

# BCCDC Data Summary

2 July 2021

## Purpose

The 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 Summary

- **Case rates** are **low** and continue to decline in all HAs, now approaching levels last observed in August 2020; **test positivity** continues to decline, ~1% provincially.
  - Percent positivity  $\leq 3\%$  in all HAs and age groups
  - The majority of BC cases in June were among younger unvaccinated individuals.
- **New hospitalizations** are declining or stable (September 2020 level); **hospital/critical care census** is declining or stable across BC (October 2020 level); **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 ~92% from June 20 to 26; provincially P.1(Gamma) (~50%) and B.1.1.7 (Alpha) (~36%) remain two dominant VOCs, with B.1.617.2 (Delta) representing ~14% of VOCs.
- **Vaccine** coverage in BC by age, July 2<sup>nd</sup> : >75% of 12+ have received first dose; ~1 in 2 adults 50+, and 1 in 3 individuals 12+ have received their 2<sup>nd</sup> dose.
  - **One dose of vaccine prevents** at least **7 in 10 infections** in individuals  $\geq 50$  years

# Jun 24 to Jun 30: BC COVID-19 Profile



**147,621** total cases  
**350** new this week



**1,754** total deaths  
**10** new this week

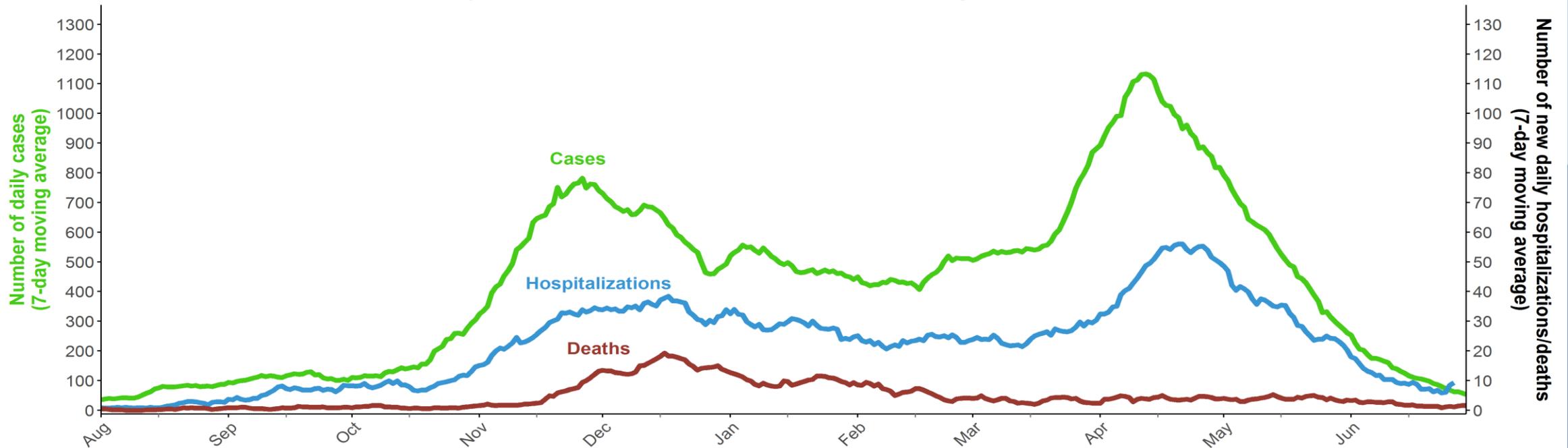


**8,019** ever hospitalized  
**103** new this week



**145,032** removed from isolation  
**649** new this week

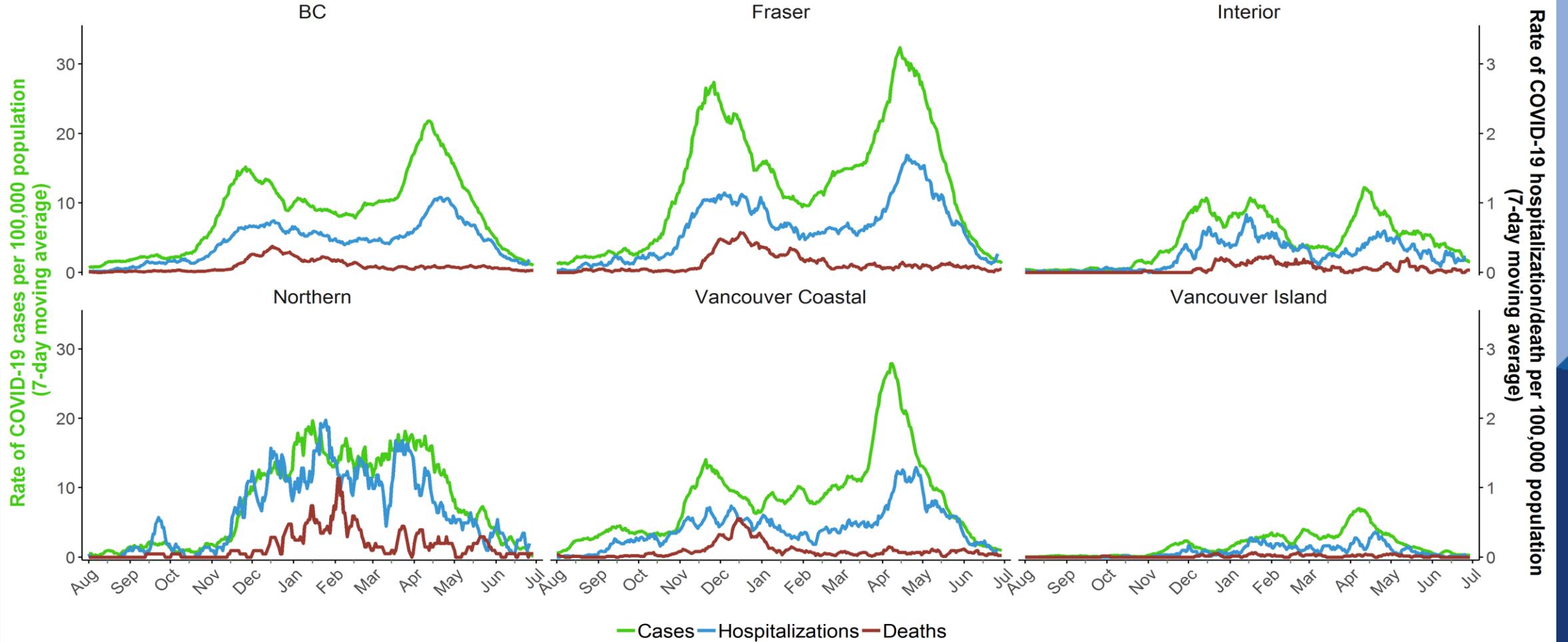
New daily COVID-19 cases, hospitalizations and deaths, Aug 01 2020 - Jun 29 2021



\* Data are by surveillance date for cases and deaths, and admission date for hospitalizations  
Data source: PHRDW Jun-30-2021

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 29 2021



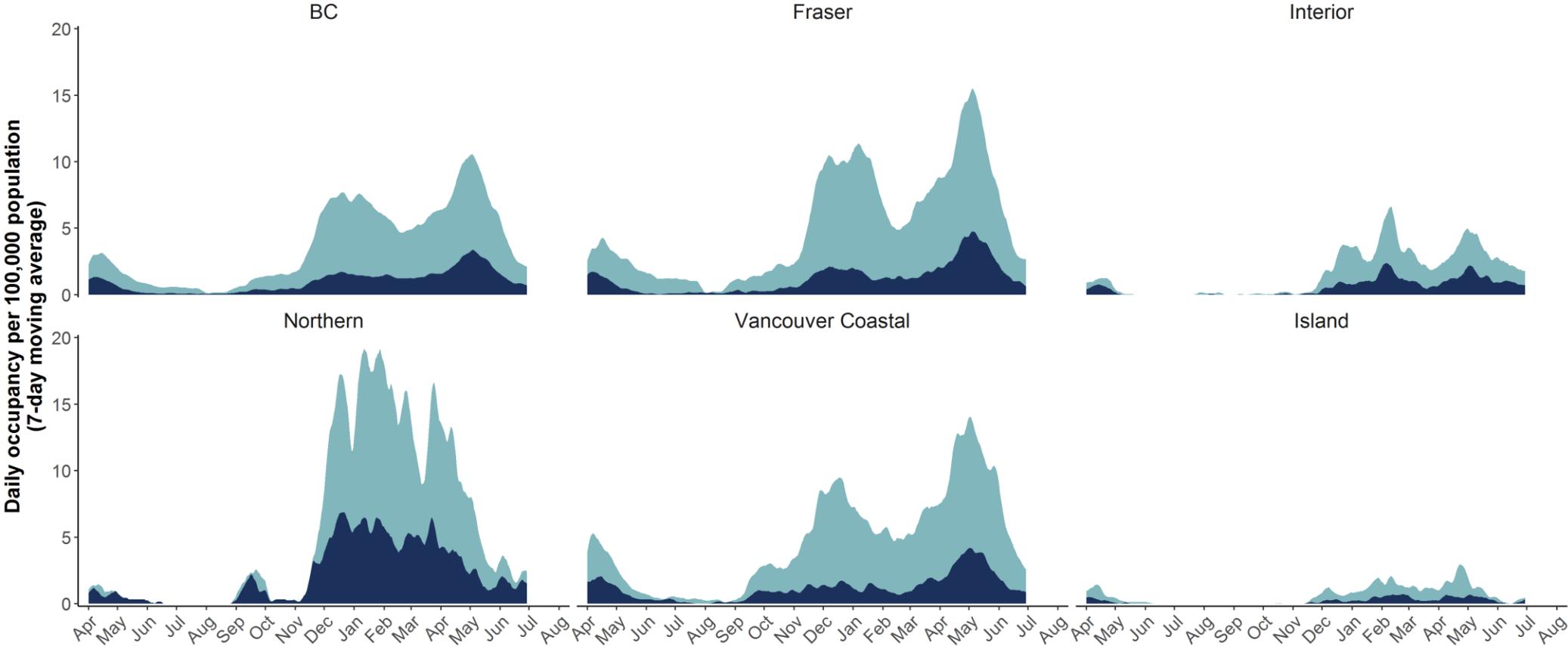
\* Data are by surveillance date for cases and deaths, and admission date for hospitalizations  
Data source: PHRDW Jun-30-2021

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.

