This is the 1st affidavit of
Brian Emerson in this case
and was made on 2/FEB/2021

No. S-210209
Vancouver Registry

IN THE SUPREME COURT OF BRITISH COLUMBIA

Between

ALAIN BEAUDOIN, BRENT SMITH, JOHN KOOPMAN, JOHN VAN MUYEN, RIVERSIDE CALVARY CHAPEL, IMMANUEL COVENANT REFORMED CHURCH and FREE REFORMED CHURCH OF CHILLIWACK, B.C.

Petitioners

and

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA and DR. BONNIE HENRY IN HER CAPACITY AS PROVINCIAL HEALTH OFFICER FOR THE PROVINCE OF BRITISH COLUMBIA

Respondents

AFFIDAVIT

I, **Dr. BRIAN EMERSON**, of 1515 Blanshard Street, Victoria, in the Province of British Columbia, Acting Deputy Provincial Health Officer, AFFIRM THAT:

1. I am the Acting Deputy Provincial Health Officer ("Deputy PHO") with the Office of the Provincial Health Officer, Ministry of Health, and, as such, have personal knowledge of the matters deposed to except where such are stated to be based on information and belief, in which case, I believe them to be true.

2. In my role as Deputy PHO, I work closely with the Provincial Health Officer, Dr. Bonnie Henry ("PHO"), on many aspects of the province's COVID-19 response. This has included regularly participating in meetings with senior Ministry of Health and other Ministry officials and senior public health practitioners throughout the province. As a result, I have gained detailed knowledge of many aspects of the pandemic. In particular, and at the direction of

Dr. Henry, I have been the lead public health official providing drafting instructions for written PHO orders she makes under the *Public Health Act*. As such, I participate in deliberations the PHO has with others in the public health system in developing and amending orders and am aware of the information provided to her. I have also been the primary recipient of requests for reconsideration of PHO orders and am responsible for analyzing those requests, seeking medical health officer input to the requests, and making recommendations to the PHO about whether variances should be granted. Attached hereto and marked as **Exhibit "1"** is a true copy of my curriculum vitae dated August 26, 2020.

3. I obtained a Doctor of Medicine (MD) from the University of British Columbia ("UBC") in 1985, interned at Victoria General Hospital, worked as General Practitioner doing locum practices and then completed two years of residency in Public Health through UBC in 1990. This included obtaining a Master of Health Science in Public Health from UBC.

4. My initial public health practice role was as a medical health officer in Prince George for two years covering northern and central British Columbia. I then spent 13 years as medical health officer for the upper Vancouver Island region, based in Courtenay, British Columbia. In 2003, I joined the Ministry of Health as a medical consultant to the Population and Public Health Division and have been Acting Deputy PHO since 2018.

5. Over the course of the past 30 years, I have provided public health medical leadership and consultation for numerous public health issues in British Columbia. As part of my role as medical consultant in the Ministry of Health I often advised the PHO and Deputy PHO. I also led a major, multi-year project to develop and implement the current *Public Health Act* and regulations, which was brought into force in 2009. I have been the primary public health advisor to the PHO, Ministry of Health and medical health officers ("MHO"s) on the use of the Act and regulations to address public health issues.

Background – Dr. Henry's Qualifications

6. Attached hereto and marked as **Exhibit "2"** is a true copy of Dr. Henry's curriculum vitae as of January 2021, which was provided to me by the PHO.

Background - Public Health in British Columbia

(a) The Ministry of Health

7. The Ministry of Health is the responsible ministry for the province's health system. It supports and funds the activities of all regional health authorities, including all public health programs and services in British Columbia.

8. The Ministry of Health has created a COVID-19 Response Health Emergency Management Division, which is responsible for overseeing the public health response to COVID-19 in partnership with the Population and Public Health Division of the Ministry and the PHO.

(b) Provincial Health Officer & Medical Health Officers

9. "Public health" is one component of British Columbia's health system and shares the same overall goals of other parts of the system: reducing premature death and minimizing the effects of disease, disability and injury. It is distinct because it focusses on the health of populations as a whole rather and primary prevention, i.e. preventing healthy people from become ill or injured, rather than providing health care to individuals with health conditions.

10. One of the goals of public health is to prevent and manage outbreaks of disease within the population. It is also responsible for developing and delivering province-wide vaccination programs, including oversight of and administering or ensuring administration of the various vaccinations now available for COVID-19.

11. Public health programs in Canada share a common set of principles, values and ethics which public health officials follow when making decisions to protect public health. These principles are set out in the BC Centre for Disease Control's ("BCCDC") Ethics Framework and Decision Making Guide, a true copy of which is attached hereto and marked as **Exhibit "3"**.

12. In addition, the BCCDC and Ministry of Health have issued a COVID-19 Ethical Decision-Making Framework, which provides a tool to assist local, regional and provincial decision-making during the COVID-19 pandemic. Attached hereto and marked as **Exhibit "4"** is a true copy of the BCCDC and Ministry of Health COVID-19 Ethical Decision-Making Framework.

13. The Federal/Provincial/Territorial Special Advisory Committee on COVID-19 has also issued recommendations regarding "Lifting of restrictive public health measures" to provide guidance to public health officials, including the PHO, for re-opening approaches that can be tailored to jurisdictions across the country.

Attached hereto and marked as **Exhibit "5"** is a true copy of the Lifting of restrictive public health measures- Recommendations from the F/P/T Special Advisory Committee on COVID-19.

14. One of the core principles of public health is that scientific method is the basis for action and should inform interventions for policies and programs to protect public health. A second core principle is the precautionary principle, which provides that in the face of scientific uncertainty, public health interventions are warranted when there is a risk of harm to the population even before all scientific data are obtained to confirm the risk. In public health practice, this principle provides that lack of full scientific certainty should not be a reason to postpone action in the name of prudent concerns of the population.

15. During a public health event such as a pandemic, rapidly evolving circumstances and the need to take quick action to protect the public do not permit all decisions to be made to a level of scientific certainty. Public health officials, including the PHO, will therefore rely on the best available evidence and the precautionary principle when making orders to protect the public.

16. Public health ethics also requires that public health interventions be proportionate to the threat faced, and that measures should not exceed those necessary to address the actual risk.

17. The PHO, Dr. Bonnie Henry, is the senior public health official for the province and is responsible for monitoring the health of the population and providing independent advice to ministers and public officials on health issues.

18. The PHO's responsibilities are outlined in the *Public Health Act* and include, among other things:

a. providing independent advice to the Ministers and public officials on public health issues;

b. monitoring the health of British Columbians and advising, in an independent manner, the ministers and public officials on the need for public health related legislation, policies and practices; and

c. working with the BC Centre for Disease Control and Prevention, and BC's Medical Health Officers ("MHOs") to fulfill their legislated mandates on disease control and health protection.

19. The PHO leads the public health response under the *Public Health Act* to public health emergencies in BC, including the transmission of the novel

coronavirus SARS-CoV-2 that causes the illness known as COVID-19. The PHO provides independent expert advice to the Minister of Health and public officials on public health issues and oversees the work of MHOs.

20. In the event of a health threat such as that posed by COVID-19, public health officials coordinate national, provincial, regional and local public health responses, including population level interventions and public health measures to prevent infection by and the spread of the infectious agent responsible for the threat, in this case, the virus SARS-CoV-2.

21. Public health officials also provide direction for communicable disease prevention and management of COVID-19 by identifying, investigating, and managing COVID-19 cases, clusters and outbreaks. Public health officials include doctors, nurses, environmental health officers, drinking water officers, dietitians, dental hygienists and other health care professionals.

22. In addition to the PHO, MHOs are designated by Order-in-Council ("OIC") under the *Public Health Act* and have responsibilities under that Act and many other statutes. The PHO provides guidance at the provincial level, and regional MHOs implement policy and legislation within their designated geographic areas. MHOs have broad powers under the *Public Health Act* and are responsible for directing the local public health response to the public health threats, supported by hundreds of public health nurses, health officers and others.

(c) BC Centre for Disease Control

23. The BCCDC is the scientific and operational arm of the PHO. In this role, the BCCDC provides communicable disease prevention and control programs for the Ministry of Health and is the provincial reporting centre for reportable cases of communicable diseases.

24. The BCCDC manages provincial programs and clinics that contribute to public health and help prevent and control the spread of disease in BC. The BCCDC operates the provincial microbiology laboratory, conducts surveillance, analyses and investigations, and prepares reports on the prevalence and incidence of communicable diseases on behalf of the PHO. In this way, the BCCDC provides specialist, clinical, analytical and policy support to the PHO, government and health authorities, and diagnostic and treatment services to reduce disease.

25. Attached hereto and marked as **Exhibit "6"** is a true copy of the BCCDC's COVID-19 Case Report Form. Within 24 hours of identification, local public

health officials report confirmed and probable cases of COVID-19 to BCCDC via Panorama (the provincial public health information system which includes these data fields) or the COVID-19 Case Report Form. Updates to information on the Case Report Forms are submitted to BCCDC when changes to case classification, information collected in the hospitalization section, or outcome (hospitalized, fully recovered, fatal, etc.) are made. This information feeds into the BCCDC COVID-19 Dashboard and epidemiologic reports.

26. The BCCDC maintains the COVID-19 Dashboard, which is an online tool that provides the latest information on COVID-19 cases, recoveries, deaths, hospitalizations, and testing in BC. The COVID-19 Dashboard is updated each business day at approximately 4:30 p.m. and can be found online at: https://experience.arcgis.com/experience/a6f23959a8b14bfa989e3cda29297ded. Information collected through the COVID-19 Case Report Forms is reflected in the COVID-19 Dashboard.

27. The BCCDC also issues, on behalf of the PHO, detailed guidance to the public on preventing the transmission of SARS-CoV-2. For example, the BCCDC has issued public health guidance on how to prevent the transmission of SARS-CoV-2 in community settings such as retail outlets, recreation facilities, playgrounds, libraries and for faith-based organizations. Attached hereto and marked as **Exhibit "7"** is a true copy of information available on the BCCDC's website dated January 26, 2021 titled "Faith-Based, Spiritual, and Worship Practices". Attached hereto and marked as **Exhibit "8"** is a true copy of information available on the BCCDC's website titled "Choirs and bands", which is referred to in the BCCDC's guidance on "Faith-Based, Spiritual, and Worship Practices".

28. The BCCDC continuously reviews published scientific evidence about COVID-19 with a view to determining whether updates to provincial guidance or policies are necessary in light of that evidence.

Background - COVID-19 in British Columbia

29. British Columbia diagnosed its first case of COVID-19 on January 27, 2020.

30. As of early March 2020, COVID-19 had begun to be transmitted in British Columbia. At that time, public health officials understood that the SARS-CoV-2 virus was the infectious agent causing outbreaks of COVID-19, that infected persons could transmit the virus to other persons who they were in contact with, that gatherings of people in close contact could promote transmission, and that

there was, at the time, no known treatment or cure for COVID-19 and no vaccine to protect against SARS-CoV-2.

31. On March 11, 2020, the World Health Organization ("WHO") declared the COVID-19 outbreak a pandemic. The WHO defines a pandemic as an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.

32. By March 15, 2020, the seven-day moving average of cases in British Columbia was 15 cases per day. By March 31, 2020, the seven-day moving average had quadrupled to 61 cases per day. This information is set out in the British Columbia COVID-19 Dashboard.

33. On March 16, 2020, the PHO issued the first public health order prohibiting mass gatherings in excess of 50 people. Attached hereto and marked as **Exhibit "9"** is a true copy of the PHO's Class Order (mass gatherings) re: COVID-19 dated March 16, 2020.

34. On March 17, 2020 the PHO issued a Notice of Regional Event under s. 52(2) of the *Public Health Act*, designating the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of British Columbia, a regional event as defined in s. 51 of the *Public Health Act*. Attached to my affidavit as **Exhibit "10"** is a true copy of the Notice of Regional Event dated March 17, 2020.

35. The Notice of Regional Event was the first time the emergency powers under the *Public Health Act* have been triggered in respect of a communicable disease in British Columbia.

36. The designation of a regional event allows the PHO to exercise powers under Part 5 of the *Public Health Act*. Part 5 of the *Public Health Act* provides order-making and review power to the PHO, including the power to make oral and written public health orders in response to the COVID-19 pandemic.

37. On March 17, 2020, the Minister of Public Safety and Solicitor General declared a state of emergency throughout the whole of the Province pursuant to the *Emergency Program Act*, RSBC 1996, c 111, because of the COVID-19 pandemic. The declaration of emergency has been extended multiple times and remains in effect.

Background –SARS-CoV-2 and COVID-19

38. Throughout the course of the COVID-19 pandemic, the PHO regularly receives and reviews the latest scientific evidence, as well as available global, national, and provincial level epidemiological data regarding SARS-CoV-2 and COVID-19, and information with respect to modelling and outbreaks of COVID-19.

39. Early in the pandemic, the PHO attended daily meetings of the Federal/Provincial/Territorial Special Advisory Committee of public health officials from across the country, at which scientific evidence is tabled and discussed. This meeting now happens two or three times per week. In addition to the FPT Special Advisory Committee meetings, the PHO also attends meetings three times a week with MHOs and public health specialist experts from BCCDC, at which scientific evidence is tabled and discussed. The PHO also receives evidence reviews from the BCCDC and from the Public Health Agency of Canada on specific issues related to the pandemic, which are used to develop national and provincial guidance. She is also on the ProMED listserve which synthesizes scientific evidence and sends daily bulletins. The PHO meets regularly with US public health officials from the Pacific Northwest States at which scientific evidence is discussed. She is also connected to World Health Organization officials and was part of a working group that developed guidelines for mass gatherings. In addition, I am advised by the PHO that she reads the published scientific literature on an ongoing basis.

40. Attached hereto and marked as **Exhibit "11"** is a true copy of the "Federal/provincial/territorial public health response plan for ongoing management of COVID-19", which was developed in collaboration with federal, provincial and territorial public health officials, including the PHO. This document synthesizes some of the scientific literature which is a basis for guiding decisions by the PHO and other public health officials.

41. Based on her review of the scientific evidence and literature set out above, the PHO has considered the following information in her consideration of the public health orders at issue in this Petition:

a. Compared to influenza, COVID-19 has higher transmissibility (i.e., it has a higher basic reproductive number or R_0) is highly transmissible prior to symptom onset, and has a higher infection fatality rate;

b. Transmission by asymptomatic cases is occurring;

c. The risks of COVID-19 are different in populations depending on their age group, underlying health conditions, and other social conditions.

42. The scientific information with respect to COVID-19 refers to "cases" and "clusters" of COVID-19. A case is generally a person who has tested positive for COVID-19 following a laboratory test or a person with symptoms and who was a close contact of a confirmed case but has not had a laboratory test or whose test was inconclusive. A cluster is generally understood to be two or more cases associated with the same location, group, or event around the same time, These can evolve into outbreaks where-in transmission within the group becomes more sustained and additional measures are needed to bring it under control, such as closure of the setting of the outbreak to break the chains of transmission.

43. Based on the information available to the PHO, SARS-CoV-2 has high infectivity, with an estimated reproductive number of 2.87, meaning that each infected individual is likely to transmit the virus to another 2 to 3 people. The reproductive number is not a constant, but can vary depending on the interventions in place. The number cited would be generally in the absence of interventions. Once interventions are introduced, public health officials are able to reduce the reproductive number, and the indicator is called the called the "time varying reproductive number" or "R_t".

44. Using mathematical modelling, BCCDC routinely generates estimates of transmission and short-term projections of new COVID-19 cases. The key indicator of transmission from these models is R_t (aka 'the time-varying reproductive number'), which is an estimate of the average daily number of new infections generated per case. When the estimated R_t is above the threshold value of 1.0, this indicates a risk of rapidly growing numbers of new cases.

45. BCCDC generates updated estimates of R_t on a weekly basis, at the provincial level and for each regional Health Authority. These estimates are provided to the Ministry of Health and, if requested, directly to the PHO's office. The PHO has regularly presented the provincial estimate of R_t during her public press briefings and modelling updates. R_t is one of several indicators used by the PHO to identify recent trends in COVID transmission.

46. Although SARS-CoV-2 is novel, evidence of seasonal variation in the transmission of coronaviruses, well-documented seasonal transmission patterns of other infectious respiratory viruses, as well as global COVID-19 data to date, were generally considered in the scientific literature to suggest a seasonal pattern of enhanced transmission of SARS-CoV-2 in winter months.

Background –Limiting Transmission of COVID-19 in British Columbia

47. It is generally agreed that preventing and controlling transmission of communicable diseases is essential to maintaining the provincial health system's ability to deliver quality care and continue the safe delivery of essential health services. An epidemic or pandemic that gets out of control could overwhelm our ability to diagnose and treat patients for the myriad of health conditions experienced by the population.

48. The Province and the PHO have been actively trying to prevent and contain the transmission of COVID-19 through a series of comprehensive public health measures, including health promotion, prevention, testing, case identification, isolation of cases and contact tracing, and more recently vaccination, all based on the best available scientific evidence.

49. Early on in the pandemic, the virus that causes COVID-19 was identified as a coronavirus, and the PHO began encouraging the adoption of public health measures that were known to limit the spread of coronaviruses. Public health measures include: broad population measures such as PHO orders; environmental measures (cleaning, disinfection, ventilation); surveillance and response measures (including contact tracing, isolation and quarantine); physical distancing measures (limiting the size of gatherings, maintaining distance in public or workplaces, domestic movement restrictions); and domestic and international travel-related measures.

50. Recording of contact information is an important response measure so that in-person, prompt follow-up can be done by public health officials (contact tracers) to warn people of potential exposures. This in-person follow-up is a labour-intensive activity, so it is important that gatherings and events not be of a large size as an exposure can then over-tax the capacity of the public health system to rapidly and thoroughly follow up with the attendees in the event of an exposure.

51. Given the epidemiologic characteristics of COVID-19 that I have described above, at the outset of the pandemic throughout the first wave (March through August 2020), the PHO decided to limit gatherings and events to a maximum of 50 people as one measure that would assist in limiting the spread of the virus through the population.

Background – Public Health Orders

52. The PHO has made a number of orders under the *Public Health Act* in response to the COVID-19 regional event, including new orders and orders revoking or amending prior orders in response to the changing circumstances of the COVID-19 pandemic in BC. These orders are available online at: https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/current-health-topics/covid-19-novel-coronavirus.

53. The PHO can and does amend orders to respond to the ever-evolving COVID-19 situation in BC. In making or amending orders, the PHO monitors the surveillance data of case reports in BC from the BCCDC and national and international surveillance data respecting the emergence and progression of SARS-CoV-2, and local, national and international epidemiological data respecting SARS-CoV-2 and COVID-19. Situation reports summarizing this data are provided to the PHO and made available to the public on the BCCDC's website.

54. PHO orders and the BCCDC's guidance is regularly updated to respond to local surveillance data, information about evolving local situations from MHOs and national and international epidemiological information about COVID-19. If the current state of scientific knowledge about COVID-19 or the incidence or prevalence of the disease in BC changes, PHO orders and guidance can be amended or revised in response to the current epidemiologic conditions in BC.

55. The overriding concern is to ensure that public health orders and guidance protect the most vulnerable members of the society while minimizing social disruption. This is consistent with the stated goals of the Federal/provincial/territorial public health response plan for ongoing management of COVID-19, namely "to minimize serious illness and overall deaths while minimizing societal disruption as a result of the COVID-19 pandemic". As such, changes to orders and guidance are undertaken where there is epidemiological evidence to support the change.

56. All PHO orders include a section that advises people who are affected by an order that they can request a variance by making a request for reconsideration to the PHO.

57. Under s. 43 of the *Public Health Act*, a person affected by a public health order can request reconsideration if they:

a. have relevant information that was not available to the PHO at the time the order was made;

b. have a proposal that was not presented to the PHO when the order was made and if implemented, would meet the objective of the order (or be suitable for a written agreement under s. 38 of the Act); or

c. require more time to comply with the order.

58. However, a PHO order is not suspended during the period of reconsideration unless a MHO or the PHO agrees in writing to suspend it.

59. In order to assist the PHO in processing s. 43 requests and in considering those requests, a process for reconsideration was developed in consultation with the MHOs of the regional health authorities. Attached hereto and marked as **Exhibit "12"** is a true copy of a document titled Reconsideration Process for Provincial Health Officer Orders dated August 12, 2020.

Record Before the PHO – The Risk of Transmission at Gatherings & Events

60. Based on the information available to the PHO, transmission of COVID-19 seems to be highest in settings of sustained interpersonal interaction (defined as 15 minutes or more) indoors or in enclosed spaces. Attached hereto and marked as **Exhibit "13"** is a true copy of information from the BCCDC's website titled "How It Spreads", summarizing information regarding the spread of the virus. The PHO has identified the following conditions that the available scientific evidence suggests can further increase the risk of transmission:

a. People gathered together increases the probability that someone present will be infected and shedding virus;

b. Crowding—being closer that two metres from other people—also increases risk as when someone coughs or sneezes the droplets generally drop to the ground within two metres. The risk is additionally increased if this involves loud talking, chanting or singing;

c. Limited ventilation allows smaller droplets to build up in a space. The more people there are in a space, and the smaller the space increases the risk that small droplets will be inhaled;

d. Higher community prevalence and community transmission increases the risk the people attending a gathering or event will be shedding virus and infect others; and

e. Transmission of SARS-CoV-2 can occur in the 48 hours before symptoms start. Some people remain asymptomatic but can still transmit the disease to others.

61. Based on the information available to the PHO, including the information and guidance provided by the BCCDC in Exhibits 7 and 8, behavioural factors can also increase the risk of transmission of COVID-19, and include people attending gatherings or events while infected, and if they are symptomatic, this further increases the risk. Loud talking, chanting, singing and being in close proximity to other people all also increase the risk of transmission.

62. Based on information available to the PHO, including the information and guidance provided by the BCCDC in Exhibits 7 and 8, protective measures can be put in place to try to address these risks, including holding events outdoors, limiting the number of people that gather together, ensuring that people stay at least two metres apart, ensuring good ventilation if indoors, ensuring that people with symptoms or people who have been close contacts of COVID-19 cases do not attend, not allowing loud talking, singing or chanting, promoting good respiratory etiquette and hand hygiene practices, and using masks to reduce the number of droplets expelled and risk that droplets will be inhaled by susceptible people. However, the effectiveness of protective measures will vary based on how well people comply and on the prevalence of transmission in the community.

Record Before the PHO – Change in Epidemiologic Circumstances in BC & Resulting PHO Orders

63. The MHOs from each regional health authority report to the PHO with respect to cases, clusters and outbreaks of COVID-19 in their region.

64. Following the re-opening of various sectors and with increasing socialization in the spring and summer of 2020, the data available to the PHO from the MHOs began showing that bars, nightclubs, late hours in restaurants and social gatherings in large banquet halls were major sources of transmission and infection. As a result, the PHO issued orders closing nightclubs and banquet halls and imposing additional conditions on the operations of bars and restaurants.

65. This trend in transmission is also evidenced by the location of public exposures posted by the Fraser Health Authority, Interior Health Authority, Island Health Authority, and Vancouver Coastal Health Authority. Public health exposure notifications are only used when public health officials have been unable to reach or identify all individuals potentially exposed via contact tracing.

Archived information with respect to public health exposure notifications is not posted by the Northern Health Authority.

66. Attached hereto and marked as **Exhibit "14"** is a true copy of the Public exposures webpage for Fraser Health Authority, as of February 1, 2021, available online at: https://www.fraserhealth.ca/covid19exposure#.YBhiCuhKi70.

67. Attached hereto and marked as **Exhibit "15"** is a true copy of the Public exposures webpage, showing the archived exposures for Vancouver Coastal Health Authority, as of February 1, 2021, available online at: http://www.vch.ca/covid-19/public-exposures.

68. Attached hereto and marked as **Exhibit "16"** is a true copy of the Data, Outbreaks and Public Exposures webpage, showing archived exposures for August 2020, for Island Health Authority, as of February 2, 2021, available online at: https://www.islandhealth.ca/learn-about-health/covid-19/outbreaks-and-exposures.

69. Attached hereto and marked as **Exhibit "17"** is a true copy of an Advisory posted by the Interior Health Authority on July 10, 2020 titled "Potential COVID-19 exposures in recent Kelowna gatherings", available online at: https://www.interiorhealth.ca/AboutUs/MediaCentre/NewsReleases/Documents/Potential%20COVID19%20exposures%20in%20recent%20Kelowna%20gatherings.pdf.

70. The data from the MHOs then began showing that the majority of new infections were linked to known cases or clusters. Based on the data available to the PHO, social gatherings in the community—such as people visiting each other in their residence, private parties, weddings and funerals—have been important drivers of COVID-19 transmission.

71. With the onset of fall, the PHO anticipated a second wave might arrive as people were interacting more and spending more time indoors, both of which increase the risk of transmission of SARS-CoV-2 in the population. The potential effects on transmission due to weather changes to cooler temperature, humidity changes and ambient sunlight changes were also unknown.

(a) November 7, 2020 Regional Restrictions

72. The BCCDC publishes COVID-19 Situation Report bulletins on a weekly basis. These bulletins provide in-depth information about COVID-19 epidemiology, underscoring data and key trends in the province, including

COVID-19 case counts, BC's epidemic curve, test rates and percent positivity, hospitalization rates and deaths, and likely sources of infection. Attached hereto and marked as indicated below are true copies of the following COVID-19 Situation Reports:

a. **Exhibit "18"** – British Columbia Weekly COVID-19 Surveillance Report, October 9-15, 2020;

b. **Exhibit "19"** – British Columbia (BC) COVID-19 Situation Report Week 42: October 11 – October 17, 2020;

c. **Exhibit "20"** – British Columbia (BC) COVID-19 Situation Report Week 43: October 18 – October 24, 2020;

d. **Exhibit "21"** – British Columbia (BC) COVID-19 Situation Report Week 44: October 25 – October 30, 2020; and

e. **Exhibit "22"** – British Columbia (BC) COVID-19 Situation Report Week 45: November 1 – November 7, 2020.

73. The data in the COVID-19 Situation Report bulletins started showing an increase in cases in September and by mid-October 2020 case numbers began to accelerate rapidly rising from a seven-day moving average of 130 cases on October 11 to 420 cases by November 6, 2020. Hospitalizations and admissions to intensive care units, which typically lag the increase in cases, had also increased from 77 hospitalizations and 24 people in intensive care on October 11, to 104 people in hospital and 31 people intensive care by November 6.

74. This surge in cases and hospitalizations resulted in the PHO making an oral order imposing region-specific restrictions for the Vancouver Coastal and Fraser health authorities regions on November 7, 2020. Attached hereto and marked as **Exhibit "23"** is a true copy of a transcript of the PHO's media briefing on November 7, 2020 in which she announced her November 7, 2020 oral order.

75. The November 7th oral order was followed by written orders of the PHO dated November 10 and November 11, 2020. Attached hereto and marked as **Exhibits "24" and "25"** respectively are true copies of the PHO's November 10, 2020 and November 11, 2020 orders.

76. The November 7th verbal orders were region-specific because the data was showing that transmission and serious adverse consequences were particularly substantial in Vancouver Coastal and Fraser regions, and that public health systems in those health authorities were being significantly strained to keep up

with the volume of cases and consequent large numbers of case contacts that needed follow up through contact tracing to break the chains of transmission.

77. The November 7th oral orders included prohibitions on: visitors at private residences, holding wedding or funeral related receptions or informal gatherings, group indoor physical activities, indoor sports activities, spectators at indoor sports, travel in or out of the affected health authorities for sports related activities, and the operation of party buses. These measures also required daily health checks of employees.

(b) November 19, 2020 Province-Wide Restrictions

78. The weekly COVID-19 Situation Reports showed that the surge of cases continued, with the data showing 690 cases per day and 217 hospitalizations with 59 people in intensive care on November 19, 2020. Attached hereto and marked as follows are the following weekly COVID-19 Situation Reports showing the continued surge of cases from November 7 to 19, 2020:

a. **Exhibit "26"** – British Columbia (BC) COVID-19 Situation Report Week 46: November 8 – November 14, 2020; and

b. **Exhibit "27"** – British Columbia (BC) COVID-19 Situation Report Week 47: November 15 – November 21, 2020.

79. On November 19, 2020, the PHO made an oral province-wide order prohibiting visitors at private residences and all in-person events, along with other measures. This oral order was set to expire on December 8, 2020. Attached hereto and marked as **Exhibit "28"** is a true copy of a transcript of the PHO's media briefing on November 19, 2020 in which she announced her November 19, 2020 oral order. The November 19 oral order provides exceptions for weddings, baptisms and funerals (to a maximum of 10 people) and permits private prayer/reflection in religious settings.

(c) December 2020 Gatherings & Events Orders

80. On December 2, 2002, the PHO issued a written Gathering and Events order that repealed and replaced her November 10, 2020 order with respect to gatherings and events and her November 13, 2020 order with respect to COVID-19 regional measures, and also confirmed her oral order of November 19, 2020 with respect to perimeter seating vehicles and buses. The PHO's oral order of November 19, 2020 with respect to workplace safety and travel related to team

sport remained in effect. Attached hereto and marked as **Exhibit "29"** is a true copy of the PHO's December 2, 2020 Gatherings and Events order.

81. On December 4, 2020, the PHO issued a further written Gatherings and Events order that repealed and replaced the December 2nd order. This was done to exempt meetings of a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person. Attached hereto and marked as **Exhibit "30"** is a true copy of the PHO's December 4, 2020 Gatherings and Events Order.

82. The data in the COVID-19 Situation Report shows that the second wave appears to have reached a peak seven-day moving average of 780 cases per day on November 26, 2020. Attached hereto and marked as **Exhibit "31"** is the British Columbia (BC) COVID-19 Situation Report Week 48: November 22 – November 28, 2020.

83. Nonetheless, as of December 4, 2020 the data in the COVID-19 Situation Reports was still showing persistent high case counts with a seven-day moving average of 687 cases per day with 338 hospitalizations and 76 people in intensive care. Attached hereto are the following weekly COVID-19 Situation Reports showing the continued high case counts as of early December 2020:

a. **Exhibit "32"** is a true copy of the British Columbia (BC) COVID-19 Situation Report Week 49: November 29 – December 5, 2020; and

b. **Exhibit "33"** is a true copy of the British Columbia (BC) COVID-19 Situation Report Week 50: December 6 – December 12, 2020.

84. On December 7, 2020, the PHO announced that her earlier Gatherings and Events Order would be extended to January 8, 2021. Attached hereto and marked as **Exhibit "34"** is a true copy of a transcript of the PHO's media briefing on December 7, 2020.

85. On December 9, 2020, the PHO extended her earlier Gatherings and Events orders to January 8, 2020. Attached hereto and marked as **Exhibit "35"** is a true copy of the PHO's December 9, 2020 Gatherings and Events order.

86. As the PHO noted in her December 9 order, seasonal and other celebrations and social gatherings in private residences and other places had resulted in the transmission of SARS-CoV-2 and increases in the number of people who developed COVID-19 and became seriously ill. There was significant

concern that this would accelerate due to these activities likely to happen over the holiday period, if the order was not extended to early January. The PHO also noted that there had been a rapid increase in COVID-19 cases throughout the province which had resulted in increase and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities, and deaths.

87. On December 15, 2020, the December 9th Gatherings and Events order was repealed and replaced. This was done to clarify that the Vending Market order is subject to this order and cannot be relied on to sell non-food merchandise, clarify that a religious service could be provided to an occupant in their home, and returning the 50 car limit for drive-ins. Attached hereto and marked as **Exhibit "36"** is a true copy of the PHO's December 15, 2020 Gatherings and Events Order.

88. On December 24, 2020, the December 15th Gatherings and Events order was repealed and replaced. This was done to exempt rehabilitation and exercise therapy programs from the order, to repeal and replace a May 28, 2020 PHO order with respect to vending markets, and to include additional provisions with respect to sport and exercise. Attached hereto and marked as **Exhibit "37"** is a true copy of the PHO's December 24, 2020 Gatherings and Events Order.

89. Following the PHO's December 2020 orders implementing and extending the prohibitions on in-person gatherings, the case rate declined, but remained elevated, then started to increase again between December 28 to January 4, 2021, at which time the downward trend continued to a seven-day moving average of 449 by January 31.

90. Attached hereto and marked as **Exhibit "38"** is a true copy of the British Columbia (BC) COVID-19 Situation Report Week 1: January 3 – January 9, 2021.

(d) January 8, 2020 Gatherings & Events Order

91. On January 8, 2020, the PHO extended the prohibition on in-person gatherings to February 5, 2020. .

92. This extension was in recognition that cases remained elevated and although stabilized had not significantly declined, and the PHO was concerned that the uptick in cases post holiday season could reflect social activities that

happened over the holiday season in spite of the restrictions and could be an early indicator of another surge. The PHO was also aware that new variant viruses from the UK and South Africa, which can much more rapidly transmit, had been detected in BC, so extra caution was warranted. The new variant viruses of concern and the situation unfolding in the UK were both discussed by the PHO with the F/P/T Special Advisory Committee. In particular, the data available to the PHO from the UK showed rapidly increased infections related to the variant.

93. Gatherings and events have been broadly defined in the various PHO Gatherings and Events orders that have been issued from time to time since the onset of the pandemic, and have included gatherings for religious worship. The current definition of "event" set out in the PHO's January 8, 2020 Gatherings & Events Order is:

> an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including … a worship or other religious service, ceremony or celebration, … a wedding, a baptism, a funeral, a celebration of life …

94. The current January 8th Gathering & Events order maintains the prohibition on in-person religious services, but does permit drive-in events with more than 50 patrons present as long as people only attend in a vehicle, no more than 50 vehicles are present, people must stay in their vehicles except to use washroom facilities, when outside their vehicles they must maintain a distance of two metres from other attendees, and no food or drink is sold. The January 8th order also provides exceptions for weddings, baptisms and funerals (to a maximum of 10 people) and permits private prayer/reflection in religious settings.

Record Before the PHO – Modelling Information

95. From time to time over the course of the pandemic, the PHO has provided public briefings about the COVID-19 modelling work that is done by the BCCDC. The information contained in these modelling presentations is also considered by the PHO in making public health orders. Attached hereto and marked as indicated below are true copies of the following modelling presentations:

a. **Exhibit "39"** – "COVID-19: Monthly Update" dated November 12, 2020; and

b. **Exhibit "40"** – "COVID-19: Year to Date Summary" dated December 23, 2020.

96. The changing epidemiologic circumstances I've outlined above, along with the potential consequences of not taking action to limit transmission, are shown in BCCDC's modelling work.

Record Before the PHO – Evidence of Transmission in Religious Settings

97. The evidence assessed by the PHO to determine the risk of transmission of SARS-CoV-2 through religious gatherings in British Columbia includes: epidemiological data regarding COVID-19 transmission associated with religious activities globally, nationally and in British Columbia, evidence regarding SARS-CoV-2 transmission and disease, factors leading to elevated transmission risk in religious settings, and COVID-19 epidemiology in British Columbia

98. The data and literature available to the PHO included reports of showed continuing COVID-19 cases and clusters in religious settings throughout the summer and fall of 2020, both nationally and globally, despite ongoing public health guidance recommending infection control precautions (such as physical distancing, masking, and environmental cleaning).

99. In addition, the information available to the PHO showed that outbreaks resulting from religious gatherings in Alberta, Manitoba and Saskatchewan, had spillover cases in British Columbia.

100. Attached hereto and marked as **Exhibit "41"** is a letter to faith community leaders from Canada's Chief Public Health Officer dated October 15, 2020, which was reviewed by the PHO.

101. Here in British Columbia, over the course of the pandemic, the data has showed instances of COVID-19 exposures and transmission within religious settings and weddings across all health authorities in British Columbia, with the exception of Island Health Authority. Based on the information provided to the PHO by the MHOs for each Health Authority, the PHO was aware of the following cases and clusters associated with religious settings in British Columbia.

102. The data from Vancouver Coastal Health showed that, in Vancouver Coastal Health, from September 15, 2020 to January 15, 2021, 25 places of worship were affected with 61 associated cases. Twenty-eight cases and one death were associated with an outbreak at a religious setting in Vancouver in November 2020, and it is also likely that 2 index cases from that religious setting sparked a large outbreak at another facility. In addition, 5 cases were linked to a religious setting in Richmond in November 2020, and 3 cases were associated with another religious setting in Vancouver in November 2020. Vancouver

Coastal Health did not implement a searchable information system until September 2020, so the data on the location of events from prior to September is not available to the PHO.

