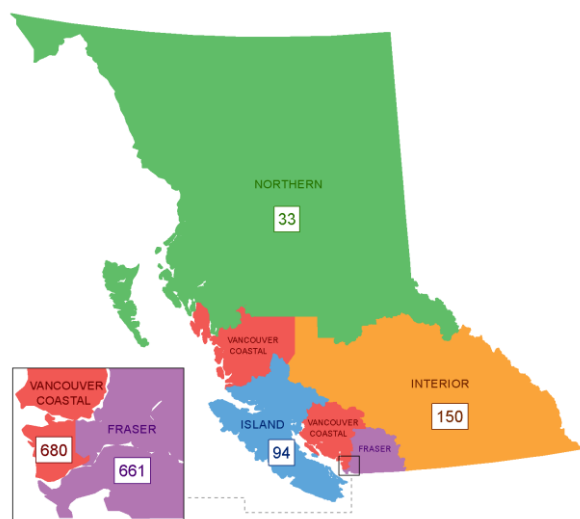


British Columbia COVID-19 Daily Situation Report, April 17, 2020*

Figure 1: Map of COVID-19 confirmed cases reported by health authority, BC, January 1 – April 17, 2020 (N=1,618)



Key messages

- The number of reported cases is an underestimate of the true number of people infected. This is reflected in the higher than expected proportion of cases hospitalised, in ICU and who died (Tables 1 and 3).
- The mortality rate in BC (1.5/100,000) is lower than in Canada (Table 3) and other regions.
- The majority of reported cases were infected locally in recent weeks (Fig 4).
- There have been 17 reported pediatric cases; they account for <1% of the hospitalised cases (Table 2).
- The majority (61%) of deaths have occurred in long term care/assisted living facility residents (Fig 10).

Table 1: Epidemiological profile of reported cases by health authority, BC, January 1 – April 17, 2020 (N=1,618)

	Fraser	Interior	Vancouver Island	Northern	Vancouver Coastal	Total N (%) ^a
Total number of cases	661	150	94	33	680	1,618
New cases since yesterday	31	1	0	1	10	43
Median age in years, cases ^b	52	50	56	48	57	54 years (range 0-102 years)
Female sex, cases	330	80	49	20	361	840/1,579 (53%)
Ever hospitalized^c	181	27	23	8	129^d	368 (23%)
Median age in years, ever hospitalized ^b	68	62	72	44	70 ^d	69 years (range 0-98 years)
Currently hospitalized ^c	63	12	7	2	35^d	119
Currently in critical care^d	29	5	2	2	14	52
Total number of deaths^c	17	1	3	0	57	78 (5%)
New deaths since yesterday	1	0	0	0	0	1
Median age in years, deaths ^b	79	- ^e	87	NA	87	86 years (range 47-101 years)
Recovered^f	348	91	58	26	443^g	966 (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=1576, 363, and 77, 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^c Serious outcomes (i.e., hospitalization, death) may be incomplete or out of date (i.e., under-estimates) owing to the timing and process for case status update.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 Data is up-to-date as of 2pm April 16.

^e Source: PHSA April 17 @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.

^f Single case, median age not shown.

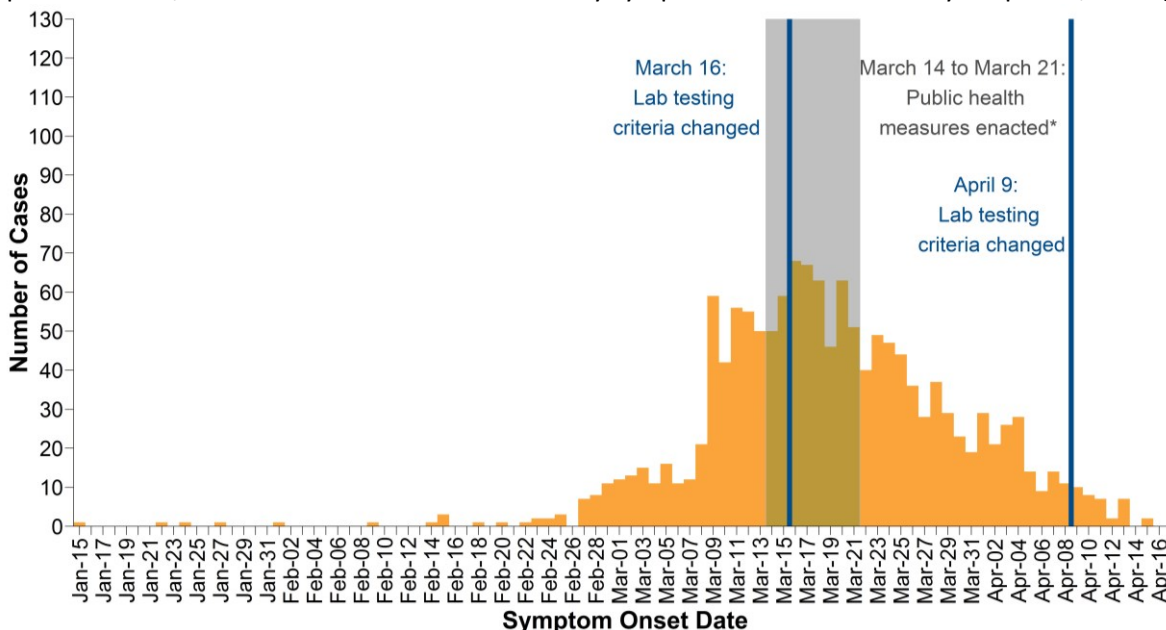
^g Includes cases considered recovered following either 2 lab confirmed negative swabs 24 hours apart OR at least 10 days have passed since symptom onset AND symptoms have improved.