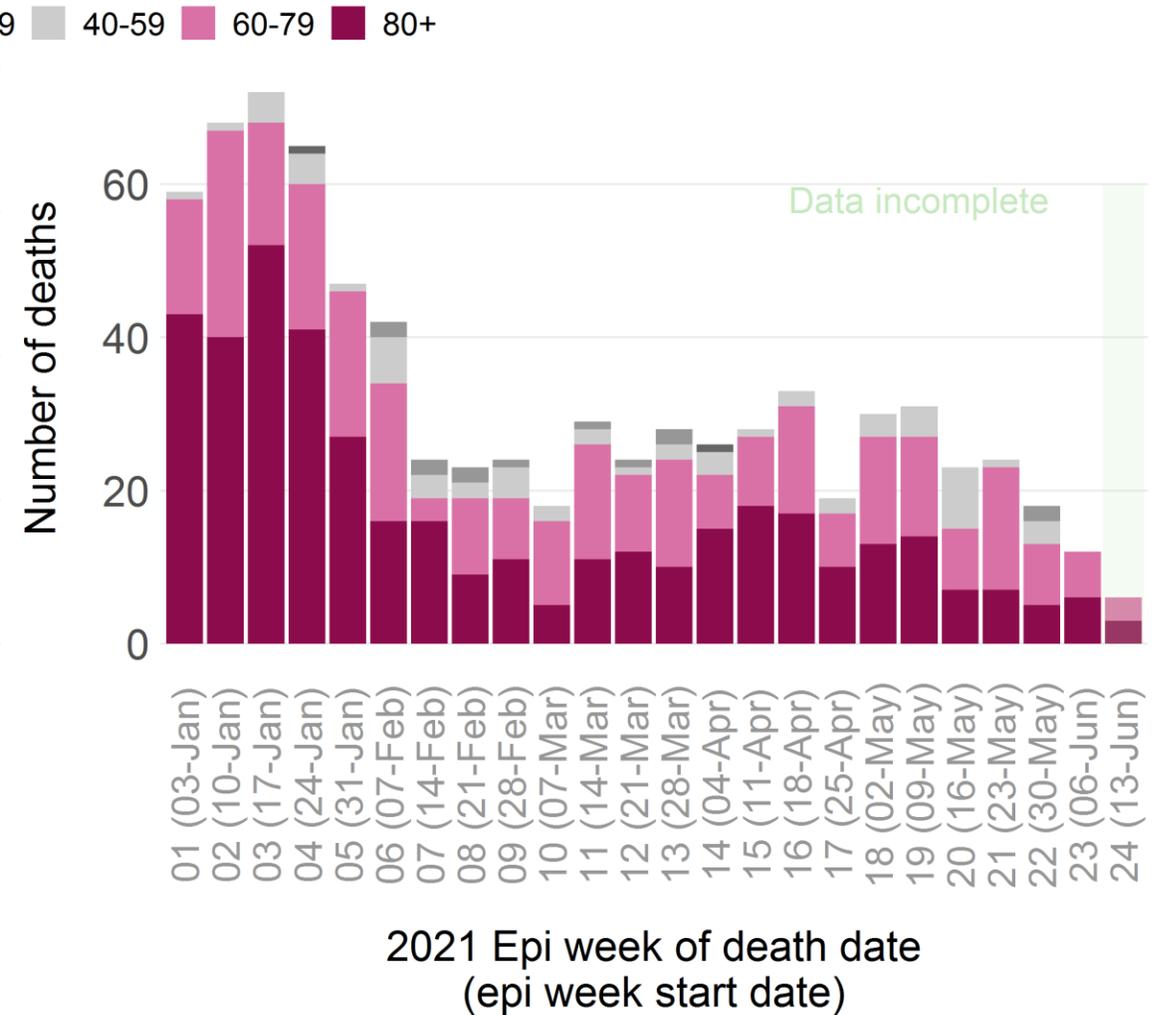
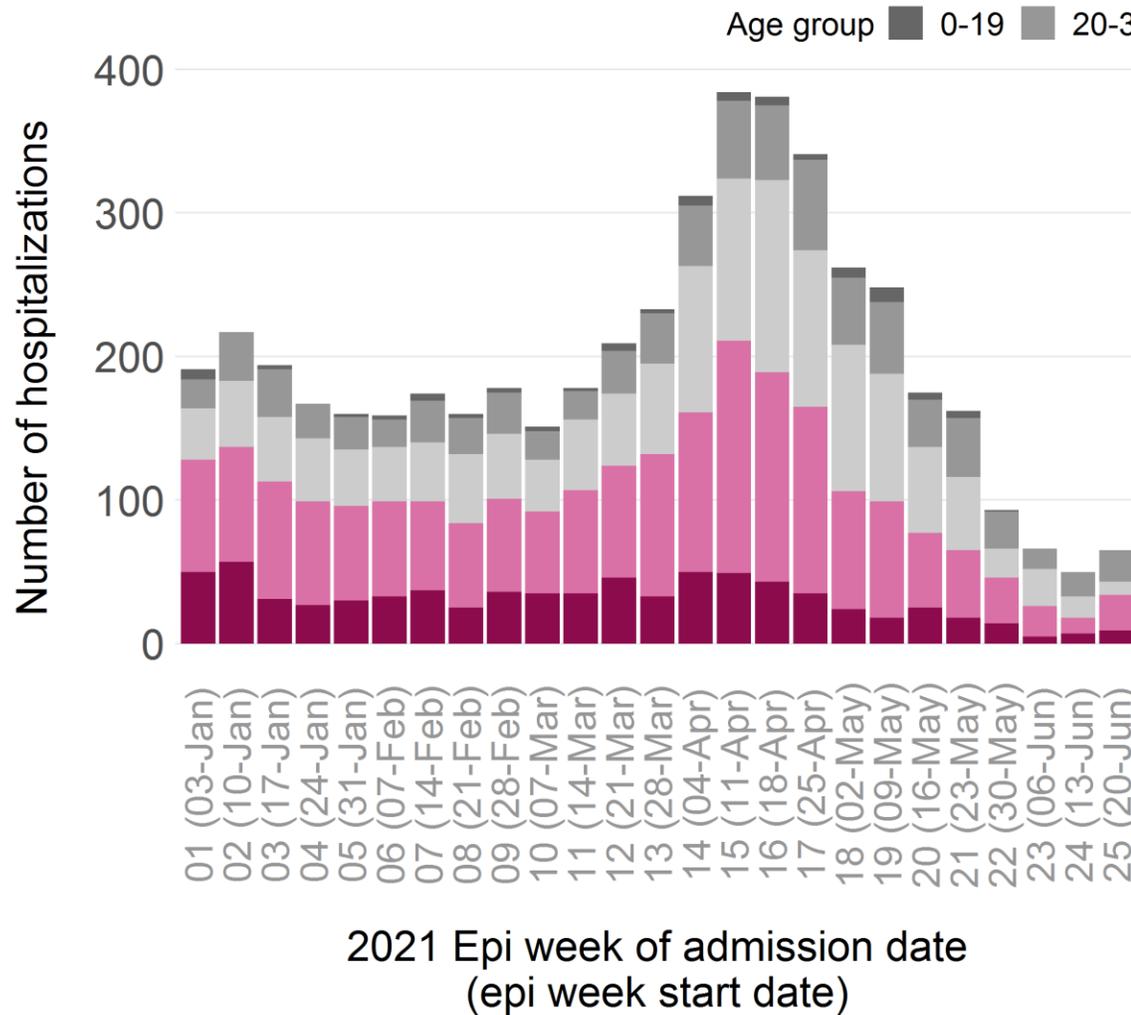
Current COVID-19 hospitalizations, Apr 01 2020 - Jun 29 2021

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



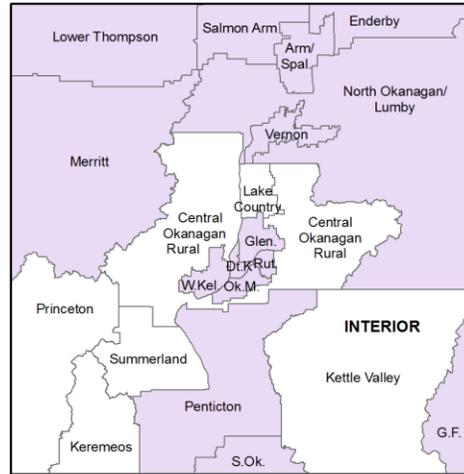
\* Data are by census date for hospitalizations  
Data source: PHSA Provincial COVID19 Monitoring Solution (PCMS) Jun-30-2021

Number of new hospital admissions is low and stable. The number of hospitalizations among individuals <40 years is low. Deaths are low and among individuals  $\geq 60$  years.

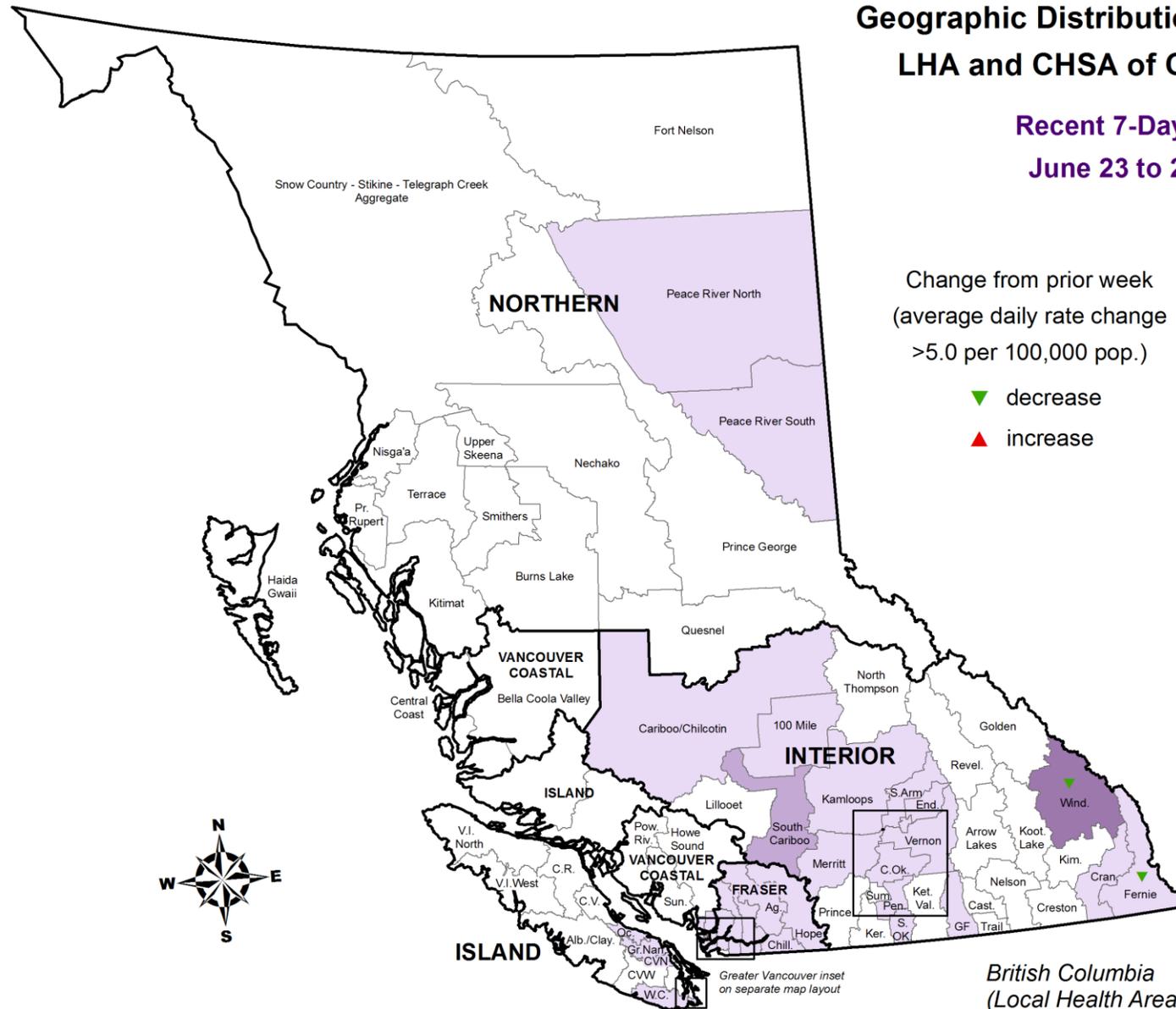
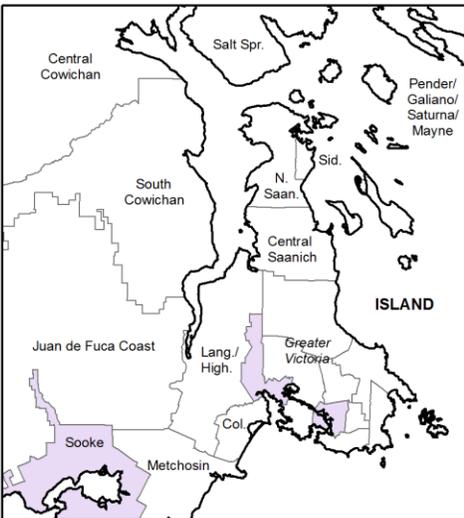


Data extracted on 2021-06-30; hospitalization and death data from health authority case line list data

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 23 to 29, 2021

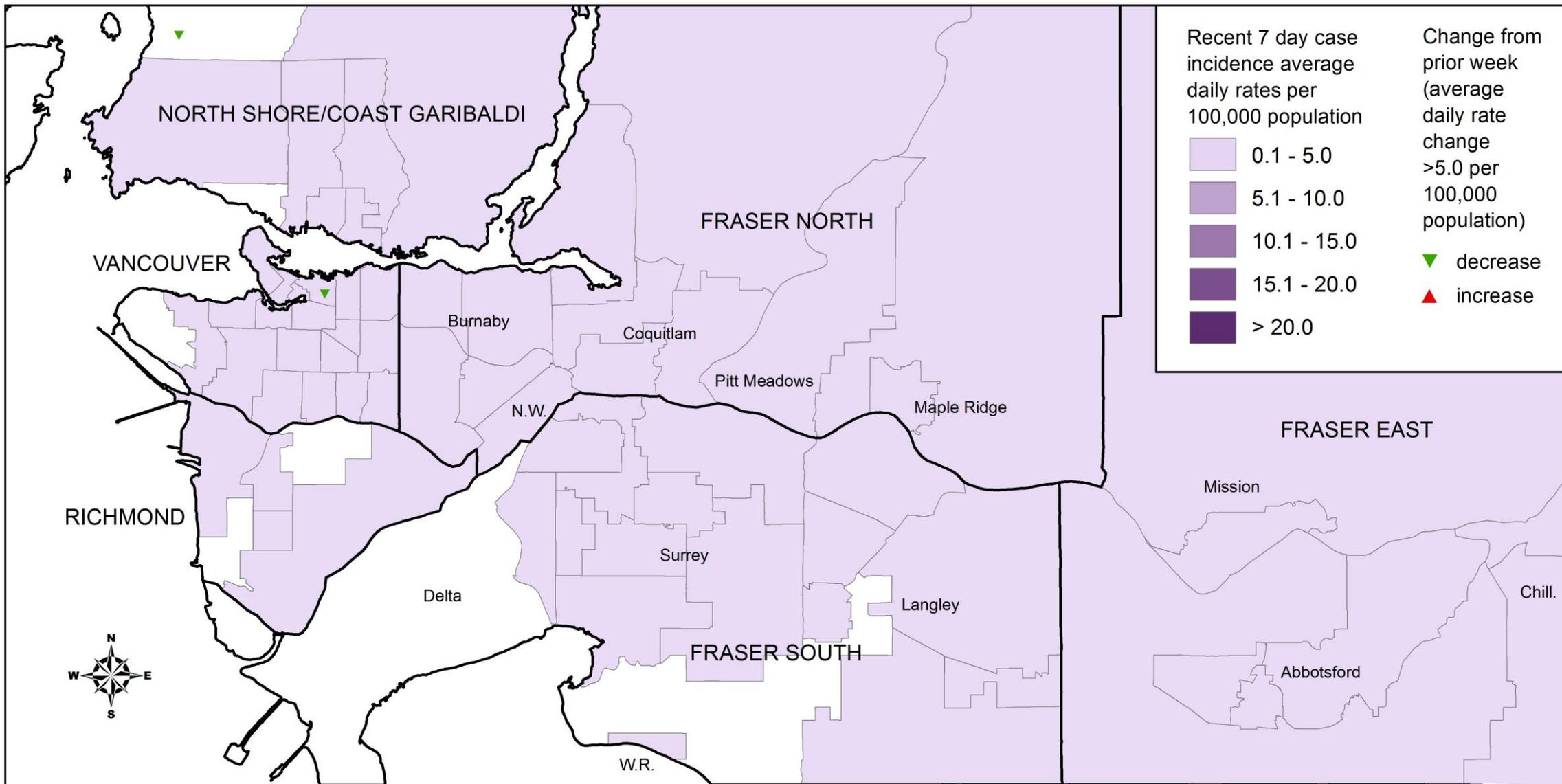
Change from prior week  
(average daily rate change  
>5.0 per 100,000 pop.)

