

# **COVID-19: Monthly Update**

February 5, 2021



Stay Informed Via These Resources:

[gov.bc.ca/Covid-19](https://gov.bc.ca/Covid-19) | [bccdc.ca](https://bccdc.ca) | 1-888-COVID19

Symptom Self-Assessment:

[covid19.thrive.health](https://covid19.thrive.health)



**BRITISH  
COLUMBIA**

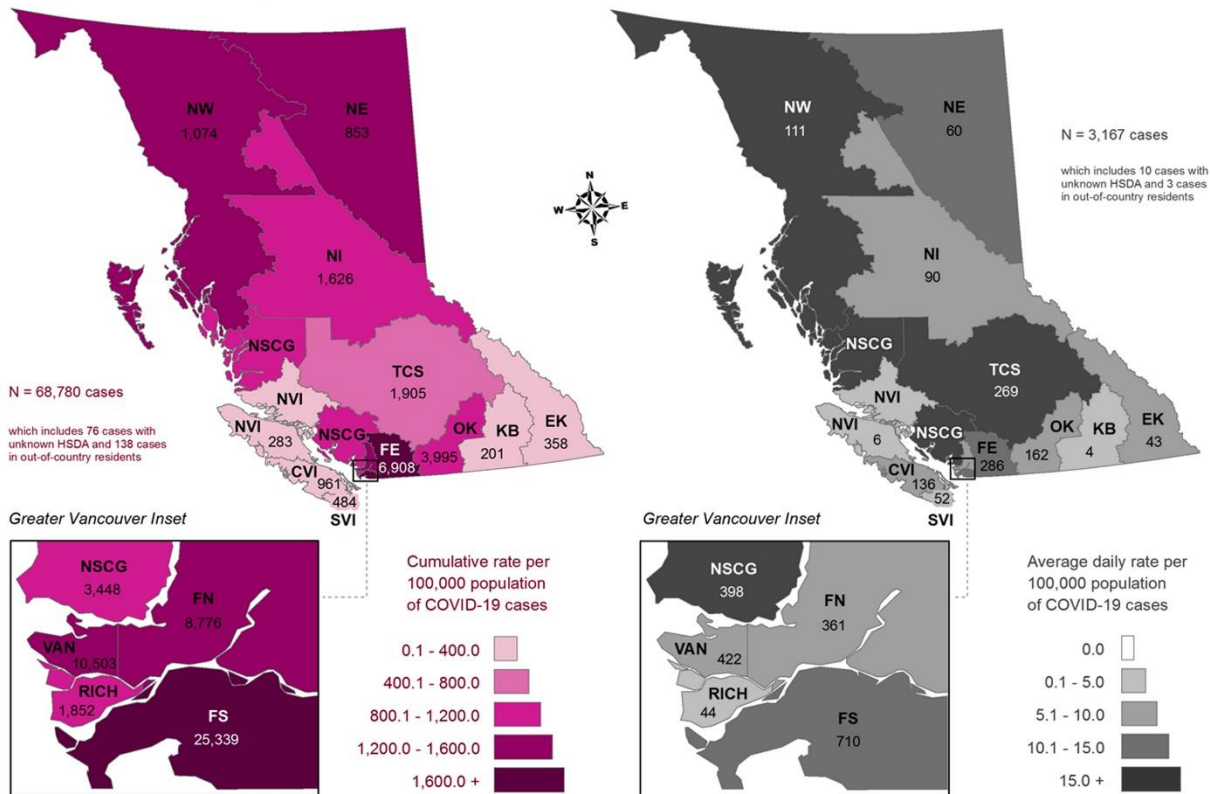
# Epidemiology

*How and Where the Virus Has  
Affected People in BC*

# Geographic Distribution of COVID-19 by Health Service Delivery Area of Case Residence

Cumulative total: cases reported Jan 1, 2020 to Jan 30, 2021

Past 7 days: cases reported January 24 to 30, 2021

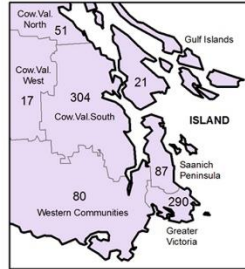


Notes: Cases are mapped by location of residence; cases with unknown residence and from out-of-country are not mapped. Data source: the 5 regional health authorities of British Columbia; we operate in a live database environment and case information from the health authorities are updated as it becomes available. Data may not be directly comparable to published counts from previous maps and reports. How to interpret the maps: The map on the left (blue) illustrates the geographic distribution of all reported cases from January 1, 2020 onwards. The map on the right (brown) illustrates the reported cases during the past 7 days. Health Service Delivery Areas (HSDA) with higher rates per 100,000 population are illustrated in darker colour shading. The number of reported cases appears under each HSDA label. Note that not all COVID-19 infected individuals are tested and reported; the virus may be circulating undetected in the community, including in areas where no cases have been identified by public health. Map created February 3, 2020 by BCCDC for public release.

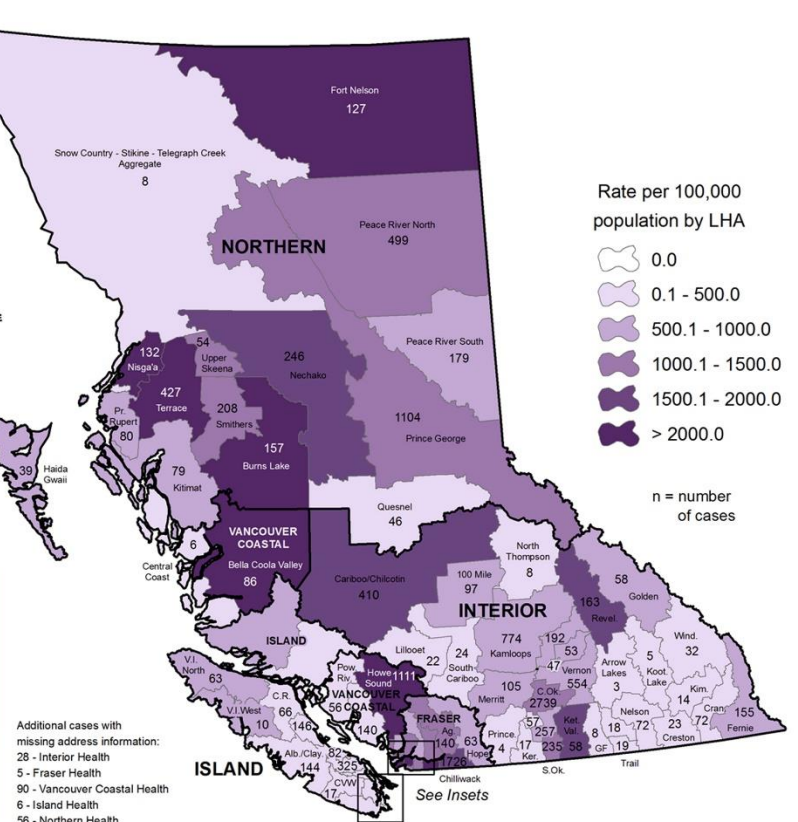
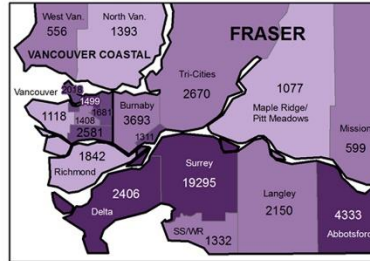
# Geographic Distribution of COVID-19 by Local Health Area of Case Residence

**Cumulative Cases  
January 2020 to January 2021**

*South Vancouver Island Inset*



*Greater Vancouver Inset*

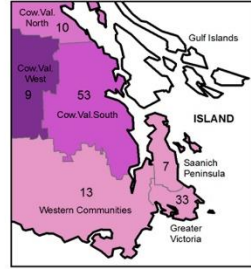


Notes: Cases are mapped by location of residence; cases with unknown residence and from out of province are not mapped. Data source: the 5 regional health authorities of British Columbia; we operate in a live database environment and case information from the health authorities are updated as it becomes available. How to interpret the maps: The map illustrates the geographic distribution of reported cases from January 1, 2020 to January 31, 2021. Local Health Areas (LHA) with higher rates are illustrated in darker colour shading. The number of reported cases appears in each LHA. Note that the number of cases in the LHA may not represent the location of exposure (e.g. people who acquired disease while traveling or working elsewhere), and that not all COVID-19 infected individuals are tested and reported; the virus may be circulating undetected in the community, including in areas where no cases have been identified by public health. Map created February 3, 2021 by BCCDC for public release.

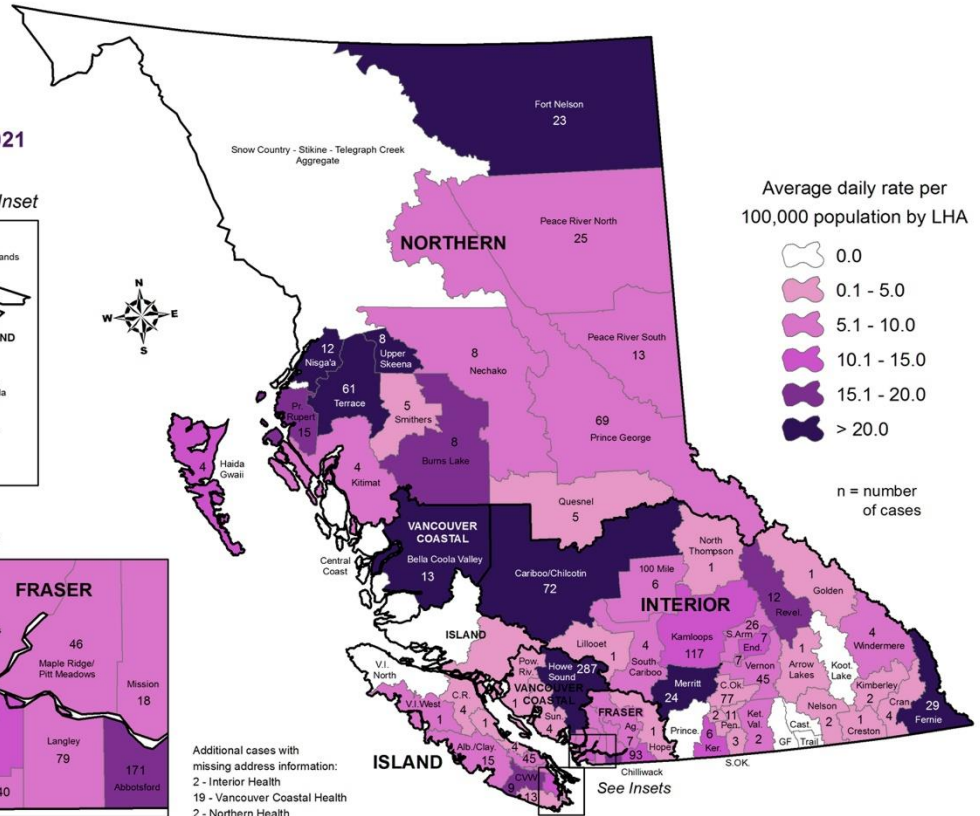
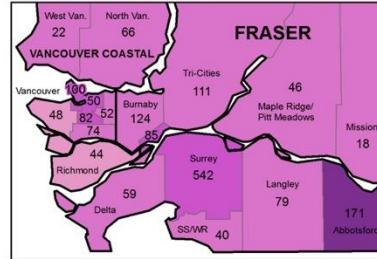
# Geographic Distribution of Cumulative COVID-19 by Local Health Area of Case Residence

Epi-Week 4 Cases  
January 24 to 30, 2021

South Vancouver Island Inset



Greater Vancouver Inset



Additional cases with missing address information:  
2 - Interior Health  
19 - Vancouver Coastal Health  
2 - Northern Health

Notes: Cases are mapped by location of residence; cases with unknown residence and from out of province are not mapped. Data source: the 5 regional health authorities of British Columbia; we operate in a live database environment and case information from the health authorities are updated as it becomes available. How to interpret the maps: The map illustrates the geographic distribution of reported cases for the most recent epidemiological week (from Sunday to Saturday). Local Health Areas (LHA) with higher rates are illustrated in darker colour shading. The number of reported cases appears in each LHA. Note that the number of cases in the LHA may not represent the location of exposure (e.g. people who acquired disease while traveling or working elsewhere), and that not all COVID-19 infected individuals are tested and reported; the virus may be circulating undetected in the community, including in areas where no cases have been identified by public health. Map created February 3, 2021 by BCCDC for public release.

