

COVID-19: Year to Date Summary

December 23, 2020



Stay Informed Via These Resources:
gov.bc.ca/Covid-19 | bccdc.ca | 1-888-COVID19

Symptom Self-Assessment:
covid19.thrive.health



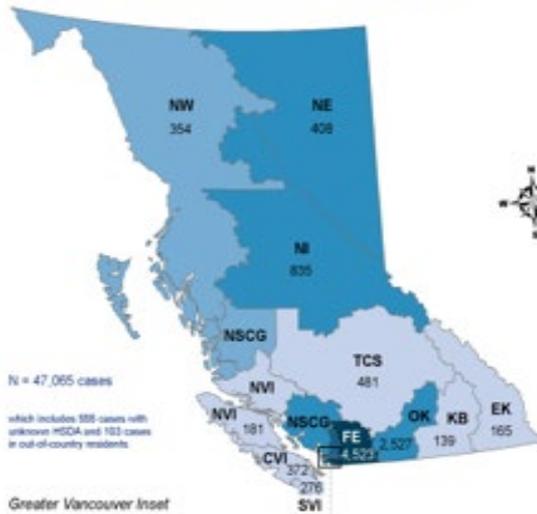
**BRITISH
COLUMBIA**

Epidemiology

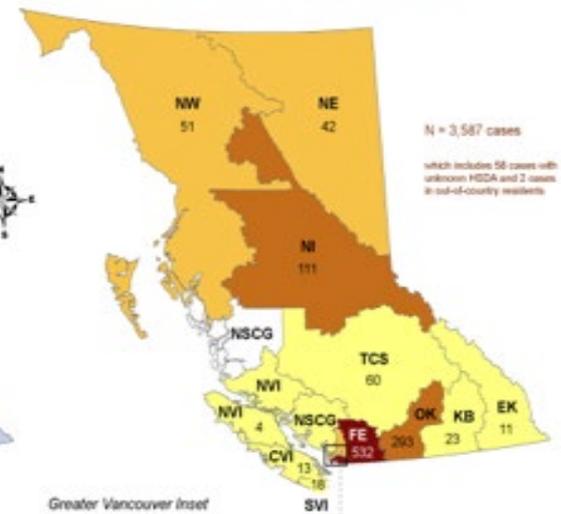
*How and Where the Virus has
Affected People in BC*

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

Cumulative total: cases reported Jan 1 to Dec 21, 2020



Past 7 days: cases reported December 15 to 21, 2020



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 December 21, 2020 by BCCDC for public release.

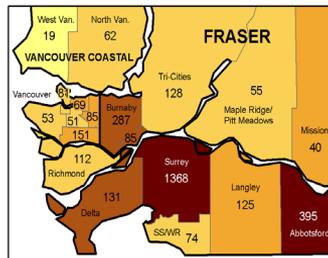
Geographic Distribution of Cumulative COVID-19 by Local Health Area of Case Residence

Epi-Week 51 Cases
December 13 to 19, 2020

South Vancouver Island Inset



Greater Vancouver Inset



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

Average daily rate per 100,000 population by LHA



n = number of cases

Additional cases with missing address information:
2 - Interior Health
6 - Vancouver Coastal Health
15 - 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 December 23, 2020 by BCDCDC for public release.