- ▼ decrease
- ▲ increase

Average daily rate per  
100,000 population

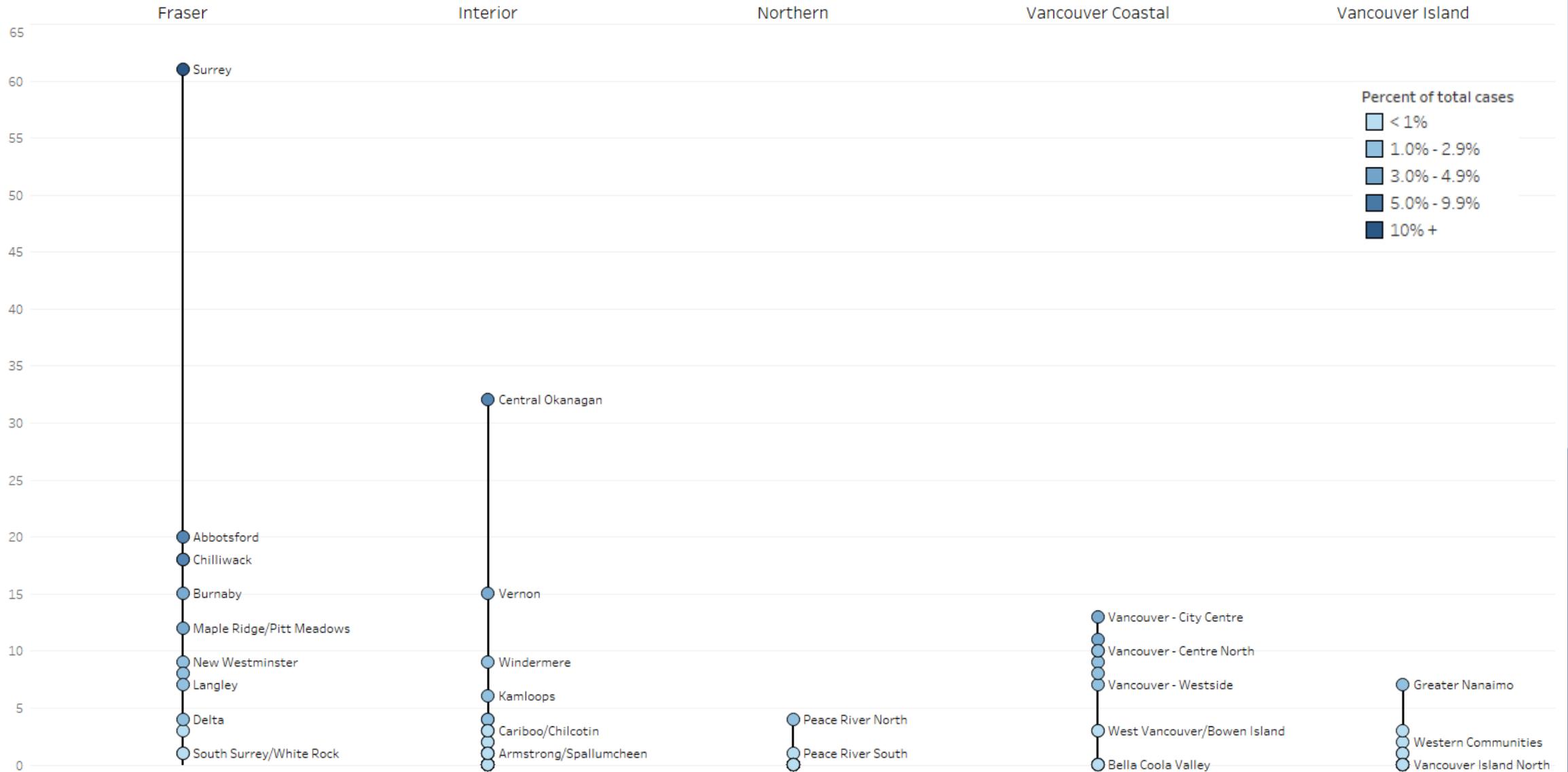
- 0.0
- 0.1 - 5.0
- 5.1 - 10.0
- 10.1 - 15.0
- 15.1 - 20.0
- > 20.0

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.

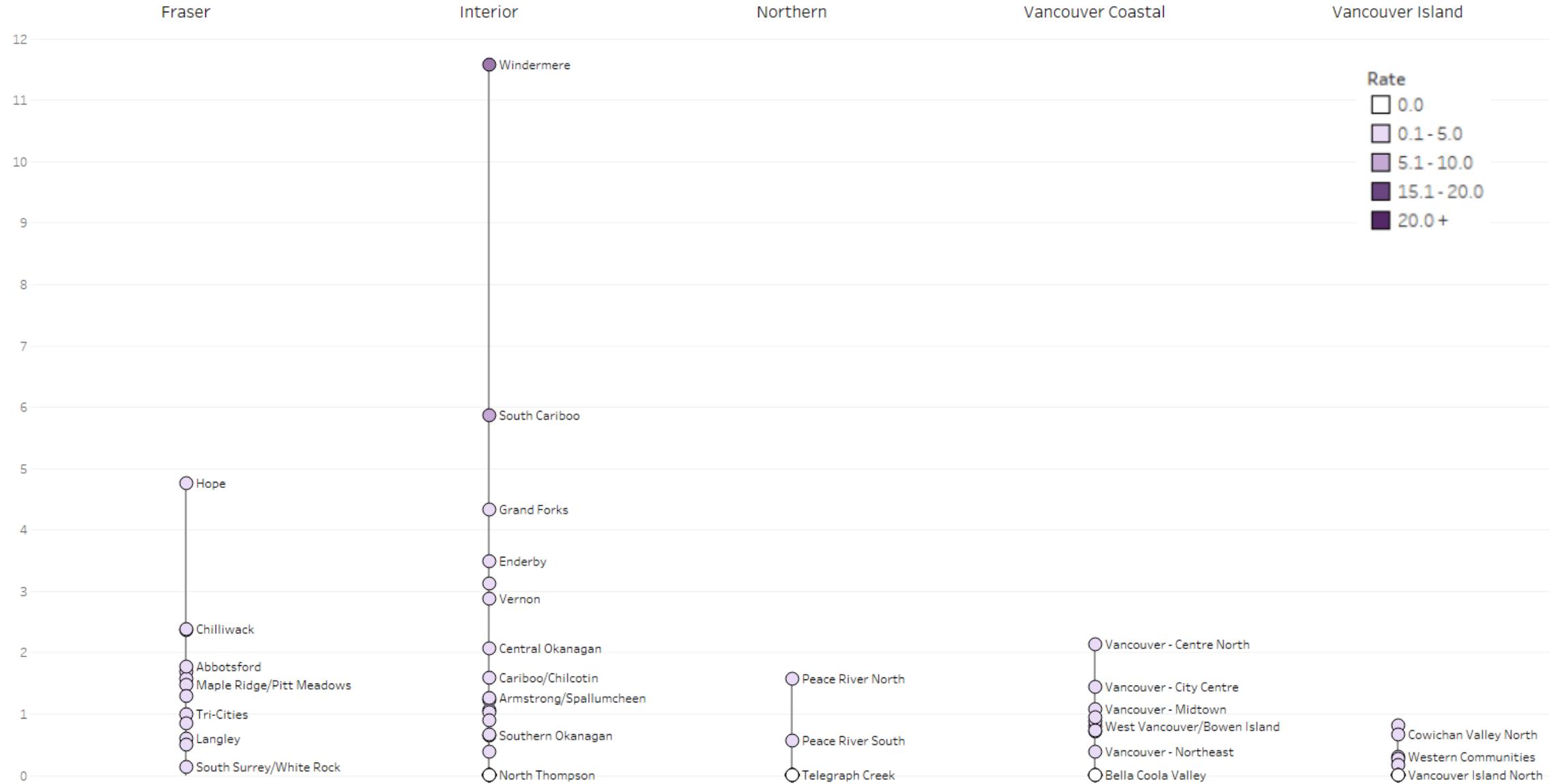


COVID-19 Recent 7-Day Case Incidence Rates by CHSA (June 23 to 29, 2021)

Total cases by local health area, Jun 23 - Jun 29, 2021

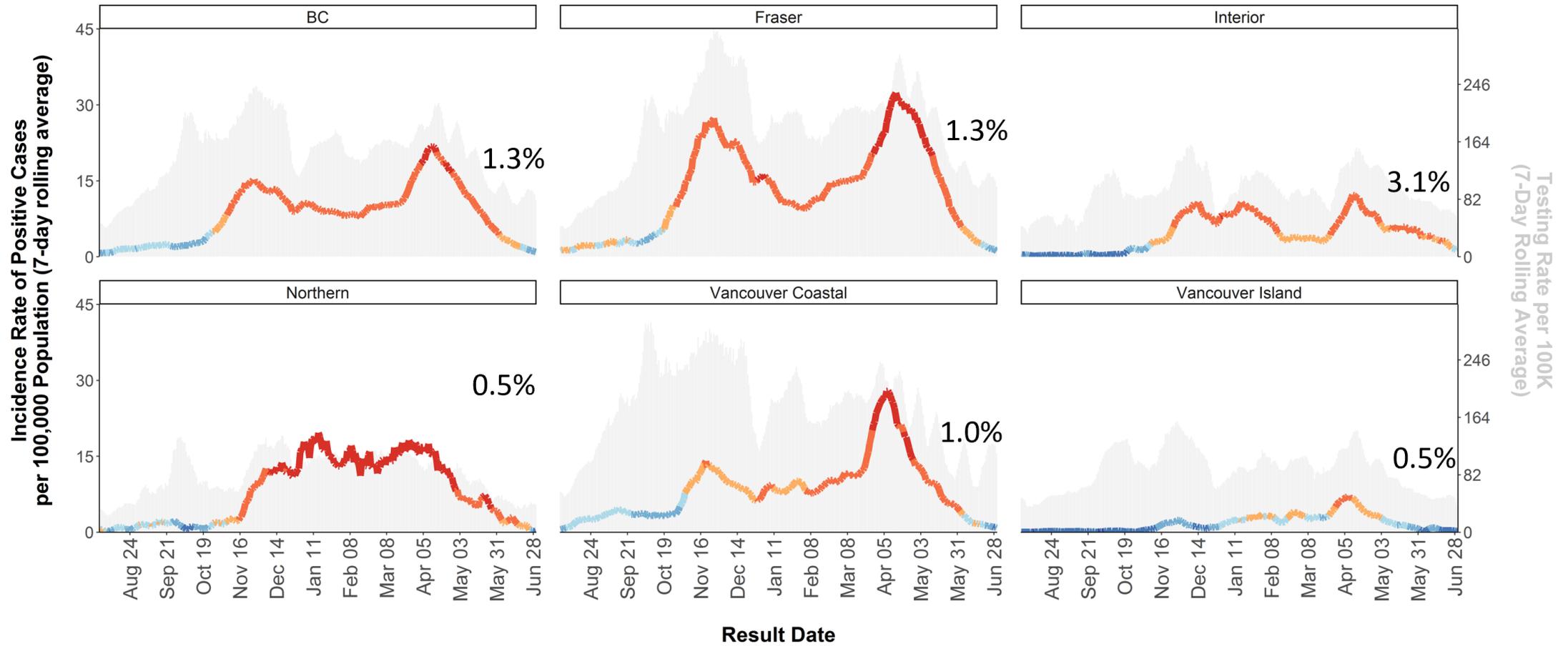


Average daily **rate** of new cases per 100,000 population, by local health area, Jun 23 - Jun 29, 2021



# Case incidence decreasing in all HAs. Percent positivity low in all HAs.

Case incidence rate, test percent positivity, and testing rate (Public Payers Only). Aug 1 2020 - Jun 30, 2021.



