

British Columbia Weekly COVID-19 Surveillance Report*

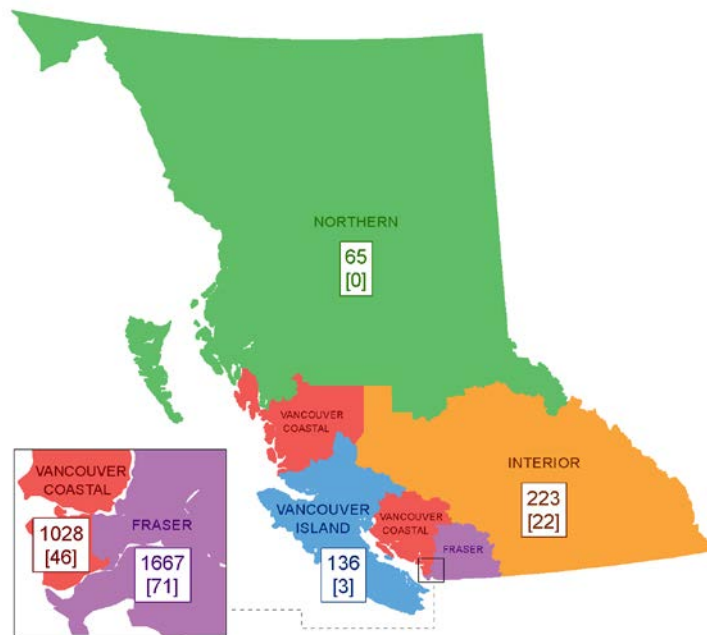
July 10-16, 2020**

Key Findings

COVID-19 risk in BC has recently increased slightly but remains very low.

- New reported cases have increased slightly but hospital admissions and deaths remain low ([Table 1](#), [Fig 3](#), [Fig 5](#)).
- Although the incidence remains highest in the lower mainland, cases have recently been reported in other regions ([Table 1](#)).
- Most cases have been infected through contact with a local case or cluster ([Table 2](#)).
- The number of reported cases among children remains low ([Table 3](#), [Fig 7](#)). No school or daycare outbreaks have been reported.
- One new outbreak has been declared in the last month ([Fig 9](#), [Table 4](#)).
- The number of cases in hospital and in critical care continues to remain low ([Fig 10](#), [Fig 11](#)).
- The BC outbreak trajectory remains favourable compared to other provinces and countries ([Fig 12](#), [Fig 13](#)).

Figure 1: Map of total and new COVID-19 cases reported since last week by health authority of residence, BC, January 1 – July 16, 2020 (N=3,170)^{^†}



[^]New cases reported since last week by health authority are denoted in parentheses.

[†] Cases reported as “Out of Canada” (n=51) are not reflected on the map.

*Findings are based on lab-confirmed, lab-probable, and epi-linked cases (case definition found here: [http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-\(novel-coronavirus\)](http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus))) reported from Health Authorities to BCCDC as of 10am, except where otherwise noted. Data represent a subset of actual infections and are subject to change with changes in testing recommendations and practices, changes in case definitions, data reconciliation and/or as data become more complete. As of July 3, residents of other Canadian provinces/territories are reported by that province/territory.

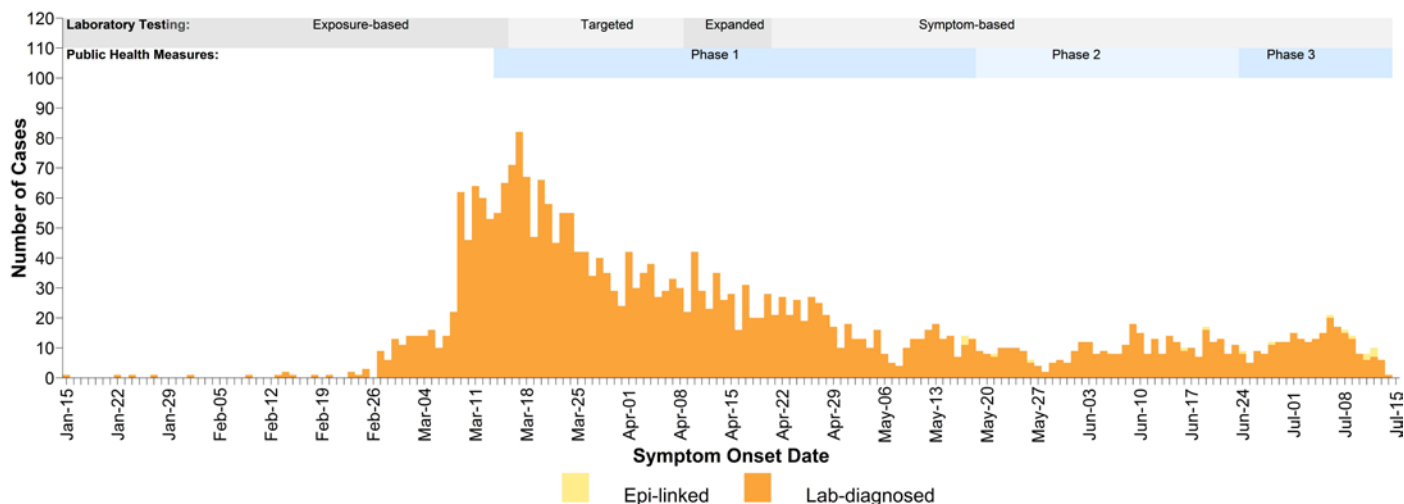
** Produced weekly (Thursdays) effective July 16, 2020

Table 1: Epidemiological profile of reported cases by health authority of residence, BC, January 1 – July 16, 2020 (N=3,170)