# January 27 to February 3, 2021: Profile of COVID-19 Cases by Date Reported to Public Health



**68,780** total cases  
**3,061** new this week



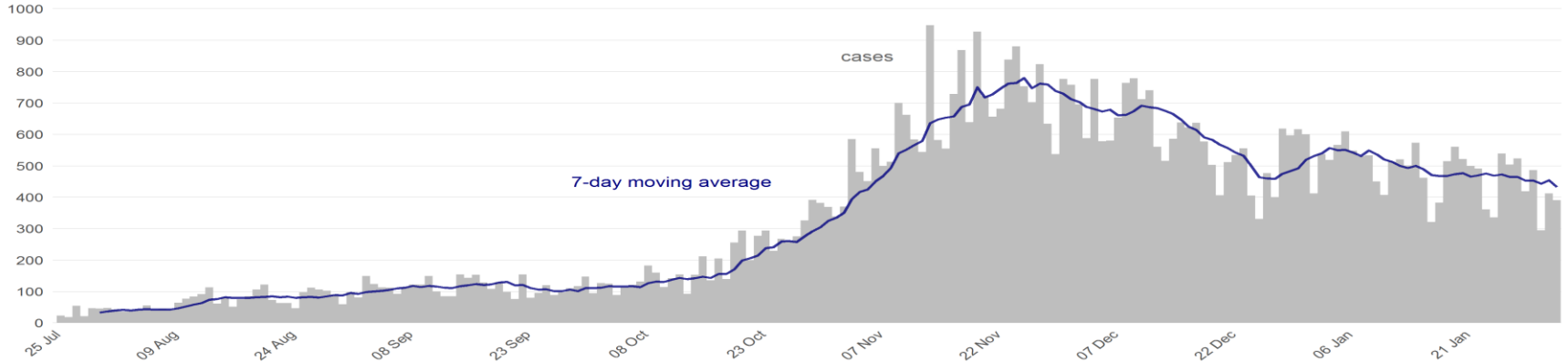
**3,850** ever hospitalized  
**108** new this week



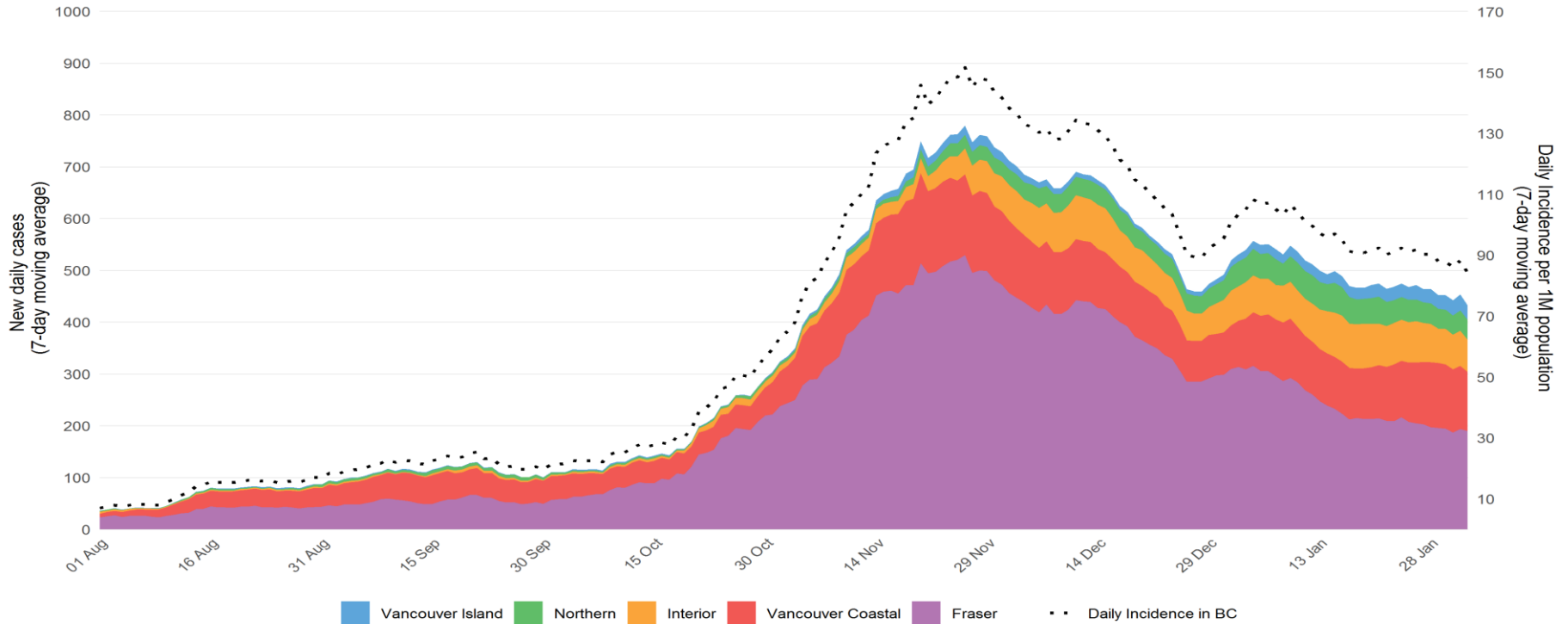
**1,234** deaths  
**62** new this week



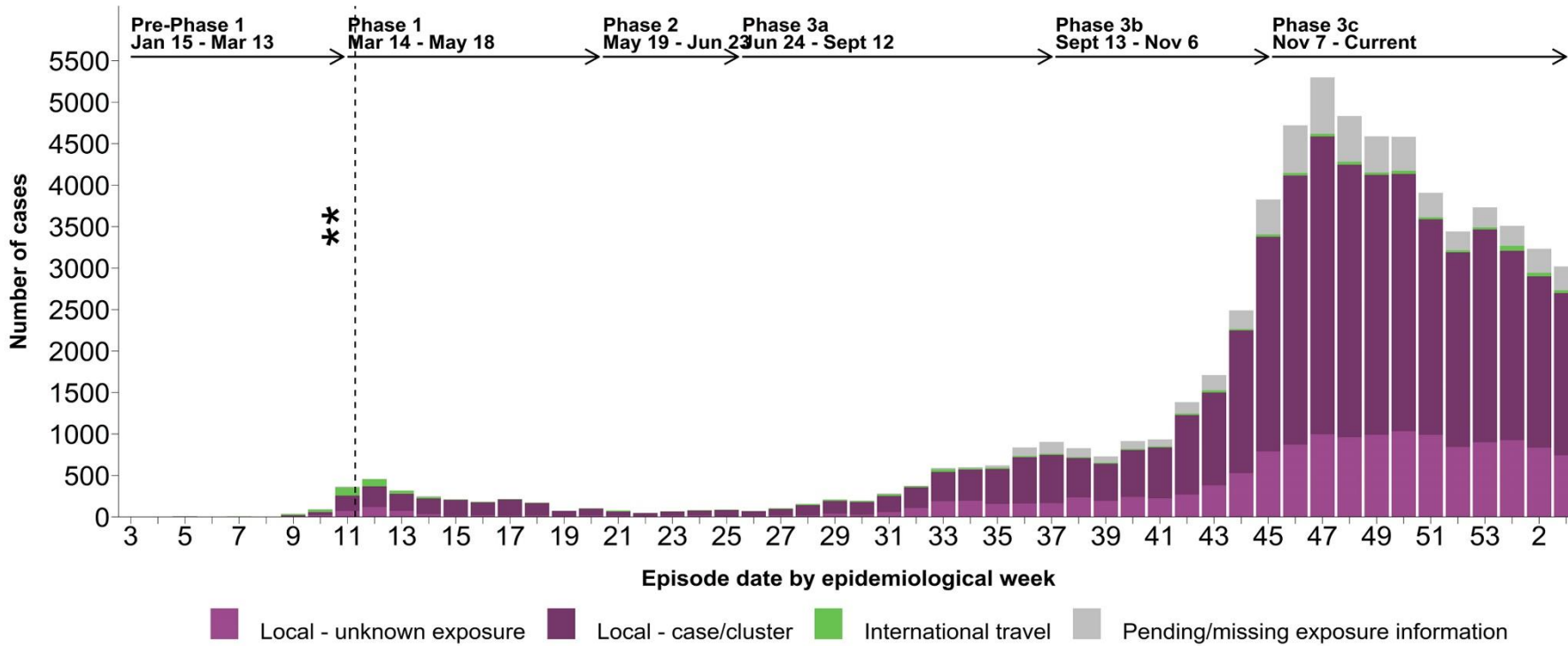
**61,643** removed from isolation  
**2,865** new this week