^h In reports prior to April 8, the VCH numbers of recovered was determined by an algorithm that counted all cases who had passed 10 days since their onset.

Now VCH is counting those that meet the provincial definition above. The decrease in number recovered in VCH can be explained by those who have passed 10 days since their onset, but whose symptoms may not have improved.

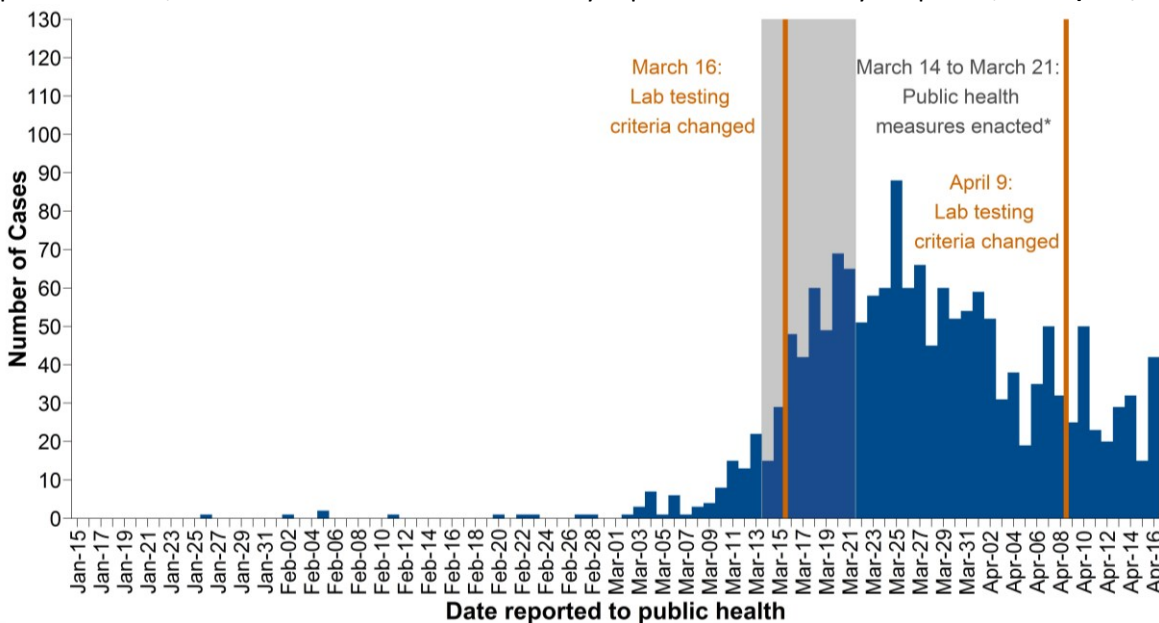
*All findings are based on laboratory-confirmed cases reported from Health Authorities to BCCDC as of 10:00 AM PT, except where otherwise noted. Data represent a subset of actual cases and are subject to change with changes in testing recommendations and practices, reconciliation and/or as data become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

Figure 2: Epidemic curve, confirmed COVID-19 cases in BC by symptom onset date January 1-April 17, 2020 (N=1,426[†])



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

Figure 3: Epidemic curve, confirmed COVID-19 cases in BC by reported date January 1-April 16, 2020 (N=1,617[‡])