	Health Authority of Residence ^c						Total N (%) ^f
	Fraser	Interior	Vancouver Island	Northern	Vancouver Coastal	Out of Canada	
Total number of cases^{a,b}	1,667	223	136	65	1,028	51	3,170
New cases since last week (July 9)^d	71	22	3	0	46	0	142
Number of lab-confirmed and lab-probable cases	1,665	215	132	65	1,026	50	3,153
Number of epi-linked probable cases ^{b,e}	2	8	4	0	2	1	17
Median age in years, cases ^g	46	45	50	44	55	44	50 years (range 0-104y)
Female sex, cases	829	108	71	38	573	9	1,628 (52%)
Cumulative incidence per 100,000 population^h	86.9	27.8	16.0	21.7	82.9	-	61.0^h
Ever hospitalizedⁱ	276	30	25	14	184	3	532 (17%)
Median age in years, ever hospitalized ^g	69	62	72	44	69	48	69 years (range 0-98y)
Currently hospitalized ^{i,j}	10	0	0	0	5	0	15
Currently in critical care^{i,j}	2	0	0	0	1	-	3
Total deaths, case fatality and cumulative mortality^{h,i}	79	2	5	0	103	0	189 (6%) 3.7 per 100,000^h
New deaths since last week (July 9)^d	0	0	0	0	3	0	3
Median age in years, deaths ^g	83	73	85	NA	87	NA	85 years (range 47-103y)
Discontinued isolation^k	1,505	200	127	65	844	48	2,789 (88%)

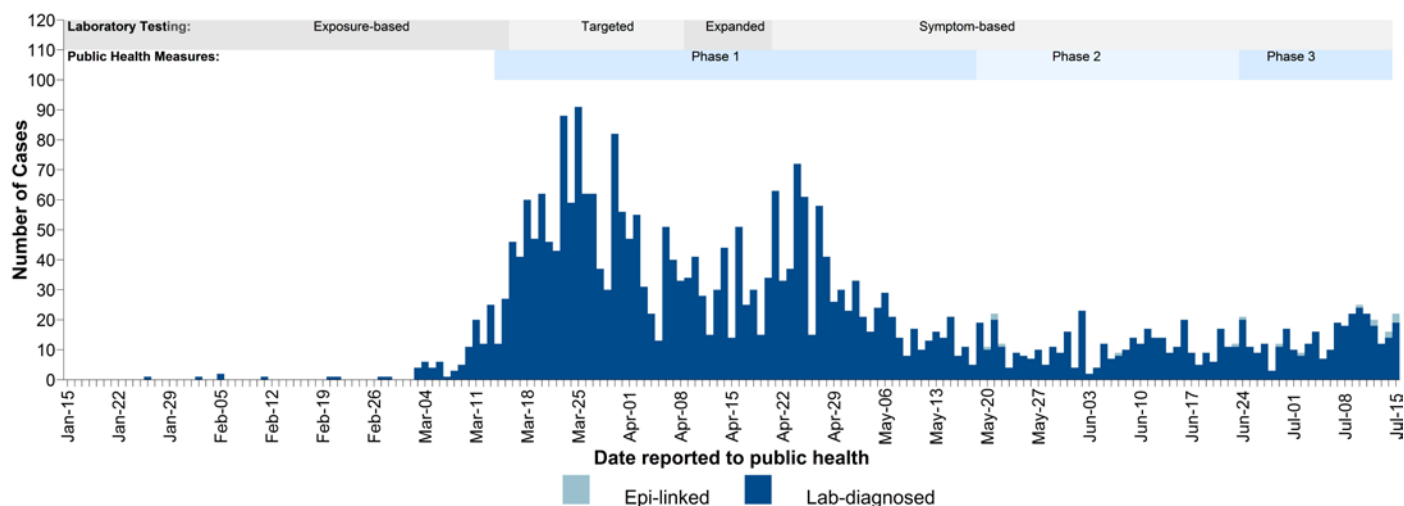
- a. Total COVID-19 cases includes lab-confirmed, lab-probable and epi-linked cases. Case definitions can be found at: [http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-\(novel-coronavirus\)](http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus)). As of July 3, residents of other Canadian provinces/territories are reported by that province/territory.
- b. Epi-linked cases reported on or after May 19, 2020 are included.
- c. As of July 9, cases are reported by health authority of residence. When health authority of residence is not available, cases are assigned to the health authority reporting the case. Cases whose primary residence is outside of Canada are reported as "Out of Canada". Previously, cases were assigned to the health authority that reported the case. Please note that the health authority of residence and the health authority reporting the case do not necessarily indicate the location of exposure or transmission.
- d. "New" cases and deaths reflect the difference in counts reported to the BCCDC between the day of the last report and today's report as of 10am. This may not be equal to the number of cases/deaths by date reported to HAs, as: (1) cases/deaths reported prior to 10am would be included as new cases/deaths in today's report and cases reported after 10am would be included in the next report's count; and (2) there may be some delays between cases/deaths being reported to HAs and then reported to BCCDC.
- e. Epi-linked case counts may decrease if cases are tested and meet a different case classification.
- f. Denominator for % derivation is total number of cases (N), except sex which is calculated based on those with known information on sex.
- g. Median age is calculated based on those with known information on age.
- h. PEOPLE2019-2020 population estimates. Incidence and mortality rates calculated only for BC residents.
- i. Serious outcome (e.g. hospitalization, death) tallies may be incomplete or out of date (i.e. under-estimates) owing to the timing and processes for case status update.
- j. Source: PHSA July 16 @10am. The number of COVID cases in critical care units is reported daily by each Health Authority and includes the number of COVID patients in all critical care beds (e.g., intensive care units; high acuity units; and other surge critical care spaces as they become available and/or required). Cases are reported by health authority of hospital. Work is ongoing to improve the completeness and accuracy of the data reported.
- k. Self-isolation has been discontinued per the criteria outlined in the BC guidelines for public health management of COVID-19: (1) resolution of fever without use of fever-reducing medications; AND (2) improvement of symptoms (respiratory, gastrointestinal and systemic); AND (3) either two negative nasopharyngeal swabs collected at least 24 hours apart, or at least 10 days have passed since onset of symptoms. These are the same criteria that had been used in previous reports for "recovered" cases.
- l. Current cases for July 16, 2020.