# Epidemic Curve, COVID-19 Cases in B.C. by Reported Date August 1, 2020 – February 2, 2021

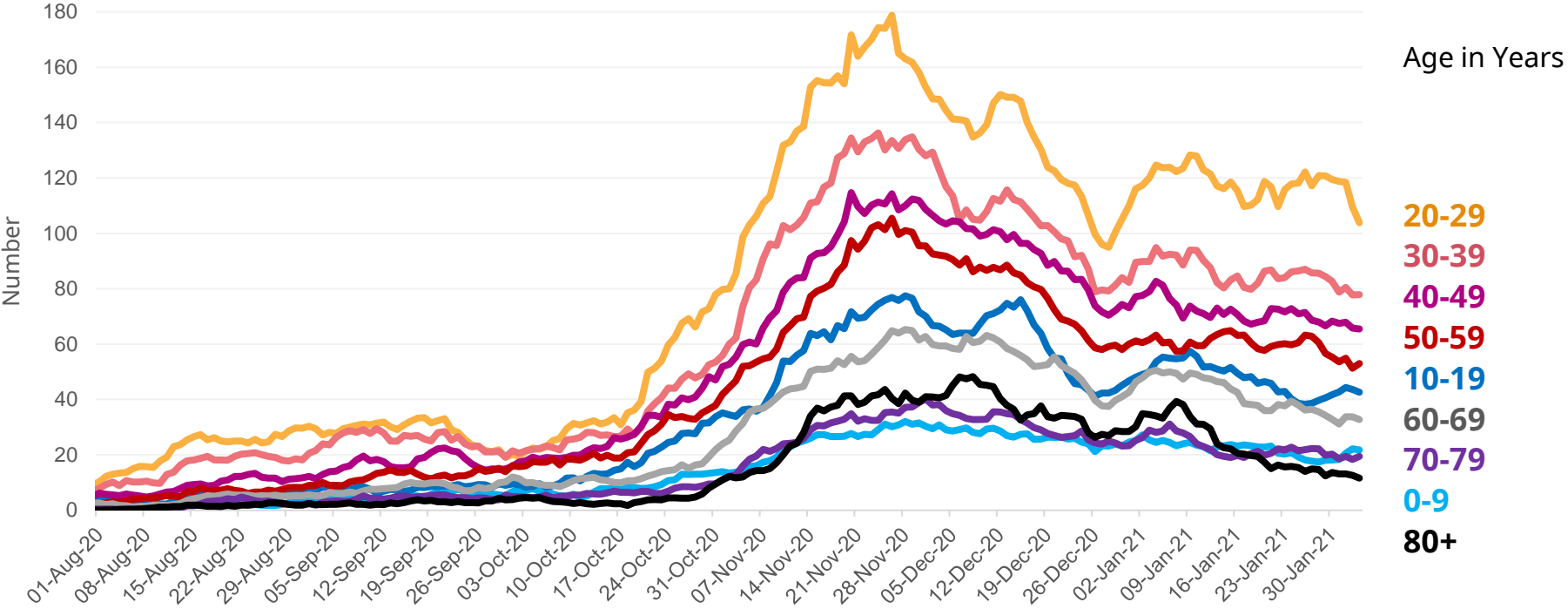


# Likely Source of COVID-19 Infection by Episode Date, BC January 15, 2020 (Week 3) – January 23, 2021 (Week 3)



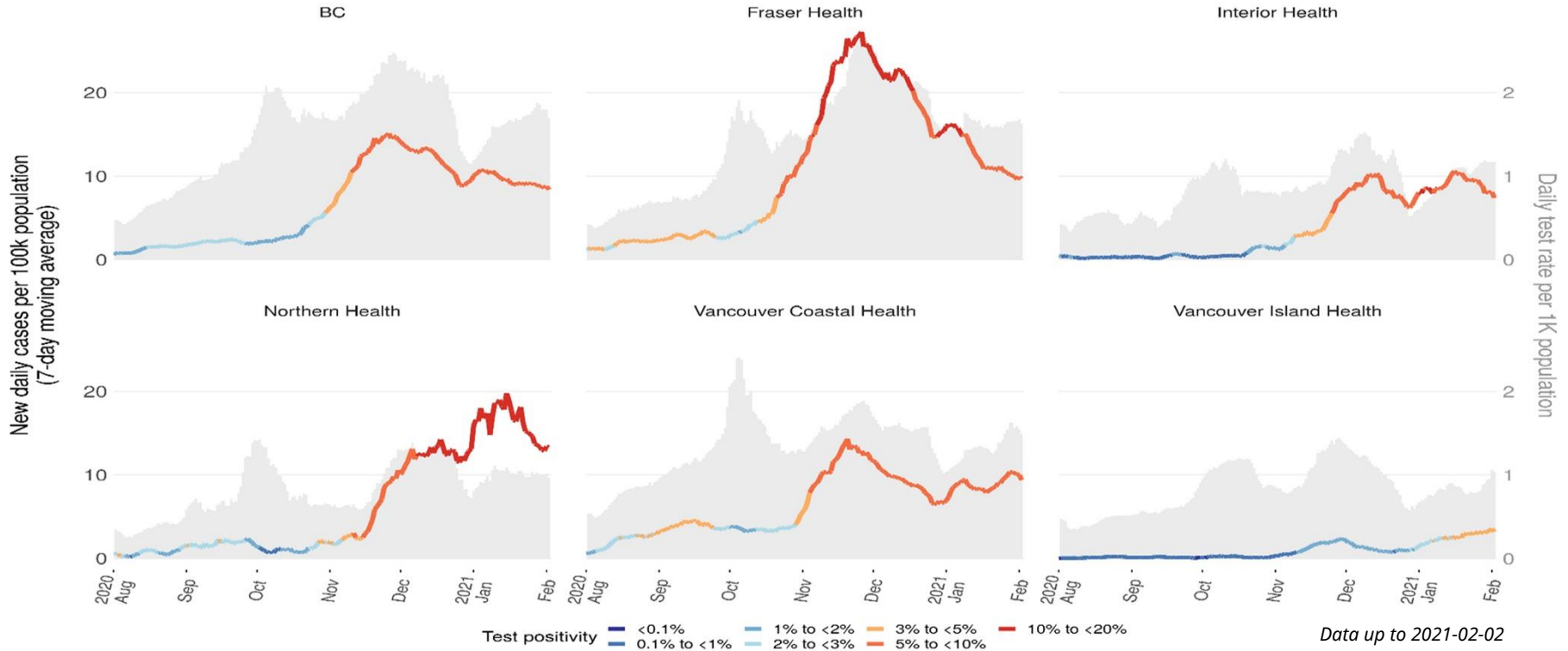


# Daily Case Count by Age August 1, 2020 to February 3, 2021 (7-day Moving Average)\*



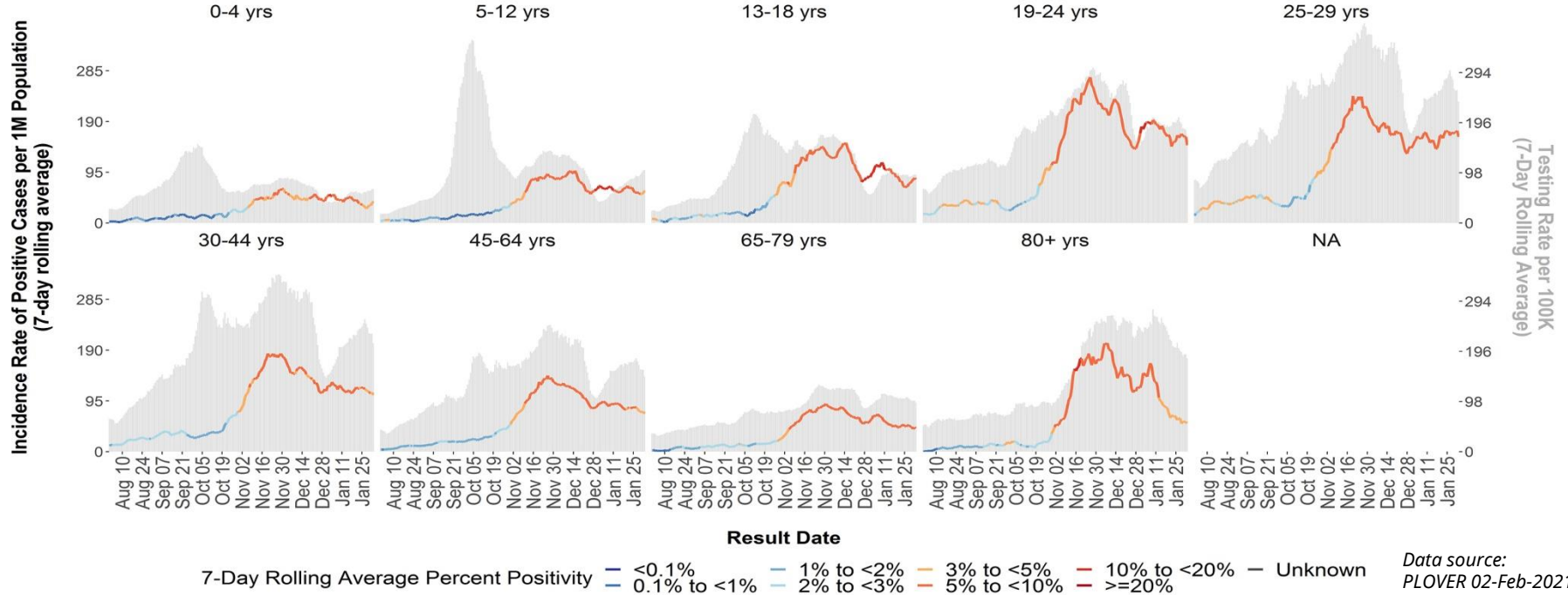
\*Cases by reporting date

# Daily Case Rate, Testing Rate and Percent Positivity by Health Authority August 1, 2020 to February 2, 2021

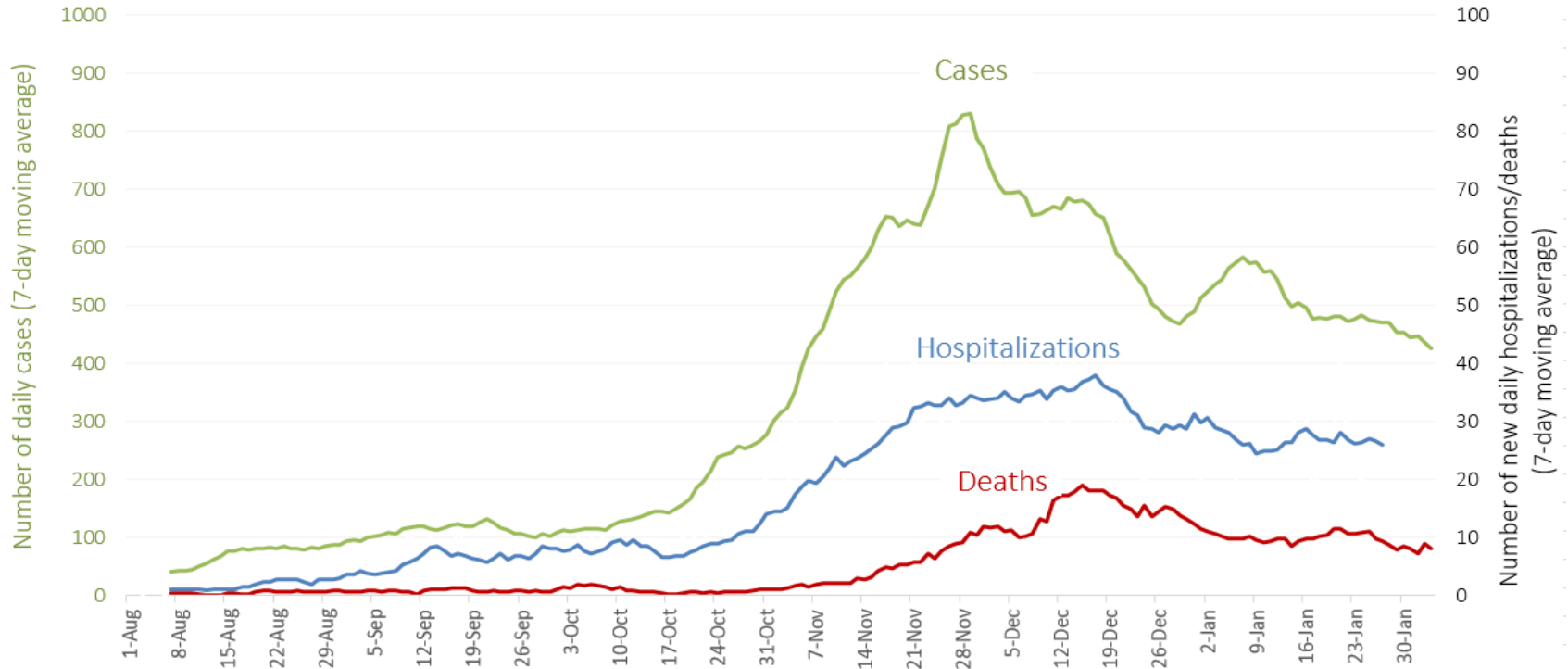


# Daily Case Rate, Test Percent Positivity and Testing Rate by Age (August 1, 2020 to February 2, 2021)

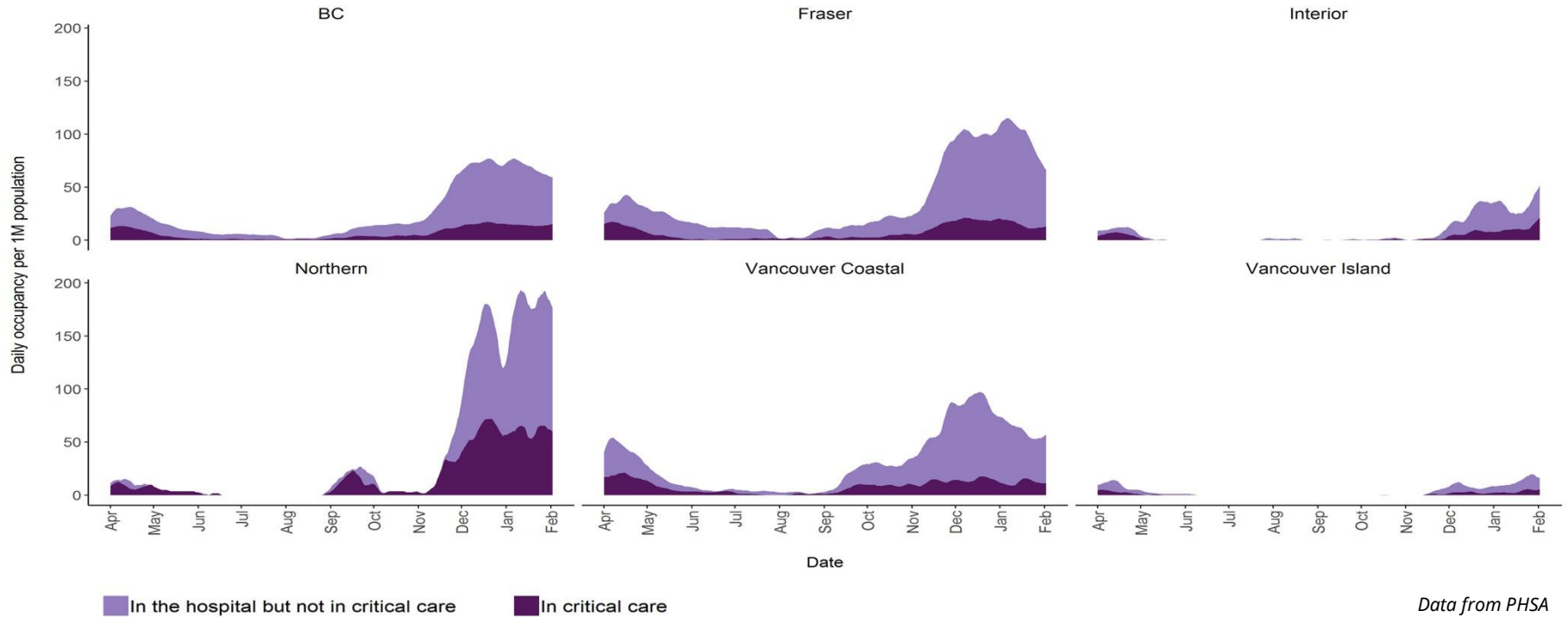
Case incidence rate, test percent positivity, and testing rate by age (All Payers). Aug 1 2020 - Feb 2, 2021.



