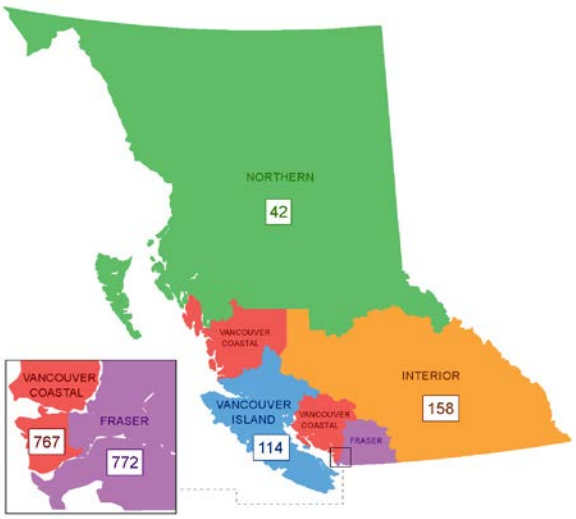
British Columbia COVID-19 Daily Situation Report, April 24, 2020*

Figure 1: Map of COVID-19 confirmed cases reported by health authority, BC, January 1 – April 24, 2020 (**N=1,853**)



Key messages

- The number of new reported cases has generally declined since mid-March, although a small increase in case reports occurred in the last week (Table 1, Fig 2, Fig 4)
- The number of new hospital admissions has also declined, following a similar trend as the case reports (Fig 4).
- A large proportion of older male cases have severe outcomes, including hospitalisation and death (Fig 5).
- Several care facility and other outbreaks were reported this week indicating an ongoing risk of spread in high risk settings (Table 2, Fig 9).
- BC's epidemic trajectory is stable, with a lower incidence and mortality rate than in some other parts of Canada and the world (Fig 11-14, Table 3).

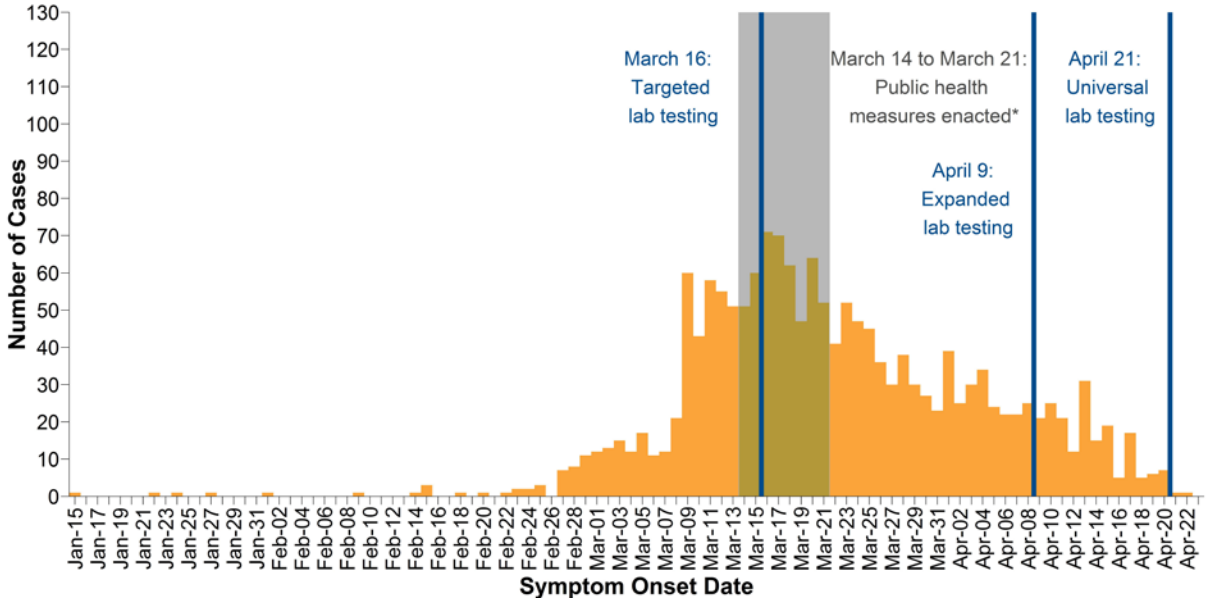
Table 1: Epidemiological profile of reported cases by health authority, BC, January 1 – April 24, 2020 (**N=1,853**)

	Fraser	Interior	Vancouver Island	Northern	Vancouver Coastal	Total N (%)[a]
Total number of cases	**772**	**158**	**114**	**42**	**767**	**1,853**
New cases since yesterday	**12**	**2**	**3**	**0**	**12**	**29**
Median age in years, cases[b]	53	48	52	44	57	54 years (range 0-102 years)
Female sex, cases	384	80	62	26	424	976/1,840 (53%)
Ever hospitalized[c]	**203**	**28**	**22**	**10**	**144**	**407 (22%)**
Median age in years, ever hospitalized[b]	69	62	72	44	70	69 years (range 0-98 years)
Currently hospitalized[c]	50	8	5	3	30	96
Currently in critical care[d]	**18**	**3**	**1**	**3**	**16**	**41**
Total number of deaths[c]	**30**	**1**	**3**	**0**	**64**	**98 (5%)**
New deaths since yesterday	**3**	**0**	**0**	**0**	**1**	**4**
Median age in years, deaths[b]	82	-[e]	87	NA	87	85 years (range 47-101 years)
Discontinued isolation[f]	**392**	**102**	**81**	**33**	**506**	**1,114 (60%)**

[a] Denominator for % derivation is total number of cases (N), except sex for which denominator is as specified for those with known information on sex.
[b] Median age is calculated based on those with known information for all, hospitalized, and deceased cases (n=1838, 406, and 98, respectively).
[c] Serious outcomes (i.e., hospitalization, death) may be incomplete or out of date (i.e., under-estimates) owing to the timing and process for case status update.
[d] Source: PHSA April 24@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). Work is ongoing to improve the completeness and accuracy of the data reported.
[e] Single case, median age not shown.
[f] Self-isolation has been discontinued per the criteria outlined in 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.