Figure 2: Epidemic curve, COVID-19 cases in BC by symptom onset date January 15 – July 15, 2020 (N=2,955[†])



[†] Only cases with symptom onset dates reported are included.

Figure 3: Epidemic curve, COVID-19 cases in BC by reported date January 15 – July 15, 2020 (N=3,169[‡])[¥]



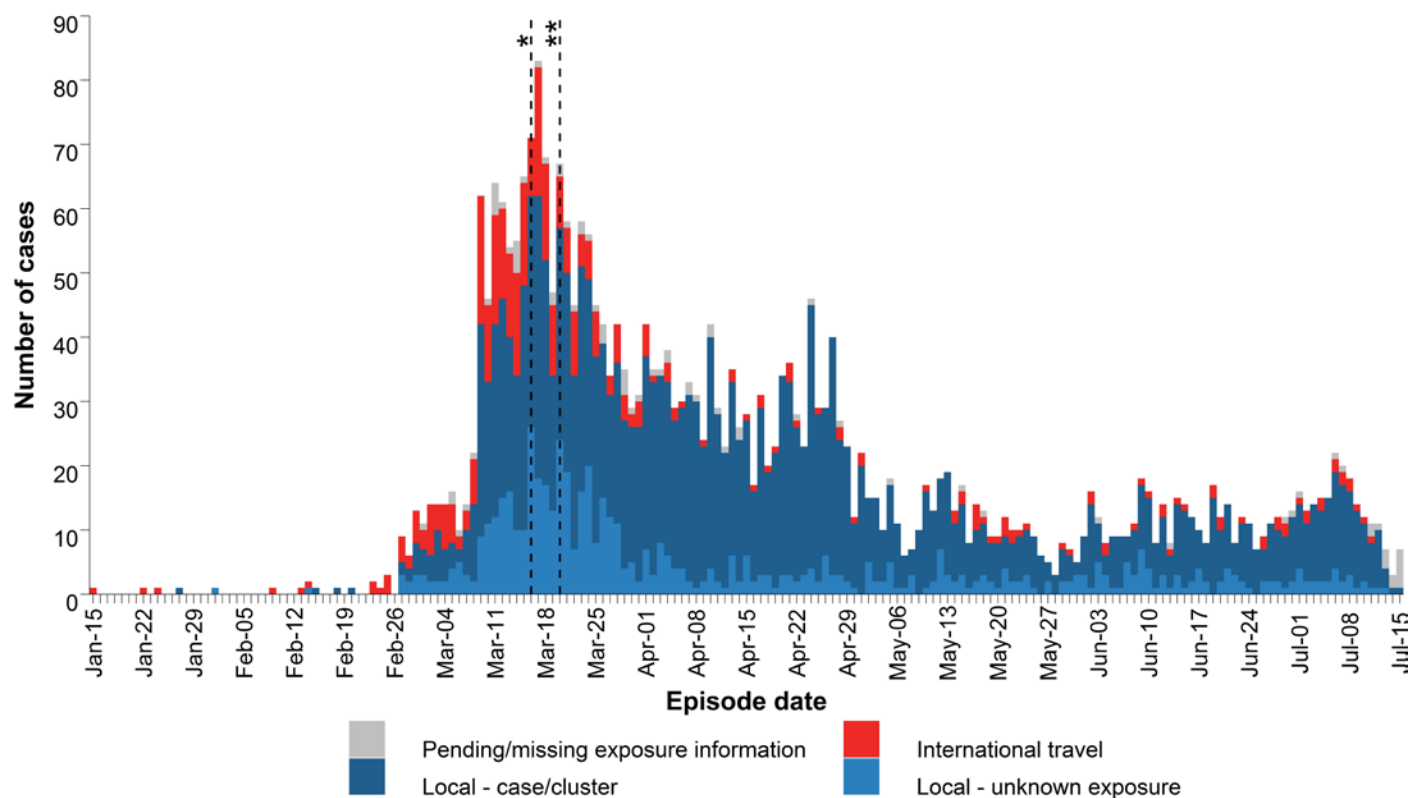
[‡] The number of cases reported by day differs from that in Table 1 in previous reports as this figure reflects the date the case was lab-confirmed and reported to the Health Authority.

[¥] On June 3, a change in the FHA reporting system led to changes in the reported date of some FHA cases and concurrent changes to the epidemic curve by reported date.

Phase 1 – Public health measures enacted: March 14: Spring break started for most schools; March 16: Mass gatherings public health order implemented (>50 people), entry of foreign nationals banned, symptomatic individuals banned from flights to Canada, international flights restricted to four national airports; March 17: BC public health emergency declared, traveller self-isolation public health order implemented; March 18: Provincial state of emergency declared, food and drink service restrictions public health order implemented; March 20: US/Canada border closed to non-essential travel; March 21: closure of personal service establishments. **Phase 2 – Start of reopening:** May 19: Restoration of health services, retail, hair salons, in-person counselling, restaurants, cafes, pubs, museums, libraries, office-based worksites, sports, outdoor spaces, and child care. June 1: Students in K-12 return to school on a gradual and part-time basis. **Phase 3 – Continued reopening:** June 24: Non-essential travel within BC permitted with reopening of accommodation industry (hotels, motels, RV parks, cabins, etc.), overnight camping in BC parks, motion pictures and television production, and movie theatres. Please refer to <http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc> for laboratory testing criteria changes.