Dec 15 to 21: Profile of COVID-19 Cases



47,488 total cases
4,025 new this week



777 deaths
109 new this week

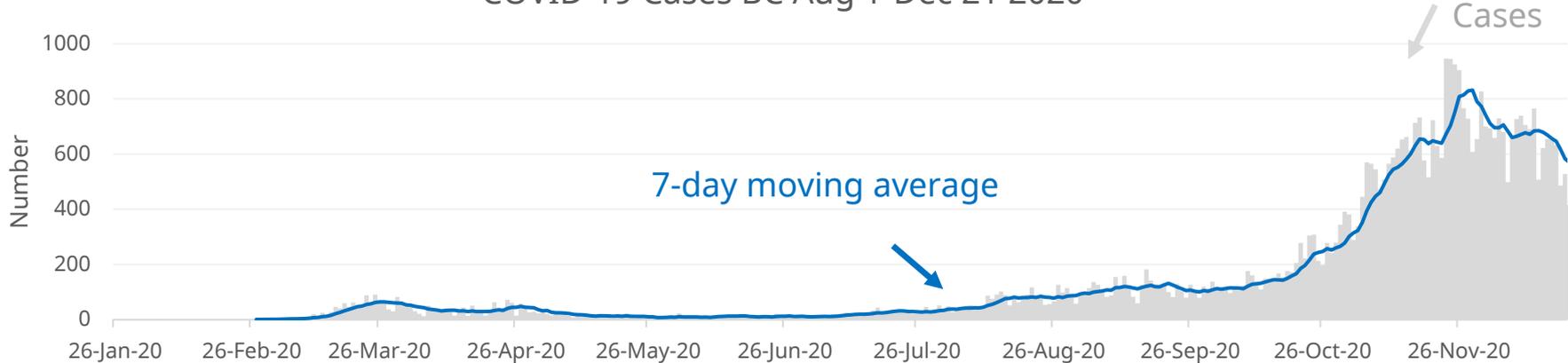


2,585 ever hospitalized
241 new this week

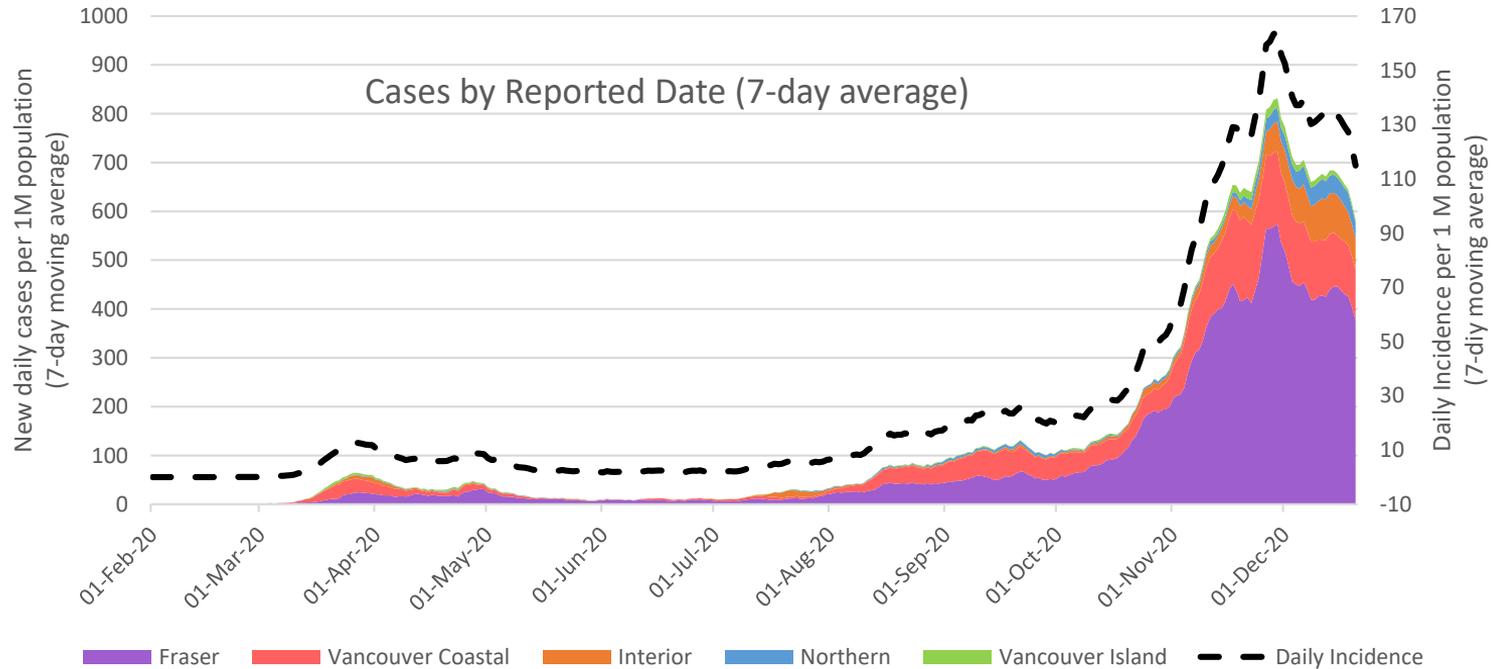


36,094 removed from isolation
4,228 new this week

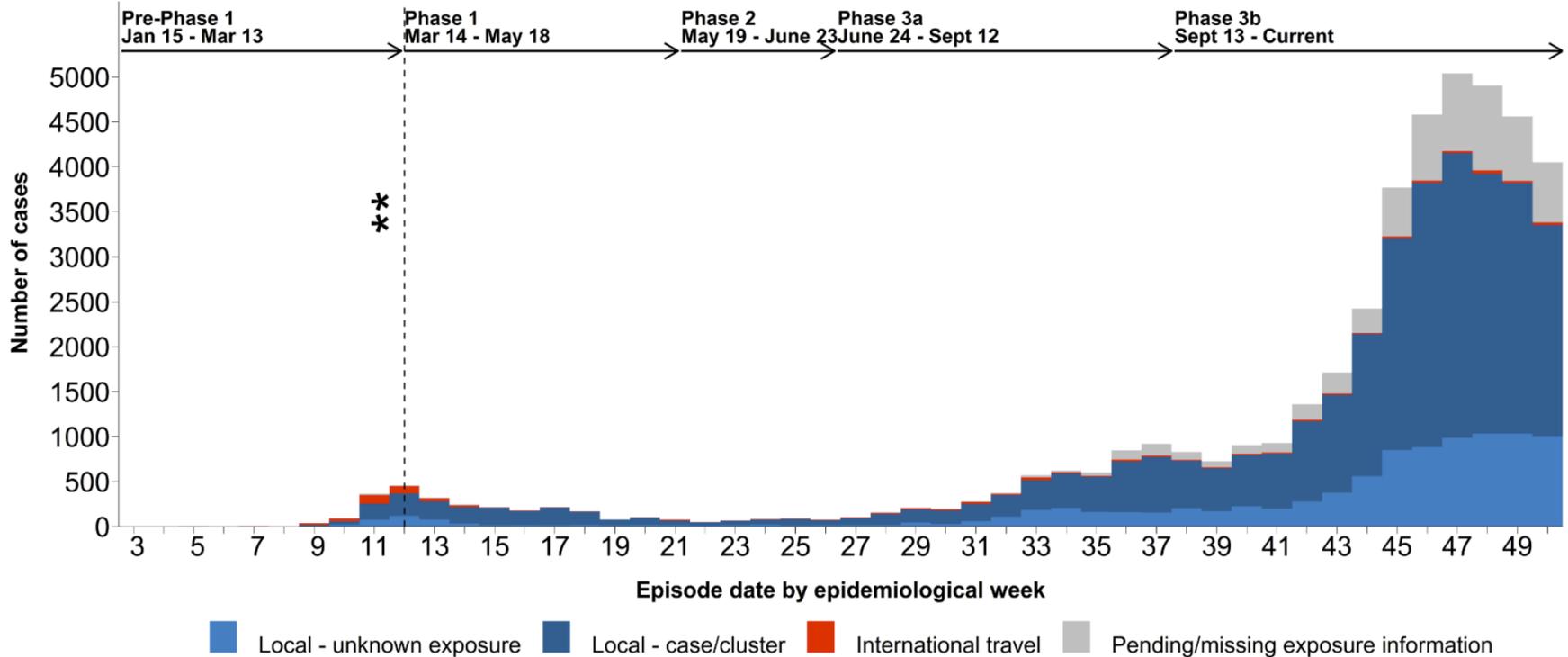
COVID-19 Cases BC Aug 1-Dec 21 2020



Epidemic curve, COVID-19 cases in BC by reported date January 15 - December 21, 2020 (N=47,488)

