Benefits assumed, harms ignored

A Charter Analysis of British Columbia’s Response to COVID-19

July 8, 2020
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Introduction

The problems and challenges of COVID-19 cannot be reduced to their medical aspects only. Bound up with the goals of reducing transmission and preserving health system capacity are the equally important questions of Charter rights violations, economic sustainability, and the well-being of British Columbians more generally. A parallel question concerns the ability of the B.C. Government to maintain a tax-base sufficient to sustain our health system, given the recent and severe economic contraction. These questions merit answers, and the Government of B.C. must now consider the negative impacts of lockdown measures on the lives, health, economy, and social well-being of British Columbians.

In the following pages, we describe the B.C. Government’s response to COVID-19 in the form of lockdown measures that have impacted all facets of society—from social gatherings, to the economy, to the healthcare system. We then analyze the COVID-19 modelling documents prepared by the B.C. Centre for Disease Control for the B.C. Ministry of Health, which were released to the public on March 27, April 17, May 4, June 4, and June 23. We consider all these as they relate to the Canadian Charter of Rights and Freedoms.¹

There is little doubt that government restrictions on citizens’ freedom to move, travel, associate, assemble and worship are violations of the rights and freedoms protected by the Charter. The B.C. Government’s lockdown measures of enforced social distancing and isolation violate our Charter freedoms of association,² peaceful assembly,³ mobility and travel,⁴ liberty,⁵ security of the person,⁶ and conscience and religion.⁷ Even in July of 2020, these measures continue to have a severe and negative impact on British Columbians’ access to healthcare, which violates the Charter section 7 rights to life and security of the person.⁸ Finally, these measures have had - and will continue to have - a severe impact on B.C.’s economy, with a predictable negative impact on the ability to pay for healthcare.

² Charter, s 2(d).
³ Charter, s 2(c).
⁴ Charter, s 6.
⁵ Charter, s 7.
⁶ Charter, s 7.
⁷ Charter, s 2(a).
⁸ Chaoulli v Quebec, 2005 SCC 35.
The B.C. Government’s Lockdown Measures

In this section, we enumerate the lockdown measures implemented by the B.C. Government, which started in March and now remain in place - in full or in part - without a clear deadline as to when they will be lifted entirely. We describe the closure of schools, post-secondary institutions and recreational facilities, restrictions on travel and freedom of association, and restrictions on economic activity. In subsequent sections, we address the negative impacts of these measures, and consider whether these impacts have been properly analyzed and accounted for by way of a thorough cost-benefit analysis as required by the Charter.

The following chart depicts the dates on which the most significant social and economic lockdown measures were implemented:

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On January 26 British Columbia reported its first case of COVID-19. In response, Minister of Health Adrian Dix and Provincial Health Officer Dr. Bonnie Henry issued a joint statement including the following passage:

It is not necessary for the general public to take special precautions beyond the usual measures recommended to prevent other common respiratory viruses during the winter period. Regular handwashing, coughing or sneezing into your elbow sleeve, disposing of tissues appropriately and avoiding contact with sick people are important ways to prevent the spread of respiratory illness generally.\(^\text{10}\)

On February 25, Minister Dix and Dr. Henry stated that “we are preparing for all possibilities that may occur in the coming weeks, including the possibility of a pandemic” which they defined as “the spread of an illness to a large number of people on a global scale.”\(^\text{11}\)

On March 2, Minister Dix and Dr. Henry stated that similar to how you may need to care for someone with influenza, you will want to ensure you have sufficient food, medications and support in place for you and your family to stay home for a number of days. These are the normal preparations when someone in your family is ill. There is no requirement for British Columbians to stockpile supplies.\(^\text{12}\)

On March 6, the B.C. Government released its plans for a phased response to COVID-19.\(^\text{13}\) Features of “Phase 1” included identifying, containing, and tracing cases, and “delaying the onset of widespread community transmission for as long as possible.”\(^\text{14}\) Features of Phase 2 would include increasing testing capacity, protecting vulnerable populations and healthcare workers, and maximizing healthcare capacity for COVID-19 patients.\(^\text{15}\)

On March 12, Minister Dix and Dr. Henry announced that effective today, we are directing all event organizers to cancel any gathering larger than 250 people. This includes indoor and outdoor sporting events, conferences, meetings, religious gatherings or other similar events. This threshold has been selected, as it is much easier to

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\(^\text{14}\) Ibid.

\(^\text{15}\) Ibid.
maintain important social distancing to prevent transmission of COVID-19 […]
Some post-secondary institutions have classes with more than 250 students, and we are working with them to take measures to address this situation.16

On March 16, Minister Dix and Henry announced that British Columbia’s health authorities were being “directed to immediately move all hospitals in the province to Phase 2 measures”: “hospitals will undertake only urgent and emergency procedures [and] postpone all non-urgent scheduled surgeries.”17 Lions Gate Hospital in North Vancouver was directed to immediately move to Phase 3 measures, in which only emergency patients were to be accepted.18

Under these directives, hospitals were to train healthcare workers for “critical care related to COVID-19,” to ensure sufficient medical supplies “for patients and staff who need them most,” and to “further increase capacity to respond to the potential for a surge of COVID-19 patients requiring acute care.”19 Moreover, visits to long-term care facilities would be restricted only to “essential visits”, defined as including

compassionate visits for end-of-life care and visits that support care plans for residents based on resident and family needs, for example, families who routinely visit to provide assistance with feeding or mobility.20

The following day, Dr. Henry issued an order to prohibit “all public gatherings of more than 50 people,” including “all indoor and outdoor sporting events, conferences, meetings, religious gatherings, and other similar events.”21

On March 17, Dr. Henry issued a notice triggering the emergency powers under the Public Health Act.22 Minister of Public Safety and Solicitor General Mike Farnworth declared a provincial state of emergency the following day.23 Measures taken included (1) suspending K-12

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18 Ibid.
19 Ibid.
20 Ibid.
21 Ibid.
learning in all classrooms (2) ordering businesses with liquor primary licenses (bars, pubs, night clubs, etc.) to close, (3) ordering restaurants unable to accommodate social distancing measures to close or implement take-out measures, and (4) granting police officers to enforce public health measures.\textsuperscript{24} The University of British Columbia likewise announced that all faculty and staff would work remotely and that all classes would be conducted online for the remainder of the term.\textsuperscript{25}

On March 21, Dr. Henry issued an oral order directing personal service establishments such as “barbershops, salons, health spas, massage parlours, tattoo shops and others” to close.\textsuperscript{26}

On April 8, the closure of provincial parks and campgrounds until further notice was announced.\textsuperscript{27} While acknowledging “the value of nature in contributing to public health and wellness,” public health officials expressed their concern that keeping provincial parks and campgrounds open - especially over the Easter weekend - would increase the risk of COVID-19 transmission.\textsuperscript{28}

On April 9, Minister Dix issued a joint statement with Alberta Minister of Health Tyler Shandro, asserting that

This long weekend is different. These are extraordinary times. A global pandemic puts us all at risk – and we all must stay home, stay in our communities and stay at a safe physical distance from others when outside.\textsuperscript{29}

\begin{flushleft}
\textsuperscript{28}Ibid.
\end{flushleft}
On April 17, Minister Dix and Dr. Henry described the situation in B.C. as being “in the eye of the storm in a Category 5 hurricane.”30 They again described the situation as a “hurricane” in their statement on April 23.31

On April 17, Minister Farnworth, issued an order prohibiting any person from inflating the price of and reselling medical supplies and essential goods during the COVID-19 situation.32 As announced on April 19, police and other enforcement orders were empowered to issue $2,000 tickets for violations. As described by Minister Farnworth, such orders “are not suggestions, they are the law.”33 “These measures will provide enforcement officers and police agencies the ability to enforce the law on these criminal acts and despicable practices, like the reselling of medical supplies and price gouging.”34

These were the most significant social and economic lockdown measures enforced by the B.C. Government throughout March and April of 2020. While these measures were no doubt well-intentioned, there is no question that they violated Charter-protected freedoms, and that these Charter-violating measures have inflicted harm on British Columbians. We conclude this section by arguing that the government imposed these measures without adequately or coherently defining their purpose, their object, or their necessity. Consider the following:

(1) Government and health officials repeatedly referred to the goal of “flattening the curve” for the purpose of preserving capacity in hospitals for COVID-19 patients. To “flatten the curve” is to distribute the same number of cases across a greater unit of time in order that there might be fewer cases and, therefore, hospitalizations, at the peak. This is a distinct and different goal from trying to stop the spread of the virus entirely. It was clear, however, that cases peaked in late March and that hospitalizations peaked in early April.35 Once these peaks in cases and hospitalizations had passed, it should have been clear to health officials that the health

34 Ibid.
system would not be overwhelmed by COVID-19 patients. Nonetheless, politicians and health officials continued to call for “flattening the curve,” continued to describe COVID-19 as a “hurricane,” and continued to endorse stringent lockdown measures into April, May, and June. Were there other goals – not articulated by the B.C. Government – beyond preserving capacity in the health system?