How to interpret the epidemic curves: Figure 2 shows the date that a case’s illness started. Figure 3 shows the date the illness was confirmed and reported by the laboratory. There is a delay between the beginning of a person’s illness (symptom onset date) and the date the laboratory confirms and reports the illness (reported date). New cases only have a reported date available and appear on the right of the curve in Figure 3, but their symptom onset would have occurred prior. As information on symptom onset becomes available through public health investigation, cases are expected to appear on earlier dates in Figure 2.

Figure 4: Likely source of infection for COVID-19 cases in BC by episode date[§], January 15 – July 15, 2020 (N=3,169)



§ Episode date is based on symptom onset date (n=2,955), if not available then date COVID-19 was reported to health authority (n=214).

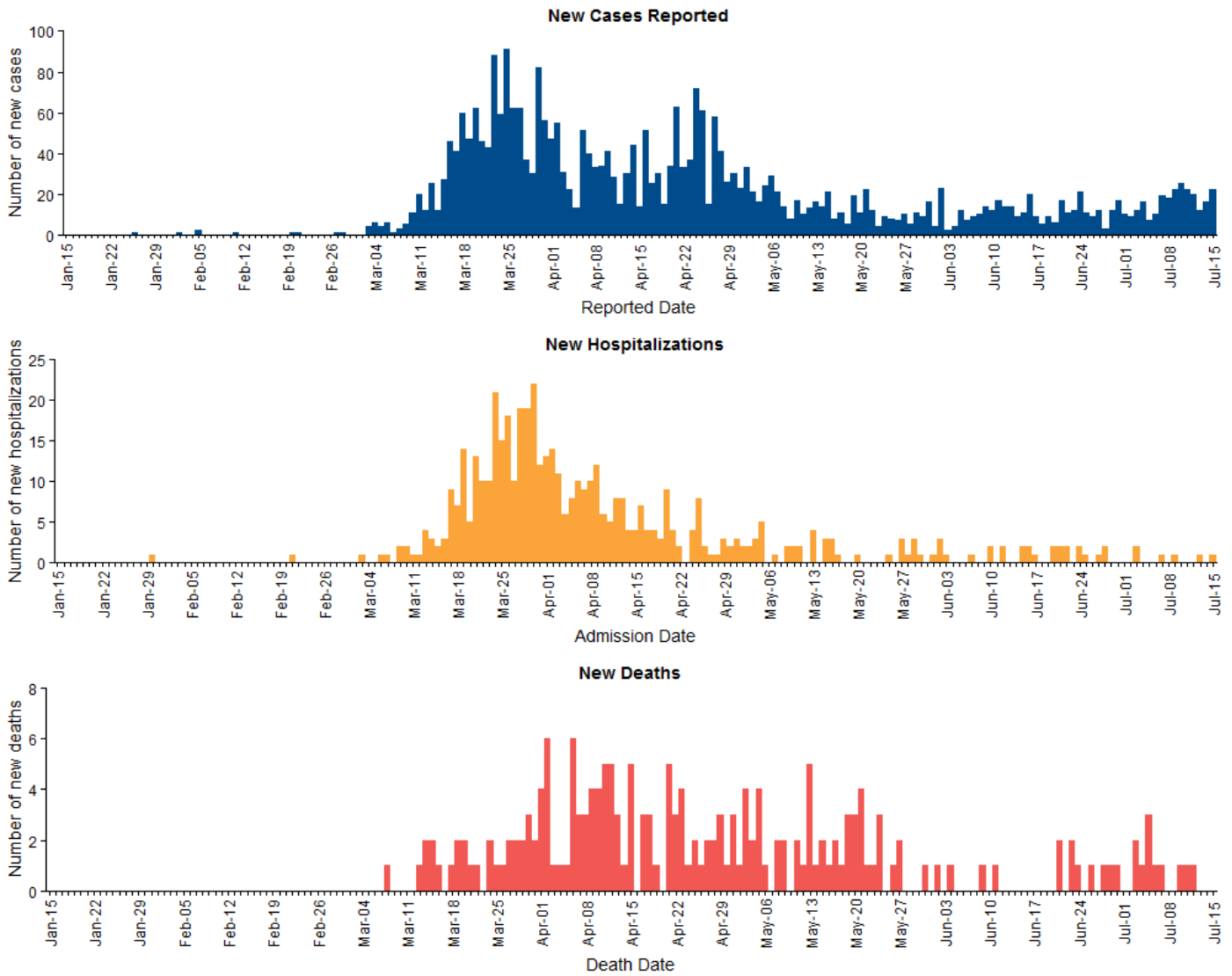
* March 16: Entry of foreign nationals banned; symptomatic individuals banned from flights to Canada; international flights restricted to four national airports.

