COVID-19 IN BC

COVID-19: Fall Update

October 5, 2020

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

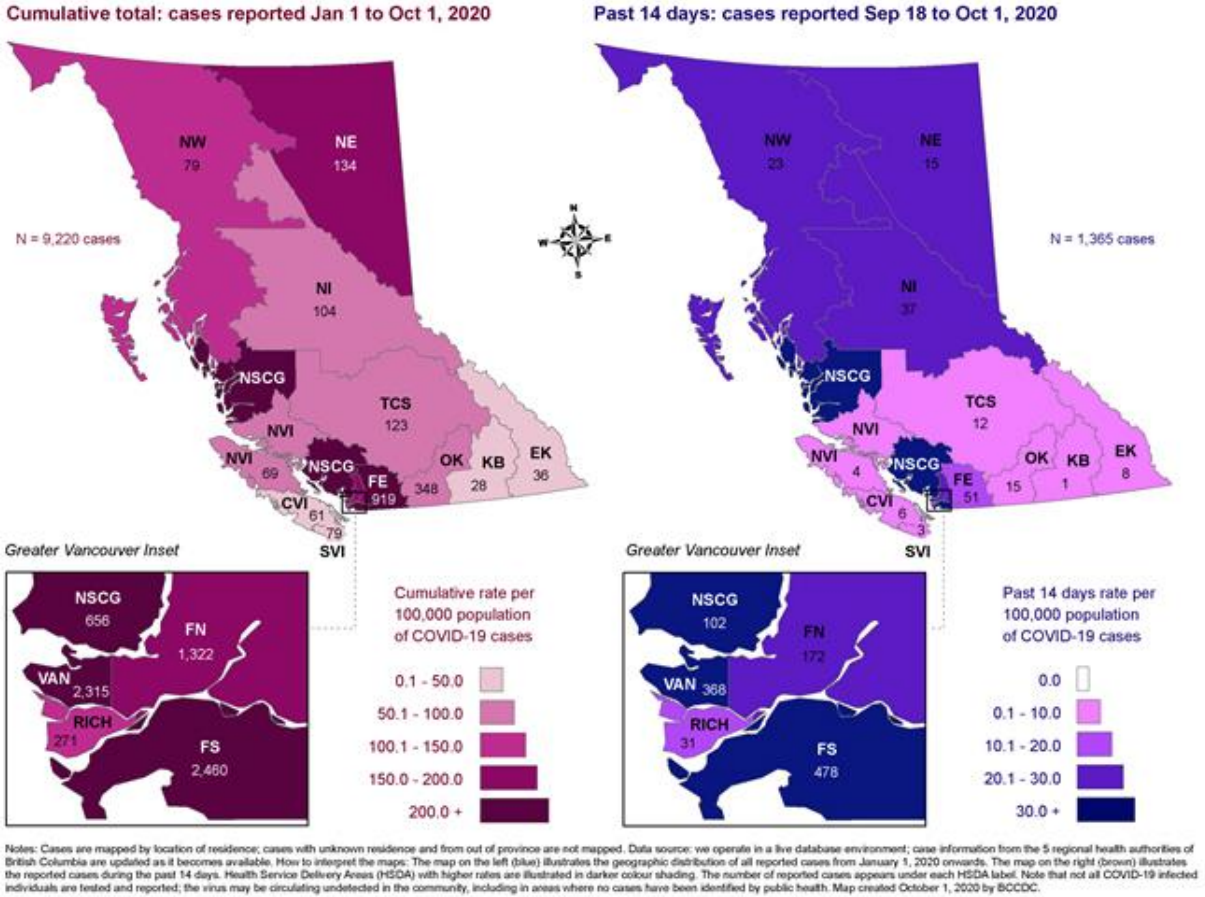
Symptom Self-Assessment:
covid19.thrive.health

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



Notes: Cases are mapped by location of residence; cases with unknown residence and from out of province are not mapped. Data source: we operate in a live database environment; case information from the 5 regional health authorities of British Columbia are updated as it becomes available. 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 14 days. Health Service Delivery Areas (HSDA) with higher rates 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 October 1, 2020 by BCCDC.

Weekly Profile of COVID-19 Cases

9,220	total cases
667	new this week

50	% female sex
38	median age

779	ever hospitalized
52	new this week

8	% cases hospitalized
67	median age

235	deaths
6	new this week

3	% cases died
85	median age

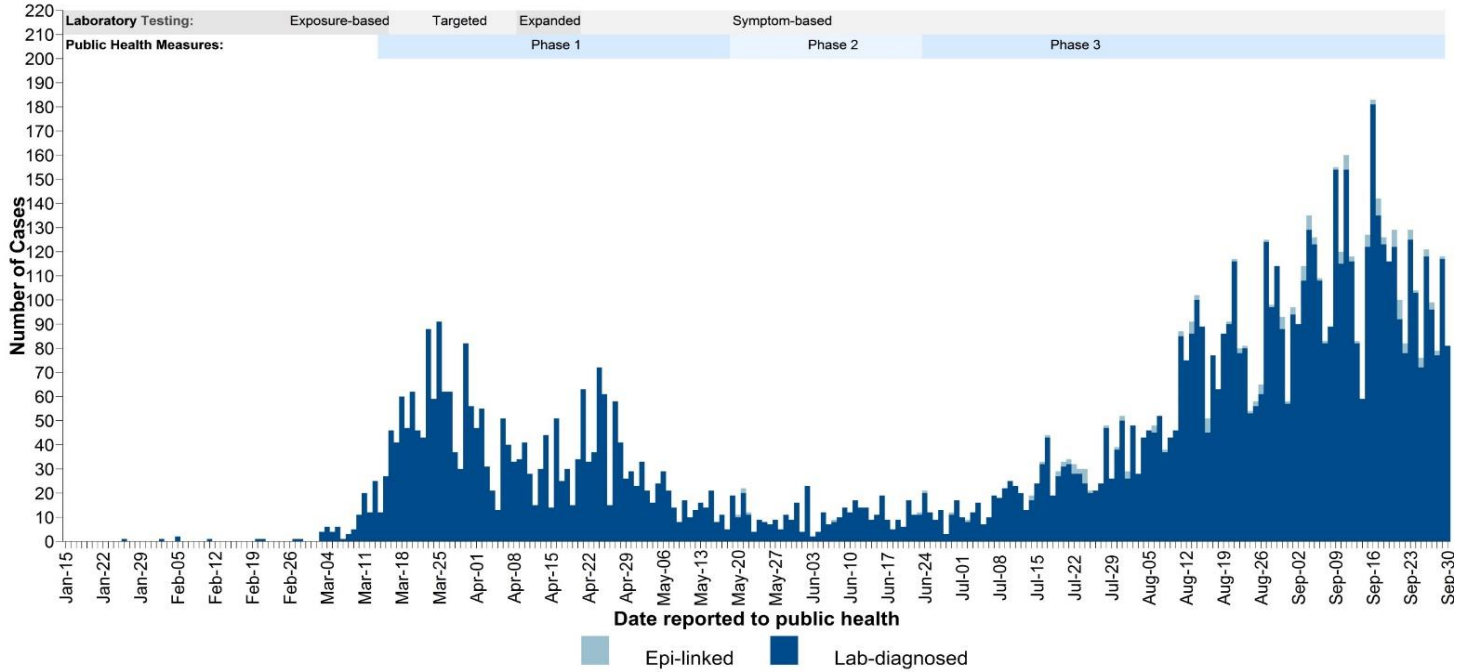
7,695	removed from isolation
778	new this week

83	% cases removed
1,261	active cases

Note: Weekly comparison represents provincial data from September 25-October 1 compared to September 18-24, 2020.