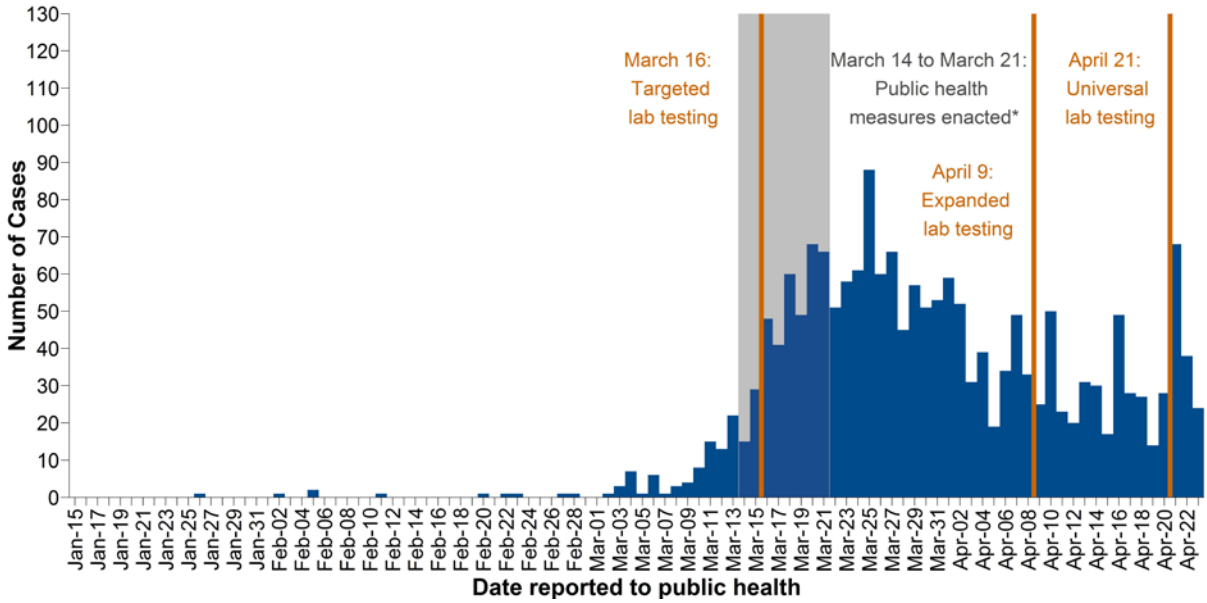
**All findings are based on laboratory-confirmed cases reported from Health Authorities to BCCDC as of 10:00 AM PT, except where otherwise noted. Data represent a subset of actual cases and are subject to change with changes in testing recommendations and practices, reconciliation and/or as data become more complete.*

Figure 2: Epidemic curve, confirmed COVID-19 cases in BC by symptom onset date January 1-April 23, 2020 **(N=1,679[†])**



[†]Only cases with symptom onset dates reported are included; cases with symptom onset date on the same day as this report are excluded as only a portion are available at the time the data are extracted.

Figure 3: Epidemic curve, confirmed COVID-19 cases in BC by reported date January 1-April 23, 2020 **(N=1,848[‡])**