(2) As of June 18, approximately 70 percent of COVID-19 deaths in B.C. (116 of 168) occurred in care facilities. This is not surprising, given the consistent evidence from jurisdictions around the world that the elderly and those with pre-existing medical conditions are most at-risk for COVID-19, whereas there is very little risk for people not in these categories. By the end of April and arguably sooner, the B.C. Government should have anticipated that the majority of severe outcomes would occur in care facilities and not in general hospitals. The B.C. Government should have recognized the fact that COVID-19 confers insignificant risk on the vast majority of British Columbians and that, as a consequence, the health system was unlikely to be overwhelmed. Nonetheless, the B.C. Government continued to lock down society and the economy in order to “flatten the curve,” and this in order to preserve capacity within the general health system throughout March, April, and May. In another section, we show that these measures have resulted in under-utilized healthcare resources, including thousands of cancelled surgeries.

(3) It is unclear why the B.C. Government implemented a province-wide response to COVID-19 and did not account for local conditions. On March 18, there were 144 cases in the Vancouver Coastal Health region, 58 in the Fraser Health region, 16 in the Island Health region, nine in the Interior Health region, and only four in the Northern Health. The following graph depicts the distribution of cases across B.C. on April 14:

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36 Ibid.
Despite the relative few cases in various regions of B.C., social and economic lockdown measures were enforced across the entire province, severely impacting regions reporting few positive cases. Again, the B.C. Government failed to provide evidence that this global response was warranted.

(4) It is unclear why the B.C. Government enforced measures that might have been self-enforced by British Columbians. It appears that the B.C. Government lacked (and still lacks) confidence in the conscientiousness and compassion of British Columbians to interact socially and economically in ways that preserve themselves and others. If the B.C. Government had shown that reducing transmission (a) was necessary and (b) could not have been accomplished without government lockdowns backed up by fines, then these lockdown measures might have been justified. To date this has not yet been shown.

(5) Finally, the B.C. Government failed to account for the predictable negative consequences of these radical social and economic measures. It was not until April 28 that B.C.

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38 April 17 COVID-19 Modelling at page 6: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/modelling-projections
officials acknowledged publicly that “the actions we take also have significant social, financial and emotional implications.”

Although it was stated by Minister Dix and Dr. Henry on April 28 that every order and decision had been based on a “comprehensive risk assessment” aimed at containing COVID-19, it is unclear from the statements made throughout March and April what specific social, health, and economic risks factored into these assessments. To date, no detailed, comprehensive risk assessment has been disclosed to the public for scrutiny. It therefore remains unclear whether the B.C. Government ever actually conducted any such analysis.

In the absence of evidence that such analysis ever took place, it appears that the B.C. Government has simply assumed, without evidence or analysis, that lockdown measures would do more good than harm. Given the devastating impacts of government lockdown measures on the provincial economy (ability to pay for health care), access to healthcare, and negative health impacts (e.g. cancelled surgeries), we argue that these measures have likely done more harm than good.

In the following section, we analyze the Charter implications of these measures and argue that, where these measures violated and continue to violate Charter-protected freedoms, the B.C. government is obliged to provide the evidence necessary to justify them.

**Lockdown measures violate our Charter Freedoms**

The Charter confers on all Canadians the freedoms of association, peaceful assembly, mobility and travel, liberty, security of the person, and conscience and religion. These Charter freedoms to move, travel, associate, assemble and worship are constitutionally guaranteed, “subject only to such reasonable limits [...] as can be “demonstrably justified in a free and democratic society.”

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40 Ibid.
41 Charter, s2(d).
42 Charter, s 2(c).
43 Charter, s 6.
44 Charter, s 7.
45 Charter, s 7.
46 Charter, s 2(a).
47 Charter, s 1.
violations of Charter freedoms are reasonable and “demonstrably justified in a free and
democratic society”48 as required by section 1 of the Charter. This requires serious analysis not
only of the purported benefits of the lockdown to B.C.’s society, but also of its harmful
consequences, including adverse effects on human health and wellbeing. Under section 1 of the
Charter, when governments violate the freedoms of citizens to move, travel, associate, assemble,
and worship, the onus is on government (not the citizen) to show that freedom-violating
measures will do more good than harm. Restrictions on Charter freedoms are not valid merely
because governments impose them with good intentions to achieve desirable outcomes. Rather,
the Charter requires governments to “demonstrably” justify such restrictions on the basis of
evidence, and such evidence must prove that the restrictions do more good than harm. “Harm”
includes the violations themselves, as well as the practical negative impact on people’s daily
lives.

Bearing in mind that assertions do not qualify as evidence, thus far the B.C. Government
has failed to present persuasive proof to the public showing specifically how and why the
lockdowns have brought about more good than harm. Nor has the B.C. Government been clear
and consistent as to the specific goal(s) of the lockdown, which appear to have shifted from
“flattening the curve” to trying to stop the spread of the virus entirely. Government bears the
onus of demonstrating that its laws and policies violate Charter freedoms as little as possible:
only to the extent necessary to achieve a pressing and well-defined goal. The Charter does not
allow governments to impose broad, sweeping and far-reaching measures that go further than
what is truly needed to achieve a specific objective.

What would count as demonstrable justification for lockdown measures that violate
Charter freedoms? As a starting point, the B.C. Government should demonstrate that (a)
COVID-19 presents a significant, generalized risk such that broad lockdown measures are
reasonably required, and (b) lockdown measures would be effective in mitigating that risk. As
yet, neither have been demonstrated. As will be outlined in greater detail further below, the data
on COVID-19 deaths, provided by governments and by health authorities in B.C. and in other
dependencies, shows that COVID-19 is a serious threat only to those 60 and over, and a small
number of people under 60 who suffer from certain pre-existing health conditions. Yet the B.C.
Government closed schools on the assumption that students, faculty, and their families would be

48 Charter, s 1.
otherwise unsafe. These closures were imposed and then kept in place for months, without reference to the type of data or evidence that would count as demonstrable justification.

In addition to banning public events of more than fifty persons, the B.C. Government has closed recreational facilities and parks, and has enforced orders regarding travelers and border-crossings, thereby limiting the Charter rights and freedoms of British Columbians. Lockdown measures have resulted in the partial shut down of the health care system, thereby impacting the rights of British Columbians to life and security of the person\textsuperscript{49} protected by section 7 of the Charter. British Columbians have been asked to accept unprecedented interference with their civil, religious and economic freedom in the absence of evidence-based modelling or statistics demonstrating why these policies were necessary.

Below is a list of questions that pertain to B.C.’s lockdown measures, sent to Premier Horgan and Dr. Henry in mid-April. As of July 8, no answers have been provided to any of these questions:

1. How many suicides are projected to take place as a result of the government having shut down much of our economy, forcing people into unemployment, bankruptcy, or poverty?
2. How many do you project will die because of the rise in depression, anxiety, alcoholism, other addictions and drug overdoses that the lockdown and associated unemployment and social isolation will cause, as the lockdown drags on for weeks or even months?
3. How many children and spouses do you project will be abused while couples and parents remain confined to their homes, in many cases unemployed, without their usual income and social connections?
4. How many children will be put in foster care because of domestic abuse, or loss of their parents’ ability to provide for them, or both?
5. How many isolated seniors are projected to become sick or die because they no longer receive regular visitors, such that nobody is able to take them to their own family doctor, or take them to an emergency unit at the hospital? How many will die at home, alone?

\textsuperscript{49} Chaoulli v Quebec, 2005 SCC 35.
6. How many people are projected to die or to suffer permanent damage because their non-emergency (elective) surgery, their testing and their various treatments have been cancelled due to your singular focus on fighting COVID-19?

7. How many people are projected to suffer serious harm caused by lack of access to secondary health providers they regularly rely on, such as physiotherapists, massage therapists, optometrists, chiropractors, osteopaths, podiatrists and dentists?

8. How many people are projected to die or suffer serious harm because they believe (correctly or incorrectly) that they cannot go see their doctor, or that they cannot check into emergency at the hospital?

9. How many children, confined to their homes while schools and playgrounds are closed and athletic and recreational activities are shut down, are projected to develop diabetes or other chronic health conditions?

