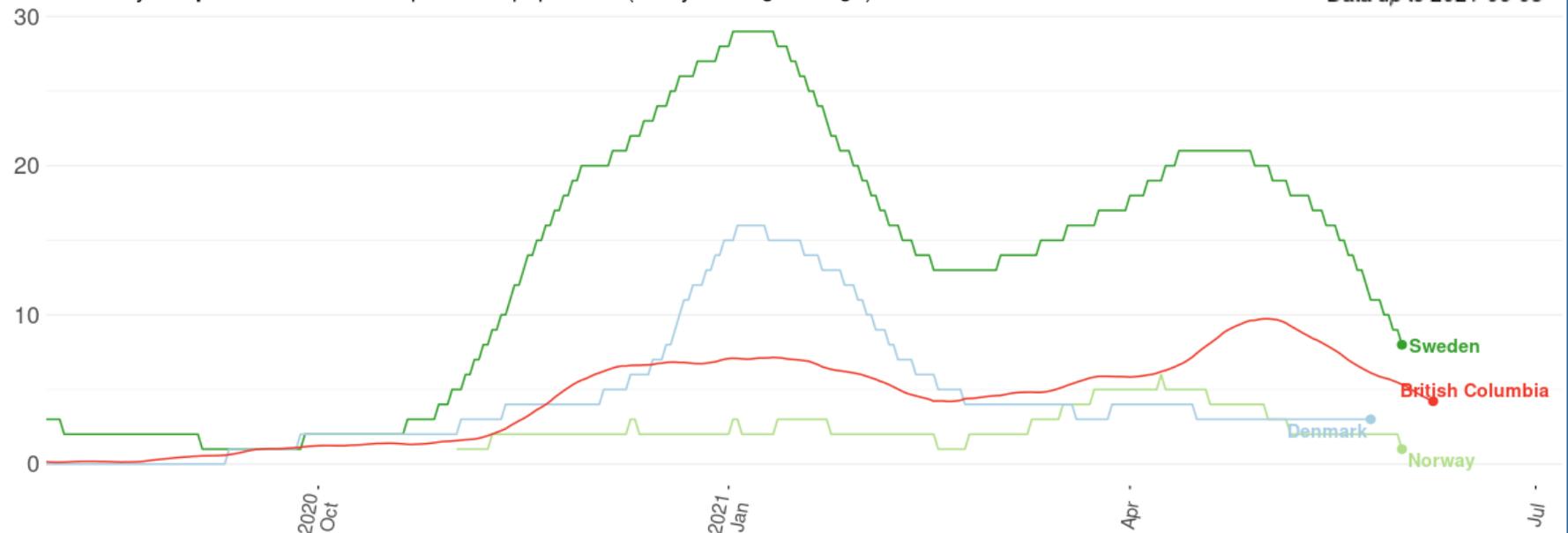
New daily **cases** per 100K population (7-day moving average)