7-Day Rolling Average Percent Positivity

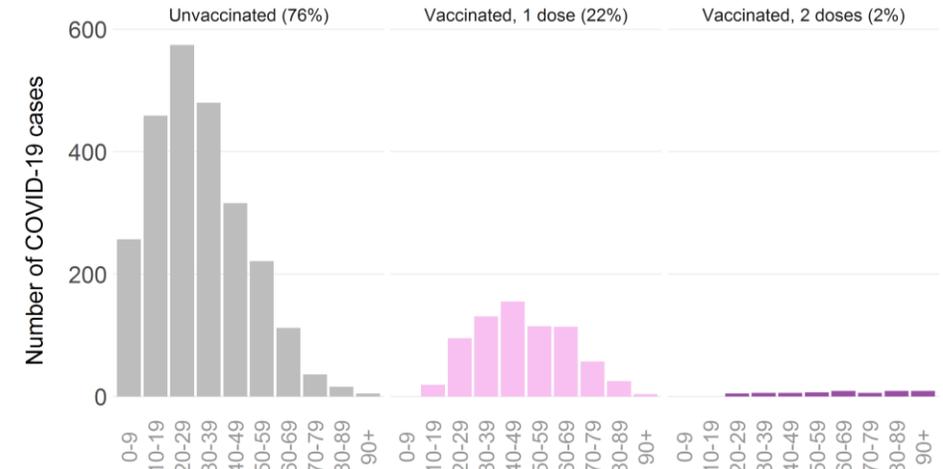
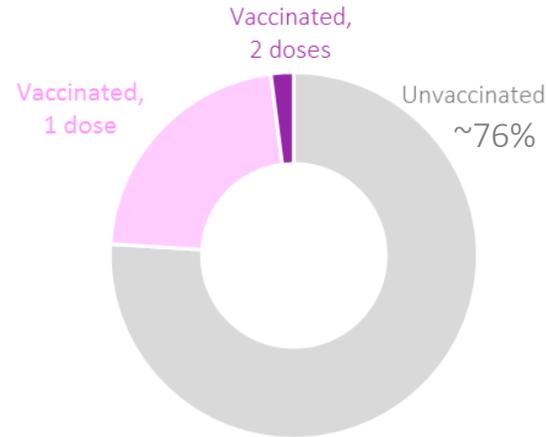
- <0.1%
- 0.1% to <1%
- 1% to <2%
- 2% to <3%
- 3% to <5%
- 5% to <10%
- 10% to <20%

Data source: PLOVER 30-Jun-2021

The majority (~76%) of BC cases in June were among younger unvaccinated individuals.  
 (Also note the change in vaccine coverage in the general population during this time period.)

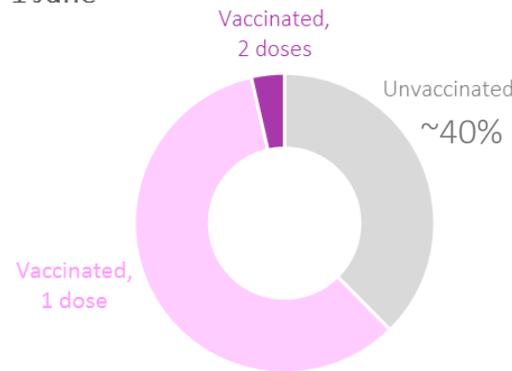
Vaccination status among COVID-19 cases in BC, June 2021

Cases, June

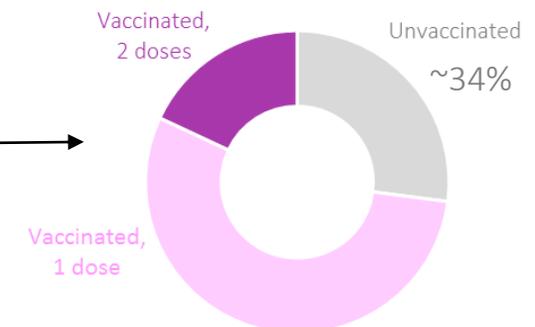


Vaccination coverage progress in BC population, June 2021

Population, 1 June

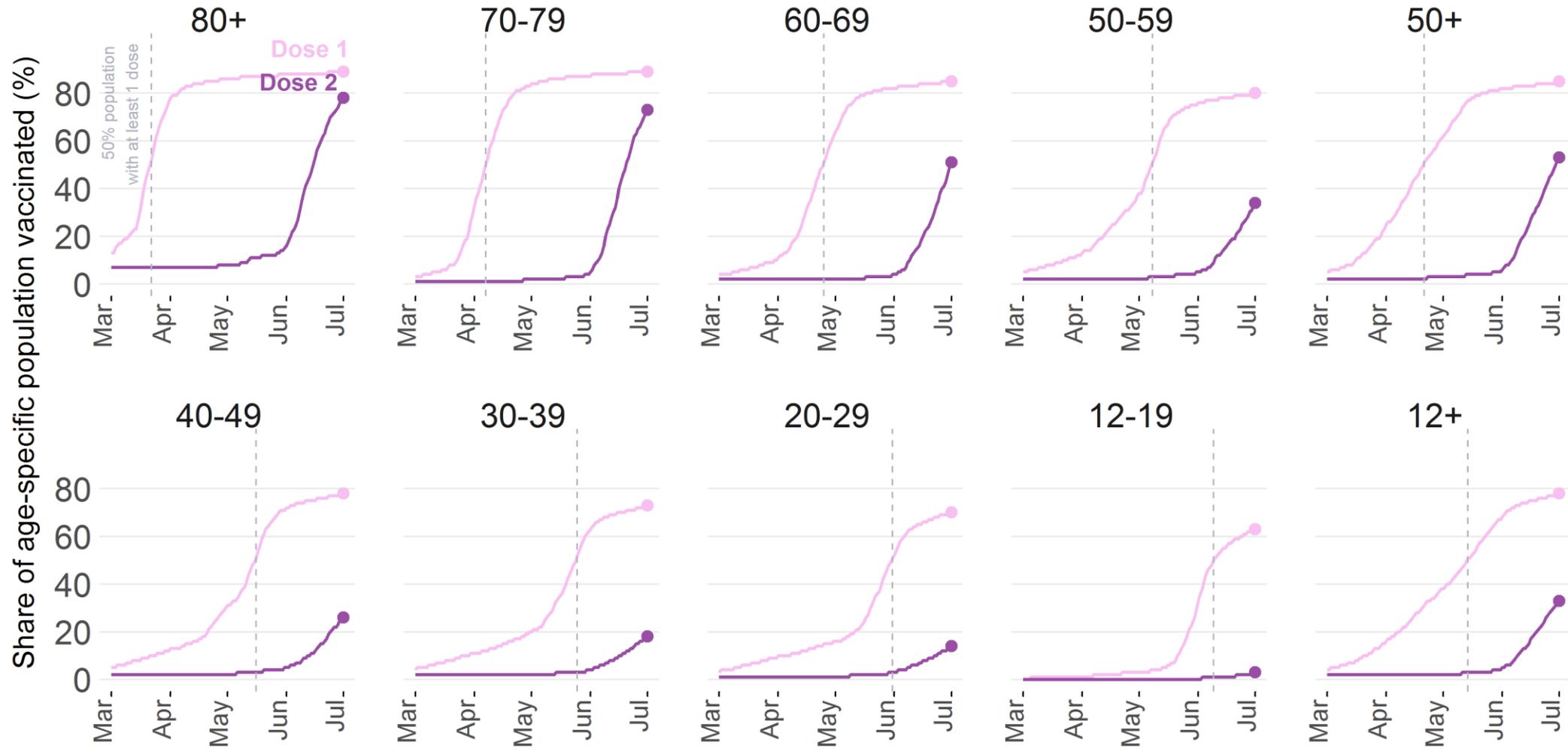


Population, 30 June



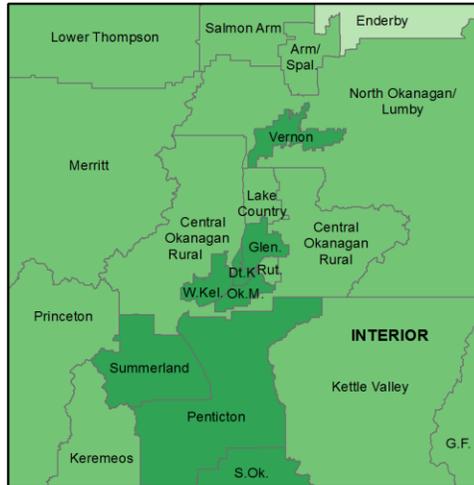
Data Source: Provincial Immunization Registry, PHSA  
 Case data from regional health authority case line list  
 Cases identified based on lab-result date for confirmed cases and report date for epi-linked cases  
 Vaccinated (1st dose) defined as lab result date or reported date >= 21 days after first dose  
 Vaccinated (2nd dose) defined as lab result date or reported date >= 7 days after second dose

**Vaccine coverage in BC by age, July 2<sup>nd</sup> : >75% of 12+ have received first dose; ~1 in 2 adults 50+ and 1 in 3 individuals 12+ have received their 2<sup>nd</sup> dose.**

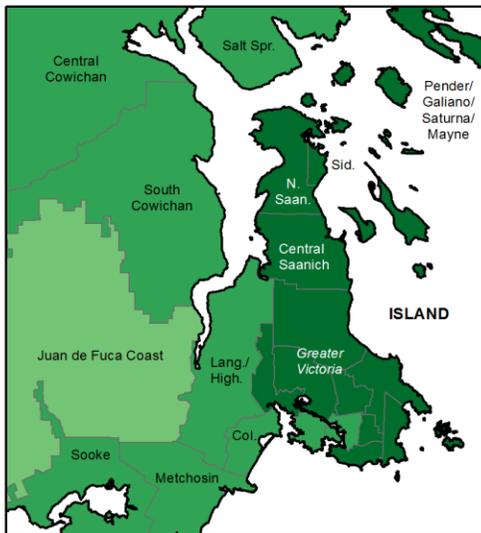


Data updated 2021-07-02  
Data Source: Provincial Immunization Registry, PHSA

Okanagan Inset  
(Community Health Service Areas)

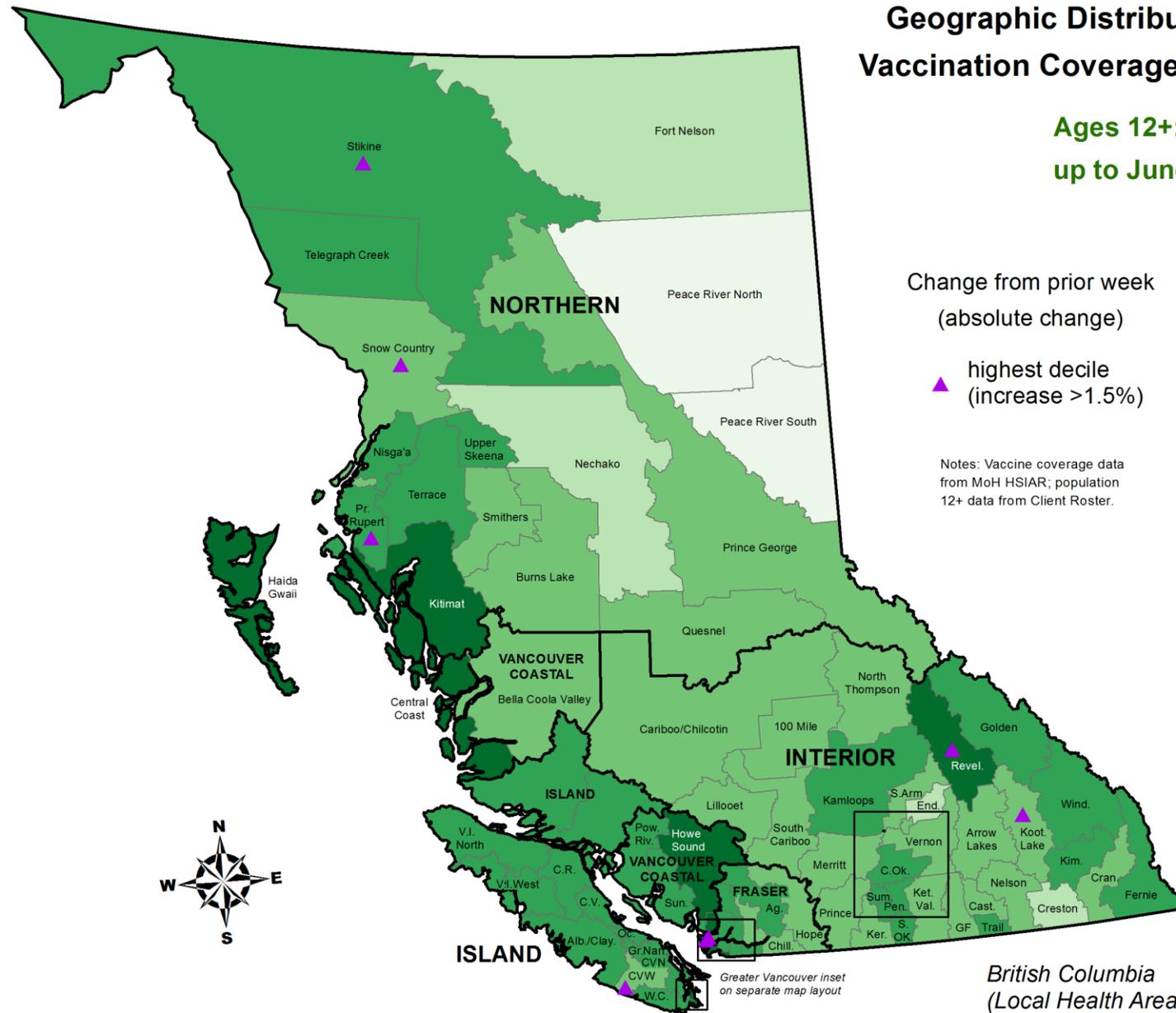


Greater Victoria Inset  
(Community Health Service Areas)