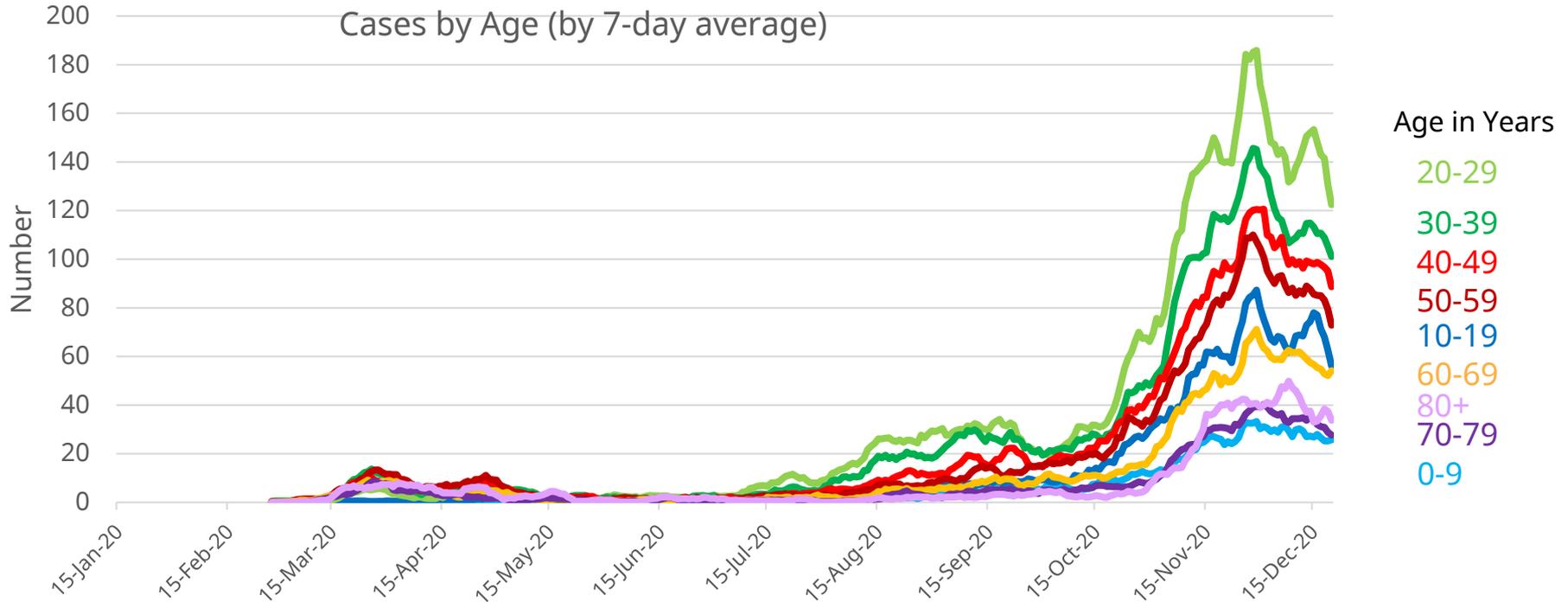


Likely source of COVID-19 infection by episode date, BC Jan. 15 – Dec. 12, 2020

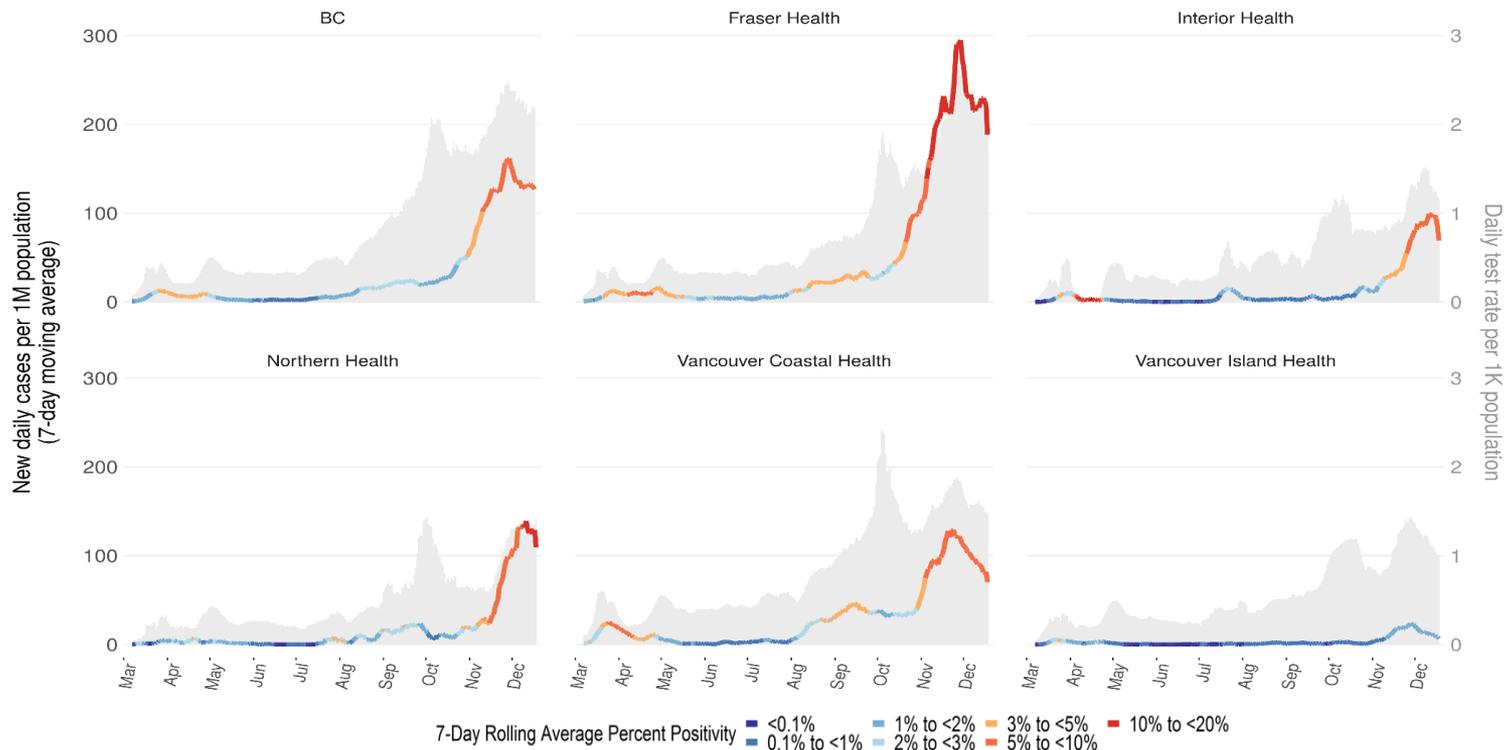


** March 16: Travel related restrictions introduced.

Daily case counts by age in years



Daily case rate, testing rate and percent positivity March 1- Dec. 21, 2020



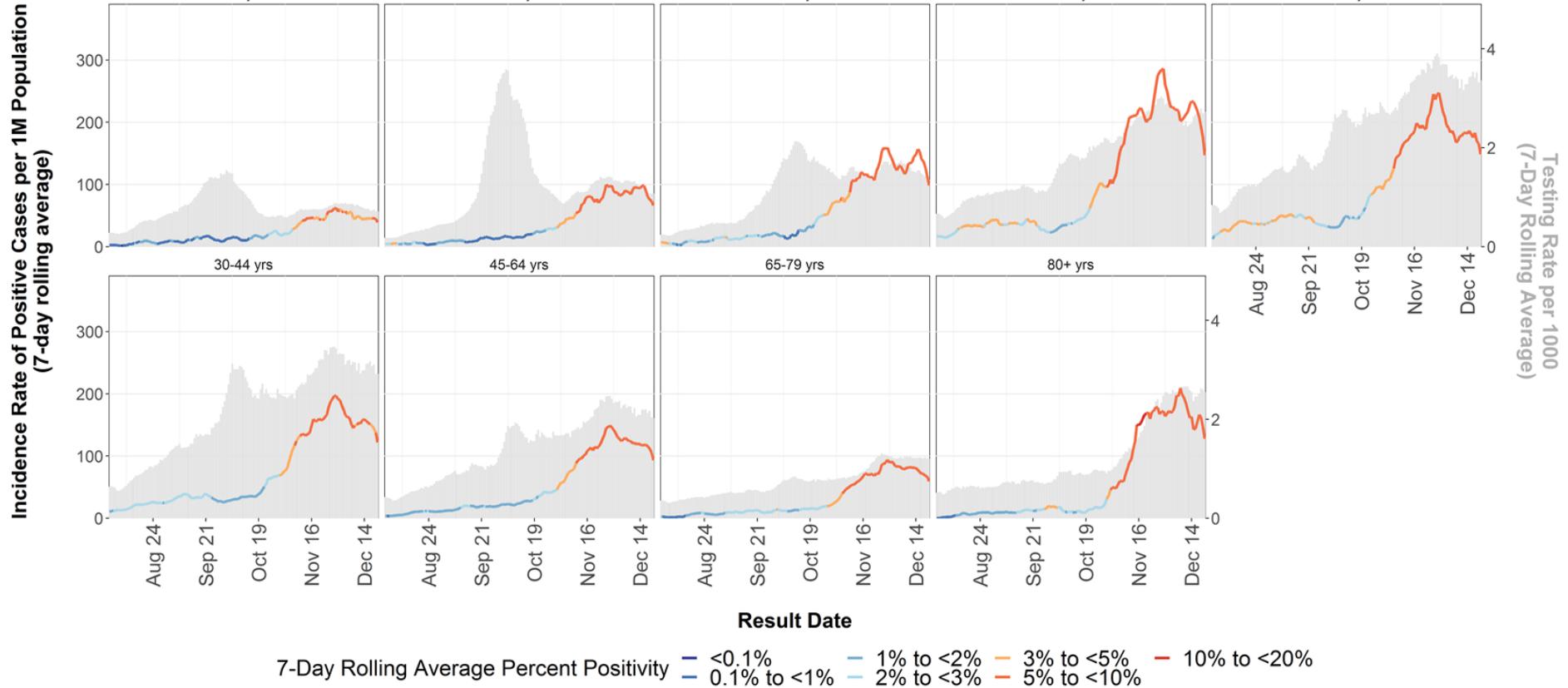
Data source: PLOVER 15-Dec-2020

Data up to 2020-12-18

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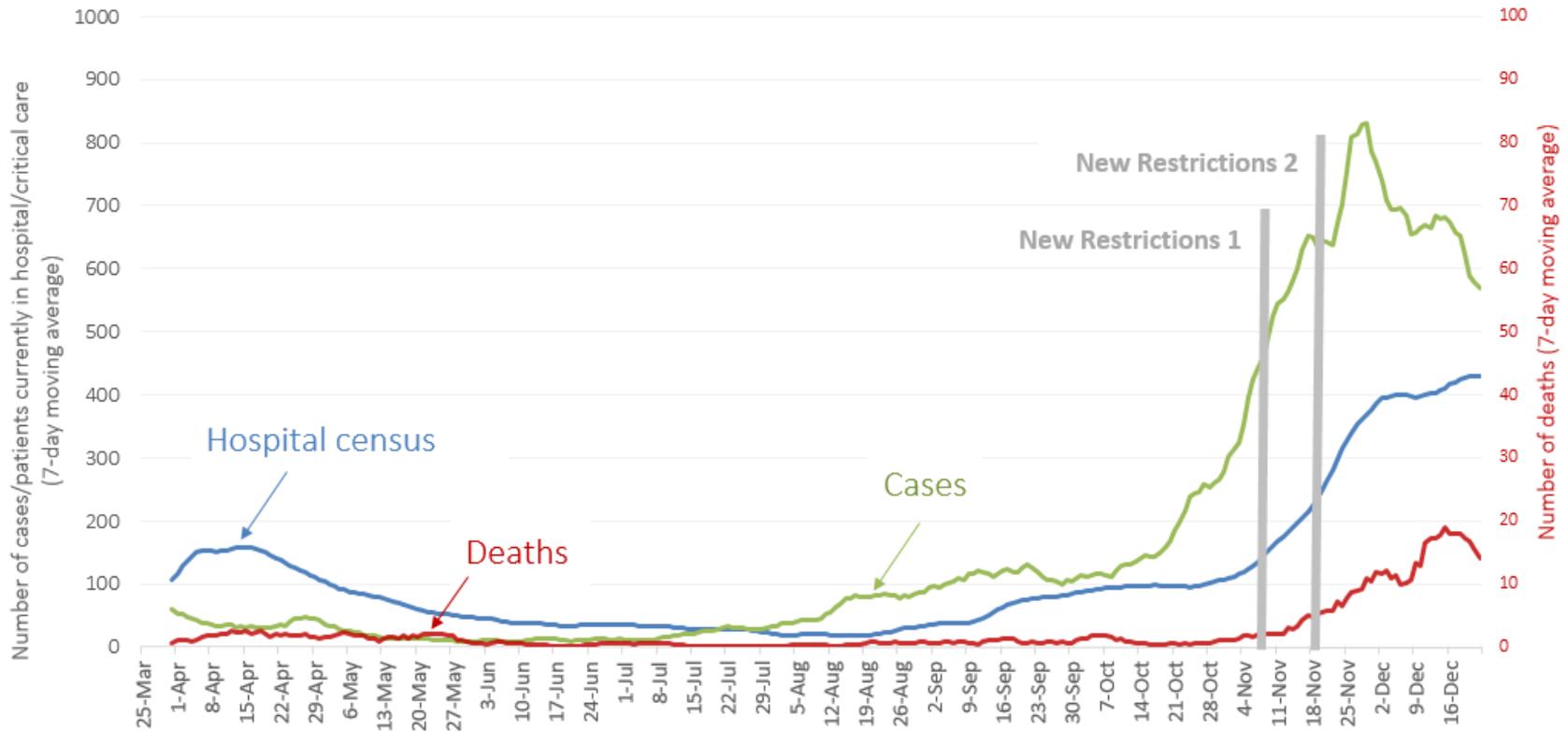