10. How many people will develop psychiatric disorders caused by governments having eliminated social interaction at restaurants, pubs, churches, recreational facilities and community centres?

11. Have you or your staff researched any of these questions here above?

12. If yes to the foregoing question, have you created any models, estimates or projections in regard to any or all of these causes of illness, harm and death, in the same way that you have relied on models, estimates and projections in regard to COVID-19?

The questions which must be answered by the B.C. Government range far beyond this initial set, here above. As an integral part of considering lockdown harms as well as benefits, the Government has an obligation to provide the numbers (or estimates or predictions, where actual numbers are not available) of bankruptcies, insolvencies, and foreclosures that have resulted, and will result in future, because of the lockdown measures, and subsequent impact on the Government’s health care budget. The Government has an obligation to determine how many additional instances of stress, anxiety, and depression will result from ruined financial prospects, and the full medical and health impacts of these increases in stress, anxiety and depression. It has an obligation to investigate fully how the increasing prevalence of stress, anxiety, and depression will result in more alcoholism, drug abuse, suicides, spousal abuse and child abuse.
Unfortunately, it appears that the B.C. Government has not given serious or thoughtful consideration to these consequences, nor to the effects of cancelling surgeries and other denials of access to needed healthcare.

While the Charter does not explicitly protect the economic or financial interests of citizens, it does require government officials (elected and non-elected) to broadly analyze the harms which flow from any government action which violates Charter freedoms. Harm to physical and mental health resulting from the destruction of one’s livelihood must be considered as part of the Charter’s “demonstrably justified” analysis. In fact, it would be irrational to ignore the impact of a weaker and poorer economy on tax revenues, and the impact of reduced tax revenues on the ability to pay for necessary medical care, mental health support, and other important social structures.

To date, it does not appear that the B.C. Government has paid serious consideration to the harmful effects of lockdowns. It certainly has sufficient resources to monitor and track the positive and negative impacts of its policies on British Columbians, and thus to meet its Charter obligation to fully weigh the benefits and harms likely to be caused by its actions.

By every metric, the goal of preserving capacity for COVID-19 patients in B.C. hospitals has been not only achieved, but over-achieved. It is long past time that the B.C. Government prioritize the task of determining the full costs and harms of the lockdown, the negative effects of which have been borne by millions of British Columbians.

**Inaccurate claims about the risks associated with COVID-19**

In this section, we assess the risks of COVID-19 to children, youth, and the elderly in British Columbia. We argue that, in the case of children and youth, COVID-19 does not pose a significant risk. This information was already available to public health officials by early April, and perhaps as early as March. We then argue that COVID-19 does not appear to pose a significant *additional* risk to those already at risk for fatal outcomes associated with extreme old age, pre-existing medical conditions, or both.
When K-12 schools were ordered to close in mid-March, approximately 550,000 students were forced to study at home. Minister of Education Rob Fleming stated “[a]s the global pandemic is evolving quickly and is having as a growing impact in B.C., we have to take action today to keep our schools safe.”

Throughout March and into April, many government and public health officials made similar statements – alluding to the risks of COVID-19 to children, youth, and their teachers – but without reference to then-available statistics on the actual risks of COVID-19 to this demographic.

Similar statements have been made at the federal level as well. On March 31, the Chief Public Health Officer of Canada, Dr. Theresa Tam, tweeted that “[t]he young are not spared from severe outcomes.”

Likewise, Alberta Premier Kenney stated the following early April:

“I’ve seen online and some of the chatter and discussions here, people saying, ‘Well why don’t you just kind of close down the seniors’ homes and quarantine the seniors and let the rest of society continue to function?’ Well… no age group is immune… We have had two deaths, I think one amongst a 20-something and one amongst a 30-something, so young people can be seriously affected by this.

These statements, while true, misrepresent the extreme improbability that any child or youth will experience a severe outcome. For example, University of Toronto professor Dionne Aleman suggested that the chances of a young person experiencing a severe outcome were like rolling a die and having the number one “pop up”. Of course, if the statistical probability of a young person being hospitalized or dying were really “like rolling a one on a die” as suggested by Dr. Aleman, we would expect a 1/6 probability that any young person would die from

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COVID-19 or suffer serious harm from it. This has not been the case. According to the British Columbia Centre for Disease Control,\(^5\) for January 1 to June 18, those under 40 had only accounted for 50 COVID-19 hospitalizations in British Columbia, 16 ICU-admissions, and zero deaths, as per the following table\(^6\):

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>COVID-19 Cases (n)</th>
<th>Hospitalizations (n)</th>
<th>Hospitalizations / Cases</th>
<th>Deaths (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>39</td>
<td>2</td>
<td>1/19.5</td>
<td>0</td>
</tr>
<tr>
<td>10-19</td>
<td>64</td>
<td>1</td>
<td>1/64</td>
<td>0</td>
</tr>
<tr>
<td>20-29</td>
<td>313</td>
<td>13</td>
<td>1/24.08</td>
<td>0</td>
</tr>
<tr>
<td>30-39</td>
<td>475</td>
<td>34</td>
<td>1/13.97</td>
<td>0</td>
</tr>
</tbody>
</table>

The next table represents the total number of British Columbians under 40, and total hospitalizations for British Columbians under 40\(^7\):

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>General Population (n)</th>
<th>Hospitalizations (n)</th>
<th>Hospitalizations / Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>468,280</td>
<td>2</td>
<td>1/234,140</td>
</tr>
<tr>
<td>10-19</td>
<td>507,197</td>
<td>1</td>
<td>1/507,197</td>
</tr>
<tr>
<td>20-29</td>
<td>684,681</td>
<td>13</td>
<td>1/52,667</td>
</tr>
<tr>
<td>30-39</td>
<td>730,523</td>
<td>34</td>
<td>1/21,485</td>
</tr>
</tbody>
</table>

In summary, 50 of 2,390,690 British Columbians under 40 were hospitalized, and none died. These tables demonstrate the extreme statistical improbability that any person aged 0-39 will experience a severe outcome from COVID-19. It might be argued that so few persons aged 0-39 experience a severe outcome because of the success of social and economic lockdown measures. This is not the case, however, given the epidemiological characteristics of COVID-19 among young people in B.C. and in many other jurisdictions, and the fact that the virus has spread to a large number of younger persons. Yet amongst those who had been hospitalized up to June 18, only 5.6 percent (50 of 891 cases as of June 18) were under 40 in B.C.\(^8\) As mentioned before,

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56 Ibid.
57 Ibid.
58 Ibid.
no deaths in that age group had been reported. In Sweden, those aged 0-39 who were hospitalized (215) represented only 1.1% of total cases (19,428) as of June 25; only 22 deaths had been reported for this age group. Across Canada, those aged 0-39 who were also hospitalized represented only 0.81% (831) of total cases (102,622) as of June 25; only 24 deaths had been reported. Thus, even in jurisdictions with significantly higher case rates, the relative risk conferred by COVID-19 on young people is insignificant. This is especially apparent when severe outcomes are compared against total estimated infections and not just confirmed cases, as above.

Remarks about the supposed risks of COVID-19 to children and youths have been made frequently by elected and appointed government officials since March 2020, without subsequent correction to account for the facts as they became known. Yet statements like these have been allowed to inform public policy decisions that continue to have severe social, economic and health impacts on British Columbians. So, were the closures of schools and post-secondary institutions evidence-based and demonstrably justified in B.C.? No evidence has been cited in support of the claim that children and youths were or are at significant risk from COVID-19, or that school closures were necessary to mitigate this risk in B.C.

Nonetheless, as early as March 3, the China Centre for Disease Control published its findings on the epidemiological characteristics of COVID-19 in China, and stated that only 0.9% of confirmed cases occurred in ages 0-9; that only 1.2% occurred in ages 10-19; that only 8.1% occurred in ages 20-29, and that 17.0% occurred in ages 30-39. Moreover, of the 4,584 confirmed cases in ages 0-29, only 8 resulted in death: a small fraction of 1%. This study also found that comorbid conditions – such as hypertension, diabetes, cardiovascular disease, chronic respiratory disease, and cancer – significantly impact case fatality rate and that those older than

59 Ibid.
63 Ibid.
80 experienced the highest case fatality rate. The epidemiological characteristics of COVID-19 have been similar in B.C. Again, according to the above-cited Daily Situation Report for June 18, no deaths had occurred in those aged 0-39 and only 6 deaths had occurred in those aged 0-59. It is therefore highly unlikely that any child or youth will experience a severe outcome, other than a very small number with serious pre-existing conditions (in which case, of course, any number of different diseases will pose a serious threat). It is clear that any public health measures predicated on the alleged need to protect children and students from experiencing severe outcomes were and are based on misinformation, or the refusal to consider information which was already available to the B.C. Government in March and April.