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

**Ages 12+: 1st Dose  
up to June 28, 2021**



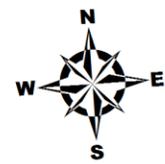
Change from prior week  
(absolute change)

▲ highest decile  
(increase >1.5%)

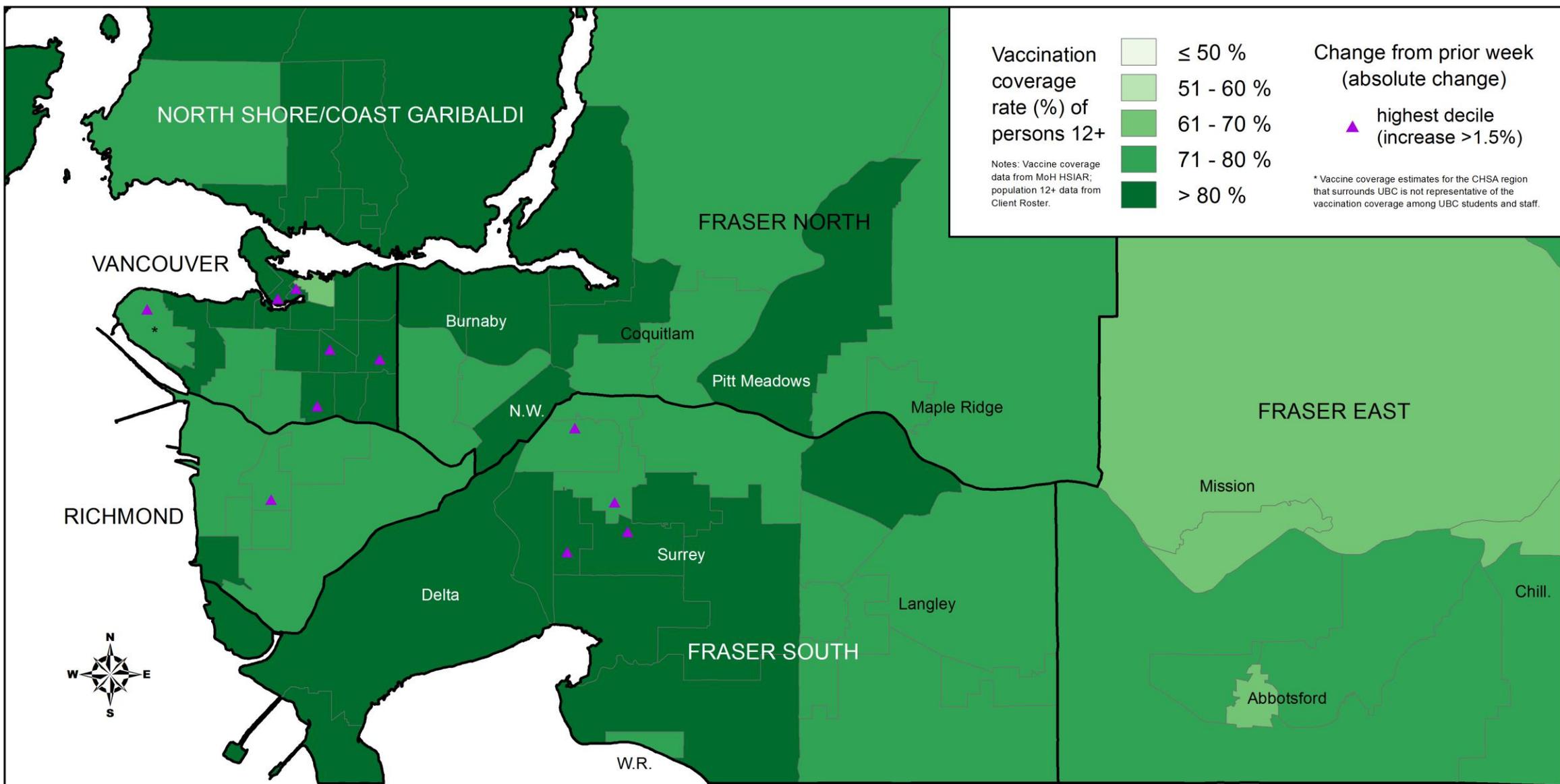
Notes: Vaccine coverage data  
from MoH HSIAR; population  
12+ data from Client Roster.

Vaccination coverage  
rate (%) of persons 12+

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

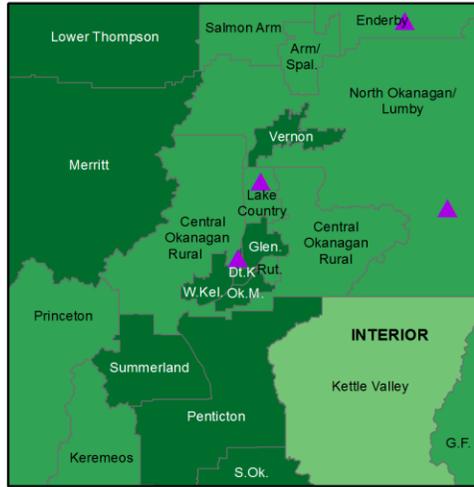


British Columbia  
(Local Health Areas)

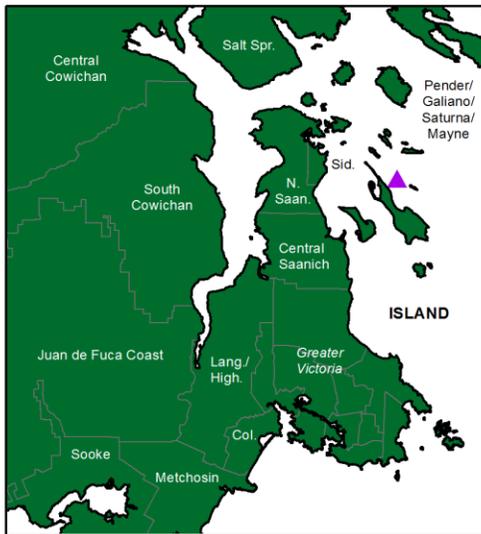


COVID-19 Vaccination Coverage by CHSA: Ages 12+ 1st Dose (up to June 28, 2021)

Okanagan Inset  
(Community Health Service Areas)

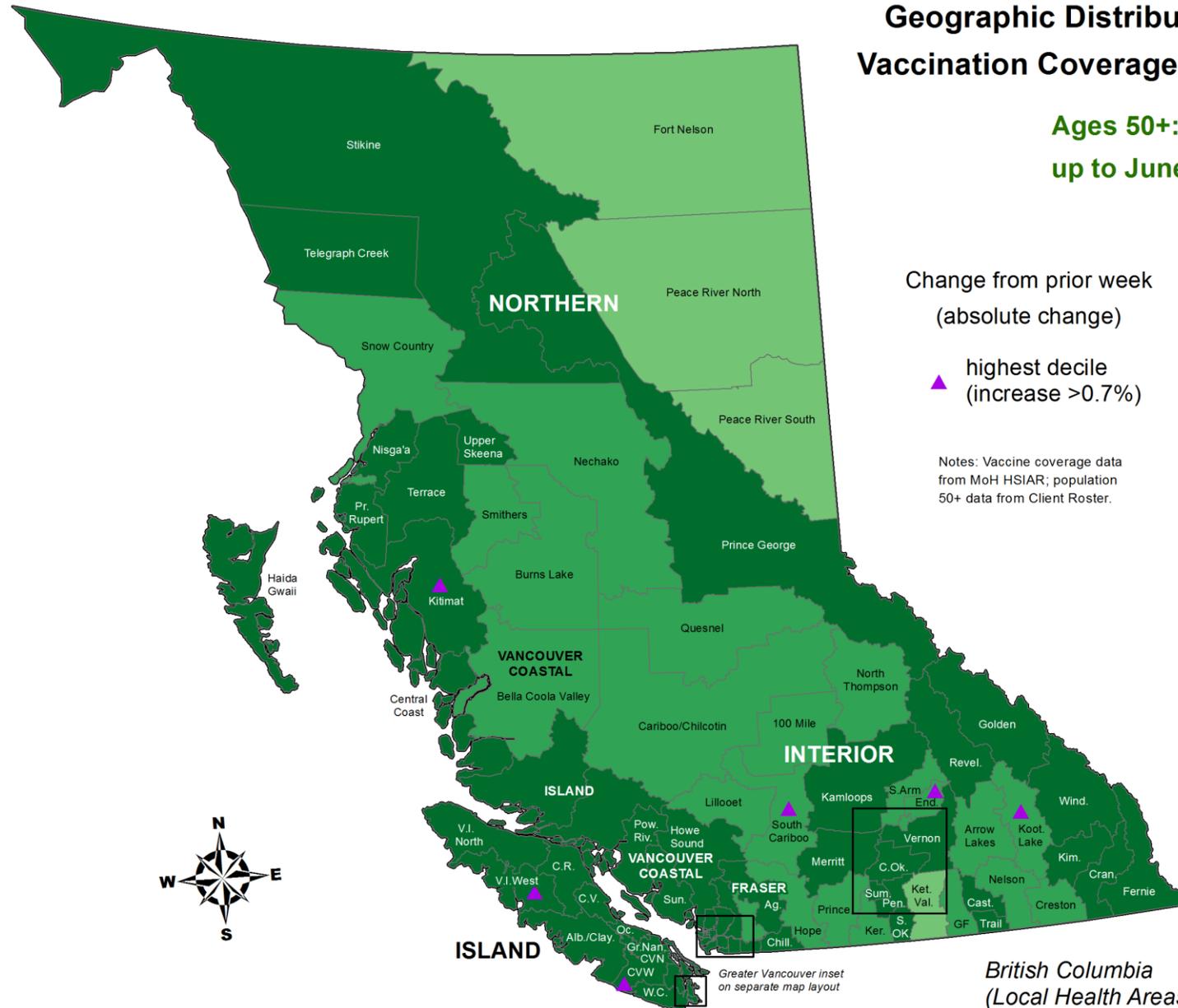


Greater Victoria Inset  
(Community Health Service Areas)



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

**Ages 50+: 1st Dose  
up to June 28, 2021**

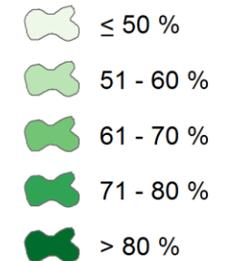


Change from prior week  
(absolute change)

▲ highest decile  
(increase >0.7%)

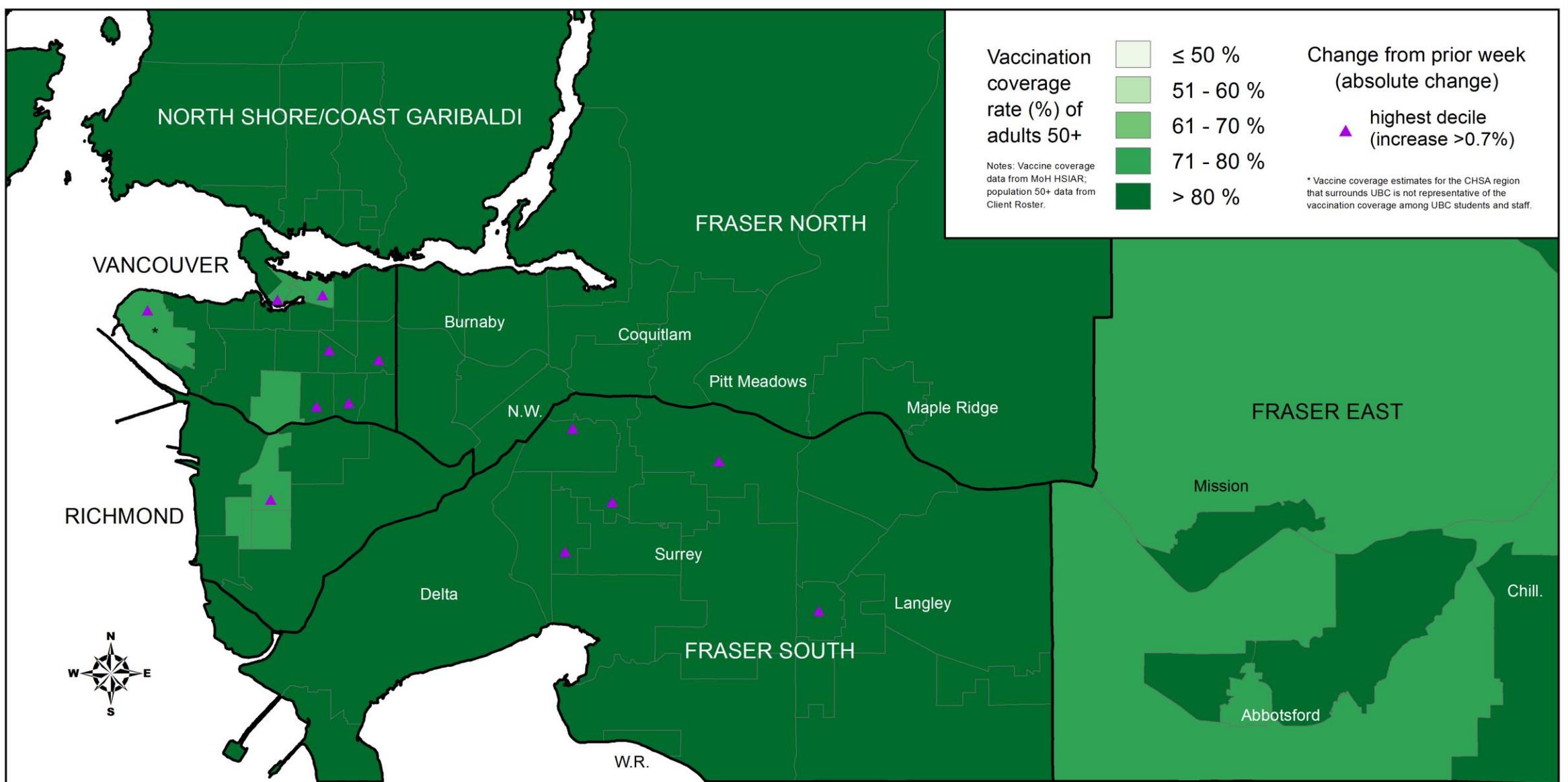
Notes: Vaccine coverage data  
from MoH HSIAR; population  
50+ data from Client Roster.