103. The data from Fraser Health showed that, in Fraser Health, from March 15, 2020 to January 15, 2021, 7 places of worship were affected with 59 associated cases. Of these cases, 24 were associated with a religious setting in Chilliwack in October 2020, 12 were linked to a religious setting in Burnaby in December 2020, 8 cases were associated with a religious setting in Maple Ridge in November 2020, and 6 cases were associated with a religious setting in Langley in November 2020.

104. The data from Interior Health showed that, in Interior Health, from March 15, 2020 to January 15, 2021, 11 places of worship were affected with 20 associated cases. Of these cases, 11 were associated with two religious settings in Kelowna in September and November respectively. The data showed that all of the cases in religious settings in Interior Health occurred between August 2020 and January 2021, with the majority of places of worship being affected in the fall (October and November 2020).

105. In Northern Health, from March 15, 2020 to January 15, 2021, 5 religious settings were affected with 40 associated cases. In November 2020 alone, 9 cases were associated with staff in a religious setting, and 4 cases were associated with a different religious setting in Prince George. In addition, Northern Health saw 27 cases associated with one funeral in August and 5 cases associated with three weddings (held in Surrey, Toronto and Vernon) in October 2020. Northern Health also has a number of recent exposures from funerals that are not included in the numbers above as they are still under investigation.

106. The data available to the PHO from Northern Health also indicated that a further 24 cases occurred in residents of Northern Health associated with a religious gathering in Alberta in August.

107. It should be recognized that it is possible that some of the cases that the Health Authorities consider to have been associated to these religious settings could have been acquired elsewhere in the community, but they have been included here because of their attendance in these settings. In addition, these numbers reflect direct cases only and not the secondary cases that arose from these direct cases, including cases that led to exposures and outbreaks in healthcare settings and schools.

108. To date, the data before the PHO does not demonstrate that BC is experiencing significant or routine transmission of COVID-19 arising from encounters such at grocery and retail stores, restaurants, or in other transactional environments where WorkSafeBC standards require COVID-19 safety plans to be in place and safety procedures to be followed.

109. Similarly, to date, the data before the PHO does not demonstrate that BC is experiencing significant or routine transmission of COVID-19 arising from outdoor protests or demonstrations, such as the Black Lives Matter and Anti-Mask demonstrations held in British Columbia in 2020.

Record Before the PHO – Consultation & Collaboration with Faith-Based Organizations

110. Throughout the course of the pandemic, the Premier, Minister of Health and PHO have engaged with faith leaders to discuss the pandemic, preventive measures, and the impact of restrictions on gatherings and events on their faith communities and religious practices. I am advised by the PHO and verily believe that hour-long interfaith conference calls were held on March 11, April 7, May 26, July 29, November 18, and December 14, 2020. Attached hereto and marked collectively as **Exhibit "42"** are true copies of the agendas for each of these meetings. I am advised by the PHO and verily believe that representatives from hundreds of different faith communities from across the province attended these calls.

111. In recognition of the difficulties that faith communities are experiencing as a result of the prohibition on in-person gatherings, especially those who cannot or prefer not to use alternatives to collective gathering, the province retained Dr. Robert Daum from the Simon Fraser University Centre for Dialogue to facilitate roundtable discussions with faith communities to facilitate engagement with PHO orders as they evolve in the course of the pandemic.

112. I am informed by the PHO and believe that the purpose of these roundtable discussions is, among other things, to discuss the impacts of public health orders on faith practices and how faith practices can be safely conducted during the pandemic and in compliance with public health orders.

Record Before the PHO – Exemption for Orthodox Jewish Synagogues

113. On November 25, 2020, following the initial November 19, 2020 PHO order prohibiting in-person religious services, the Chabad Centre, a Jewish Orthodox synagogue in Victoria, submitted a request for reconsideration seeking

permission to allow in-person services on the Sabbath. The reason for the request was that the synagogue observes traditional Jewish law which prohibits the use of electronic devices, including computers, on the Sabbath, such that in-person services were the only way they could conduct their religious services.

114. The Chabad Centre requested exemptions for the following two Saturdays (November 28 and December 5) to hold services with the following conditions: the entire service will take place in an open tent, with the synagogue building locked; no more than 25 people will attend; every participant will wear a face mask throughout the entire service; no participant will be within six feet of another participant (unless they are in the same family); and the services will last one hour.

115. Following consultation with me and the MHO for Island Health, on November 27, 2020, the PHO granted an exemption for the Chabad Centre, permitting gatherings of up to 25 people, in accordance with the conditions outlined above, and the other applicable provisions of the current version of the PHO's Gatherings & Events order. Attached hereto and marked as **Exhibit "43"** is a true copy of email correspondence between me and Rabbi Meir Kaplan advising that a variance had been granted under s. 43 (3) (c) of the *Public Health Act*.

116. On December 15, 2020, Rabbi Kaplan requested reconsideration for ten additional orthodox synagogues that also follow traditional Jewish law prohibiting the use of computers on the Sabbath.

117. On December 17, 2020, the initial variance for the Chabad Centre was extended on the same conditions and to apply to the additional ten synagogues by way of a class variance. Attached hereto and marked as **Exhibit "44"** is a true copy of email correspondence I sent to Rabbi Meir Kaplan advising him of the class variance. Attached hereto and marked as **Exhibit "45"** is a true copy of email correspondence dated December 17, 2020 to all Chief MHOs and Regional Directors, Health Protection, informing them of the class variance.

118. On December 26, 2020, the class variance was extended to apply to two additional orthodox synagogues. Attached hereto and marked as **Exhibit "46"** is a true copy of email correspondence from me to Rabbi Federgun and Rabi Shlomo Gabay confirming the variance, with the conditions set out in Exhibit "46", apply to all orthodox synagogues.

119. On January 8, 2020, the PHO extended the prohibition on in-person gatherings to February 5, 2021. On January 8, 2021, I communicated to the

Rabbis of the synagogues covered by the class variance that the variance, with the previous conditions, was extended to February 5, 2021. Attached hereto and marked as **Exhibit "47"** is a true copy of my email correspondence to this effect dated January 8, 2021.

Record Before the PHO–Correspondence with Petitioners

120. I am advised by the PHO and verily believe that, on December 3, 2020, Scott Storteboom, Correspondence Clerk for the Immanuel Covenant Reformed Church, emailed her a letter dated November 28, 2020 from the Council of the Immanuel Covenant Reformed Church requesting that she rescind her restrictions on religious gatherings. Attached hereto and marked as **Exhibit "48"** is a true copy of Mr. Storteboom's December 3, 2020 email to the PHO, with enclosures, which was provided to me by the PHO.

121. I am advised by the PHO and believe that she did not respond to the Council of the Immanuel Covenant Reformed Church's letter.

122. On December 18, 2020, the PHO wrote to Brent Smith and Riverside Calvary Chapel to request their cooperation in ensuring compliance with public health orders prohibiting in-person gatherings and events. Attached hereto and marked as **Exhibit "49"** is a true copy of the PHO's December 18, 2020 email to Brent Smith, with enclosures.

123. I am advised by the PHO and believe that no response was ever received to this correspondence.

124. On December 18, 2020, the PHO also wrote to John Koopman and Chilliwack Free Reformed Church to request their cooperation in ensuring compliance with public health orders prohibiting in-person gatherings and events. Attached hereto and marked as **Exhibit "50"** is a true copy of the PHO's December 18, 2020 email to John Koopman, with enclosures.

125. On December 22, 2020, John Koopman responded to the PHO's letter of December 18, 2020, advising, among other things, that her "offer to consider a request from our church to reconsider your Order sadly rings hollow". Attached hereto and marked as **Exhibit "51"** is a true copy of the letter from John Koopman to the PHO, which was emailed to the PHO and me on December 22, 2020.

Conclusion

126. The PHO and her team of advisors—myself included—are continually analyzing the data and changing epidemiologic circumstances of British Columbia's COVID-19 pandemic and experiences from other jurisdictions with the goal of reducing the nature and scope of restrictions on gatherings and events, including religious activities.

127. In particular, we are currently engaged in reviewing and considering revisions to the PHO's January 8, 2021 Order, which is set to expire on February 5, 2021, including specifically, revisions to restrictions on religious, spiritual and faith-based gatherings and events.

AFFIRMED BEFORE ME at)
Victoria, British Columbia on)
2/FEB/2021.)
)
)
A commissioner for taking)
affidavits for British Columbia)

DR. BRIAN EMERSON

Curriculum Vitae - Dr. Brian Patrick Emerson

CURRENT POSITION:

July/18-Present	Deputy Provincial Health Officer (acting), BC Ministry of Health

CAREER HISTORY:

July/03-June/18	Medical Consultant, Population and Public Health Division, BC Ministry of Health; delegated powers and duties of Provincial Health Officer
Feb/04-Feb/05	Acting Executive Director, Healthy Living and Chronic Disease Prevention
Jan/01-June/03	Medical Health Officer, Vancouver Island Health Authority, North
August/99-Dec/01	Medical Health Officer, Upper Island/Central Coast Community Health Services Society
Apr/97-July/99	Chief Executive Officer and Medical Health Officer, Upper Island/Central Coast Community Health Services Society
Jan/90 –Mar/97	Medical Health Officer/Director, Upper Island Health Unit
Jan – Dec/93	A/Medical Health Officer, Central Vancouver Island (part time)
Mar-Aug/92	A/Medical Health Officer, Coast Garibaldi Health Unit (part time)
Sept/88 - Jan/90	Medical Health Officer, Northern Interior Health Unit Medical Health Officer, Cariboo Health Unit
Jan/87 - Aug/87	Assistant Medical Health Officer, Central Van. Island Health Unit
July/86 - Dec/86	General Practice, Capital Regional District, B.C.
June/85 – June/86	Rotating Internship, Victoria General Hospital, Victoria, B.C.

ACADEMIC DEGREES:

1987-88	Master Health Sciences (M.H.Sc.), University of British Columbia
1981-85	Medical Degree (M.D.), University of British Columbia
1980-81	Pre-Medicine, University of Victoria
1975-78	Bachelor of Science (B.Sc., Marine Biology), University of Victoria
1974-75	General Sciences, University of Calgary

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Curriculum Vitae - Dr. Brian Patrick Emerson

AWARDS:

2018- George Elliot Award for Lifetime Contributions to Public Health in British Columbia

2008 - Provincial Health Officer's Award for Excellence in Public Health for dedication and perseverance on developing the new *Public Health Act* for BC

PROFESSIONAL MEMBERSHIPS:

College of Physicians and Surgeons of BC
Health Officers Council of BC
B.C Public Health Association
Public Health Physicians of Canada
Canadian Public Health Association
Doctors of BC
Canadian Medical Association
International Doctors for Healthier Drug Policy
BC Friends of Ecological Reserves

PUBLICATIONS:

Emerson, B., & Haden, M. (2020). *A Public Health Based Vision for the Management and Regulation of Opioids.* International J. Drug Policy (accepted)

Health Officers Council of BC (December 2017) *Determinants of British Columbia's Opioid Overdose Emergency* (Co-chair of writing committee)

Health Officers Council of BC (October 2017) HOC Submission on Cannabis Regulation to BC Government (Co-chair of writing committee)

Emerson, B., & Haden, M. (2017). *Public health and the harm reduction approach to illegal psychoactive substances*. In S. R. Quah, W. C. and Cockerham & (eds.) (Eds.), International encyclopedia of public health (2nd edition vol. 6 pp. 169–183 ed.,) Oxford: Academic Press.

Haden, M., Emerson, B., & Tupper, K. (2016). *A public-health-based vision for the management and regulation of psychedelics*. Journal of Psychoactive Drugs, 48(4), 243-252.

Haden, M., & Emerson, B. (2014). *A vision for cannabis regulation: A public health approach based on lessons learned from the regulation of alcohol and tobacco*. Open Medicine, 8(2), e73-e80.

Kirst, M., Kolar, K., Chaiton, M., Schwartz, R., Emerson, B., Hyshka, E., Thomas, G. (2015). *A common public health-oriented policy framework for cannabis, alcohol and tobacco in Canada?* Canadian Journal of Public Health, 106(8), e474-e476.

Curriculum Vitae - Dr. Brian Patrick Emerson

Spithoff, S., Emerson, B., & Spithoff, A. (2015). *Cannabis legalization: Adhering to public health best practice*. Canadian Medical Association Journal November. 187(16)

Canadian Public Health Association. (2014). *A New Approach to Managing Illegal Psychoactive Substances in Canada*. May 2014. (Co-chair of writing committee)

Health Officers Council of British Columbia. (2011). *Public Health Perspectives for Regulating Psychoactive Substances -What we can do about Alcohol, Tobacco, and Other Drugs*. (Coordinated writing and publication)

Health Officers Council of BC (September 2013) *Submission to the British Columbia Liquor Policy Review* (Coordinated and edited submission).

Book Review (June 2011) *Cannabis Policy: Moving Beyond Stalemate* by Robin Room, Benedikt Fischer, Wayne Hall, Simon Lenton, Peter Reuter, POP News (Issue 25), pg 5 - 6, Canadian Institutes of Health Research - Institute of Population and Public Health, Ontario, Canada,.

CURRENT MAJOR COMMITTEE ACTIVITIES:

2018 – present: Chair, BC cannabis research network
2006 – present: Health Officers Council of BC, Chair, Standing Committee on Psychoactive Substances
2004 – 2019: Health Officers Council of BC, Secretary
2013 – present: Federal/Provincial/Territorial Public Health Infrastructure Steering Committee

PAST MAJOR COMMITTEE ACTIVITIES:

1996 – 2002: Health Officers Council Chair-elect, Chair, Past-Chair
First Do No Harm Problem Prescription Drug Use National Strategy Executive Committee
Federal/Provincial/Territorial Prescription Drug Abuse Committee Member
Chaired *Public Health Act* and regulations development working groups
B.C. Communicable Disease Scientific Committee Chair
B.C. Communicable Disease Policy Committee Member
B.C. Personal Services Establishment Guidelines Committee Member
Federal/Provincial/Territorial Public Health Human Resources Task Group Co-chair, member
Federal/Provincial/Territorial Public Heath Human Resources Enumeration Working Group Co-chair
Hospital Infection Control Committees (Comox and Campbell River) Member
B.C. Heart Health Coalition Member
Public Health Information System Committee Member
Foodsafe Excellence Implementation Committee Member
Facilities Serious Incidents Tracking System Committee Member
Safe Drinking Water Regulations Committee Member
Ministry of Health representative to the Commission on Resources and the Environment for the Vancouver Island land use planning process

Curriculum Vitae - Dr. Brian Patrick Emerson

First Nations Medical Health Officer Health Advisory Committee Member
Upper Island/Central Coast Occupational Health and Safety Committee Co-chair
Upper Island/Central Coast Transition Team Chair – Preparation for regionalization
Salaried Physician Negotiations Advisory Committee

RESEARCH ACTIVITIES:

2019: Reviewer. Canadian Institutes Health Research Team Grant Proposals: Partnerships for Cannabis Policy Evaluation

2018: Reviewer. Canadian Institutes Health Research Catalyst Grant: Cannabis Research in Urgent Priority Areas

2018: Attendee Canadian Institutes Health Research *Finding Consensus on Cannabis Data Measures Workshop*

2017: Reviewer. Canadian Institutes Health Research Catalyst Grant: Population Health Intervention Research on Legalization of Cannabis

2015-16: Co-chair Planning Committee *Medical Cannabis Research Roundtable* with Arthritis Society of Canada

2012-2013: Co-chair Planning Committee for CIHR funded workshop *Cannabis for Therapeutic Purposes in Provincial Health Systems: A Priority Setting Workshop*

Bonnie Henry MD MPH FRCPC

PROFILE

A committed and passionate public health physician who has worked at all levels of public health practice in Canada and internationally, Dr Henry is a recognized public health leader. Dr Henry has effectively developed and strengthened relationships between public health, clinical medicine, infection prevention and control and occupational health. She has been a key leader in public health emergencies including COVID-19, Ebola, SARS, pandemic influenza and the opioid emergency. She has demonstrated expertise in establishing surveillance systems to allow the rapid detection of and response to disease threats around the world. She is a proven public health leader who has demonstrated her ability to create effective networks and break down barriers in the pursuit of excellence in public health.

CAREER HISTORY

2018 (Feb)- Present Provincial Health Officer, Office of the Provincial Health Officer, Ministry of Health, British Columbia

- *Dr Henry provides public health leadership for all public health issues in British Columbia.*
- *She represents BC at national and international tables and is a key partner in the tripartite agreement with First Nations in BC.*
- *She is responsible for monitoring the health of the population of BC and providing independent advice to the ministers and public officials on public health issues.*
- *Recent reports include 'Stopping the Harm: Decriminalization of People Who Use Drugs in BC' and 'Taking the Pulse on the Population: An Update on the Health of British Columbians.'*

2014 (Aug)-2018 (Jan) Deputy Provincial Health Officer, Office of the Provincial Health Officer, Ministry of Health, British Columbia

- *In partnership with the Provincial Health Officer, Dr Henry provides public health leadership for all public health issues in British Columbia.*
- *She represents BC at national and international tables and is a key partner in the tripartite agreement with First Nations in BC.*
- *With the PHO she is responsible for monitoring the health of the population of BC and providing independent advice to the ministers and public officials on public health issues.*
- *Recent reports include 'Where the Rubber Meets the Road: Reducing the Impact of Motor Vehicle Crashes on Health and Well-Being in BC, Is "Good", Good Enough?: the Health and Well-Being of Children and Youth in BC.*

2013 (Dec)-2014 (Aug) Provincial Executive Medical Director, BC Centre for Disease Control

- *Dr Henry took over the role of medical lead for the BCCDC and Director of the UBC Centre for Disease Control after the retirement of the incumbent.*
- *In this role, she led all the service lines at the BCCDC in addition to her continuing role supporting the PHO.*
- *As interim Centre Director for the UBC CDC she lead the development of an applied public health research strategy.*
- *During this period of transition Dr Henry was key in integrating chronic disease prevention programming and injury prevention into the existing BCCDC service lines covering the spectrum of public health (surveillance and epidemiology, environmental health, HIV and STI prevention and control, TB control, immunization programs, enteric, vectorborne and zoonoses, emergency management, antimicrobial resistance and infection control, and harm reduction and substance use programs).*

2011-2014- Medical Director, Communicable Disease Prevention and Control and Public Health Emergency Services. BC Centre For Disease Control and Associate Professor, School of Population and Public Health, University of British Columbia

- *Dr Henry took on leadership of this newly created service line in June 2011 after a major reorganization at the BCCDC.*

- *The service line includes the Influenza and emerging respiratory diseases, Enteric and zoonotic diseases, Antimicrobial infections, Do Bugs Need Drugs, Hepatitis and harm reduction programs as well as the Panorama development group, public health analytics, mathematical modeling and genomic epidemiology.*
- *Dr Henry remained the medical lead for several program areas including the Vectorborne and Emerging Infectious Disease Program and prevention and control of Healthcare Associated Infections.*
- *From January to July 2012 she was the acting medical lead for the BCCDC while the Provincial Executive Director was on sabbatical.*
- *In July 2013 she was delegated the duties of the Provincial Health Officer (PHO) taking the lead on sensitive provincial issues in support of the PHO until her appointment as Deputy PHO.*

2005-2011- Director, Public Health Emergency Management and Physician Epidemiologist, Vectorborne Disease and Healthcare Associated Infection Prevention programs, BCCDC

- *Dr Henry joined the BCCDC in 2005 as the medical lead for several program areas including the Vectorborne and Emerging Infectious Disease Program and prevention and control of Healthcare Associated Infections.*
- *She was a key leader in the creation of the BC Provincial Infection Control Network in 2006 and chaired the executive committee.*
- *In September of 2007 Dr Henry was appointed as Medical Director, Public Health Emergency Management for the BCCDC. In this role she coordinated public health emergency management in the province; a key role supporting the legislated mandates of the Provincial Health Officer, the Ministry of Health and the Regional Health Authorities.*

2001- 2005- Associate Medical Officer of Health, Toronto Public Health

- *Dr Henry joined TPH as the lead for the sexual health program in the city and medical lead for communicable disease control for the north and east areas of the City.*
- *Was appointed Director Public Health Emergency Services after the events of September 11, 2001 and lead the TPH response to the subsequent anthrax attacks.*
- *She was instrumental in the development of a joint emergency operations committee in the City of Toronto that included public health, emergency medical services, police and fire services and the office of emergency management.*
- *She established and led the heat health alert system for the City and developed the first public health emergency management training program.*
- *She was the operations lead for the SARS outbreak in 2003 and established the communicable disease liaison unit to bridge the gap between public health and infection control in hospitals that became a model for local health integration networks in Ontario.*

2000-2001- Short-term Consultant (Senior Canadian) Ebola outbreak Uganda, World Health Organization, Global Outbreak Alert and Response Network

- *Dr Henry was the senior Canadian assigned to a WHO team to assist in control of the largest Ebola outbreak seen to date in Uganda in 2000.*
- *She played a key role in the establishment of an isolation facility, surveillance and control measures in the area of Masindi that contained the outbreak in that area and was the surveillance and epidemiology lead for the international team in Gulu.*
- *This was the first Canadian deployment as part of the Global Alert and Response Network and led to many subsequent requests for Canadian involvement.*

2000- WHO Short-term Consultant Stop Transmission of Polio (STOP) Team 5, Pakistan

- *Dr Henry was part of a multi-national team who spent 3 months working with WHO and UNICEF in the highly sensitive area of polio eradication in Pakistan.*
- *She was instrumental in building a trusting connection between local WHO and UNICEF offices in Pakistan after relationships had been strained for many years.*

1999-2001- Field Epidemiologist, Health Canada, Laboratory Centre for Disease Control, Canadian Field Epidemiology Program

- *As a field epidemiologist Dr Henry was based at the Ministry of Health and Long Term Care in Ontario.*
- *She was a lead investigator into the first reported outbreak of E.coli related to a petting zoo and a hospital based outbreak of Serratia marcesans related to use of the anesthetic agent propofol.*

1998-1999- Faculty Physician, Community Oriented Preventive Medicine, San Diego California, University of California San Diego Center for Occupational and Environmental Medicine

1996-1998- Primary Care Physician, Mid-City Community Clinic, San Diego, California

1991-1996- Locum Physician, General Practice, Victoria, BC

1993-1995- General Duty Medical Officer, Diving Medical Officer and Flight Surgeon, Canadian Forces Hospital Naden, Victoria, BC

1991-1993- Fleet Medical Officer, HMCS Provider, Department of National Defense, Victoria, BC

Education

Mount Allison University	BSc (with distinction)	Biochemistry	1983-1986
Dalhousie University	MD	Medicine	1986-1990
San Diego State University/ University of California San Diego	MPH	Epidemiology	1997-1999

Special Professional Qualifications

- Fellow, Royal College of Physicians and Surgeons of Canada, Public Health and Preventive Medicine (2001)
- Fellow, American Board of Preventive Medicine-Preventive Medicine/Public Health (1999)
- Sauder School of Business and UBC faculty of Medicine, Physician Leadership Course (2013)
- Postgraduate Course on Clinical Management and Control of Tuberculosis, National Jewish Medical and Research Center, Denver, Colorado, (1998)
- Flight Surgeon and Advanced Diving Medical Officer, Department of National Defense (1992)
- Licentiate of the Medical Council of Canada (1990)

Academic History

2010-present, Associate Professor, School of population and Public Health, Faculty of Medicine, University of British Columbia

2005-2010, Assistant Professor, School of population and Public Health, Faculty of Medicine, University of British Columbia

2003-2005, Assistant Professor, Department of Public Health Sciences, Faculty of Medicine, University of Toronto

Dr Henry has been primary supervisor for two and on the supervisory committee for 10 PhD students and Supervisor for 12 MSc or MPH students. She has also supervised over 50 medical students, residents, practicum students and field epidemiologists on their rotations at the BCCDC and Office of the Provincial Health Officer.
Dr Henry has taught as a regular guest lecturer in 11 different courses at the School of Population and Public Health at the University of British Columbia and has been invited lecturer at Simon Fraser University and University of Victoria. She has been instrumental in the development of lead instructor for two fulltime courses at UBC: Epidemiology for Infection control and Public Health Surveillance. She was a faculty member for the Masters in Public Health with an Ecological Focus (led by Dr Jerry Spiegel, Institute for Global Health at UBC) in Ecuador for the 9th and 11th modules. This is a joint Masters

program with 30 students from Ecuador and is a collaboration between UBC and 4 Universities in Ecuador.

Scholarly and Professional Activities

Dr Henry has developed extensive knowledge and experience in three primary areas of public health over the past two decades: surveillance, public health emergency management and infection prevention and control. She is recognized nationally and internationally in these areas and has been specifically requested to support the WHO, PAHO and individual countries in initiatives in these areas. She has also been requested to provide advice to several provincial governments (details outlined below). In recognition of this expertise, she has been invited to sit on the National Advisory Committee on Immunization and the National Infection Control Expert Committee in Canada and a WHO Expert Group on Mass Gatherings. The guidelines developed by these groups affect public health and healthcare programs across the country and internationally.

Areas of special interest and accomplishments

1. Dr Henry came to UBC and the BC Centre for Disease Control with internationally recognized expertise in public health emergency management including experience in a lead role in response (as the operational lead for the Toronto Public Health SARS outbreak response in Toronto). She was recognized for her leadership by Dr David Naylor in his seminal report on the SARS outbreak and by Justice Campbell in his extensive investigation of the outbreak. Dr Henry was invited to be part of a four person team who shared experiences and challenges with senior Health officials in Hong Kong, Taiwan and Beijing in 2003. In 2013, her advice was requested by the investigators into the MERS-CoV outbreak in the Kingdom of Saudi Arabia.

2. Dr Henry has also had practical experience establishing and evaluating surveillance systems for routine public health practice, syndromic surveillance and mass gatherings. She has used this experience to refine and develop the Vectorborne and Emerging Disease surveillance program in BC which she led and to develop the newly formed Provincial Infection Control Network in BC. She was the provincial public health lead for surveillance for the Vancouver 2010 Olympic and Paralympic Games for which she and her team were recognized with the Provincial Health Officer's award.

3. Dr Henry was asked by the Canadian Department of Foreign Affairs to lead a review of Surveillance for Avian Influenza in Indonesia, Jakarta, Indonesia Jan 14-21, 2006. This was a project in support of the ASEAN community in their response to the H5N1 outbreaks in several SE Asian countries.

4. Expert panel to review the Legionnaires Outbreak in Toronto Sept-Dec 2005. Dr Henry was requested by the Ministry of Health in Ontario to be a member of this three person panel along with Dr David Walker and Dr James Young to review an outbreak of Legionnaires Disease that occurred in a long-term care home in Toronto and make recommendations on the outbreak response. The report entitled: Report Card: Progress in Protecting the Public's Health (Report of the Expert Panel on the Legionnaires Disease Outbreak in the City of Toronto September/October 2005) was well received by the public health community and the Ministry. This report not only added to the momentum for change to the public health system in Ontario but also provided impetus for revision of the construction standards for healthcare facilities in Canada. In 2013 she was invited to be a member of an expert panel providing advice to the Veterans Affairs Medical Centers in the US regarding legionella in their healthcare facilities.

5. In recognition of her expertise, Dr Henry was specifically requested to lead a novel project on behalf of the Canadian Department of Foreign Affairs and International Trade to plan and

implement a syndromic surveillance network in nine Caribbean countries for the World Cup of Cricket. This project was funded by Canada in partnership with the Pan American Health Organization and the Caribbean Epidemiology Centre. Using the plan, in March and April 2007 senior technical advisors and field epidemiologists from Canada and Europe were partnered with local Ministry of Health teams to establish and operationalize the surveillance. While this project focussed on building capacity and expertise in the local countries around a specific event, the plan involved knowledge and skills transfer that will allow for an ongoing health surveillance network in the Caribbean. This initiative got underway in late February 2007 and ran for 2 months. It was very successful in all the involved Islands with the knowledge gained by the local staff allowing them to continue to use the system as a means of ongoing surveillance for communicable diseases in the Caribbean. In addition to leading the initiative Dr Henry worked onsite with the Ministry of Health in Grenada from 17-31 March to implement the system in that country.

6. As the Public Health lead for the Centre for Excellence in Health Emergency Preparedness (CEEP), Dr Henry was contracted to develop and deliver a two day course on Chemical, Biological and Radionuclear and Disaster Preparedness for Public Health. This 12 hour course was accredited for 12 Mainpro-M1 (for CCFP) OR 12 Section 1credits (for FRCPC) and received overwhelmingly positive feedback from the almost 80 public health professionals from Ontario who attended. The course continues to be available on-line through CEEP and has been used by the public health community in both the US and Canada. In 2013 CEEP members published the first book on disaster preparedness for hospitals in Canada; Dr Henry was an author of four of the chapters in this book.

7. Dr Henry was specifically invited to be a lead member of a World Health Organization Virtual Interdisciplinary Advisory Group on Mass Gathering Surveillance and Response for the Global Outbreak Alert and Response Network. As a member of this group she has provided consultation advice to the Ministry of Health in Australia in their planning for World Youth Day in Sydney and to the Beijing CDC before and during the Olympic Games. She also facilitated a workshop in Geneva of international experts and was one of the principle writers of a Mass Gathering Surveillance Manual published by the WHO. Dr Henry is currently involved with evaluation and revision of the manual and has been invited to be on advisory teams to the Kingdom of Saudi Arabia, China, South Africa and London.

8. Dr Henry was a developer and facilitator in a Public Health Agency of Canada two day Mass Gathering Surveillance Course that was presented to 30 participants from across Canada in November 2008. The curriculum developed for this course continues to be used by the Canadian Field Epidemiology Program for annual training of field epidemiologists.

9. During the pandemic of novel H1N1 2009 influenza A, Dr Henry was the provincial liaison on behalf of the Provincial Health Officer (Dr Perry Kendall) to many diverse stakeholders within BC from BC Ambulance Service, HealthLink BC, Corrections BC and the Drug and Poison Information Centre to the College of Physicians and Surgeons of BC, the BC Medical Association, BC Nurses Union, Healthcare Employers Association of BC, and the Ministry of Health Services Operations Committee. In this role she provided professional advice on management of the pandemic to multiple partners in BC. She also developed ICU surveillance and chaired a committee of critical care physicians to review management of critically ill patients and ICU utilization. Dr Henry also co-chaired the BC Pandemic Influenza Clinical Care Advisory Committee which developed guidance provincially for clinicians across the spectrum of care (from community to critical care). Work of this committee is reflected on the PHO H1N1 clinicians website: http://www.hls.gov.bc.ca/pho/physh1n1.html

10. Dr Henry was specifically requested by the Chief Public Health Officer of Canada to Chair the National Public Health Measures Task Group to prepare national guidelines for provinces and territories for dealing with the public health aspects of pandemic H1N1. This committee met at least weekly through the summer and fall of 2009 and under her leadership developed a series of

guidance documents that were used nationally to manage the pandemic. Dr Henry was also invited to be a member of the National Pandemic Coordinating Committee which met to review all national guidance documents and provide technical advice to the Canadian Special Advisory Committee on Pandemic H1N1, and Federal Provincial and Territorial Deputy Ministers of Health. In recognition of her work, in 2010 she was invited to participate in a WHO workshop on Public Health Measures in a Pandemic in Tunisia. In 2012, Dr Henry was asked to Chair a task group that is renewing the Canadian Pandemic Influenza Preparedness Guidance (CPIP); the main body was extensively revised and approved by the Canadian Public Health Network Council and is posted publicly; work of this task group continues under Dr Henry's leadership with revision of the CPIP Annexes.

11. Dr Henry was also invited to be a member of the National Infection Control Expert Group developing infection prevention and control guidelines for pandemic H1N1for all healthcare settings in Canada. Documents developed by this group include a literature review of effectiveness of respirator fit-testing and a Revision of Annex F Infection Prevention and Control Measures for Pandemic Influenza, Canadian Pandemic Influenza Plan. Dr Henry has been a member of the working groups that revised the Canadian Routine Practices and Additional Precautions guidelines for the prevention of infection in healthcare settings and the working group that developed the Canadian hand hygiene guidelines. She is also the Chair of a national task group to develop guidance on the management of healthcare workers infected with bloodborne pathogens.

12. Dr Henry was one of the primary media spokespeople for BCCDC and the province of BC for the pandemic and was interviewed extensively by print, radio and television media. Articles appeared in print media including: MacLeans, Time, Chatelaine, Globe and Mail, Vancouver Sun, Georgia Strait, Toronto Star, The Province. She was also interviewed as an expert for CBC the National and other CBC TV News programs, Global TV, City TV, Omni, Joy TV and was featured as an expert on many radio shows both nationally and in BC including CBC the Current and the Morning Show (in both Toronto and Vancouver). She continues to be a sought after media spokesperson on a variety of public health issues provincially and nationally.

13. Dr Henry has been a leader in the development and ongoing work of the Pacific Northwest Border Health Alliance. This group includes multiple health stakeholders (public health, emergency medical services, emergency management, laboratories, legal and communications) from the provinces/territories (BC, Yukon, Manitoba) and states (Washington, Oregon, Idaho, Montana and California) in the Pacific Northwest. She was the chair of the epidemiology group from 2006 until 2013 and has been on the cross border executive since 2007.

14. Dr Henry is a leader in development and implementation of the BC Influenza protection policy which requires healthcare workers to be immunized against influenza or wear a mask when in patient care areas during the influenza season. She was a key member of the provincial implementation committee and developed evidence reviews to support the policy. These provided the support needed by managers to describe and support the policy. In addition, Dr Henry actively engaged physicians across the province through the medical advisory committees to gain their leadership support for the policy. She was a key witness for HEABC in defending the policy at a grievance hearing. The arbitrator found in favour of the employer and the union grievance was dismissed. She is an advisor to several other provinces and hospitals in implementation of similar policies and has led the BC evaluation of the policy.

Memberships on scholarly societies

1. Member, Canadian National Advisory Committee on Immunization, 2009-present
2. Member, Canadian Infection Control Steering Committee, 2006-present
3. Chair, Immunize Canada, 2011-2013
4. Chair, Canadian Coalition for Immunization Awareness and Promotion, 2008- 2011
5. Vice Chair, Canadian Coalition for Immunization Awareness and Promotion, 2002-2007

6. Director, Centre for Excellence in Health Emergency Preparedness, 2002-present
7. Director, Standards and Guidelines, Community and Hospital Infection Control Association-Canada 2005- 2010.
8. Royal College of Physicians of Canada –1999-present
9. Canadian Public Health Association- 1999-present
10. American College of Preventive Medicine 1997-present
11. Alpha Omega Alpha Honours Medical Society 1988-present

Presentations at National and International Meetings

1. Prevention 1998, Hepatitis C in San Diego's Indigent Community, Washington, D.C., Feb 1998.
2. International Union Against Tuberculosis and Lung Disease, Tuberculosis outbreak in Tibetan refugee claimants to Canada, Vancouver, 2000.
3. American Thoracic Society Meeting, Multi-Drug Resistant Tuberculosis in Ontario: the past 10 years, Toronto, 2000.
4. International TEPHINET meeting, Outbreak of E. coli O157:H7 infection associated with a petting zoo, Ontario, Canada, 1999, Ottawa, 2000.
5. Options for the Control of Influenza IV, The impact of influenza vaccination policies on coverage among staff in long-term care facilities, Hersonissos, Crete, 2000.
6. World Conference on Disaster Management, The role of public health in emergency planning, Toronto 2002.
7. First Canadian Counter Terrorism and Public Health Conference, Public Health and Municipal Emergency planning, Toronto, Oct 29-Nov 1, 2003.
8. International symposium on quarantine issues, Center for Strategic and International Studies, Public Health considerations in the use of quarantine, Washington, D.C, 2003.
9. Northeast State Epidemiologists Annual Meeting, Keynote address: SARS: the Toronto experience, Providence, R.I. 2003.
10. SARS and emergency planning issues symposium, SARS and the Toronto Public Health response, Bethesda, MD 2003.
11. Canadian Conference on Counter-Terrorism and Public Health,; on organizing committee and chaired session on psychological impacts of terrorism; presentation Public Health and emergency planning at the local level, Toronto, 2003.
12. Baltimore Emergency Planning Symposium, Learning from SARS and the Toronto experience, John's Hopkins, Baltimore, 2003.
13. Los Angeles Health Department Invited Visit, SARS in the City, implications for LA. Los Angeles, 22-25 Nov 2003.
14. Southern California Association of American Society of Clinical Microbiologists, Lab issues and SARS, Los Angeles, 23 Nov 2003.
15. Canadian Society of Hospital Pharmacists, Disasters and pandemics: planning for the worst, Toronto, 3 February 2004.
16. International Conference on Emerging Infectious Diseases, SARS and Quarantine issues, Atlanta, Georgia, 29 Feb-3March, 2004.
17. Massachusetts Satellite Training Broadcast, Isolation and Quarantine, broadcast in all New England States, 30 March 2004.
18. Society for Healthcare Epidemiology of America, Health System Preparedness: SARS as an example, Philadelphia, 17 April 2004.
19. National Disaster Medical System, Keynote Plenary Address: Pandemics and Disasters: SARS. Dallas, Texas, 19 April 2004.
20. National Disaster Medical System, Medical Issues in Treating Patients with SARS, Dallas, Texas, 21 April 2004.
21. Connecticut State Public Health Department, Public Health and SARS state wide videoconference, Hartford, CT 10 May 2004.
22. CDC Public Health Information Network conference, SARS in the City: lessons learned by Toronto Public Health, Atlanta, Georgia 24-27 May 2004.