As a result of lockdown measures, students of all ages have been unable to access the type and quality of education to which they had been accustomed. In the case of post-secondary students and students attending private schools, this impact is even more severe, in light of tuition fees which they (or their parents) have paid. Moreover, it is not clear to what extent, if any, the B.C. Government considered the negative impacts of these closures on parents and students, including social, financial and learning consequences.

Public schools provide more than education. In some cases, they provide food security for underprivileged children, and a form of affordable child care to parents who work. The negative effects on British Columbian parents - suddenly faced with new responsibilities to care for children during routine workday hours - are entirely predictable. Were these negative social and learning impacts considered by the B.C. Government when it decided to close schools and universities?

Having considered the minimal or near-non-existent risks conferred by COVID-19 on children and youth, we now consider the risks conferred on the more vulnerable populations: the

64 It is unclear why this data on the relative risks of COVID-19 to children and youths in China (and similar data reported from other jurisdictions across the world) did not factor into the B.C. Government’s decision to close schools. Nonetheless, the B.C. Government considered other Chinese data points in its COVID-19 modelling for British Columbia (as we show in another section), and this in order to justify lockdown measures. Such inconsistencies in data-selection appear to underly much of the scientific justification for lockdown measures provided by the B.C. Government.


elderly and those with pre-existing medical conditions. The following table\textsuperscript{67} cites the number of COVID-19 deaths per 100,000 across all age groups in B.C. from January 1 to June 18. To put these numbers in perspective, consider that 5 persons per 100,000 died in motor vehicle accidents in Canada in 2017.\textsuperscript{68}

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Deaths per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-39</td>
<td>0</td>
</tr>
<tr>
<td>40-49</td>
<td>0.31</td>
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<td>50-59</td>
<td>0.55</td>
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<td>70-79</td>
<td>6.88</td>
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<td>80-89</td>
<td>38.30</td>
</tr>
<tr>
<td>90+</td>
<td>88.45</td>
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</tbody>
</table>

It is therefore clear that, for people under 70, COVID-19 does not pose significantly more risk of fatality than does driving a vehicle in Canada. As of June 18, 88\% of COVID-19 deaths have occurred in persons 70 years and older.\textsuperscript{69} Moreover, the median age is 69 years (range 0-98y) for hospitalization and 85 years (range 47-103y) for death in B.C.\textsuperscript{70}

Comorbid conditions - cancer, cardiac disease, diabetes, liver disease, neurological/neuromuscular disorder, renal disease, and/or respiratory disease - also feature prominently in many COVID-19 fatalities. According to the May 4 “COVID-19: Going Forward” document prepared by the B.C. Centre for Disease Control, 83.6\% of those who died with COVID-19 reported at least one comorbid condition at time of death.\textsuperscript{71} This data is represented in the following graphs:

These findings are consistent with the data released by governments and public health authorities in other jurisdictions around the world. For instance, in a report summarizing

72 Ibid.

73 Ibid at page 8.
evidence for clinical severity in COVID-19 patients and the risk factors associated with severe
disease in Ontario, Public Health Ontario notes,

[o]f the nine studies that performed direct comparisons using statistical
tests and looking at variables that were not assessed in the multivariable
analyses, the following were noted to be statistically significantly
associated with more severe disease: age in 7/8 studies; gender in 1/8; any
comorbidities in 5/6; diabetes in 5/8; hypertension in 4/7; cardiovascular
disease in 4/7; chronic obstructive pulmonary disease in 1/4; and smoking
in 0/2 studies.\textsuperscript{74}

From this, it is important to observe that COVID-19 poses significant risk only on those
who are already at significant risk for other serious medical conditions. Indeed, Professor Neil
Ferguson of the Imperial College - in his statement to the UK Parliament on March 25 of 2020 -
conceded that two thirds of those who died with COVID-19 would likely have died of external
causes within one year of their COVID-19 diagnosis.\textsuperscript{75}

Finally, having considered the risks conferred by COVID-19 on British Columbians
generally, we now address broader claims about the lethality of COVID-19 on a global scale
when compared to other respiratory illnesses, such as seasonal influenza.

**Inaccurate claims regarding COVID-19 lethality**

In mid-March, the United Kingdom and other jurisdictions around the world relied on
predictions by Dr. Neil Ferguson of Imperial College. His model predicted 510,000 COVID-19
deaths in the U.K. and 2.2 million deaths in the U.S.\textsuperscript{76} Based on the statements made by
Canadian premiers and chief medical officers since March, it appears that these numbers were
relied upon by the B.C. Government and other governments to embark on a novel experiment of
imposing lockdowns on entire populations and economies, rather than quarantining the sick.


Today, more data is available. The B.C. Government owes British Columbians a clear and specific explanation as to what evidence and data it relied upon when crafting its lockdown measures, and what data justifies the continued lockdown today. Models that are used to formulate government policies must be accurate, if they are to serve as adequate justification for violating Charter freedoms.

It is helpful to consider the COVID-19 pandemic within its global and historical context, and to compare the epidemiological characteristics of COVID-19 with those of other illnesses worldwide. The 1957-58 “Asian flu” and the 1968-69 “Hong Kong flu” each claimed one million lives or more worldwide, at a time when world population was less than half of what it is today. Moreover, when comparing the global annual death statistics from COVID-19 with seasonal influenza (which is estimated to claim between 291,000 and 646,000 lives every year), it is not clear that COVID-19 is an unusually lethal virus.

As of June 18, 2020, COVID-19 had apparently killed 456,000 people around the world, although this number includes people who died of other causes while also having the virus. Like the seasonal flu, the elderly and those with serious underlying health conditions are most vulnerable. And, as has been demonstrated in a previous section, those aged 0-69 are not at significant risk from COVID-19. Even though the case fatality ratio appears to be higher for COVID-19 than for seasonal influenza in some jurisdictions, the global number of deaths from COVID-19 is still within the range of the global number of deaths from seasonal influenza each year, given available data.

Consider the following jurisdictions: as of June 18, there were 42,288 reported COVID-19 deaths in the United Kingdom. In a country of more than 66 million people, this number is not radically different from the 34,300 deaths from seasonal influenza in 2014-2015. There were 34,657 reported COVID-19 deaths in Italy as of June 23. (Italy is well past its COVID-19 peaks: March 21 for cases, and March 27 for deaths.) Again, this number is not very different

from the 41,066 deaths in 2014-2015 or the 43,366 deaths in 2016-2017 from seasonal influenza in Italy. And, while the points along which COVID-19 and seasonal influenza may be compared are subject to some controversy (i.e., whether to calculate the lethality of both in terms of absolute numbers, vulnerable populations, or case/infection fatality ratios), the claim that COVID-19 is an “unprecedented” killer is simply not supported by evidence.

Further, it is important to recognize that the way in which medical practitioners in many jurisdictions have classified COVID-19 deaths is subject to some controversy. From the beginning of the pandemic, record-keeping has suffered from a failure to distinguish between people who had COVID-19 at time of death, and those who actually died from it. As is demonstrated further below, in some jurisdictions any person who died with COVID-19 is deemed to have died of COVID-19, even when COVID-19 was not the primary cause of death. This issue is significant, given that COVID-19 death numbers have had an enormous influence on how governments around the world have determined their responses to COVID-19. Consider the following statements from scientific advisors and public health officials from Italy, the UK, and the U.S.:

- Prof. Walter Ricciardi, scientific advisor to the Italian minister of health, has stated publicly: “The way in which we code deaths in our country is very generous in the sense that all the people who die in hospitals with the coronavirus are deemed to be dying of the coronavirus.” This is confirmed in the report of the Istituto Superiore di Sanita.

The discrepancy between dying “from” COVID-19 and dying “with” the disease may be very high indeed. Prof. Ricciardi went on to state: “On re-evaluation by the National Institute of Health, only 12% of death certificates have shown a direct causality from coronavirus, while 88% of patients who have died have at least one pre-morbidity – many had two or three.”

