BC Centre for Disease Control Provincial Health Services Authority

British Columbia COVID-19 Daily Situation Report, April 9, 2020*

Figure 1: Map of COVID-19 confirmed cases reported by health authority, BC, January 1 – April 9, 2020 (N=1,370)



Key messages

- Total confirmed cases (deaths) in BC = 1,370 (50) •
- Total facility outbreaks (current) = 24 (20)
- The number of reported cases has decreased since March • 30; the true number of cases is likely greater than that reported.
- The rate of reported illness in BC is lower than in many other provinces and countries. This may be affected by the March 16 testing guidelines.
- The number of cases in critical care has been stable since • April 1; this may be a better indicator of current risk in BC.
- The most commonly reported sign/symptoms in BC cases are • cough, fever, chills, headache, weakness, and myalgia.
- More severe outcomes were reported in cases >50 years, • who were male, or who reported a chronic condition.

	Eracor	Interior	VancouverIsland	Northorn	Vancouver	Total	
	FIDSEI	milenoi	vancouverisianu	Northern	Coastal	N (%) ^a	
Total number of cases	508	130	82	24	626	1,370	
New cases since yesterday	21	0	1	1	11 34		
Median age in years, cases ^b	53	49	55	51	57	54 years (range 0-102 years)	
Female sex, cases	269	71	43	15	336	734/1,344 (55%)	
Ever hospitalized ^c	146	22	21	7	121	317 (23%)	
Median age in years,	66	61	72	47	70	68 years	
hospitalized						(range 0-98 years)	
Currently in critical care ^d	37	6	3	3	18	67	
Total number of deaths $^{\circ}$	10	0	2	0	38	50 (4%)	
New deaths since yesterday	1	0	0	0	1	2	
Median age in years, deaths ^b	80	NA	88	NA	87	86 years (range 47-100 years)	
Recovered ^e	274	60	37	12	473 ^f	858 (63%)	

Table 1: Epidemiological profile of reported cases by health authority, BC, January 1 – April 9, 2020 (N=1,370)

^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=1342, 312, and 50, 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^c Serious outcomes (i.e., hospitalization, death) may be incomplete or out of date (i.e., under-estimates) owing to the timing and process for case status update.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, Apr 9 2020 @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 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.

^fNumber is from April 8 and is subject to change.

*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. Version: April 9, 2020 1 of 8



Figure 2: Epidemic curve, confirmed COVID-19 cases in BC by symptom onset date January 1-April 9, 2020 (N=1,223⁺)

[†]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 8, 2020 (N=1,368[‡])



*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 nonessential travel; March 21: closure of personal service establishments.

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 the reported date available and appear on the far right of the curve in Figure 3, but their onset of symptoms would have been prior to this. As information on symptom onset becomes available through public health investigation, cases are expected to appear on earlier dates on the curve in Figure 2.



Figure 4: Likely source of infection for COVID-19 cases in BC by episode date, * January 1-April 9, 2020⁺ (N = 1,062)

* Episode date is based on symptom onset date (n= 588), if not available then date COVID-19 was reported to health authority (n= 474). ⁺ Data source: Panorama public health information system

Figure 5: Number and proportion of respiratory specimens testing SARS-CoV-2 positive* performed in BC, March	1-
April 7, 2020 (N=50,332)	



*Participating laboratories include those with confirmatory testing: 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. Data source: PLOVER extract on April 9, 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 not represent only new positive cases and this may lead to an over-estimation of proportionate positivity; similarly, individuals may be tested repeatedly after becoming negative and this may lead to an under-estimate of 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. Specimens collected in the Yukon and tested at the BCCDC PHL are included. ^^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 are experiencing respiratory symptoms.



Figure 6: Total positive COVID-19 cases in critical care by day, BC, March 25- April 9, 2020

Data source: PHSA, April 9 2020. Note critical care data may change over time due to small adjustments and improvements in data quality.

Figure 7: Percentage distribution of COVID-19 cases, hospitalization, ICU admissions and deaths by age, compared to the general population of BC, January 1-April 9, 2020 (**N=1,342***)



*Includes 1342 cases, 312 hospitalizations, 144 ICU admissions, and 50 deceased with age information available.

ADDITIONAL EPIDEMIOLOGICAL ANALYSES:

Signs and Symptoms

The symptom profiles of cases were similar among the age groups.

Table 2: The proportion of COVID-19 cases reporting symptoms, BC, January 1-March 31, 2020 (N=767*)

Sign / Symptom	Proportion Reporting *		
Cough	86%		
Fever	70%		
Chills	68%		
Headache	66%		
Weakness	63%		
Myalgia	60%		
Pharyngitis	48%		
Shortness of breath/breathing difficulty	47%		
Arthralgia	47%		
Rhinorrhea	45%		
Diarrhea	38%		
Nausea	36%		
Irritability	14%		
Tachypnea	13%		
Vomiting	13%		
Conjunctivitis	10%		
Hypotension	10%		
Confusion	9%		
Acute respiratory distress syndrome	6%		

*Includes cases with either a "Yes" or a "No" response for each sign/symptom; the number of cases with yes/no responses ranges between 289 and 458 for each sign/symptom.

Data source: Panorama public health information system

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Risk Factors for Severe Outcomes

	Reported Outcome								
	All Cases		Admitted to Hospital		Admitted to ICU		Death		
Risk Factor	N	%	N	%	Ν	%	N	%	
Age 50+	408	56%	106	77%	38	88%	15	100%	
Male	334	46%	92	67%	32	74%	12	80%	
At least one chronic condition*	253	36%	87	66%	31	72%	12	80%	

Table 3: The number and proportion of COVID-19 cases reporting risk factors, total and by outcome, BC, January 1-April 4, 2020 (**N=1,053**[†])

⁺ Includes cases with a "Yes" or "No" response to each outcome and risk factor; the number of reported cases with yes/no responses ranges between 678 and 725 for each outcome

* Includes cases who reported "Yes" to any of cancer, cardiac disease, diabetes, liver disease, neurological/neuromuscular disorder, renal disease, or respiratory disease

Data source: Panorama public health information system

Facility Outbreaks

Figure 8: Long term care/assisted/independent living facility outbreaks* by earliest date of onset (or reported date when onset is unavailable), January 1-April 7, 2020, BC (N=24)



A - March 17: PHO advises restricting visitors to LTC facilities to essential visits only

B - March 26: PHO orders issued for public & private health sector employers & LTC facilities to work at one facility

* Outbreaks are defined as at least one staff or resident with lab-confirmed COVID-19.

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International and National Epidemiological Comparisons



Cumulative diagnosed Covid-19 case rates by select countries vs British Columbia and Canada

Days since rate reached 2 cases per 1 M population

Data extracted from JHU CSSE Github repository on 2020-04-09 Data up to 9 April 2020



Data extracted from JHU CSSE Github repository on 2020-04-09

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Cumulative diagnosed Covid-19 case rates in Canada



Data up to 9 April 2020

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