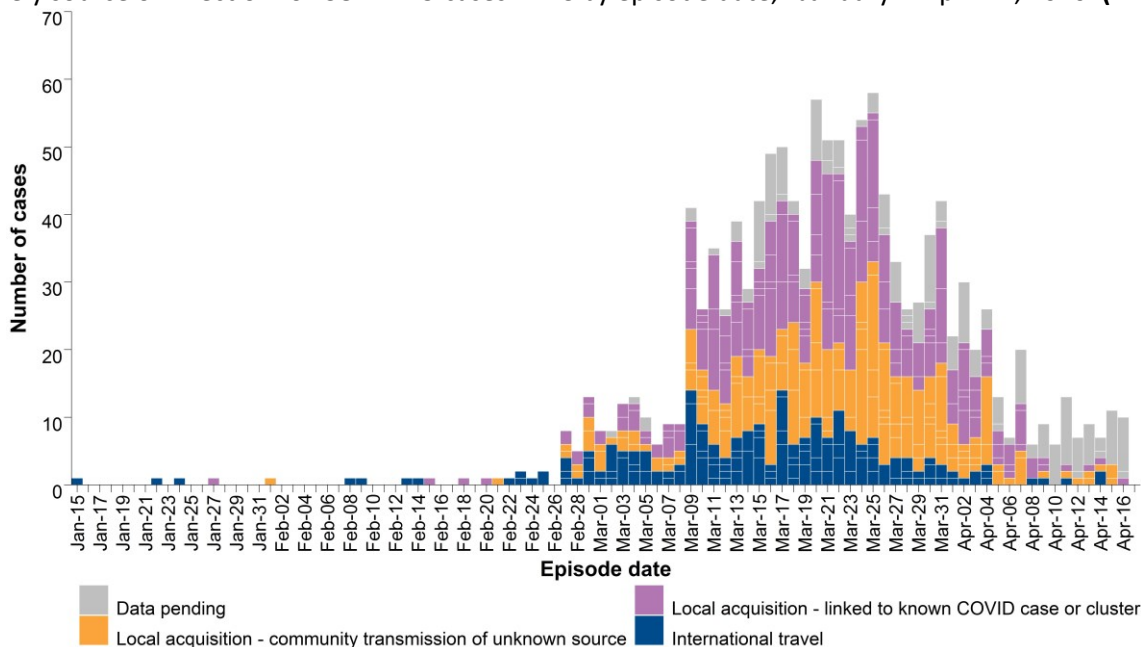


[‡] Cases reported on the same day as this report are excluded as only a portion are available at the time the data are extracted.

*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 4 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.

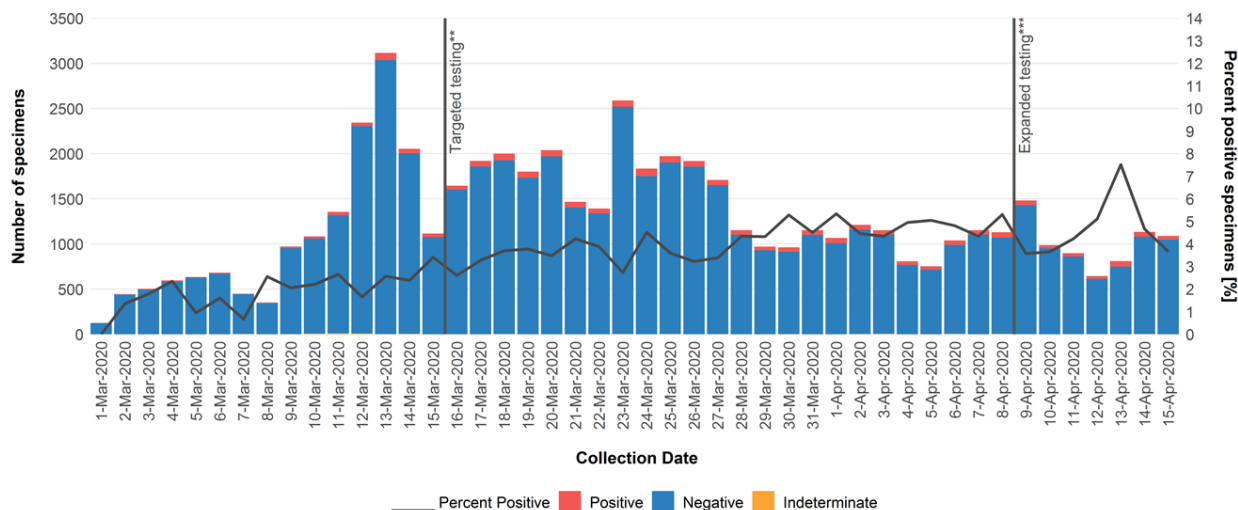
Figure 4: Likely source of infection for COVID-19 cases in BC by episode date,* January 1-April 17, 2020[†] (N = 1,266)



* Episode date is based on symptom onset date (n= 709), if not available then date COVID-19 was reported to health authority (n= 557).

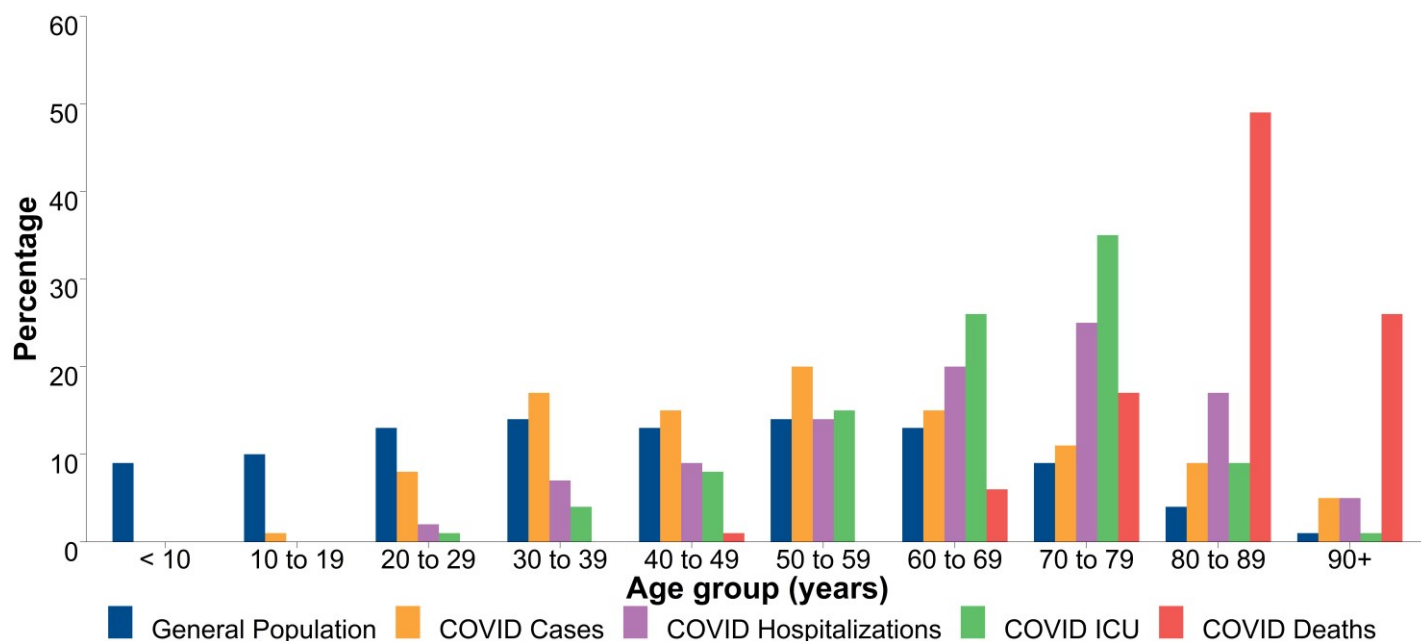
† Data source: Panorama public health information system