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• Dr. John Lee, a professor emeritus of pathology in the UK, explains that this same bias affects cause-of-death statistics in the UK: “There is a big difference between Covid-19 causing death, and Covid-19 being found in someone who died of other causes. [...] It might appear far more of a killer than flu, simply because of the way deaths are recorded.” 88

• Dr. Ngozi Ezike, director of the Illinois Department of Public Health, has gone on the record to say, “If you were in hospice and had already been given a few weeks to live, and then you also were found to have COVID, that would be counted as a COVID death. It means technically even if you died of a clear alternate cause, but you had COVID at the same time, it’s still listed as a COVID death.”89

• During the April 7 COVID-19 White House briefing, Dr. Deborah Birx stated that this is practiced across the U.S., observing, “So, I think in this country, we’ve taken a very liberal approach to mortality [...] If someone dies with COVID-19, we are counting that as a COVID-19 death.”90

In short, in some jurisdictions the number of patients killed by COVID-19 is certainly less than the number who died with it. Have COVID-19 deaths been recorded accurately in B.C.?

It is, perhaps, easy to label some phenomenon as “unprecedented” (i.e. without any historical points of comparison) and then to inflate the severity of that phenomenon. But, having compared the global and regional death tolls of COVID-19 with those of seasonal influenza in a historical context, it is difficult to maintain the position that COVID-19 is unprecedented, that it is without historical counterparts, or that it demands truly unprecedented responses from governments worldwide.

Unprecedented economic harm

The descriptor “unprecedented” has been inappropriately applied to many features of COVID-19, yet it certainly applies to the rapid decline in economic performance across many sectors and indicators, in British Columbia and across Canada. In its Labour Force Survey for April 2020, Statistics Canada notes,

“The magnitude of the decline in employment [in Canada] since February (-15.7%) far exceeds declines observed in previous labour market downturns. For example, the 1981-1982 recession resulted in a total employment decline of 612,000 (-5.4%) over approximately 17 months.”

When compared to the most significant recession since the 1930s, Canada has lost nearly 300% more jobs in approximately one-sixth of the same time period. Statistics Canada further notes that

“In April, both full-time (-1,472,000; -9.7%) and part-time (-522,000; -17.1%) employment fell. Cumulative losses since February totalled 1,946,000 (-12.5%) in full-time work and 1,059,000 (-29.6%) in part-time employment.”

Vancouver likewise experienced a 17.4% drop in employment for a total loss of 256,000 jobs from February to April alone. As a result of the government-imposed lockdowns, 5.5 million Canadians were either not working or were working substantially reduced hours by April of 2020. Even among those who have not lost their jobs outright, many have experienced significantly reduced hours. Regarding solo self-employed workers, Statistics Canada found:

The number of solo self-employed workers (2.0 million)—that is, those with no employees—was little changed in April compared with February (not adjusted for seasonality). For this group of workers, the impact of the COVID-19 shutdown has been felt through a significant loss of hours worked. In April, 59.4% of the solo self-employed (1.2 million) worked less than half of their usual hours during the week of April 12, including 38.4% who did not work any hours.

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92 Ibid.
93 Ibid.
94 Ibid.
95 Ibid.
It is important to note that the economic decline caused by lockdown measures has not affected Canadians equally. Vulnerable workers, young workers, and immigrant workers have thus far experienced the most severe economic outcomes. Of those working temporary and non-unionized jobs, Statistics Canada noted:

In the two months since February, employment (not adjusted for seasonality) declined by 17.8% among all paid employees. The pace of employment losses was above-average among employees with a temporary job (-30.2%), those with job tenure of one year or less (-29.5%) and those not covered by a union or collective agreement (-21.2%). There were also sharper declines for employees earning less than two-thirds of the 2019 median hourly wage of $24.04 (-38.1%) and those who are paid by the hour (-25.1%).

This is consistent with the declines observed in accommodation and food services, and wholesale and retail trade, which generally have a higher proportion of workers with these characteristics. Despite these declines, there were approximately one million people in low-wage, non-unionized, hourly-paid jobs in April who worked at least some hours during the reference week. Of these, 89.1% worked at locations outside the home. Two-thirds of those working in locations outside the home were employed in accommodation and food services or wholesale and retail trade—both industries with relatively high proportions of workers in jobs usually requiring close physical contact.96

Of those workers aged 15-24, Statistics Canada noted:

COVID-19 has disproportionally affected Canada's youth (aged 15 to 24). As a group, they are more likely to hold less secure jobs in hard-hit industries such as accommodation and food services. From February to April, employment among youth declined by 873,000 (-34.2%), while an additional 385,000 (or one in four) who remained employed in April lost all or the majority of their usual hours worked (not adjusted for seasonality). Employment declined faster among those aged 15 to 19 (-40.4%) than among those aged 20 to 24 (-31.1%), reflecting the less secure jobs held by those in the younger age category.

Among students aged 15 to 24 in April, the unemployment rate increased to 31.7% (not adjusted for seasonality), signaling that many could face difficulties in continuing to pay for their studies. Among non-student youth, a little more than half were employed in April, down from three-quarters in February (data not seasonally adjusted).97

96 Ibid.
97 Ibid.
Finally, of those very recent immigrant workers, Statistics Canada noted:

Employment among very recent immigrants (five years or less) fell more sharply from February to April (-23.2%) than it did for those born in Canada (-14.0%). This is partly because this group is more likely than people born in Canada to work in industries which have been particularly affected by the COVID-19 economic shutdown, such as accommodation and food services, and less likely to work in less severely-impacted industries, such as public administration.

Employment among the total landed immigrant population declined by 18.0% from February to April (not adjusted for seasonality), as established immigrants (10 years or more) (-17.0%) and recent immigrants (more than 5 but less than 10 years) (-17.4%) fared better than their very recently-arrived counterparts.\(^{98}\)

These statistics show the degree to which the Canadian economy, and the most vulnerable participants therein, are experiencing an unprecedented economic contraction because of provincial and federal government lockdowns of society and the economy.

**The economy versus saving lives: a false dichotomy**

In public and private discourse on the merits and demerits of lockdown measures, some have claimed that we must choose between economic profitability and human life. This claim ignores the simple fact that healthcare requires money, and first-rate health care requires a lot of it. A crippled economy that is riddled with high rates of unemployment, bankruptcies, insolvencies and other business failures will not generate enough money for good healthcare, resulting in Canadians dying prematurely because of inadequate or inferior health care. A strong and prosperous economy is the only way to generate sufficient wealth to pay for good healthcare. Further, the more debt-ridden that a province or country becomes, the less money it has available for health care and other government programs. The higher a jurisdiction’s debt, the more that debt-servicing costs take money away from social programs.

The problem of lockdown measures therefore cannot be framed in terms of economic profitability versus saving lives. Apart from the realms of conjecture, assertion and speculation, our elected leaders have not provided actual evidence which demonstrates scientifically that

\(^{98}\) *Ibid.*
closing down society and the economy has saved lives. COVID-19 made its way into nursing homes (long-term care facilities) where this virus has claimed more than 80% of its victims, in spite of lockdown measures imposed on the millions of healthy Canadians who were not at risk of harm or death from the virus. Neither elected leaders nor chief medical officers have brought forward persuasive evidence to show that locking down the healthy population has actually saved lives, or is actually saving lives, unless one confuses assertions with evidence.

Considerable time will pass before we can calculate the full cost - in health and in lives – of cancelled surgeries, lack of access to health care, and the predictable increases in anxiety, depression, mental illness, and suicide caused by government-mandated and government-enforced social isolation. Lockdown measures have inflicted predictable increases in unemployment, bankruptcies, insolvencies and poverty on British Columbians, and the B.C. Government is required by the Charter to account for all of the harms that lockdowns have caused. According to the Financial Consumer Agency of Canada, those dealing with financial stresses are “[t]wice as likely to report poor overall health”, “[f]our times as likely to report lost sleep, headaches and other illnesses”, and are also “more likely to report strained relationships.” Such stresses may even lead to “more serious health problems,” including heart disease, high blood pressure, and mental health conditions.

**Negative impacts on healthcare**

Throughout March, provincial governments imposed lockdown measures while simultaneously cancelling non-emergency surgeries, in order to preserve capacity in health systems for anticipated surges in COVID-19 patient intakes. It was feared that, without lockdown measures, case rates would exponentially increase. It was also feared that, without cancelling elective surgeries, hospitals would be overwhelmed and thousands would die. In this section, we analyze the actions of the B.C. government regarding the B.C. health system, its capacity, and cancelled surgeries. We then consider the impacts of these measures, especially on those whose non-emergency surgeries were cancelled.

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100 *Ibid.*
Recall that, on March 16, British Columbia’s health authorities were directed to immediately implement measures such that “hospitals will undertake only urgent and emergency procedures and will postpone all non-urgent scheduled surgeries, while Lions Gate Hospital was directed to accept emergency patients only.”