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

Table 2: Number and proportion of likely source of infection for COVID-19 cases in BC by phase of epidemic, January 15 – July 15, 2020 (N=3,169)

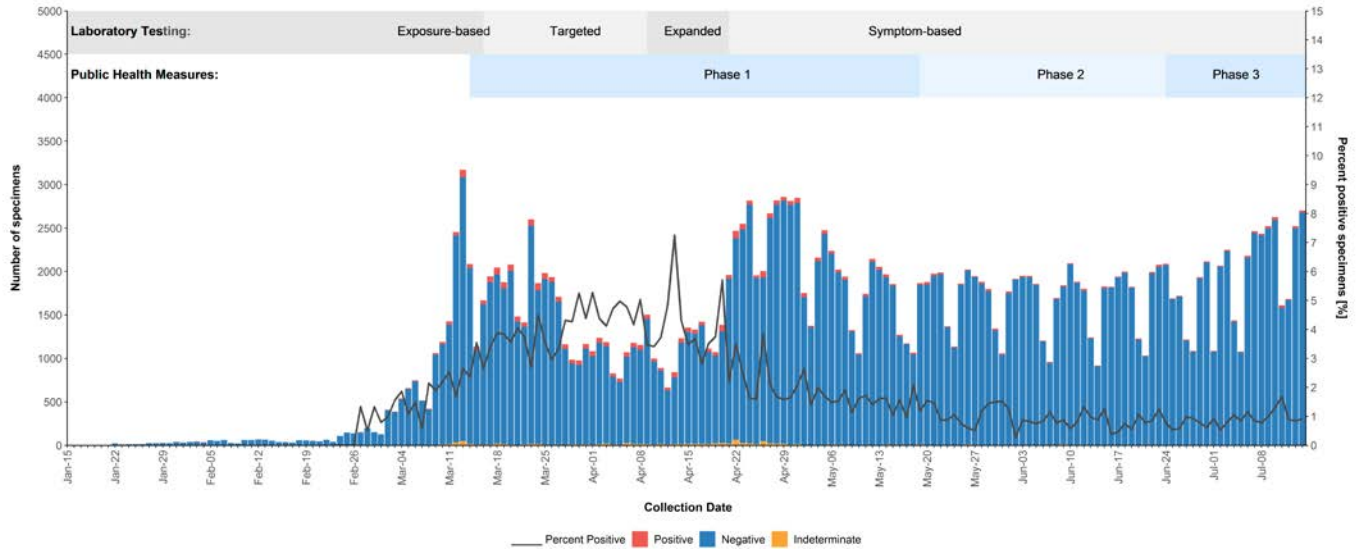
Phase of epidemic	International travel n (%)	Local – case/cluster n (%)	Local – unknown source n (%)	Pending/missing info n (%)
Jan 15 – Mar 13 (Pre-Phase 1)	126 (32.0)	175 (44.4)	80 (20.3)	13 (3.3)
Mar 14 – May 18 (Phase 1)	202 (9.5)	1,476 (69.8)	392 (18.5)	46 (2.2)
May 19 – yesterday (Phase 2 & 3)	49 (7.4)	463 (70.3)	125 (19.0)	22 (3.3)
Total	377 (11.9)	2,114 (66.7)	597 (18.8)	81 (2.6)

Figure 5. Number of COVID-19 cases, hospital admissions, and deaths by event date, BC, January 15 – July 15, 2020 (N=3,169*)



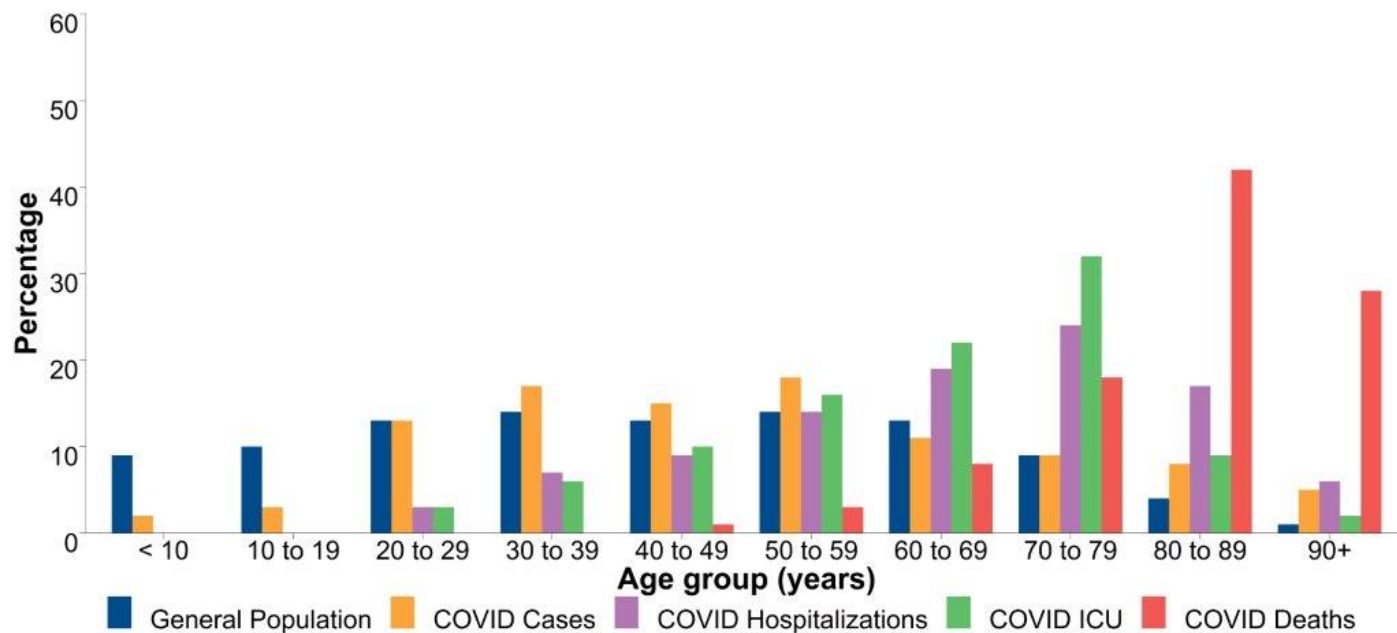
* On June 3, a change in the FHA reporting system led to changes in the reported date of some FHA cases and concurrent changes to the epidemic curve by reported date. New hospitalizations only include hospitalized cases with valid admission dates.