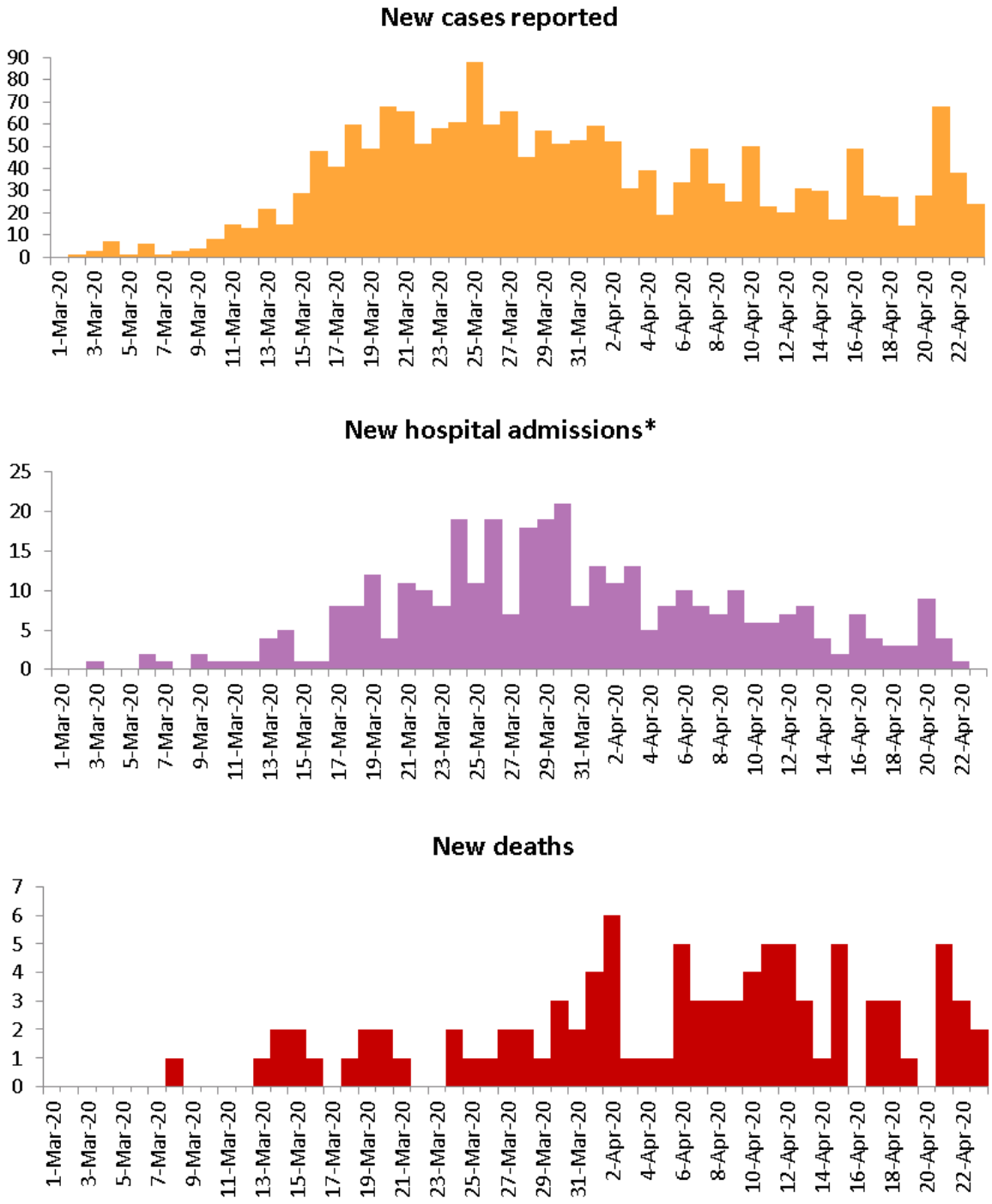


[‡]Cases reported on the same day as this report are excluded as only a portion are available at the time the data are extracted.

*A number of public health measures were enacted during the week shaded in grey. These include: 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. Please refer to footnote in Figure 10 for laboratory testing criteria changes.

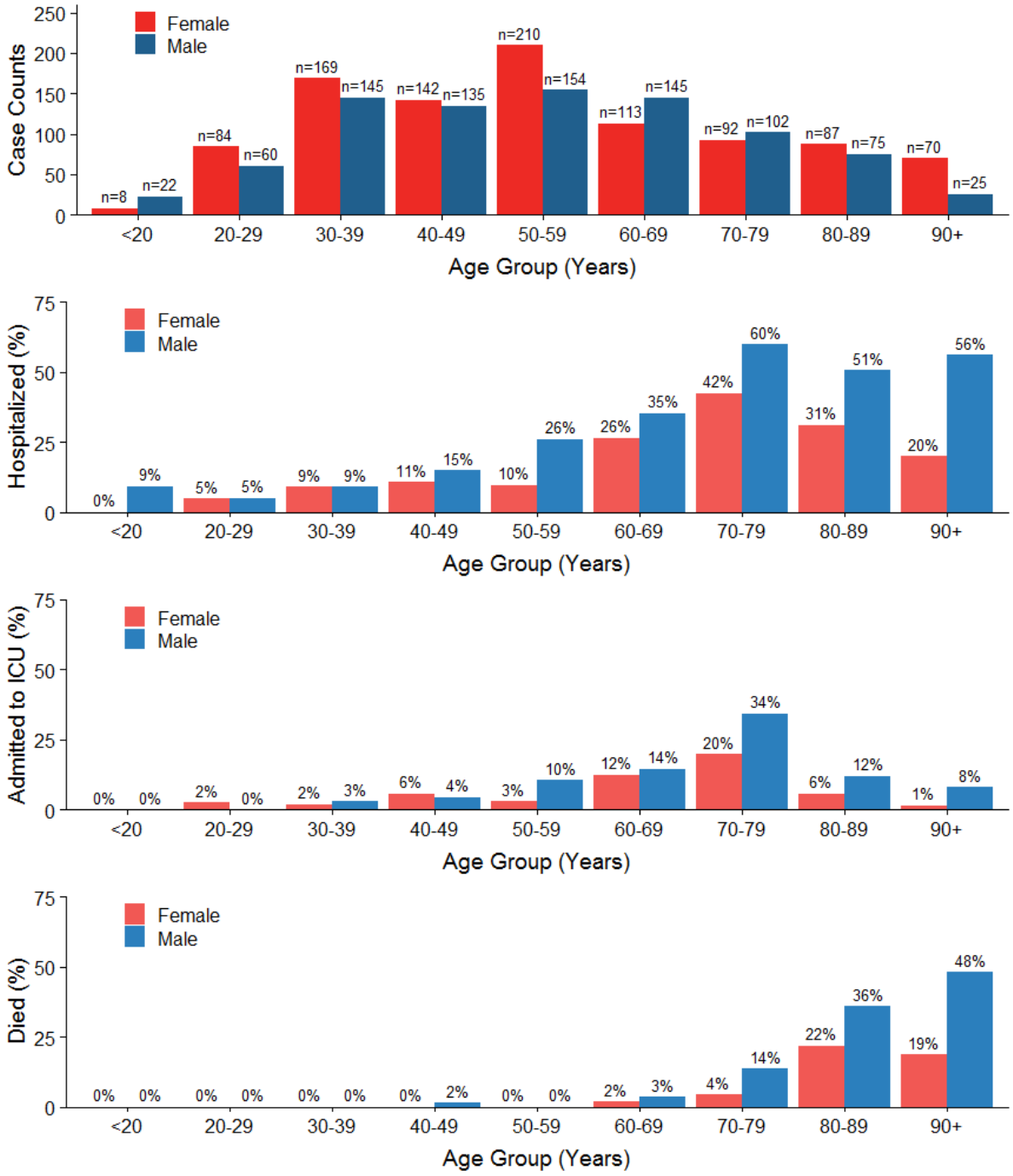
How to interpret the epidemic curves: Figure 2 shows the date that a case's illness started. Figure 3 shows the date the illness was confirmed and reported by the laboratory. There is a delay between the beginning of a person's illness (symptom onset date) and the date the laboratory confirms and reports 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: New COVID-19 cases, hospital admissions, and deaths by event date[†], BC, March 1 to April 23, 2020