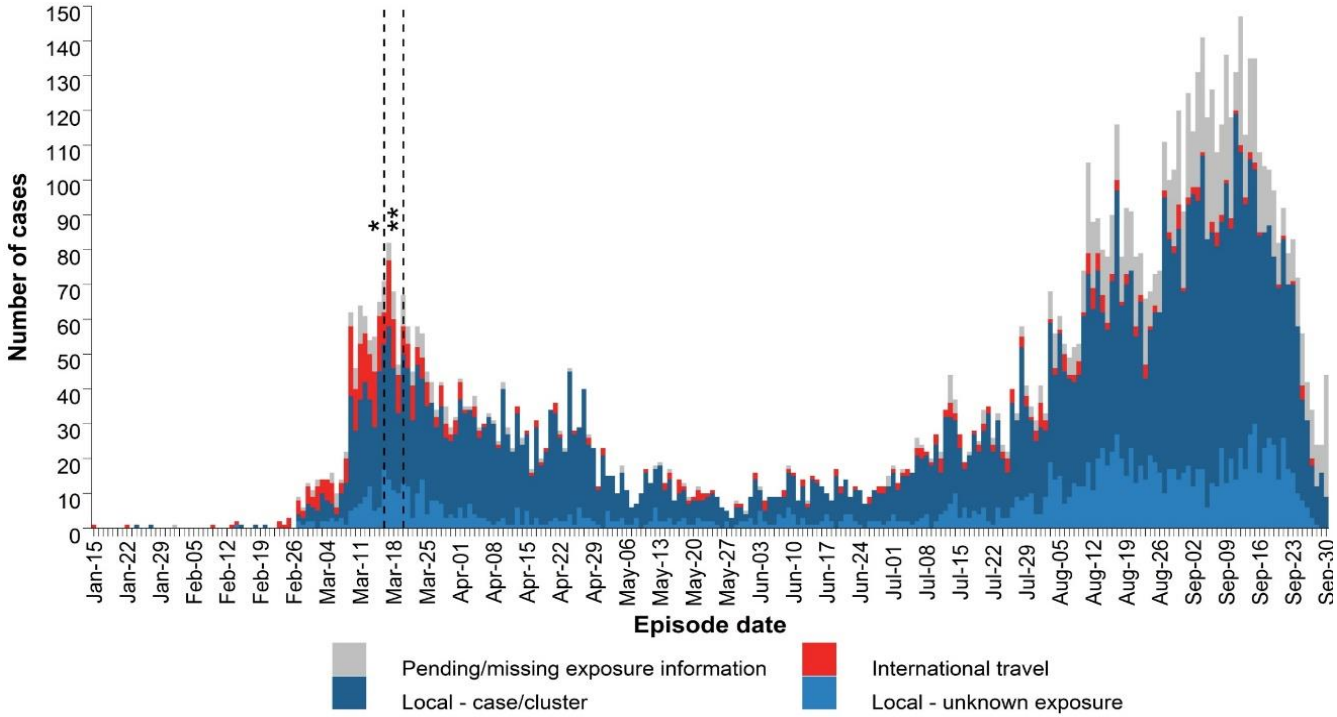
Epidemic Curve, COVID-19 Cases in B.C. by Reported Date January 1 – October 1, 2020 (N=9,215)

Cases have increased since the middle of July.



Likely Source of Infection for Cases by Episode Date, January 15 – October 1, 2020 (N=9,215)

The majority of cases are related to local acquisition through a known case or cluster.

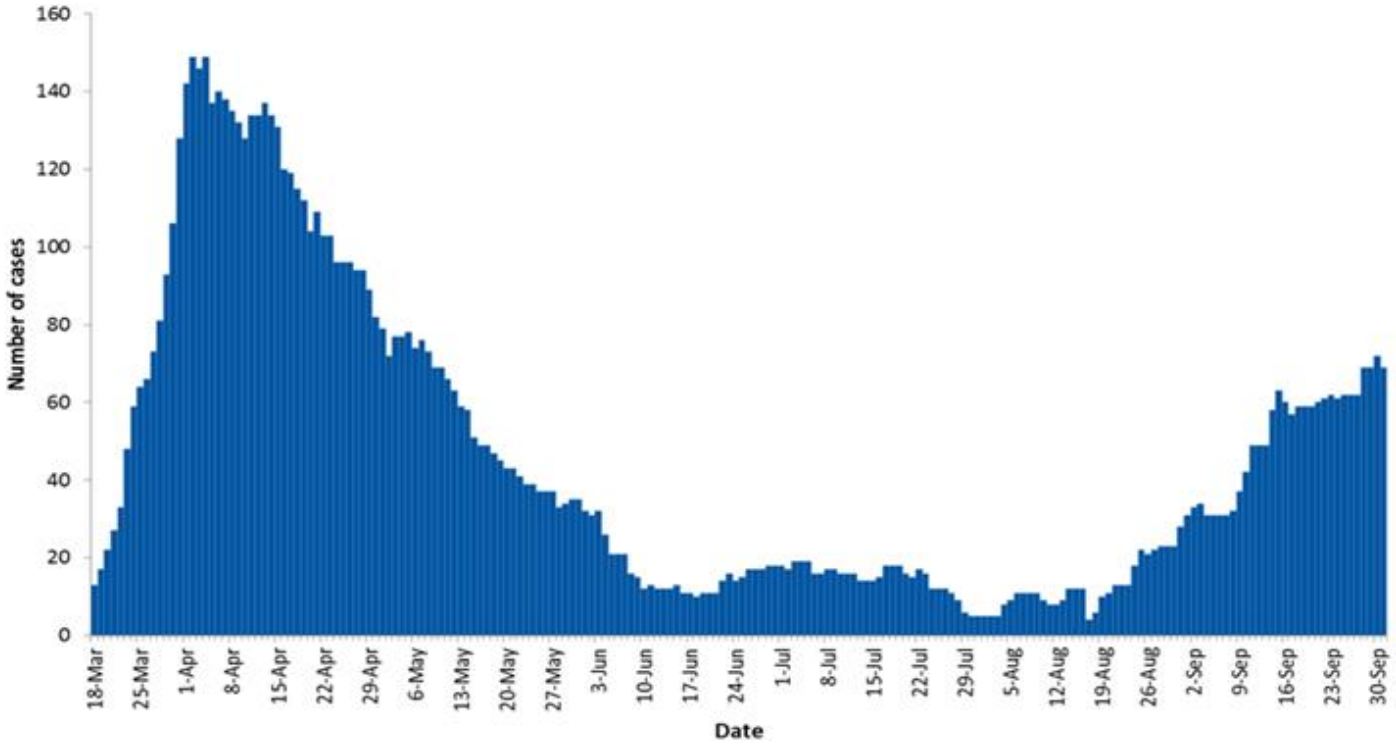


** March 16: Entry of foreign nationals banned; symptomatic individuals banned from flights to Canada; international flights restricted to four national airports.*