Figure 5: Number and proportion of SARS-CoV-2 positive respiratory specimens, BC, March 1-April 15, 2020 (N=57,716; Positive=3.52%)



Data source: PLOVER extract on April 17, 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.

Figure 6: Percentage distribution of COVID-19 cases, hospitalization, ICU admissions and deaths by age, compared to the general population of BC, January 1-April 17, 2020 (N=1,576*)



*Includes 1576 cases, 363 hospitalizations, 157 ICU admissions, and 77 deceased with age information available.

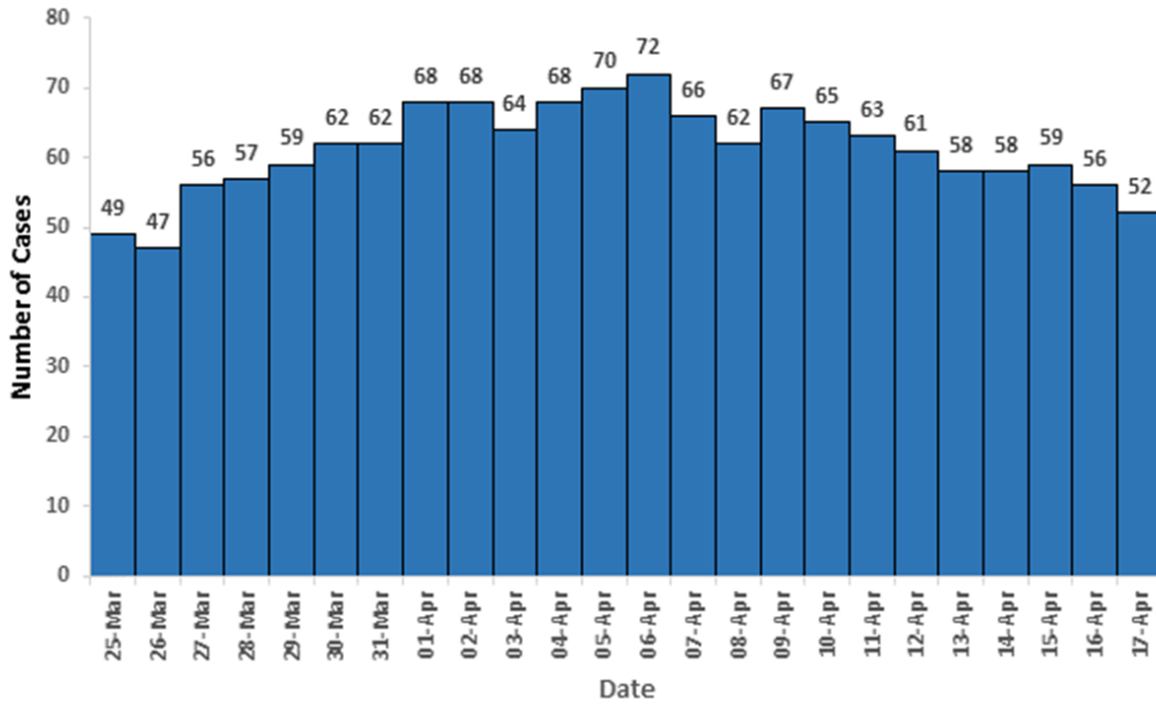
Note: COVID cases and hospitalizations have been reported in the <10y age group but represent <1% of cases and hospitalizations and are therefore not visible.

Table 2: Percentage distribution of COVID-19 cases, hospitalization, ICU admissions and deaths by age, compared to the general population of BC, January 1-April 17, 2020 (N=1,576*)

Age Group	COVID cases (%)	Cases ever hospitalized (%)	Cases ever in ICU (%)	COVID deaths (%)	General population (%)
<10 Years	<1	<1	0	0	9
10-19 Years	1	<1	0	0	10
20-29 Years	8	2	1	0	13
30-39 Years	17	7	4	0	14
40-49 Years	15	9	8	1	13
50-59 Years	20	14	15	0	14
60-69 Years	15	20	26	6	13
70-79 Years	11	25	35	17	9
80-89 Years	9	17	9	49	4
90+ Years	5	5	1	26	1