Vaccination coverage  
rate (%) of adults 50+



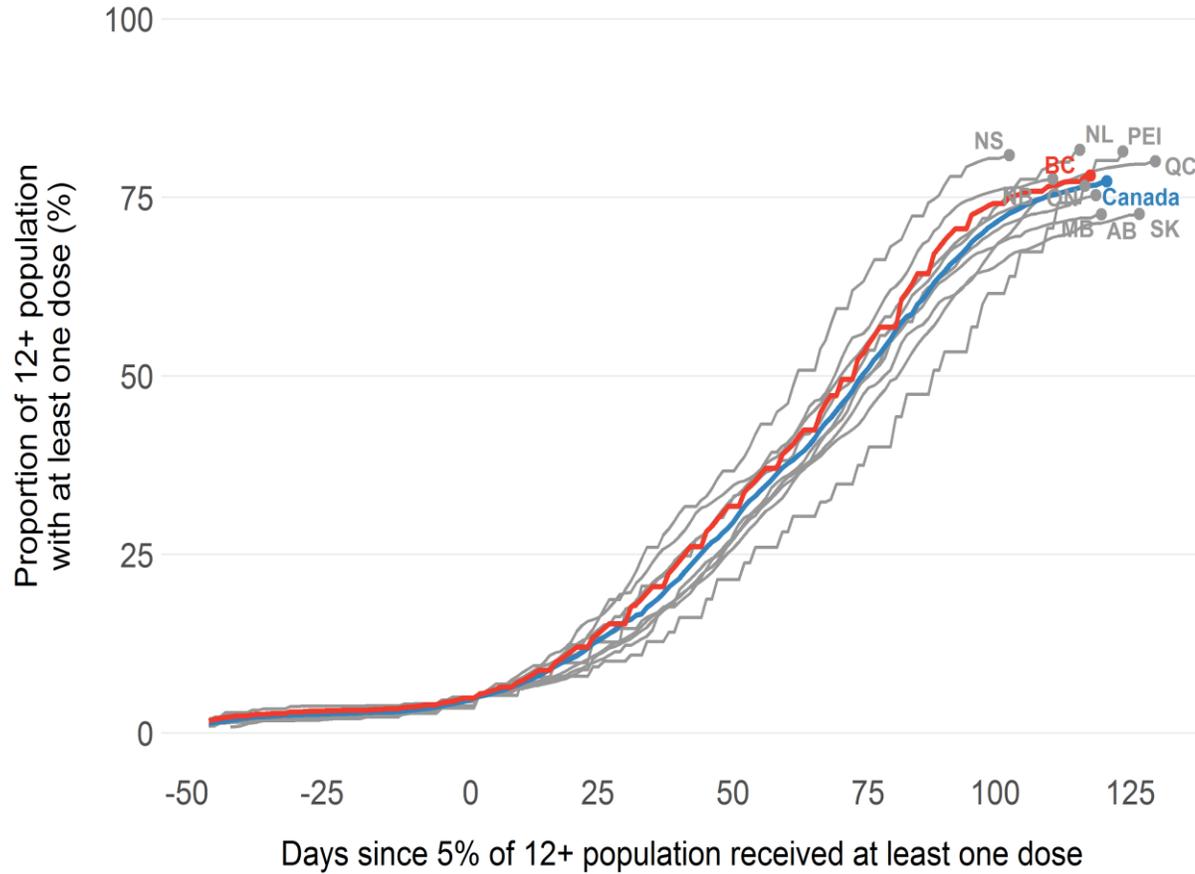
Greater Vancouver inset  
on separate map layout

British Columbia  
(Local Health Areas)

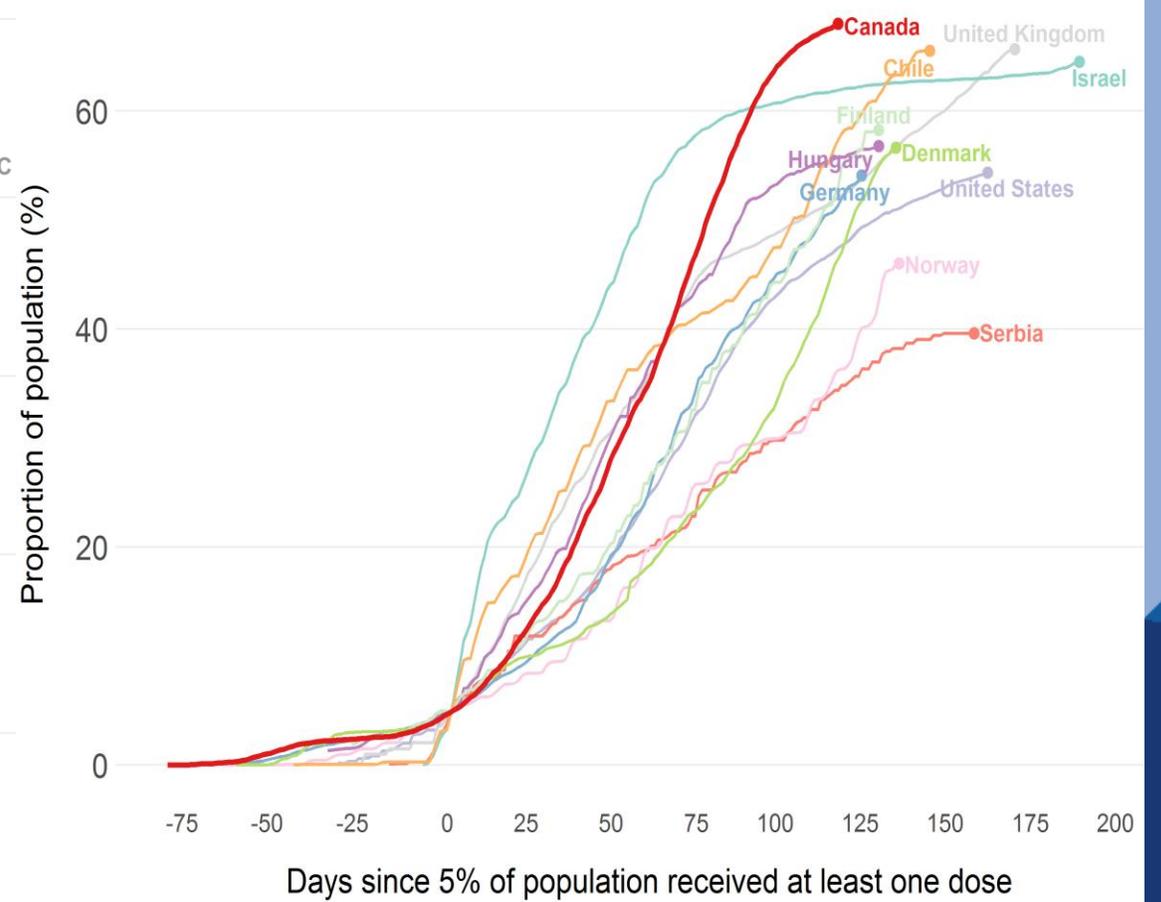


COVID-19 Vaccination Coverage by CHSA: Ages 50+ 1st Dose (up to June 28, 2021)

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 from COVID-19 Canada Open Data Working Group and extracted 2021-06-30  
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 2021-06-30

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

For latest vaccination progress statistics in Canada and internationally, see the [Epi App](#)

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

# Lab - Key Messages

- **Percent positivity** among publicly funded tests is ~1% in BC.
  - Test positivity is low in all HAs, ranging from 0.5% in VIHA/NH to 3.1% in IH.
  - Percent positivity is <3% in all age groups.
- Testing rates decreased 19% this week (~28,000 total tests June 20 to June 26)
- The provincial weekly median **turnaround time** (time from specimen collection to lab result) is 20 hours, indicating good testing capacity; only 1 in 4 tests took  $\geq 24$  hours to result.
- The share of **VOCs** among all positive tests in BC is ~92% from June 20 to 26.
- Sequencing-based VOC prevalence for June 20 to 26 shows distribution of lineages: P.1 (Gamma) ~50%, B.1.1.7 (Alpha)~36% and B.1.617.2 (Delta) ~14%.

## Weekly Summary of ALL lab tests performed

<b>2,915,117</b>	total specimens tested
<b>28,337</b>	new this epi week
<b>155,663</b>	total positive specimens
<b>266</b>	new positive this epi week
<b>21 hr</b>	mean turnaround time (TAT)
<b>20 [9-24]</b>	Median [Q1 – Q3] TAT

↓ **19%** relative to last week

↓ **0.9%** positivity  
↓ **0.5%** absolute change from last week

↑ **24%** TAT relative to last week

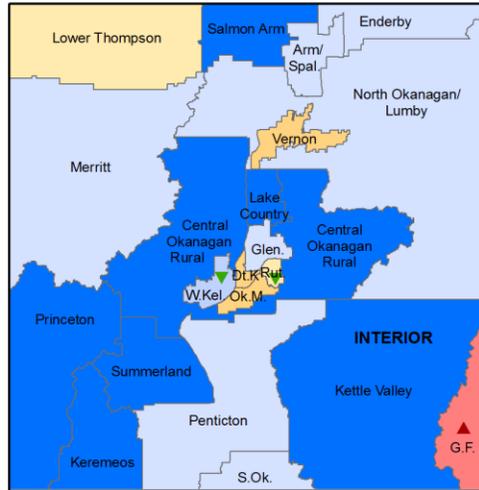
## Weekly Summary of Lab tests paid Publicly

<b>2,836,924</b>	total specimens tested
<b>24,233</b>	new this epi week
<b>155,345</b>	total positive specimens
<b>262</b>	new positive this epi week

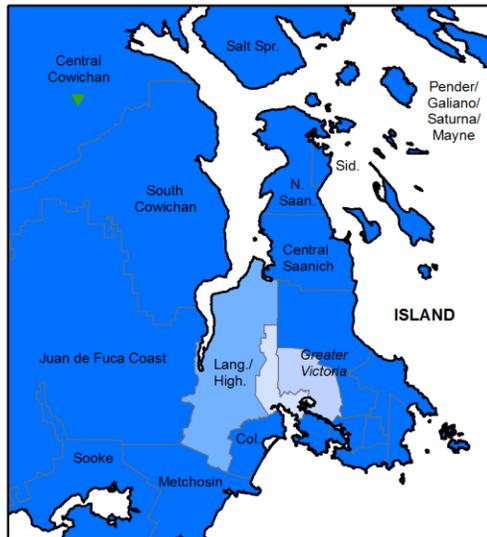
↓ **31%** relative to last week

↓ **1.1%** positivity  
↓ **0.4%** absolute change from last week

Okanagan Inset  
(Community Health Service Areas)