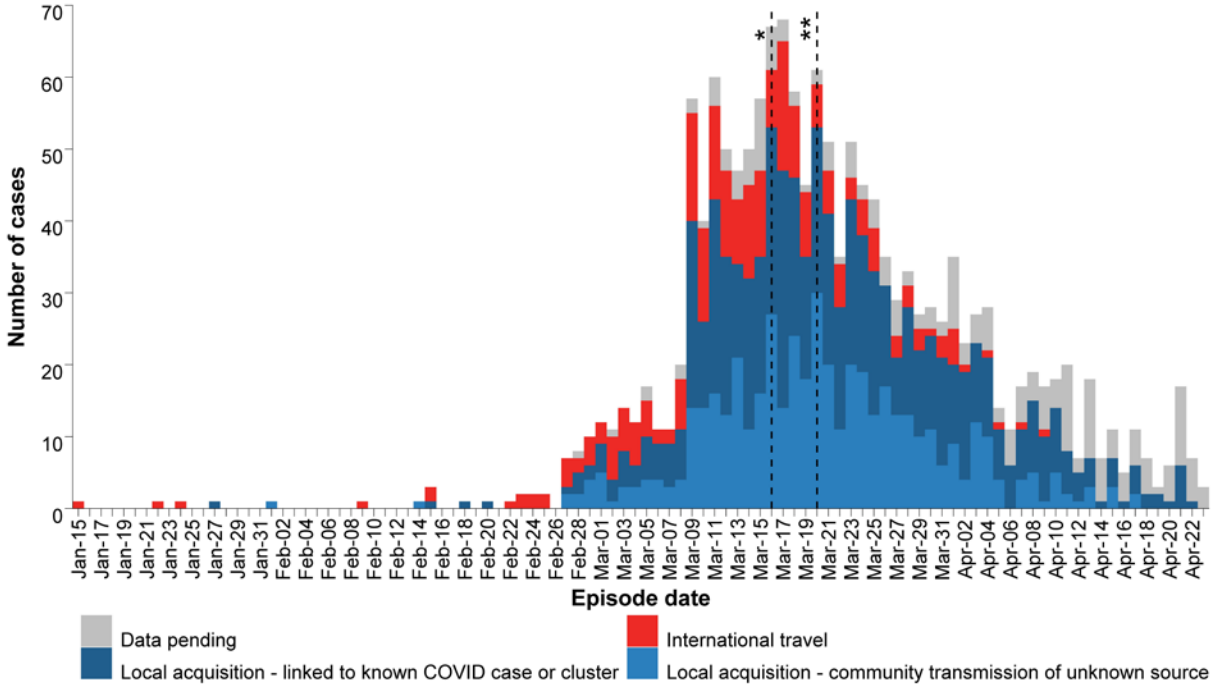
[†] Event date is defined as: date reported to public health for cases; admission date for hospital admissions; and date of death for deaths.
*Hospitalization data for Interior Health Authority was not available.
Cases with missing or invalid dates were excluded (52 hospital admissions; 4 deaths)
Data source: HA lab-confirmed case reports

Figure 5: 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-April 24, 2020 (**N=1,838***)



* 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 6: Likely source of infection for COVID-19 cases in BC by episode date†, January 1-April 20, 2020§ **(N=1,546)**



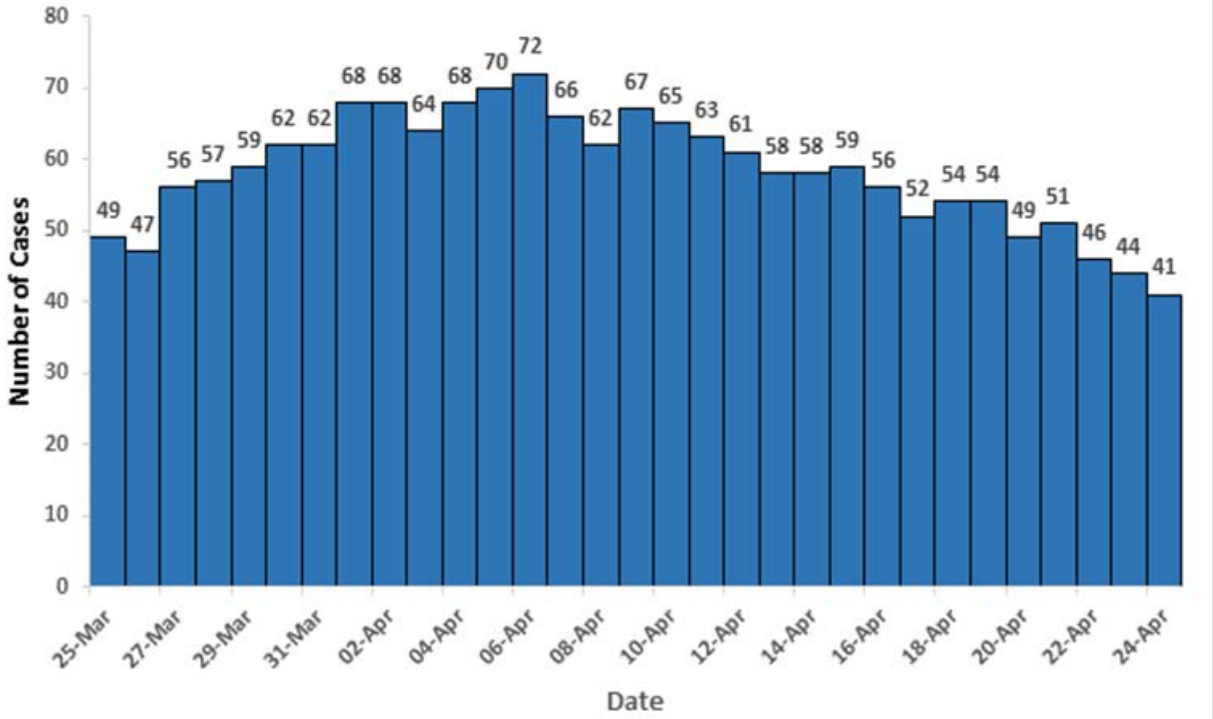
† Data source: Panorama public health information system and HA lab-confirmed case reports submitted daily.

§ Episode date is based on symptom onset date (n=1474), if not available then date COVID-19 was reported to health authority (n=72). The number of available symptom onset dates has risen since the last update due to merging of two data sources to provide more complete information. This change can affect the distribution of the curve.