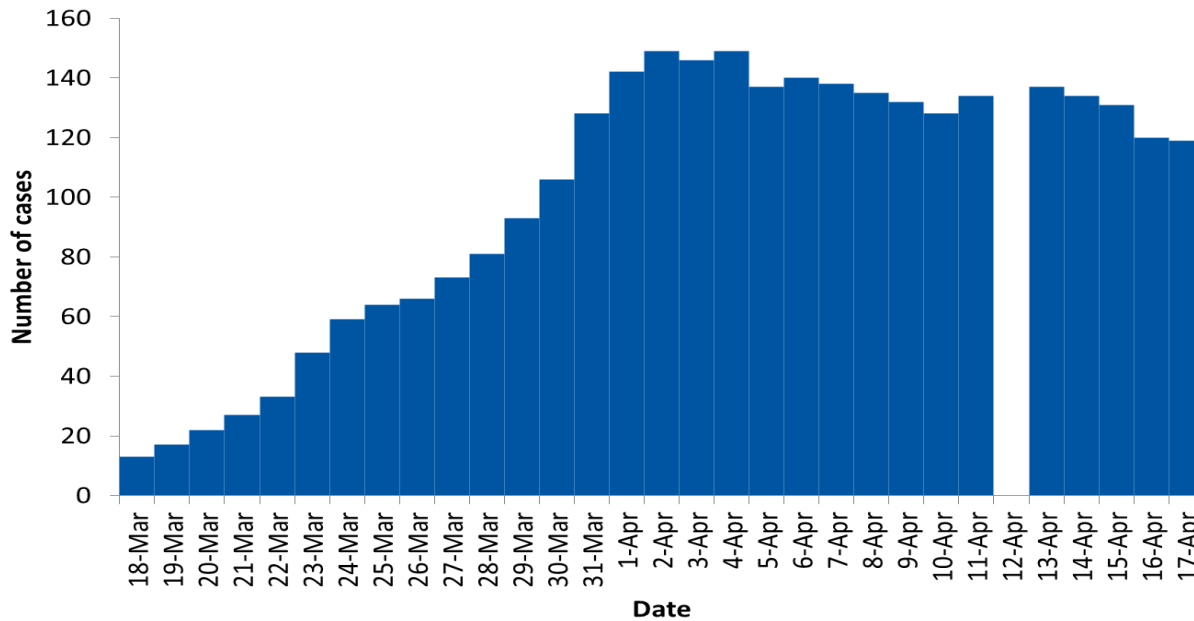
*Only cases with age information available are included.

Figure 7: Total positive COVID-19 cases in critical care by day, BC, March 25- April 17, 2020



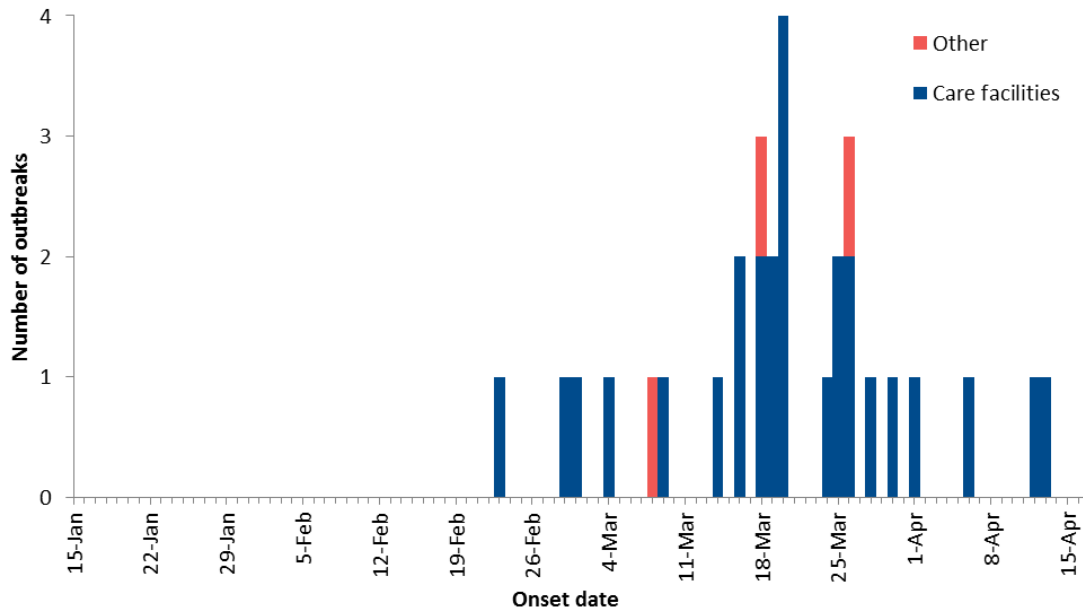
Data source: PHSA April 17. Note: critical care data may change over time due to small adjustments and improvements in data quality.

Figure 8: Number of confirmed COVID-19 cases in hospital by day, BC, March 18- April 17, 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 earliest date**, BC, January 15-April 17, 2020 (N=30)