Data up to 2021-06-08



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

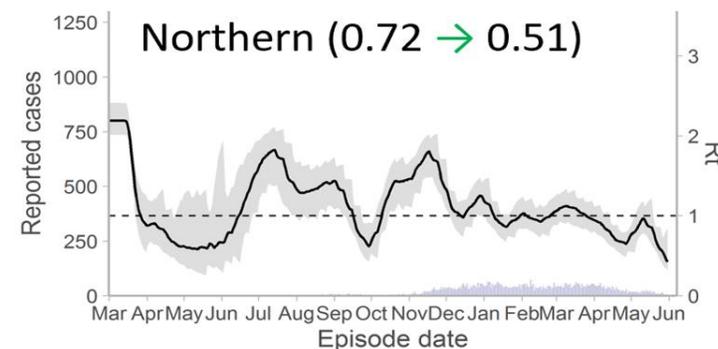
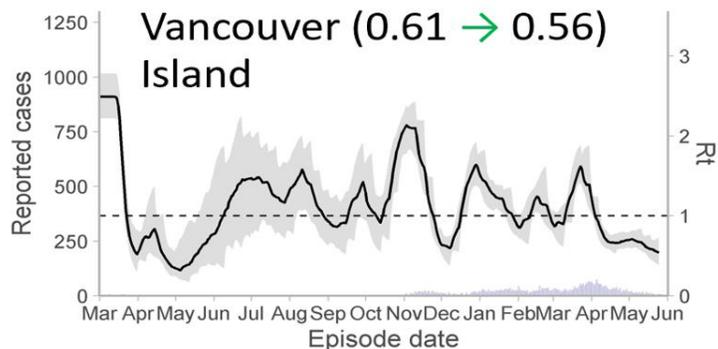
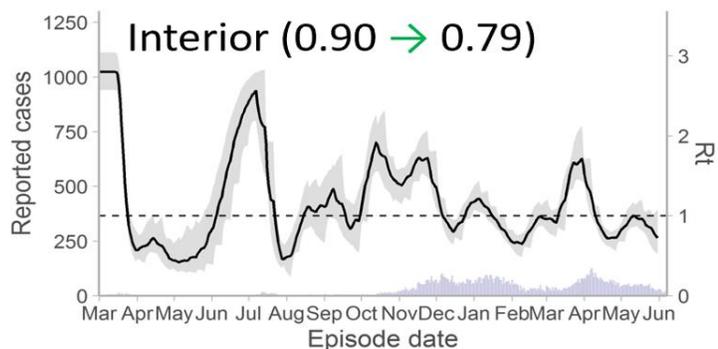
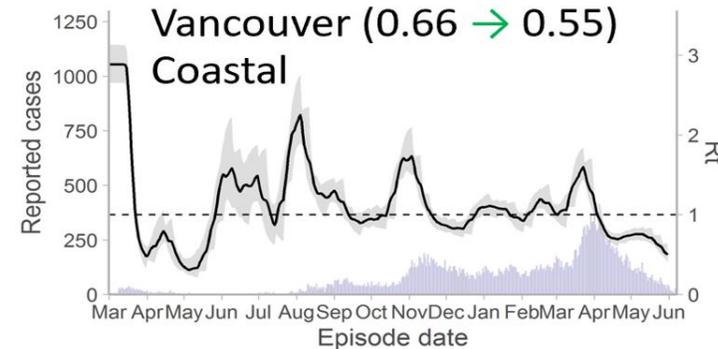
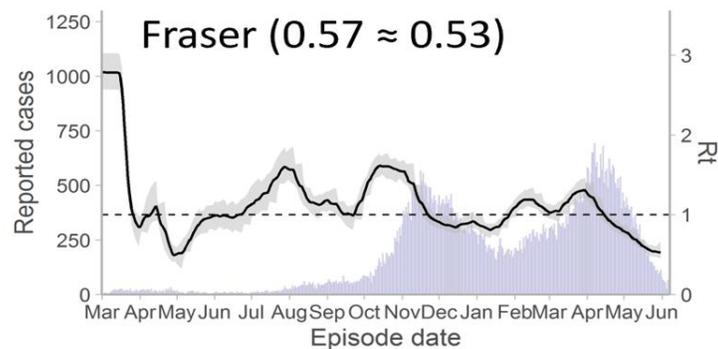
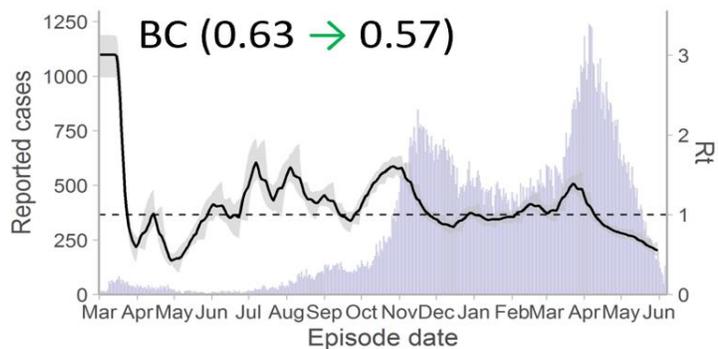
Data up to 2021-06-08