23. Alaska State Nurses statewide seminar, Public Health response to emergencies: SARS as an example, Juneau, 17 June 2004.
24. Five Nations Health Protection Conference, Keynote address, SARS in the City, the public health experience, Manchester, UK, 1 Nov 2004.
25. Pacific Northwest Economic Region Summit, Health Emergency Preparedness, Seattle, Washington, 16 July 2005.
26. Prevention and Management of Biological Terrorism, Southeast Asia Regional Centre for Counter-Terrorism international course, Invited Instructor, Kuala Lumpur, Malaysia, 18-22 July 2005.
27. Quarantine and Isolation Seminar, Colorado Regional Homeland Security, Keynote speaker, Quarantine and Isolation experiences in Toronto during SARS, Colorado, 16 Aug 2005.
28. National West Nile Virus Meeting, Surveillance for WNv in British Columbia, Montreal, 15 Feb 2006.
29. National Consensus meeting on Lyme Disease in Canada, BC Perspectives, Toronto, 8 March 2006.
30. Community and Hospital Infection Control Association-Canada, Psychological Impact of Outbreaks on Healthcare Workers, London, Ontario, 5 May 2006.
31. First National Disaster Preparedness Conference, Influenza Preparedness for healthcare facilities, Hamilton, 29 May 2006.
32. First National Disaster Preparedness Conference, Risk Assessment Tool for healthcare facilities, Hamilton, 30 May 2006.
33. International Conference on Emergency Medicine. Public Health and Disasters. Halifax, NS, 4 June 2006.
34. Caribbean Centre for Epidemiology Annual meeting for Lab Directors and Epidemiologists. Led workshop on Syndromic Surveillance for Mass Gatherings. Port of Spain, Trinidad, 25-28June, 2006.
35. 7th Canadian National Immunization Conference, Improving Immunization in Adults, Winnipeg, Dec 2006.
36. Society for NonVertebrate Biology Annual Meeting, Implications of the arrival of West Nile Virus on Animals and Birds in BC, Victoria, 21 Feb 2007.
37. Pandemic Planning for Community Organizations Workshop, BC Ministry of Health. Led workshops on Influenza 101 and Psychosocial Support in Communities, Vancouver, 13 March 2007.
38. Corrections Canada Educational Conference, Community-Associated MRSA and its implications for corrections facilities, Vancouver, 18 April 2007.
39. Annual Cross Border Emergency Preparedness Conference, On planning committee, Plenary talk: SARS in Toronto: Cross Border Issues, Victoria, 15 May 2007.
40. Canadian Association of Emergency Physicians Annual Conference, Pandemic Influenza and the Emergency Department, Victoria, 6 June, 2007.
41. Canadian Public Health Association 2007 Annual Conference, New Vaccines: What, Where, How? Ottawa, 16 Sept 2007.
42. 7th Annual ICOH International Conference on the Health of Healthcare Workers, Chair and moderator Emergency/Disaster Response Abstract Session, Vancouver, 27 Oct 2007.
43. MRSA Roadshow; Invited faculty member for 1 day series of lectures and workshops on MRSA sponsored by the Community and Hospital Infection Control Association of Canada 6 Feb 2008.
44. Emergency Preparedness for Industry and Commerce Council Forum 2008, Emerging Health Issues for Businesses of Tomorrow, Vancouver, April 2008.
45. Webber International Infection Control Teleclass, I've Got You Under my Skin: Infection Control in Personal Service Settings, 1 May 2008.
46. Canadian Institute of Public Health Inspectors annual meeting, Infection Control in Personal Service Settings, Vancouver, 24 Sept 2008.
47. 8th Canadian Immunization Conference, Evaluating the Evidence for Vaccination Programs, Toronto, 30 Nov 2008.

48. 8th Canadian Immunization Conference, Knowledge Gaps for Pandemic Influenza Planners, Toronto, 3 Dec 2008.
49. Emergency Preparedness for Industry and Commerce Council Forum 2009, Influenza Pandemic Preparedness for Business, Vancouver, April 2009.
50. American Academy for the Advancement of Science, Public Health Measures for Controlling Infectious Disease, Washington D.C., 5 April 2009.
51. Community and Hospital Infection Control Association Annual Meeting, SARS to pandemic H1N1, infection control learnings, St John's Newfoundland, June 2009.
52. US Council of State and Territorial Epidemiologists Annual Meeting, Plenary Address, Infection Control and Public Health, Buffalo, NY, 10 June 2009.
53. WHO International Scientific Meeting on Pandemic H1N1 and Schools, The Canadian Experience, International Teleconference, 27 May 2009.
54. Institute of Medicine Symposium on Personal Protective Equipment for Healthcare workers for novel H1N1 influenza, From SARS to Influenza: decision making for PPE, Washington, DC, 13 Aug 2009.
55. Public Health Agency of Canada National Meeting on Severe H1N1 Disease: Preventing Cases, Reducing Mortality, Public Health Challenges, Winnipeg, 3 Sept 2009.
56. Infectious Disease Update: Hot Topics and What's New. Lyme Disease in Western Canada: Tick Talk. Victoria, BC, 14 November 2009.
57. Emergency Preparedness Conference 2009. Mass Gatherings and Public Health: Cross Cutting Challenges for Emergency Managers. Vancouver, 25 November 2009.
58. Annual Pacific Northwest Cross Border Health Conference. Evaluation of public health surveillance for the 2010 Winter Games; Measles outbreak in BC. Seattle, Washington, 6 May 2010.
59. The Lancet Conferences Mass Gathering Medicine: implications and opportunities for global health security. Disease surveillance during mass gatherings. Jeddah, Saudi Arabia, 23-25 October, 2010.
60. Emergency Preparedness Conference 2010. Public health Issues After Disasters. Vancouver, 23 November 2010.
61. Infectious Disease Update: Plenary Speaker Vectorborne Disease: Lyme, West Nile and Beyond. And Vaccines for Travelers. Victoria, BC 12, 13 November 2010.
62. Canadian Immunization Conference. Chair and speaker Pandemic H1N1 Vaccination; Reflections from Canada, the USA and WHO. Quebec City, QC, 5-8 December, 2010.
63. Newfoundland and Labrador Provincial Immunization Conference. Keynote address: Our Role in Promoting Immunization in a Highly Connected World. St John's, NL 12 May 2011.
64. Mandatory reporting of Healthcare Associated Infections International Symposium: Can US Experience Inform Canadian Policy. The Canadian Experience. Vancouver, 16 May 2011.
65. Annual Pacific Northwest Border Health Alliance meeting. Session chair and facilitator, epidemiology and surveillance; plenary speaker Cross Border Lessons Learned from pH1N1 and Practice Based Research: opportunities and challenges. Victoria, BC 24-26 May 2011.
66. National Emergency Preparedness Forum, BC preparedness for radio-nuclear events. Edmonton, Alberta, January 1-19, 2012.
67. Public Health Agency of Canada/CIHR Best Brains Exchange. Preparedness for pandemics in Canada. Ottawa, Ontario, January 13, 2012.
68. Federation of Medical Regulatory Agencies of Canada; Physician Health: best practices and effective management; Management of Healthcare workers infected with blood borne pathogens. Toronto, Ontario, June 11, 2012.
69. 25th Annual Emergency Preparedness Conference 2012; Older and better: the evolution of public health emergency management. Vancouver, BC, November 6, 2012.
70. Infectious Diseases Update; Late breaking hot topics in Infectious Diseases, E. coli and others. Victoria, BC, November 9, 2012.
71. Canadian Immunization Conference; Immunization for Diverse Populations in Diverse settings. Vancouver, BC December 4, 2012.

72. PHAC/CIHR Influenza Research Network Annual meeting, The planning and early implementation of the 2012 British Columbia Influenza Prevention Policy. Toronto, Ontario. May 29, 2013.
73. Canadian Association of Emergency Physicians annual conference; Emergency response: who is public health and what is our role? Vancouver, BC June 2, 2013.
74. Infectious Disease Update 2013; Vaccines update 2014 and The Vaccine Fearful or Unconvinced: answers to their questions. Victoria, BC, November 8, 2013.
75. Emergency Preparedness and Business Continuity Conference. Public Health Issues and Threats. Vancouver, BC, 27 November, 2013.
76. 2013 Leadership Program for Physicians and Leaders in Long Term Care. Infection management in LTC. Vancouver, BC, 29 November, 2013.
77. Webber Teleclass Education. Lyme Disease: Knowledge, Beliefs, and Practices of Physicians in a Low Endemic Area. International teleclass. 12 December 2013.
78. Genome BC Spring symposium; Genomics in Public Health, Vancouver, BC, 24 January 2014.
79. Mass gathering and environmental surveillance workshop; Surveillance at the 2010 Vancouver Olympics. Kingston, Ontario, 10 March 2014.
80. Grand Rounds Alberta Health Services, BC Influenza Control Policy: where we are now and how we got here. Edmonton, Alberta (with teleclass across province), 27 March 2014.
81. BC influenza research symposium: evaluation of HCW policy, leader and keynote speaker, Vancouver BC, 24, 25 April 2014.
82. Atlantic Medical Officers annual education days; Immunization update and BC Influenza protection policy. Charlottetown, PEI, 8,9 May 2014.
83. Canadian Public Health Association annual conference; Public health emergency management research priorities. Toronto, 26 May 2014.
84. Influenza immunization condition of service symposium; The BC experience. Calgary, Alberta, 11 June 2014.
85. Influenza Policy symposium, Island Health Authority, Nanaimo, BC, 14 October, 2014.
86. Infectious Disease Update 2014, Vaccines at home and abroad, Victoria, BC, Nov 7, 2014.
87. Ebola symposium for treatment and action, Neglected Global Diseases Initiative, UBC. Overview of the international situation and relevance to BC, Vancouver, BC Nov 13, 2014.
88. Canadian Immunization Conference; Vaccine decision: beyond the science. Ottawa, Ontario, 2 December 2014
89. Canadian Immunization Conference; Condition of service influenza prevention in healthcare settings. Ottawa, Ontario, 2 December 2014

90. BC Provincial Infection Control Network Education days. BC Ebola response. March 6, 2015 Vancouver, BC
91. Infection Prevention and Control Canada Annual Conference. Healthcare worker Influenza Control Policy in BC. 15 June, 2015. Victoria, BC.
92. Canadian Influenza Research Network Annual Meeting. Evaluation of the influenza control program in BC. 5 May 2015. Montreal, Quebec.
93. Public Health and Law Enforcement Workshop. Public health role in mass gatherings. 9 March 2015. Toronto, Ontario.
94. Canadian Public Health Association Annual Conference. Ebola Virus Disease and the Canadian response. 25 May 2015. Vancouver, BC.
95. Road safety BC Conference. Provincial Health Officer report on motor vehicle crashes in BC. 15 October 2015. Vancouver, BC.
96. Global Public Health Conference. Role of civil society and NGOs in Health. 1 November 2015. Taipei, Taiwan.
97. 2nd International Meeting on Hepatitis Cure and Eradication. How to prioritize HCV treatment: perspective from payers.12 November 2015. Vancouver, BC.
98. Infectious Disease Update 2015. Vaccines: are you up to date with what is new? 6 November 2015. Victoria, BC.
99. Emergency Preparedness and Business Continuity Conference. Ebola virus disease response and other health threats. 17 November 2015. Vancouver, BC.
1. Canadian Science Policy Conference 2015.Beating superbugs: innovative genomics and policies to tackle AMR. 25 November 2015. Ottawa, Ontario.
2. CIHR Best Brains Exchange responding to Environmental Emergencies. 18,19 Feb 2016, Ottawa, Ontario.
3. Canadian society of Transfusion medicine annual meeting. Ebola Response in Canada. 13 May 2016. Vancouver, BC
4. Women's Health Research Forum. Using data to improve women's health. 27 April 2016. Vancouver, BC
5. Canadian medical Association General council. Immunization in Canada. 22 august 2016. Vancouver, BC
6. National Opioid Conference. On the Ground experience from BC. 18 November 2016. Ottawa, Ontario

Awards

1. Received BC Provincial Health Officers Award for Superb Public Health Leadership During the 2010 Olympic and Paralympic Games, April, 2010
2. International Federation for Emergency Medicine Humanitarian Award presented to the Centre for Excellence in Health Emergency Preparedness <CEEP> (Dr Henry is one of four founding Directors of CEEP) at the International Conference on Emergency Medicine in June 2006.
3. Recipient of C.P Shah Award for excellence in field research by a community medicine resident. University of Toronto.(2001)
4. Dean's list for highest standing San Diego State University MPH Program (1999)
5. Entrance and continuing education scholarships at Mount Allison University (1982-1986)
6. Entrance scholarship and Dean's honour list Dalhousie University Medical School (1986-1990)
7. Dr J.S. Hammerling prize for scholarship, Dalhousie University (1990)
8. Recipient of Gold "D" for student leadership, Dalhousie University 1990.

THE UNIVERSITY OF BRITISH COLUMBIA
Curriculum Vitae for Faculty Members

Date: January 2014

1. **SURNAME**: Henry **FIRST NAME**: Bonnie
MIDDLE NAME(S): Jeanne Fraser

2. **DEPARTMENT/SCHOOL:** School of Population and Public Health

3. **FACULTY**: Medicine

4. **PRESENT RANK**: Associate Professor **SINCE**: July, 2010

5. **POST-SECONDARY EDUCATION**

University or Institution	Degree	Subject Area	Dates
Mount Allison University	BSc (with distinction)	Biochemistry	1983-1986
Dalhousie University	MD	Medicine	1986-1990
San Diego State University/ University of California San Diego	MPH	Epidemiology	1997-1999

Special Professional Qualifications

a. LMCC (1990)
b. Fellow, American Board of Preventive Medicine-Preventive Medicine/Public Health (1999)
c. Fellow, Royal College of Physicians and Surgeons of Canada, Community Medicine (2001)
d. Postgraduate Course on Clinical Management and Control of Tuberculosis, National Jewish Medical and Research Center, Denver, Colorado, (1998)
e. Flight Surgeon and Advanced Diving Medical Officer, Department of National Defense (1992)

6. **EMPLOYMENT RECORD**

(a) Prior to coming to UBC

University, Company or Organization	Rank or Title	Dates
University of Toronto, Department of Public Health Sciences, Faculty of Medicine	Assistant Professor	Nov 2003-Jan 2005
Toronto Public Health	Associate Medical Officer of Health	Sept 2001-Jan 2005
World Health Organization, Global Outbreak Alert and Response Network	Short-term Consultant (Senior Canadian) Ebola outbreak Uganda	Nov 2000-Jan 2001
WHO Short-term Consultant Stop Transmission of Polio (STOP) Team 5, Pakistan	Consultant	May to August 2000
Health Canada, Laboratory Centre for Disease Control, Canadian Field Epidemiology Program	Field Epidemiologist	July 1999-July 2001

Community Oriented Preventive Medicine, San Diego California, University of California San Diego Center for Occupational and Environmental Medicine	Faculty Physician	Sept. 1998-June 1999
Mid-City Community Clinic, San Diego	Primary Care Physician	Nov. 1996-Sept. 1998
General Practice, Victoria, BC	Locum Physician	1991- Sept 1996
Canadian Forces Hospital Naden, Victoria, BC	General Duty Medical Officer	1993-1995
Fleet Medical Officer aboard HMCS Provider, DND	Fleet Medical Officer	1991-1993

(b) At UBC

Rank or Title	**Department**	**Dates**
Provincial Health Officer	Office of the PHO	02\2018-present
Deputy Provincial Health Officer	Office of the PHO	09\2014-02\2018
Acting Provincial Executive Medical Director	BC Centre for Disease Control	12\2013-09\2014
Acting Provincial Medical Director	BC Centre for Disease Control	01\2012-06\2012
Associate Professor	School of Population and Public Health, UBC	07\2010-present
Assistant Professor	School of Population and Public Health, UBC	02\2005-07/2010
Medical Director, Communicable Disease Prevention and Control Service	BC Centre for Disease Control	06\2011-present
Director, Division of Public Health Emergency Management	BC Centre for Disease Control	09\2007-present
Physician Epidemiologist	BC Centre for Disease Control, Epidemiology Services	02\2005-06\2011

(c) Date of granting of tenure at U.B.C.:

7. LEAVES OF ABSENCE

University, Company or Organization at which Leave was taken	**Type of Leave**	**Dates**
None		

8. TEACHING

(a) Areas of special interest and accomplishments

- **Healthcare Associated infection prevention and control,**
- **Vectorborne disease,**
- **Bioterrorism,**
- **Public health emergency preparedness,**
- **Outbreak management,**
- **Epidemiology and surveillance of communicable disease.**

Course Development

- Dr Henry took on primary responsibility for SPPH 401/PATH 477 –Epidemiology for Infection Control for fall 2005 and revamped 4 of the 7 modules and the final exam to take full advantage of the Web-CT format. This also allowed for enhancement of the adult learning format of the course. In 2007, this course became one of four required courses for the UBC Certification in Infection Control passed by the Senate curriculum committee. Dr Henry took several Web-CT courses and further revised all 7 modules and developed an interactive final assignment in the summer of 2007. This has allowed for doubling of the class size providing a much needed advanced education opportunity for Infection Control Professionals across the country. The high standard of the course has been recognized by the Community and Hospital Infection Control Association Canada.

- Dr Henry has participated as a lecturer, seminar evaluator and exam marker for SPPH 520, Control of Communicable Diseases, led by Dr David Patrick. She has revised and updated a core lecture on Respiratory Infections and TB to include key aspects of infection prevention and control learned from the SARS outbreaks.

- Dr Henry has participated as a lecturer in SPPH 525 Issues in Public Health led by Dr Mieke Koehoorn as well as undergraduate medical education programs Doctor, Patient and Society and the newly revamped Host, Defences and Immunity.

- Dr Henry co-led the development of a new public health surveillance course SPPH 515 for the UBC MPH program which was delivered for the first time in the Winter session 2009.

(b) Courses Taught at UBC

Session	Course Number	Scheduled Hours	Class Size	Hours Lectures	Others
Fall 2014	PATH 477/SPPH 401	33	15	33	
Fall 2014	SPPH 525	4	23	4	
Winter 2014	SPPH 515	33	16	33	
Winter 2014	SPPH 520	33	16	6	
Winter 2013 Term 1	SPPH 581I	33	10	2	
Winter 2013 Term 1	PATH 477/SPPH 401	33	15	33	
Winter 2013 Term 2	SPPH 525	33	13	33	
Winter 2012 Term 1	SPPH DL 525	33	20	4	
Winter 2012 Term 1	Path 477/SPPH 401	33	18	33	
Winter 2011 Term 2	SPPH 520	33	16	8	
Winter 2011 Term 2	Undergrad medical HDI		300	2	
Winter 2011	SPPH 710	33	15	8	

Term 1					
Winter 2011 Term 1	SPPH DL 525	33	20	4	
Winter 2011 Term 1	SPPH 525	33	25	4	
Winter 2011 Term 1	Path 477/SPPH 401	33	15	33	
Winter 2010 Term 1	PATH 477	33	10	33	
Winter 2010 Term 1	SPPH 525 DL	33	18	4	
Winter 2010 Term 1	SPPH 525	33	16	1 session (4 hours)	
Winter 2010 Term 1	Undergrad medical DPAS		300	2 hour session	
Winter 2010 Term 2	Undergrad Medical Host Defences and Immunity		300	2 hour session	
Winter 2010 Term 2	SPPH 520	33	10	4 hours	
Winter 2010 Term 2	SPPH 515	33	14	33	
Winter 2009 Term 1	PATH 477	33	13	33	
Winter 2009 Term 1	SPPH 525	33	16	1 session (4 hours)	
Winter 2009 Term 2	SPPH 515	33	16	33	
Winter 2009 Term 2	SPPH 520	33	9	1 session (4 hours)	
Winter 2008 Term 1	SPPH 525	33	23	1 session (4 hours)	
Winter 2008 Term 1	SPPH 401/PATH 477		15		WebCT/Vista Distance Education course requiring daily interaction with students for discussion sessions (average 1hr/day) in addition to marking and providing comments on PBL assignments. Taught 4/7 sessions and final exam
Winter 2007	HCEP	33	15		WebCT as above

Term 1	401/PATH 477				(taught 4/7 sessions and final exam)
Winter 2006 Term 1	HCEP 401/PATH 477	33	8		WebCT as above (taught 4/7 sessions and final exam)
Winter 2005 Term 1	HCEP 401/PATH 477	33	8		WebCT as above(taught 3/7 sessions and final exam)
Winter 2008 Term 2	HCEP 520	33	21	1 session (4 hours)	
Winter 2007 Term 2	HCEP 520	33	15	1 session (4 hours)	
Winter 2006 Term 2	HCEP 520	33	9	1 session (4 hours)	

(c) Graduate Students Supervised

Student Supervision
PhD Thesis

Student Name	**Year**		**Principal Supervisor**	**Co-Supervisor(s)**	Topic
	Start	**Finish**			
Darlene Taylor	2010	2014	G Ogilvie	B Henry, J Buxton	Informed consent in populations with substance abuse issues
Bojosi Gamontle UBC PhD	2010		K Bartlett	B Henry	Infection control programs and MRSA
Samuel Antoine UBC PhD OAS scholarship	2009		B Henry	B Pourbohloul	Use of mathematical modeling for public health surveillance
Alexis Crabtree MD/PhD	2010		J Buxton	B Henry	MRSA in drug users in BC
David Roth, Bridge Program (funded through CIHR grant)	2007		B Henry	Muhammad Morshed, Craig Stephen	Where is the West in West Nile? Investigating ecological factors which may effect emergence of WNv in BC
Kendra Foster UBC PhD	2008	2013	J Spiegel	B Henry, M Morshed	Meeting capacity-building and scaling-up challenges to prevent and control dengue in Ecuador through an innovative multi-level community of practice
Negar Elmieh, Bridge Program	07/2006	06/2009	Hadi Dowlatabadi	B. Henry (also Primary	KAB and multi criteria decision analysis relating

				supervisor for 6 month internship.)	to WNv risk

Masters of Science/MPH

Student Name	Year Start	Finish	Principal Supervisor	Co-Supervisor(s)	Topic
Jillian Gauld	2012	2014	Babak Pourbohloul	B Henry	Modelling of transmission patterns in healthcare facilities
Heather Lindsay MPH	2010	2012	B Henry		Using 911 call data for syndromic surveillance
Kim Fournier Royal Roads MSc	2010	2012	Carol Amaratunga	B Henry	The Public's Knowledge About the Impacts of Epidemics and Their Compliance to Public Heath Measures
Elaine Fuertes Bridge Program	2008	2009	D Patrick	B Henry, F Marra, H Wong	Antibiotic utilization trends before and after implementation of a community program
Ellison Richmond MPH Program	2009	2011	B Henry		Effectiveness of 4 month Rifampin prophylaxis in treatment of LTBI
John Taylor MPH Program	2008	2010	B Henry		Development of a planning tool for mass gatherings in BC
Stephanie Chiu UBC	2006	2010	J Issac-Renton	B Henry, M Petric	Effectiveness of disinfectants on non-enveloped viruses
Greg Reilly, Simon Fraser University	2006	2008	B Henry	S Corber	Lyme Disease in BC: 10 year summary and capture-recapture assessment of reporting
Valerie Schall Health Care and Epidemiology	2005	2008	S Sheps	B Henry David Matheson	Development of a tool to assess IPC programs in Long-Term care homes.
Virginia Jorgensen (Distance Masters at London School)	2006	2010	B Henry (in Vancouver)		Infection control practices for Norovirus outbreaks in healthcare facilities

Other Instructional and Advisory Duties

Student Name	Program Type	Year Start	Finish	Principal Supervisor	Co-Supervisor
Susan Pollock	Community Medicine Resident (CMR)	2005	2005	J Buxton	**B Henry**

Mark Gilbert	CMR	2005	2006	J Buxton	**B Henry**
Renee Sebastien	Federal Field Epidemiologist	2005	2007	**B Henry**	
Helena Swinkels	CMR	2006	2006	**B Henry** (primary supervisor for 2 week teaching module in Ecuador)	W Bowie, J Buxton
Veerle Willaeys	CMR	2007	2007	J Buxton	**B Henry**
Stephane Paulus	Pediatric ID Resident	2006	2006	**B Henry**	J Buxton D Patrick
Paul Lilbrun	Medical Student	2006	2006	**B Henry**	
Shannon Waters	CMR	2007	2007	J Buxton	**B Henry**
Roxanne Genot	CMR	2007	2007	E Galanis	**B Henry**
Larissa Hausmanis	Medical Student	2007	2007	**B Henry**	M Gilbert
Min Li	MHA project	2007	2008	M Naus	**B Henry**
Naomi Dove	CMR	2007	2007	**B Henry**	
Ron Laljil	CMR	2008	2008	J Buxton	**B Henry**
Guanghong Han	Federal Field Epidemiologist	2008	2010	**B Henry**	
Kathleen Dooling	CMR	2008	2008	**B Henry**	
Marsha Taylor	Federal Field Epidemiologist	2008	2008	**B Henry** (hospital outbreak investigation)	
Natalyia Skuryndinia	CMR	2008	2008	J Buxton	**B Henry**
Tim Foggin	CMR	2009	2009	**B Henry**	
Greg Deans	ID Fellow	2009	2009	D Patrick	**B Henry**
Shiavash Jivani	CMR	2009	2009	J Buxton	B Henry
Tom Foggin	CMR	2010	2010	B Henry	
Naomi Dove	CMR	2010	2010	B Henry	
Neha Musini	4th year Medical Student	2011	2011	B Henry	
Shiavash Javani	PH and PM resident	2011	2011	B Henry	J Buxton
Brian Ng	PH and PM resident	2011	2011	B Henry	JBuxton
Alecia Kallos	Undergrad	2011	2011	B Henry	
Raina Fullerton	PH and PM resident	2011	2011	B Henry	M Naus
Mark Lyshyshyn	PH and PM resident	2012	2012	B Henry	J Buxton
John Omura	PH and PM resident	2012	2012	B Henry	J Buxton
Dana Carr	Federal Field Epidemiologist	2011	2013	B Henry	**E Galanis**
Alex Nunn	MPH practicum	2014	2014	B Henry	
Johnathan Edwin	MPH practicum	2014	2014	B Henry	

Dr Emily Newhouse	PH and PM resident	2014	2014	B Henry	

- Provided mock orals for Community Medicine Residents: Oct 2005; Mar 2006; May 2007 Mar 2008, April 2009, March 2010, Feb 2011, July 2011, Nov 2013, nov 2014.
- Provided seminars for Community Medicine Residents on research related topics: public health focus in research, ethics review, program evaluation, emergency management.
- Provided seminars for students and staff at BCCDC on management topics (from HR issues, how to chair a meeting to budgeting).
- Provided 2 hour introduction to epidemiology session in 2005, 2006, 2007 and 2008 for Medical Microbiologists and Infectious Disease Fellows as part of 5 day orientation to BCCDC.
- Taught a 4 hour seminar class on Issues in Vector Control to Simon Fraser University Masters in Entomology course (Spring 2007)
- Was a faculty member for the Masters in Public Health with an Ecological Focus (led by Dr Jerry Spiegel from the Institute for Global Health at UBC) in Ecuador for the 9th and 11th modules. This is a joint Masters program with 30 students from Ecuador and is a collaboration between UBC and 4 Universities in Ecuador. Presented interactive sessions on Food as a Vector, Pandemic and Avian Influenza, and Disaster management as well as assisting in developing a 4 session (8 hour) Problem Based Learning scenario, leading one group through the scenario and leading a journal club session.

(d) Presentations at Continuing Education Activities

1. York Region Health Unit Education Days, Bioterrorism, 2 Oct 2002.
2. Ontario Hospital Association Annual meeting, Toronto CBRN Team Update, 18 Nov 2002.
3. Ontario Public Health Association (OPHA) conference, Toronto Heat-Health Alert System, 19 Nov 2002.
4. OPHA, York, Public Health Emergency Preparedness: a Big City Perspective, 19 Nov 2002.
5. OPHA, York, Special Event Syndromic Surveillance (World Youth Day in Toronto), 20 Nov 2002.
6. York Region Health Emergency Preparedness Meeting, Public Health and Bioterrorism, 27 Nov 2002.
7. Funeral Directors Association of Toronto Annual Spring Meeting, Planning for Pandemic Influenza, 20 Feb 2003.
8. Peel Region emergency preparedness meeting, Public Health Emergency Preparedness, 25 Feb 2003.
9. Rotary Kingston Annual General Meeting, Polio eradication: the view from Pakistan, 13 March 2003.
10. Ontario Respiratory Care Society Annual Meeting, Response to SARS, Toronto, 14 Nov 2003.
11. University of Toronto, Department of Public Health Sciences, Syndromic surveillance, 21 Nov 2003.
12. Emergency Preparedness for the Healthcare Sector, SARS and public health role in health EP, Toronto, 24-25 Nov, 2003.
13. Upper Canada College, World Affairs Day, Outbreak investigations and ethics, Toronto,17 Feb 2004.

14. Health Canada Chemical Biological Radio-Nuclear Response pilot course, (taught 4 sessions of 2 day course),Victoria, BC, 22-24 Feb 2004.
15. Ontario Hospital Association, Incident Management System course: Pandemic planning for healthcare facilities, Toronto, 12 March 2004.
16. Current Legal and Ethical Issues for Health Care Providers, Osgoode Hall continuing legal education seminar, Dealing with Public Health, 11 May 2004.
17. ID Med Micro Fellows Symposium, Outbreak Investigations, Toronto, 20 August 2004.
18. Health Officers Council, Update on Vectorborne disease risks, Victoria, BC, April 2005.
19. Health Officers Council, Communications plans for WNv, Whistler BC, October 2005.
20. Fifth Annual Symposium on Zoonotic and Communicable Diseases, Vancouver, Nov 2005.
21. Vectorborne Disease, WNv Provincial Planning day, Vancouver, March 2006
22. Health Officers Council, CA-MRSA: public health response, Victoria, April 2006
23. West Nile Virus Provincial Education and Planning Day, Vancouver, April 2007 (organized day and presented update on research and program issues from National and International sources).
24. PICNet Education Days, Surveillance workshop, Vancouver, June 2007.
25. Seventh Annual Symposium on Zoonotic and Communicable Diseases, Vancouver, Nov 2007.
26. PICNet Education days: Respiratory Outbreak guidelines development, Vancouver, May 2008.
27. Health Officers Council, Lyme Disease and Climate Change in BC. Prince Rupert,Oct 2007.
28. Provincial Infection Control Network of BC Education Days, CDI surveillance, Vancouver, 3 April 2009.
29. Health Officers Council of BC. The Public Health Act of BC new CD Regulations seminar. Victoria, BC, 21 April 2010.
30. Health Officers Council of BC. Public health management of migrant vessels. Whistler, BC, 13 Oct 2010.
31. Health Officers Council of BC. Nuclear planning in BC. Kelowna, BC October, 2011.
32. PICNet BC Education days. Mass Gatherings and Infection Control, Vancouver, 8 April 2011.

(d) Visiting Lecturer (indicate university/organization and dates)

Presentations at Regional or National Grand Rounds/meetings

1. Canadian Field Epidemiology Training Program Grand Rounds, Special Event Syndromic Surveillance, Ottawa, 8 Nov 2002.
2. Ontario Central Public Health Laboratory Grand Rounds, Ebola, experiences in Uganda, 14 Nov 2002.
3. University of Toronto, Community Medicine Grand Rounds, Bioterrorism and Smallpox Preparedness, 14 Feb 2003.
4. Ryerson University Public Health Rounds, Bioterrorism and Smallpox: should we be worried? 17 Feb 2003.
5. Emergency Medicine Grand Rounds, Sunnybrook and Women's Health Sciences Centre, Early Report on SARS, Toronto, 21 Mar 2003.
6. University of Toronto Emerging Issues Panel (Chaired by Dean David Naylor), Infection Control and SARS, Toronto, 4 Oct 2003.
7. University of Toronto Environmental Health Rounds, Impact of SARS. Toronto, 9 Oct 2003.
8. McMaster University Emergency Medicine Day, Smallpox, Hamilton, 12 Nov 2003.
9. Toronto Invasive Bacterial Diseases Network, SARS and the China experience, Toronto, 4 Dec 2003.
10. Grand Rounds, St Michael's Hospital, SARS in the City, Toronto,10 Dec 2003.

11. Canadian Society of Hospital Pharmacists, Disasters and pandemics: planning for the worst. Toronto, 3 Feb 2004.
12. Sunnybrook and Women's, ID/Med Micro Grand Rounds, Public Health and Hospitals: working together in a post-SARS world, Toronto, 14 Sept 2004.
13. St Paul's Hospital Infectious Disease Rounds; An outbreak of *Mycobacterium abscessus* related to acupuncture: I've got you under my skin, Vancouver, Feb 2006.
14. BCCDC Grand Rounds, SARS in the City: Public Health Perspective, Sept 2004.
15. BCCDC Grand Rounds, Syndromic Surveillance at World Youth Day, Oct 2005.
16. Health Care and Epidemiology Departmental Grand Rounds, SARS in the City: lessons learned from Toronto, Sept 2005.
17. Health Care and Epidemiology Departmental Grand Rounds, Mass Gathering Surveillance, or, looking for needles in haystacks in a hurry, May 2007.
18. BCCDC Grand Rounds, Tick Talk: Lyme Disease in BC, 7 November 2008.
19. BC Emergency Preparedness Conference, Bugs in your Backyard: Emerging Public Health Threats in BC, Vancouver 26 Nov 2008.
20. BC Provincial Infection Control Network Education Days, May 8-9, 2008, "Building Bridges Between Occupational Health, Public Health and Infection Prevention and Control"; Outbreak management tabletop exercise.
21. BCCDC Public Health Grand Rounds, Planning for the 2010 Olympic and Paralympic Games in the Midst of a Pandemic", 19 November 2009.
22. Community and Hospital Infection Control Association Infection Control Roadshow, Infection Control and Pandemic H1N1, Victoria, BC, 10 November 2009.
23. Women's Health Practice and Policy Series, Pandemic H1N1 and Pregnancy, BC Women's Hospital (video broadcast across BC), 10 November 2009.
24. International Facility Management Association, BC Chapter Speakers Series, Pandemic H1N1 and Business Continuity, Vancouver, 15 October 2009.
25. Dalhousie Medical alumni Reunion CME event. Public Health Planning for the 2010 Olympic Games. Digby, Nova Scotia, 17 July 2010.
26. BCCDC Public Health Grand Rounds, Legal and Ethical Considerations for Public Health Practice. October, 2010.
27. UBC School of Population and Public Health Grand Rounds, Surveillance and Reporting of Healthcare Associated Infections: where do we stand in BC? 1 April 2011.
28. BCCDC Public Health Grand Rounds, Reactor failure at Fukushima: Risks and BC Response, 1 April 2011.
29. The Challenge of Low Prevalence Infectious Diseases: towards an International Research Agenda. Lessons learned from Lyme Disease in BC. Vancouver, 15 April 2011.
30. Ontario Public Health Emergency Preparedness Seminar. Canadian view of public health emergency management. Toronto, Ontario. January 26, 2012.
31. First Nations and Inuit Health BC Region Communicable Disease Workshop, Planning assumptions for pandemic influenza. Vancouver, BC. February 15, 2012.
32. Providence Healthcare Ethics Conference; Ethics in pandemic planning. Vancouver, BC, April 19, 2012.
33. Influenza Policy symposium, Island Health Authority, Nanaimo, BC, 14 October, 2014.