Case incidence rate, test percent positivity, and testing rate by age. Aug 1 - Dec 21, 2020.

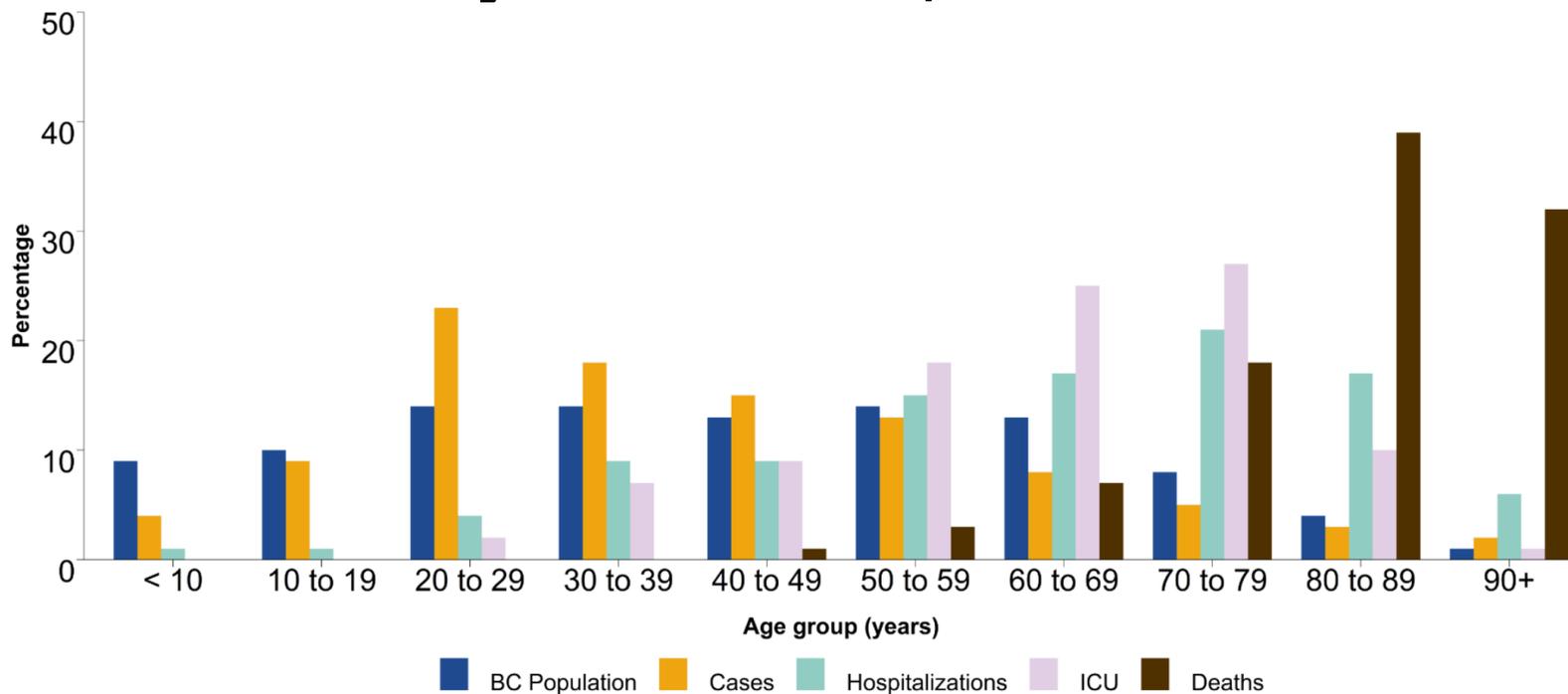


Data source: PLOVER 21-Dec-2020

Daily cases, hospital census, and deaths March 25 to Dec 21, 2020



Percentage distribution of COVID-19 cases, hospitalizations, ICU admissions and deaths by age, British Columbia, Jan. 15 – Dec. 12, 2020



a. Among those with available age information only.

School Update

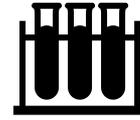
COVID-19 Testing and Cases Among School-aged Children

Most school-aged children (5-18 years) with symptoms do not have COVID-19



COVID-19 cases among school-aged children

1. More than 650,000 students and 95,000 staff back in schools.
2. Exposures noted at schools and at extracurricular activities
3. School-aged children represent 12% of cases
4. 4 outbreaks declared since Sept.



COVID-19 testing in children and youth

1. 1 in 100 school-aged children tested



99

2. 7 in 100 tests are COVID-19 +



93

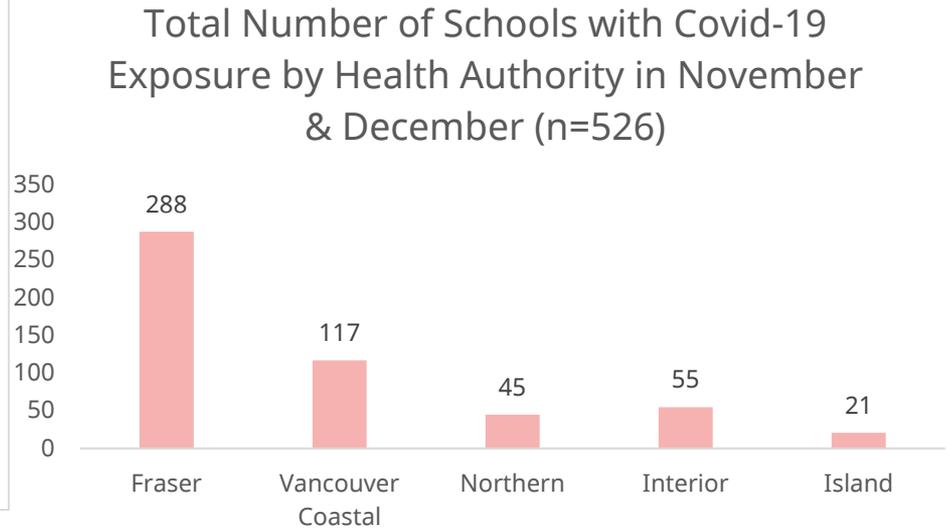
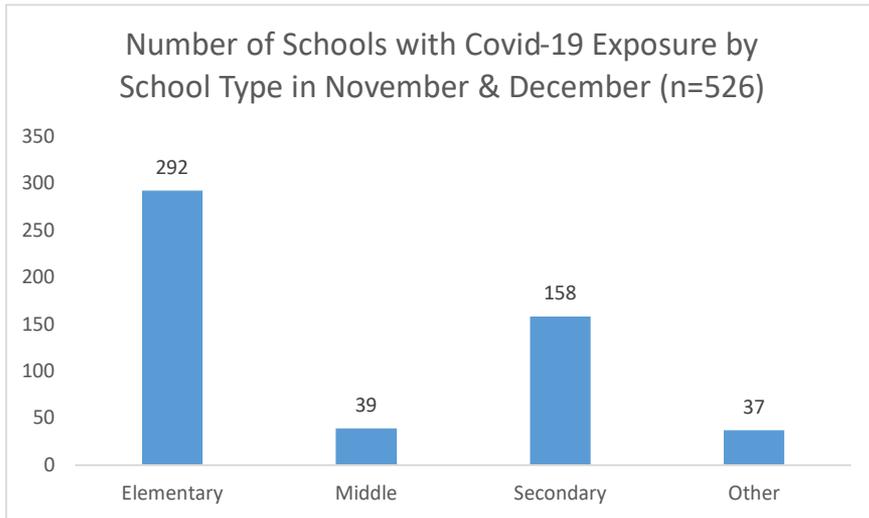
3. Fewer than 7 in 1000 students COVID-19 +