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

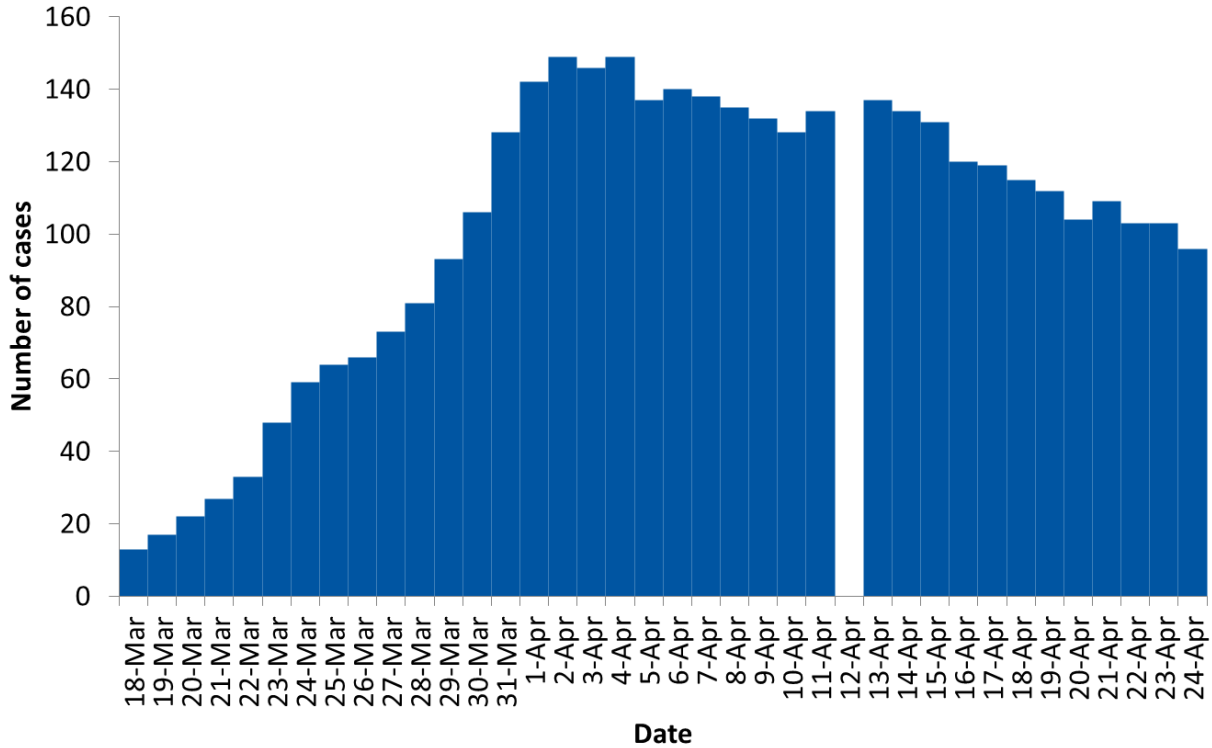
** March 20: US/Canada border closed to non-essential travel.

Figure 7: Total positive COVID-19 cases in critical care by day, BC, March 25- April 24, 2020



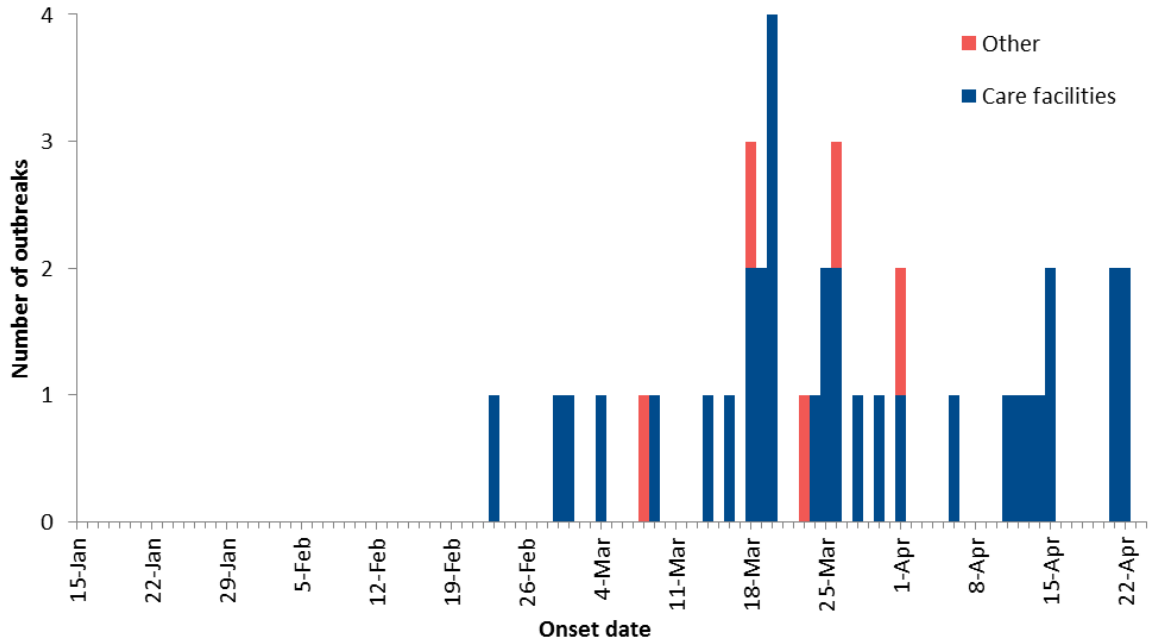
Data source: PHSA April 24. Note: critical care data may change over time due to small adjustments and improvements in data quality.

Figure 8: Number of confirmed COVID-19 cases in hospital by day, BC, March 18- April 24, 2020



Data source: HA lab-confirmed case reports. Data available starting March 18 and not available for April 12.
Note: Hospitalization data may be incomplete or out of date (i.e., under-estimates) owing to the timing and process for case status update.