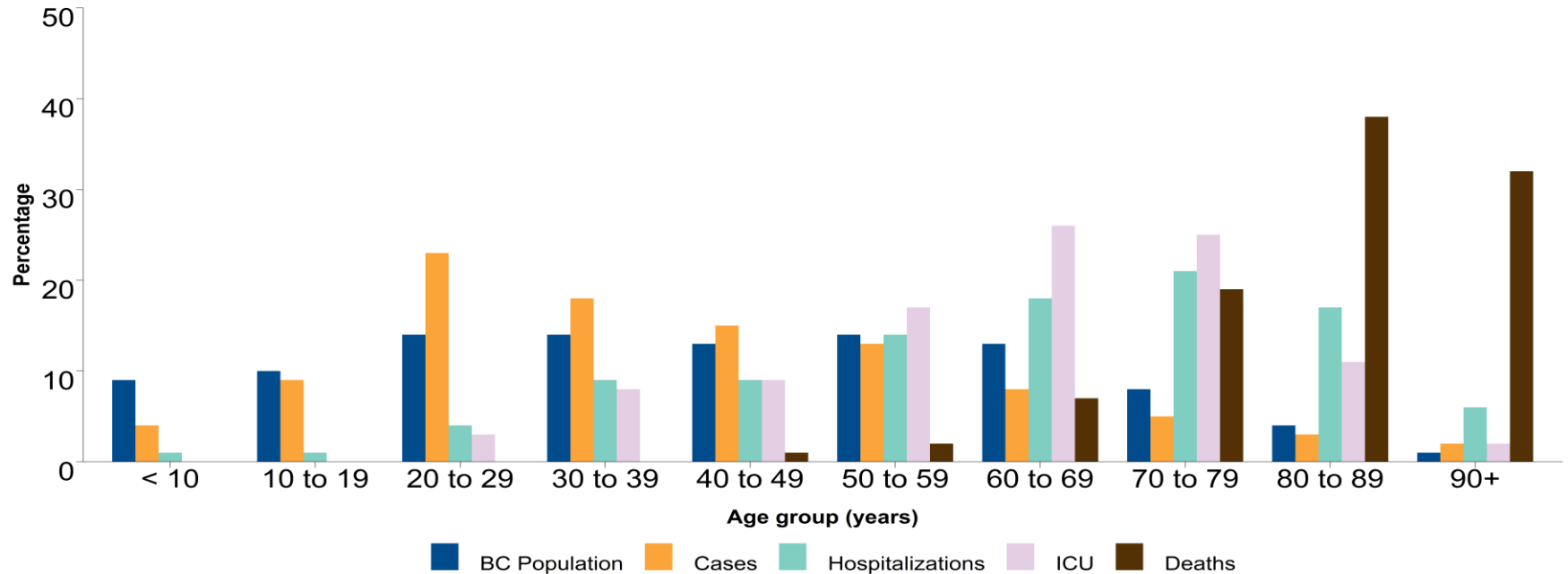
# Daily Cases, Hospitalizations, and Deaths by Reporting Date August 1, 2020 to February 3, 2021



# Hospital and Critical Care Census March 1, 2020 to February 2, 2021



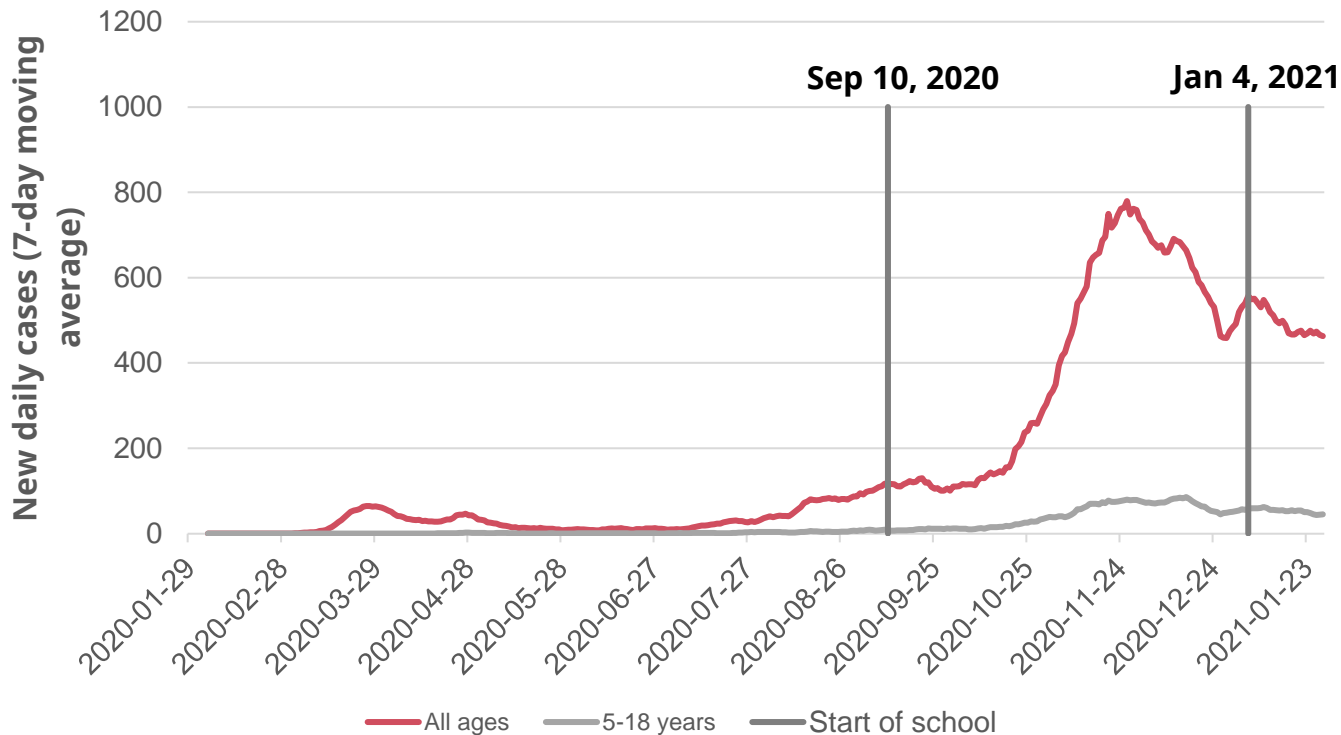
# Percentage Distribution of COVID-19 Cases, Hospitalizations, ICU Admissions and Deaths by Age, British Columbia, January 15, 2020 – January 23, 2021



# COVID-19 Virus Has a Relatively Low Infection Rate Among School-Aged Children (5 to 18 Years) in BC, From September 7, 2020 to January 31, 2021

Age Groups	Number of Cases	Percent of Cases	Percent of Population
0 - 4 Years	1115	1.8	4.4
5 - 12 Years	2932	4.8	7.7
13 - 18 Years	3607	5.9	6.2
19+ Years	53625	87.5	81.8

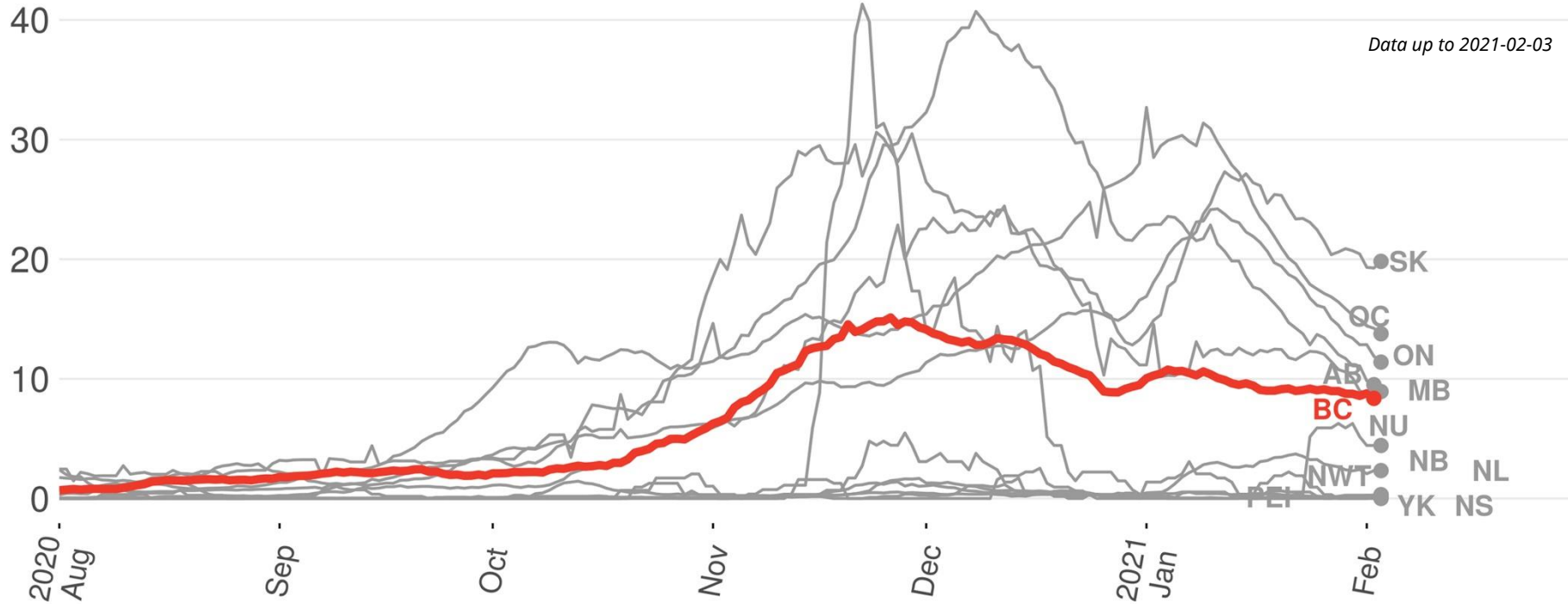
# Start of School Does Not Result in Significant Increases in Community Transmission of COVID-19 in BC