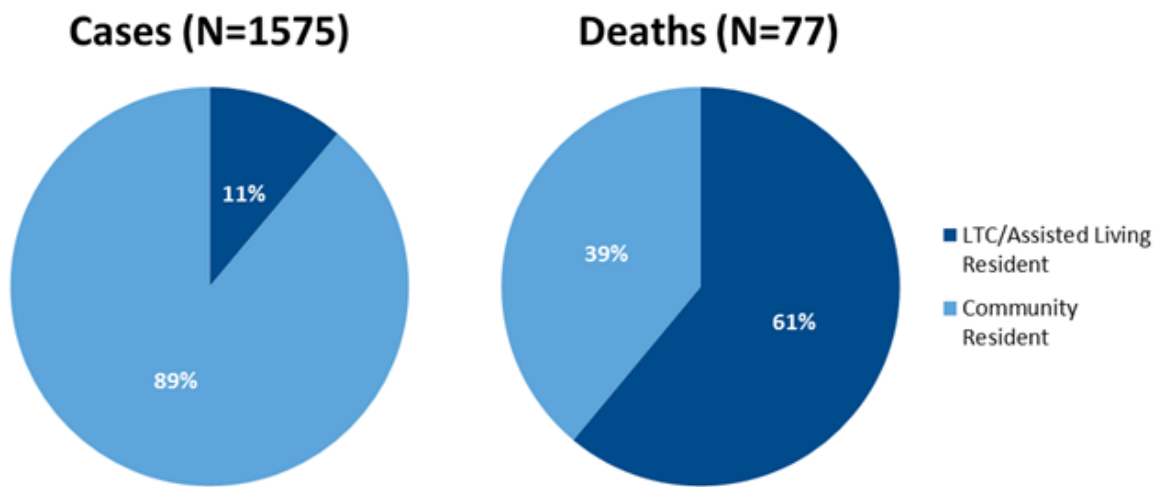
* Care facility (acute/longterm care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident. Other outbreaks have two or more lab-confirmed COVID-19 cases diagnosed within a 14-day period in closed or common settings (e.g. penitentiary, shared living setting).

** Earliest date is date of onset of earliest case in the outbreak(or reported date of earliest case when onset is unavailable).

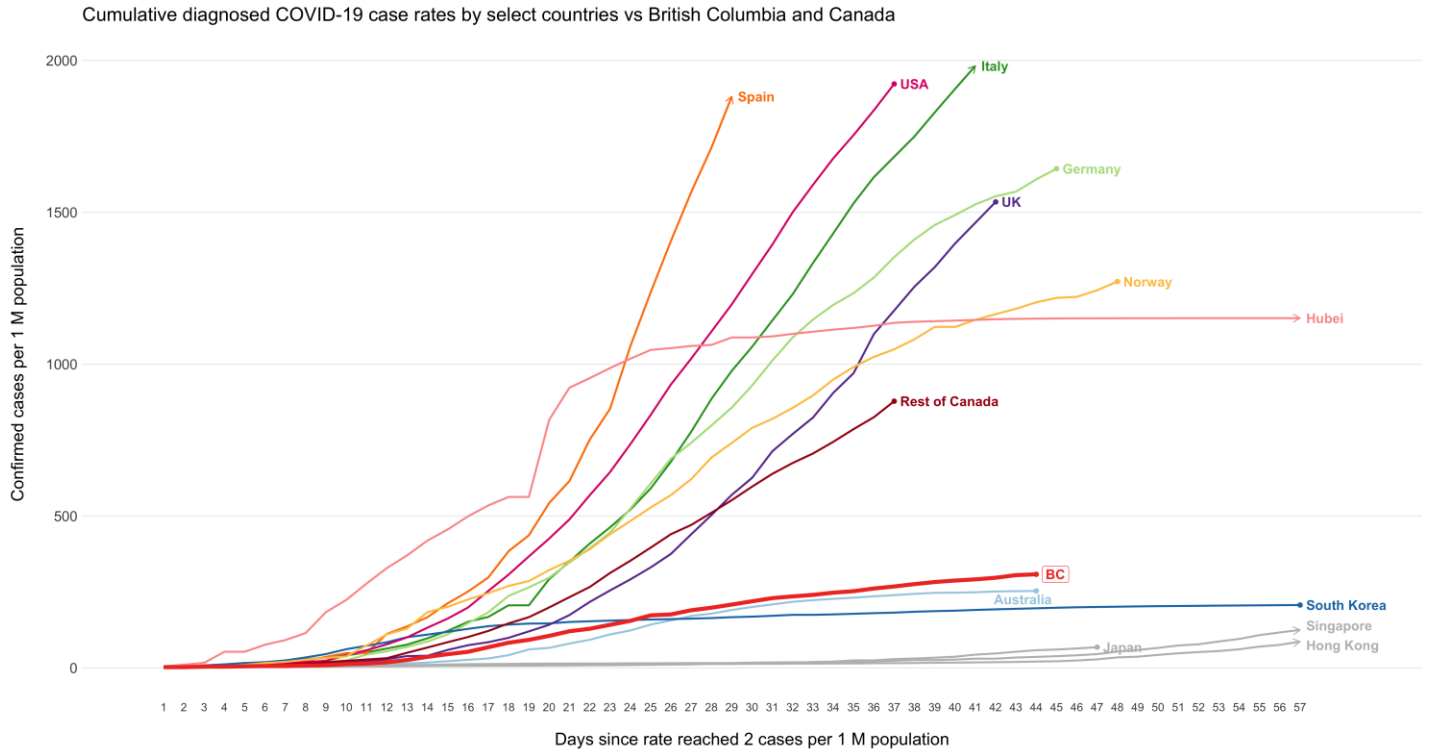
Note: Number of outbreaks decreased by 1 compared to April 16 due to data correction.