For latest version of this graph and data notes, see the [Epi App](#)

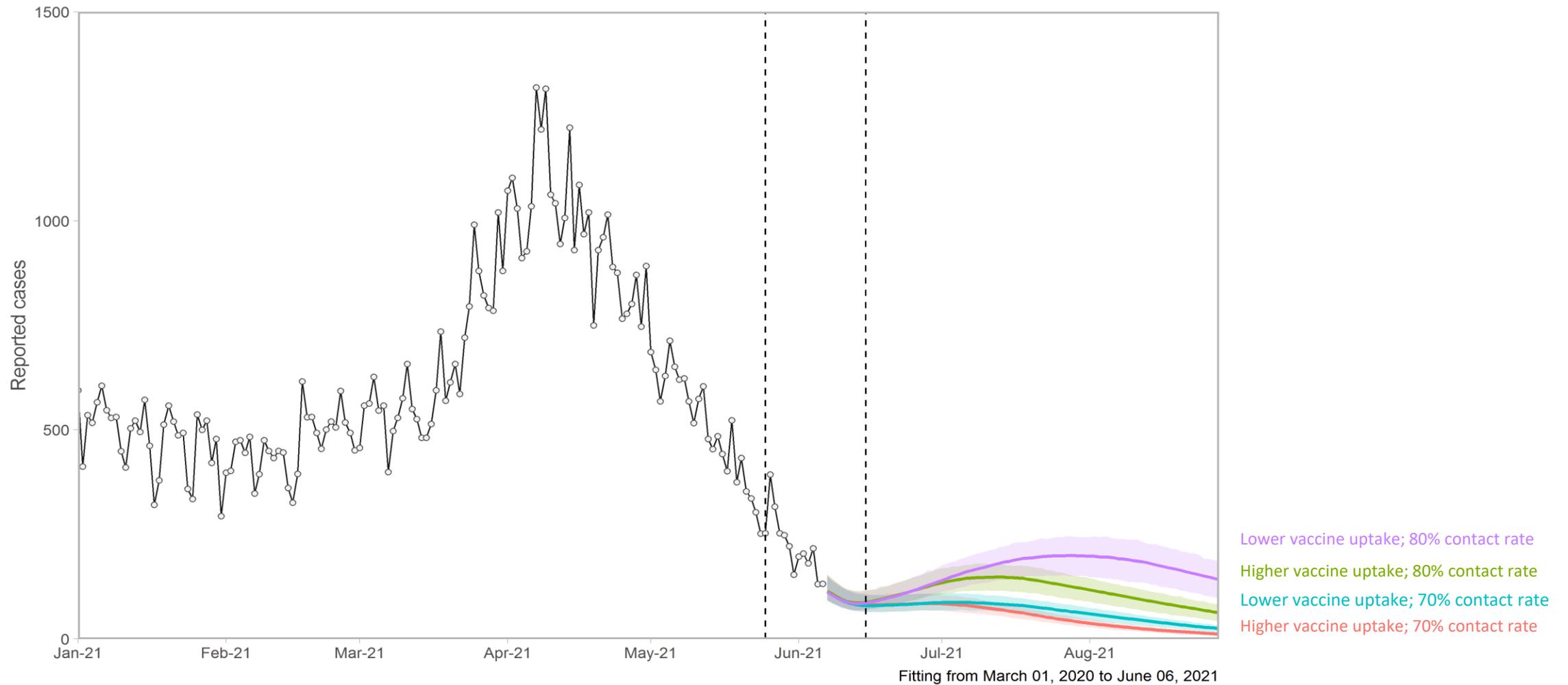
# Dynamic compartmental modeling: recent trends

Our model shows that  $R_t$  remains below 1 and is trending downward in all regions in BC.



Solid black line: median  $R_t$ , modeled using all reported cases up to June 7, 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  $R_t$  are not shown. Recent trend shown comparing 7 day average  $R_t$  from (last week → this week). Data source: BCCDC HA [linelist](#).

# Dynamic Compartmental Modelling: recent trends



# 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

# 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](#)