Presentations at National and International Meetings

1. Prevention 1998, Hepatitis C in San Diego's Indigent Community, Washington, D.C., Feb 1998.

2. International Union Against Tuberculosis and Lung Disease, Tuberculosis outbreak in Tibetan refugee claimants to Canada, Vancouver, 2000.
3. American Thoracic Society Meeting, Multi-Drug Resistant Tuberculosis in Ontario: the past 10 years, Toronto, 2000.
4. International TEPHINET meeting, Outbreak of E. coli O157:H7 infection associated with a petting zoo, Ontario, Canada, 1999, Ottawa, 2000.
5. Options for the Control of Influenza IV, The impact of influenza vaccination policies on coverage among staff in long-term care facilities, Hersonissos, Crete, 2000.
6. World Conference on Disaster Management, The role of public health in emergency planning, Toronto 2002.
7. First Canadian Counter Terrorism and Public Health Conference, Public Health and Municipal Emergency planning, Toronto, Oct 29-Nov 1, 2003.
8. International symposium on quarantine issues, Center for Strategic and International Studies, Public Health considerations in the use of quarantine, Washington, D.C, 2003.
9. Northeast State Epidemiologists Annual Meeting, Keynote address: SARS: the Toronto experience, Providence, R.I. 2003.
10. SARS and emergency planning issues symposium, SARS and the Toronto Public Health response, Bethesda, MD 2003.
11. Canadian Conference on Counter-Terrorism and Public Health,; on organizing committee and chaired session on psychological impacts of terrorism; presentation Public Health and emergency planning at the local level, Toronto, 2003.
12. Baltimore Emergency Planning Symposium, Learning from SARS and the Toronto experience, John's Hopkins, Baltimore, 2003.
13. Los Angeles Health Department Invited Visit, SARS in the City, implications for LA. Los Angeles, 22-25 Nov 2003.
14. Southern California Association of American Society of Clinical Microbiologists, Lab issues and SARS, Los Angeles, 23 Nov 2003.
15. Canadian Society of Hospital Pharmacists, Disasters and pandemics: planning for the worst, Toronto, 3 February 2004.
16. International Conference on Emerging Infectious Diseases, SARS and Quarantine issues, Atlanta, Georgia, 29 Feb-3March, 2004.
17. Massachusetts Satellite Training Broadcast, Isolation and Quarantine, broadcast in all New England States, 30 March 2004.
18. Society for Healthcare Epidemiology of America, Health System Preparedness: SARS as an example, Philadelphia, 17 April 2004.
19. National Disaster Medical System, Keynote Plenary Address: Pandemics and Disasters: SARS. Dallas, Texas, 19 April 2004.
20. National Disaster Medical System, Medical Issues in Treating Patients with SARS, Dallas, Texas, 21 April 2004.
21. Connecticut State Public Health Department, Public Health and SARS state wide videoconference, Hartford, CT 10 May 2004.
22. CDC Public Health Information Network conference, SARS in the City: lessons learned by Toronto Public Health, Atlanta, Georgia 24-27 May 2004.
23. Alaska State Nurses statewide seminar, Public Health response to emergencies: SARS as an example, Juneau, 17 June 2004.
24. Five Nations Health Protection Conference, Keynote address, SARS in the City, the public health experience, Manchester, UK, 1 Nov 2004.

25. Pacific Northwest Economic Region Summit, Health Emergency Preparedness, Seattle, Washington, 16 July 2005.
26. Prevention and Management of Biological Terrorism, Southeast Asia Regional Centre for Counter-Terrorism international course, Invited Instructor, Kuala Lumpur, Malaysia, 18-22 July 2005.
27. Quarantine and Isolation Seminar, Colorado Regional Homeland Security, Keynote speaker, Quarantine and Isolation experiences in Toronto during SARS, Colorado, 16 Aug 2005.
28. National West Nile Virus Meeting, Surveillance for WNv in British Columbia, Montreal, 15 Feb 2006.
29. National Consensus meeting on Lyme Disease in Canada, BC Perspectives, Toronto, 8 March 2006.
30. Community and Hospital Infection Control Association-Canada, Psychological Impact of Outbreaks on Healthcare Workers, London, Ontario, 5 May 2006.
31. First National Disaster Preparedness Conference, Influenza Preparedness for healthcare facilities, Hamilton, 29 May 2006.
32. First National Disaster Preparedness Conference, Risk Assessment Tool for healthcare facilities, Hamilton, 30 May 2006.
33. International Conference on Emergency Medicine. Public Health and Disasters. Halifax, NS, 4 June 2006.
34. Caribbean Centre for Epidemiology Annual meeting for Lab Directors and Epidemiologists. Led workshop on Syndromic Surveillance for Mass Gatherings. Port of Spain, Trinidad, 25-28June, 2006.
35. 7th Canadian National Immunization Conference, Improving Immunization in Adults, Winnipeg, Dec 2006.
36. Society for NonVertebrate Biology Annual Meeting, Implications of the arrival of West Nile Virus on Animals and Birds in BC, Victoria, 21 Feb 2007.
37. Pandemic Planning for Community Organizations Workshop, BC Ministry of Health. Led workshops on Influenza 101 and Psychosocial Support in Communities, Vancouver, 13 March 2007.
38. Corrections Canada Educational Conference, Community-Associated MRSA and its implications for corrections facilities, Vancouver, 18 April 2007.
39. Annual Cross Border Emergency Preparedness Conference, On planning committee, Plenary talk: SARS in Toronto: Cross Border Issues, Victoria, 15 May 2007.
40. Canadian Association of Emergency Physicians Annual Conference, Pandemic Influenza and the Emergency Department, Victoria, 6 June, 2007.
41. Canadian Public Health Association 2007 Annual Conference, New Vaccines: What, Where, How? Ottawa, 16 Sept 2007.
42. 7th Annual ICOH International Conference on the Health of Healthcare Workers, Chair and moderator Emergency/Disaster Response Abstract Session, Vancouver, 27 Oct 2007.
43. MRSA Roadshow; Invited faculty member for 1 day series of lectures and workshops on MRSA sponsored by the Community and Hospital Infection Control Association of Canada 6 Feb 2008.
44. Emergency Preparedness for Industry and Commerce Council Forum 2008, Emerging Health Issues for Businesses of Tomorrow, Vancouver, April 2008.
45. Webber International Infection Control Teleclass, I've Got You Under my Skin: Infection Control in Personal Service Settings, 1 May 2008.
46. Canadian Institute of Public Health Inspectors annual meeting, Infection Control in Personal Service Settings, Vancouver, 24 Sept 2008.

47. 8th Canadian Immunization Conference, Evaluating the Evidence for Vaccination Programs, Toronto, 30 Nov 2008.
48. 8th Canadian Immunization Conference, Knowledge Gaps for Pandemic Influenza Planners, Toronto, 3 Dec 2008.
49. Emergency Preparedness for Industry and Commerce Council Forum 2009, Influenza Pandemic Preparedness for Business, Vancouver, April 2009.
50. American Academy for the Advancement of Science, Public Health Measures for Controlling Infectious Disease, Washington D.C., 5 April 2009.
51. Community and Hospital Infection Control Association Annual Meeting, SARS to pandemic H1N1, infection control learnings, St John's Newfoundland, June 2009.
52. US Council of State and Territorial Epidemiologists Annual Meeting, Plenary Address, Infection Control and Public Health, Buffalo, NY, 10 June 2009.
53. WHO International Scientific Meeting on Pandemic H1N1 and Schools, The Canadian Experience, International Teleconference, 27 May 2009.
54. Institute of Medicine Symposium on Personal Protective Equipment for Healthcare workers for novel H1N1 influenza, From SARS to Influenza: decision making for PPE, Washington, DC, 13 Aug 2009.
55. Public Health Agency of Canada National Meeting on Severe H1N1 Disease: Preventing Cases, Reducing Mortality, Public Health Challenges, Winnipeg, 3 Sept 2009.
56. Infectious Disease Update: Hot Topics and What's New. Lyme Disease in Western Canada: Tick Talk. Victoria, BC, 14 November 2009.
57. Emergency Preparedness Conference 2009. Mass Gatherings and Public Health: Cross Cutting Challenges for Emergency Managers. Vancouver, 25 November 2009.
58. Annual Pacific Northwest Cross Border Health Conference. Evaluation of public health surveillance for the 2010 Winter Games; Measles outbreak in BC. Seattle, Washington, 6 May 2010.
59. The Lancet Conferences Mass Gathering Medicine: implications and opportunities for global health security. Disease surveillance during mass gatherings. Jeddah, Saudi Arabia, 23-25 October, 2010.
60. Emergency Preparedness Conference 2010. Public health Issues After Disasters. Vancouver, 23 November 2010.
61. Infectious Disease Update: Plenary Speaker Vectorborne Disease: Lyme, West Nile and Beyond. And Vaccines for Travelers. Victoria, BC 12, 13 November 2010.
62. Canadian Immunization Conference. Chair and speaker Pandemic H1N1 Vaccination; Reflections from Canada, the USA and WHO. Quebec City, QC, 5-8 December, 2010.
63. Newfoundland and Labrador Provincial Immunization Conference. Keynote address: Our Role in Promoting Immunization in a Highly Connected World. St John's, NL 12 May 2011.
64. Mandatory reporting of Healthcare Associated Infections International Symposium: Can US Experience Inform Canadian Policy. The Canadian Experience. Vancouver, 16 May 2011.
65. Annual Pacific Northwest Border Health Alliance meeting. Session chair and facilitator, epidemiology and surveillance; plenary speaker Cross Border Lessons Learned from pH1N1 and Practice Based Research: opportunities and challenges. Victoria, BC 24-26 May 2011.
66. National Emergency Preparedness Forum, BC preparedness for radio-nuclear events. Edmonton, Alberta, January 1-19, 2012.
67. Public Health Agency of Canada/CIHR Best Brains Exchange. Preparedness for pandemics in Canada. Ottawa, Ontario, January 13, 2012.

68. Federation of Medical Regulatory Agencies of Canada; Physician Health: best practices and effective management; Management of Healthcare workers infected with blood borne pathogens. Toronto, Ontario, June 11, 2012.
69. 25th Annual Emergency Preparedness Conference 2012; Older and better: the evolution of public health emergency management. Vancouver, BC, November 6, 2012.
70. Infectious Diseases Update; Late breaking hot topics in Infectious Diseases, E. coli and others. Victoria, BC, November 9, 2012.
71. Canadian Immunization Conference; Immunization for Diverse Populations in Diverse settings. Vancouver, BC December 4, 2012.
72. PHAC/CIHR Influenza Research Network Annual meeting, The planning and early implementation of the 2012 British Columbia Influenza Prevention Policy. Toronto, Ontario. May 29, 2013.
73. Canadian Association of Emergency Physicians annual conference; Emergency response: who is public health and what is our role? Vancouver, BC June 2, 2013.
74. Infectious Disease Update 2013; Vaccines update 2014 and The Vaccine Fearful or Unconvinced: answers to their questions. Victoria, BC, November 8, 2013.
75. Emergency Preparedness and Business Continuity Conference. Public Health Issues and Threats. Vancouver, BC, 27 November, 2013.
76. 2013 Leadership Program for Physicians and Leaders in Long Term Care. Infection management in LTC. Vancouver, BC, 29 November, 2013.
77. Webber Teleclass Education. Lyme Disease: Knowledge, Beliefs, and Practices of Physicians in a Low Endemic Area. International teleclass. 12 December 2013.
78. Genome BC Spring symposium; Genomics in Public Health, Vancouver, BC, 24 January 2014.
79. Mass gathering and environmental surveillance workshop; Surveillance at the 2010 Vancouver Olympics. Kingston, Ontario, 10 March 2014.
80. Grand Rounds Alberta Health Services, BC Influenza Control Policy: where we are now and how we got here. Edmonton, Alberta (with teleclass across province), 27 March 2014.
81. BC influenza research symposium: evaluation of HCW policy, leader and keynote speaker, Vancouver BC, 24, 25 April 2014.
82. Atlantic Medical Officers annual education days; Immunization update and BC Influenza protection policy. Charlottetown, PEI, 8,9 May 2014.
83. Canadian Public Health Association annual conference; Public health emergency management research priorities. Toronto, 26 May 2014.
84. Influenza immunization condition of service symposium; The BC experience. Calgary, Alberta, 11 June 2014.
85. Infectious Disease Update 2014, Vaccines at home and abroad, Victoria, BC, Nov 7, 2014.
86. Ebola symposium for treatment and action, Neglected Global Diseases Initiative, UBC. Overview of the international situation and relevance to BC, Vancouver, BC Nov 13, 2014.
87. Canadian Immunization Conference; Vaccine decision: beyond the science. Ottawa, Ontario, 2 December 2014
88. Canadian Immunization Conference; Condition of service influenza prevention in healthcare settings. Ottawa, Ontario, 2 December 2014

(f) Other

9. SCHOLARLY AND PROFESSIONAL ACTIVITIES

Dr Henry has developed extensive knowledge and experience in three areas of public health over the past two decades: surveillance, public health emergency management and infection prevention and control. She is recognized nationally and internationally in these areas and has been specifically requested to support the WHO, PAHO and individual countries in initiatives in these areas. She has also been requested to provide advice to several provincial governments (details outlined below). In recognition of this expertise, she has been invited to sit on the National Advisory Committee on Immunization and the National Infection Control Guidelines Steering Committee in Canada and a WHO Expert Group on Mass Gatherings. The guidelines developed by these groups affect public health and healthcare programs across the country and internationally.

(a) Areas of special interest and accomplishments

1. Dr Henry came to UBC and the BC Centre for Disease Control with an internationally recognized expertise in public health emergency management including experience in a lead role in response (as the operational lead for the Toronto Public Health SARS outbreak response in Toronto). She was recognized for her leadership by Dr David Naylor in his seminal report on the SARS outbreak and by Justice Campbell in his extensive investigation of the outbreak. Dr Henry was invited to be part of a four person team who shared experiences and challenges with senior Health officials in Hong Kong, Taiwan and Beijing in 2003.

2. Dr Henry has also had practical experience establishing and evaluating surveillance systems for routine public health practice, syndromic surveillance and mass gatherings. She has used this experience to refine and develop the Vectorborne and Emerging Disease surveillance program in BC which she leads and to develop the newly formed Provincial Infection Control Network in BC. She is the provincial public health lead for surveillance for the Vancouver 2010 Olympic and Paralympic Games.

3. Review of Surveillance for Avian Influenza in Indonesia, Project for Canadian Department of Foreign Affairs, Jakarta, Indonesia Jan 14-21, 2006.

4. Expert panel to review the Legionnaires Outbreak in Toronto Sept-Dec 2005. Dr Henry was requested by the Ministry of Health in Ontario to be a member of this three person panel along with Dr David Walker and Dr James Young to review an outbreak of Legionnaires Disease that occurred in a long-term care home in Toronto and make recommendations on the outbreak response. The report entitled: Report Card: Progress in Protecting the Public's Health (Report of the Expert Panel on the Legionnaires Disease Outbreak in the City of Toronto September/October 2005) was well received by the public health community and the Ministry. This report not only added to the momentum for change to the public health system in Ontario but also provided impetus for revision of the construction standards for healthcare facilities in Canada.
5. In recognition of her expertise, Dr Henry was specifically requested to lead a novel project on behalf of the Canadian Department of Foreign Affairs and International Trade to plan and implement a syndromic surveillance network in nine Caribbean countries for the World Cup of Cricket. This project was funded by Canada in partnership with the Pan American Health Organization and the Caribbean Epidemiology Centre. Using the plan, in March and April 2007 senior technical advisors and field epidemiologists from Canada and Europe were partnered with local Ministry of Health teams to establish and operationalize the surveillance. While this project focussed on building capacity and expertise in the local countries around a specific event, the plan involved knowledge and skills transfer that will allow for an ongoing health surveillance

network in the Caribbean. This initiative got underway in late February 2007 and ran for 2 months. It was very successful in all the involved Islands with the knowledge gained by the local staff allowing them to continue to use the system as a means of ongoing surveillance for communicable diseases in the Caribbean. In addition to leading the initiative Dr Henry worked onsite with the Ministry of Health in Grenada from 17-31 March to implement the system in that country.

6. As the Public Health lead for the Centre for Excellence in Health Emergency Preparedness (CEEP), Dr Henry was contracted to develop and deliver a two day course on Chemical, Biological and Radionuclear and Disaster Preparedness for Public Health. This 12 hour course was accredited for 12 Mainpro-M1 (for CCFP) OR 12 Section 1credits (for FRCPC) and received overwhelmingly positive feedback from the almost 80 public health professionals from Ontario who attended.

7. Dr Henry was specifically invited to be a lead member of a World Health Organization Virtual Interdisciplinary Advisory Group on Mass Gathering Surveillance and Response for the Global Outbreak Alert and Response Network. As a member of this group she has provided consultation advice to the Ministry of Health in Australia in their planning for World Youth Day in Sydney and to the Beijing CDC before and during the Olympic Games. She also facilitated a workshop in Geneva of international experts and was one of the principle writers of a Mass Gathering Surveillance Manual published by the WHO. Dr Henry is currently involved with evaluation and revision of the manual and has been invited to be on advisory teams to the Kingdom of Saudi Arabia, China and Trinidad and Tobago.

8. Dr Henry was a developer and facilitator in a Public Health Agency of Canada two day Mass Gathering Surveillance Course that was presented to 30 participants from across Canada in November 2008.

9. During the pandemic of novel H1N1 2009 influenza A, Dr Henry was the provincial liaison on behalf of the Provincial Health Officer (Dr Perry Kendall) to many diverse stakeholders within BC from BC Ambulance Service, HealthLink BC, Corrections BC and the Drug and Poison Information Centre to the College of Physicians and Surgeons of BC, the BC Medical Association, BC Nurses Union, Healthcare Employers Association of BC, and the Ministry of Health Services Operations Committee. In this role she provided professional advice on management of the pandemic to multiple partners in BC.

10. Dr Henry was specifically requested by the Chief Public Health Officer of Canada to Chair the National Public Health Measures Task Group to prepare national guidelines for provinces and territories for dealing with the public health aspects of pandemic H1N1. This committee met at least weekly through the summer and fall and under her leadership developed a series of guidance documents that were used nationally. Documents include revision of Annex M: Public Health Measure for Pandemic Influenza, Canadian Pandemic Influenza Plan and :

Prevention and Management of Cases of Influenza-Like-Illness (ILI) Suspected to be due to the Pandemic (H1N1) 2009 Influenza Virus in Summer Camps	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance-orientation-06-30-eng.php
Prevention and management of cases of influenza-like-illness (ILI) that may be due to pandemic (H1N1) 2009	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/hp-ps/cs-pc-eng.php

influenza virus on cruise ships	
Prevention and management of cases of influenza-like-illness (ILI), including the pandemic (H1N1) 2009 influenza virus, on conveyances including airplanes, trains, ferries and buses	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/conveyances-transport-eng.php
Public Health Guidance for Post Secondary and Boarding Schools regarding the Prevention and Management of Influenza-like-illness (ILI), Including the Pandemic (H1N1) 2009 influenza Virus	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/hp-ps/psili-eng.php
Public Health Guidance for Child Care Programs and Schools (K to grade 12) regarding the Prevention and Management of Influenza-Like-illness (ILI), Including the Pandemic (H1N1) 2009 influenza Virus	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/interim-provisoires0819-eng.php
Individual and Community Based Measures to Help Prevent Transmission of Influenza-Like-Illness (ILI) in the Community, Including the Pandemic Influenza (H1N1) 2009 Virus	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/hp-ps-info_health-sante-eng.php
Public Health Guidance for the prevention and management of Influenza-like-illness (ILI), including the Pandemic (H1N1) 2009 Influenza Virus, related to mass gatherings	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/phg-ldp-eng.php
Public Health Guidance for the Prevention and Management of Influenza-like Illness (ILI), Including the Pandemic (H1N1) 2009 Influenza Virus, Related to Communal Living Settings	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance_lignesdirectrices/commun-eng.php
Recommended Disinfection Procedures for Conveyance (aircraft, passenger trains, ferries, buses and cruise ships) and Terminal (airport, cruise ship, bus, ferry and train) Operators and their Staff	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance_lignesdirectrices/convey-trans-eng.php
Prevention and Management of Cases of Influenza-Like-Illness (ILI) Suspected to be due to the Pandemic (H1N1) 2009 Influenza Virus in Summer Camps	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance-orientation-06-30-eng.php

11. Dr Henry was also invited to be a member of the National Infection Control Expert Group developing infection prevention and control guidelines for pandemic H1N1for all healthcare settings in Canada. Documents developed by this group include a literature review of effectiveness of respirator fit-testing and a Revision of Annex F Infection Prevention and Control Measures for Pandemic Influenza, Canadian Pandemic Influenza Plan as well as:

Infection Prevention and Control Measures for Health Care Workers in Long-term Care Facilities	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/hp-ps/prevention-eng.php
Infection prevention and control measures for Health Care Workers Providing Care or Service in the Home	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance_lignesdirectrices/prevention1102-eng.php
Infection prevention and control measures for Health Care Workers in Acute Care Facilities	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance_lignesdirectrices/prevention1102-eng.php
Infection Prevention and Control Measures for Occupational Health Management for all Health Care Settings	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance_lignesdirectrices/humpan-eng.php
Infection Prevention and Control Measures for Prehospital Care	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/hp-ps/pc-sp-eng.php
How to look after someone at home with H1N1 flu virus	http://www.phac-aspc.gc.ca/alert-alerte/h1n1/guidance-orientation-05-03-eng.php

12. Dr Henry was also invited to be a member of the National Pandemic Coordinating Committee which met to review all national guidance documents and provide technical advice to the Canadian Special Advisory Committee on Pandemic H1N1, and Federal Provincial and Territorial Deputy Ministers of Health.

13. Dr Henry was one of the primary media spokespeople for BCCDC and the province of BC for the pandemic and was interviewed extensively by print, radio and television media. Articles appeared in print media including: MacLeans, Time, Chatelaine, Globe and Mail, Vancouver Sun, Georgia Strait, Toronto Star, The Province. She was also interviewed as an expert for CBC the National and other CBC TV News programs, Global TV, City TV, Omni, Joy TV and was featured as an expert on many radio shows both nationally and in BC including CBC the Current and the Morning Show (in both Toronto and Vancouver), CKNW Christy Clark show.

14. Dr Henry also co-chaired the BC Pandemic Influenza Clinical Care Advisory Committee which developed guidance provincially for clinicians across the spectrum of care (from community to critical care). Work of this committee is reflected on the PHO H1N1 clinicians website: http://www.hls.gov.bc.ca/pho/physh1n1.html

(b) Research or equivalent grants (indicate under COMP whether grants were obtained competitively (C) or non-competitively (NC))

Granting Agency	Subject	COMP	$ Per Year	Year	Principal Investigator	Co- Investigator(s)
HSPR Investigative Teams Program	Intensive Care Unit Patient Safety Team	C	197,720	10/2005-09/2008	Dodek, Peter	Henry, Bonnie

CHICA-Canada	Effectiveness of disinfectants on Norovirus-like agents	C	40,000	2006	Judy Isaac-Renton	Henry, Bonnie Gamage, Bruce
UBCDC	Effectiveness of control measures for facility outbreaks	C	10,000	2006	Henry, Bonnie	Judy Isaac-Renton Gamage, Bruce
BC Remote and Rural Health Research Network	Team building grant on vectorborne and zoonoses in rural BC	C	10,000	2007	Muhammad Morshed	Henry, Bonnie Galanis, E; W Bowie; Stephen,C
BC Lung Association	West Nile Virus and adulticiding impact study	NC	70,000	2007	Henry, Bonnie	Muhammad Morshed
HSPR Operating Grant – Michael Smith Foundation for Health Research Michael Smith Foundation for Health Research	Changing Prescription Practices to Limit Selection for Resistant Organisms	C	97,000	07/2006-06/2008	Patrick, David	Henry, Bonnie Blondell-Hill, E Marra, F
Chemical, Biological, Radiological, Nuclear and Explosive Research and Technology Initiative (CRTI)	Development of radionuclear response criteria for Canada	C	$508,000	3/2009-4/2012	JP Auclair	Claude Bouchard, David Duchene, Bonnie Henry, Chris May, Tim Armstrong, Rene Bernklau, Roger Hugron.
PrioNet Canada High Impact Grant Program	Prion Diseases and Lab Safety: A structured assessment of prion risk perception in Canadian laboratories	C	$39, 216	2009/2010	B Henry, J Buxton	A Crabtree, M Coulthart
CIHR/CCHSA	Knowledge translation of protective practices against ticks and tick-borne diseases in British Columbia	C	$14,000	2010/2011	K Bartlett	B Henry, C Hurrell, A Nicol, J Teng
Department of Foreign Affairs/	Occupational Health and Infection	C	$496,000	2009/2010	A Yassi	B Henry, E Bryce, M Tennassee, M-C Lavoie

PanAmerican Health Organization	Prevention in Healthcare Facilities: Preparing for biological and bioterrorism events in Trinidad and Tobago					
CIHR	A Tool to Assess Decisional Capacity to Consent for Clinical Treatment	C	$412,839	2011/13	G Ogilvie	B Henry, J Buxton, D Taylor, A Ho
CIHR	Primary care needs and services: scaling-up the response to meet the primary care needs in pandemics and other disasters	C	$24,978	2012/2013	Redwood-Campbell, L	B Schwartz, B Henry, D Kollek, J Gulden, K Johnston
CIHR	A Framework for Public Health Emergency Preparedness: Setting Research Priorities	C	$24,947	2012/2013	B Schwartz	S Bogucki, E De Villa, Bhenry, J Lindsay, E Enarson
PHAC-CIHR Influenza research Network (PCIRN)	Evaluation of the HCW influenza policy in BC	C	$95,498	2012/2013	B Henry	J Kwong, L Crowe, P vanBuynder, M Russell, S Quach, A Campbell
UBC CDC research Communal Fund	Characterizing Proportion of Isolates with Community Associated *Clostridium difficile*: A Feasibility and Pilot Study	C	$15,000	2012/2013	B Henry	L Hoang, F Marra, N Prystajecky
BCCDC Foundation	Surveillance of Lyme Disease Vectors in Select Locations of British Columbia	NC	$130,659	2012-2015	Muhammad Morshed	B Henry, P Tang
Michael Smith Foundation for Health Research	Outcome evaluation of the BC Influenza Protection policy	C	$100,000	2013-2014	B Henry	M Naus, M Otterstatter, R Balshaw, D Puddicombe, J Kwong, A Campbell

PHAC-CIHR Influenza research Network	Evaluation of the HCW influenza policy in BC	C	$95,498	2014-2015	B Henry	J Kwong, L Crowe, M Russell, S Quach, A Campbell

(a) Other

(b) Conference Participation (Organizer, Keynote Speaker, etc.)

1. Organizing Committee, Canadian Counter-Terrorism and Public Health meeting, Toronto 2002
2. Organizing Committee, CHICA-Canada Annual Meeting London, Ontario 2006
3. Organizational Committee First National Disaster Preparedness Conference, Hamilton June 2006
4. Organizational Committee, Canadian Public Health association Annual Meeting Vancouver 2006
5. Organizational Committee 7th Canadian Immunization Conference, Winnipeg 2006
6. Organizing Committee, CHICA-Canada Annual Meeting, Edmonton, Alberta 2007
7. Program Committee, Canadian Public Health Association Annual Meeting, Ottawa 2007
8. Program Committee, First Canadian Roundtable on Public Health Ethics, Montreal November 2007.
9. Conference Organizing Committee and Epidemiology Sub-Committee, Pacific NorthWest Cross Border Meeting, Victoria May 2006
10. Planning Committee 8th Canadian Immunization Conference, Toronto December 2008
11. Planning Committee Community and Hospital Infection Control Association-Canada Annual Conference, Montreal 28 May-4June 2008.
12. Program Committee, Canadian Public Health Association Annual Conference, Winnipeg, June 2009.
13. Planning Committee, Pacific-Northwest Cross-Border Meeting, Vancouver, May 2009.
14. Canadian National Immunization Conference, Chair of Stream and Member of Program Committee, Quebec City, December 2010.
15. Organizing committee, Canadian Emergency Preparedness Forum, January 2012.

(c) **SERVICE TO THE UNIVERSITY**

(a) Memberships on committees, including offices held and dates

1. Community Medicine External Residency Advisory Committee (2005- present)

2. Community Medicine Residency Research Advisor (2006- present) this is a new position within the CMR that provides a series of seminars on research topics for the residents and provides support for resident's as they undertake research. In this role Dr Henry organizes Resident's Research Day, including revising the judge's evaluation, assisting the residents with their presentations and evaluating the day.

3. CMR admission committee; served as an interviewer for the selection process for residents into the program for 2006, 2007 and 2008, 2009, 2010. This involves screening and review of CARMS applications, two days of interviews and final review and ranking of candidates.

4. Member, SPPH MPH Program Development Committee and developed the framework and core competencies for the practicum aspect of the MPH program. UBC MPH Taskforce (2007-2008)

5. Member, Thesis Screening Panel October 2008 – Sept 2014

6. Departmental Merit Review Panel 2008.

7. SPPH awards committee 2010-2014

(b) Other service, including dates

Bridge program mentor 2007- 2014

11. SERVICE TO THE COMMUNITY

(a) Memberships on scholarly societies, including offices held and dates

1. Member, Canadian National Advisory Committee on Immunization, 2009-present
2. Member, Canadian Infection Control Steering Committee, 2006-present
3. Chair, Immunize Canada, 2011-2013
4. Chair, Canadian Coalition for Immunization Awareness and Promotion, 2008- 2011
5. Vice Chair, Canadian Coalition for Immunization Awareness and Promotion, 2002-2007
6. Director, Centre for Excellence in Health Emergency Preparedness, 2002-present
7. Director, Standards and Guidelines, Community and Hospital Infection Control Association-Canada 2005- 2010.
8. Royal College of Physicians of Canada –1999-present
9. Canadian Public Health Association- 1999-present
10. American College of Preventive Medicine 1997-present
11. Alpha Omega Alpha Honours Medical Society 1988-present

(b) Memberships on other societies, including offices held and dates

1. Member, Canadian Medical Protective Association (1989-present)
2. Member, Canadian Medical Association (1989-present)
3. Member, BC Medical Association (1990-1996; 2005-present)
4. Association of Preventive Medicine Residents –delegate to the American Medical Association (1997-1999)
5. BC College of Physicians and Surgeons (1990-present)

(c) Memberships on scholarly committees, including offices held and dates

1. Communicable Disease Policy Committee, BC Ministry of Health (2005- present)

2. Chair, Canadian Pandemic Planning Committee, (2012-present)

3. BC representative on the Canadian Special Advisory Committee on Ebola and member of the national public health measures task group and national infection prevention and control task group for Ebola.

4. Consultant to WHO on measures for preventing infection during the Hajj in the Kingdom of Saudi Arabia.

5. Chair, BC Provincial Vectorborne Disease Committee (2005-2014)

6. BC Health Emergency Management Council: public health representative, (2008- present)

7. Member, Scientific Advisory Committee, Provincial Infection Control Network for BC (PICNet) (2013-present)

8. Chair, Provincial Infection Control Network for BC (PICNet) Provincial Advisory Committee (2008-2013)

9. Steering Committee Member, Provincial Infection Control Network for BC (PICNet) (2005-2008)

10. Chair, Policy and Planning Committee of PICNet (2006- 2009)

11. Chair, PICNet *Clostridium dificile* surveillance working group (2006-present)

12. Chair, PICNet Respiratory Guidelines Working group (2006-2007)

13. Public Health representative, Public Health Agency of Canada National Infection Control Guidelines Steering Committee (2006-present)

14. Member of Annex F (Infection control guidelines for pandemic influenza for healthcare settings) revision working group of the National Pandemic Influenza Committee (2006-2008)

15. Member of Public Health Agency of Canada working group to revise the Routine Practices and Additional Precautions Guidelines for Canada (2007-2013)

16. Chair, PHAC working group to revise guidelines for management of healthcare workers infected with bloodborne pathogens (2008-)

17. Chair, Development Committee, Hazardous Substance Response program for the Health sector in BC (2008-2011)

18. Health Officers Council of BC, (2005-present)

19. BC Bioterrorism Response Advisory Team (BRAT) (2005- present)

20. Member of Executive, Ontario SARS Scientific Advisory Committee; (2003-2005).

21. Member, Infection Control Sub-Committee; Provincial Infectious Disease Advisory Committee (PIDAC), Ontario (2004-2005).

22. Member, Canadian Coalition for Public Health in the 21st Century (2005-2014)

(d) Memberships on other committees, including offices held and dates

1. Community Member, Canadian Blood Services Community Liaison Committee 2003-2005
2. Co-chair, Joint Operations Steering Committee, City of Toronto (responsible for oversight of integrated CBRN response team and Heavy Urban Search and Rescue Team) (2001-2005)

(e) Editorships (list journal and dates)

0. **Henry, B,** Bowles S. Guest Editors of Supplement: Practical Management of Vaccines**.** Can Pharm J 2007; vol 140[Suppl 2].

(f) Reviewer (journal, agency, etc. including dates)

American Journal of Preventive Medicine (2000-present)

Canadian Medical Association Journal (2003-present)

Canadian Journal of Public Health (2004- present)

Emerging Infectious Diseases (2001-present)

Hospital Epidemiology and Infection Control (2006-present)

Canadian Journal of Infection Control (2004-present)

American Journal of Infection Control (2008-)

(g) External examiner (indicate universities and dates)

Canadian Institute for Public Health Inspectors Board examiner for Environmental Health Officer (PHI) Certification 2005, 2006, 2008, 2010.

(h) Consultant (indicate organization and dates)

(i) Other service to the community

1. In June of 2006 Dr Henry was the expert witness at an arbitration hearing into a union grievance of the BC policy for influenza immunization of healthcare workers. The judge found in favour of the policy and commended Dr Henry's testimony for being relevant, concise and evidence based and assisting her in a clear understanding of the issues.
2. Climbed (and made the summit) Mount Kilimanjaro, Tanzania as part of a group raising funds for Eagle Down (a charity that provides camps for children who are victims of conflict).

12. AWARDS AND DISTINCTIONS

(a) Awards for Teaching (indicate name of award, awarding organizations, date)

(b) Awards for Scholarship (indicate name of award, awarding organizations, date)

1. Entrance and continuing education scholarships at Mount Allison University (1982-1986)
2. Entrance scholarship and Dean's honour list Dalhousie University Medical School (1986-1990)
3. Dr J.S. Hammerling prize for scholarship, Dalhousie University (1990)
4. Dean's list for highest standing San Diego State University MPH Program (1999)
5. Recipient of C.P Shah Award for excellence in field research by a community medicine resident. University of Toronto.(2001)

(c) Awards for Service (indicate name of award, awarding organizations, date)

Received BC Provincial Health Officers Award for Superb Public Health Leadership During the 2010 Olympic and Paralympic Games, April, 2010

International Federation for Emergency Medicine Humanitarian Award presented to the Centre for Excellence in Health Emergency Preparedness <CEEP> (Dr Henry is one of four founding Directors of CEEP) at the International Conference on Emergency Medicine in June 2006.

Recipient of Gold "D" for student leadership, Dalhousie University 1990.

(d) Other Awards

13. OTHER RELEVANT INFORMATION (Maximum 0ne Page)

Dr Henry's academic activities are performed over and above her service commitments at the BC Centre for Disease Control as Medical Director, Communicable Disease Prevention and Control Service. She took over as director of this newly created service line in June 2011 after a major reorganization at the BCCDC. The service line includes the Influenza and emerging respiratory diseases, Enteric and zoonotic diseases, Antimicrobial infections, Do Bugs Need Drugs, Hepatitis and harm reduction programs as well as the Panorama development group, public health analytics, mathematical modeling and genomic epidemiology. Dr Henry remains the medical lead for several program areas including the Vectorborne and Emerging Infectious Disease Program and prevention and control of Healthcare Associated Infections.

In addition, in September of 2007 Dr Henry was appointed as Medical Director, Public Health Emergency Management for the BCCDC. She continues in this role to coordinate public health

emergency management in the province; a key role supporting the legislated mandates of the Provincial Health Officer, the Ministry of Health and the Regional Health Authorities.