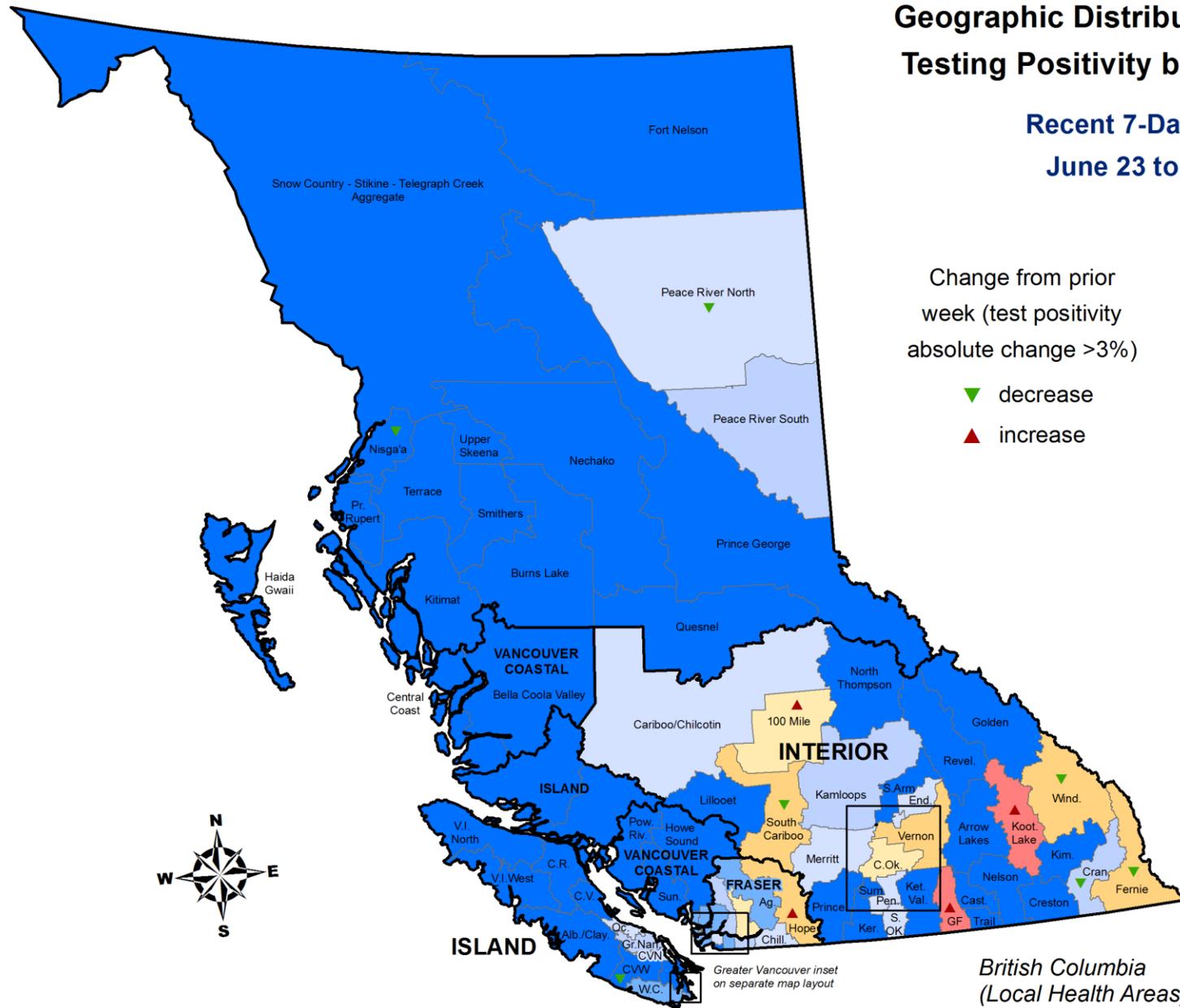


Greater Victoria Inset  
(Community Health Service Areas)



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

Recent 7-Days Testing  
June 23 to 29, 2021



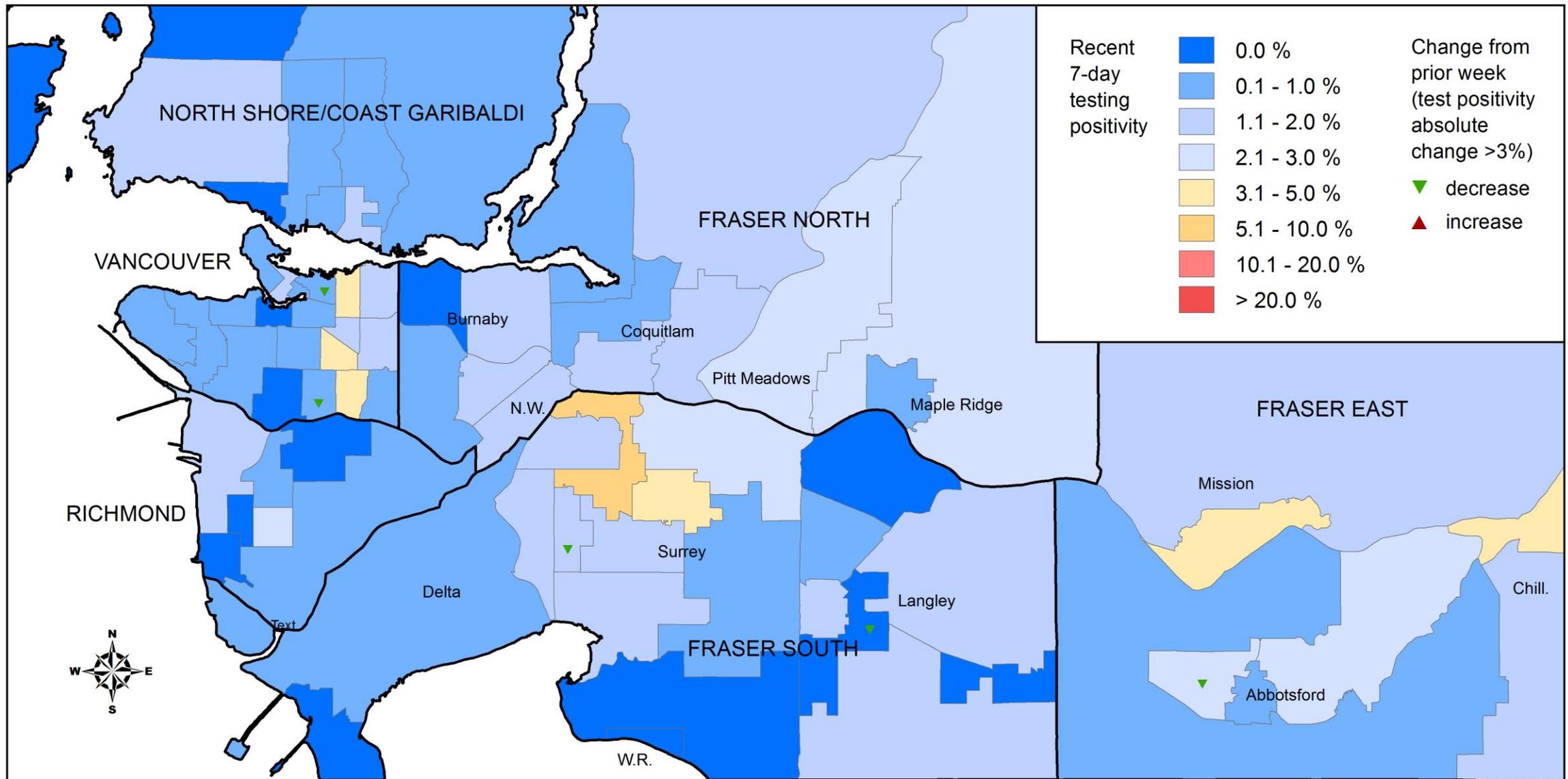
Change from prior week (test positivity absolute change >3%)

- ▼ 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.

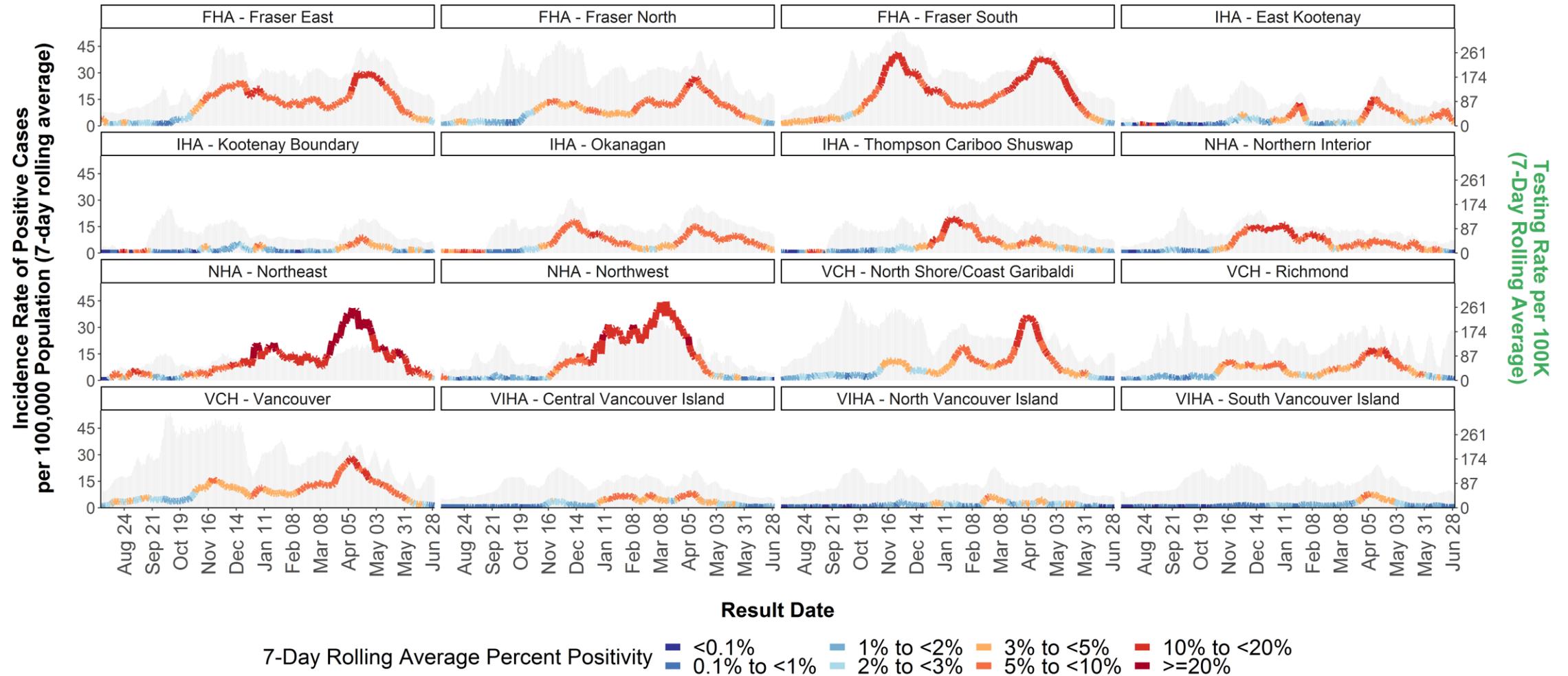


COVID-19 Recent 7-Day Test Positivity by CHSA (June 23 to 29, 2021)

Includes all tests

# Incidence is stable and low in all HSDAs; positivity is <3% in all regions except East Kootenay and Okanagan where it is between 3 and 5%.

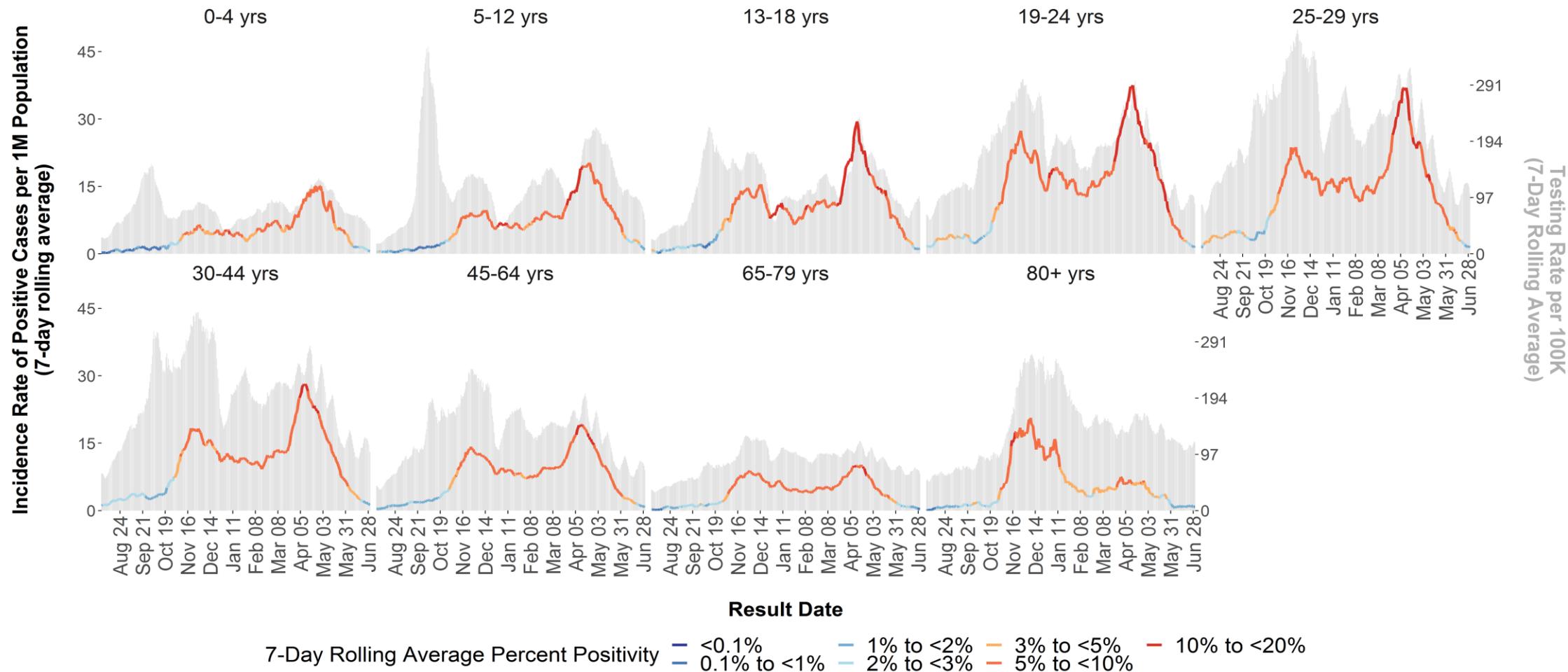
Case incidence rate, test percent positivity, and testing rate by HSDA (Public Payers Only).  
Aug 1 2020 - Jun 30, 2021.