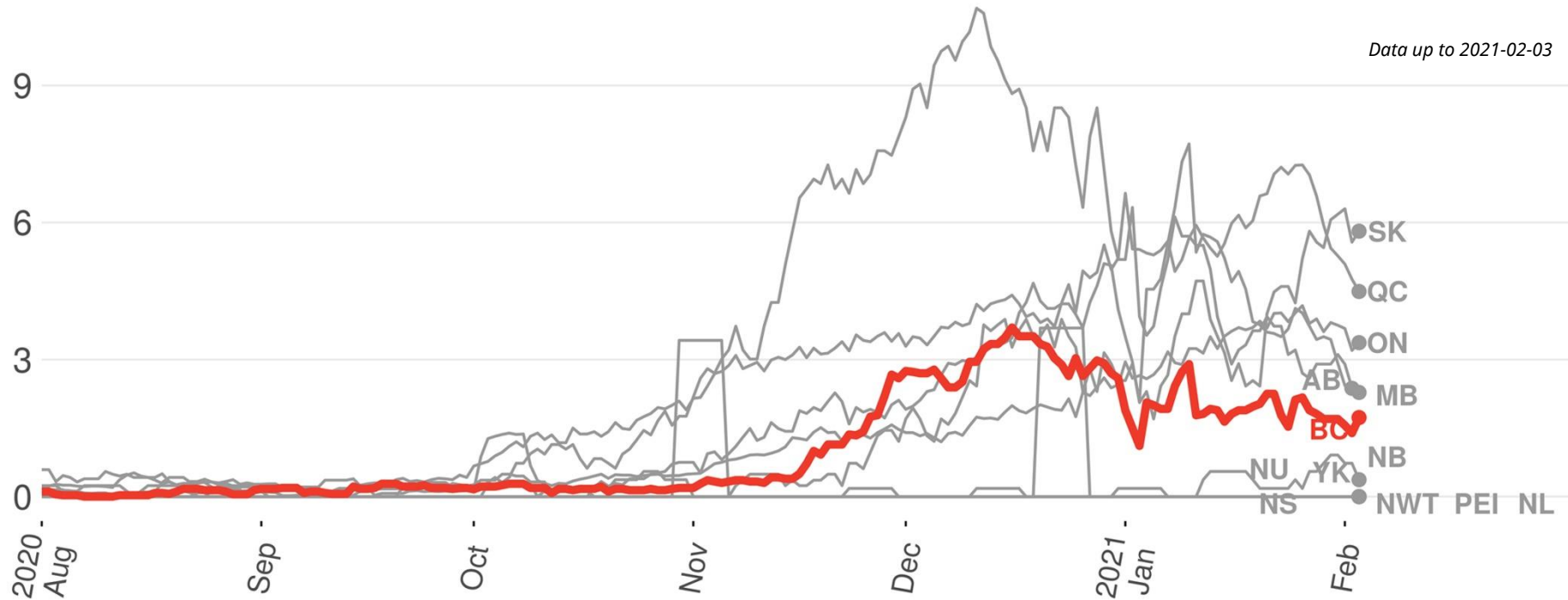
# Daily Case Rates Across Canada

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



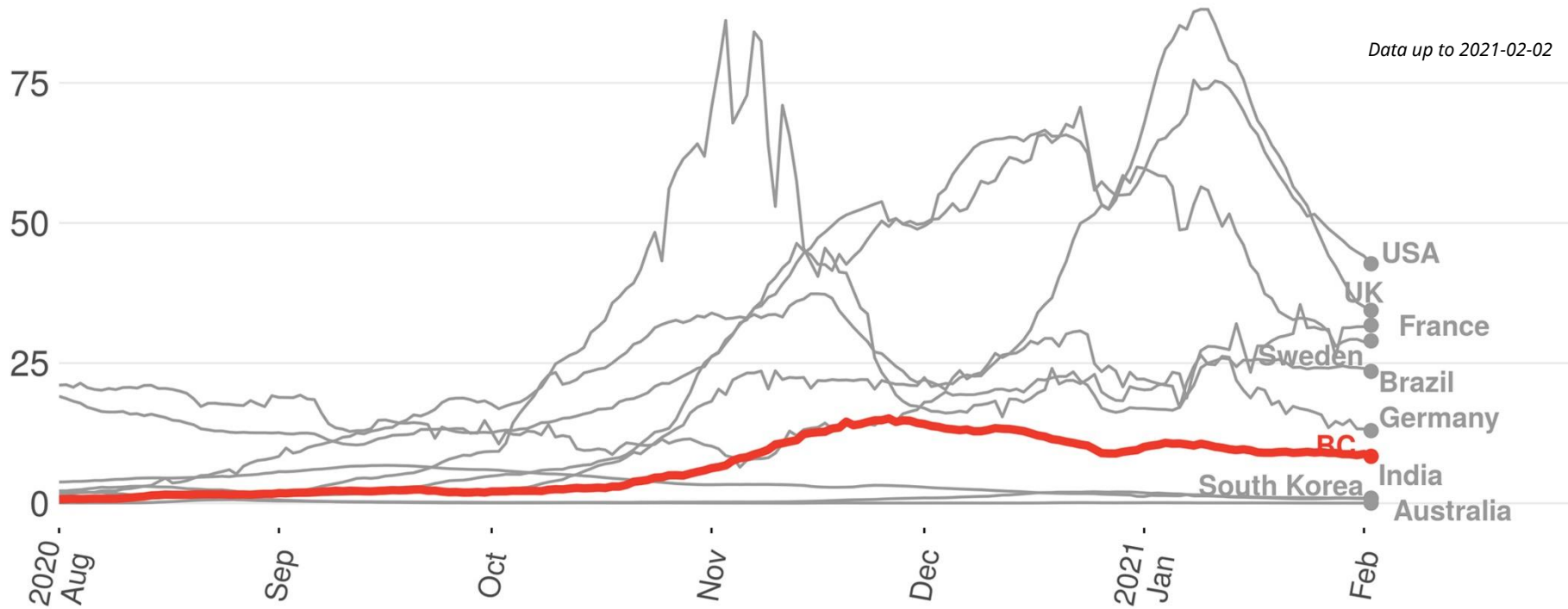
# Daily Death Rates Across Canada

New daily **deaths** per 1M population (7-day moving average)



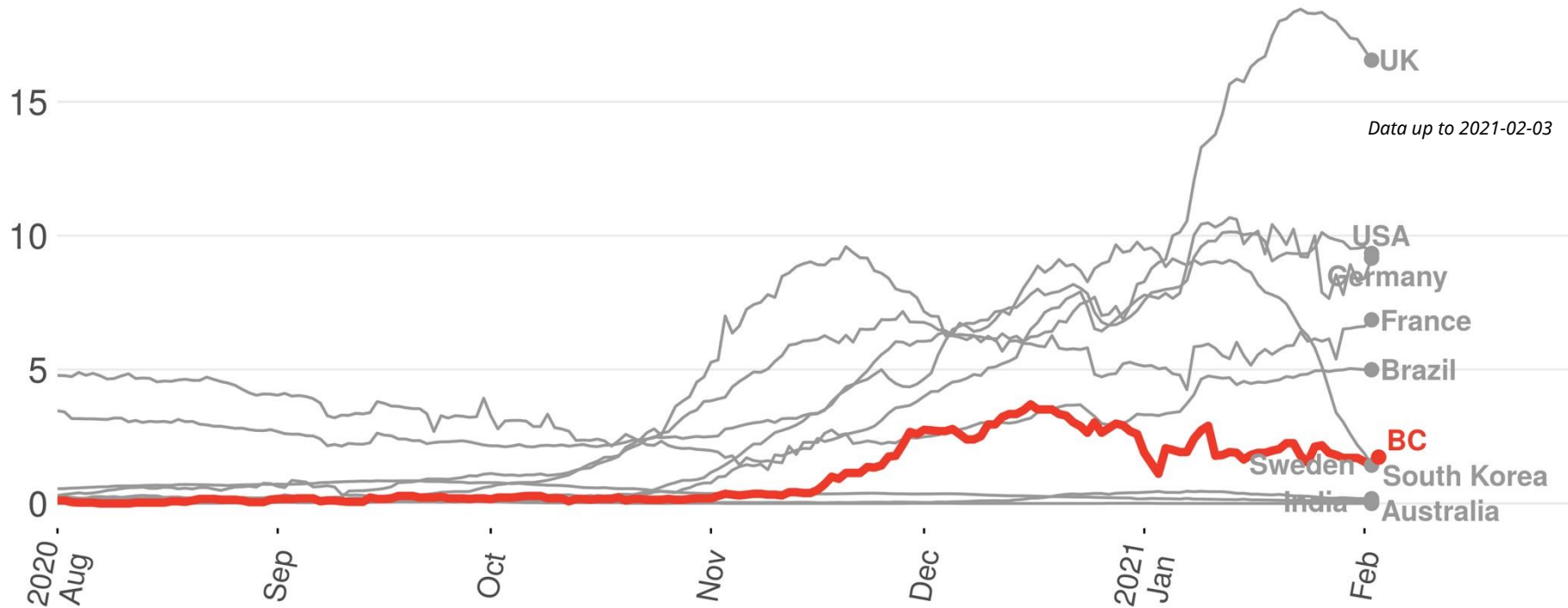
# Daily Case Rates - International

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



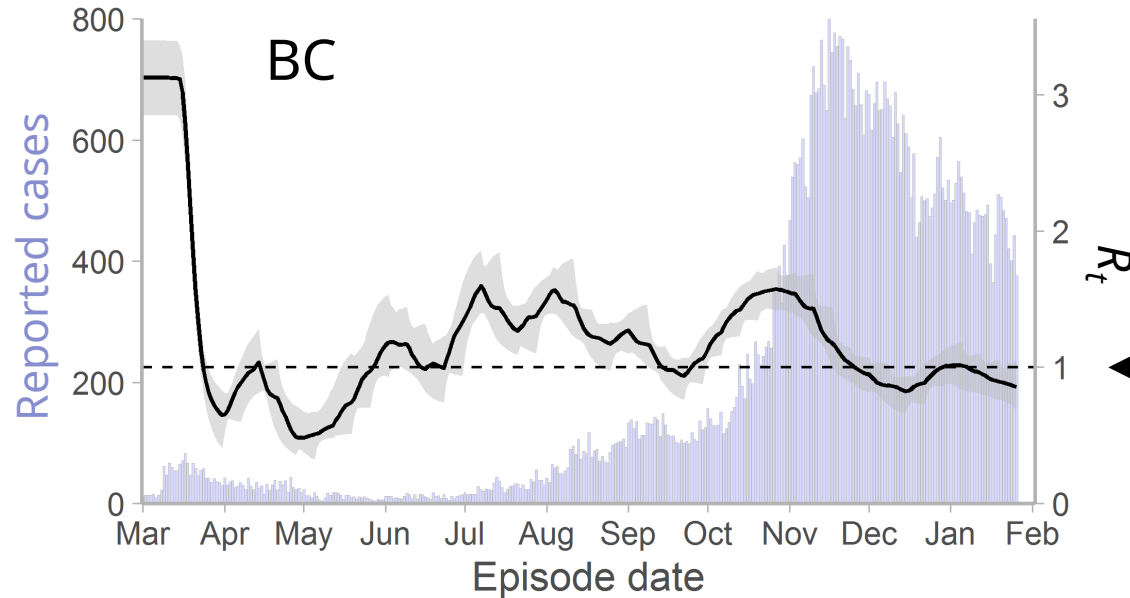
# Daily Death Rates - International

New daily **deaths** per 1M population (7-day moving average)



# Dynamic Compartmental Modeling: Recent Trends

Provincially, our model-based estimate of  $R_t$  (average daily number of new infections generated per case) continues to hover near 1.