(a) Administrative Experience

As a Physician Epidemiologist at BCCDC and Medical Director of both the Communicable Disease Prevention and Control Service and Public Health Emergency Management, Dr Henry is involved with strategic planning, managing budgets, direct and indirect supervision of staff, human resources issues including developing of job descriptions evaluation and hiring of staff, external liaison with numerous organizations and individuals locally, nationally and internationally, formulating and delivering public messages, writing policy for the Government of British Columbia and responding to public health emergencies and issues. This includes her key role as liaison and planning lead for BC in the 2009 pandemic H1N1 Influenza response and lead for provincial public health response to the Olympic and Paralympic Games in 2010.

(b) Professional Goals

A committed and passionate public health physician who has worked at all levels of public health practice in Canada and internationally, Dr Henry has seen firsthand the need for the breaking down of barriers within the health sector to ensure we can work together to best protect the publics' health. This is particularly relevant for the continuum of infection prevention and control from the community to the acute care facility and she has worked to develop and strengthen relationships between the three key pillars of public health, infection prevention and control and occupational health. She has also been a key leader in public health emergencies from an Ebola outbreak in Uganda to anthrax scares of 2001 to SARS to pandemic influenza. She has demonstrated expertise and continues to work in establishing surveillance systems to allow the rapid detection of and response to infectious disease threats around the world.

THE UNIVERSITY OF BRITISH COLUMBIA

Publications Record

Date: **January 2012**

SURNAME: **Henry** **FIRST NAME**: **Bonnie**

MIDDLE NAME(S): **Jeanne Fraser**

1. REFEREED PUBLICATIONS

Legend

Italics – Student Participation
SA->90% of writing
PA-50-89%
CA-10-49%
MA-<10%

(a) Journals

1. **Henry B**, Plante-Jenkins C, Ostrowska K. An outbreak of Serratia marcescans associated with the anesthetic agent propofol. Am J Infect Control. 2001 Oct;29(5):312-5.[SA]
2. Taylor L, *Abarca S*, **Henry B**, Friedman L. Use of Neo-melubrina, a banned antipyretic drug, in San Diego, California: a survey of patients and providers. West J Med. 2001 Sep;175(3):159-63.[PA]
3. *Groll D*, **Henry B**. Can a universal influenza immunization program reduce emergency department volume? CJEM 2002;4(4):245-51.[SA]
4. Manuel DG, **Henry B**, Hockin J, Naus M. Health behaviour associated with influenza vaccination among healthcare workers in long-term care facilities. Infect Control Hosp Epidemiol. 2002 Oct;23(10):609-14.[PA]
5. Warshawsky B, Gutmanis I, **Henry B,** Dow J, Reffle J, Pollett G, Ahmed R, Aldom J, Alves D, Chagla A, Ciebin B, Kolbe F, Jamieson F, Rodgers F. An outbreak of *Escherichia coli* O157:H7 related to animal contact at a petting zoo. Can J Infect Dis 2002;13(3):175-181.[PA]
6. *Poutanen SM*, Low D, **Henry B**, Finkelstein S, Rose D, Green K, Tellier R, Draker R, Adachi D, Ayers M, Chan AK, Skowronski DM, Salit I, Simor AE, Slutsky AS, Doyle PW, Krajden M, Petric M, Brunham RC, McGeer A,J; Canadian Severe Acute Respiratory Syndrome Study Team. Identification of severe acute respiratory syndrome in Canada. New England Journal of Medicine 2003 May 15;348(20):1995-2005. [PA]
7. *Varia M*, *Wilson S*, *Sarwal S*, McGeer A, Gournis E, **Henry B**. Investigation of a nosocomial outbreak of severe acute respiratory syndrome (SARS) in Toronto, Canada. Canadian Medical Association Journal. 2003 Aug 19;169(4):285-92.[PA]
8. *Svoboda T,* **Henry B**, Shulman L, Kennedy E, Rea E, Ng W, Wallington T, Yaffe B, Gournis E, Vicencio E, Basrur S, Glazier, R. Public Health Measures to Control the Spread of the Severe Acute Respiratory Syndrome during the Outbreak in Toronto; New England Journal of Medicine 2004;350:2352-61. [SA]
9. Basrur S, Yaffe B, **Henry B**. SARS: a local public health perspective. Canadian Journal of Public Health. 2004 Jan/Feb:95(1):22-24.[PA]
10. Loeb M, McGeer A, **Henry B**, Ofner M, Rose D, Hlywka T, Levie J, McQueen J, Smith S, Moss L, Smith A, Green K and Walter S. SARS among critical care nurses, Toronto. Emerging Infectious Diseases 2004; 10(2):251-255.[PA]

11. Tang P., Louie M, Richardson S.E., Smieja M, Simor A E, Jamieson F, Fearon M, Poutanen SM, Mazzuli T, Tellier R, Mahony J, Loeb M, Petrich A, Chernesky M, McGeer A, Low D, Phillips E, Jones S, Bastien N, Li Y, Dick D, Grolla A, Fernando L**, Henry B**, Rachlis A, Matukas LM, Rose D, Lovinsky R, Walmsley S, Gold W, Krajden S, and the Ontario Laboratory Working Group for the Rapid Diagnosis of Emergning Infections. Interpretation of diagnostic laboratory tests for severe acute respiratory syndrome: the Toronto experience. CMAJ 2004; 170(1).[CA]
12. Doré K, Buxton J, **Henry B**, Pollari F, Middleton D, Fyfe M, Ahmed R, Michel P, King A, Tinga C, Wilson JB and the Multi-Provincial Salmonella Typhimurium Case-Control Study Steering Committee. Risk Factors for Salmonella Typhimurium DT104 and Non-DT104 Infection: A Canadian Multi-Provincial Case Control Study. Epidemiology and Infection, June 2004, Vol 132, Issue 03 pp 485-493.[PA]
13. Martin L, Fyfe M, Doré K, Buxton J, Pollari F, **Henry B**, Middleton D, Ahmed R, Jamieson F, Ciebin B, McEwen S, Wilson J and the Multi-Provincial Salmonella Typhimurium Case-Control Study Steering Committee. Increased Burden of Illness Associated with Antimicrobial
Resistant Salmonella enterica Serotype Typhimurium Infections. Journal of Infectious Diseases 2004:189 (1 Feb): 377-384.[CA]
14. Shaddock D, **Henry B***, Varia M*, Schwartz B. Vaccine delivery by paramedics for an urban influenza immunization program: a public health – EMS partnership. Prehosp Emerg Care;2004;8(1):326.[PA]
15. Shaddock D, **Henry B**, *Varia M*, Popov D, Schwartz B. Heat related illness and emergency medical services utilization. Prehosp Emerg Care;2004;8(1):104.[PA]
16. Hill L, **Henry B**, Schweikert S. Screening for chronic hepatitis C: American College of Preventive Medicine practice policy statement. American Journal of Preventive Medicine.2005; 28(3):327-30.[CA]
17. MacDonald R, **Henry B**, *Stuart R*. Performance analysis of a medical decision algorithm to mitigate spread of SARS due to interfacility patient transfers. Prehosp Emerg Care; 2006;10:383-389.[PA]
18. Tang P, Walsh S, Murray C, Alterman C, Varia M, Broukhanski G, Chedore P, DeKoven J, Assaad D, Gold W L, Ghazarian D, Finkelstein M, Pritchard M, Yaffe B, Jamieson F, **Henry B** and Phillips E. Outbreak of acupuncture-associated cutaneous *Mycobacterium abscessus* infections. Journal of Cutaneous Medicine and Surgery, 2006;10(4):166-9. [PA]
19. Aquino M, Raboud JM, McGeer A, Green K, Chow R, Dimoulas P, Loeb M, Scales D; For the Toronto SARS Hospital Investigation Team (includes **Henry B**). Accuracy of Healthcare Worker Recall and Medical Record Review for Identifying Infectious Exposures to Hospitalized Patients. Infect Control Hosp Epidemiology 2006; 27:722-728.[MA]
20. **Henry B.** Adult vaccination: Missed opportunities or opportunity not to be missed? Can Pharm J 2007; Suppl 2. 140, 16. [SA]
21. Mak S, *Buller M*, Furnell A, MacDougall L, **Henry B**. Use of Geographic Information Systems to Assess the Feasibility of Ground and Aerial-based Adulticiding for West Nile Virus Control in British Columbia, Canada, Journal of the American Mosquito Control Association 2007; 23(4):396-404.[PA]
22. Shigayeva A, Green K, Raboud JM, **Henry B,** Simor AE, Vearncombe M, Zoutman D, Loeb M, McGeer A, for the SARS Hospital Investigation Team. Factors Associated With Critical-Care Healthcare Workers' Adherence to Recommended Barrier Precautions During the

Toronto Severe Acute Respiratory Syndrome Outbreak. Infect Control Hosp Epidemiol 2007; 28:1275-1.[CA]

23. Johnston BL, Taylor G, Vearncombe M, Henry B. Who is conflicted about handwashing? CMAJ. 2009 Nov 24;181(11):826-7.[PA]
24. Mak S, Morshed M, **Henry B**. Ecological niche modeling of lyme disease in British Columbia, Canada. 2010 J Med Entomol.;47(1):99-105.[PA]
25. *Roth D,* **Henry B**, Mak S, Taylor M, Li M, Cooper K, Furnell A, Wong Q, Morshed M and the BC WNV surveillance team. West Nile Virus Range Expansion into British Columbia. 2010 Emerging Infectious Diseases 16 (8):1251-58.[SA]
26. *Fuertes, E*., **Henry, B**., Marra, F., Wong, H., Patrick, D.M. Trends in antibiotic utilization in Vancouver associated with a community education program on antibiotic use. 2010 *Can J Public Health*;101(4):304-8. [PA]
27. Buxton JA, **Henry B**, Crabtree A, Waheed A, Coulthart M. Using Qualitative Methods to Investigate Risk Perception of Canadian Medical Laboratory Workers in Relation to Current Prion Disease Infection Control Policies. Journal of Toxicology and Environmental Health; Prion Research in Perspectives 2010; (2011) 74 (2-4) 241-7 .[SA]
28. Raboud J, Shigayeva A, McGeer A, Bontovics E, Chapman M, Gravel D, **Henry B,** Lapinsky S, Loeb M, McDonald LC, Ofner M, Paton S, Reynolds D, Scales D, Shen S, Simor A, Stewart T, Vearncombe M, Zoutman D, Green K. Risk factors for SARS transmission from patients requiring intubation: a multicentre investigation in Toronto, Canada. PLoS One. 2010 May 19;5(5):e10717 [CA].
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17. Respiratory Outbreak Guidelines for British Columbia (PICNet and BCCDC) (Chair of Provincial Working Group that developed these guidelines.)

18. *Clostridium dificile* surveillance protocol for acute care facilities in BC (PICNet BC) (Chair of Provincial Working Group that developed these guidelines.)

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BCCDC Ethics Framework and Decision Making Guide

Effective: May, 2011

Reviewed: May, 2015

This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

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BC Centre for Disease Control
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BCCDC ETHICS FRAMEWORK AND DECISION MAKING GUIDE

The British Columbia Centre for Disease Control (BCCDC) is committed to fostering a culture of ethical awareness and responsibility; this document was developed with this in mind. Its purpose is to give consistency and clarity in guiding ethical action and in resolving ethical issues. The intended users are all staff and employees of the BCCDC. This document is in two parts.

- **I. BCCDC Code of Ethics.** The first part is a statement and description of that culture that we aspire to, it is the foundation for action, and it provides ethical input into decision making.
  A) BCCDC Mandate
  B) Terms of Reference, Key Concepts, and Definitions
  C) Shared Ethical Values and Beliefs
  D) Principles of the Ethical Practice of Public Health at the BCCDC

- **II. Decision Making Guide.** The second part of this document is a guide to aid in resolving ethical challenges and dilemmas when they arise in the practice of public health, and implementation of public health programs.

ACKNOWLEDGEMENTS

The BCCDC Ethics Framework was developed by:
Dr. David Unger, BA, MSc, MD, CCFP, FCFP; BCCDC Physician Ethicist

With input and feedback from:
Members of the BCCDC Staff in each service line
Members of the BCCDC Executive Management Team

It is adapted from the content and format of the: *Principles of the Ethical Practice of Public Health*. [Public Health Leadership Society. 2002]

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BC Centre for Disease Control
An agency of the Provincial Health Services Authority

I. THE BCCDC CODE OF ETHICS

The point of embarkation is the BCCDC Mandate. A description of key concepts, terms of reference, and definitions provides context for the values and principles of the Code. The practice of public health at the BCCDC is guided by established and accepted ethical principles based on a core of shared values. This code is adapted from the *Principles of the Ethical Practice of Public Health*[1] with significant contributions from other works and scholars. The Code is intended to integrate with other relevant ethical codes; to that end, all employees and staff of the BCCDC shall adhere to the PHSA Code of Ethics[2] and shall also adhere to their own Professional Codes of Ethics.

BCCDC MANDATE

Our mandate is leadership in protecting and promoting health, preventing harm, and preparing for threats. We achieve this through collaboration, integrity, excellence and service.

TERMS OF REFERENCE, KEY CONCEPTS, AND DEFINITIONS

Public health ethics involves a set of terms and concepts that are unique, or used in unique ways. A more complete understanding of the principles of the Code will be enhanced by a familiarity with these terms.

- ***Health:*** BCCDC adopts a notion of health that is consistent with the WHO statement: Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.[3] Nowhere is this broad definition more important than when trying to define public health.
- ***Public Health:*** **"**Public health is what we, as a society, do collectively to assure the conditions in which people can be healthy."[4] This is the core of the BCCDC mandate. Public health is concerned primarily with the health of the entire population. As a starting point for an understanding of public health ethics, public health systems consist of all the people and actions, including laws, policies, practices, and activities, that have the primary purpose of protecting and improving the health of the public.[5, 6]
- ***Ethics:*** There are many ways to define ethics. As an academic discipline it is concerned with the notions of right and wrong, good and bad, etc. For the purposes of this Code, ethics largely refers to "normative ethics" and in that sense this Code is concerned with questions of "What *ought* to be done?" and "How *should* we behave?". Answers to these types of questions are aided by examining and contemplating the Values and Principles.
- ***Public Health Ethics:*** Is the moral foundation for the practice of public health. It is important to recognize that traditional bioethics and clinical ethics (whose focus is on individuals) does not map directly onto the terrain of public health ethics (whose focus is the population). Whereas clinical ethics is often concerned with individual decision making, public health ethics is concerned with procedures, programs and policies for community well-being. To what extent it is just and proper for public health to involve itself in the lives of individuals for the betterment of the population is the fundamental source of many of the challenges, dilemmas and tensions in public health ethics.
- ***Respect for Autonomy:*** Respecting a person's capacity and right to make decisions for him or herself, based on his or her own values preferences and goals. It is, in essence, a respect for persons' freedoms

and liberties. It is this respect for autonomy that is the source of tension with competing concepts of justified paternalism and justified harm prevention.

- ***Paternalism:*** Acting like a father or parent to another. It is the idea of restricting a person's freedom for his or her own benefit, or protecting that person from harming him or herself. It implies a judgment that the person may not fully understand what is in his or her own best interest, or the risks involved in his or her decisions.
- ***Harm:*** Harm and burden are often used interchangeably, and are often used in conjunction with the word risk (which is the probability of a harm multiplied by the magnitude of the harm). Broadly speaking, harms or burdens in the realm of public health ethics can be of three types:
    - Breaches of privacy or confidentiality.
    - Compromised autonomy or personal liberty.
    - Infringements on justice; the unequal distribution of harms (or goods) when public health interventions target specific populations.[7]
- ***"Harm Principle":*** This refers not to harm in the public health sense as noted above but to individual hurt and suffering. It is a fundamental concept in public health ethics and is attributed to John Stuart Mill: "That the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others."[8] This is essentially a justification for intervention by the state, and a warrant for infringements on personal autonomy in the name of harm prevention or reduction. In public health practice this is most commonly considered in the context of a duty to protect the public from harm.
- ***"Precautionary Principle":*** In the face of scientific uncertainty, it is this principle that warrants public health interventions when there is the theoretical risk of harm to the population even before all scientific data are obtained. Lack of full scientific certainty should not be a reason to postpone action in the name of the prudent concerns of the population or the environment.
- ***Distributive Justice:*** Fair allocation of resources for all community members based on legitimate criteria appropriate to that particular context. It is based on the idea that people are equals and should receive equal consideration in distribution of scarce resources. Furthermore it means that people should not be discriminated against based on morally irrelevant factors (e.g., ability to pay, social status), and that goods are distributed according to need (equitable distribution). Distributive justice entails the fair distribution of both benefits **and** harms and risks among a population.
- ***Transparency:*** In public health transparency is a core principle. It is desirable to cast a wide net in securing the input of as many stakeholders as possible in the development of a program. Transparency must also be maintained in the implementation of a program and in the practice of public health by sharing information derived from public health interventions.
- ***Proportionality:*** This is the notion that any public health intervention should be proportionate to the threat faced, and that measures taken should not exceed those necessary to address the actual risk.
- ***Public Justification:*** This is related to transparency. When a public health program threatens to infringe on the liberties of an individual or community, public justification is the notion that the agency has a responsibility to explain and justify this infringement.[6]
- ***Reciprocity:*** This is the notion that every means possible should be sought to aid the individual in complying with the requests and impositions. In addition, complying with the public health program may

impose sacrifices and burdens and in whatever way possible these should be compensated by the program or the agency.[9]

- ***Privacy:*** Privacy pertains to people; it is the right of individuals and groups of people to seclude themselves from others, and the notion that others are barred from prying in on them or their affairs. Privacy is fundamental to a respect for persons and respect for autonomy. People and groups have a right to personal privacy, and have a right to keep their information private. Balancing this right with the public health obligation to protect others can be a source of moral tension.
- ***Confidentiality:*** Confidentiality pertains to information; it is the concept that information should be kept safe and only be revealed to duly authorized persons. The scope of that authority is narrow, carefully defined, and scrupulously defended.

COMMON ETHICAL VALUES AND SHARED BELIEFS AT THE BCCDC

The following values and beliefs are key assumptions inherent to a public health perspective. They are values and beliefs relating to the nature of health, community, and knowledge as a basis for action. They underlie the Principles of the Ethical Practice of Public Health.

1. Health

- ***All people have a right to the resources necessary for health***. The BCCDC affirms Article 25 of the Universal Declaration of Human Rights, which states in part "Everyone has the right to a standard of living adequate for the health and well-being of himself and his family…".[10] The BCCDC concerns itself with the health of the entire population of BC.

2. Community and Environment

- ***The duty of primacy of the BCCDC is to protect and to improve the health of the people of BC***. The BCCDC respects the value and dignity of every individual but it is an agency of public health and has a duty to protect the people of BC. The moral relationship between public health and its public is such that in order to achieve its goal of health promotion and protection from infectious and environmental disease (both new and emerging) it must on occasion invoke measures that are justifiably paternalistic and focused on harm reduction and prevention.
- ***People are inherently social and interdependent***. They look to each other for companionship safety and survival. The rightful concern for individuality and the respect for autonomy of all people must be balanced against the fact that each person's actions affect other people.
- ***Communities are more than the sum of individuals.*** Communities are valuable. A community or population is an entity unto itself, and it is to this entity that the BCCDC directs its efforts, while upholding the value of individuals and respect for persons. In public health, the population is the patient.[11]
- ***The effectiveness of institutions depends heavily on the public's trust and this trust is earned through ethical interaction.*** Factors that contribute to trust in an institution include the following actions on the part of the institution: truthful communication; transparency; accountability; reliability; and reciprocity.
- ***Collaboration is a key element to public health.*** Collaboration with the public is essential in carrying out the mandate of the BCCDC. Positive alliances between the people of BC and institutions such as the

BCCDC are a sign of a healthy community. In addition, interprofessional collaboration among the various divisions, programs, and professions at the BCCDC is essential.

- ***Community engagement is important to the creation and implementation of sound public health policies and programs.*** The BCCDC values direct contributions by community stakeholders to the development and implementation of policies and programs. The BCCDC obtains essential indirect and representative public input through its relationship with the Government of the Province of BC. It is this engagement that constitutes the "informed consent" of the people for the public health agenda.[12]
- ***People and their physical environment are interdependent*.** People depend upon the resources of their natural and constructed environments for life itself. A damaged, neglected, unbalanced or poorly constructed environment will have an adverse effect on the health of people.
- ***Identifying and promoting the fundamental requirements for health in a community are a primary concern to public health*.** While some programs at BCCDC are curative in nature, the BCCDC recognizes the value of addressing underlying causes and prevention. Because fundamental social structures and social determinants affect many aspects of health, addressing the fundamental causes rather than more proximal causes, more fully actualizes the duty of the BCCDC to prevent harm and to promote health.

3. Bases for Action

- ***Knowledge is important and powerful*.** The staff of the BCCDC seek to improve their understanding of health and the means of improving it through research and the accumulation of knowledge. The responsible accumulation of knowledge means then weighing the moral obligation of sharing information for the benefit of others, and the moral obligation to respect privacy and maintain confidentiality.
- ***Science is the basis for much of our public health knowledge***. The scientific method provides a relatively objective means of identifying the factors necessary for health in a population, and for evaluating policies and programs to protect and promote health. The BCCDC recognizes the value of the full range of scientific tools, including both quantitative and qualitative methods, and also values collaboration among the sciences.
- ***People are responsible to act on the basis of what they know*.** Knowledge is not morally neutral and often demands action. Moreover, information is not to be gathered for idle interest. Public health should seek to translate available information into timely action. Often, the action required is research to fill in the gaps of what we don't know.
- ***Action is not based on information alone*.** First, in many instances, precautionary action is required in the absence of all the information one would like—in these instances it is values that drive action, not information alone. Second, policies are demanded by the fundamental value and dignity of each human being, even if implementing them is not calculated to be optimally efficient or maximally cost effective—in these instances too, it is values that take priority in informing action and in applying information to action.

PRINCIPLES OF THE ETHICAL PRACTICE OF PUBLIC HEALTH AT THE BCCDC

The following principles give expression to the concepts and values stated above. While not exhaustive, they are a clear statement of the normative behaviors and the virtues the BCCDC and its staff aspire to, and an enumeration of the ways the BCCDC is accountable to the people of BC. The BCCDC and its staff will follow these principles in the creation of policies and programs and in the practice of public health.

***1. The BCCDC shall address, principally, the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes*.** This principle acknowledges that good health is derived at very fundamental levels. While some programs at the BCCDC are concerned with immediate causes and with curative interventions, it will not lose sight of the fact that health is derived from social determinants at more fundamental levels (such as clean food and water, and access to the means to prevent and treat infectious diseases) and it will include these in the scope of its activities.

***2. The BCCDC aspires to achieve community health in a way that respects the rights of individuals in the community*.** This principle acknowledges the common need in public health to weigh the concerns of both the individual and the community. There is no simple way to reconcile the perennial tension between respect for individual autonomy and paternalism; and between personal liberty and harm reduction. The BCCDC respects and acknowledges the inherent value and dignity of all persons, but the interest of the community is one of primacy and the point of embarkation for the programs of the BCCDC.

3. The BCCDC and its employees are committed to community engagement. Wherever possible the BCCDC will provide and seek direct or representative input from community members in the development and implementation of programs. The BCCDC is committed to transparency in communicating with the public. The BCCDC is also committed to accountability to the public and must justify actions that threaten to infringe community or personal liberties.

***4. The BCCDC will seek the information needed to implement effective policies and programs that protect and promote health*.** This principle recognizes a mandate to seek information that informs actions and evaluate programs. Information will be gathered by the least coercive means possible and only out of necessity. Infringements on personal liberties (such as the collection of private information) must be justified.

5. The BCCDC will act in a timely manner on the information it has. This Principle acknowledges that public health is active rather than passive, and information is not gathered for idle interest. The BCCDC will act in accordance with its resources and within the mandate given to it by the Government of BC, based on available information. This principle also acknowledges that acting in a timely manner may mean acting on incomplete information in order to confront threats or prevent harm.

***6. The BCCDC will promote the empowerment of vulnerable and disenfranchised community members, aiming to ensure that the basic resources and conditions necessary for health are accessible to all*.** The BCCDC is particularly concerned with the marginalized and disempowered of BC. It is concerned with communities and populations at risk of harm. As well it is concerned with the vulnerable members of society such as children. It will seek to ensure a decent minimum standard of resources as a means to better health. This means a commitment to equality of opportunity and equitable distribution of health care resources.

***7. The programs and policies of the BCCDC should incorporate a variety of approaches that anticipate and respect diverse values, beliefs, and cultures in the community*.** The people of BC are a rich mosaic of ethnicities, cultures, generations situated in a wide range of environments. The BCCDC must have the flexibility and cultural competency to adapt to the many needs of this diverse province.

8. The BCCDC will ensure proportionality in its programs and activities. It will ensure that the benefits will outweigh the burdens and risks. It wishes to ensure that both the benefits, and the burdens and risks will be

fairly distributed.[7] Ultimately, on balance BCCDC programs and policies will be implemented in a manner that most enhances the physical and social environment.

9. BCCDC will properly justify the creation and implementation of its programs. Fundamental justification derives from the "harm principle": that interventions and the exercise of power over individuals by the province and the BCCDC, is only warranted to prevent harm to others.[9] But programs and policies must also show effectiveness, proportionality, and be done out of clearly established necessity.[6]

10. Programs and Policies at the BCCDC will have clearly stated goals and be of proven effectiveness. Any program at the BCCDC must have clearly defined objectives; furthermore there should be evidence of programs' and policies' effectiveness in achieving these goals.

11. The BCCDC and its employees will use the least restrictive or coercive means possible to achieve its goals. Any interference with personal rights and liberties carries a significant moral cost.[12] A variety of means are available to achieve public health ends but the least restrictive or coercive means should be sought and the most coercive means or the full force of state authority should only be implemented when lesser means fail.[9] Even these lesser means will be used only out of clear necessity.

12. Whenever possible, the BCCDC will adopt a principle of reciprocity. Once a public health program is deemed legitimate, every means possible should be sought to aid the individual in complying with the requests and impositions. In addition, complying with the public health program may impose sacrifices and burdens and in whatever way possible these should be compensated by the program, the agency or the province.[9]

13. The BCCDC will protect the confidentiality of information that can bring harm to an individual or community if made public. Exceptions (e.g., communicable disease contact tracing) must be justified on the basis of the high likelihood of harm to the individual or others. A perennial challenge within public health ethics is with the proper use and disposition of delicate private information. The BCCDC is informed by relevant privacy legislation. There is moral responsibility inherent in the "possession" of information about the people of BC.

***14. The BCCDC will ensure the professional competence of its employees*.** This includes, but is not limited to, accreditation of the facility, and ensuring the proper licensure and credentials of all its professional employees.

***15. The BCCDC and its employees should engage in collaborations and affiliations in ways that build the public's trust and the institution's effectiveness*.** This principle underscores the collaborative nature of the BCCDC. It and its employees must have positive relationships among the divisions but also healthy and ethical relationships with institutions outside the BCCDC. This includes healthy relationships with government, research institutions, private industry, etc. Any conflicts of interest generated by these relationships must be disclosed and avoided.

II. DILEMMAS IN THE PRACTICE OF PUBLIC HEALTH: A DECISION MAKING GUIDE

Inevitably the above principles and values may support two or more divergent goals; this is the essence of an ethical dilemma. In our personal, professional and organizational life, we often struggle with issues for which no single "right" answer seems evident. The interface of the BCCDC with the public and the individuals in its clinical programs can create ethical tensions and challenges. As well, decisions about prioritization and resource allocation are unavoidable and create ethical concerns about the distribution of burdens and benefits.

At the BCCDC, ethical problems and dilemmas should not be suffered alone. The first step is to reach out to colleagues and leaders for support and guidance. This should include supervisors, operations leaders, and the physician leads of the division. If such a discussion does not reveal a solution, or if a course of action is not apparent, the following process is suggested as a decision making guide.

In these situations, it is important to think through the many factors that are at stake. The purpose of this decision making framework is an attempt to reflect ethically on the apparent problem and its stakeholders, the facts of the issue, the relevant guidance from established policy and law, and an analysis in light of the relevant ethical and moral principles in order to begin decision making that optimizes satisfaction and addresses concerns of all stakeholders. This framework is intended to represent a fair process—fair processes build trust among stakeholders and lead to collaborative and consensual outcomes.

1. ***Identify the Ethical Question.***
   - What is the issue that needs to be addressed?
   - Can this issue be simply stated with the use of some of the terms listed above?

2. ***Identify the Stakeholders.***
   - Who needs to be a part of this decision making process? Be as inclusive as possible while keeping the decision making process manageable. Sometimes a stakeholder (such as an entire community) cannot be physically present, but their interests must be acknowledged and accommodated.
   - Key players are: the individual (patient, client etc) or community affected; the staff member(s) who are grappling with the issue; the physician lead and operations leader.
   - Persons from other divisions should be brought in if their division is affected or if there are people from other departments with expertise in managing these types of problems. This may also include legal counsel or privacy advisors.

3. ***Clarify the facts, gather information.***
   - What are the relevant known facts?
   - What facts need further exploration to inform a decision?
   - What information is simply unknowable?
   - Have all stakeholders been able to represent their views of the facts?

4. ***Analyze the problem in light of the values and principles in the Code. Try to identify the origins of the tensions from the conflicting values and principles.***
   - What principles or values are in conflict? What moral intuitions (“gut feelings”) are in conflict?
   - Can this problem be described by the terms of the Code and in relation to the values and principles of the Code? If possible try to identify which values and principles seem to have priority.

- Competing interests also generate and contribute to ethical issues: be wary of conflicts of interest, real or apparent, that bear on the issue at hand.
- What are the possible consequences in terms of benefits, and risks and harms?

5. ***Identify relevant legal and normative guidance:***
   a. ***Legal and legislative considerations.*** What is the relevant legislation bearing on this issue? Should legal counsel be sought?
   b. ***Local policy and procedure of the BCCDC and PHSA.*** What policies and procedural tools have bearing on this issue?
   c. ***Professional codes of ethics.*** Most staff of the BCCDC have a professional code of ethics for their given vocation and these codes can be helpful in informing decisions and actions.
   d. ***Research guidelines.*** Research is a large part of the activities of the BCCDC and there are well established guidelines and procedures for addressing research ethics questions. If this issue involves research, research ethics guidelines such as the TCPS2[13], and departments such as the UBC Office of Research Services should be consulted.
   e. ***Moral intuition and ethical considerations.*** All people have a sense of right and wrong, these moral intuitions should not be ignored but rather explored and discussed as a legitimate source of guidance in decision making.

6. ***Identify possible courses of action.***
   - Are there principles that appear to have priority?
   - Are there legislative or policy statements that have compelling force?
   - What are some of the alternatives?
   - Sometimes doing nothing or making no changes is a legitimate consideration.

7. ***Make a decision.***
   - Are all the stakeholders adequately represented? Has this decision been deliberative? It must be recognized that sometimes compromises have to be made.
   - In decision making, the ideal is unanimity, if the stakeholders are not unanimous how is the decision to proceed? Can consensus be reached or will decisions be based merely on majority opinion?
   - Why is this best decision?
   - It must be acknowledged that sometimes there is more than one answer possible. It is important that the decision and the actions that flow from it are ethically defensible and made in accordance with the principles of the Code.

8. ***Implement a decision.***
   - What is the plan of action for communicating the decision?
   - Develop a strategy for implementation: what actions need to be taken and by whom?

9. ***Evaluate the decision.***
   - How will the decision be evaluated? By what criteria will the outcomes be measured and validated?
   - Was this the right decision?
   - Should revisions to the decision be made? Should revisions to policies and programs be contemplated? Do new policies need to be created?
   - Do new ethical issues arise?

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COVID-19 Ethical Decision-Making Framework

December 24, 2020

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

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Introduction

British Columbia's health-care system is committed to fostering transparent leadership, sound ethical decision-making (policy, direction, and resource allocation), and collaboration to ensure British Columbians receive the most comprehensive health-care information and services. The *COVID-19 Ethical Decision-Making Framework* is built on a number of principles and values, and it is a key tool to assist local, regional and provincial ethically defensible decision-making. See Appendix A for a description of public health ethics.

Purpose and Intended Use of the Framework

This framework describes the ethical principles, values and processes that must be considered and used when making decisions during the COVID-19 pandemic and may be applicable in other pandemic situations. An example of the application of this framework is provided on page 11. Health authorities may also wish to consult with their respective ethics services with interpreting and using the resources in this framework.

This framework aims to:

1. Serve as a transparent guide for ethical decision-making before, during and after the pandemic;
2. Encourage integration of shared values in health-care practices, treatment and funding decisions;
3. Contribute to improved health outcomes and service delivery, and maximize effective use of critical supplies, including human as well as financial resources;
4. Increase public awareness and confidence in policy decision-making processes; and
5. Increase public awareness and preparedness for a pandemic.

Ethical Principles and Values

The ethical principles and values related to COVID-19 decision-making fall into two categories: procedural and substantive.

- **Procedural considerations.** How do we make decisions and work together? What is a fair process for decision-making? How do we achieve these goals?

- **Substantive considerations.** What goals or ends should we pursue and how should principles and values be weighed against one another? For example, should our goal be to save as many lives as possible, improve the overall quality of life for as many people as possible, or meet the needs of underserved populations?

Within each category are a series of ethical principles and values that need to be considered and prioritized in the context of the specific ethical issues at hand. In some circumstances, value trade-offs will have to be made when it is not possible to uphold all values. In those situations, it is necessary to justify, communicate and document trade-offs and prioritizations. Health authorities may also wish to consult with their ethics service.[1]

[1] For more information on ethical principles and values, see Canadian Institutes of Health Research – Institute of Population and Public Health.

Please see below for a list of procedural and substantive principles:

A. Procedural considerations. The key ethical principles and values related to how the health-care system and partners make decisions and work together include:

A1. **Efficiency and effectiveness**. Appropriate structures should be in place locally, regionally and provincially to make decisions. As much as possible, the infrastructure is streamlined, there is no duplication of work and there is the appropriate authority with expertise to perform the right function. This includes one principle/value:

a) ***Stewardship and sustainability***: Resources (critical supplies and human and financial resources) are managed so that, as much as practically possible, the health system remains able and available to function effectively into the future.

A2. **Procedural justice (fair process)**. There will be accountability to a fair and transparent process throughout the planning and implementation of pandemic response. This includes five principles/values:

a) ***Openness and transparency:*** Any planning, policy and actions must be transparent and open to stakeholder input as well as available to the public. All plans and decisions must, as much as possible, appeal to reasons that are mutually agreed upon and work toward shared goals.

b) ***Inclusiveness:*** Decisions should involve stakeholders to the greatest extent possible and barriers that may impede input should be removed.

c) ***Accountability:*** Decision-makers should document, and be prepared to justify, the decisions that they do or do not make.

d) ***Reasonableness:*** Decisions should be:

- Rational and not arbitrary;
- Made with awareness of underlying assumptions and how these relate to the decision-makers' personal or institutional bias;
- Evidence-based, to the extent possible;
- The result of an appropriate process, taking into account how quickly a decision has to be made and the circumstances in which a decision is made;
- Practical and can be implemented; and
- Be subject to a decision review process and open to appeal.

e) ***Consistency*****:** Consistency in decision-making is important. Any changes to the ethical decision-making process, guidance, analyses or rationale must be clearly justified.

A3. **Flexibility.** Any plan should be adaptable to new knowledge or changes in context that arise.

A4. **Integrity**. Decision-makers should recognize that executive decisions affect those who implement the decisions on the ground, (e.g., health-care workers) and create opportunities to minimize moral distress and maximize integrity and well-being.

A5. **Solidarity.** Co-operation is essential between local, regional and provincial decision-makers.

(2012). Population and Public Health Ethics: Cases from Research, Policy, and Practice. University of Toronto Joint Centre for Bioethics: Toronto, ON. Retrieved from http://www.jcb.utoronto.ca/publications/documents/Population-and-Public-Health-Ethics-Casebook-ENGLISH.pdf

Decision-makers should adopt collaborative approaches to understand each other's needs and build common responses to common challenges in a manner that meets the needs of all as much as possible. Local and regional decisions should align with and support decisions made provincially and federally.

B. Substantive considerations. The key ethical principles and values related to the goals or ends we should pursue include:

B1. **The Harm Principle.** Society should protect itself from harm. To protect the public from harm, real or imminent, especially from risk of infection and serious illness or death, those responsible for the health and safety of the population are justified in intervening and impinging on individual autonomy and choice, if necessary.