Data source: PLOVER 30-Jun-2021

# Incidence continues to decline in all age groups; percent positivity is $\leq 3\%$ in all age groups.

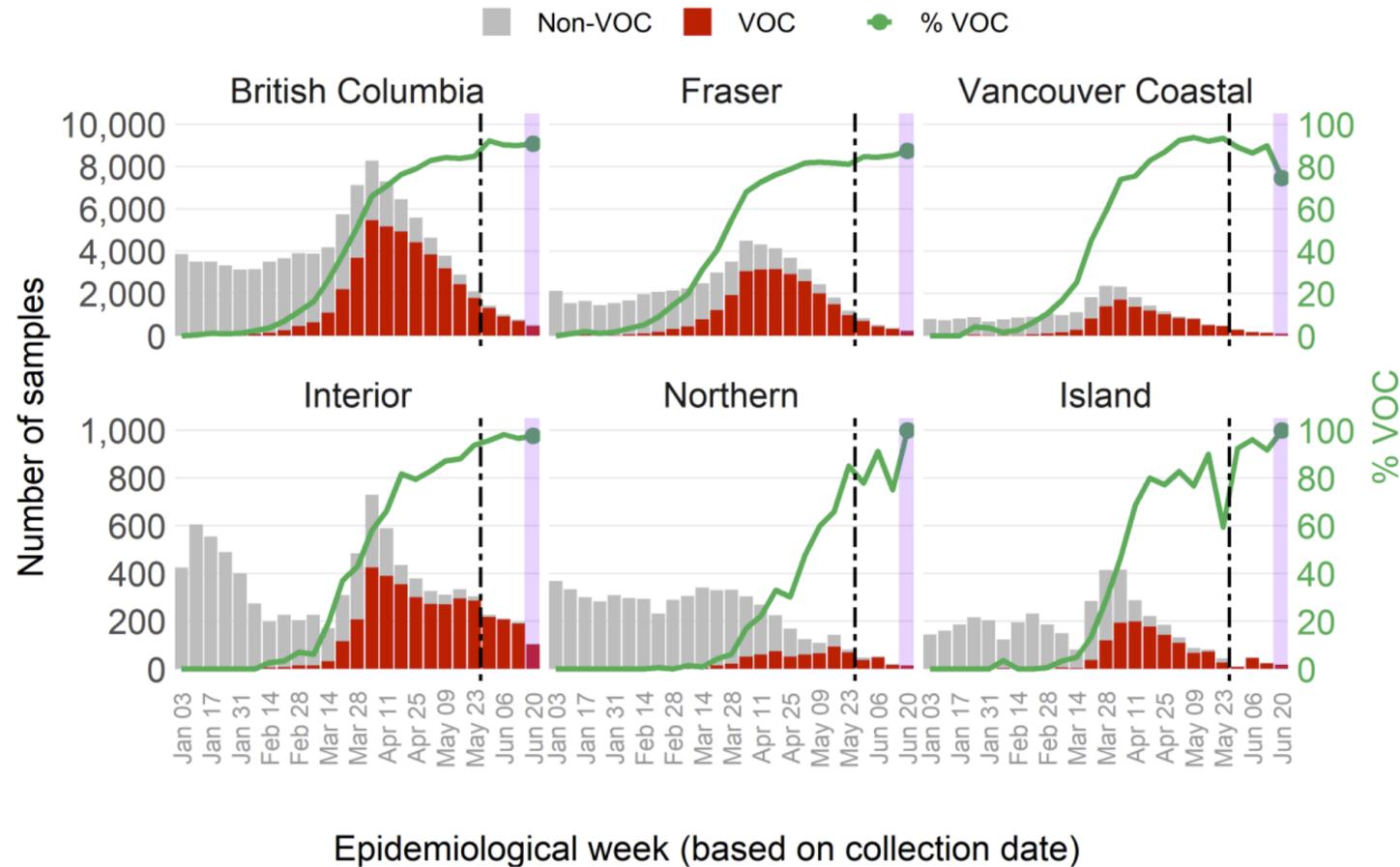
Case incidence rate, test percent positivity, and testing rate by age (Public Payers Only). Aug 1 2020 - Jun 30, 2021.



Data source: PLOVER 30-Jun-2021

The majority of COVID-19 positive samples are VOCs (~92%); but the absolute number of VOC samples is small.

Prevalence of presumptive VOC, by epi week in BC and Health Authorities, Jun 20-26, 2021



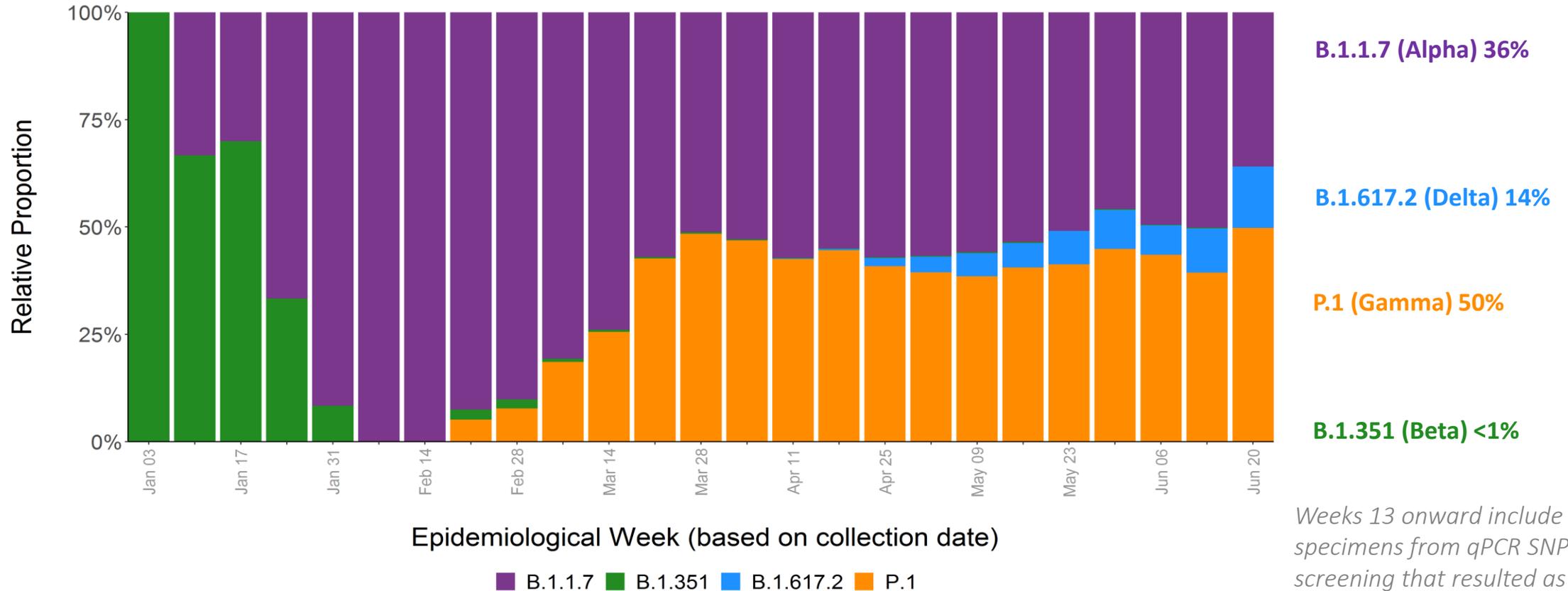
Shaded area reflects partial data and is subject to change

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 June 13-19, P.1 (~50%) and B.1.1.7 (~36%) remain two dominant VOCs. B.1.617 increasing, currently represents ~14% of VOCs.

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

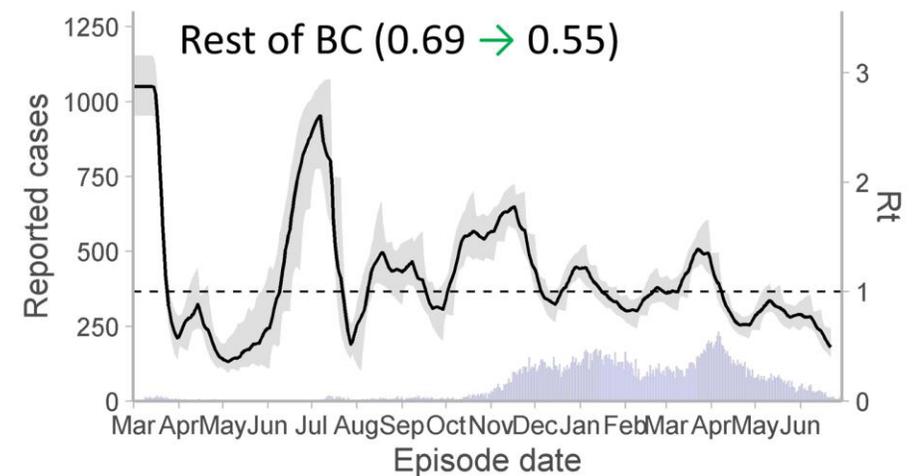
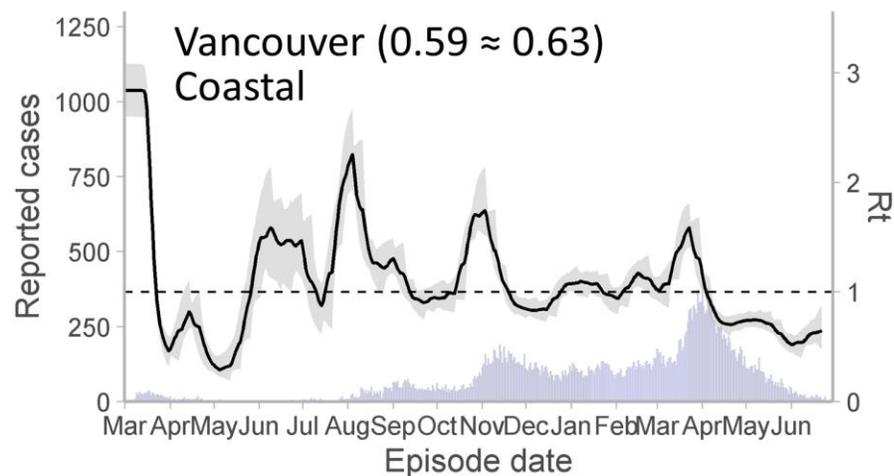
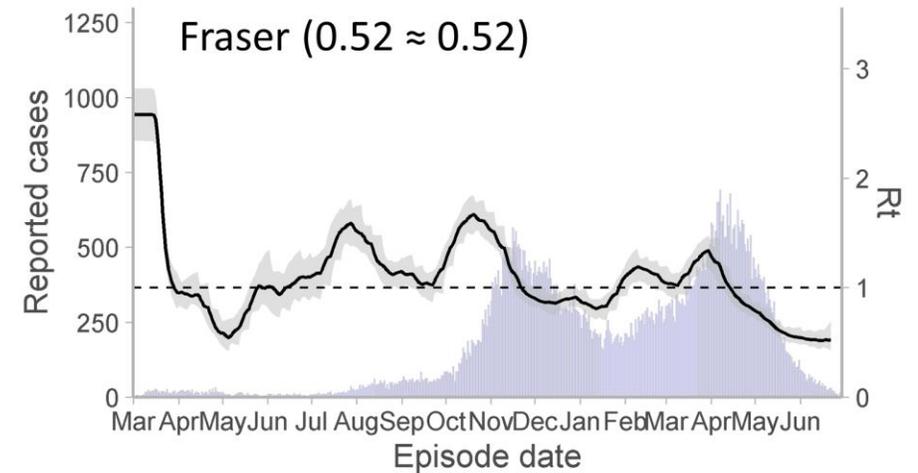
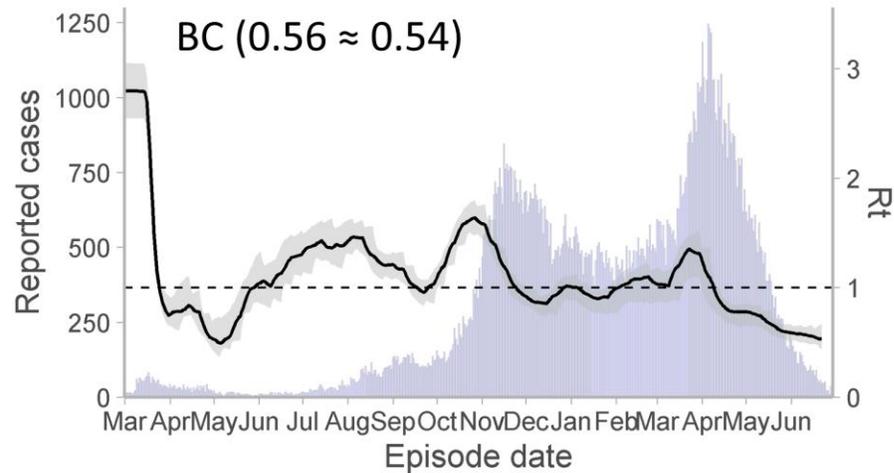


\* the B.1.1.7 and P.1 VoC lineages are captured either by qPCR SNP screen or WGS for randomly selected samples up to epiweek 21; all other circulating VoCs are WGS confirmed and exclude samples sequenced for cluster and/outbreak investigation. In week 12, we used a qPCR SNP that is comprised of a dual 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.

# Dynamic compartmental modeling: recent trends

Our model shows that  $R_t$  remains below 1 and is stable across BC



Solid black line: median  $R_t$ , modeled using all reported cases up to June 29, 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.

# 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](#)