*** March 20: US/Canada border closed to non-essential travel.*

Number of COVID-19 Cases in Hospital by Day, BC, March 18 – October 1, 2020

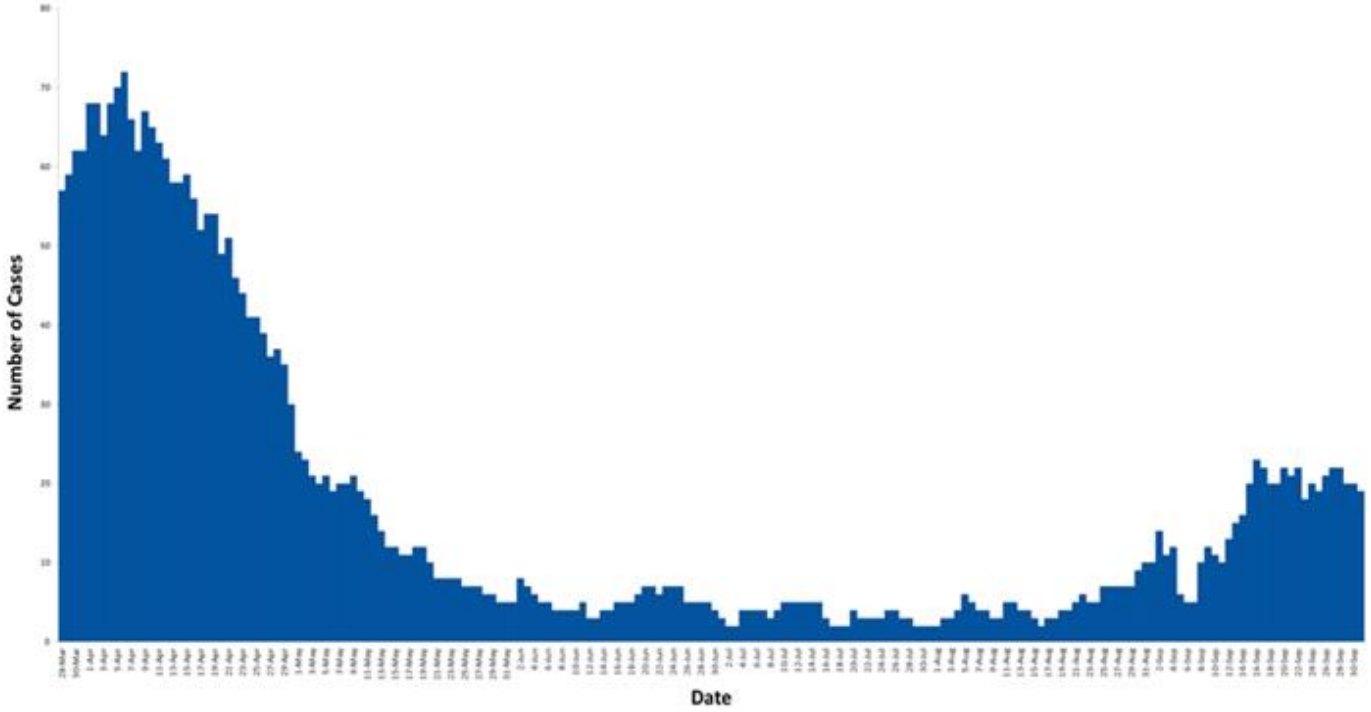
The number of cases currently in hospital is lower than in April.



Data available starting March 18. For dates with no data available (April 12; Sundays from May 10 onwards; and Saturdays from June 7 onwards).

Total COVID-19 Cases in Critical Care by Day, BC, March 25 – October 1, 2020

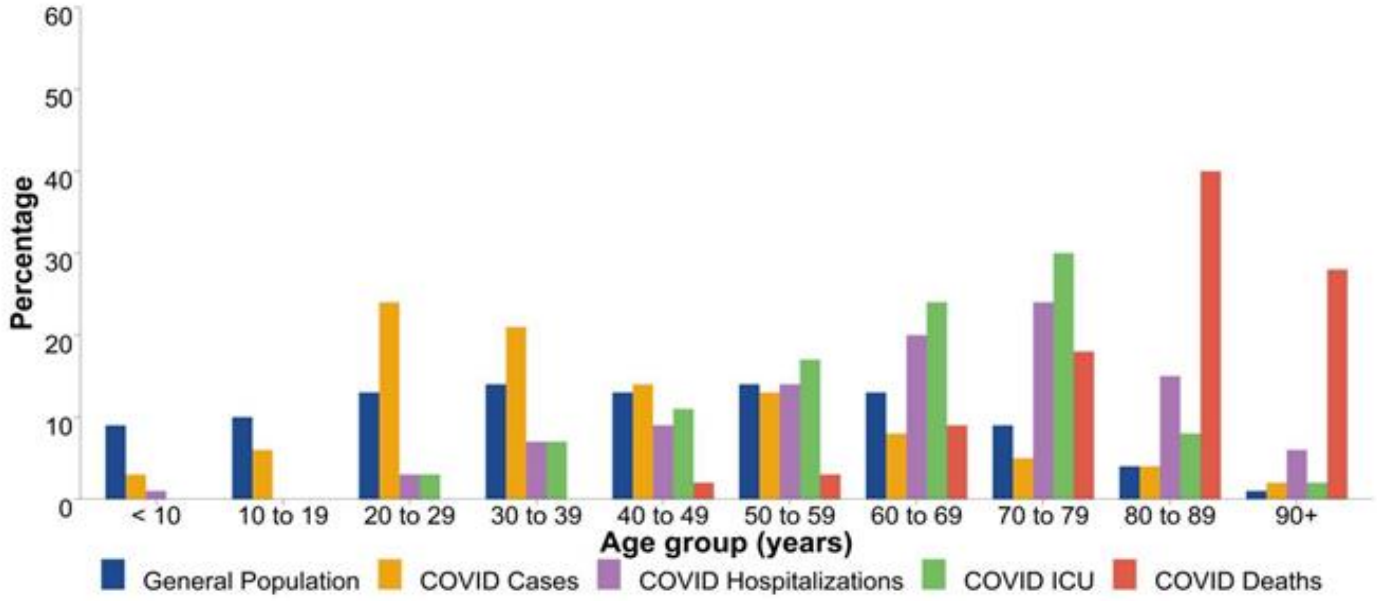
The number of cases currently in critical care is lower than in April.



Data source: PHSA October 1, 2020.
Note: critical care data may change over time due to small adjustments and improvements in data quality.

Percentage Distribution of COVID-19 Cases, Hospitalizations, ICU Admissions and Deaths by Age, Compared the General Population of BC, January 1 – October 1, 2020

Children are under-represented compared to the percentage of the population they make up.