993

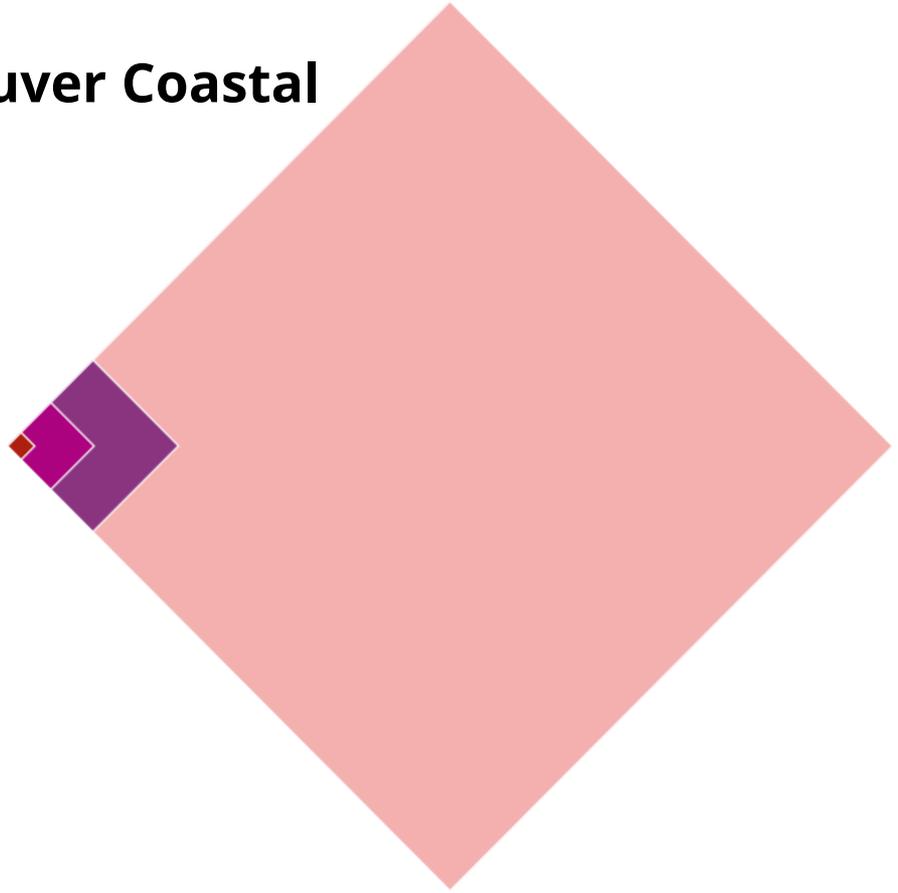
COVID-19 exposures in a school setting

From Nov. 1 to Dec. 18, there were 526 schools exposures in BC's 1,942 schools. More than three quarter of BC schools are elementary schools. That means more than **7 in 10 schools** have **not** had a school exposure. The exposures represent both students and adults in the school community.



Exposures in schools in Vancouver Coastal (updated Dec. 12)

- 120,000 school-aged children and staff in VCH region
- >600 school-aged children or school staff diagnosed with COVID-19 resulting in <200 school exposures
- School-based transmission resulting from < 20 exposures
- 0 outbreaks



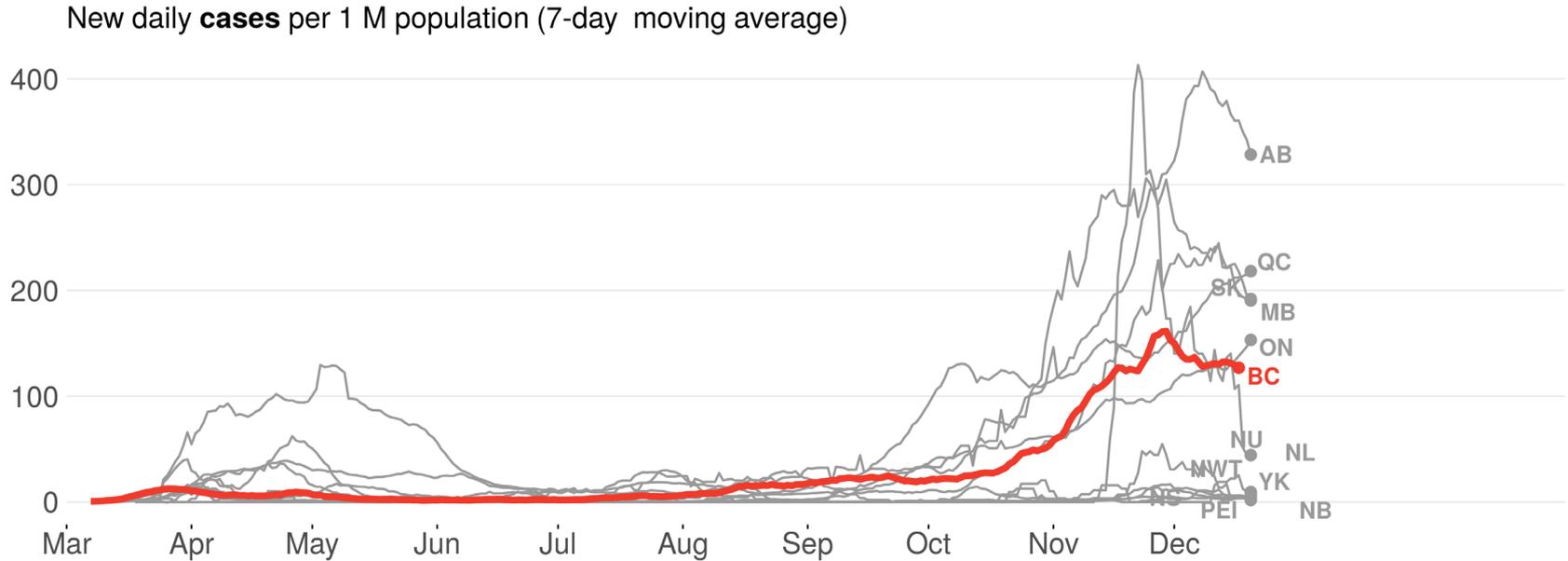
COVID-19 in schools in Vancouver Coastal

- 89% of cases acquired infection from confirmed case/cluster, generally from a household contact
- Of cases in schools, 76% students, 24% staff
- No school transmission in >90% of cases
- Recently, most transmission involved a staff member

COVID-19 in schools in Fraser Health

- Exposure events have occurred in 384 schools, among which 133 (34.6%) were in Surrey school district (including both public and independent schools).
- Out of these 384 schools, 49 (12.8%) had potential in-school transmission events.
- Among the 49 schools, 23 (46.9%) schools were in Surrey school district .
- Among these 23 schools, 11 (47.8%) were secondary schools or include secondary school grades in the school.