ADDITIONAL EPIDEMIOLOGICAL ANALYSES

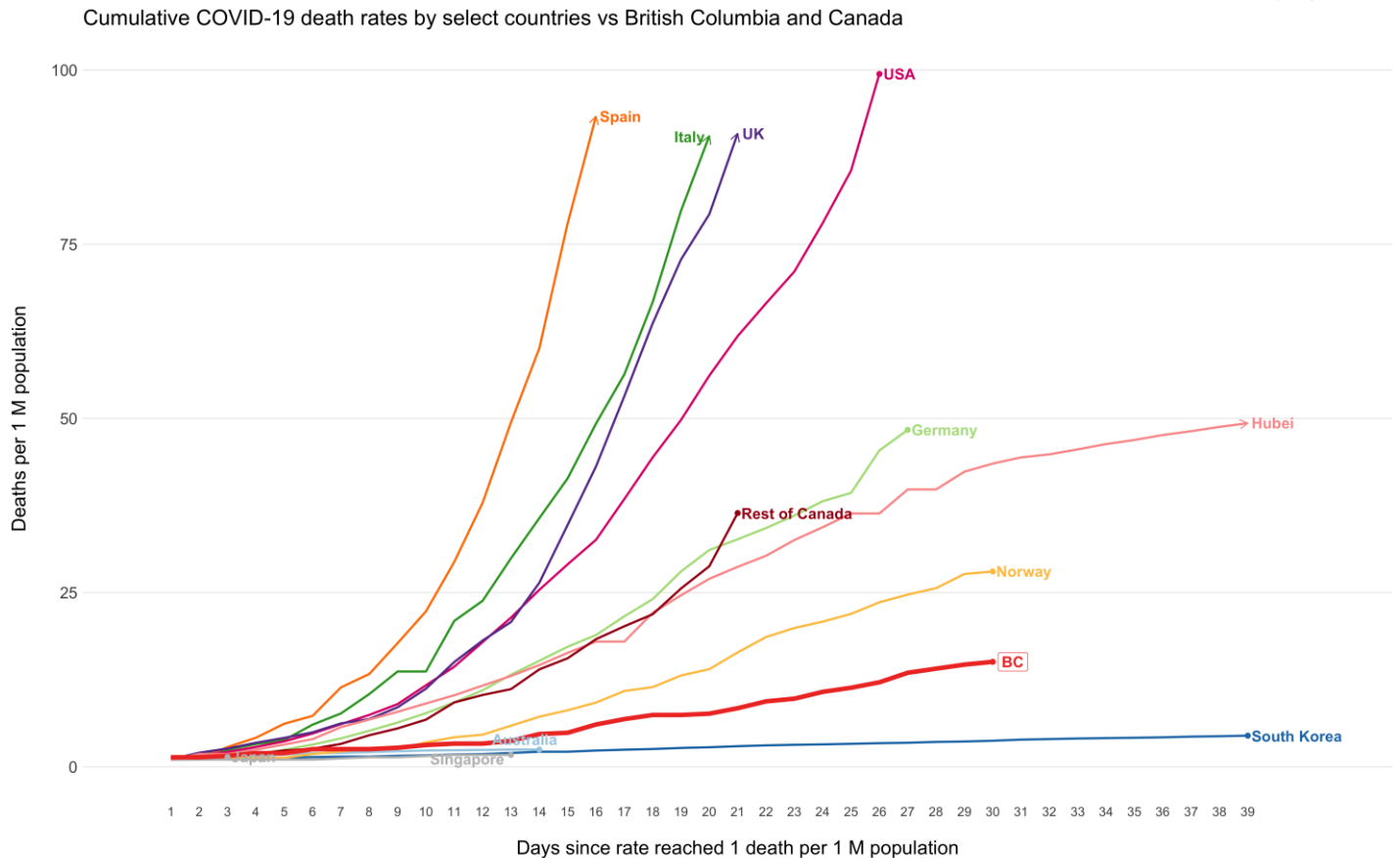
Figure 10: Proportion of confirmed COVID-19 cases and deaths identified as long term care/assisted living facility residents or community residents, BC, January 1-April 16, 2020 (N=1,575)