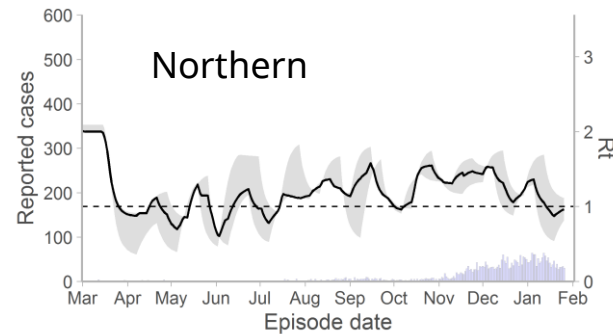
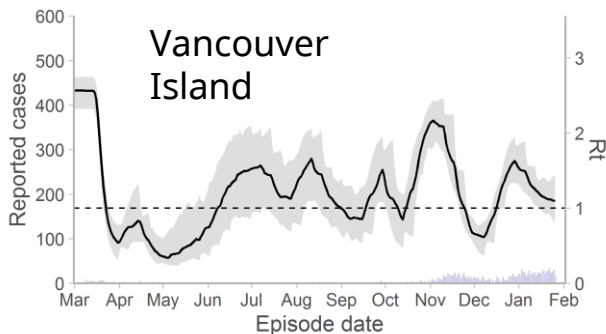
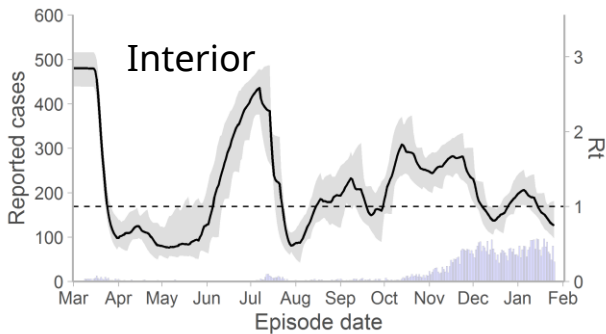
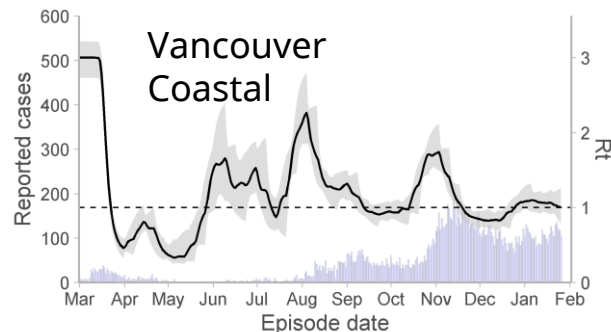
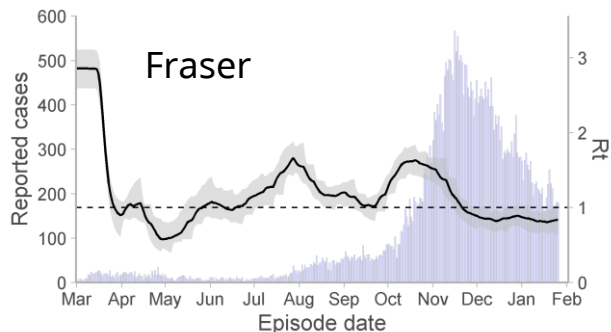
Whenever  $R_t$  is  $> 1$ , there is a risk that the number of new cases could grow rapidly.

*Solid black line: median  $R_t$  based on data up to Feb 2, 2021; Grey band: 5%-95% credible interval; Purple bars: all reported cases. Due to a lag from symptom onset to reporting, the most recent cases are not shown.*

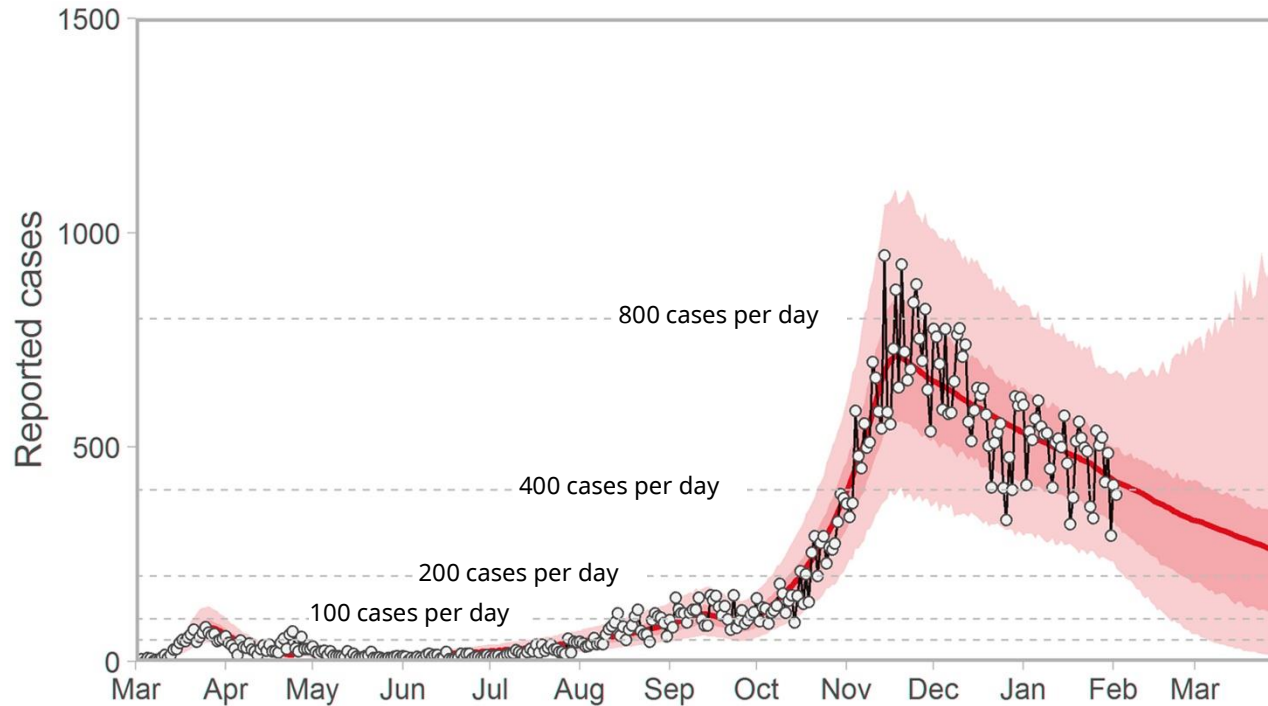
# Dynamic Compartmental Modeling: Recent Trends

Our model shows that  $R_t$  is relatively stable or declining in all Regional Health Authorities, but remains close to 1.

*Solid black line: median  $R_t$  based on data up to Feb 2, 2021; Grey band: 5%-95% credible interval; Purple bars: all reported cases. Due to a lag from symptom onset to reporting, the most recent cases are not shown.*



# Dynamic Compartmental Modeling: Recent Trends

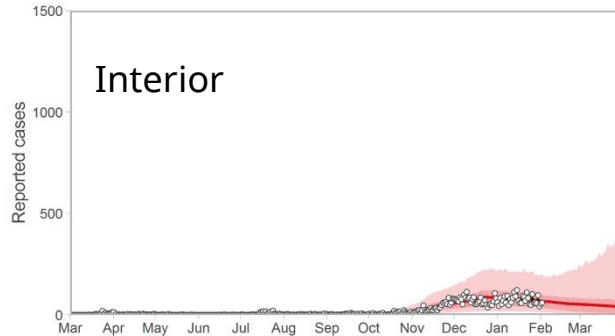
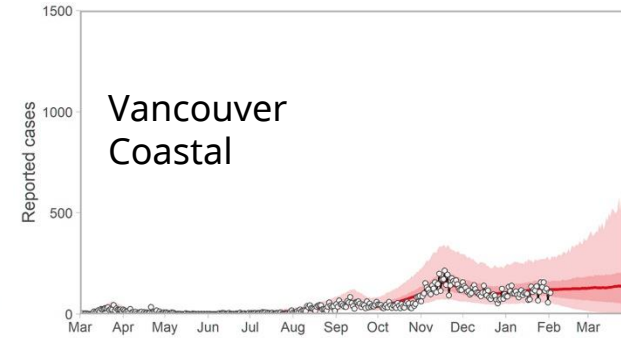
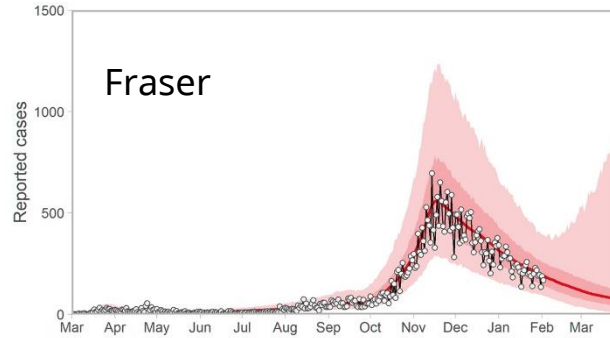


*Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, excluding reportable outbreaks, March 1, 2020 – Feb 2, 2021.*

# Dynamic Compartmental Modeling: Recent Trends

Our model outputs describe stable or declining trends in all Regional Health Authorities.

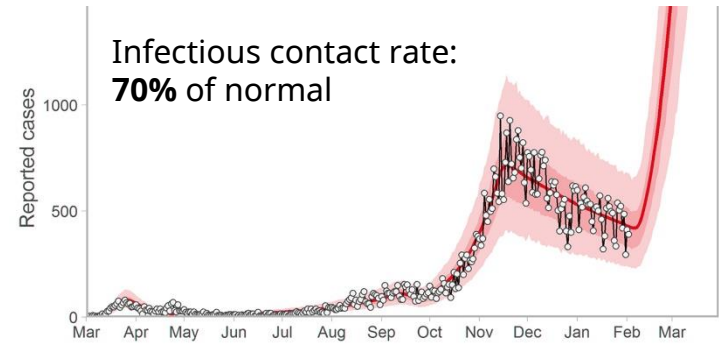
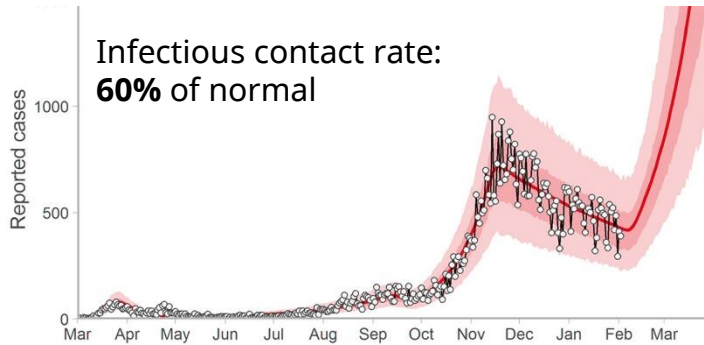
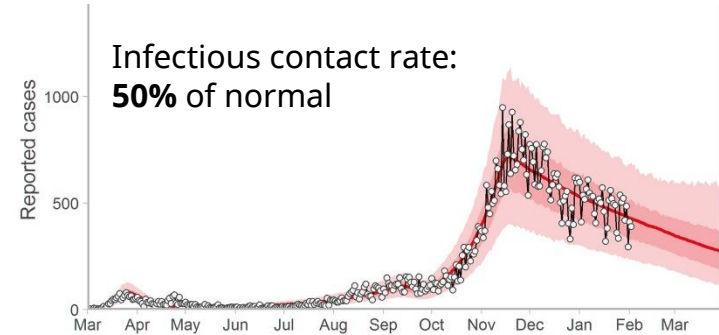
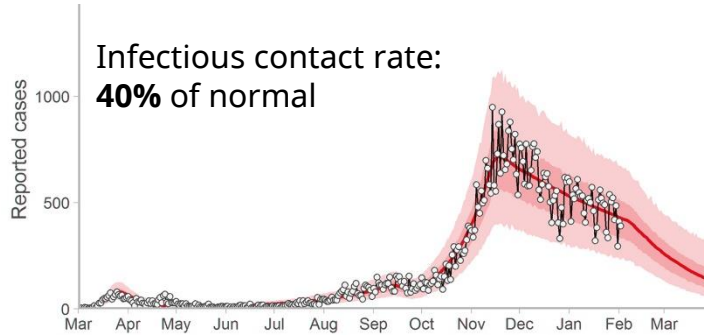
*Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, March 1, 2020 – Feb 2, 2021. Cases are shown by reporting date.*