Daily case rates across Canada



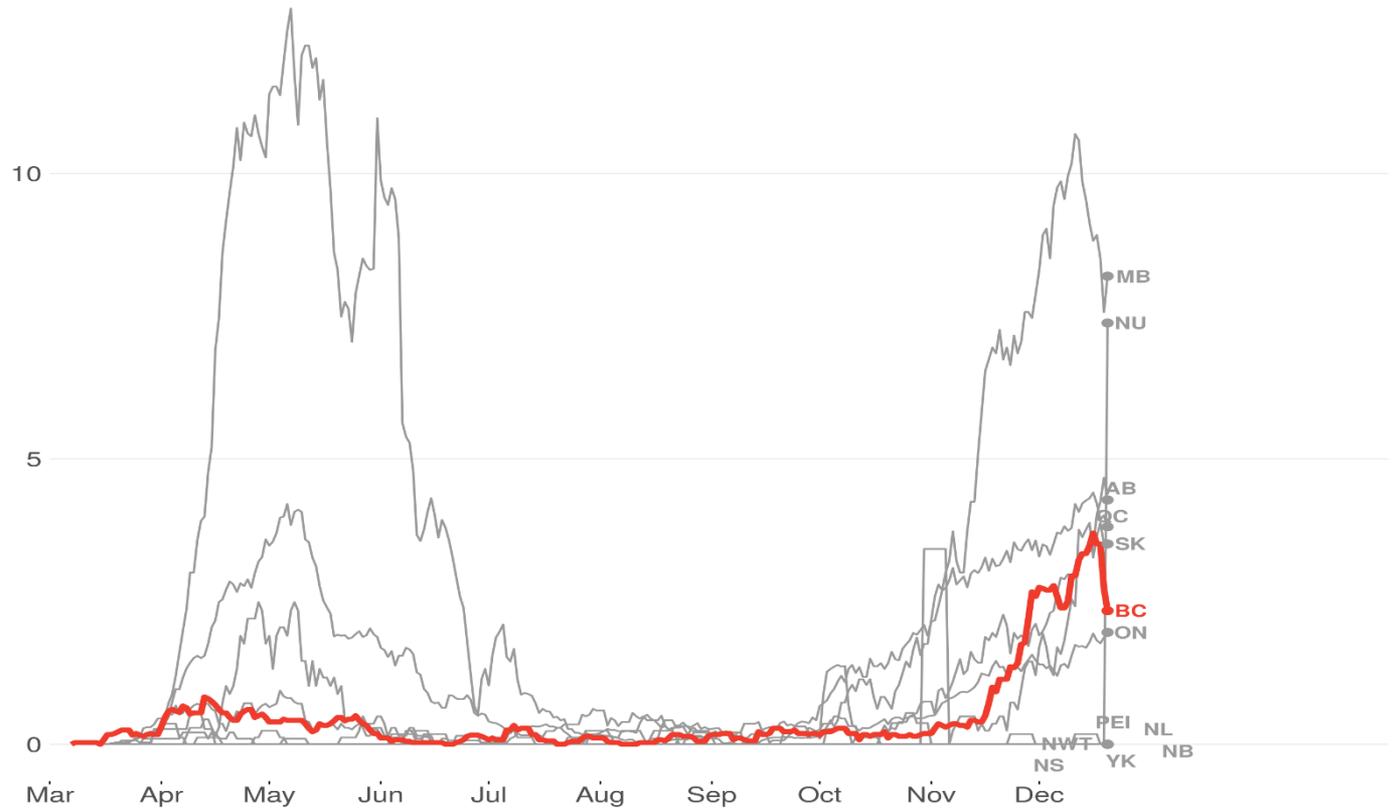
Data up to 2020-12-20

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

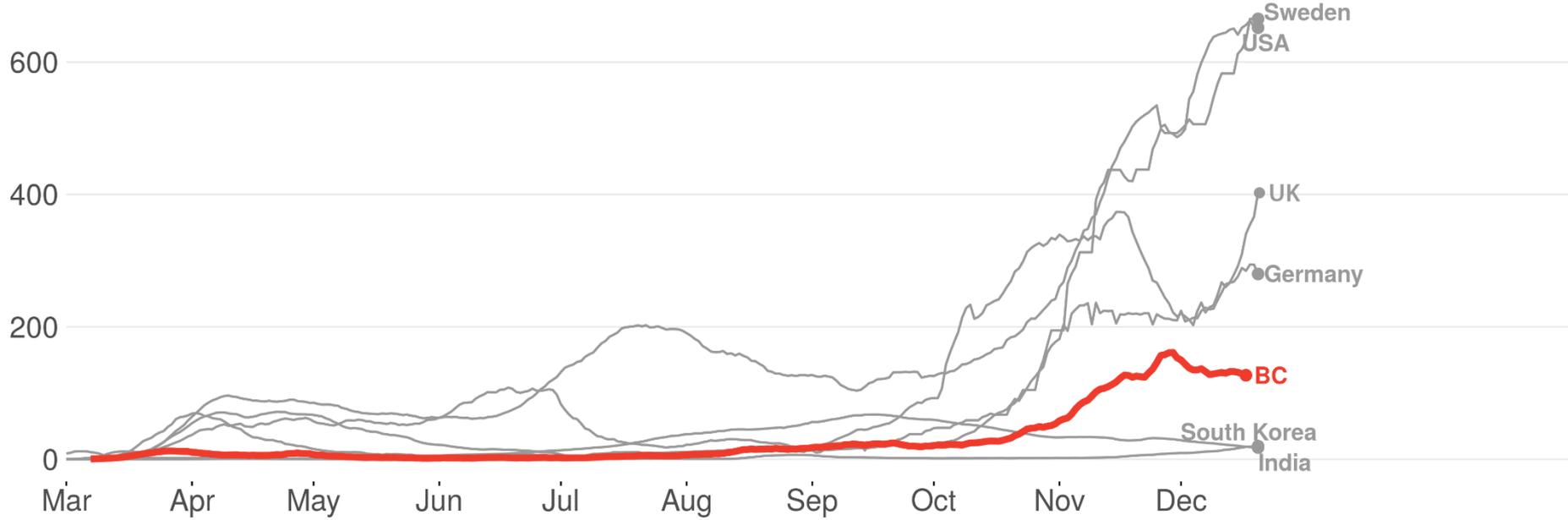
Daily death rates across Canada



Data up to 2020-12-20

Daily case rates-International

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



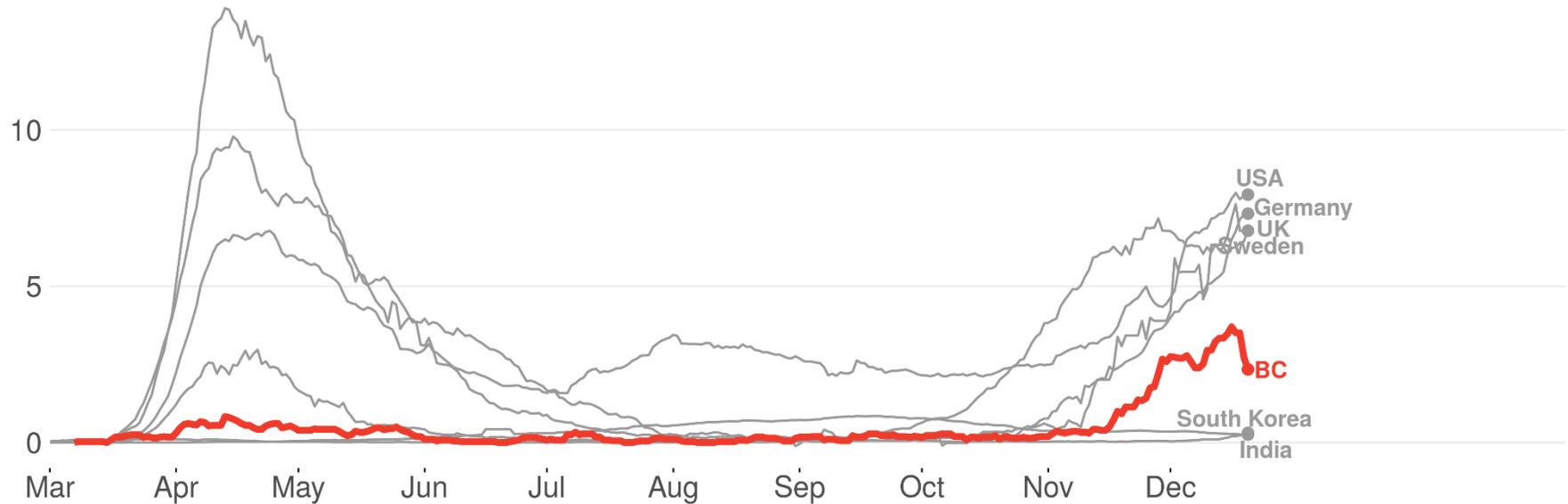
Data up to 2020-12-21

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Daily death rates-International