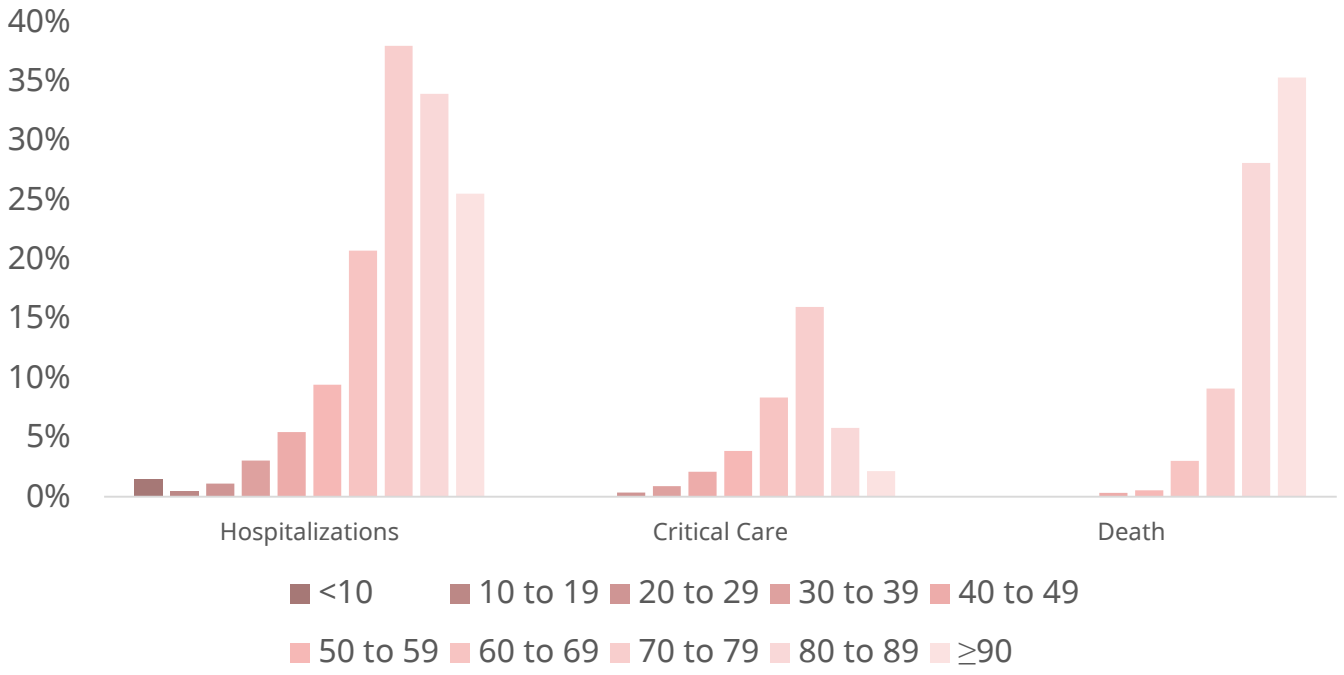


** Only cases with age information available are included.*
† PEOPLE2019-2020 population estimates.
Note: COVID hospitalizations have been reported in the <10y and 10-19y age groups but represent <1% of hospitalizations and are therefore not visible.

Hospitalizations, Critical Care and Deaths by Age in BC, January 1 – October 1, 2020

Severe outcomes are uncommon in children. The hospitalization risk for those age 0-19 years is less than 1%.

The hospitalization risk for people age 20-59 is less than 4%.



Back to School Update

COVID-19 Testing and Cases Among School-aged Children

Most Students with Symptoms do not Have COVID-19

COVID cases and schools

1. 500,000+ students and educators are back to school
2. Some students, educators and staff have tested COVID +
3. Like earlier in the pandemic, children still <10% of cases

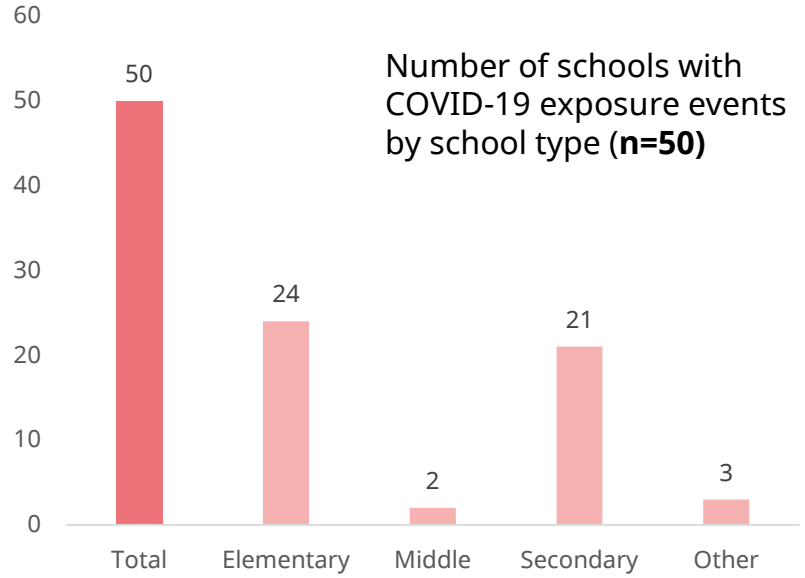
COVID testing in children and youth

1. Testing rates have gone up:
   - 4x higher for 5-12 years
   - 2x higher for 13-18 years
2. 6 in 10 tests now spit and gargle

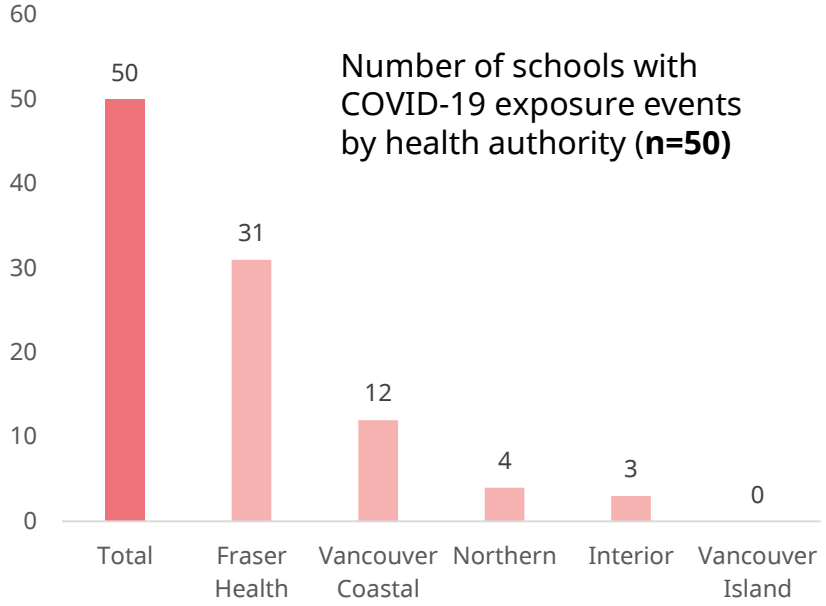
3. Only 7 in 1000 tests are COVID +

COVID-19 Exposures in a School Setting

There have been 50 school exposures in BC's 1,942 schools. The exposures represent both students and adults in the school community. Many exposures were early, suggesting infection occurred prior to school start (as of Oct 1).