Figure 6: Number and proportion of SARS-CoV-2 positive respiratory specimens, BC, Jan 15– July 14, 2020 (N=226,354; Positive=1.9%)



Data source: PLOVER extract on July 16, 2020. Methods and caveats: SARS-CoV-2 specimens are tallied at the specimen level by date the specimen was collected. The proportion positive on a given date may include new positive cases and retested positive cases; this may over-estimate proportionate positivity. Similarly, individuals may be tested repeatedly after becoming negative; this may under-estimate proportionate positivity. Refer to <http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc> for description of laboratory testing phases. Refer to footnotes on [page 3](#) for description of public health measures.

Figure 7: Percentage distribution of COVID-19 cases, hospitalization, ICU admissions and deaths by age, compared to the general population[†] of BC, January 1 – July 16, 2020 (N=3,159*)



*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.

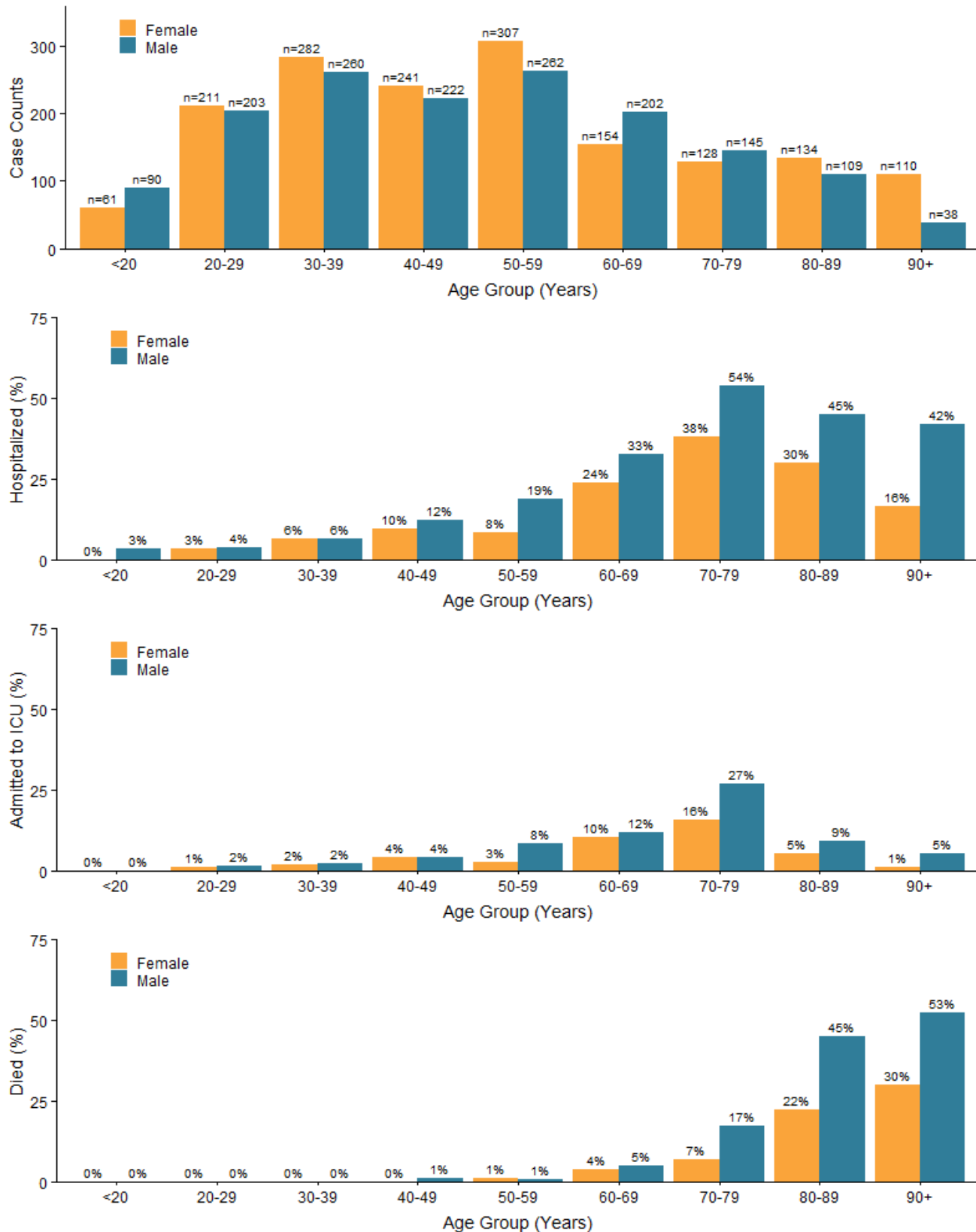
Table 3: Number and percentage distribution of COVID-19 cases, hospitalization, ICU admissions and deaths by age, compared to the general population of BC, January 1 – July 16, 2020 (N=3,159*)

Age group	COVID cases n (%)	Cases ever hospitalized n (%)	Cases ever in ICU n (%)	COVID deaths n (%)	General population [†] n (%)
<10 Years	51 (2)	2 (<1)	0 (0)	0 (0)	468,280 (9)
10-19 Years	100 (3)	1 (<1)	0 (0)	0 (0)	507,197 (10)
20-29 Years	414 (13)	15 (3)	5 (3)	0 (0)	684,681 (13)
30-39 Years	542 (17)	35 (7)	11 (6)	0 (0)	730,523 (14)
40-49 Years	463 (15)	50 (9)	19 (10)	2 (1)	647,790 (13)
50-59 Years	569 (18)	75 (14)	30 (16)	5 (3)	721,355 (14)
60-69 Years	356 (11)	103 (19)	40 (22)	16 (8)	675,632 (13)
70-79 Years	273 (9)	127 (24)	59 (32)	34 (18)	436,179 (9)
80-89 Years	243 (8)	89 (17)	17 (9)	79 (42)	188,010 (4)
90+ Years	148 (5)	34 (6)	3 (2)	53 (28)	50,876 (1)
Total	3,159	531	184	189	5,110,523

* Only cases with age information available are included.