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



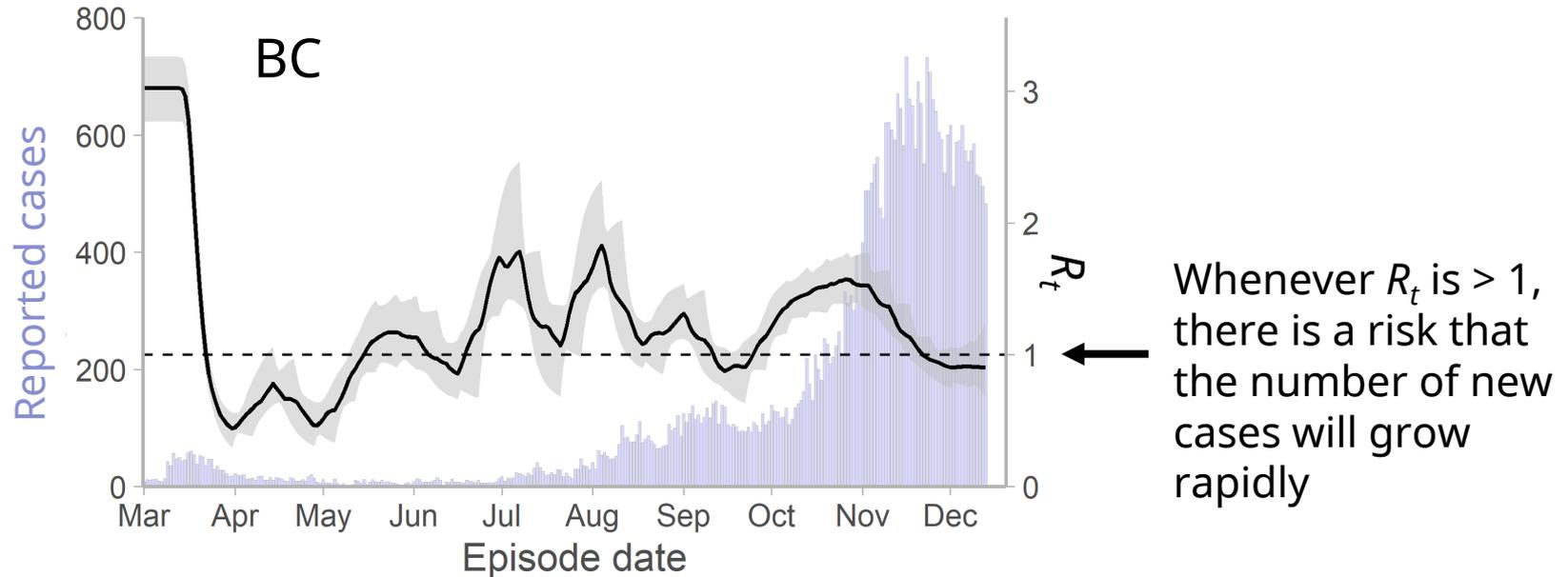
Data up to 2020-12-21

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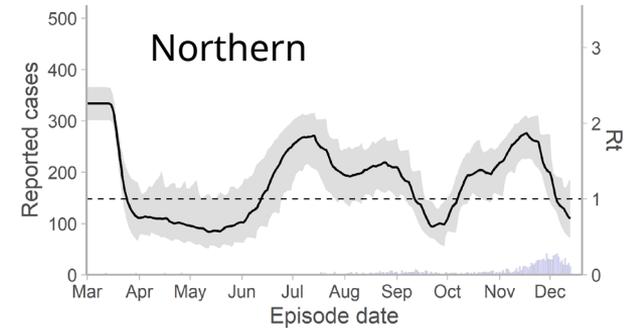
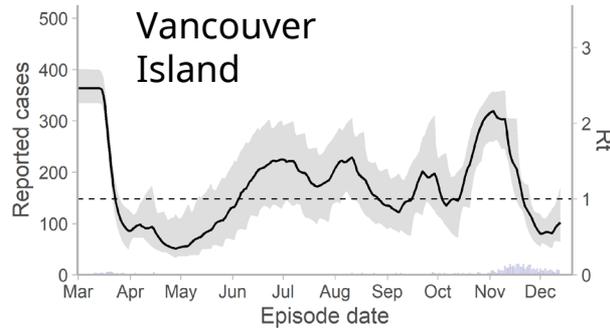
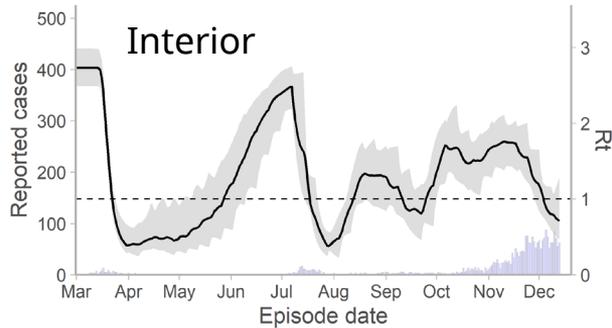
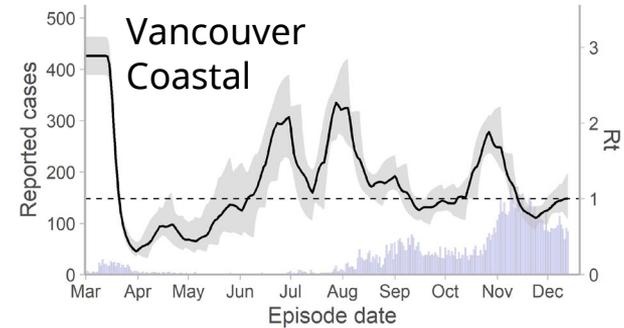
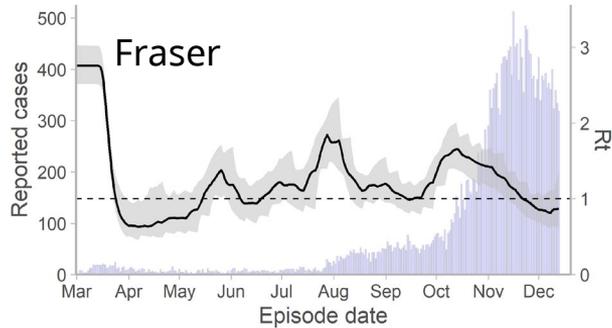
Dynamic compartmental modeling: recent trends

Provincially, our model-based estimate of R_t (average daily number of new infections generated per case) now hovers around 1