B2. **Utility - Seek to balance overall benefits and harms.** In general, our health-care system seeks to maximize the health of the population. This means making decisions that promote the health of a population and minimizes the overall burden of disease as much as possible. However, during a pandemic that threatens public health and available resources, the focus may shift to short-term priorities such as saving lives, preventing or treating disease, and minimizing harms to the extent possible. The principle of utility may come into tension with equitable distribution (see below) and these principles should be weighed carefully.

B3. **Distributive justice.**

a) **Equitable distribution (fairness)**: Everyone matters equally, but not everyone may be treated the same. There are two factors in equitable delivery of care and services that must be balanced based on the issue under consideration [2]:

- ***Equality*:** Individuals ought to be treated with equal concern and respect such that those with similar situations should have similar access to health-care resources. Resource allocation decisions must be made with consistency across populations and among individuals regardless of their human condition (e.g., race, age, disability, ethnicity, ability to pay, socioeconomic status, pre-existing health conditions, perceived obstacles to treatment, past use of resources); and
- ***Equity*:** When resources are limited, usually those who most need and can derive the greatest benefit from resources should be offered resources preferentially. Equity can come into tension with utility—to the extent possible, decisions made on the basis of utility should seek to also be equitable; benefits and harms should be considered broadly and may include impacts at different levels (e.g. individuals, populations).

[2] Canadian Institutes of Health Research – Institute of Population and Public Health. (2012). Population and Public Health Ethics: Cases from Research, Policy, and Practice. University of Toronto Joint Centre for Bioethics: Toronto, ON. Retrieved from http://www.jcb.utoronto.ca/publications/documents/Population-and-Public-Health-Ethics-Casebook-ENGLISH.pdf

b) **Just distribution of benefits and harms, risks and burdens.** Benefits and harms, risks and burdens should be distributed. Public health measures:
   - Should not place unfair burdens on particular individuals and/or segments of the population; and
   - Should not perpetuate systemic or structural inequities (e.g., underserved populations who face systemic or structural health inequities, social policies or processes and/or geographic obstacles that create barriers to accessing resources) and should attempt to improve inequities.

B4**. Respect.** Individual autonomy, choice and perspectives of unique and diverse populations must be considered and respected as much as possible. Respect includes upholding privacy and confidentiality and to be truthful with those impacted.

B5. **Cultural safety.** Using humility and respectful inquiry of stakeholders' worldview and lived experiences, incorporating cultural safety into all aspects of decision-making and practice is essential. Environments that are socially, spiritually, physically and emotionally safe should be created. Attempts should be made to ensure that individuals are respected, supported and will not be judged for their identity including their beliefs, values or way of being.

B6. **Least coercive and restrictive means**. Any infringements on individual autonomy and choice must be carefully considered, and the least restrictive or coercive but effective means must be sought.

B7. **Reciprocity.** Individuals or populations who face increased risk and/or disproportionate burdens during a pandemic should be supported, and the harms, risks as well as burdens should be minimized as far as possible.
   a) ***Duty to care****:* For further discussion on the related concept of duty to care please review the following provincial guidance COVID-19 Ethics Analysis: What is the Ethical Duty of Health Care Workers to Provide Care During COVID-19 Pandemic?.

B8. **Proportionality.** Measures implemented, especially restrictive ones, should be proportionate to and commensurate with the level of risk.

Ethical Decision-Making Process

The following is a simplified Ethical Decision-Making process:

1

Define the Question, Issue or Problem

- What is the question, issue or problem? As much as possible, has consensus been reached on what is the question, issue or problem?

2

Clarify the Facts as Much as Possible

- What are the established facts of the issues? (e.g., who, what, when, where, why, and how)
- What don't we know?
- What are the relevant factors?
- What assumptions are being made?
- Are there constraints that need consideration? (e.g., critical supplies and human and financial resources)

3

Identify Stakeholders and their Perspectives

- Who is affected by this decision, with particular attention to those who face barriers to participating and/or who are disproportionately affected?
- How does each stakeholder see this issue (worldview and lived experience) and has there been a real attempt to understand and respect their perspectives?

4

Identify and Analyze the Principles and Values

- What are the principles and values pertaining to this decision?
- Which principles and values conflict? What principles and values are being affirmed? What principles and values are being negated?
- Which principles and values will be upheld and prioritized and what is the rationale/justification for the prioritizations?

5

Identify Alternative Courses of Action in Light of the Principles and Values

- What are the relevant options, including if no action is taken?
- What are the benefits and risks of each option (including intended and potential unintended consequences), as measured against the prioritized principles and values?

6

Make a Decision

- Which option best fulfills the prioritized principles and values pertaining to the decision at hand?
- Is the chosen option/decision ethically defensible and justifiable based on the principles and values outlined in this framework?
- Are there contingency plans in case the decision does not have the intended outcomes or creates possible conflicts?
- Does the decision accord with the law and public health orders?

7

Implement the Decision

- Who will implement the decision?
- What process and criteria for measuring will be used to evaluate the decision and outcome?

8

Review and Document the Decision

- How will the decision be effectively communicated to all relevant stakeholders?
- Who will be responsible for documenting, following-up and maintaining the decision?
- Is there a process for reviewing decisions?

Appendix A: Public Health Ethics

Public health ethics involves a systematic process to clarify, prioritize and justify possible courses of public health action based on ethical principles, values, and beliefs of stakeholders, and scientific and other information[3]. Whereas clinical ethics focuses on the health and interests of the individual patient[4], public health ethics considers the health and interests of a population to inform public health actions as well as decisions.

Clinical ethics and public health ethics are not mutually exclusive. The overlap in some of the underlying principles and values as well as differences in how these are prioritized in ethical and public health ethics need to be addressed. Clinical ethics, through the principle of respect, aims to respect individual values and choices, as far as possible. Public health ethics, through the principle of justice, considers fair distribution of health care resources for the population.

Public health ethics commonly needs to address these questions:

1. To what degree is it justifiable for the state to limit or intervene on the personal freedoms of individuals to serve the greater good of the population?

2. If there are insufficient resources to adequately meet the needs of every individual, how should resources be allocated for the greater good of the population?

[3] Centers for Disease Control (2020) Public Health Ethics. Retrieved November 5, 2020 from https://www.cdc.gov/os/integrity/phethics/index.htm.

[4] In this document the term 'patients' refers to people who use healthcare services.

Appendix B: Tool for Evaluating a Decision

Checklist form
Use this form to evaluate and analyze how well the decision you are considering lives up to the principles and values included in the Framework. An example scenario is in **Appendix C.**

Step 1: Describe the proposed decision you wish to evaluate.

Step 2: Review the listed principles and values outlined in checklists A and B below and prioritize each principle and value (with 1 being the highest priority principle and value to uphold, 2 being the second-highest priority, and so on). Note that multiple principles and values may have the same ranking, and there is no fixed number of rankings.

Step 3: Review your proposed decision against the listed principles and values by marking the 'YES', 'NO', 'ONLY IF' and 'N/A' columns.

Procedural Considerations (Checklist A) – Does the decision live up to the principles and values?

Priority	Principle & Value	The proposed decision is developed in a way that upholds…	YES	NO	Only if…	N/A
	A1. Efficiency and Effectiveness	Efficiency				
		Stewardship & Sustainability				
	A2. Procedural Justice (Fair process)	Openness and Transparency				
	There is accountability to a fair and transparent process	Inclusiveness				
		Accountability				
		Reasonableness: Decisions should be: • *Rational and not arbitrary;*				
		• *Made with awareness of underlying assumptions/bias;*				
		• *Evidence-based;*				
		• *The result of an appropriate process;*				
		• *Practical and reasonably able to be implemented, and*				
		• *Subject to a decision review process and open to appeal*				
		Consistency				
	A3. Flexibility	Flexibility				

Priority	Principle & Value	The proposed decision is developed in a way that upholds…	YES	NO	Only if…	N/A
	A4. Integrity	Decision-makers recognize that executive decisions impact those who implement the decisions on the ground				
	A5. Solidarity	Enable parties to adopt collaborative approaches				
		Local and regional decisions are aligned with and support decisions made provincially and federally				

Substantive Considerations (Checklist B): Does the decision live up to the principles and values?

Priority	Principle & Value	The proposed decision enables…	YES	NO	Only if…	N/A
	B1. **The Harm Principle**	Those responsible for the health and safety of the population are justified in intervening and impinging on individual autonomy and choice if necessary				
	B2. **Utility - Seek to Balance Overall Benefits and Harms**	The promotion of the health of a population and the minimizing of the overall burden of disease as much as possible				
	B3. **Distributive Justice**	**a. Equitable Distribution (Fairness):** Everyone matters equally but not everyone may be treated the same: • *Equality*: Individuals are treated with equal concern and respect such that those with similar situations should have similar access to health care resources				
		• *Equity*: When resources are limited, those who most need and can derive the greatest benefit from resources ought to be offered resources preferentially				
		b. Just Distribution of Benefits and Harms, Risks, and Burdens: • Avoiding unfair burdens on particular individuals and/or segments of the population; and				
		• Does not perpetuate systemic or structural inequities and should attempt to ameliorate inequities				
	B4. **Respect**	Individual autonomy, choice and perspectives of unique and diverse populations are considered and respected				
	B5. **Cultural Safety**	Respectful inquiry of stakeholders' worldview and incorporation of cultural safety into all aspects of decision-making and practices				

Priority	Principle & Value	The proposed decision enables…	YES	NO	Only if…	N/A
	B6. **Least Coercive and Restrictive Means**	Consideration of any infringements on individual autonomy and choice, and the least restrictive or coercive, yet effective, means are sought				
	B7. **Reciprocity**	Supporting individuals or populations who face increased risk and/or disproportionate burdens during a pandemic				
	B8. **Proportionality**	Measures are proportionate to and commensurate with the level of risk				

Step 4: For those principles and values that are unmet (e.g., "no"), consider whether the decision can be modified to meet the prioritized principles and values (e.g., consider whether the "no" can be converted to "yes").

Step 5: If the decision does not meet all the principles and values (e.g., there are still principles and values marked "no"), articulate which principles and values are unmet and explain why.

Step 6: Articulate your final decision and rationale and then implement it. Confirm that any value marked "only if" is part of the proposed decision.

Appendix C: Example of How to Use the 'Tool for Evaluating a Decision'

Step 1: Describe the proposed decision you wish to evaluate. Please see example below:

***Proposed decision for essential visit guideline**. Essential visits shall be limited to one visitor per patient within the facility at a time. A visitor who is a child may be accompanied by one parent, guardian or family member. Essential visits can include but are not limited to visits for compassionate care, including critical illness, palliative care, hospice care, end of life, Medical Assistance in Dying and visits paramount to the patient's physical care and mental well being. Virtual visitations will be made available and incorporate diverse perspectives and needs (e.g., Indigenous perspectives on health care and disability tool support, among other cultural safety measures).*

Step 2: Review the listed principles and values outlined in checklists A and B below and prioritize each principle and value (with 1 being the highest priority principle and value to uphold, 2 being the second highest, and so on). Note that multiple principles and values may have the same ranking, and there is no fixed number of rankings.

Step 3: Review your proposed decision against the listed principles and values by marking the 'YES', 'NO', 'ONLY IF' and 'N/A' columns.

Procedural Considerations (Checklist A) – Does the decision live up to the principles and values?

Priority	Principle and Value	The proposed decision is developed in a way that upholds…	YES	NO	ONLY IF…	N/A
1	**A1. Efficiency and Effectiveness**	Efficiency				✓
1		Stewardship & Sustainability			✓ Personal Protective Equipment allocation decisions align with visitation guideline	
1	**A2. Procedural Justice (Fair process)** There is accountability to a fair and transparent process	Openness & Transparency	✓Guideline is available to the public			
1		Inclusiveness		**X** Patients and families are not included in developing the guideline		

Priority	Principle and Value	The proposed decision is developed in a way that upholds...	YES	NO	ONLY IF...	N/A
1		Accountability	✓Site leads ensure that guideline is followed			
1 1		Reasonableness: Decisions should be: • *Rational and not arbitrary;* • *Made with awareness of underlying assumptions/bias;*	✓		✓Decision-makers identify and self-declare underlying assumptions/ bias	
1		• *Evidence based;*	✓			
1		*The result of an appropriate process;*	✓			
1		• *Practical and reasonably able to be implemented, and*	✓			
1		• *Subject to a decision review process; open to appeal*	✓ Visitors can ask for reviews of a decision that deems a visit non-essential			
1		Consistency		X There is inconsistent application of the guideline across the Province		
2	**A3. Flexibility**	Flexibility	✓ Any level of decision-maker may initiate the updating of the guideline as needed			
2	**A4. Integrity**	Decision-makers recognize that executive decisions affect those implement the decisions on the ground			✓Only if health care workers are sufficiently supported, including for	

Priority	Principle and Value	The proposed decision is developed in a way that upholds...	YES	NO	ONLY IF...	N/A
					moral distress	
3	A5. Solidarity	Parties can adopt collaborative approaches				✓
3		Local and regional decisions are aligned with and support decisions made provincially and federally			✓ Only if local or regional decisions align with provincial guideline	

Substantive Considerations Checklist: Does the decision live up to the principles and values?

Priority	Principle & Value	The proposed decision enables...	YES	NO	ONLY IF...	N/A
1	B1. **The Harm Principle**	Those responsible for the health and safety of the population to be justified in intervening and, if necessary, impinging on individual autonomy and choice	✓			
1	B2. **Utility - Seek to Balance Overall Harms and Benefits**	The promotion of the health of a population and the minimization of the overall burden of disease as much as possible	✓			
1	B3. **Distributive Justice**	**a. Equitable Distribution (Fairness):** Everyone matters equally but not everyone may be treated the same: • *Equality*: Individuals are treated with equal concern and respect such that those with similar situations similar access to health care resources			✓ There is consistent application of the guideline across the province	
1		• *Equity*: When resources are limited, those who most need and can derive the greatest benefit from resources ought to be offered resources preferentially	✓ Harms and benefits are considered broadly, which include impacts at different levels (individuals, populations e.g., palliative care patients)			

Priority	Principle & Value	The proposed decision enables...	YES	NO	ONLY IF...	N/A
1		**b. Just Distribution of Benefits and Harms, Risks, and Burdens:** • Avoid unfair burdens on particular individuals and/or segments of the population; and			✓There is periodic evaluation of the guideline to confirm that restrictions are still warranted	
1		• Avoid perpetuating systemic or structural inequities and attempt to ameliorate inequities	✓ Guideline considers patients' physical care and mental well-being including the support that visitors provide to patients			
2	B4. **Respect**	Individual autonomy, choice, and perspectives of unique and diverse populations are considered and respected			✓Health care workers take a thoughtful and nuanced approach to implementing the visitation guideline, balancing safety, survival and quality of life	
2	B5. **Cultural Safety**	Respectful inquiry of stakeholders' worldview and incorporation of cultural safety into all aspects of decision-making and practices	✓ Enabling virtual visitation where in-person visitation is not possible			
3	B6. **Least Coercive and Restrictive Means**	Consideration of any infringement on individual autonomy and choice, and seek the least restrictive or coercive, yet effective means	✓ Enabling virtual visitation where in-person visitation is not possible			
3	B7. **Reciprocity**	Supporting individuals or populations who face increased risk and/or disproportionate burdens during a pandemic	✓ Essential visits can include, but are not limited to: -Visits for compassionate care, including critical illness, palliative care, hospice care, end of life, and Medical Assistance in Dying; - Visits paramount to the patient's physical care and			

Priority	Principle & Value	The proposed decision enables...	YES	NO	ONLY IF...	N/A
			mental well being			
3	B8. **Proportionality**	Measures implemented are proportionate to and commensurate with the level of risk	✓			

Step 4: For those principles and values that are not met (e.g., "no"), consider whether the decision can be modified to meet the prioritized principles and values (i.e. consider whether the "no" can be converted to "yes").

- **Procedural justice (fair process) – Inclusiveness.** Although the guideline development may not involve all patients and families, to the extent possible, health-care workers should consider their patients and families, and make decisions based on their values and beliefs.
- **Consistency.** Currently, the provincial guidance provides several examples of essential visits to long-term care and seniors' assisted living facilities that health authorities, facility operator as well as staff are expected to follow.[5]

Step 5: If the decision does not meet all the principles and values (e.g., there are still principles and values marked "no"), articulate which principles and values are unmet and explain why (see Step 6).

Step 6: Articulate your final decision and rationale and then implement it. Confirm that any principles and values marked "only if" are part of the proposed decision.

The Final decision and rationale:

Restriction of visitors impacts patients' physical, and emotional well-being. However, not restricting visitors will increase the risk of transmission to patients, health-care workers, and the broader community, as demonstrated by ongoing outbreaks at long-term care and seniors' assisted living facilities during the COVID-19 pandemic. The risk of transmission could lead to serious health complications, deaths in patients, overwhelm the overall British Columbia health system and affect its ability to cope with all the patients who become ill.

The transmission risks cannot be sufficiently mitigated by mask use only. Other infection and prevention control measures in the Hierarchy of Controls[6] must be utilized.

Inconsistent interpretation and application of the visitor guideline across the province may lead to:

- *Challenges related to fairness;*
- *Unmet patient/resident need for care and support;*
- *Frustration for families; and*

[5] BCCDC (2020) Essential Visitors Poster. Retrieved November 24, 2020 from http://www.bccdc.ca/Health-Info-Site/Documents/COVID19-NoVisitorsPoster.pdf

[6] BCCDC (2020) COVID-19: Infection Prevention and Control Guidance for Community-Based Allied Health Care Providers in Clinic Settings. Retrieved November 24, 2020 from http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_IPCGuidelinesCommunityBasedAlliedHCPsClinicSettings.pdf

- *Moral distress for health-care workers.*

There is a need for a systematic response to ensure patient care is being supported in a manner that balances commitments to the health and safety of patients as well as staff, with in the emotional and physical support that visitors provide to patients.

The final decision should:

- *Establish the minimum standards for health care workers' safety that cannot be compromised as family visits are accommodated;*
- *Be transparent to patients and families and demonstrate evidence used in the decision to explain the risk to patients and families and health care workers and/or public safety;*
- *Communicate the importance of consistency by directing all sites to follow the guideline;*
- *Establish that health-care workers have adequate support to implement the visitor policy and address concerns;*
- *Periodically evaluate the guideline to confirm that visitor restrictions are still warranted and that the criteria of essential visits are unchanged; and*
- *Allow implementation to reflect, to the extent possible, the values of the patients' in the facility particularly in how these relate to the balance between safety, survival and quality of life.*

Appendix D: Contributors

The COVID-19 Provincial Health Ethics Advisory Team:

Co-Chairs:

Alice Virani, Provincial Health Services Authority and
Bethan Everett, Vancouver Coastal Health Authority

Members:

Mojisola Adurogbangba, Fraser Health Authority
Allen Alvarez, Fraser Health Authority
Jillian Boerstler, Providence Health Care
Karen Burton, Vancouver Island Health Authority
Jocelyn Chase, Providence Health Care
Jennifer A. Gibson, Providence Health Care
Julia Gill, Vancouver Coastal Health Authority
Bashir Jiwani, Fraser Health Authority
Jeff Kerrie, Vancouver Island Health Authority
Maria Michael, Fraser Health Authority
David Migneault, Vancouver Coastal Health Authority
Tammy Molina, Interior Health Authority
Nina Preto, Provincial Health Services Authority
Kirsten Thomson, Northern Health Authority

Government of Canada / Gouvernement du Canada

Lifting of restrictive public health measures - Recommendations from the F/P/T Special Advisory Committee on COVID-19

Recommendations from the Federal/Provincial/Territorial (F/P/T) Special Advisory Committee on COVID-19

Foundations for Living with COVID-19 in Canada: Lifting of Restrictive Public Health Measures

April 30, 2020

This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

On this page

The status of the COVID-19 epidemic varies across Canada. Nationally, we have started to see the impact of public health measures on the flattening of the epidemic curve and slowdown in the growth of new cases. The nature and phase of the COVID-19 epidemic is different across and within provinces and territories. The F/P/T Special Advisory Committee (SAC) on COVID-19 provides advice to support a pan-Canadian coordinated approach to support governments' decisions in transition to living with

COVID-19 in Canada. This document provides recommendations and guidance for re-opening approaches that can be tailored to jurisdictions across the country. It draws on and supports the First Ministers Statement on a shared public health approach to support restarting the economy, and elaborates further advice on indicators that governments can use and a proposed gradual approach to lifting of public health measures.

SAC members have agreed to the following objectives, principles, criteria, indicators and initial approach to inform decisions of governments in re-opening and key conditions for easing restrictions to guide transition planning across Canada.

Objectives

The objectives of the Canada's COVID-19 pandemic response and our joint recovery are:

- To minimize all serious illness and death, and
- To minimize societal disruption, including reducing the burden on health care.

It is acknowledged that as some public health measures are lifted, some degree of COVID-19 transmission will be unavoidable. Until targeted therapies or vaccine is available, the aim will be to carefully balance the risks associated with spread of COVID-19 with the unintended social and health consequences of restrictive public health measures. As governments develop plans to gradually lift restrictions, areas of focus include:

- protecting the health of Canadians**;**
- easing restrictions gradually;
- protecting high-risk groups (e.g., those vulnerable due to age, underlying health conditions, remote location, close living spaces and

temporary or unstable living spaces);
- ensuring our public health capacity remains strong to prepare for and respond to any future waves of the pandemic, including through enhanced testing and contact tracing; and,
- supporting a broad range of economic sectors.

Principles

- **Science and evidence based decision making** Decisions to ease and/or reinstate measures should be based on current public health situations as advised by public health officials.
- **Coordination and collaboration** – Strong collaboration to date has served Canadians well and continued collaboration is key to ongoing success. Governments agree to support the continuation of supply chains across borders to maintain economic activity, access to protective equipment and food security for all Canadians. Governments will continue to share information about challenges and opportunities. Since provinces, territories and the Government of Canada may need to move forward at different times and in potentially different ways it will be important to maintain the coordination and collaboration that has taken place throughout the pandemic (e.g., consistent guidance on occupational health and safety requirements).
- **Accountability and transparency** – Each government will continue to be accountable to its residents, and will monitor the impacts of measures to restart the economy and provide updates on progress. Data sharing is critical to understanding the situation across Canada and is essential to informing efforts to reopen segments of the economy.
- **Flexibility and proportionality** Public health measures should be relaxed based on the level of threat and in a controlled and phased

manner based on information that may change over time. This includes information on risks around the disease and health of Canadians, as well as social and economic benefits to them. It also includes local and sectoral contexts (e.g., different workplaces, educational institutions, and social activities). It is recognized that there will be differences within jurisdictions on approaches taken and that measures may need to be re-imposed if the understanding of the information changes.

Criteria and indicators

To determine whether jurisdictions are ready to lift or loosen various restrictive public health measures, the SAC has agreed on a set of criteria and indicators that will help inform government decisions on readiness for transition of any measures. These seven criteria and thirteen indicators may also be used by each government to assess the need for re-introduction of specific measures as the pandemic progresses.

1. **COVID-19 transmission is controlled**

   Indicator 1.1: Number of cases (linked and non-linked), hospitalizations, intensive care unit (ICU) admissions and deaths per day
   Indicator 1.2: Reproduction number, absolute and relative changes in cases, hospitalizations and deaths

2. **Sufficient public health capacity is in place to test, trace and isolate all cases.**

   Indicator 2.1: Testing capacity
   Indicator 2.2: Resources to trace contacts
   Indicator 2.3: Ability to isolate all cases

Indicator 2.4: Ability to quarantine all contacts

3. **Expanded health care capacity exists: the incidence of new cases should be maintained at a level that the health system can manage including substantial clinical care capacity to respond to surges.**

   Indicator 3.1: Critical care capacity
   Indicator 3.2: Availability of personal protective equipment (PPE)

4. **Supports are in place for vulnerable groups/communities and key populations to minimize outbreak risks**

   Indicator 4.1: Availability of guidance for staff and residents to prevent transmission among vulnerable groups/settings
   Indicator 4.2: Number, size, and status of outbreaks in high vulnerability settings

5. **Workplace preventive measures are established to reduce risk**

   Indicator 5.1: Availability of guidance for workers and employers to prevent transmission of COVID-19 in the workplace
   Indicator 5.2: Number of workplace outbreaks

6. **Avoiding risk of importation of cases**

   Indicator 6.1: Number of international travel-related cases

7. **Engage and support communities to adjust to the new normal**

   Indicator 7.1: Communications strategies in place

This set of criteria and indicators provide a data and evidence-driven basis for decisions to lift or adjust some public health measures. Together these indicators could determine, objectively, each government's readiness for

the gradual, lifting (or re-instating) of measures that will ultimately allow the safe restarting of our economy and societal activities.

Public health advice: initial phase to gradually lift public health measures

This section highlights SAC's advice on core personal public health practices that governments can consider for the duration of the COVID-19 pandemic, outlines the initial measures that can be adjusted, and provides general recommendations regarding how to approach operationalization and implementation of mitigation strategies.

This is a pan Canadian approach that can be implemented regionally/provincially based on local circumstances. Transition should be slow, gradual, and tailored to jurisdictional contexts including remote and isolated communities, with sufficient time between each phase of transition to detect changes (e.g., 2 incubation periods, or 28 days). Given the additional risks and considerations for remote, isolated and Indigenous communities, these communities will require special focus, including culturally appropriate measures, and protections to prevent introduction of new cases from other regions where measures may be lifted earlier.

Jurisdictions will also be monitoring the effectiveness (harms and benefits) of specific measures, including their unintended consequences, as new information becomes available with a view to adjusting less effective measures as appropriate.

Core personal public health practices

With no targeted therapies or vaccine available, core personal public health practices will need to become the "new normal" in order to maximize our ability as a society to control the rapid spread of the virus. Everyone has a

role to play and the following core personal public health practices are fundamental, and should underlie all phases of the COVID-19 response:

- Staying informed, being prepared and following public health advice
- Continuing to practice good hygiene (hand hygiene, avoid touching face, respiratory etiquette, disinfect frequently touched surfaces)
- Maintaining physical distancing as much as possible when outside of the home (i.e. from non-household members)
- Continuing to increase environmental cleaning and ventilation of public spaces and worksites
- Staying at home and away from others if symptomatic/feeling ill – do not go to school/work and follow jurisdictional/local public health advice
- Staying at home if at high risk of severe illness
- Continuing to wear a medical mask, or if not available a non-medical mask or face covering if you experience symptoms, and, will be in close contacts with others or go out to access medical care
- Consider the use of non-medical masks in situations where physical distancing cannot be maintained
- Reducing personal non-essential travel

Frequent and transparent communications to the public by governments will be important to help engage Canadians on their role to reduce the risk of COVID-19 by adopting these practices. These communications should be incorporated into governments' on-going community and engagement strategies with the public and should emphasize the continued importance of these core personal practices as restrictive public health measures are loosened. Engagement strategies should also consider and address challenges, barriers and opportunities to maintain these measures at the population level and in specific populations.

Initial phase: lifting a set of public health measures

Based on the seven criteria to help support governments in lifting restrictive public health measures, certain measures of the current COVID-19 response may be lifted, under specific conditions, which include allowing:

1. **Some non-essential businesses able to open**
2. **Daycare and education settings/camps to operate/open**
3. **Additional outdoor activities/ recreation to resume**
4. **Non-urgent health care services to resume**
5. **Small critical cultural ceremonies (such as funerals)**

The above five measures have been included for consideration by governments in the first phase for the following reasons: their interconnectedness with other measures (e.g., work and childcare), feasibility of physical distancing and required conditions, seasonality, need to reduce unintended consequences of restrictive measures and ability to decrease societal disruption and stimulate economic activity.

Specific conditions for lifting public health measures

The specific conditions for the lifting of the restrictive measures recommended as a first phase should be met in order to reduce contact intensity and number of contacts and therefore the risk of transmission. Meeting the following conditions will increase the ability to mitigate the risk associated with loosening of measures. The proposed first phase could include allowing:

1. **Some non-essential businesses able to open**

- Core personal practices supported to the extent possible (e.g. hand hygiene stations, tissues/wastebaskets)

- Maintain physical distancing whenever possible (e.g., telework when possible, signage, floor markings, appropriate spacing of restaurant tables)
- Efforts are made to prevent the entry of sick individuals (e.g. signage about not entering if symptomatic at entrance to business or when booking appointment)
- Employ physical barriers (e.g., Plexiglass at checkout) and other engineering controls (e.g., increasing ventilation)
- Increase environmental cleaning (e.g., increase the frequency of cleaning/disinfecting high-touch surfaces)
- Offer special options for persons at high-risk of severe illness (e.g., online/phone ordering, curbside pick up, special hours)

2. **Daycare and education settings/camps to operate/open**

- Maintain the provision of online learning as an option for students vulnerable to the impacts of COVID-19 (e.g. immune-compromised)
- Core personal practices supported (e.g. provide education, supervised hand hygiene)
- Screening for all staff and students/campers
- Maintain physical distancing as much as possible (e.g., separation of desks, no assemblies, no high-contact sports, limit extracurricular activities)
- Staff and students/campers at higher risk of severe illness remain at home
- Environmental cleaning (e.g., increase the frequency of cleaning/disinfecting high-touch surfaces)
- Non-medical masks may be considered; however, they are not recommended for children < 2 years of age

3. **Additional outdoor activities/ recreation to resume**

- Core personal practices supported to the extent possible
- Maintain physical distancing between members of different households when participating in outdoor recreation (e.g. picnics, camping)
- No large gatherings, even outdoors and when appropriately physically distanced
- Sports – allow only those that can main physical distancing (e.g., low/no contact, separation on sidelines)
- Equipment – no sharing, cleaning common sporting equipment in between use

4. **Non-urgent health care services to resume**

- Core personal practices supported (e.g. hand hygiene supplies, tissues)
- Physical distancing measures in place (e.g. tele-medicine, no waiting in waiting room, call in from car)
- Scheduling to protect patients at higher risk of severe illness (e.g., certain days, beginning of day)
- Environmental cleaning (e.g., increase frequency of cleaning/disinfecting high-touch surfaces, between patients)

5. **Small critical cultural ceremonies (such as funerals) to take place**

- Core personal practices supported (e.g. hand hygiene supplies, tissues)
- Screening of personnel and mourners prior to entering the gathering
- Persons at higher risk of severe illness should not attend
- Physical distancing maintained
- Limit size of gathering (e.g., number of participants)
- No receptions or buffet meals; single-serving refreshments only
- Ceremonies are held outdoors when possible

Additional information on lifting measures including risk assessment and mitigation advice, as well as supporting evidence will be available in a more comprehensive technical document.

Ongoing collaboration across jurisdictions

The F/P/T Special Advisory Committee (SAC) on COVID-19 will continue to meet regularly to develop further recommendations to inform governments in their decisions for Canada's transition to living with COVID-19. This could include development and updates to national guidance and support tools, as well as provision of data and evidence-informed advice to support jurisdictions in gradually lifting public health measures. SAC members will work together to propose tools that governments could use in their communications strategies and share information on their respective approaches to monitor impacts and changes in order to protect the health of Canadians as we restart the economy and learn to live with COVID-19.

Date modified:
2020-05-01

BC Centre for Disease Control
An agency of the Provincial Health Services Authority

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

COVID-19
Case Report Form

INSTRUCTIONS

- **This form is confidential when completed.**
- **Create investigations for confirmed and probable and epi-linked COVID-19 cases in Panorama/PARIS.**
- **Enter as much additional information into Panorama/PARIS as required regionally.**
- **COVID-19 provincial minimum dataset will be reported to BCCDC by regional health authorities using separate line lists. Case report forms do not need to be submitted to BCCDC.**
- **Notify BCCDC (covid@bccdc.ca) about out-of-province cases or contacts requiring public health follow-up.**
- **COVID-19 provincial minimum dataset items (for submission via line list) are indicated with an asterisk (*). Note: the minimum dataset for reporting in the provincial public health information system for all reportable communicable diseases is outlined in the Surveillance of Reportable Conditions chapter of the CD Manual.**

Panorama Data Entry Guidance

More details in Section M, page 8

PERSON REPORTING

Health Authority*: ☐ FHA ☐ FNHA ☐ IHA ☐ NHA ☐ VCH ☐ VIHA

Name: *Last* *First* | Phone Number: ( ) - ext.

Email: | Fax Number ( ) - ext.

Date report received by health authority*: _____ *YYYY / MM / DD*

Source(s) of information:

☐ Patient/family interview ☐ Attending clinician ☐ Hospital record ☐ Other, *specify*: _____

Investigation disposition*: ☐ Complete ☐ Follow-up in progress ☐ Lost to follow-up

Review/update using the links on the top right hand corner:
>My Account
>>User Profile

If entering data on behalf of someone else, record in >Notes > when the investigation is in context.

Record date received:
>Investigation
>>Investigation Details
>>>Reporting Notifications as Report Date (Received)

Record source of information in:
>Investigation
>>Investigation Details
>>>Links & Attachments
>>>>COVID-19 Surveillance Case Investigation Form

A. CLIENT PERSONAL INFORMATION

Panorama Investigation ID*: | PARIS Client ID:

Name*: *Last* *First* *Middle*

Date of Birth*: _____ *YYYY / MM / DD* | Sex*: ☐ Male ☐ Female ☐ Undifferentiated ☐ Unknown

Gender identity: ☐ Female ☐ Male ☐ Non-binary ☐ Transgender Female to Male ☐ X
☐ Transgender Male to Female ☐ Transgender ☐ Two Spirit ☐ Unsure/Questioning ☐ Other

Health Card Number*: | Alternate Name(s):

Phone Number (home/work/mobile): ( ) - ext.

Address: *Unit #* *Street #* *Street Name* *City**

Postal Code*: | Province*: | Country of Residence (*if not Canada*) *:

Record or review and update in
>Subject
>>Client Details
>>>Personal Information

Select this address as "Client Home Address at Time of Initial Investigation" in
>Investigation
>>Investigation Details
>>>Investigation Information

B. INDIGENOUS INFORMATION

Do you self-identify as an Indigenous Person?

☐ Asked, not provided ☐ No ☐ Non-BC Resident ☐ Yes

Indigenous Identity:
☐ Asked, but unknown ☐ Asked, not provided ☐ First Nations
☐ First Nations and ☐ First Nations and Métis ☐ First Nations, Inuit and Métis ☐ Inuit
☐ Inuit and Métis ☐ Métis ☐ Not asked

First Nations Status:
☐ Asked, but unknown ☐ Asked, not provided ☐ Non-Status Indian
☐ Not Asked ☐ Status Indian

Indigenous Organization: _____

Record or review and update in
>Subject
>> Client Details
>>> Indigenous Information

BC Centre for Disease Control
An agency of the Provincial Health Services Authority

COVID-19
Case Report Form

	Panorama Data Entry Guidance

C. RISK FACTORS

Risk Factor	Yes	No	Asked but Unknown	Declined to Answer	Not Assessed
Chronic cardiac disease (excluding hypertension)	☐	☐	☐	☐	☐
Diabetes	☐	☐	☐	☐	☐
Malignancy/cancer (diagnosed in the last 5 years)	☐	☐	☐	☐	☐
Other chronic respiratory/pulmonary condition (excluding asthma)	☐	☐	☐	☐	☐
Immunocompromised	☐	☐	☐	☐	☐
Pregnancy* *If yes,* gestational age (weeks): _____	☐	☐	☐	☐	☐

Record in
> Subject
>> Risk Factors

When he investigation is in context, the preset list of COVID-19 risk factors will display, and newly recorded risk factors will be set as pertinent to the investigation.

Follow PPHIS guidance to ensure previously-recorded risk factors are marked as pertinent to the investigation.

D. EXPOSURES

In the 14 days prior to illness onset, did the client:

Work in or attend (in person) an educational institution or daycare?*

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, role:* ☐ Student ☐ Staff ☐ Other ☐ Unknown

Type of institution:* ☐ School (K-12) ☐ Day care ☐ Post-secondary ☐ Other ☐ Unknown

Institution/daycare name: _____

Street address: _____ Postal code: _____

Work in another congregate setting[$] (e.g., healthcare settings, offices, and other congregate settings)?

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, worksite name: (* minimum data element for healthcare workers) _____

Street address: _____ Postal code: _____

Live in a congregate setting[$] (e.g., long term care / assisted living facilities, group homes, dorms, worker housing)?

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, residence name: _____

Street address: _____ Postal code: _____

Visit a congregate setting (excluding those you provided details for above)?

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, setting name: _____

Street address: _____ Postal code: _____

Record in
>Investigation
>>Investigation Details
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[$] Defini ions are available in Section L

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D. EXPOSURES cont.