† PEOPLE2019-2020 population estimates

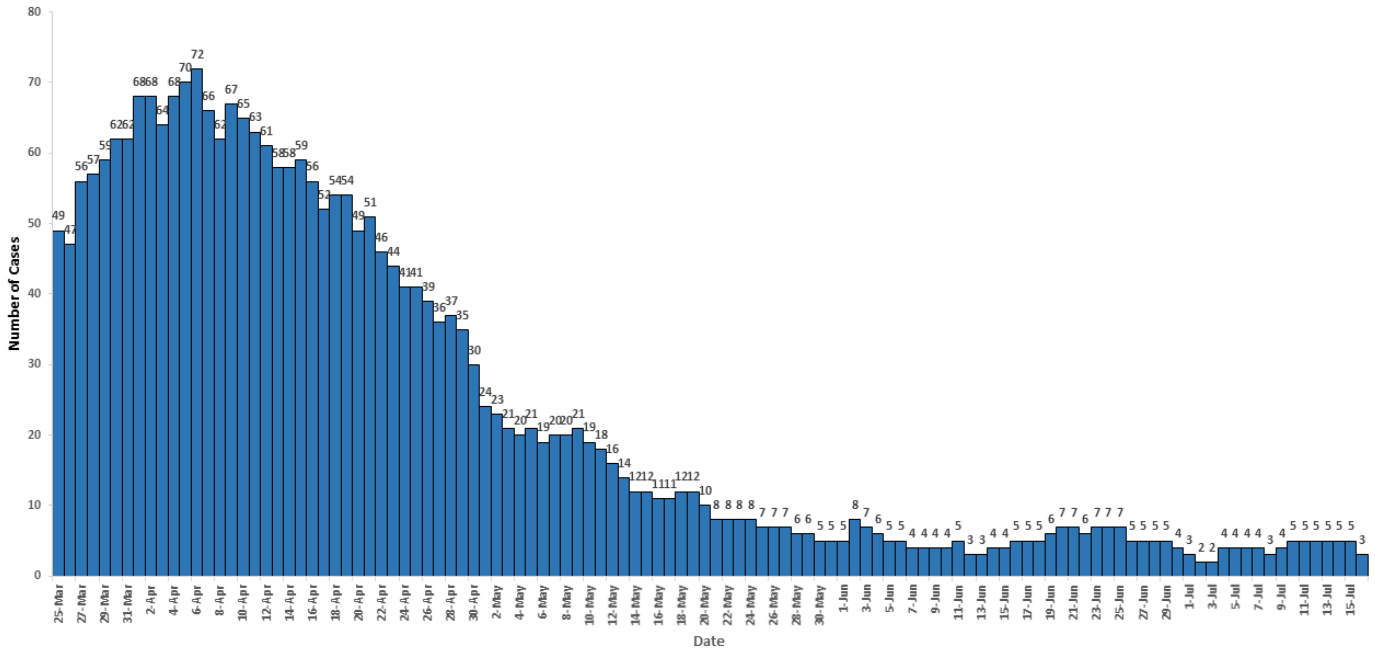
Figure 8: Counts of COVID-19 cases and proportions ever hospitalized, ever admitted to ICU, and with outcome of death by gender and age group, BC, January 1 – July 16, 2020 (N=3,159*)



* Includes cases with gender and age information available.