 That same day, the College of Dental Surgeons of British Columbia announced, “Elective and non-essential dental services to be suspended immediately; Attendees of 2020 Pacific Dental Conference to self-isolate.”

The anticipated surge of COVID-19 hospitalizations never materialized. Consequently, B.C. hospitals have been significantly under-utilized while thousands of British Columbians have experienced unaddressed and worsening health conditions. According to the March 27 COVID-19 modeling document, B.C. hospitals had 341 ventilator-capable critical care beds and 5,610 acute medical and surgical inpatient beds as of March 23, 2020.

As of March 17 - the day after which surgeries were cancelled - there were only 186 total COVID-19 cases and seven hospitalizations in B.C. In fact, at no point prior to June 18 had there been more than 72 persons in ICU or more than 150 persons in hospital in B.C., with peaks in April. Even so, hospitals were operating well under capacity. According to the April 17 COVID-19 modelling document:

> [p]rovincially there currently is less than 50% occupancy of total critical care beds with added surge capacity. This added surge capacity includes additional beds in intensive care units and high acuity units as well as other critical care spaces (i.e., cardiac care units, recovery rooms, operating room capacity, reconfiguration of units).

According to the May 4 modelling document, 5.4% of critical care beds remained vacant on April 30. According to the daily COVID-19 update for April 30, there were a mere 82

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hospitalizations and 30 ICU admissions as of that date, yet more than 13,900 surgeries had been canceled by April 15.

The following graphs illustrate the number of critical care and acute care (non-critical) cases by day throughout March, April, May, and June.

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Certain questions are provoked by (1) the number and seriousness of cancelled surgeries for British Columbians, and (2) the less-than-anticipated number of severe outcomes in B.C. Regarding cancelled surgeries, one might wonder if the harms produced by cancelled surgeries might outweigh the benefits of increasing capacity for COVID-19 cases that had not yet materialized in B.C.

The following passage from a B.C. Government news release issued on May 7 nicely sums up the costs associated with cancelling surgeries:

By May 18, 2020, an estimated 30,000 non-urgent scheduled surgeries will have either been postponed or left on a waitlist due to COVID-19. A further 24,000 patients could also be without a referral to a waitlist. This presents a unique and unprecedented challenge never faced by B.C.’s health system. The demands placed by COVID-19 have meant decreased productivity in operating rooms, meaning fewer surgical cases can be completed in the same time.111

It is important to recognize that it was not the “demands placed by COVID-19” that caused decreased productivity: at no point were there more cases than the B.C. health system could handle, even under normal protocols. Rather, it was the way the B.C. government responded to COVID-19 that caused this decline in productivity and an inability to service the 54,000 British Columbians in need of surgery and referrals.

The British Journal of Surgery estimated that 400,000 surgeries were cancelled or postponed by mid-June throughout Canada. Of these, an estimated 27,000 were cancer surgeries. According to this study, “[d]elaying time-sensitive elective operations, such as cancer or transplant surgery, may lead to deteriorating health, worsening quality of life, and unnecessary deaths.” Also, “[w]hen hospitals resume elective activities, patients are likely to be prioritised by clinical urgency, resulting in lengthening delays for patients with benign but potentially disabling conditions where there may be less of a perceived time impact.”

Indeed, one much-cited report by the University Health Network in Ontario estimates that 35 people died in that province after their cardiac surgeries had been cancelled for the purpose of increasing COVID-19 capacity within the health system. Considering that as many as 400,000 surgeries across Canada were cancelled or postponed, the number of preventable fatalities is likely much higher than 35 in any province whose health officials ordered surgeries to be postponed.

In the May 7 news release referred to above, the B.C. Government announced that postponed surgeries would once again resume:

The 30,000 non-urgent elective postponed surgeries, combined with the 24,000 new surgeries are a substantial backlog to address. The impact is greater than anything faced by B.C.’s health system. The actions taken under the plan will ensure the health system can keep up with demand for new surgeries and clear the existing COVID-19 backlog in the next 17 to 24 months.

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113 Ibid.
114 Ibid.
115 Ibid.
This two-year timeframe to clear up the backlog in surgeries is in line with jurisdictions across Canada. Assuming that post-pandemic surgery capacity increased by 10%, it would take Canada 90 weeks (almost two years) to perform all cancelled and postponed surgeries.\(^{117}\)

It is worth questioning the validity of any public health measure - however altruistic in its design - that causes more harm than good. Since March of 2020, it is apparent that these healthcare measures have had (and will continue to have) a severe and negative impact on British Columbians’ access to healthcare. This violates the Charter section 7 rights to life and security of the person.\(^{118}\)

Regarding the lower-than-expected number of severe outcomes in B.C., one might wonder if the assumptions and models supporting the B.C. Government’s decision to cancel surgeries were evidence-based. Indeed, it is likely that these measures were predicated on information from early versions of the COVID-19 modelling documents released by the B.C. Centre for Disease Control.

In the next section, we analyze these documents and show that they cannot be cited as demonstrable justification for public health or lockdown measures under any past or present emergency orders that violate Charter rights and freedoms to move, travel, assemble, associate and worship.

**COVID-19 Modelling**

Models have been produced by governments around the world to predict total cases, severe outcomes, and consequent impacts on healthcare systems. Perhaps the most famous of these was developed in mid-March by Dr. Neil Ferguson of Imperial College in the United Kingdom, predicting 510,000 COVID-19 deaths in the United Kingdom and 2.2 million deaths in the United States.\(^{119}\) In early April, provincial governments across Canada published their own models of COVID-19 and its impacts on healthcare resources. These numbers were cited


\(^{118}\) Chaoulli v Quebec, 2005 SCC 35.

by public health experts and government officials as justification for the lockdown measures that violate fundamental Charter freedoms.

In this section, we analyze the COVID-19 modelling documents prepared by the BC Centres for Disease Control (“BCCDC”) for the B.C. Ministry of Health on March 27, April 14, May 4, and June 4. Where these models have been cited as justification for Charter-violating lockdown measures, we argue that they must be evidence-based, accurate, and transparent.

On April 3, the BCCDC released its March 27 COVID-19 modelling document to the public. The document, collaboratively published by critical care experts, epidemic modelling experts, and operational capacity experts, describes three scenarios from South Korean, Hubei and Northern Italy and “assess critical and non-critical hospitalization requirements based on [these] three scenarios against B.C.’s critical care and hospital capacity”¹²⁰. Unlike other COVID-19 models, such as those from Alberta and Ontario, the BCCDC models do not model or predict for some number of cases, hospitalizations, ICU-admissions, or deaths over time. The following graph depicts the situation in B.C. relative to that of South Korea, Hubei, and Northern Italy based on March 22 data¹²¹:


¹²¹ Ibid at page 8.
For the BCCDC, these comparative scenarios describe potential paths down which B.C. might have travelled. While the model assumes that “the impact of public health measures in B.C. and Canada should influence B.C. following a lower curve…planning is going ahead based on a higher curve.” That is, even though B.C. tracked the South Korea scenario most closely throughout March, the BCCDC recommended measures proportionate to the Northern Italy scenario. As a consequence, the B.C. health system planned for a “cascading response” to developing COVID-19 cases and hospitalizations, “starting with using intensive care units and high acuity units [and then using] auxiliary ventilator beds”. In addition to the 17 “primary COVID-19” hospital care sites, B.C. health officials were preparing to build additional off-site capacity.

One month later, it was very clear that B.C. had followed the South Korea scenario, not the Northern Italy scenario. Consider the following graphs, which tracks new cases and critical care cases, from the April 17 COVID-19 Modelling document:

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122 Ibid at page 32.
123 Ibid at page 29.
124 Ibid at page 9.
125 Ibid at page 10.
The BCCDC concluded on April 17 that B.C.’s epidemic curve “has been well below projections based on the Italy and Hubei experience,” that B.C.’s COVID-19 cases had “plateaued and started to decline,” and that “deaths continue to be seen particularly amongst those who are old and/or frail.” The facts and conclusions did not precipitate changes to lockdown measures.

127 Ibid at page 19.
On May 4, the BCCDC released its third COVID-19 Modelling document, certain pages of which model the impacts of varying relaunch strategies. At pages 20 to 22, the BCCDC provides dynamic compartmental modelling for new cases, new hospitalizations, and new ICU-admissions under various social distancing scenarios. From the following graph, it is clear that some factor influences the exponential increase in cases, hospitalizations, and ICU-admissions when social distancing measures increase from an estimated 60% to 80% and from 80% to 100% of normal. Unfortunately, it is unclear what this factor is, or what types of social distancing measures are implied by 40%, 60%, 80%, and 100%. This is especially confusing given that, only a few weeks after the publication of this model, the B.C. government moved to reopen K-12 schools and many sectors of the economy. Is B.C. currently at 40% of normal social interaction? At 60%? higher? Have these projections turned out to be inaccurate, or is this even possible to know given the opacity of the assumptions underlying these models? This dynamic compartmental modelling was reiterated in the June 4 model. Again, it is unclear what factors influence the change in case rates from 60% to 80% of normal.