Is the client a healthcare worker[§]?* ☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, role:*
☐ Nurse ☐ Physician ☐ Laboratory technician ☐ Emergency medical personnel
☐ Housekeeping ☐ Administrative ☐ Dental professional ☐ Licensed practical nurse (LPN)
☐ Care aide ☐ Kitchen staff ☐ Volunteer ☐ Student (medical, dental, nursing, lab)
☐ Other, specify: _____

Did the client travel ***outside*** Canada in the 14 days prior to illness onset?*
☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed
If yes, specify country*: _____

Did the client travel ***within*** Canada in the 14 days prior to illness onset?*
☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed
If yes, was travel:* ☐ Within BC only – Specify city/cities: _____
☐ Outside BC, but within Canada – Specify province(s):*

Was the client in close contact[§] with a probable[§] or confirmed[§] case of COVID-19 within 14 days prior to illness onset?*
☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed
If yes:

Panorama Investigation ID or Case identifiers* (e.g., name, PHN)	First Contact Date (yyyy/mm/dd)	Last Contact Date (yyyy/mm/dd)	Comments
	_____ Or sustained contact ☐Yes ☐No ☐UK (no specific contact date):	_____	

Setting type:*

Residence	***Health Care***	***Community***
☐ Private dwelling/home	☐ Acute care facility	☐ Transportation (e.g., public transit, taxi)
☐ Assisted living	☐ Long term care facility	☐ Conference/banquet hall
☐ Independent living	☐ Community health care setting (e.g., clinic)	☐ Fitness studio/gym
☐ Group home (community living)	***Work/School***	☐ Restaurant/bar/lounge
☐ Correctional facility	☐ School or daycare	☐ Religious / spiritual institution[§]
☐ Workplace with communal living	☐ Agri-food processing facility	☐ Retail (e.g., mall, grocery store, pharmacy)
☐ Shelter	☐ Industrial / manufacturing setting	☐ Personal care (e.g., spa, barber, salon)
☐ Dormitory (e.g., university)	☐ Office building	☐ Other, *specify*: _____
☐ SRO / Modular housing	☐ Workplace not otherwise specified[§]	
☐ Other residence type, specify: _____		

Role of client:*
☐ Resident/patient ☐ Staff/worker ☐ Student
☐ Inmate ☐ Customer/patron ☐ Guest/visitor
☐ Event attendee ☐ Household member ☐ Volunteer
☐ Other, specify: _____

Activity type:* (if relevant)
☐ Private party/event ☐ Social visit ☐ Extra-curricular[§]
☐ Mass gathering event (e.g., conference, sporting event) ☐ Other, specify: _____

NOTE: If the client had contact with more than one probable[§] or confirmed[§] case of COVID-19 within 14 days prior to illness onset, enter the details for each case in the regional COVID public health information system.

Record in
>Investigation
>>Investigation Details
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[§] Definitions are available in Section L

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D. EXPOSURES cont.

Was the client directly associated with a known cluster or outbreak[§] (e.g. communal setting with cases, community cluster) during their incubation[§] or communicability period[§]?*

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

Setting type:*

Residence	***Health Care***	***Community***
☐ Private dwelling/home	☐ Acute care facility	☐ Transportation (e.g., public transit, taxi)
☐ Assisted living	☐ Long term care facility	☐ Conference/banquet hall
☐ Independent living	☐ Community health care setting (e.g., clinic)	☐ Fitness studio/gym
☐ Group home (community living)	***Work/School***	☐ Restaurant/bar/lounge
☐ Correctional facility	☐ School or daycare	☐ Religious / spiritual institution[§]
☐ Workplace with communal living	☐ Agri-food processing facility	☐ Retail (e.g., mall, grocery store, pharmacy)
☐ Shelter	☐ Industrial / manufacturing setting	☐ Personal care (e.g., spa, barber, salon)
☐ Dormitory (e.g., university)	☐ Office building	☐ Other, *specify*: _____
☐ SRO / Modular housing	☐ Workplace not otherwise specified[§]	

☐ Other residence type, specify: _____

Role of client:* ☐ Resident/patient ☐ Staff/worker ☐ Student ☐ Inmate ☐ Customer/patron ☐ Guest/visitor ☐ Event attendee ☐ Household member ☐ Volunteer ☐ Other, specify: _____

Activity type:* (if relevant) ☐ Private party/event ☐ Social visit ☐ Extra-curricular[§] ☐ Mass gathering event (e.g., conference, sporting event) ☐ Other, specify: _____

If yes, cluster/outbreak name:* _____

Start date (yyyy/mm/dd): _____/____/____ End date (yyyy/mm/dd): _____/____/____

Was this case most likely acquired from an unknown source[§]?*

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

Based on public health assessment, what was the case's most likely source of infection?*

☐ Travel - international ☐ Travel – within Canada but outside BC ☐ Close contact[§] with confirmed/probable case ☐ Exposure to a cluster/outbreak ☐ Unknown source[§] ☐ Pending / missing exposure information ☐ Unclear, based on public health interview[§]

E. TRANSMISSION

Total number of close contacts[§] identified for this client: _____ ☐ Unknown

Did the client work in or attend (in person) an educational institution or daycare during their communicability period[§]?

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, role: ☐ Student ☐ Staff ☐ Other ☐ Unknown

Type of institution: ☐ School (K-12) ☐ Day care ☐ Post-secondary ☐ Other ☐ Unknown

Institution/daycare name: _____

Street address: _____ Postal code: _____

Grade (K-12): _____ Class details (e.g., division, cohort): _____

Record in >Investigation >>Investigation Details >>>Links & Attachments >>>> COVID-19 Surveillance Case Investigation Form

[§] Definitions are available in Section L

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D. LABORATORY INFORMATION

Record in >>>Links & Attachments >>>> COV D-19 Surveillance Case Investigation Form

Indication for testing: ☐ Symptomatic ☐ Asymptomatic - outbreak ☐ Asymptomatic – work requirement ☐ Asymptomatic – non-outbreak exposure ☐ Asymptomatic - other

Specimen Collected	Collection Date *(YYYY/MM/DD)*	Testing Laboratory	Result for SARS-CoV-2
☐ Upper respiratory (e.g., Nasopharyngeal or oropharyngeal swab)			☐ Positive ☐ Negative ☐ Indeterminate ☐ Pending
☐ Lower respiratory (e.g., sputum, tracheal aspirate, BAL, pleural fluid)			☐ Positive ☐ Negative ☐ Indeterminate ☐ Pending
☐ Saline gargle			☐ Positive ☐ Negative ☐ Indeterminate ☐ Pending
☐ Other, *Specify:*_____			☐ Positive ☐ Negative ☐ Indeterminate ☐ Pending

Receive through E-Lab inbox, or record in >Investigation >>Lab >>>Lab Quick Entry NOTE: the lab test in Panorama starts with "Human coronavirus "

Record Causative Agent in >Investigation >>Disease Summary

E. SIGNS AND SYMPTOMS

Was the case asymptomatic through the end of the monitoring period?

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

Record asymptomatic in >Investigation >>Investigation Details >>>Links & Attachments >>>> COVID-19 Surveillance Case Investigation Form

Earliest onset of symptoms*: _____ / _____ / _____
YYYY *MM* *DD*

Sign / Symptom	Yes	No	Asked but Unknown	Declined to Answer	Not Assessed
Abdominal pain	☐	☐	☐	☐	☐
Arthralgia (painful joints)	☐	☐	☐	☐	☐
Chills	☐	☐	☐	☐	☐
Confusion	☐	☐	☐	☐	☐
Conjunctivitis	☐	☐	☐	☐	☐
Cough	☐	☐	☐	☐	☐
Diarrhea	☐	☐	☐	☐	☐
Discoloration of toes or fingers	☐	☐	☐	☐	☐
Dizziness	☐	☐	☐	☐	☐
Fatigue	☐	☐	☐	☐	☐
Fever	☐	☐	☐	☐	☐
Headache	☐	☐	☐	☐	☐
Loss of appetite	☐	☐	☐	☐	☐
Loss of sense of smell (anosmia)	☐	☐	☐	☐	☐
Loss of sense of taste (ageusia)	☐	☐	☐	☐	☐
Myalgia (muscle pain)	☐	☐	☐	☐	☐
Nasal congestion	☐	☐	☐	☐	☐
Nausea	☐	☐	☐	☐	☐
Pharyngitis (sore throat)	☐	☐	☐	☐	☐
Rash	☐	☐	☐	☐	☐
Rhinorrhea (runny nose)	☐	☐	☐	☐	☐

Record in >Investigation >>Signs and Symptoms

Record at least one symptom and specify onset date. Select "Set as Onset" for symptom with earliest onset date.

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G. SIGNS AND SYMPTOMS cont.

Sign / Symptom	Yes	No	Asked but Unknown	Declined to Answer	Not Assessed	
Shortness of breath / breathing difficulty	☐	☐	☐	☐	☐	Record in >Investigation >>Signs and Symptoms
Vomiting	☐	☐	☐	☐	☐	
Weakness	☐	☐	☐	☐	☐	
Other, *specify*: _____	☐	☐	☐	☐	☐	

H. HOSPITALIZATION

Admitted to hospital[§]:* ☐ Yes ☐ No ☐ Unknown

If yes, admission date (yyyy/mm/dd)*: ____/____/____ Discharge date (yyyy/mm/dd)*: ____/____/____

Admitted to an intensive care unit[§]?* ☐ Yes ☐ No ☐ Unknown

If yes, admission date (yyyy/mm/dd)*: ____/____/____ Discharge date (yyyy/mm/dd)*: ____/____/____

Record in >Investigation >>Investigation Details >>>Links & Attachments >>>> COVID-19 surveillance Case Investigation Form

I. ISOLATION AND OUTCOME

Has the client discontinued isolation?* ☐ Yes ☐ No ☐ Unknown

If yes, date isolation discontinued (yyyy/mm/dd)*: _____/_____/_____

People may find it difficult to isolate themselves for various reasons. Do you have any concerns about your ability to self-isolate?

☐ Yes ☐ No ☐ Asked but Unknown ☐ Declined to Answer ☐ Not Assessed

If yes, list the services the client was referred to: _____

Discontinued isolation data: Record in >Investiga ion >>Investigation Details >>>Links & Attachments >>>> COVID-19 surveillance Case Investigation Form

Outcome at Time of Reporting*

☐ Fully recovered ☐ Not yet recovered/recovering ☐ Fatal *If died*, date of death:* _____ *YYYY/MM/DD*

☐ Permanent disability ☐ Unknown ☐ Other, *specify*: _____

If died, cause of death:

☐ Contr buted but wasn't underlying cause ☐ Did not contribute to death/incidental

☐ Underlying cause of death ☐ Unknown

☐ Other, specify: _____

Record outcome in >Investiga ion >> Outcome

If fatal outcome, see Section M for data standards.

J. CLASSIFICATION*[§]

☐ Confirmed ☐ Probable: lab ☐ Probable: epi-linked

☐ Suspect ☐ Person Under Investigation ☐ Not a Case

Record/Update in >Investiga ion >>Disease Summary

K. NOTES

Record in >Notes

In order to have the note linked to the investigation, ensure he investigation is in context when creating the note.

[§] Definitions are available in Section L.

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L. DEFINITIONS	
Case Definitions	
Person Under Investigation	A client who is being/has been followed-up for a reportable condition and does not meet the criteria outlined in any of the case definitions; however, the diagnosis has not been completely ruled out.
Suspect case	A person with symptoms that include two or more of: fever (signs of fever), cough (new or exacerbated chronic), sore throat, runny nose, and headache AND either meets the exposure criteria or had close contact with a probable case of COVID-19.
Probable – lab case	A person (who has had a laboratory test) with fever (over 38 degrees Celsius) or new onset of (or exacerbation of chronic) cough AND who meets the COVID-19 exposure criteria and in whom a laboratory diagnosis of COVID-19 is inconclusive. Inconclusive is defined as an indeterminate test on a single or multiple real-time PCR target(s) without sequencing confirmation or a positive test with an assay that has limited performance data available. In Panorama, report these cases as "Probable".
Probable – epi-linked case	A person (who has not had a laboratory test) with fever (over 38 degrees Celsius) or new onset of (or exacerbation of chronic) cough AND either close contact with a confirmed case of COVID-19 or lived in or worked in a closed facility known to be experiencing an outbreak of COVID-19 (e.g., long-term care facility, prison). In Panorama, report these cases as "Probable, Epi-Linked".
Confirmed case	A person with laboratory confirmation of infection with the virus that causes COVID-19 performed at a community, hospital, or reference laboratory (NML or a provincial public health laboratory) running a validated assay. This consists of detection of at least one specific gene target by a NAAT assay (e.g., real-time PCR or nucleic acid sequencing).
Exposure criteria	In the 14 days before onset of illness, a person who: Traveled to an affected area (including inside Canada) **OR** Had close contact with a person with acute respiratory illness who traveled to an affected area (including inside Canada) within 14 days prior to their illness onset **OR** Participated in a mass gathering identified as a source of exposure (e.g., conference) **OR** Had laboratory exposure to biological material (e.g. primary clinical specimens, virus culture isolates) known to contain COVID-19. **Note:** Other exposure scenarios not specifically mentioned here may arise and may be considered at MHO discretion (e.g. history of being a patient in the same ward or facility during a nosocomial outbreak of COVID-19).
Affected areas	Affected areas are defined by the Public Health Agency of Canada and are subject to change (https://health-infobase.canada.ca/covid-19/international/). Consult the MHO for the most up-to-date information.
Exposures	
Congregate setting	An environment where a number of people meet or gather and share the same space for a period of time.
Healthcare worker	Health Care Workers (HCWs) include persons who provide health care to patients or work in institutions that provide patient care (e.g., physicians, nurses, emergency medical personnel, dental professionals, laboratory technicians; medical, dental, nursing and laboratory technician students; hospital volunteers; and administrative, housekeeping and other support staff in health care institutions).
Close contact	A close contact is defined as a person who: provided direct care for the case, including healthcare workers, family members or other caregivers, or who had other similar close physical contact (e.g., intimate partner) without consistent and appropriate use of personal protective equipment, **OR** lived with or otherwise had close face to face contact (within 2 metres) with a probable or confirmed case for more than 15 minutes (may be cumulative, i.e., multiple interactions) up to 48 hours prior to symptom onset, **OR** had direct contact with infectious body fluids of a probable or confirmed case (e.g., was coughed or sneezed on) while not wearing recommended PPE, **OR** has been identified by the local MHO as a poss ble contact. (Note: This suggests the setting where contact occurred is known, the primary case was known/a specific interaction is recalled, contact occurred over a period of time)
Workplace not otherwise specified	The place where the client works, excluding workplace settings specifically listed as other setting types. For example, if the client works in a school or a restaurant, the setting should be recorded as "School or daycare" or "Restaurant/bar/lounge" and the role would be "Staff/worker".
Religious / spiritual Institution	Churches, temples, mosques and other places of worship/spirituality and institutions that exist to support and manage the practice of a specific set of religious or spiritual beliefs.
Extra-curricular	Organized activities undertaken by children or adults that fall outside the realm of normal school or work (and in settings not otherwise listed), such as sports teams, music lessons, dance classes etc.
Associated with a known cluster or outbreak	The case is considered either a potential index case for the cluster/outbreak or to have potentially been exposed to COVID via the cluster / outbreak.
Incubation Period	For public health follow-up purposes, a period of 14 days should be considered (see Interim Guidance: Public Health Management of cases and contacts associated with novel coronavirus (COVID-19) in the community).
Communicability Period	Period of communicability is generally considered to be from 48 hours prior to onset of symptoms to 10 days after onset of symptoms. See Interim Guidance: Public Health Management of cases and contacts associated with novel coronavirus (COVID-19) in the community for additional guidance for those with illness of greater severity and those who are severely immunocompromised.
Unknown source	The source of the client's infection is unknown. The client has not reported travel, close contact with a confirmed or probable case or exposure to a known cluster or outbreak in the 14 days prior to onset.

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L. DEFINITIONS cont.	
Most likely source of infection	Based on information provided to public health, the most likely source of infection for the case. If the most likely source of infection is not assigned during the public health interview or if it is indicated as "Unclear, based on public health interview", it will be calculated for surveillance purposes using the following hierarchy: international travel, travel within Canada but outside BC, close contact with confirmed/probable case/exposure to a cluster/outbreak, unknown source, pending / missing exposure information.
Most likely source of infection: unclear, based on public health interview	The client may have one or more potential exposures, but no one exposure is clearly the case's most likely source (e.g., the case has had two or more exposures, or one potential exposure but the details are not clear enough to definitively identify it as the source of infection). If the most likely source of infection is indicated as "Unclear, based on public health interview", it will be calculated for surveillance purposes using the hierarchy described above.
Hospitalization, Isolation and Outcome	
Hospitalization	Any person admitted to a hospital for at least an overnight stay, or with a prolongation of hospitalization, for reasons directly or indirectly related to their COVID-19 infection, and with no period of complete recovery between illness and admission. Includes persons admitted to hospital but without transfer to a ward/unit. If unable to determine whether an admission/prolongation was related to COVID-19, please report as a hospitalized case. If it is known that the client remains in hospital for reasons unrelated to COVID-19, after being removed from isolation requirements, they should not be considered "currently hospitalized" due to COVID. If a client is removed from isolation but remains admitted due to complications of COVID, they should continue to be considered "currently hospitalized" due to COVID.
ICU admission	Any person admitted to an intensive care unit (ICU) for at least an overnight stay, or with a prolongation of ICU stay, for reasons directly or indirectly related to their COVID-19 infection, and with no period of complete recovery between illness and admission. If unable to determine whether an ICU admission/stay prolongation was related to COVID-19, please report as an ICU admission.
Discontinued isolation	Self-isolation has been discontinued per the criteria outlined in the Interim Guidance: Public Health Management of cases and contacts associated with novel coronavirus (COVID-19) in the community.
Death	A death (from any cause) occurring in any person with no period of complete recovery between illness and death.

M. PANORAMA DATA ENTRY DETAILS

If the ***client is pregnant***, record as a Risk Factor (under Subject in the left hand navigation).

Risk Factor: Special Population - Pregnancy Relevant to Disease Investigation
Additional Information: Record expected due date
Response: Yes
Additional Information: record gestational age

If the ***outcome is fatal***, record as follows.

Outcome: Fatal
Outcome Date: Date of death
Cause of Death: <select appropriate option>

After recording the outcome, inactivate the client in the Personal Information screen (under Subject > Client Details, on the left hand navigation) following routine procedures/standards.
Note: If the outcome is not fatal, the outcome date is the date public health was made aware of the outcome.

NOTE: Additional relevant training materials and data standards are available on the Panorama Solution Partner Portal (https://panoramacst.gov.bc.ca).

BC Centre for Disease Control

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

A Commissioner for taking affidavits in British Columbia

Faith-Based, Spiritual, and Worship Practices

Faith-based, spiritual, and worship practices are important to many people and offer opportunities to connect with communities. These practices also have a role to play in the prevention of COVID-19 transmission.

Last updated: January 26, 2021 at 4:30 PM

An order from November 19, suspends all in-person religious gatherings and worship services. This means people should not attend in-person religious, spiritual, or faith-based practices. These practices may only continue using remote or virtual attendance options, like Zoom or Skype.

You can still visit places that host worship or spiritual practices for individual activities such as contemplation, meditation, personal prayer, or worship. All venues that host these practices must have a COVID-19 safety plan in accordance with protocols set by WorkSafeBC.

Venues that host worship, spiritual, or faith-based practices need to follow basic precautions to prevent the spread of COVID-19. When in attendance, follow these precautions:

- Assess yourself for symptoms of COVID-19 and stay home if sick;
- Ensure you have access to handwashing stations or hand sanitizing supplies;
- Always maintain physical distance from others; and
- Check that the venue you attend is practicing routine cleaning and disinfection.

These measures are not forever, but they are very important for now, to protect the health of everyone in the community and in the province. Until practice and worship can continue in person, it's important that everyone follow the orders and participate safely to help prevent the spread of COVID-19 and protect those who are most vulnerable to complications of this disease.

It is also important to consider those who have an increased chance of developing severe illness or complications from COVID-19: people over the age of 65, as well as those with chronic health conditions, medical complexity or immune suppression. Work to support these people by participating remotely or virtually. WorkSafeBC has several suggestions for how to conduct different practices virtually.

Events and Gatherings

Some ceremonies (e.g., funerals) can go ahead with a limited number of people and a COVID-19 Safety Plan in place. You can have a maximum of 10 people attend, including the person organizing and/or officiants of the event.

Faith-based, spiritual, and worship gatherings are considered “events” under the Provincial Health Officer’s Order on Gatherings and Events. Under this Order, if you are the organizer you must collect the first and last names and email addresses or phone numbers of everyone who attends in person and keep this information for 30 days to help with contact tracing in case there is an exposure to COVID-19. If you are renting or using a space, you must also provide this information to the owner of the venue who must keep this information for 30 days.

Illness and Contact Tracing

If someone becomes ill

If someone develops symptoms of COVID-19, ask them to leave the venue and return home. Encourage them to use the Ministry of Health's online self-assessment tool or call 8-1-1 to determine if they need further assessment for COVID-19 testing by a health-care provider or at a local collection centre.

Safety Measures

Maintain physical distancing

Continue to use virtual or online gatherings when possible. In person, physical distance of two metres between people from different households must be maintained. Encourage participants to greet each other with a smile and a wave instead of direct person-to-person contact.

Reduce activities that increase the chances of spreading COVID-19

Although important to many practices, there are certain activities that are considered to increase the likelihood of COVID-19 transmission.

Examples of activities to reduce or alter include practices that involve person-to-person contact (such as the touching of hands and faces) and shared items (such as cups or prayer mats). Ensure all sanitary and safety measures are taken; minimize physical contact whenever possible and encourage hand washing or the use of a hand sanitizer with at least 60% alcohol after contact. For offerings, consider designating an area where participants can approach to provide offerings, or consider an online method of collection.

These activities should be reduced or altered, and other virtual means should be explored to support participants to practice in different, safer ways. Different spiritual beliefs include different practices, and organizations should turn towards their communities for specific guidance.

Singing and music

Singing and music can be very important in faith-based, spiritual, and worship practices. Please see the BCCDC's on Choirs and Bands for more information on reducing risk during these activities.

Food and beverage services

Follow the protocols and guidance for routine practices as set out in the Food Safety Act and the Food Premises Regulation. For more information see the BCCDC page on Food Safety.

BC Centre for Disease Control

This is **EXHIBIT "** **"** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Choirs and bands

Participating in choirs and bands may lead to increased risk of COVID-19 transmission if proper precautions are not taken. If preventative measures are taken, risks can be minimized.

It is important to use your judgement and comfort level, and consider your own health and the health of those in your group when deciding what activities to participate in. As with other social interactions, "bigger spaces, fewer faces" is a good way to approach singing and music.

This guidance does not apply to settings that are regulated under B.C. statute or where other orders, directives, or guidance may apply (e.g., schools, bars, and restaurants).

Choirs

Speaking and singing lead to the release of large respiratory droplets, which are the primary route of transmission for COVID-19. However, the forceful exhalations associated with loud singing can result in greater numbers of particles being released. As a result, the risk of COVID-19 transmission is increased when people are singing together in-person. This is especially true for large groups, spaces that do not allow for adequate physical distancing, indoor venues with poor ventilation, and when microphones, music stands or music binders are shared.

- Anyone who has been diagnosed with COVID or who has symptoms of COVID-19 should not participate in choir activities in-person.
- Public health recommends that people who are more likely to experience complications of COVID-19 – including older adults – avoid singing with others in-person, especially in larger groups.
- Adults and children who are not ill should sing in groups that are no larger than 50 and follow appropriate COVID-19 precautions (e.g., physical distancing, recording the contact information of participants, and regular hand washing) and Orders of the Provincial Health Officer.
- **Singing outdoors is best**, or in a large indoor space with good ventilation.

- Avoid sharing equipment; if sharing must occur, clean and disinfect between users.
- Reduce the duration of indoor singing. Have practice intervals followed by breaks to allow rooms to ventilate. The longer the duration of a practice where people are in close proximity, the greater the chance of transmission.
- Make sure the social aspects of choir or band rehearsals are adapted for COVID-19 precautions. Don't bring or share food, opt out of physical greetings (like hugs or handshakes), and keep adequate physical distance during breaks.

Band and musical instruments

- Anyone who has been diagnosed with COVID or who has symptoms of COVID-19 should not participate in band activities in-person
- Public health recommends that people who are more likely to experience complications of COVID-19 – including older adults – should avoid playing instruments with others in person, especially in large groups.
- Adults and children who are not ill should play instruments in groups that are no larger than 50 and follow appropriate COVID-19 precautions (e.g., physical distancing, recording the contact information of participants, and regular hand washing) and Orders of the Provincial Health Officer.
- **Playing instruments outdoors is best**, or in a large indoor space with good ventilation.
- Avoid sharing equipment. If sharing instruments is unavoidable (such as for a piano), items should be cleaned and disinfected between users.
- Consider the placement of instruments based on their risk of release of droplets (for example, flutes could be placed where exhalation would not be directed at other musicians).
- Brass instrument condensate should under no circumstances be released on the floor (as is often the case with spit valves) – this condensate should be captured in a container or on an absorbent cloth. Remember to practice hand hygiene each time after handling condensate and touching spit valves.

For more information on choirs and bands please see Guidance for Choirs and Bands + FAQ and an evidence review by the NCCEH, COVID-19 Risks and Precautions for Choirs.

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

Cliff #1157407

CLASS ORDER (mass gatherings) re: COVID-19

NOTICE TO OWNERS, OCCUPIERS AND OPERATORS OF PLACES AT WHICH LARGE NUMBERS OF PEOPLE GATHER (CLASS)

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: AN INDIVIDUAL / SOCIETY / CORPORATION OR OTHER ORGANIZATION INCLUDING A MUNICIPALITY / REGIONAL DISTRICT / SCHOOL BOARD / UNIVERSITY / COLLEGE / RELIGIOUS ORGANIZATION WHICH IS THE OWNER/OCCUPIER/OPERATOR OF OR IS OTHERWISE RESPONSIBLE FOR A THEATRE / SPORTS ARENA / CONFERENCE HALL / CHURCH / RECREATION CENTRE / CASINO / PARK / FESTIVAL SITE OR OTHER INDOOR OR OUTSIDE PLACE

WHEREAS:

A. A communicable disease known as COVID-19 has emerged in British Columbia;

B. SARS-CoV-2, an infectious agent, can cause outbreaks of serious illness known as COVID-19 among the public;

C. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in contact;

D. The gathering of large numbers of people in close contact with one another can promote the transmission of SARS-CoV-2 and increase the number of people who develop COVID-19;

E. You belong to the class of people who are the owner, occupier or operator, or are otherwise responsible for, a place or places at which large numbers of people gather in British Columbia;

F. I have reason to believe and do believe that

(i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

(ii) because the risk of an outbreak extends beyond the authority of one or more medical health officers and coordinated action is needed to protect the public from contracting COVID-19, it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39(3) of the *Public Health Act* **TO ORDER** as follows:

> You are prohibited from permitting the gathering of people in excess of **50 people** at a place of which you are the owner, occupier or operator, or for which you are otherwise responsible.

This Order expires on May 30, 2020 and is subject to revision, cancellation or extension by me.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to the me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would
   (a) meet the objective of the order, and

   (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

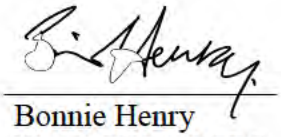
Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570

DATED THIS: 16 day of March 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: News release on the BC Government website, the BC Centre for Disease Control website and by email.

Enclosure: Excerpts of *Public Health Act*

Ministry of Health

Office of the
Provincial Health Officer

PO BOX 9648 STN PROV GOVT
Victoria BC V8W 9P4
Fax: (250) 952-1362
http://www.health.gov.bc.ca/pho/

ENCLOSURE

Excerpts of the *PUBLIC HEALTH ACT*

***Public Health Act* [SBC 2008] c. 28**

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held

by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it,

or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent

entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied

that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

Cliff #1157407

To: Honourable Adrian Dix, Minister of Health
Stephen Brown, Deputy Minister, Ministry of Health
All British Columbia Medical Health Officers
Dr. Evan Adams, Chief Medical Officer, First Nations Health Authority
Dr. Brian Emerson, Deputy Provincial Health Officer (acting)
Dr. Daniele Behn Smith, Deputy Provincial Health Officer, Indigenous Health
Dr. Reka Gustafson, Vice President, Public Health and Wellness
Lorie Hrycuik, Executive Lead, Ministry of Health

Re: Provincial Health Officer Notice
***Public Health Act* S.B.C. 2008, Chapter 28, section 52 (2)**

Further to the provisions of section 52 (2) of the *Public Health Act,* I hereby provide notice that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious illness known as COVID – 19 among the population of the Province of British Columbia, constitutes a regional event as defined under section 51 of the *Public Health Act*.

On the basis of the information that has been reported to me in my capacity as the Provincial Health Officer, I reasonably believe that the following criteria found in section 52 (2) *Public Health Act* exist:

(a) the regional event could have a serious impact on public health;
(b) the regional event is unusual or unexpected;
(c) there is a significant risk of the spread of an infectious agent; and
(d) there is a significant risk of travel or trade restrictions as a result of the regional event.

The purpose of providing this notice is to enable the exercise of the powers in Part 5 of the *Public Health Act* in responding to the event.

Signed this 17 day of March, 2020

SIGNED:

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

Ministry of Health
Office of the
Provincial Health Officer
PO BOX 9648 STN PROV GOVT
Victoria BC V8W 9P4
Tel: (250) 952-1330
Fax: (250) 952-1362
http://www.health.gov.bc.ca/pho/

FEDERAL/PROVINCIAL/ TERRITORIAL PUBLIC HEALTH RESPONSE PLAN FOR ONGOING MANAGEMENT OF COVID-19

August 19, 2020

This is **EXHIBIT "** **"** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Public Health Agency of Canada | Agence de la santé publique du Canada

Canada

Table of Contents

Executive Summary

This Federal/Provincial/Territorial plan developed in collaboration with federal, provincial and territorial public health officials, Indigenous partners, and health system partners, for these and other stakeholders, provides a common forward planning approach for ongoing management of COVID-19 in Canada. The plan acknowledges jurisdictional roles and responsibilities, identifies when national approaches are anticipated and when provincial/territorial flexibility and customization are expected.

Key elements of the plan include:

- a goal statement,
- public health response objectives,
- planning assumptions,
- a reasonable worst case scenario, and
- summaries of current and planned response activities for each main component of the public health response (i.e., Surveillance, Laboratory Response Activities, Public Health Measures, Infection Prevention and Control and Clinical Care Guidance, Vaccination, International Border and Travel Health Measures, Health Care System Infrastructure, Risk Communications and Outreach, and Research).

There is also content specifically addressing planning with Indigenous Communities, planning for high-risk settings and populations, and the role of modelling in the response. Much like other technical guidance, this document may require updating as our scientific knowledge of the SARS-CoV-2 pathogen increases, the epidemiological picture evolves in Canada and globally, epidemic control measures change, and new medical countermeasures become available (e.g., a vaccine, effective treatment).

The pandemic response goal is to minimize serious illness and overall deaths while minimizing societal disruption as a result of the COVID-19 pandemic. The COVID-19 response has been unprecedented with the swift implementation and public adoption of public health measures. While these measures have been successful in reducing the incidence of COVID-19 in Canada, the restrictive nature of many of these measures have had some negative health, well-being and societal consequences. Many of these consequences have disproportionately affected specific segments of the Canadian population. The goal statement and objectives reflect the need to respond in a way that achieves a better balance between minimizing the impact on morbidity and mortality with the impact on societal disruption in order to support a long-term, sustainable response.

To facilitate a common approach and appropriate level of preparedness across Canada, the plan includes a list of planning assumptions, a “reasonable worst case scenario”, and a list of capabilities and requirements needed to mitigate this scenario. The scenario is not the most likely scenario, rather, it provides a baseline to guide consideration of key capabilities, capacity issues, and identification of resource needs that will help focus planning activities. It is provided as a “stress-test”, not a prediction, and is intended to stimulate thinking concerning our current response efforts, capacity thresholds and resiliency. The reasonable worst case scenario includes an epidemic curve with a large peak in the fall or winter of 2020 followed by ongoing peaks and valleys for the next 2-3 years, with all peaks in incidence

creating a demand for resources that exceeds system capacity. It does not account for a widespread vaccine program or availability of an effective treatment.

The capabilities needed to mitigate this scenario, and for the ongoing management of COVID-19 in general, include the ability to:

- detect signals indicating a significant surge in cases may occur,
- prevent a large peak in the fall that greatly exceeds Canada's capacity to respond,
- reduce surges in incidence and hospitalizations,
- increase health care and public health capacity,
- monitor demand for health care resources, and
- foster ongoing public vigilance and compliance with measures and recommendations.

This plan, in conjunction with other foundational federal/provincial/territorial response plans, provides public health leaders with a coordinated approach to: address common issues, and to support the provincial/territorial responses to COVID-19 in the Canadian population. It includes information regarding the current focus of the public health response and anticipated needs for the short, mid and long term ongoing management of COVID-19, which will facilitate awareness and coordination both within and beyond the public health sector.

1. Purpose

The purpose of the *Federal/Provincial/Territorial Public Health Response Plan for Ongoing Management of COVID-19*, is to provide federal, provincial and territorial public health officials, Indigenous partners, health system partners and other stakeholders with a common forward planning approach for ongoing management of COVID-19 in Canada. This plan promotes a long-term approach that covers immediate planning imperatives for the fall/winter 2020 period and thereafter until population herd immunity in one form or another is sufficient to bring the pandemic activity in Canada to an end. This is an evergreen document that may require updating as our scientific knowledge of the SARS-CoV-2 pathogen increases, the epidemiological picture evolves in Canada and globally, epidemic control measures change, and new medical countermeasures become available (e.g., a vaccine, effective treatment).

Building on the ongoing public health response, this document identifies federal/provincial/territorial (F/P/T) public health preparations that are needed and already underway for the short, mid and long-term management of COVID-19 in Canada. It provides overarching guidance that is informed by existing intergovernmental pandemic preparedness, public health emergency planning and data, information and resource sharing agreements, arrangements and protocols (see *Appendix 1*) and draws extensively on the Canadian Pandemic Influenza Preparedness Guidance (CPIP). The CPIP stipulates that while it is a guidance document for pandemic influenza, much of its guidance is also applicable to other public health emergencies, which has been the case for the COVID-19 response. It is assumed that an ongoing (but appropriately scaled) F/P/T coordinated response structure and activities as outlined in the F/P/T Public Health Response Plan for Biological Events (F/P/T PHRPBE), will be needed for the foreseeable future.

To facilitate a common approach and appropriate level of preparedness across Canada, this plan includes a "reasonable worst case scenario." While this scenario is not necessarily the most likely scenario, it provides a baseline to guide consideration of key capabilities, capacity issues, and identification of resource needs that will help focus planning activities. As with other F/P/T plans, this document outlines overarching goals and objectives, acknowledges jurisdictional roles and responsibilities, identifies when national approaches are anticipated and when provincial/territorial (P/T) flexibility and customization are expected. This document has been developed to facilitate planning for an ongoing COVID-19 response that is not only flexible and adaptive but also sustainable.

2. Context

COVID-19 represents an unprecedented threat to the health, social and economic well-being of Canadians, Canadian society and the global community. On January 30, 2020 the Director General of the World Health Organization (WHO) determined that COVID-19 constituted a Public Health Emergency of International Concern (PHEIC) and declared it a pandemic on March 11, 2020, due to extensive international spread. Mitigating the impact of COVID-19 in Canada requires a comprehensive, integrated and cross-sectoral "whole-of society", "whole-of-government" strategy that focuses on what is within the span of control of our country while trying to reduce the risk of what is not. The context of our planning, therefore, is primarily Canadian-centric but recognizes that the global situation will have a significant effect on response activities.

Mobilizing Canada's health sector response to COVID-19 remains a critical part of that overall effort. This plan and its more detailed components that are described herein, draws heavily on the experience acquired and the work completed during the response to the introduction and subsequent first wave of COVID-19 in Canada. While Canada's F/P/T pubic health officials have conducted pandemic planning for years, plans must be customized and supplemented as the pandemic unfolds, as each pandemic is different. Despite the incredible effort and pace of COVID-19 response in Canada to date, we are still operating from a place of significant unknowns and need to continue learning and adapting as we move ahead with planning activities.