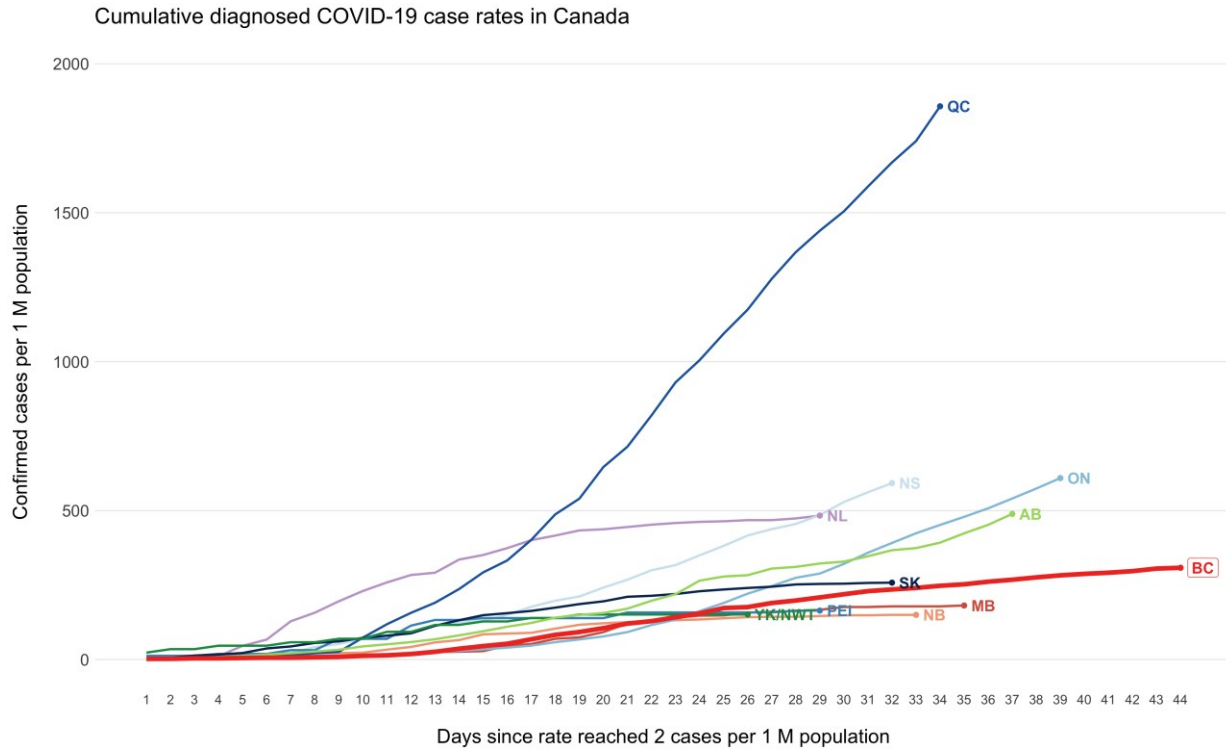
International and National Epidemiological Comparisons



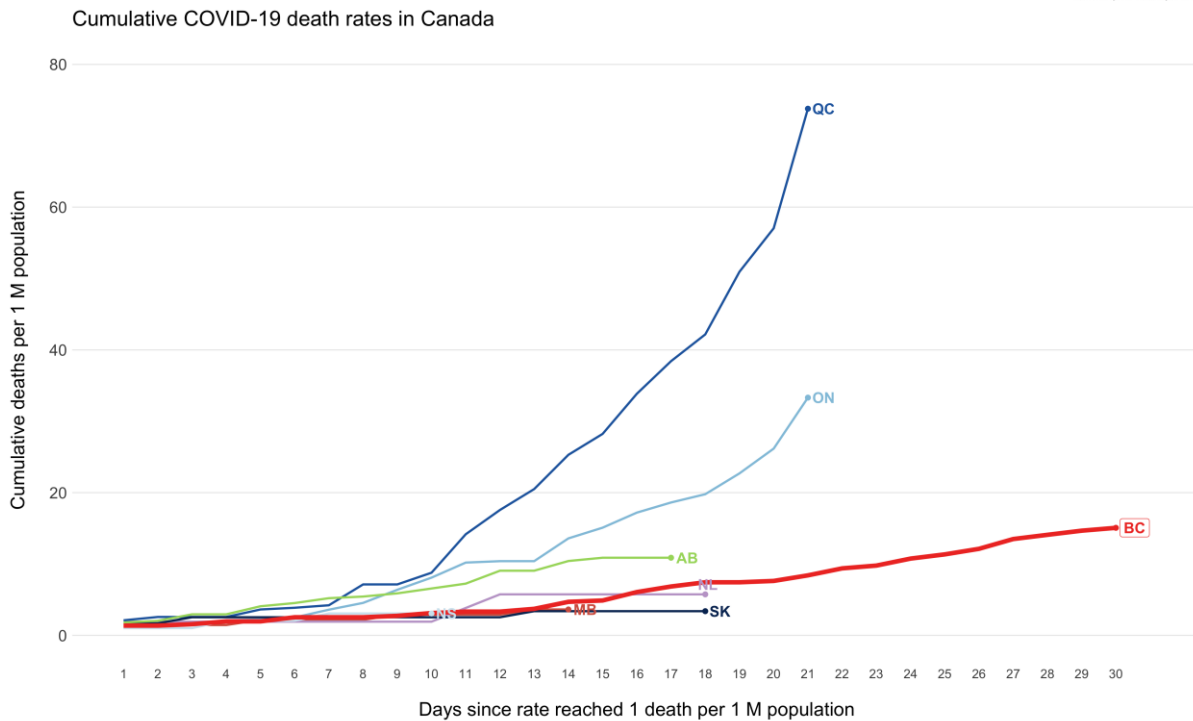
Data extracted from JHU CSSE Github repository on 2020-04-17



Data extracted from JHU CSSE Github repository on 2020-04-17



Data up to 16 April 2020



Data extracted from JHU CSSE Github repository on 2020-04-17

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	Canada
Total number of cases	1,618	28,899
Total number of deaths	78	1,048
Testing rate	10,649/ million population (as of April 15)	12,957/million population
% Hospitalization	22.7% (368/1,618)	18.3% (2,019/11,024)
% ICU	10.0% (161/1,618)	4.9% (535/11,024)
Incidence rate	31.9 cases per 100,000 population (1,618/5,071,336)	76.9 cases per 100,000 population (28,899/ 37,589,262)
Mortality rate	1.5 deaths per 100,000 population (78/5,071,336)	2.8 deaths per 100,000 population (1,048/ 37,589,262)

Data sources for BC testing data: April 17, 2020 HA lab confirmed case reports and PLOVER extract; Data sources for Canada data: April 16, 2020 <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>