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The models subsequently released on June 4 and June 23 continue to model case rates as a function of varying degrees of social distancing, as above.

These modelling documents, like many similar documents released by provinces across Canada, function as purported justification for government lockdown measures that violate Charter freedoms to move, travel, associate, assemble and worship. Initially, the BCCDC planned for B.C. case rates and hospitalization rates to track with Northern Italy – one of the most severely impacted regions on the planet. These numbers never materialized. Yet B.C. hospital beds remained empty. As a consequence, tens of thousands of British Columbians have been unable to access health care and surgeries. Today, these models, and the opaque assumptions underlying the dynamic compartmental modelling, function as supposed justification for continued lockdown measures. As we have argued in previous sections, the risks conferred on the vast majority of British Columbians by continued lockdown measures are graver than those conferred by COVID-19 itself.

Looking Forward

In March of 2020, the B.C. Government’s lockdown measures began to violate the Charter freedoms of citizens to move, travel, assemble, associate, and worship. We have argued that these limitations were not reasonable or “demonstrably justified” as required by section 1 of the Charter, and thus not in keeping with the Charter. The daily routines of millions of British Columbians, in particular their ability to earn a living to support themselves and their loved ones, were affected when the most significant centres of the public sphere were ordered to close. The daily ebb and flow of economic activity was likewise devastated when many important centres of economic activity were ordered to close. And tens of thousands of British Columbians were affected when most hospital resources were re-allocated for COVID-19 patients only. It will be months or even years before we know the full death toll of the decision to cancel thousands of medically necessary surgeries, after counting all the cardiac patients who died while waiting for

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heart surgery, and after counting additional cancer deaths caused by lack of timely diagnosis and treatment. Meanwhile, hospitals have not been operating at anything approaching full capacity.

At the beginning of May, B.C. health officials unveiled their phased relaunch strategy. Premier Horgan stated:

Our plan puts safety first. British Columbians have made enormous sacrifices so far, and it’s thanks to them that we’re able to begin to lift some restrictions… We’ll allow activities to resume as the evidence and experts tell us it is appropriate to do so. By moving carefully and deliberately, we will help British Columbians get to a ‘new normal,’ where more of our social and economic life can resume.\textsuperscript{132}

Phase 2 would allow for small social gatherings, resumed surgeries, provincial park day-use, non-essential business openings, and for the sitting of the provincial legislature.\textsuperscript{133} Phase 3 would allow for additional businesses to open if transmission rates were to remain low or in decline.\textsuperscript{134} Finally, Premier Horgan noted that Phase 4 would occur only if there existed widespread vaccination, broad successful treatments, evidence of community immunity, or the equivalent.\textsuperscript{135} On May 19, some non-essential businesses were allowed to open under Phase 2 of the relaunch strategy.\textsuperscript{136} Public gatherings were, nonetheless, still restricted to no more than 50 persons or 50 vehicles.\textsuperscript{137} Then, on May 30, Minister Dix and Dr. Henry announced that, the following week, K-12 schools would reopen:

On Monday, our K-12 schools will re-open to in-class learning for the remainder of the school year. We are ready for this and are re-opening schools because it is safe to do so. We have learned a lot about COVID-19 – where the greatest risks are, and the measures we can take to protect ourselves and our loved ones. We know that COVID-19 has a very low infection rate in children, and children have milder symptoms. We also know that transmission in children, and between adults and children, mostly occurs in household settings, not in schools, or playgrounds.\textsuperscript{138}

\textsuperscript{133} Ibid.
\textsuperscript{134} Ibid.
\textsuperscript{135} Ibid.
Nonetheless, many aspects of the B.C. economy and society remain closed, or are allowed to open only under strict and often costly conditions. The B.C. Government must now respond to a crucial question: in July of 2020, can the B.C. Government demonstrably justify ongoing conditions, restrictions and partial closures? Are these based on facts and evidence, or on unfounded fear caused by speculation in March? When will the B.C. Government stop violating *Charter* freedoms by imposing and enforcing lockdown measures that appear to have caused more harm than good?

The *Charter* requires the B.C. Government to consider carefully and thoughtfully the full impact of lockdown measures, including all the social and economic harm, and adverse impact on the physical and mental health of British Columbians. The *Charter* requires actual evidence – not mere speculation, theorizing or assertions – to prove that lockdown measures achieved results that other measures (which do not violate *Charter* freedoms) would not have achieved.

While lockdown measures were presumably imposed with the good intention of saving lives, good intentions do not meet the *Charter*’s test of demonstrable justification. The *Charter* places the onus on the B.C. Government to show that its *Charter*-violating measures actually preserved the most lives possible, and that lockdown measures did not inadvertently harm more lives than they saved. The B.C. Government must therefore consider—carefully and comprehensively—how many lives have been lost and how many people have been impacted negatively by the lockdown measures, and in what ways. The B.C. Government certainly has sufficient resources to monitor and track the positive and negative impacts of government policies on British Columbians. If the B.C. Government undertakes this task, it will at least fulfil its *Charter* obligation to calculate, analyze, and monitor the harms that have been, are being, and will be caused by lockdown measures.

**Authorship**

This paper was researched and written by the Justice Centre’s staff lawyers and paralegals, and Medical Doctors.
Appendix

British Columbia COVID-19 Daily Situation Report, June 18, 2020*

PLEASE NOTE: Frequency of the Situation Report decreased to twice weekly (Mondays and Thursdays) effective June 11, 2020

Key Findings

COVID-19 risk in BC is currently very low.
- The number of new reported cases and hospitalizations remains low [Fig 3, Fig 5].
- No new deaths occurred in the last week [Fig 3].
- Most recent cases continue to be reported from HHA and VCH; cumulative incidence in these two health authorities is approximately the same [Table 1].
- The proportion of people who tested positive remains low [Fig 4].
- The number of reported cases among children remains low; few required hospitalization and none have died [Table 3, Fig 7].
- The highest proportion of hospitalization among cases is observed in the 70-79 year age group, while mortality is the greatest in 80+ year age groups. Males continue to have a remarkably higher proportion of hospitalizations and deaths across all ages [Fig 9].
- Three new outbreaks were declared since the last report, all in care facilities [Fig 9, Table 4].
- The number of cases in hospital and in critical care continues to remain low [Fig 10, Fig 11].
- The BC epidemic trajectory has been favourable compared with other regions [Fig 12, Fig 13].

Figure 1: Map of total and new COVID-19 cases reported since yesterday by health authority, BC, January 1 – June 18, 2020 (N=2,783)*

*New cases reported since yesterday by health authority are denoted in parentheses.

**Findings are based on lab-confirmed, lab-probable, and epi-linked cases (case definition found here: [https://www.bccdc.ca/PublicHealthGuidance/Coronavirus](https://www.bccdc.ca/PublicHealthGuidance/Coronavirus)) reported from Health Authorities to BCCDC as of 10:30am, 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.
### Table 1: Epidemiological profile of reported cases by health authority, BC, January 1 – June 18, 2020 (N=2,783)