Figure 9: COVID-19 outbreaks* by epidemiological week of earliest date**, BC, January 15-April 24, 2020 **(N=39)**



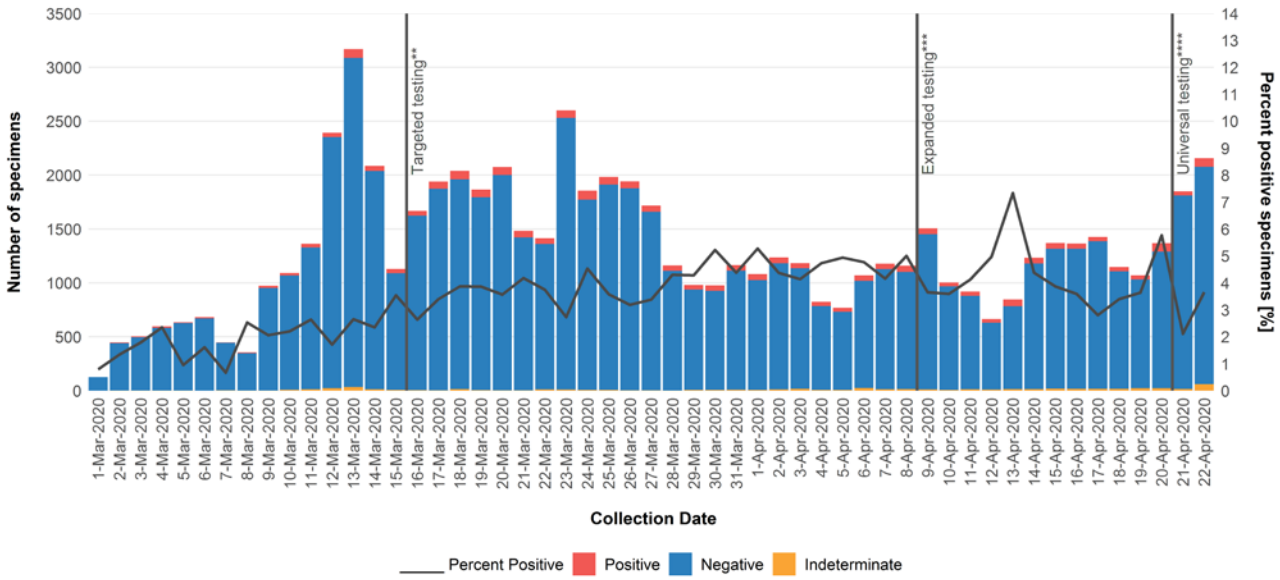
* Care facility (acute/longterm care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident. Other outbreaks have two or more lab-confirmed COVID-19 cases diagnosed within a 14-day period in closed or common settings (e.g. penitentiary, shared living or work setting).
** Earliest date is date of onset of earliest case in the outbreak (or reported date of earliest case when onset is unavailable or date of outbreak notification).

Table 2: Outbreak and case counts of reported COVID-19 reported outbreaks*, BC, January 15 - April 24, 2020 (**N=39**)

	Care facility	Other settings	Total
Outbreaks			
Total outbreaks	**33**	**6**	**39**
New since yesterday	0	0	0
Active outbreaks	23	5	28
Outbreaks declared over	10	1	11
Outbreak cases			
Total cases	**354**	**149**	**503**
Residents/patients	222	67	289
Staff/other	132	82	214
Total deaths	**62**	**1**	**63**
Residents/patients	62	1	63
Staff/other	0	0	0

* Care facility (acute/longterm care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident. Other outbreaks have two or more lab-confirmed COVID-19 cases diagnosed within a 14-day period in closed or common settings (e.g. penitentiary, shared living or work setting).

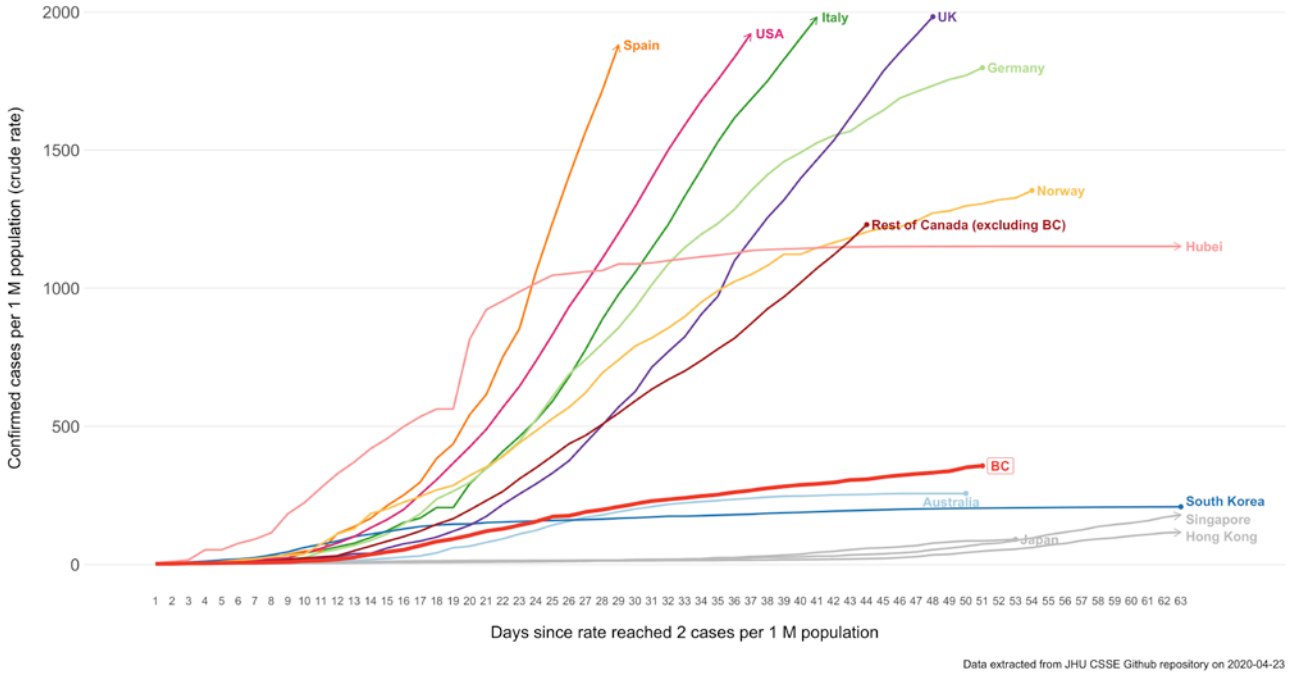
Figure 10: Number and proportion of SARS-CoV-2 positive respiratory specimens, BC, March 1-April 22, 2020 **(N=69,296; Positive=3.5%)**