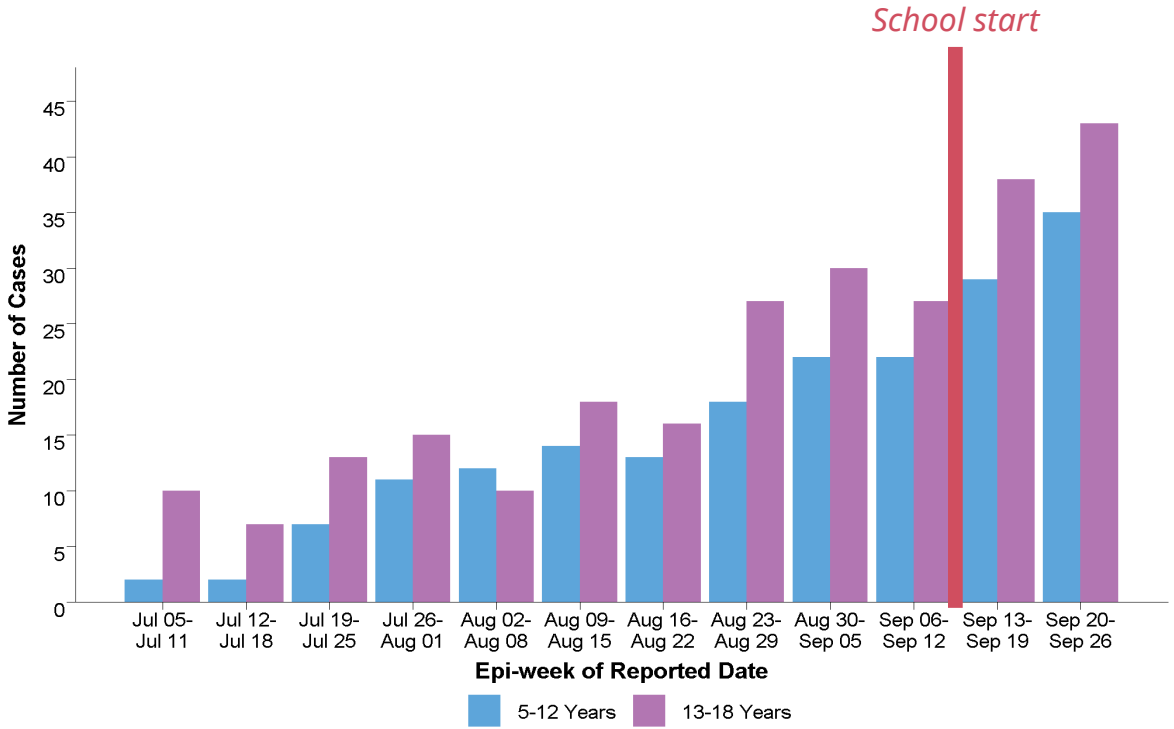
Number of schools with COVID-19 exposure events by school type (**n=50)**



Number of schools with COVID-19 exposure events by health authority (**n=50)**

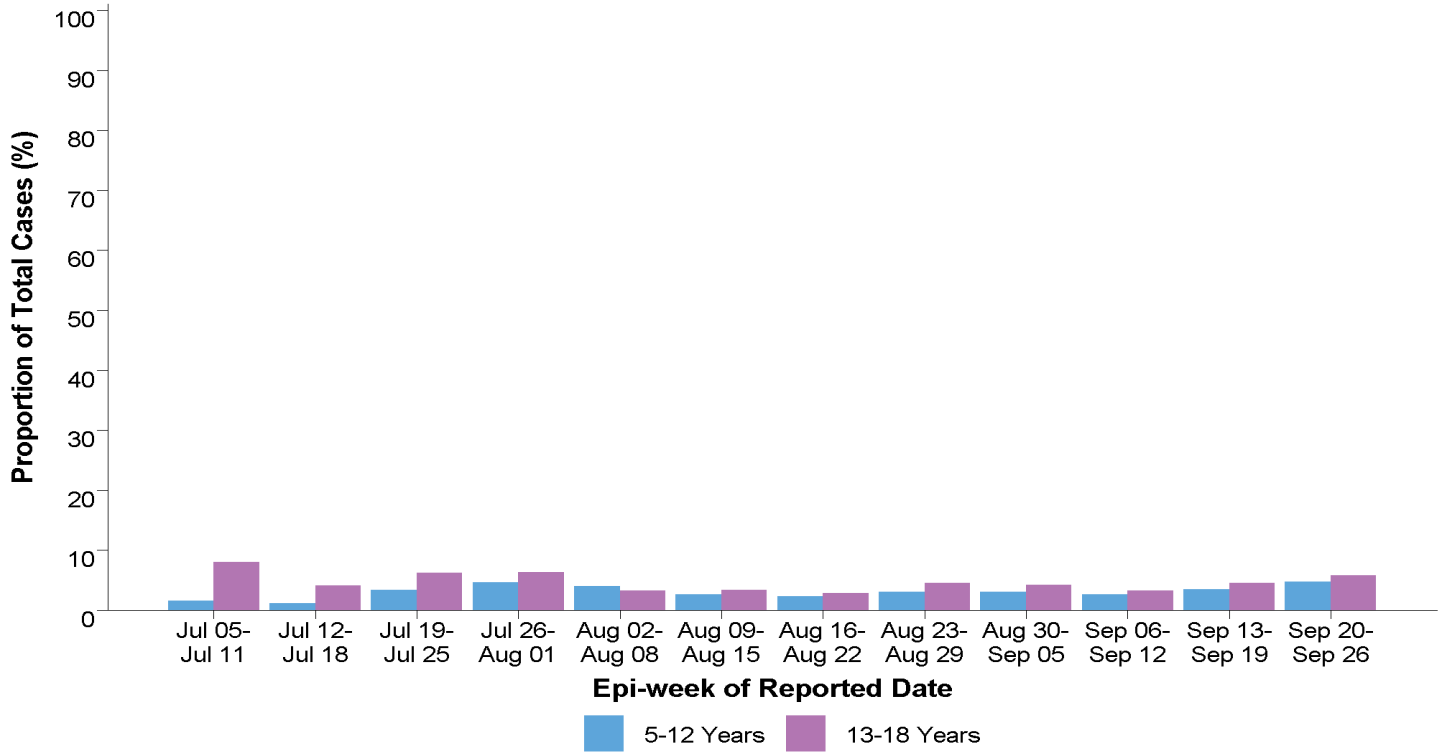
COVID-19 Cases in School Aged Children by Week of Reported Date in BC, July 5 - September 26, 2020 (N=441)

- Marginal increase in cases among 5 to 18 years since school start.
- At this time, most are unrelated to school exposure given delay between symptom onset, testing and reporting.



Proportion of School-aged COVID-19 Cases by Epidemiological Week of Reported Date, BC, July 5 - September 26, 2020 (N=441)

School-aged COVID-19 cases make up <10% of reported cases.



Weekly Summary of COVID-19 Lab Testing

532,792	total specimens tested
50,450	new this epi week

⬆ 15% from last week

10,375	total positive specimens
809	new positive this epi week

1.6% positivity

⬇ 23 % from last week

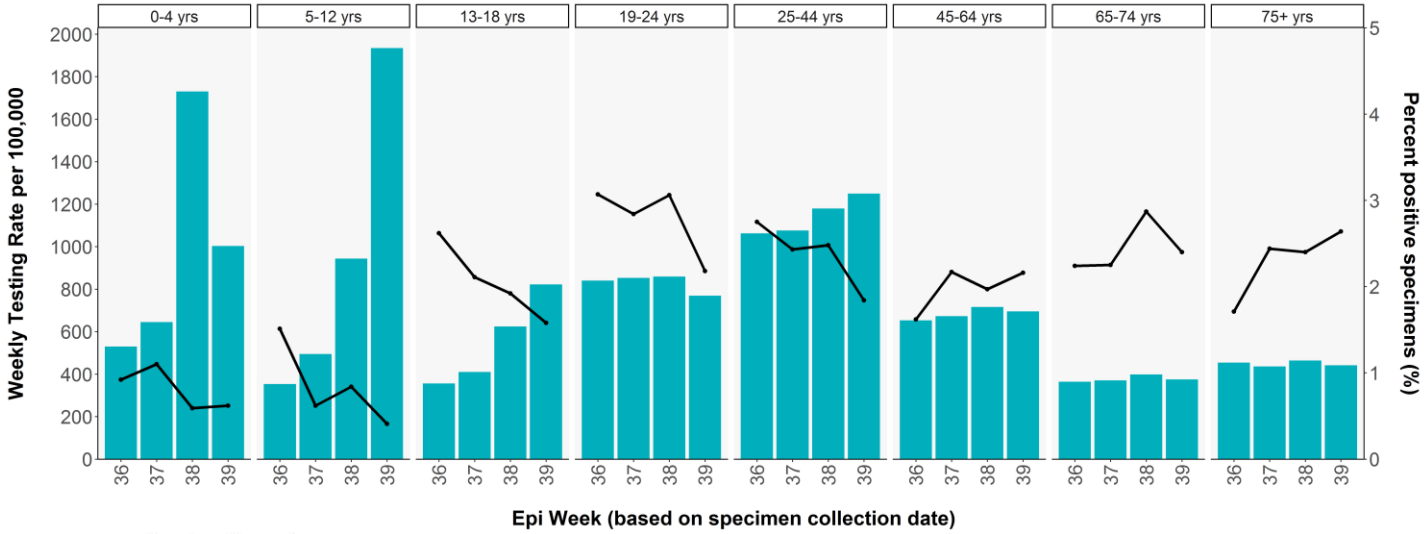
28 hr	mean turnaround time (TAT)
26 [20-34]	Median [Q1 - Q4] TAT