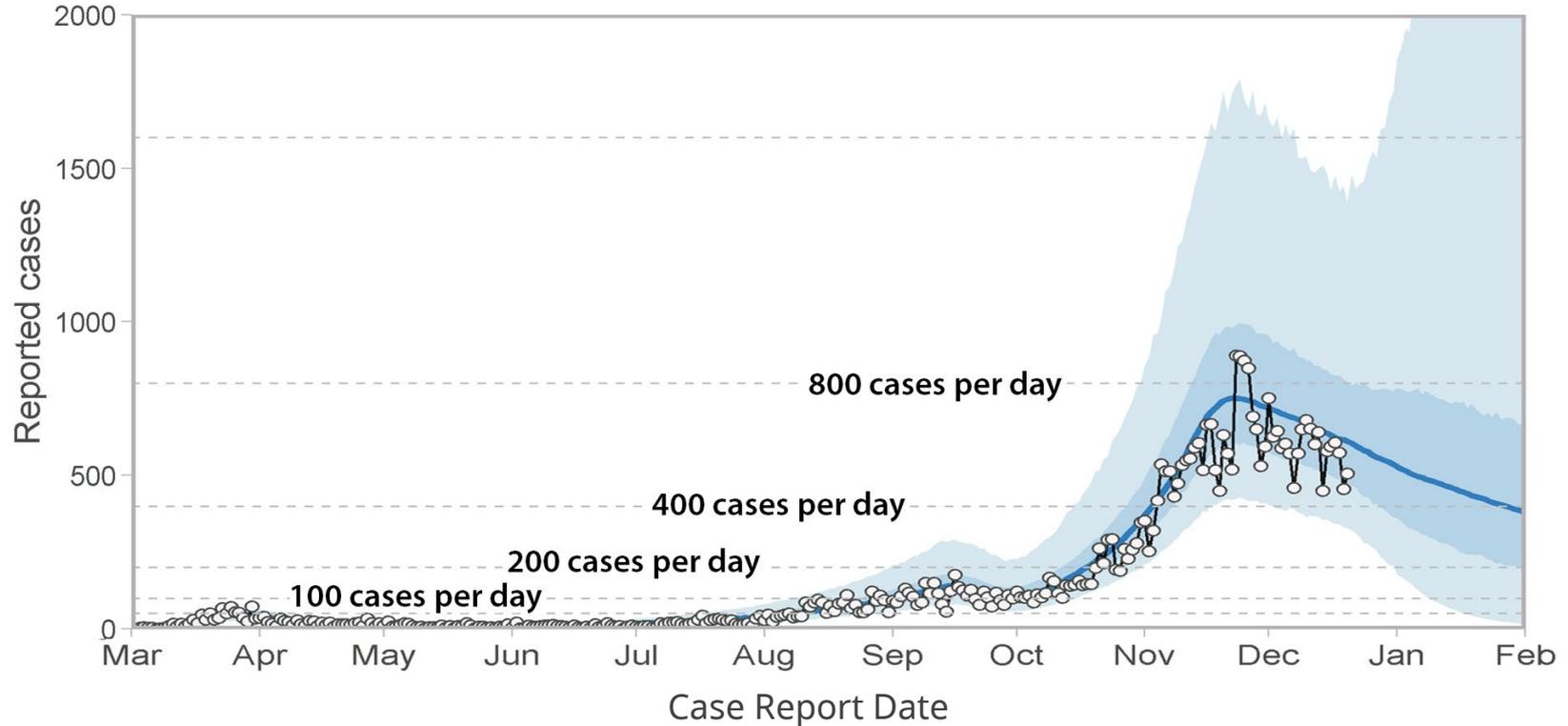


Dynamic compartmental modeling: recent trends

Our model shows that R_t has dropped since November and is now near 1 in most regions of BC



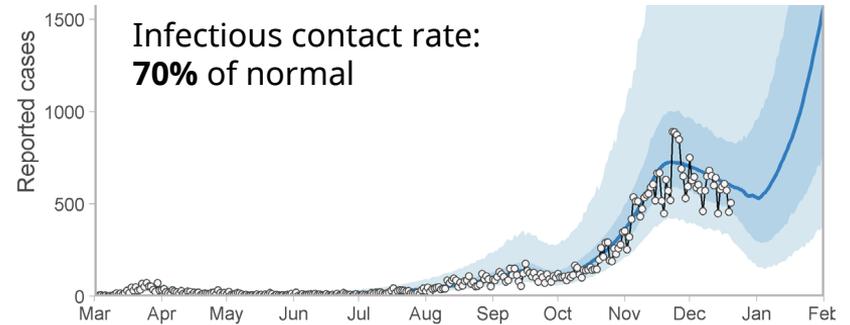
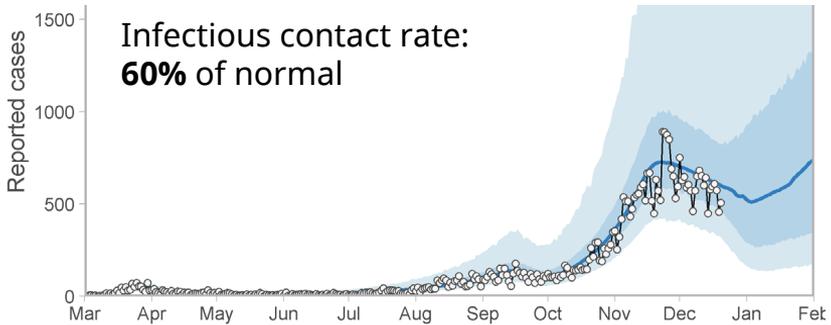
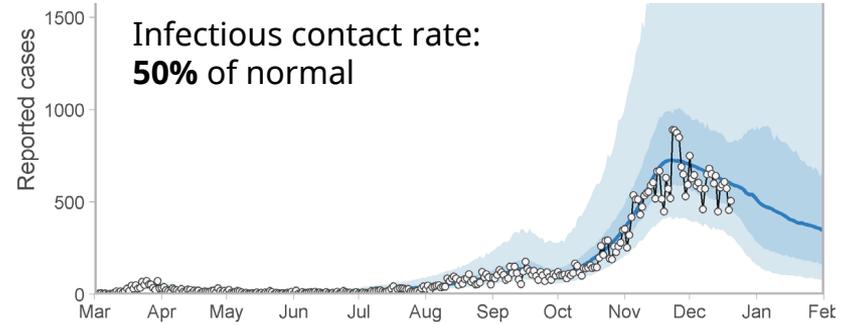
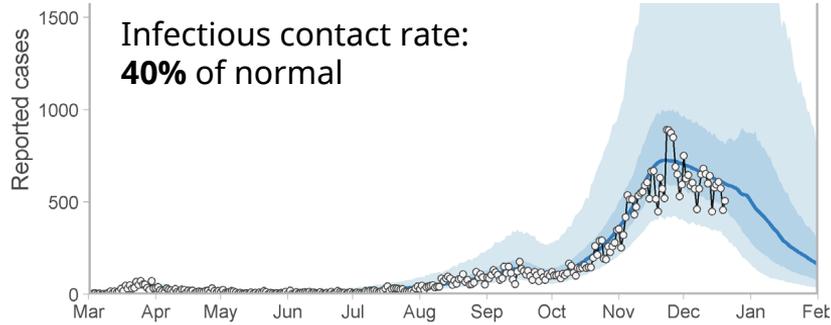
Dynamic compartmental modeling: recent trends



Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, excluding reportable outbreaks, March 1 – Dec 20, 2020.

Dynamic compartmental modeling: scenarios

Projection scenarios from our model illustrate the importance of maintaining low rates of contact.



COVID-19 Vaccination Update

Vaccination Plan Q1 2020 and Going Forward

- All Pfizer and Moderna vaccine received in BC will be administered to priority populations as their first dose until the end of January 2021.
- Their second dose will be administered approximately 35 days later to maximize the number of priority populations to receive the first dose.
- The scheduling of the priority groups may be modified throughout Q1 as transmission is monitored.

Vaccination Plan

Estimated number of doses December – March

- Approximately 792,000 (dose 1: 549,000; dose 2: 243,000)
 - Pfizer – approximately 542,000 doses (dose 1: 351,000; dose 2: 191,000)
 - Moderna – approximately 250,000 doses (dose 1: 198,000; dose 2: 52,000)

Priority Populations for December- February

December – February: Approximately 150,000 individuals

- Residents and staff of Long Term Care (LTC) – approximately 70,000 individuals
- Residents and staff of Assisted Living residences – approximately 13,000 individuals
- Individuals in hospital or community assessed and awaiting a long term care placement – approximately 2,000 individuals
- Essential visitors in LTC and Assisted Living – approximately 8,000 individuals
- Health care workers providing hospital front line care in ICUs, medical/surgical units, EDs, paramedics – approximately 30,000 individuals
- Remote/isolated First Nation communities – 25,000 individuals

Priority Populations for February - March

February - March: Approximately 400,000 individuals for dose 1

- Community-based seniors 80+ (65+ Indigenous seniors and elders) – approximately 260,000 individuals
- People experiencing homelessness and/or using shelters; provincial correctional facilities, group homes (adults); mental health residential care (adults) – up to approximately 40,000 of individuals
- Long term home support recipients and staff – approximately 60,000 individuals
- Hospital staff, community GPs and medical specialists – approximately 20,000 individuals
- First Nation Communities – approximately 25,000

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