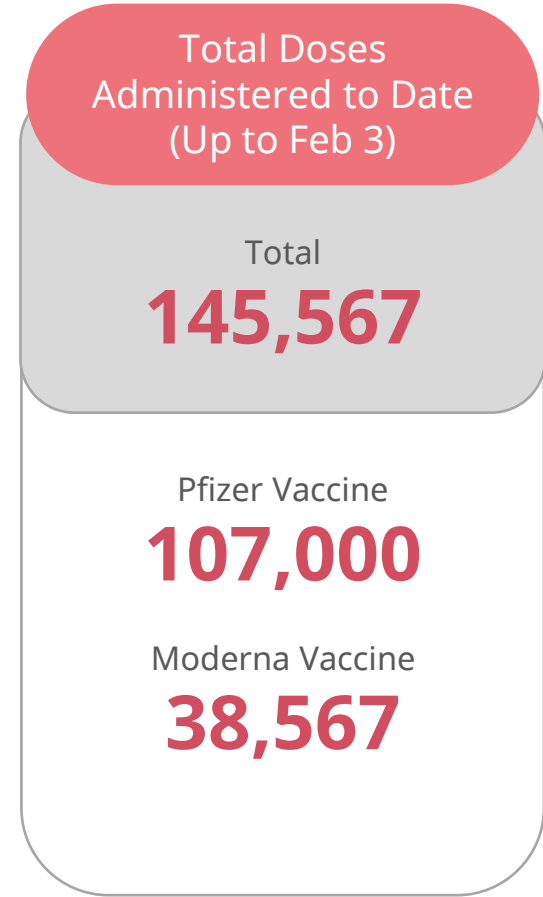
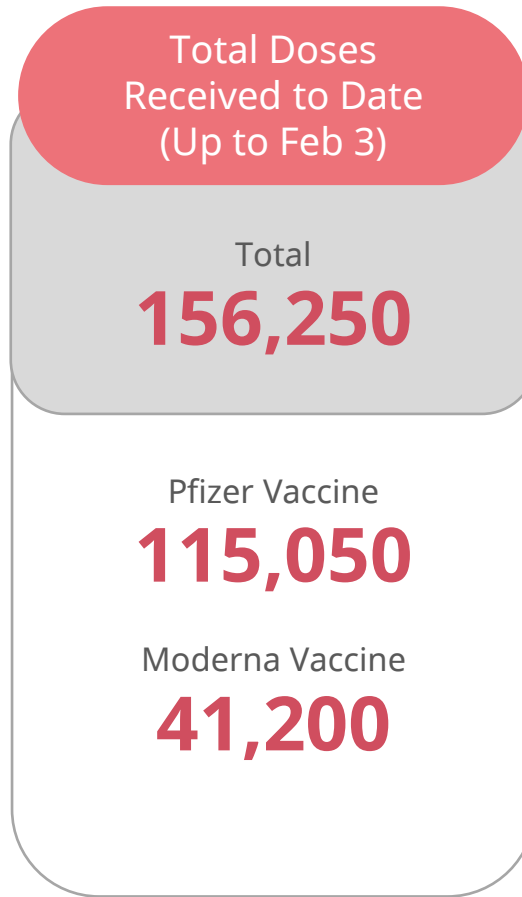
# Dynamic Compartmental Modeling: Scenarios

Our modeling scenarios are consistent with an average infectious contact rate of 50% of normal.



Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, March 1 – Feb 2, 2021. Cases are shown by reporting date.

## Vaccine Doses Received, Administered to Date (February 4, 2021)

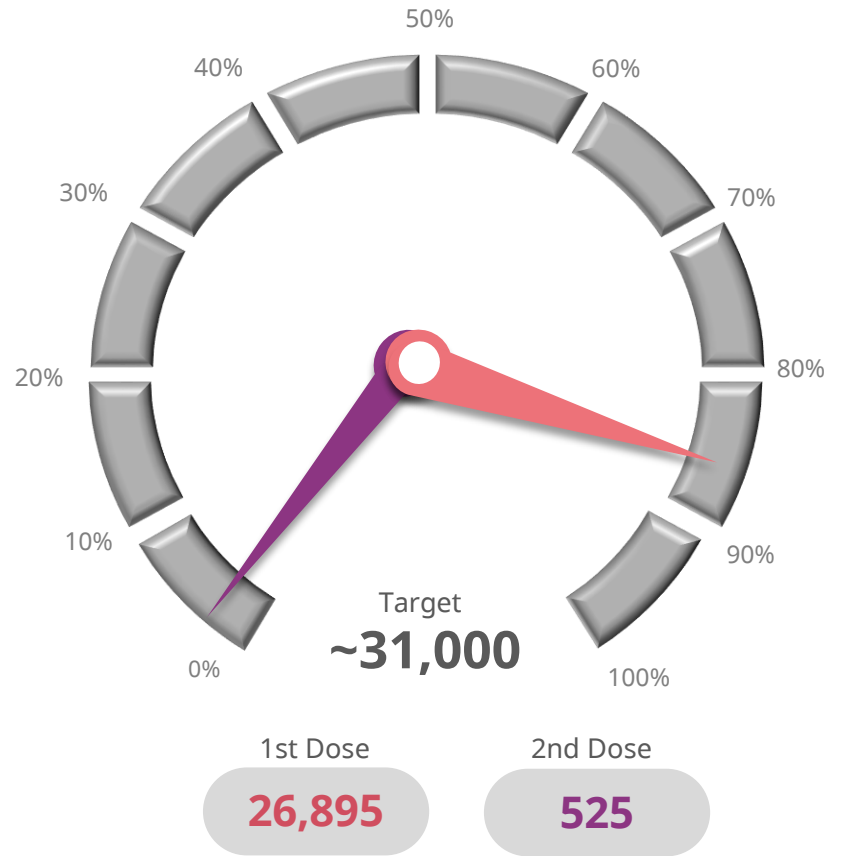


# Long-Term Care Residents

**19%**  
of vaccines administered to long-term care residents.

1st Dose  
**87%**

2nd Dose  
**2%**



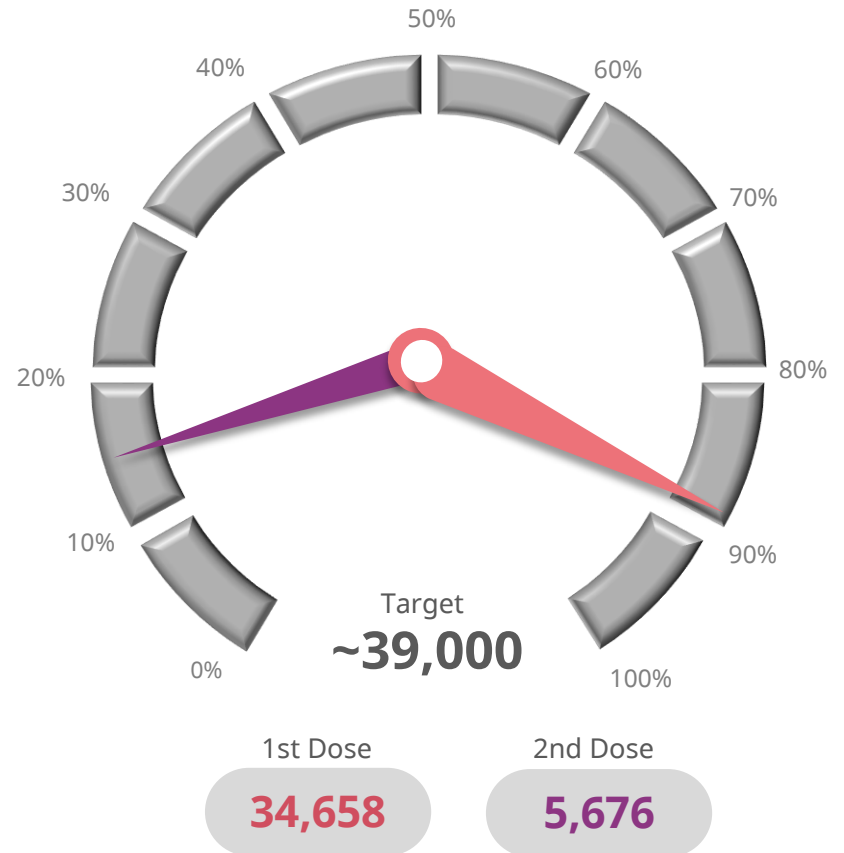
# Long-Term Care Staff

**28%**

of vaccines administered to long-term care staff.

1st Dose  
**89%**

2nd Dose  
**15%**

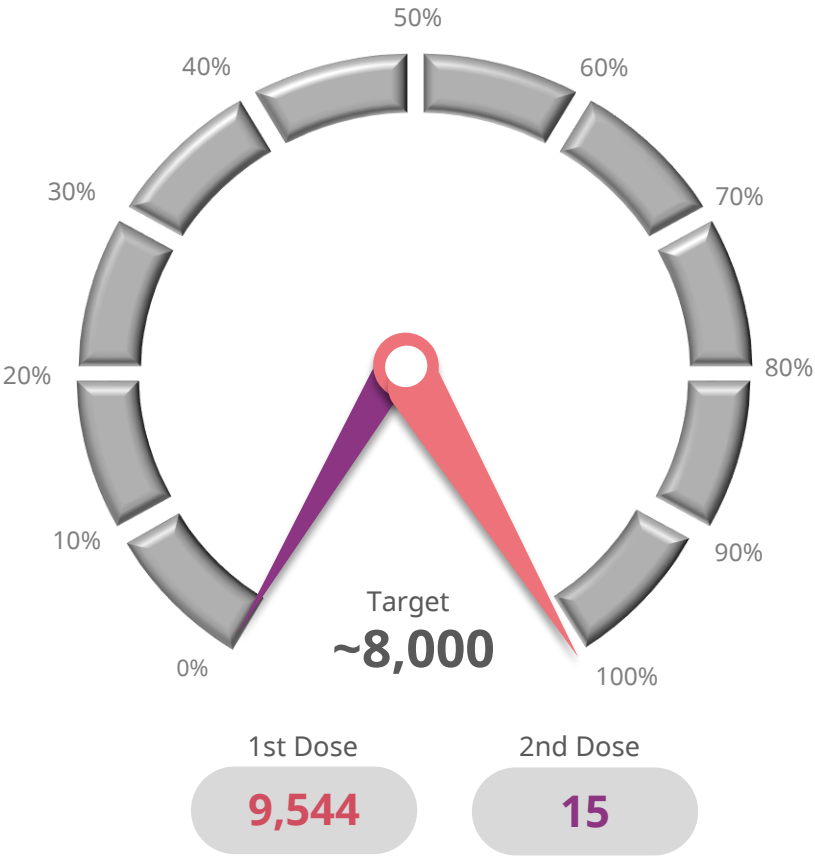


# Assisted Living Residents

**7%**  
of vaccines administered to assisted living residents.

1st Dose  
**119%**

2nd Dose  
**0%**

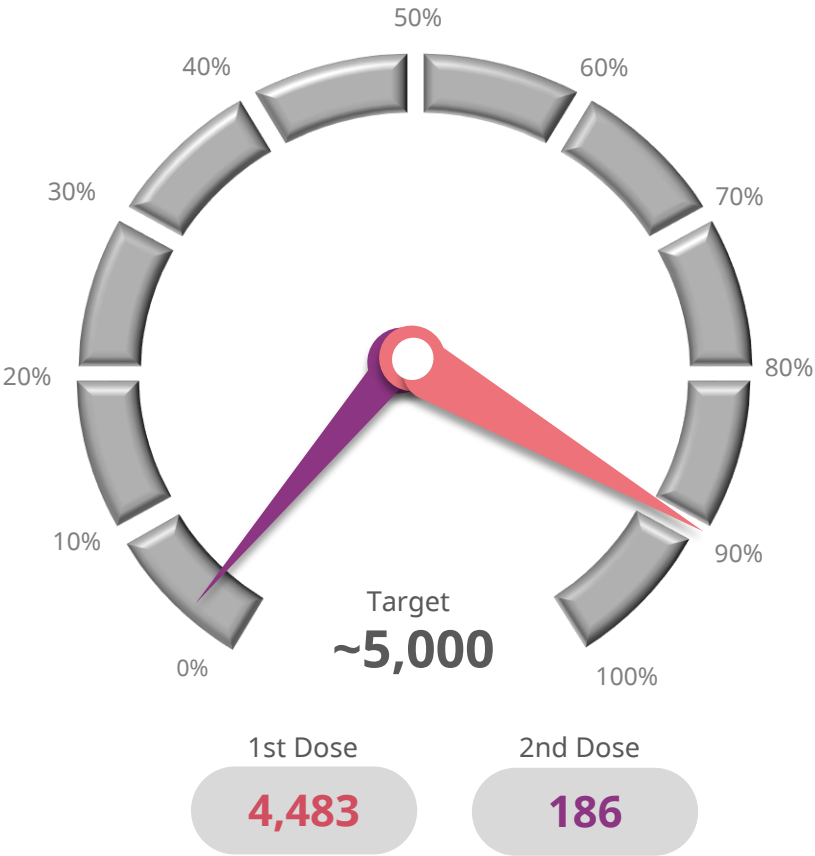


# Assisted Living Staff

**3%**  
of vaccines administered to assisted living staff.

1st Dose  
**90%**

2nd Dose  
**4%**



# No Safety Signals Have Been Identified With Either COVID-19 Vaccine in British Columbia

Over **145,000**  
**Doses** of Vaccine  
Have Been  
Administered in  
**British Columbia**

AEFI

From December 20, 2020 to February 4, 2021 there have been **205** adverse events following immunization (AEFI) reports.