⬆ 6.9% TAT from last week

Data source: PLOVER extract at 11:00am on Oct 1, 2020. Integrated Lab Data extract at 11:00am on Oct 1, 2020. Epi week 39 (Sept 20 - 26).

Proportion of SARS-CoV-2 positive* respiratory specimens and testing rate by age group and epi week in BC

Testing rates have increased by 2-4 times among children 5-18 years.
1 in 250 tests positive in 5-12 years; 1 in 62 positive 13-18 years.

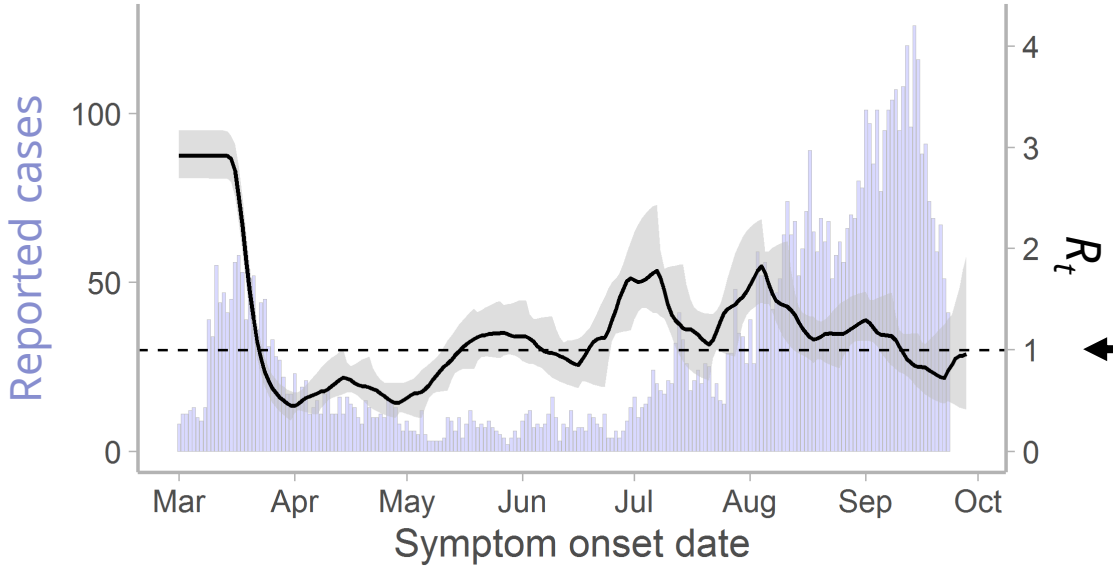


*Non-resulted specimens are excluded.Specimens collected from individuals with unknown age are excluded.

Data source: PLOVER 29-Sep-2020

Dynamic Compartmental Modelling: Recent Trends

On average, fewer infections for each case of COVID-19 in recent weeks.
Each case is now transmitting to fewer than 1 one person.



Model-based estimate of Rt (average daily number of new infections generated per case) has declined and is close to 1.

Threshold for sustained growth in new cases.

Solid black line: median R_t from model fit based on data up to Sep 28, 2020.; Grey band: 5%-95% credible interval; Purple bars: reported cases, excluding reportable outbreaks; The most recent case counts are not shown due to data lags. R_t values in most recent 2 weeks incorporate mobility data for improved estimation.

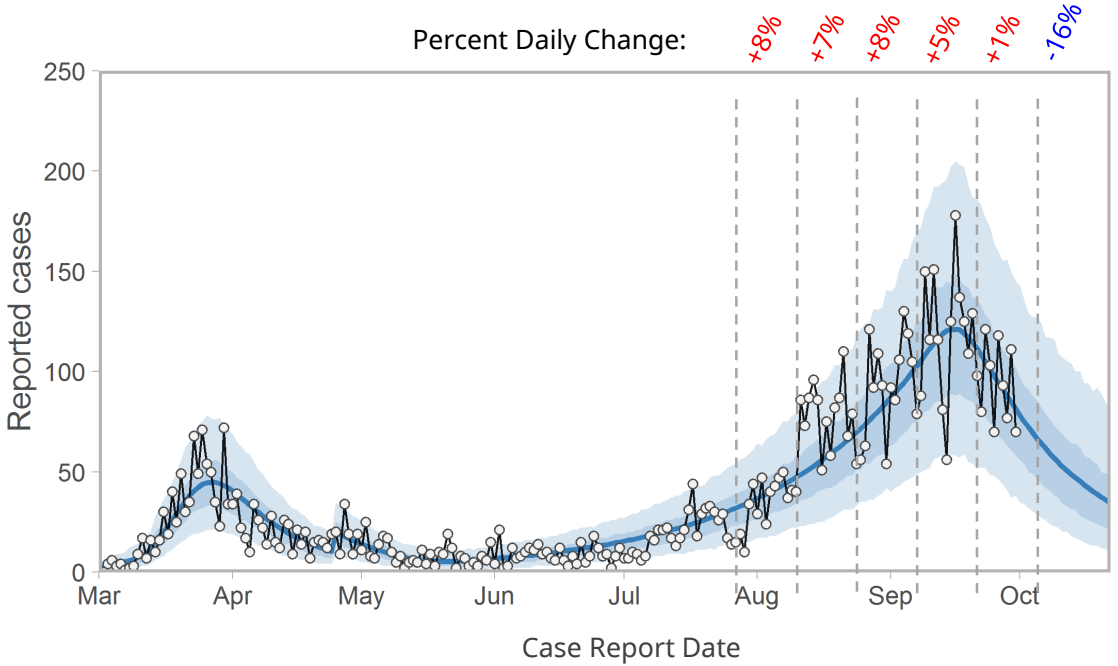
Dynamic Compartmental Modelling: Recent Trends

Percent daily change: indicates epidemic growth rate as the median percent change in daily numbers of new cases (over previous 2 weeks)

\+ percent change = ↑ daily cases

– percent change = ↓ daily cases

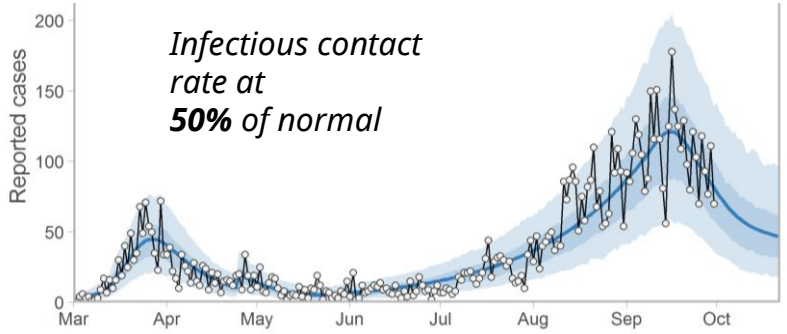
Our model shows a turn around in percent daily change over the past 2 weeks, after consistent growth in cases throughout the summer.