<table>
<thead>
<tr>
<th></th>
<th>Fraser</th>
<th>Interior</th>
<th>Vancouver Island</th>
<th>Northern</th>
<th>Vancouver Coastal</th>
<th>Total N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of cases</strong></td>
<td>1,441</td>
<td>197</td>
<td>130</td>
<td>65</td>
<td>950</td>
<td>2,783</td>
</tr>
<tr>
<td><strong>New cases since June 17</strong></td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td><strong>Number of lab-confirmed and lab-probable cases</strong></td>
<td>1,440</td>
<td>197</td>
<td>127</td>
<td>65</td>
<td>948</td>
<td>2,777</td>
</tr>
<tr>
<td><strong>Number of epi-linked probable cases</strong></td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Median age in years, cases</strong></td>
<td>49</td>
<td>48</td>
<td>50</td>
<td>44</td>
<td>55</td>
<td>51 years (range 0-103y)</td>
</tr>
<tr>
<td><strong>Female sex, cases</strong></td>
<td>720</td>
<td>91</td>
<td>69</td>
<td>38</td>
<td>515</td>
<td>1,433 (52%)</td>
</tr>
<tr>
<td><strong>Cumulative incidence per 100,000 population</strong></td>
<td>75.1</td>
<td>24.6</td>
<td>15.3</td>
<td>21.7</td>
<td>76.6</td>
<td>54.5</td>
</tr>
<tr>
<td><strong>Ever hospitalized</strong></td>
<td>265</td>
<td>30</td>
<td>25</td>
<td>14</td>
<td>175</td>
<td>509 (18%)</td>
</tr>
<tr>
<td><strong>Median age in years, ever hospitalized</strong></td>
<td>69</td>
<td>62</td>
<td>72</td>
<td>44</td>
<td>69</td>
<td>69 years (range 0-98y)</td>
</tr>
<tr>
<td><strong>Currently hospitalized</strong></td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Currently in critical care</strong></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total number of deaths</strong></td>
<td>74</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>87</td>
<td>168 (6%)</td>
</tr>
<tr>
<td><strong>New deaths since June 17</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Median age in years, deaths</strong></td>
<td>83</td>
<td>73</td>
<td>85</td>
<td>NA</td>
<td>87</td>
<td>85 years (range 47-103y)</td>
</tr>
<tr>
<td><strong>Discontinued isolation</strong></td>
<td>1,270</td>
<td>194</td>
<td>125</td>
<td>65</td>
<td>771</td>
<td>2,425 (87%)</td>
</tr>
</tbody>
</table>

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a. Total COVID-19 cases includes lab-confirmed, lab-probable and epi-linked cases. Case definitions can be found at [http://www.bccdc.ca/healthprofessionals/clinicalresources/case-definition/covid-19#howcasedefs](http://www.bccdc.ca/healthprofessionals/clinicalresources/case-definition/covid-19#howcasedefs)

b. “New” cases and deaths reflect the difference in counts reported to the BCCDC between one day and the next as of 10am. This may not be equal to the number of cases/deaths by date reported to HAIs, as: (1) cases/deaths reported prior to 10am would be included as new cases/deaths in the current day’s count and cases reported after 10am would be included in the next day’s count; and (2) there may be some delays between cases/deaths being reported to HAIs and then reported to BCCDC.

c. Epi-linked cases reported on or after May 19, 2020 are included.

d. Denominator for % derivation is total number of cases (N), except sex which is calculated based on those with known information on sex.

e. Median age is calculated based on those with known information on age.

f. POP2010-2020 population estimates.

g. 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.

h. Source: PHSA June 18 @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.

i. 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. The se are the same criteria that had been used in previous reports for “recovered” cases.
Figure 2: Epidemic curve, COVID-19 cases in BC by symptom onset date January 15 – June 17, 2020 (N=2,595*)

*Only cases with symptom onset dates reported are included.

Figure 3: Epidemic curve, COVID-19 cases in BC by reported date January 15 – June 17, 2020 (N=2,783†)

†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 FHO 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.

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 – June 17, 2020 (N=2,783)

Table 2: Number and proportion of likely source of infection for COVID-19 cases in BC, January 15 – June 17, 2020 (N=2,783)

<table>
<thead>
<tr>
<th>Source of Infection</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International travel</td>
<td>350 (13)</td>
</tr>
<tr>
<td>Local – case/cluster</td>
<td>1,827 (66)</td>
</tr>
<tr>
<td>Local – unknown source</td>
<td>530 (19)</td>
</tr>
<tr>
<td>Pending/missing info</td>
<td>76 (3)</td>
</tr>
</tbody>
</table>

6 Episode date is based on symptom onset date (n=2,595), if not available then date COVID-19 was reported to health authority (n=188).

* 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 5. Number of new COVID-19 cases, hospital admissions, and deaths by event date, BC, January 15 – June 17, 2020 (N=2,783*)

* 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–June 16, 2020 (N=173,413; Positive=2.2%)

Data source: PLOVER extract on June 18, 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 overestimate proportionate positivity. Similarly, individuals may be tested repeatedly after becoming negative; this may under-estimate proportionate positivity. Refer to [http://www.bccdc.ca/health-diseases-covid-19/1-safety-advice-covid-19-resource-centre](http://www.bccdc.ca/health-diseases-covid-19/1-safety-advice-covid-19-resource-centre) for description of laboratory testing phases.

Note: Please 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 – June 18, 2020 (N=2,777*)

*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 – June 18, 2020 (N=2,777*)

<table>
<thead>
<tr>
<th>Age groups</th>
<th>COVID cases n (%)</th>
<th>Cases ever hospitalized n (%)</th>
<th>Cases ever in ICU n (%)</th>
<th>COVID deaths n (%)</th>
<th>General population n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 Years</td>
<td>39 (1)</td>
<td>2 (&lt;1)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>468,280 (9)</td>
</tr>
<tr>
<td>10-19 Years</td>
<td>64 (2)</td>
<td>1 (&lt;1)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>507,197 (10)</td>
</tr>
<tr>
<td>20-29 Years</td>
<td>313 (11)</td>
<td>13 (3)</td>
<td>5 (3)</td>
<td>0 (0)</td>
<td>684,681 (13)</td>
</tr>
<tr>
<td>30-39 Years</td>
<td>475 (17)</td>
<td>34 (7)</td>
<td>11 (6)</td>
<td>0 (0)</td>
<td>730,523 (14)</td>
</tr>
<tr>
<td>40-49 Years</td>
<td>413 (15)</td>
<td>49 (10)</td>
<td>18 (10)</td>
<td>2 (1)</td>
<td>647,790 (13)</td>
</tr>
<tr>
<td>50-59 Years</td>
<td>523 (19)</td>
<td>73 (14)</td>
<td>29 (16)</td>
<td>4 (2)</td>
<td>721,355 (14)</td>
</tr>
<tr>
<td>60-69 Years</td>
<td>334 (12)</td>
<td>101 (20)</td>
<td>39 (22)</td>
<td>15 (9)</td>
<td>675,632 (13)</td>
</tr>
<tr>
<td>70-79 Years</td>
<td>256 (9)</td>
<td>122 (24)</td>
<td>57† (32)</td>
<td>30 (18)</td>
<td>436,179 (9)</td>
</tr>
<tr>
<td>80-89 Years</td>
<td>228 (8)</td>
<td>83 (16)</td>
<td>15 (8)</td>
<td>72 (43)</td>
<td>188,010 (4)</td>
</tr>
<tr>
<td>90+ Years</td>
<td>132 (5)</td>
<td>31 (6)</td>
<td>3 (2)</td>
<td>45 (27)</td>
<td>50,876 (1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,777</strong></td>
<td><strong>509</strong></td>
<td><strong>177†</strong></td>
<td><strong>168</strong></td>
<td><strong>5,110,523</strong></td>
</tr>
</tbody>
</table>

* Only cases with age information available are included.
† PEOPLE2019-2020 population estimates
†† Decrease of one from last report due to data correction.
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 – June 18, 2020 (N=2,777*)

* 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 9: COVID-19 outbreaks* by earliest date**, BC, January 15 – June 18, 2020 (N=61)

* Care facility (acute/long term 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).
** Based on the earliest date available for the first case in the outbreak (symptom onset date or, if not available, reported date). Earliest dates are subject to change as data are updated.

| Table 4: Outbreak and case counts of reported COVID-19 reported outbreaks*, BC, January 15 – June 18, 2020 (N=61) |
|---|---|---|
| | Care facility | Other settings | Total |
| **Outbreaks** | | | |
| Total outbreaks | 48 | 13 | 61 |
| New since last report on June 15 | 3 | 0 | 3 |
| Active outbreaks | 7 | 3 | 10 |
| Outbreaks declared over | 41 | 10 | 51 |
| **Outbreak cases** | | | |
| Total cases | 588 | 394† | 982 |
| Residents/patients | 365 | 122 | 487 |
| Staff/other | 223 | 272† | 495 |
| Total deaths | 116 | 2 | 118 |
| Residents/patients | 116 | 1 | 117 |
| Staff/other | 0 | 1 | 1 |

* Care facility (acute/long term 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).
† Decrease of one since last report due to a data correction.
Figure 10: Total positive COVID-19 cases in critical care by day, BC, March 25 - June 18, 2020

Data source: PHSA June 18. 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 - June 18, 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 June 17, 2020):
JHU CSSE for global cases and deaths, and Canadian provincial deaths outside of BC: https://github.com/CSSEGISandData/COVID-19
JHU CSSE for US Canadian provincial cases: Provincial data sources
BC cases and deaths: BCCDC
Global population denominator from the United Nations

Version: June 18, 2020