There have been **14 AEFI reports for every 10,000 doses administered.**

55 are classified as serious.  
For example, a severe allergic reaction called anaphylaxis.

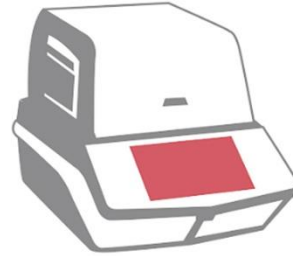
Some reported events happen after vaccination but are likely **not caused by the vaccine.**

# Variant Detection Strategy in BC



## Sequencing

- Whole genome sequencing is the best way to confirm variants of concern (VOC)
- BC generates 750 genomes per week

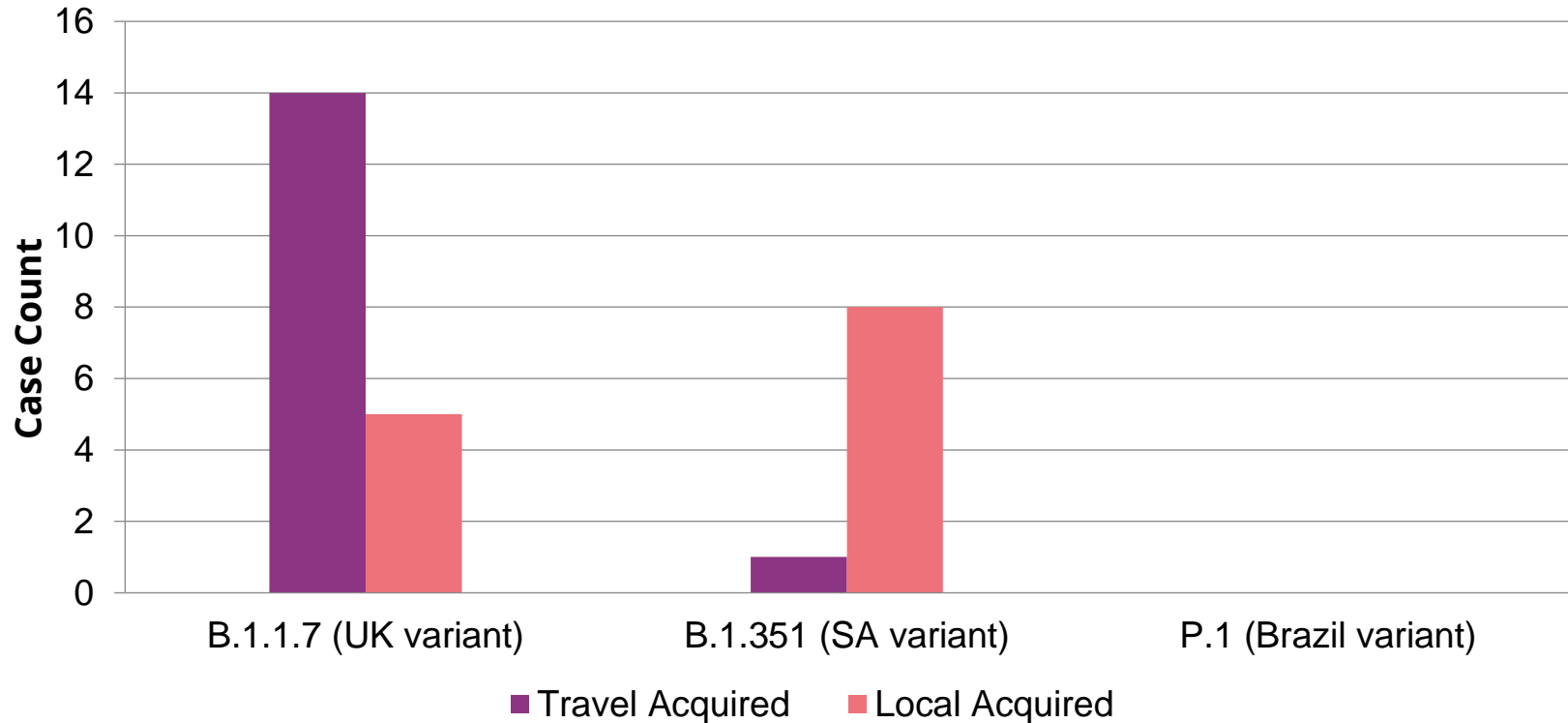


## Screening

- Screening for key mutations; need to confirm positives with sequencing
- BC can screen 1000s of samples per week



# Since December 1, BC Has Sequenced ~4,500 Cases; Variants of Concern Have Been Detected in 28 Cases



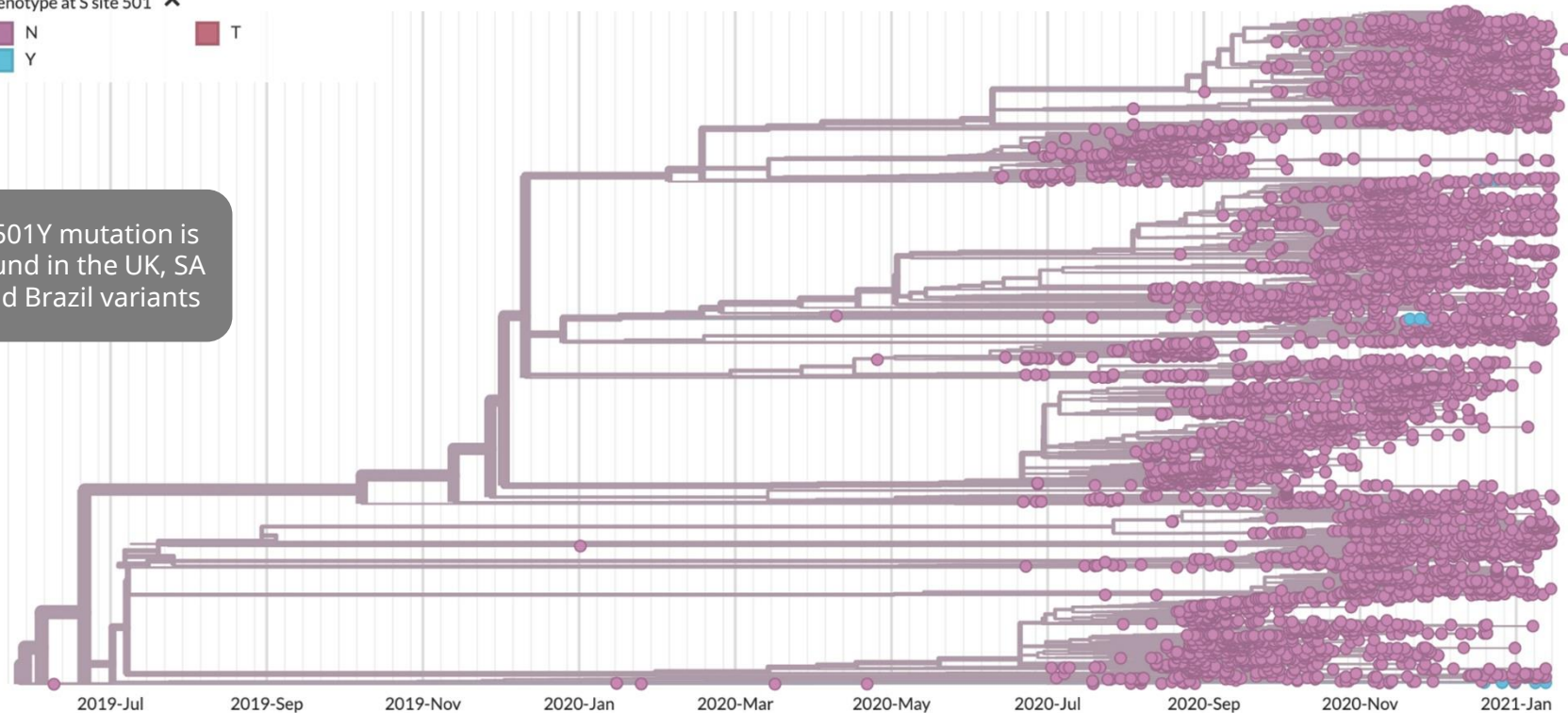
# Variants of Concern Are Still Rare in BC (*Shown in Blue*)

Phylogeny

Genotype at S site 501 ^



N501Y mutation is found in the UK, SA and Brazil variants

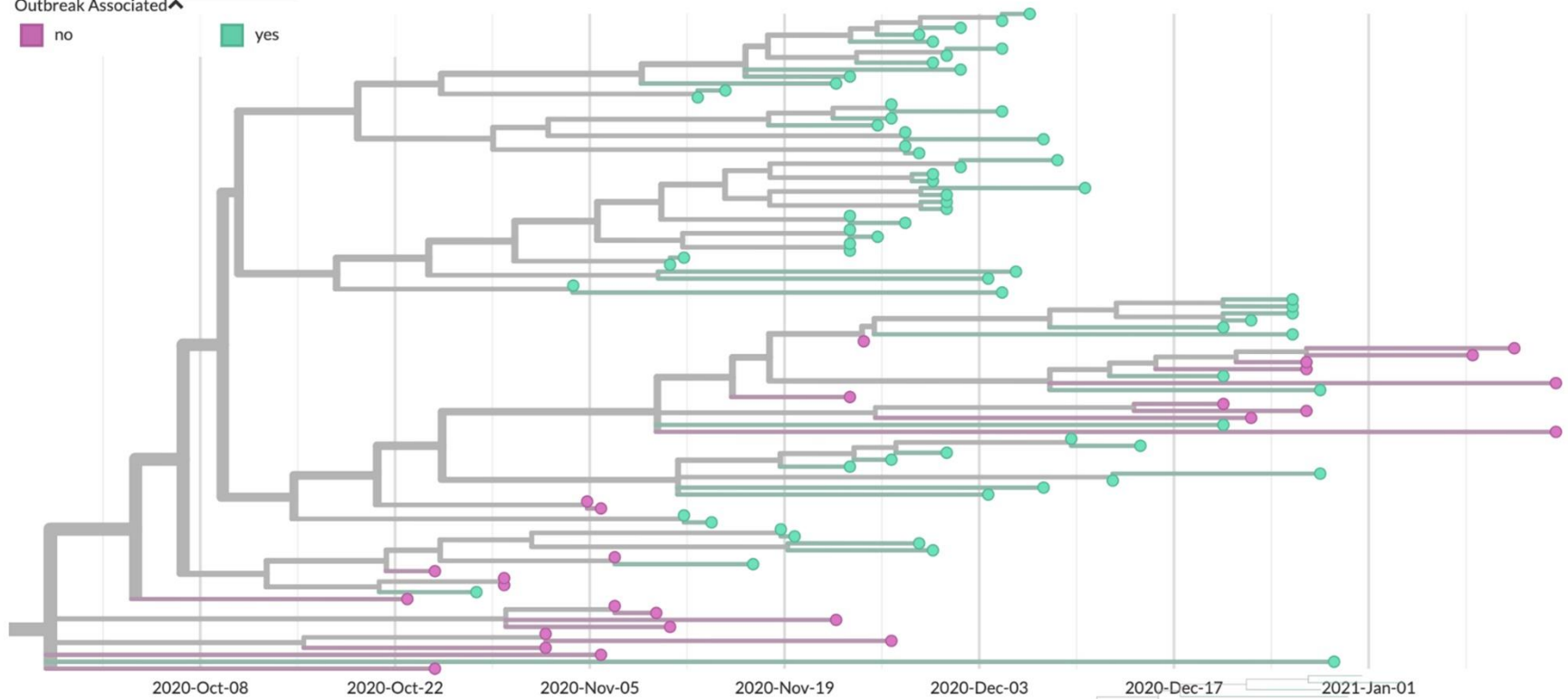


# Genomics is a Key Tool in Responding to Outbreaks in BC

Phylogeny

Outbreak Associated^

no yes



# **COVID-19: Monthly Update**

February 5, 2021



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Symptom Self-Assessment:

[covid19.thrive.health](https://covid19.thrive.health)



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