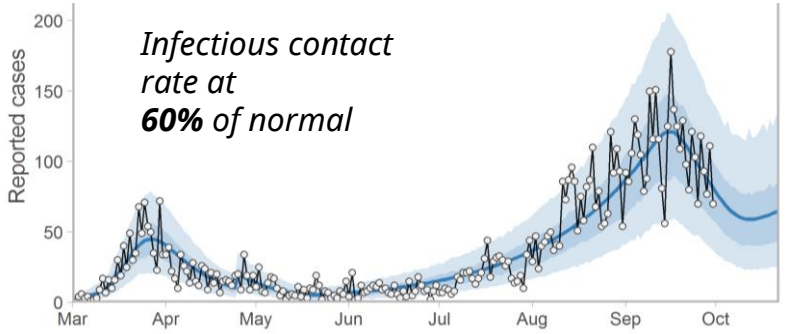


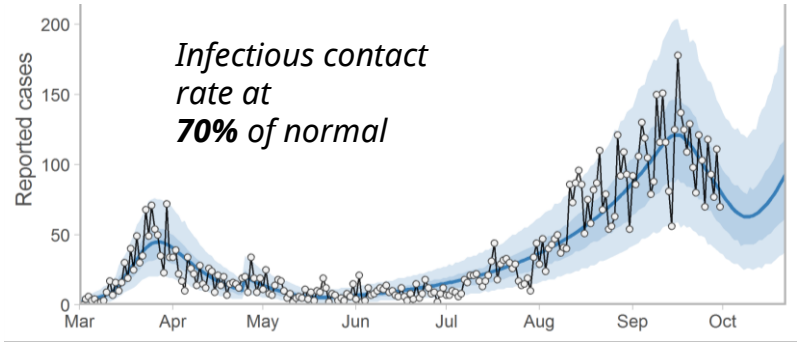
Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, excluding reportable outbreaks, March 1 – Sept. 30, 2020.

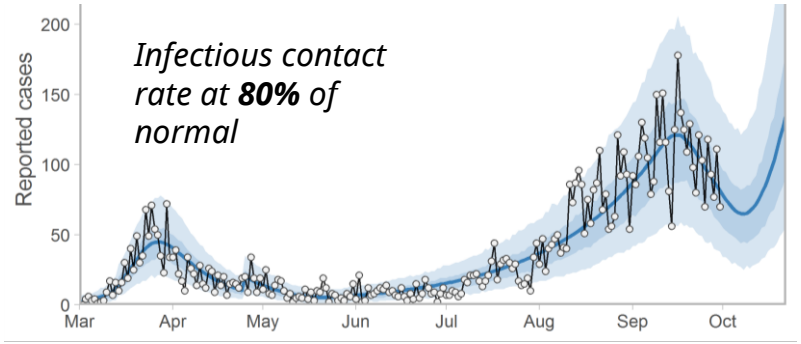
Dynamic Compartmental Modelling: Scenarios

Currently, the average rate of infectious contacts is estimated to be roughly 45% of normal.