Data source: PLOVER extract on April 24, 2020. Participating laboratories include: BCCDC Public Health Laboratory, Vancouver General Hospital, BC Children's & Women's Hospital, St. Paul's Hospital, Victoria General Hospital Microbiology Laboratory, Kelowna General Hospital Microbiology Laboratory, and LifeLabs® laboratories. 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. The relative impact of these considerations may be greater in the earlier part of the epidemic when repeat testing was more routinely undertaken and there were fewer tests being done overall. **As of March 16, testing guidelines changed to focus on hospitalized patients, healthcare workers, long term care facility staff and residents, and those part of a cluster or outbreak who experienced respiratory symptoms. ***As of April 9, previous testing guidelines were expanded to include individuals with fever (>38°C) and cough or shortness of breath, including (a) residents of remote, isolated or Indigenous communities, (b) people living and working in congregate settings such as work-camps, correctional facilities, shelters, group homes, assisted living and seniors' residences, (c) people who are homeless or have unstable housing, (d) essential service providers (e.g. first responders), or (e) returning travellers identified at a point of entry to Canada. In addition to these priority groups, health care providers can order a COVID-19 test for any patient based on their clinical judgment. ****As of Apr 21, the previous testing guidelines were further expanded to include all individuals with new respiratory or systemic symptoms compatible with COVID-19, however mild. Symptoms may include fever, chills, cough, shortness of breath, sore throat, odynophagia, rhinorrhea, nasal congestion, loss of sense of smell, headache, muscle aches, fatigue, or loss of appetite.

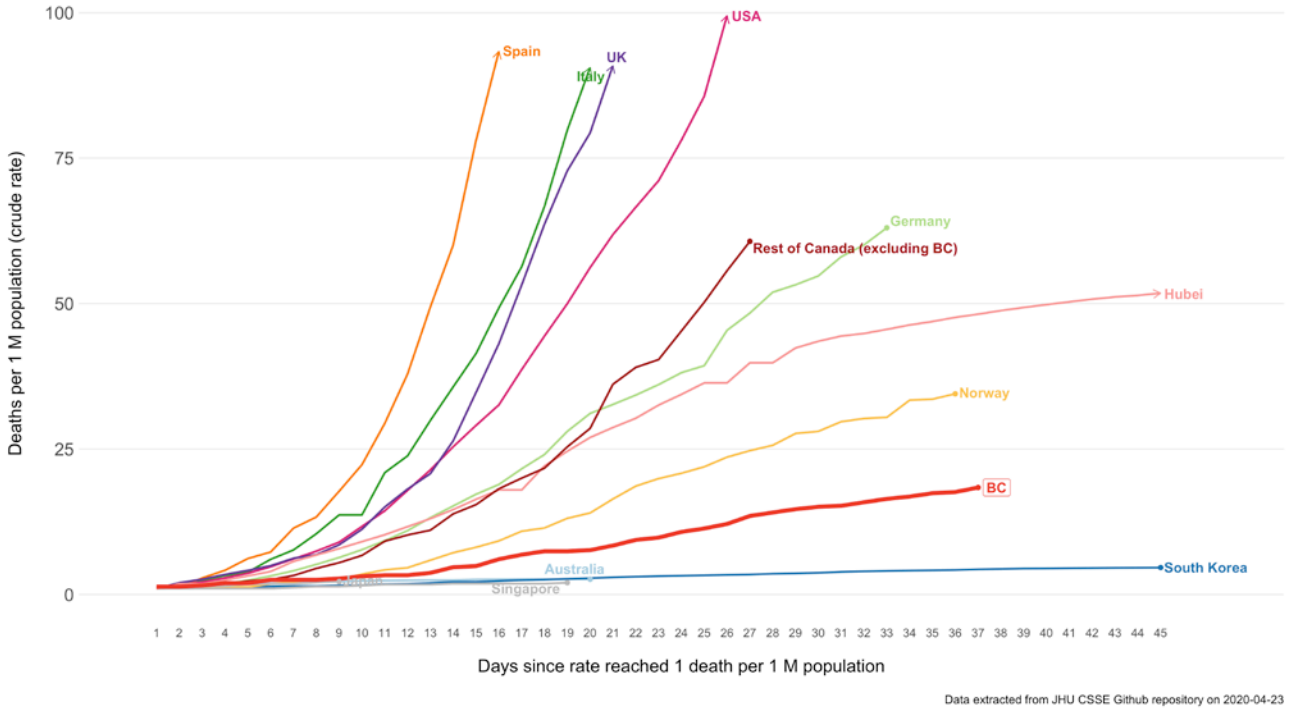
International and National Epidemiological Comparisons

Figure 11: Cumulative diagnosed COVID-19 case rates by select countries vs BC and Canada



Note: ON and QC have the largest impact on the values for rest of Canada.

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



Note: ON and QC have the largest impact on the values for rest of Canada.