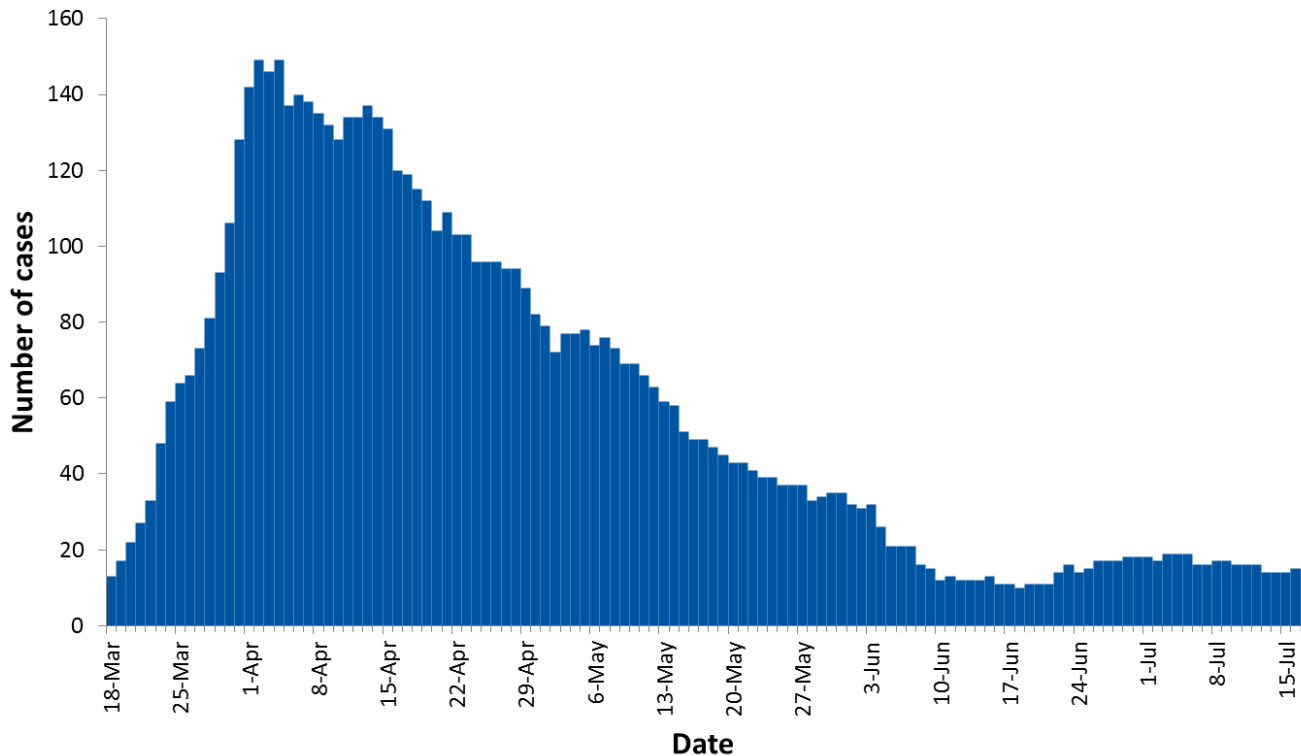
Note: Proportions calculated using the total number of cases in each gender and age group (displayed in top figure) as the denominator.

Figure 10: Total positive COVID-19 cases in critical care by day, BC, March 25 - July 16, 2020



Data source: PHSA July 16. Note: critical care data may change over time due to small adjustments and improvements in data quality.

Figure 11: Number of COVID-19 cases in hospital by day, BC, March 18 - July 16, 2020



Data available starting March 18. For dates with no data available (April 12; Sundays from May 10 onwards; and Saturdays from June 7 onwards), the previous day's value was used. Hospitalization data may be incomplete or out of date (i.e., under-estimates) owing to the timing and process for case status update.

International and National Epidemiological Comparisons

Figure 12: Cumulative diagnosed and new daily COVID-19 case and death rates by select countries vs BC and Canada

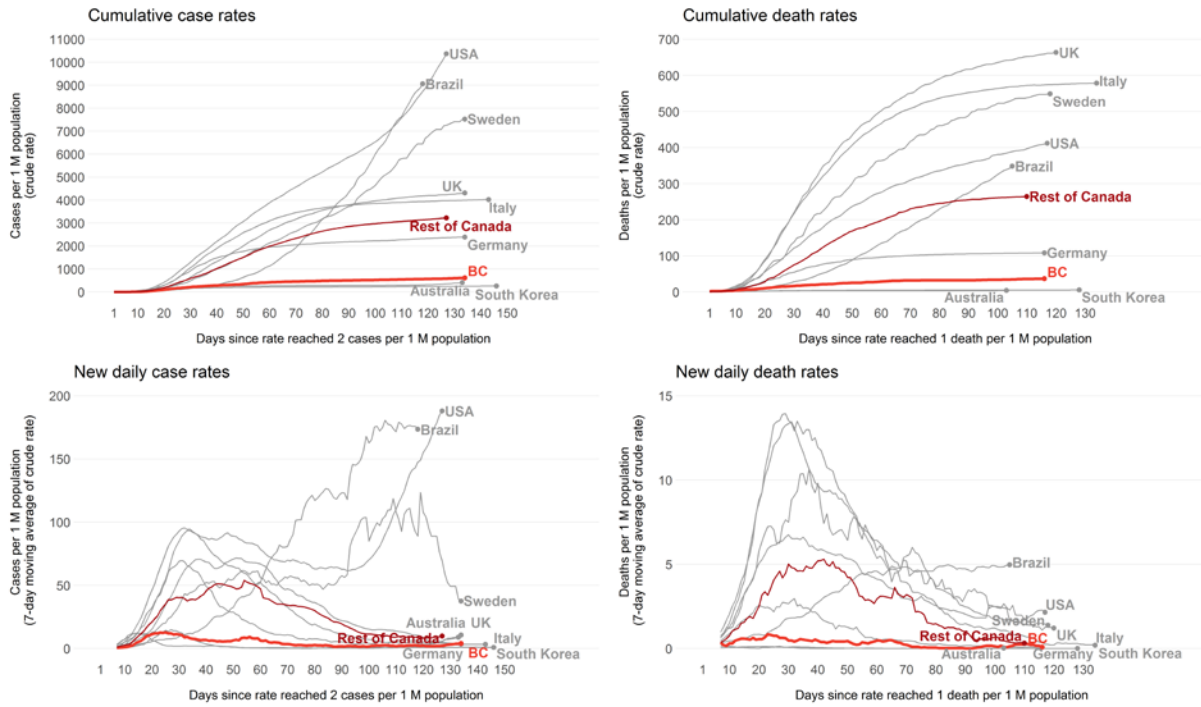


Figure 13: Cumulative diagnosed and new daily COVID-19 case and death rates in Canada



Data sources for international and national epidemiological comparison (all extracted July 15, 2020):
 JHU CSSE for global cases and deaths, and Canadian provincial deaths outside of BC: <https://github.com/CSSEGISandData/COVID-19>
 For Canadian provincial cases: Provincial data sources
 BC cases and deaths: BCCDC
 Global population denominator from the United Nations