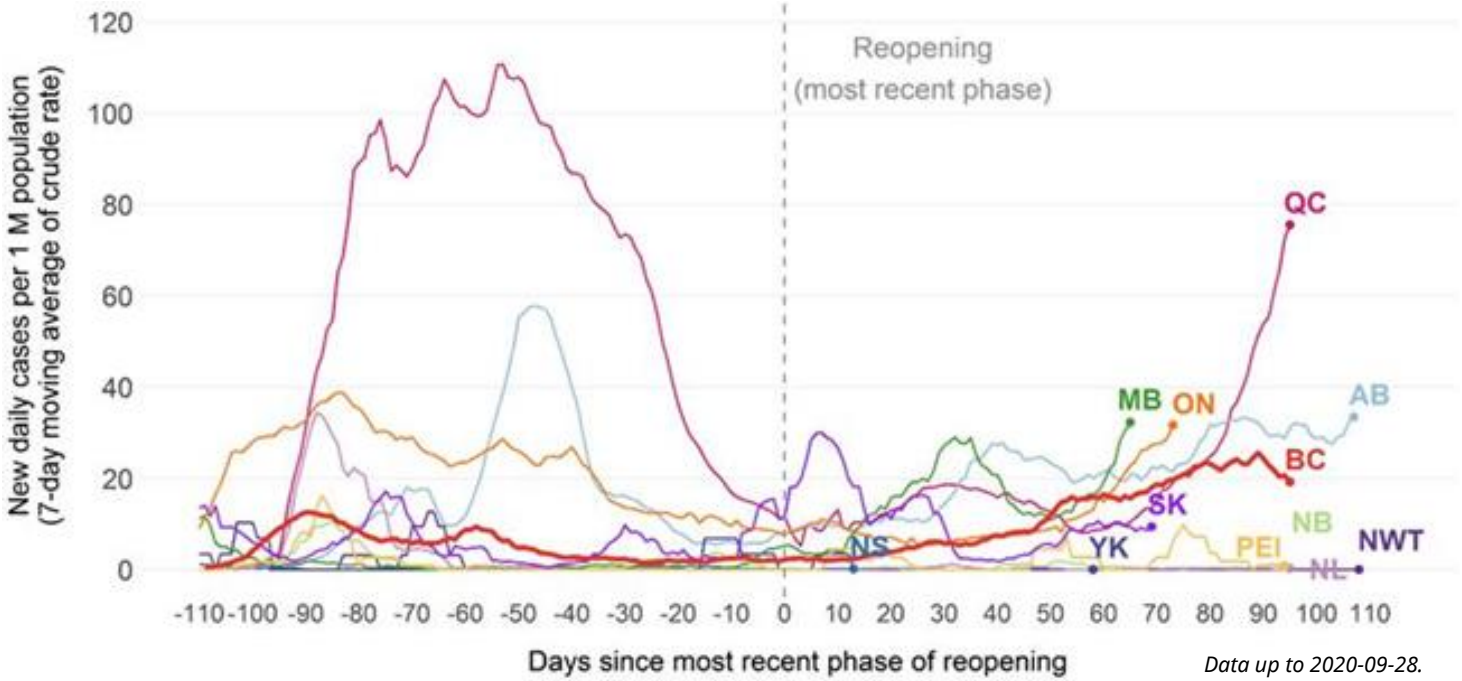






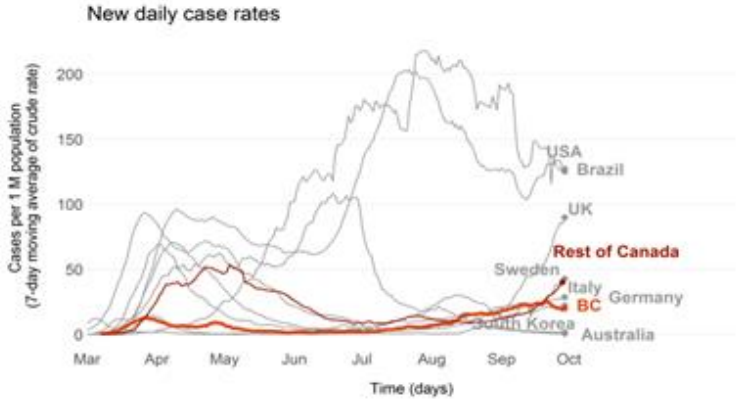


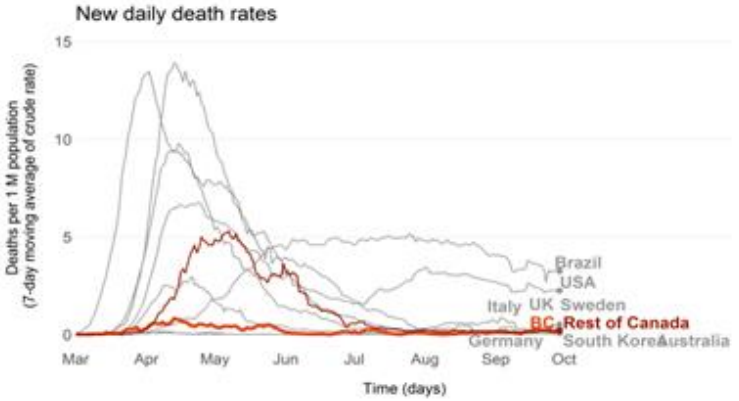
Daily Case Rates in Canada

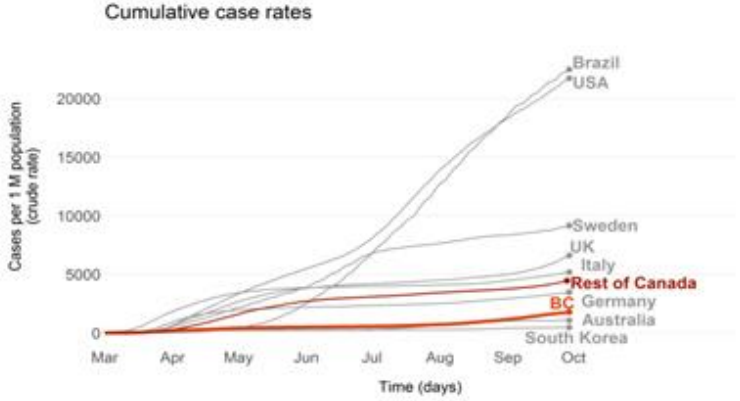


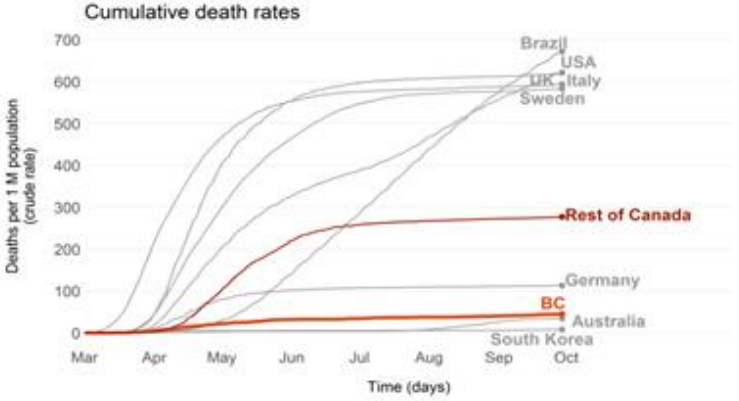
Data up to 2020-09-28.

International Cases

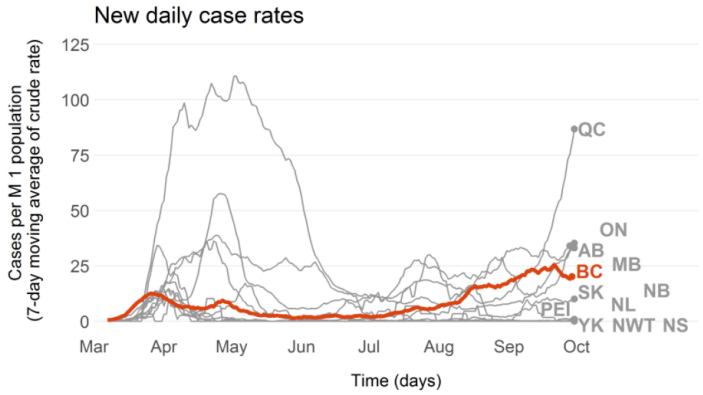


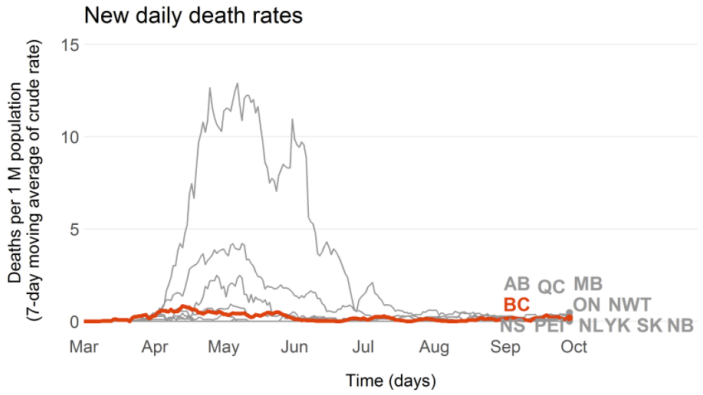


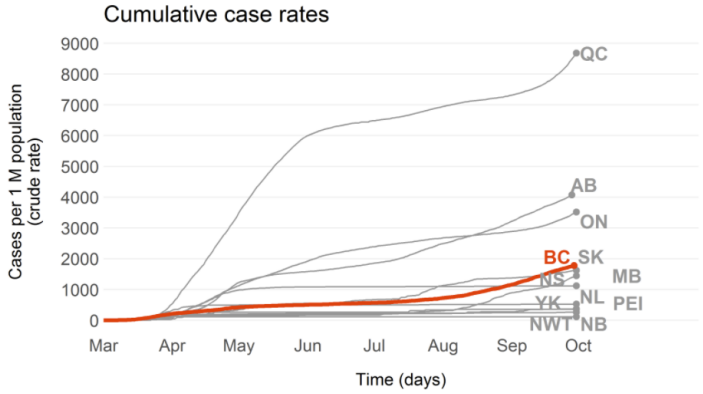


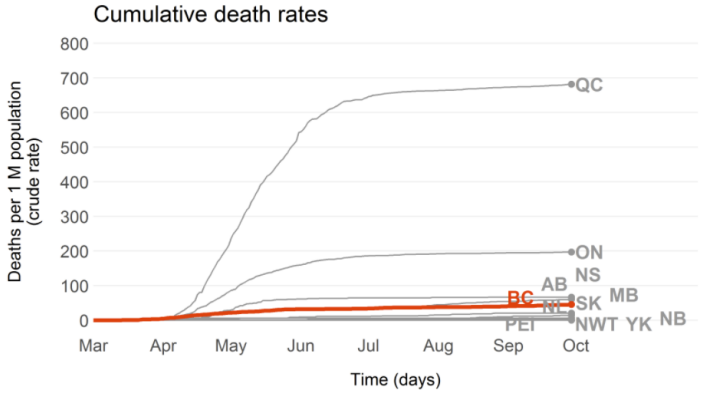


Cases and Deaths in Canada









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