Figure 13: Cumulative diagnosed COVID-19 case rates in Canada

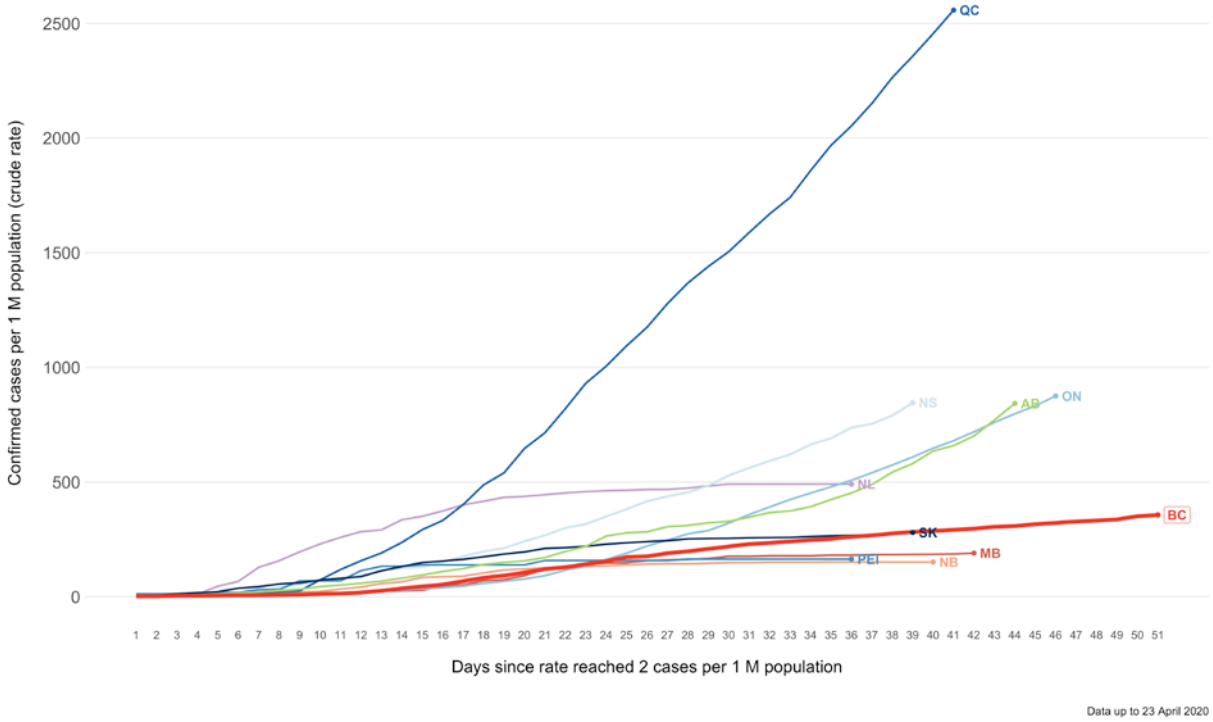
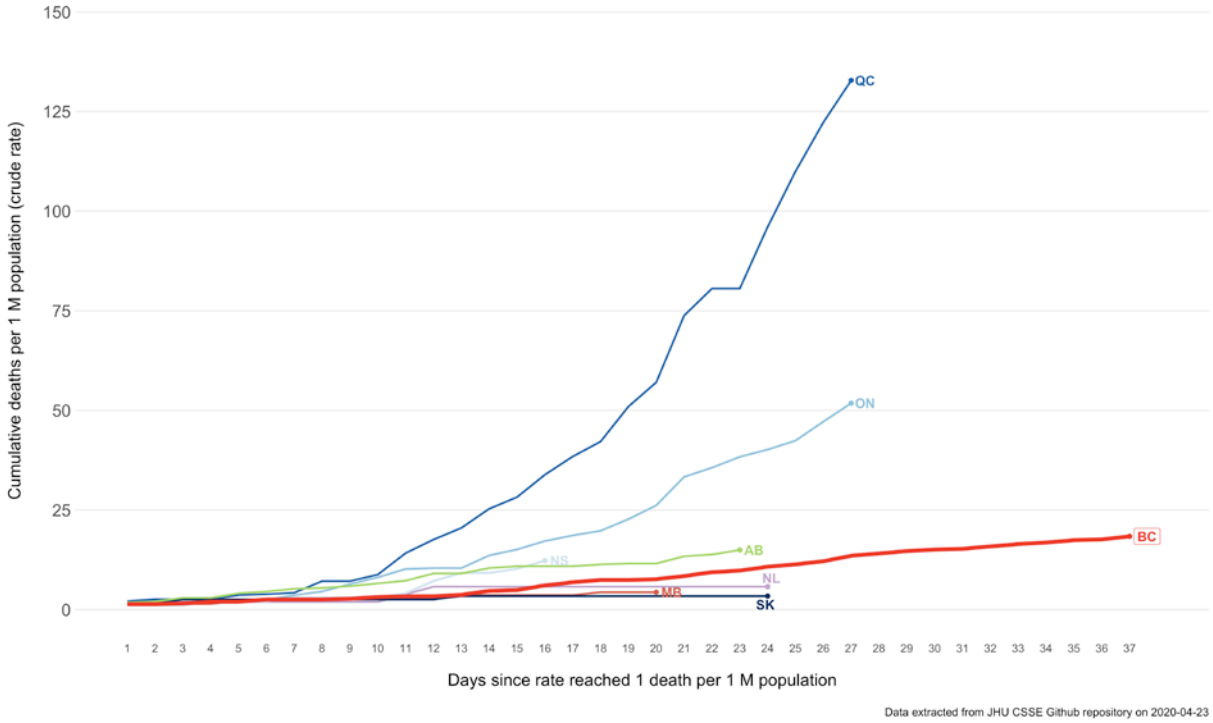


Figure 14: Cumulative COVID-19 death rates in Canada



Data sources for international and national epidemiological comparison:
JHU CSSE for global cases and deaths: https://github.com/CSSEGISandData/COVID-19
JHU CSSE for Canadian provincial deaths outside of BC
For Canadian provincial cases: Provincial data sources
BC cases and deaths: BCCDC
Global population denominator from the United Nations

Table 3: Comparison of COVID indicators in BC and Canada

	British Columbia (April 23)	**Canada (April 23)**
Total number of cases	1,824	40,824
Total number of deaths	94	2,028
Testing rate	12,283/ million population (as of April 19)	16,497/million population
% Hospitalisation	22.0% (402/1,824)	17.7% (2,538/14,320)
% ICU	8.1% (147/1,824)*	4.5% (647/14,320)
% died	5.1%	5.0%
Incidence rate	36.0 cases per 100,000 population (1,824/5,071,336)	109 cases per 100,000 population (40,824/ 37,589,262)
Mortality rate	1.9 deaths per 100,000 population (94/5,071,336)	5.4 deaths per 100,000 population (2,028/ 37,589,262)

Note: Incidence and motality rates are crude and have not been adjusted. Data arise from different epidemic periods in BC and other parts of Canada.
BC data sources: HA lab-confirmed case reports and PLOVER extract from April 23; PHAC data source: April 23 https://www.canada.ca/content/dam/phac-aspc/documents/services/diseases/2019-novel-coronavirus-infection/surv-covid19-epi-update-eng.pdf; Population data source for rates: Statistics Canada. Table 17-10-0005-01 [2019] Population estimates on July 1st, by age and sex https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1710000501