While the pandemic has affected Canadians in diverse ways, Canadians have not experienced these impacts equally. Emerging evidence indicates that social determinants of health, including low-income status, adverse physical environments, precarious housing, and race/ethnicity, among others, correlate with increased risk of COVID-19 infection.[1] Data show that compared to men, women in Canada have experienced higher rates of COVID-19-related fatalities, and job losses have been higher for women, with recent recoveries in the workforce disproportionally benefitting men.[2] [3] As a result of the economic downturn triggered by the pandemic, visible minorities have been particularly affected, with a larger share reporting having difficulties meeting their financial obligations or essential needs compared to White workers.[4] Similarly, Indigenous Peoples, persons living with disabilities, and LGBTQ2IA+ communities, among others, have been disproportionally affected by the pandemic.[5]

Furthermore, some populations have been particularly impacted by the measures implemented to control the pandemic; for example, the unprecedented extent and duration of school closures which may have long-term effects on child development, health and education[6] [7]. As efforts shift towards the next phase of the response, it is imperative that the needs of diverse groups of Canadians are carefully considered in order to mitigate adverse consequences and reduce both known and reasonably anticipated inequities.

3. COVID-19 Response Goal, Objectives and Response to Date

3.1 Goal

Canada's goal for responding to COVID-19 is based on that established for pandemic influenza in the *Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector* document (last updated August 2018). The goal is:

- To minimize serious illness and overall deaths while minimizing societal disruption as a result of the COVID-19 pandemic.

This goal has guided F/P/T actions and has helped reduce the incidence of COVID-19 in Canada (i.e., flattening of the initial epidemic curve) and associated serious illness and deaths. Reducing the health impact of COVID-19 in the absence of a vaccine or effective treatment while minimizing societal disruption has been extremely challenging. The pandemic circumstances, not only in Canada but globally, have led to the extraordinary implementation of broad, restrictive community-based public health measures and the need to offer an unparalleled level of societal support measures (e.g., income support, housing support, and expansion of social services such as mental health and food assistance).

When the original CPIP pandemic goal was developed it was thought that the main cause of societal disruption would be the absence of essential workers (including health care providers) from the workplace due to illness, need to care for ill family members, workplace outbreak control measures and/or refusals to work. The closure of international borders, businesses, schools and restrictions on social gatherings was always acknowledged as a potential source of societal disruption in a severe pandemic. The COVID-19 response has been unprecedented with the swift implementation and public adoption of public health measures (PHM). The restrictive measures that have averted widespread essential service disruption due to illness have, however, had significant broader direct and indirect impacts on health and wellbeing.

3.2 Objectives

As the focus of planning now shifts to a long-term sustainable response it is time to examine how to strike an optimal balance between minimizing both health impacts and societal disruption. The following public health objectives aim to achieve this balance.

Objectives

To mitigate both health and societal impacts of the pandemic by:

- Taking public health action to reduce the incidence, morbidity or mortality of COVID-19 to a locally manageable level;
- Protecting high-risk populations and communities, including Indigenous communities;
- Reducing negative physical and mental health consequences of COVID-19 response actions;
- Taking a risk and evidence based approach to the use of restrictive public health measures;
- Supporting access to health care services (both COVID-19 and non-COVID-19 related services), supplies and treatment options;
- Leveraging Canada's research, surveillance and laboratory systems;
- Working with other sectors to strengthen the social and economic services and policies that protect health and prevent disease (e.g., adequate housing, employment and income supports); and
- Working collaboratively with the international community.

3.3 Response to date

F/P/T response actions to date have been comprehensive and have gone a long way toward achieving these national public health objectives. These actions include but are not limited to:

- rapid case identification, confirmation, and isolation for the period of communicability;
- rapid contact tracing, identification, communication and quarantine of contacts for the duration of the incubation period;
- supporting evidence-informed decision-making by collecting, analyzing and sharing surveillance and other scientific information to inform and target interventions;
- rapid outbreak identification and containment activities;
- preventing the importation of COVID-19 through border and travel restrictions;
- reducing the spread of infection through consistent and frequent communication to the public to promote the importance of individual, family, community and organizational mitigation strategies and PHM;
- promoting modifications to day-to-day activities to reduce transmission of COVID-19 in community settings as much as possible;

- protecting those most at risk of serious illness through the provision of resources, guidance and public messaging;
- protecting those most at risk of serious illness in congregate settings and health-care facilities through targeted communications, guidance and response actions;
- establishing a protective stance through community-level screening, guidance and quarantine measures for Northern/remote/isolated communities, and Indigenous populations;
- supporting community-level health and social interventions aimed at supporting and protecting populations at high risk and mitigating negative impacts of public health interventions;
- providing guidance to public health partners, health care delivery stakeholders, and non-health sectors/settings that facilitates an evidence-informed, risk-based approach;
- facilitating rapid access to health care supplies, equipment and resources, including medical evacuation from remote, isolated and under-serviced communities;
- supporting the continuity of health care and other essential services;
- providing additional mental health resources and social services; and
- facilitating a gradual, cautious return to community functioning in the context of ongoing COVID-19 activity.

Maintaining the trust and confidence of Canadians through timely and transparent communication of evidence-informed public health decisions; communicating appropriate and timely advice (including changes to this advice) to decision-makers, health professionals and the public; taking into consideration the diverse needs of population groups based on vulnerability, ethnicity/culture, ability status, and other socioeconomic and demographic factors; and supporting a coordinated response by working collaboratively with all orders of government and stakeholders, continue to be essential in this ongoing response. We need to prepare the public for the reality of living with COVID for the foreseeable future and the changes that will come in next 2 to 3 years by which time we hope to have widespread access to vaccines, effective treatment and increasing levels of herd immunity.

In order to achieve the response goal and objectives it is essential that the effectiveness of COVID-19 control measures be assessed against any negative effects of implementation of these measures (including the re-allocation of other public health program resources); with the objective of reducing COVID-19 incidence to a locally manageable level in mind. This is key to a sustainable long-term response.

Public health officials are prepared to respond to the variety of challenges that the management of COVID-19 will involve as the pandemic continues to unfold. Advice, recommended measures and interventions have been made based on these shared pandemic goals and objectives. As our collective knowledge increases, these objectives will be revisited and updated as needed.

4. Forward Planning: Assumptions and Epidemiological Drivers

This plan aims to support consistent but flexible public health planning at all levels of government in order to prepare for short, mid and long-term COVID-19 response activities. Plans should reflect a combination of nationally agreed upon approaches with regionally and locally adaptable actions and be aligned with the pandemic response goals and objectives, taking into account the needs of diverse

groups of Canadians on the basis of health status, age, gender, ethnicity/culture, ability status, and other socio-economic and demographic factors.

Table 1 identifies general planning assumptions that aim to provide a common basis for planning in the Canadian context for the next several months to years. The areas of uncertainty, listed in the table, help identify current unknowns. Given these areas of evolving evidence and knowledge, plans need to include flexible elements or placeholders that can be updated as the pandemic progresses and knowledge and experience increase. Both planning assumptions and areas of uncertainty require validation and/or updating and may be triggers for re-visiting and modifying plans.

Table 1: Summary of planning assumptions and areas of uncertainty

General planning assumptions
• Compared to influenza, COVID-19 has higher transmissibility (i.e. it has a higher basic reproductive number or R_0) is highly transmissible prior to symptom onset, and has a higher infection fatality rate. • Transmission by asymptomatic cases is occurring. • The pandemic likely won't be halted by "herd immunity" until ≥ 60% of the population is immune (through natural infection or vaccination). • Immunity (from natural infection or vaccination) may not be strong or long-lasting. • A vaccine will not be widely available in the short term or mid term (i.e., before 2021). • Once a safe and efficacious vaccine is available it will be rolled out in a targeted manner. • There will be a national approach to prioritization/targeting of any limited resource which will be based on an ethics framework. Policy development around prioritizing limited resources will also be informed by other logistical, epidemiological and societal considerations, for example the Declaration of the Rights of Indigenous Peoples. • The national epidemic curve will be a compilation of the epidemic activity in each province and territory, which will be influenced by the locally implemented public health response measures and public adherence to and compliance with these measures. • The risk of imported cases sparking localized outbreaks is ongoing. • International borders will be open over time with corresponding increases in travel (during the period covered by this plan). • Response measures implemented in one jurisdiction could have an impact on neighbouring jurisdictions, even if they themselves do not implement that measure. • The level of response across Canada will vary based on local epidemiology (e.g., could be surging in multiple jurisdictions at same time, different times or lulls could coincide).

- Our health care system and public health system capacity has limits which could be breached during peaks of COVID-19 activity.
- Effects of concurrent circulation of influenza and other respiratory viruses will be additive, on health care (including long-term and other community care) and public health system capacity during the fall-winter period but potentially lower than usual seasonal increases due to the effect of COVID-19 public health and infection prevention and control measures.
- High uptake of an effective (i.e., well matched) seasonal influenza vaccine amongst those at high-risk of influenza complications will mitigate the demand for hospital resources during the influenza season. High vaccine coverage in the general population may also indirectly mitigate demand by reducing transmission of influenza to high-risk individuals.
- Public health capacity to respond to other priorities (e.g., the overdose crisis and higher rates of problematic substance use) needs to be maintained. Capacity to catch-up on interrupted program delivery may also be required.

Areas of uncertainty

- Whether there will be a change in COVID-19 severity, risk groups, transmission patterns/dynamics in the short, medium or long term (e.g., due to viral mutation).
- Duration of natural immunity (i.e., recovered cases), what constitutes immunity, and whether infection with other coronaviruses provides cross-protection.
- Whether COVID-19 will eventually have a seasonal pattern similar to other respiratory infections.
- Whether restrictive community PHM could successfully be implemented again, to what degree, duration, how consistently and at what level (e.g., P/T vs regionally vs locally).
- How potential variations in risk tolerance over time and in different geographic areas will impact response actions.
- Whether significant rates of co-infection with SARS-CoV-2 and a seasonal influenza virus or other respiratory pathogen will occur and whether co-infection will significantly impact morbidity or mortality cases and subsequently demand on the health care system and resources.
- Whether recommendations for early/lower thresholds for influenza antiviral treatment will significantly reduce influenza-associated hospitalizations.
- Robustness of international COVID-19 data and testing.

Three potential epidemic curve patterns (see *Figure 1*) have been proposed by modellers, epidemiologists and other experts for planning purposes[8]:

1. *Peaks and Valleys:* The initial wave of COVID-19 in spring 2020 is followed by a series of repetitive similar or smaller waves that occur through the summer and then consistently over a 1- to 2-year period, gradually diminishing sometime in 2021.
2. *Fall Peak:* The initial wave of COVID-19 in spring 2020 is followed by a larger wave in the fall or winter of 2020 and one or more smaller subsequent waves in 2021.
3. *Slow Burn:* The initial wave of COVID-19 in spring 2020 is followed by a "slow burn" of ongoing transmission and case occurrence, but without a clear wave pattern.

The slow burn scenario is our aim as it is most likely to keep incidence, morbidity and mortality at a locally manageable level.

Figure 1: Potential Epidemic curve Patterns

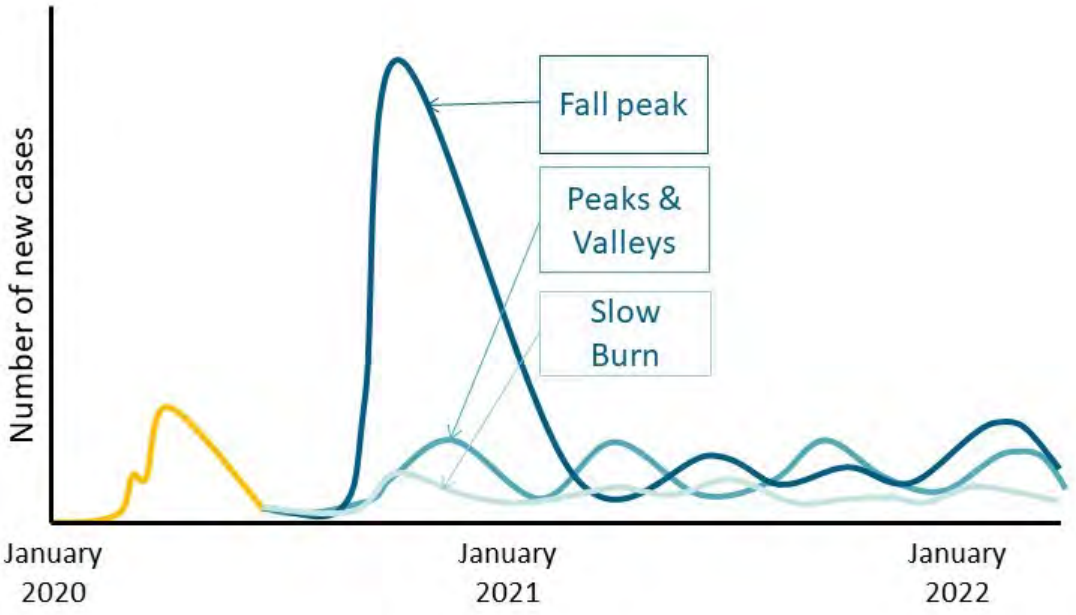


Figure 1 – Text Description
This figure is a graph that has an X-axis (horizontal) with 3 points in time: January 2020, January 2021 and January 2022 and a Y-axis (vertical) that does not have a scale but represents the number of new cases of COVID-19; together these frame a general epidemic curve. The curve starts with an orange line depicting the initial wave of COVID-19 cases in Canada, specifically starting with zero cases at the start of January 2020 followed by a relatively steady increase in new cases over time, peaking in April 2020, then followed by a more gradual decrease to July 2020. The rest of the graph includes 3 lines (in shades of blue) that pick up where the orange line left off (corresponding to July 2020). These 3 lines depict the 3 potential epidemic curve patterns described in the text prior to the figure. In accordance with the text these lines are labelled: "Fall peak", "Peaks and Valleys" and "Slow Burn". All 3 potential epidemic curve patterns end just after the X-axis point for January 2022, roughly corresponding to March 2022.

These patterns assume different levels of ongoing or temporarily imposed mitigation measures and does not include a scenario where there is an absence of public health measures. They do not account for a widespread vaccine program with good uptake.

Modelling and capacity assessments facilitate appropriate planning by exploring how possible ranges of parameters relevant to these issues affect the extent and impact of the epidemic. Forecasting models are best suited to inform what may occur in the coming 2-3 months; therefore the role of modelling in long-term planning is focused on providing additional information to decision makers regarding the potential impact of control measures as opposed to the incidence rate itself.

Mathematical modelling supports planning our response to epidemics and outbreaks, and the COVID-19 epidemic has demonstrated the important role and need for the full range of modelling tools required

to support decision-making during a complex public heath crisis. This role and the types of models currently in use are described in *Appendix 2: Modelling Support for Forward Planning.*

It is important to recognize that the national epidemic curve will likely be a combination of the epidemic curve patterns from each province and territory, which in turn will be dependent on the effect of the escalation and suppression drivers in each jurisdiction. *Figure 2* identifies epidemiological drivers that will influence the number and timing of new cases and therefore the epidemic curve "wave pattern" we experience in Canada going forward.

Figure 2: Epidemiological Drivers

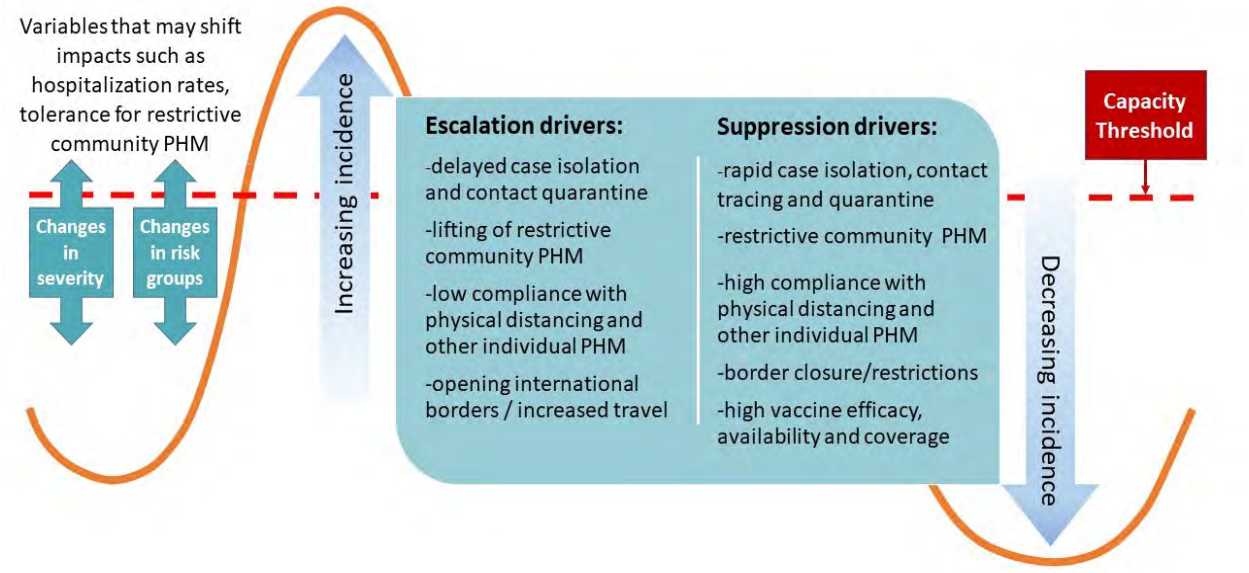


Figure 2 –Text Description
This graphic visually conveys how epidemiological drivers influence incidence of COVID-19 and thereby the epidemic curve pattern (depicted by an orange line that arcs up and then down). The escalation drivers (that would lead to more new cases and depicted by an upward blue arrow that includes the text "Increasing incidence" and points to the upward arc) are listed in a text box as: delayed case isolation and contact quarantine, lifting of restrictive community public health measures, low compliance with physical distancing and other individual public health measures, and the opening of international borders/increased travel. The suppression drivers (that would lead to less new cases and thus depicted by a downward blue arrow that includes the text "Decreasing incidence" and points to the downward arc) are listed as: rapid case isolation and contact tracing and quarantine, restrictive community public health measures, high compliance with physical distancing and other individual public health measures, border closure/restrictions, and high vaccine effectiveness, availability and coverage. Also included in this graphic is the concept of "Capacity Threshold" which conveys the idea of an upper response capacity limit that could be breached by a high number of cases occurring over a short period of time. This is depicted with a horizontal red dashed line that crosses the upward arcing orange line (that suggests an epidemic curve pattern where the number of new cases is peaking). Finally variables that may shift impacts, such as hospitalization rates, tolerance for restrictive community public health measures, are broadly grouped as "changes in severity" and "changes in risk groups" in two text boxes with both up and down arrows coming off of the boxes to highlight that these variables may impact the response capacity threshold.

An epidemic curve pattern is one part of a planning scenario as it reflects the potential changes in the number of new cases occurring over a period of time. To ensure optimal planning it is important to consider not only the number of cases but variables that may shift the health and societal impacts of those new cases (as depicted on the left side of Figure 2) and subsequently possible surges that exceed current health care and public health capacity thresholds. These variables include but are not limited to: changes in severity of illness experienced by the majority of cases, changes in high-risk groups (i.e., both the demographic characteristics of who is getting severely ill and identification of new risk factors for severe illness), availability of an effective treatment and/or vaccine, duration of naturally acquired immunity and concurrent demands on the health and public health system that affect capacity to manage new cases. The manifestation of these variables will also influence public risk perception and therefore, in a somewhat circular manner, epidemiological drivers like compliance with PHM.

5. Reasonable Worst Case Scenario

To facilitate planning in the context of a high degree of uncertainty and the numerous possible scenarios, a "reasonable worst case scenario" has been developed. It is based on a combination of the previously described "Fall peak" and "Peaks and Valleys" epidemic curve patterns. See *Figure 3*. This scenario should not be considered a prediction or even highly likely, but rather a common set of characteristics that will support robust forward planning (see text box).

Figure 3: Epidemic curve for reasonable worst case scenario

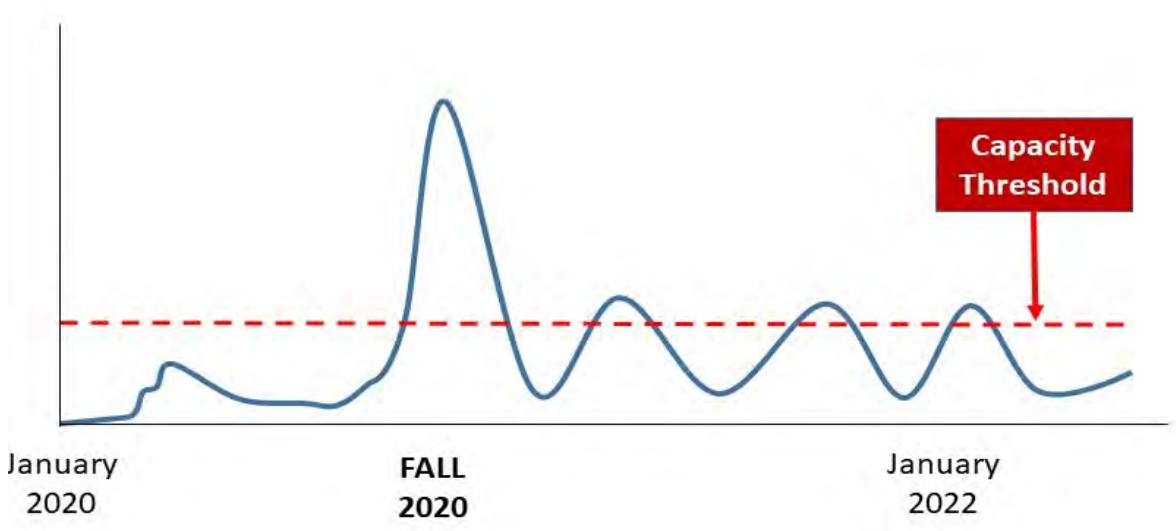


Figure 3 – Text Description
This figure is a graph that has an X-axis (horizontal) with 3 points in time: January 2020, Fall 2020 and January 2022 and a Y-axis (vertical) that does not have a scale but represents the number of new cases of COVID-19; together these frame a general epidemic curve. The epidemic curve pattern for the reasonable worst case scenario (which is a combination of the "Fall Peak" and "Peaks and Valleys" scenarios previously described in the text) is depicted with a blue line that undulates horizontally across the graph. The line depicts the initial wave of COVID-19 cases in Canada, specifically starting with zero cases at the start of January 2020 followed by a relatively steady increase in new cases over time, peaking in April 2020, then followed by a more gradual decrease to July 2020. The line stays relatively flat then heads upwards to form a peak that corresponds with the Fall 2020 time frame and is 2 to 3 times higher that the initial wave. This peak is followed by a relatively sharp decline to complete the image of a large Fall wave. The line then continues in a peak and valley pattern through to its conclusion corresponding to the Spring 2022 time frame. Also included in this graphic is the concept of "Capacity Threshold" which conveys the idea of an upper response capacity limit that could be breached by a high number of cases occurring over a short period of time. This is depicted with a horizontal red dashed line. In this epidemic curve for the reasonable worst case scenario, the peaks in the curve all cross over the capacity threshold line – depicting the situation where the surge in cases results in increased response capacity demands that exceed the capacity threshold.

Reasonable worst case scenario characteristics:

- Epidemic curve with a large fall 2020 peak followed by ongoing peaks and valleys for the next 2-3 years
- Fall/winter peak occurs in 2020 and is 2-3 times higher than the incidence experienced at the peak of the initial wave, with corresponding increases in mortality. (Note: the amplitude of the fall peak at the PT or regional level in this scenario will be influenced by the incidence experienced at the peak of the initial wave.)
- Demand for health care resources (hospitalizations, ICU beds, ventilators, personal protective equipment, Long-term care spaces, etc.) exceeds system capacity (during all peaks)
- Shortage of health care providers (e.g., due to illness, burnout, work refusal, international competition)
- Demands on both laboratory and public health resources exceed capacity (during all peaks)
- COVID-19 peaks occur concurrently with severe influenza/other respiratory pathogens season
- Similar timing of peaks across the country (each jurisdiction experiences peaks at same time)
- Low level of compliance with public health measures
- Permeation of mis/disinformation in Canadian society
- Weak/non-sustained post-infection immunity (recovered cases can become susceptible again)
- No effective widely available treatment
- No effective vaccine available

Nationally the incidence was approximately 31/100,000 population or 11,849 new cases reported during the peak week in the initial wave. There was a high degree of variation between PTs with the most populous PTs having the greatest impact on the national epidemic curve. The reasonable worst case scenario should include planning for a fall or winter peak of 2-3 times the amplitude of the initial wave in PTs or regions that experienced a high peak in incidence during the initial wave and up to 100 times the peak incidence in areas that had lower incidence in the initial wave.

This reasonable worst case scenario can be used to identify any new or outstanding preparedness and response needs or issues that would require, or benefit from, a coordinated F/P/T effort should Canada be faced with this scenario. It is provided as a "stress-test" not a prediction and is intended to stimulate thinking concerning our current response efforts, capacity thresholds and resiliency.

More specifically, the scenario presents a set of potential risks, each requiring mitigation strategies based on an assessment of capacity requirements and our collective capability to manage the risks. *Figure 4* identifies high-level capabilities that need to be in place for this scenario and *Table 2* identifies associated requirements that should be considered at all levels of government.

Figure 4: Capabilities for management of the reasonable worst case scenario

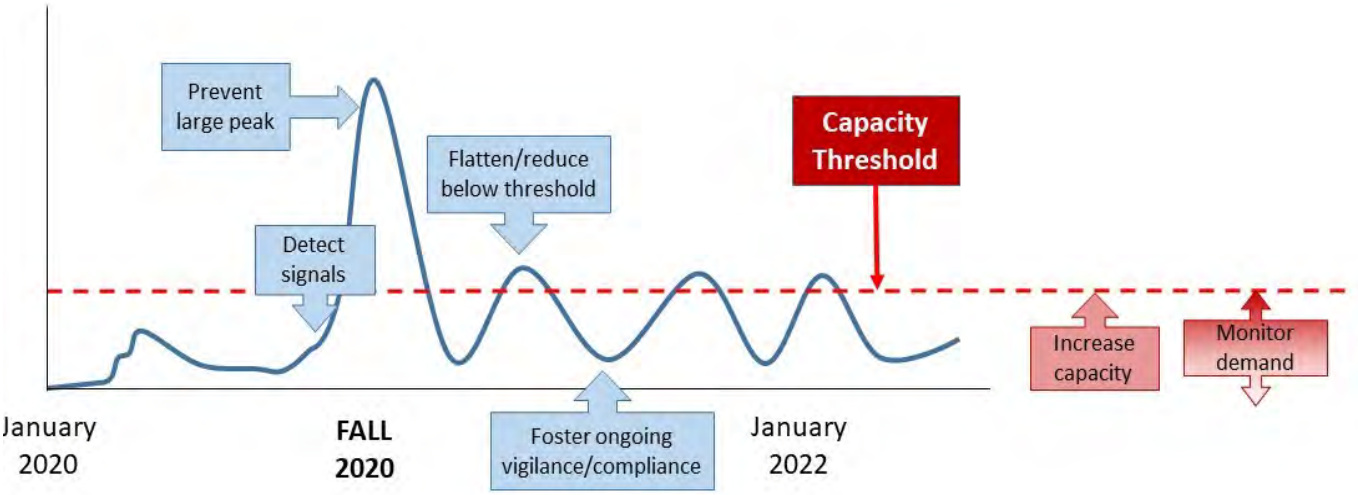


Figure 4 – Text Description

This figure is the same as Figure 3 but includes text boxes that identify capabilities needed for the management of the reasonable worst case scenario. Several of the text boxes have arrows that point to locations on the curve pattern where it is particularly important that the capacity be in place, however the intention is that these capacities are needed on an ongoing basis throughout the response. Also included in this graphic is the concept of "Capacity Threshold" which conveys the idea of an upper response capacity limit that could be breached by a high number of cases occurring over a short period of time. This is depicted with a horizontal red dashed line. In this epidemic curve for the reasonable worst case scenario, the peaks in the curve all cross over the capacity threshold line – depicting the situation where the surge in cases results in increased response capacity demands that exceed the capacity threshold. There are two red shaded text boxes that highlight the need to increase response capacity and to monitor demand. There are four text boxes, that point to the epidemic curve. The first includes the text "Detect signals" and points to the epidemic curve (depicted by a blue line), right before a surge in the number of new cases (depicted by an upswing and peak in curve) corresponding with a large Fall 2020 wave. The next text box includes the text "Prevent large peak" and points to the epidemic curve right where the large Fall 2020 peak is depicted. Where a subsequent peak (smaller in amplitude to the Fall 2020 wave) occurs and crosses the capacity threshold line, a text box indicates the need for capacities aimed at reducing demands causes by the peak in cases with the text "Flatten/reduce below threshold" included in the box. Finally in a "valley" in the peaks and valleys epidemic curve portion of the reasonable worst case scenario epidemic curve, there is a text box indicating the ongoing need to "Foster ongoing vigilance/compliance" particularly when new case numbers seem to be low or decreasing.

Table 2: Reasonable worst case scenario risk management requirements

Capability	**Risk Management Requirements**
DETECT –signals indicating a significant surge in cases may occur	➢ timely surveillance data (local, P/T, national and international) ➢ laboratory resources to rapidly distinguish between COVID-19 and other respiratory viruses ➢ rapid analysis/investigation to assess risk of large peak (exceeding response capacity), based on precise/granular local level data ➢ early warning for increased demand on resources and response activities ➢ rapid resource allocation to reduce and/or manage impacts ➢ pro-active risk communication ➢ ongoing vigilance/commitment to COVID-19 response
PREVENT –large fall peak that greatly exceeds capacity to respond	➢ resources to ensure ongoing response measures are adequate to control current spread and prevent new cases ➢ public cooperation with surveillance and case and contact management activities (i.e., to facilitate timely identification and isolation/quarantine) ➢ consistent, clear localized triggers for re-implementation of restrictive PHM ➢ rapid deployment of targeted outbreak control/containment resources (including implementation of local “lockdowns”) ➢ gradual, controlled "re-opening" of settings and gradual resumption of activities (with modifications) that are known to be associated with increased transmission risk ➢ high compliance with ongoing modifications/controls put in place as restrictive PHM are lifted ➢ high compliance with personal protective measures ➢ proactive international border control measures ➢ increased messaging and public education regarding personal protective measures as more social interactions move back indoors in the fall season ➢ increased health care system capacity (especially in high-risk settings such as long-term care) and consideration of how to deliver needed health care (e.g., at alternate sites, using retired workers or students or alternate care providers)
REDUCE –surges in incidence and hospitalizations	➢ adequate resources to ensure ongoing response measures to control current spread and prevent new cases, hospitalizations and deaths ➢ focus on rapid detection and isolation of cases, and rapid identification and quarantine of contacts ➢ rapid detection of outbreaks and deployment of outbreak control/containment resources ➢ consideration of how to re-implement restrictive community PHM and which PHM to re-implement based on clear local-level triggers ➢ increased use of/compliance with, personal protective measures ➢ ongoing international border control measures with possible re-introduction of restrictions

INCREASE—health care and public health capacity	➢ laboratory surge capacity to ensure rapid diagnosis and case notification ➢ availability of public health resources for surges in case and contact management requirements in the community (including isolation of cases and quarantine of contacts at home/alternative designated sites), development of new guidance products and provision of expert advice based on evolving scientific literature ➢ resources (i.e., human and equipment/supplies), planning and training for outbreak control activities in high-risk settings, including clear emergency back-up contact points ➢ surge capacity to ensure availability/access to health care resources including equipment (e.g., ventilators, personal protective equipment) during peaks ➢ availability of sufficient health care providers to meet surge in demand ➢ ability to access and distribute effective pharmaceutical treatments ➢ ongoing monitoring of scientific literature, networks and expert advice to inform best practices for treatment and identification of effective pharmaceuticals that reduce hospitalization requirements and/or duration of hospitalization ➢ recovery policies and measures (e.g., discharge for recovery at home or alternate site) to avert potential backlogs in the hospital system
MONITOR—demand for health care resources	➢ surveillance for early indicators that other illnesses that may cause a surge in demand for health care resources (e.g., seasonal influenza, other respiratory pathogens) ➢ linkages between health care delivery and public health to ensure timely establishment of alternative/over-flow care sites ➢ enhanced monitoring of global supply chains that could trigger drug shortages and identified alternatives and strategies to prioritize and conserve supply (e.g., critical supply reserve etc.)
FOSTER –ongoing public vigilance and compliance with measures and recommendations	➢ ongoing public trust in public health authorities ➢ communication and education products to support continued widespread public adherence to personal protective measures and community-based public health measure ➢ public knowledge, attitudes and behavior research to inform sustainable effective behavioral changes

6. COVID-19 F/P/T Response Components

Forward planning will also be informed by ongoing reflection regarding what has worked well, what we have learned and what we can be adjusted based on evidence and experience. Using the response components identified in the CPIP, with a focus on those requiring F/P/T public health leadership and consultation, this section provides details on national-level activities planned or already underway that will assist and expedite complementary planning in each federal government department, province and territory.

6.1 Surveillance

The purpose of surveillance and risk assessment activities is to provide decision makers with the timely epidemiological and risk information they need to inform action. Similar to national influenza surveillance (FluWatch), COVID-19 surveillance is a pan-Canadian initiative that integrates numerous data streams including existing surveillance systems with novel, non-traditional data sources.

Current Status/Focus

Currently, the following data sources are facilitating monitoring across the spectrum of disease (i.e., from mild cases in the community based on sentinel surveillance to severe illness based on hospitalization data).

- Case-level data reported by PTs: Revised national dataset including more information on cases, risk factor data, improved occupational data, and the addition of race/ethnicity data is a key priority.
- Aggregate laboratory result data: Provincial public health laboratories and PHAC's National Microbiology Lab report numbers of people tested for SARS-CoV-2.
- Syndromic surveillance data: Canadian residents with influenza-like illness and individuals reporting influenza-like illness to participating sentinel practitioners participating in PHAC's FluWatch.
- Apps: User data from Canada COVID-19 and other symptom tracking applications.
- Mobility data: Partnership with BlueDot Inc., and other sources that may become available, to monitor indicators of population movement as a proxy measure for compliance with PHM, and the levels of inter-P/T movement.
- Special survey: Impact of COVID- 19 on specific populations (e.g., health care worker).
- Sentinel Surveillance Networks:
    - Hospital networks - Several hospital-based data streams measure the impact of COVID-19 in Canadian hospitals and collect detailed case information on most severe cases.
    - Canadian Pediatric Surveillance Program - occurrence of Multi Inflammatory System in Children (MIS-C).
    - Community-based systems/ networks - Assess the level of transmission in the community and the epidemiologic characteristics of outpatient cases.
- Publicly available data: supplementary data source to add situational awareness on COVID-19 transmission in jurisdictions.

Preparations/Forward Planning

Preparations are underway to improve the quality, completeness and timeliness of surveillance data in advance of a potential fall resurgence. This includes F/P/T/Indigenous support of First Nations/Inuit/Métis-led data management. In general, the multiple data streams are being configured in order to pick up signals and changes in epidemiology. These preparations and ongoing activities based on the anticipated short, mid or long-term timeframe are identified below.

Short term:

- Work with Surveillance Expert Working Group (SEWG) on the operationalization of a new national dataset.
- Work with the PHAC Health Portfolio Operations Centre (HPOC) to ensure seamless reporting and mapping to existing data.

- Updating/developing data dictionary, case report form, metadata guide (i.e., description of data collection processes in each jurisdiction), and surveillance guidance.
- Implementation of updated database infrastructure.
- Work through the Canadian Public Health Laboratory Network (CPHLN) to determine what demographic data on COVID-19 tests would be available at the national level and to improve laboratory surveillance data steam.
- Continue the work with P/T representatives to increase standardization of outbreak reporting (including establishment of a weekly outbreak dataset) via the Canadian National Public Health Intelligence system.

Medium to Long term:

- Consideration of new cloud-based database for use in HPOC and to support multiple data streams.

Planning Variables or Signals

It is possible that a new syndrome or rare event would require the development of a new, or adjustments to, the surveillance strategy as has occurred for Multisystem Inflammatory Syndrome in Children (MIS-C).

New settings or populations affected by outbreaks could emerge in outbreak surveillance (or via outbreak intelligence gathering) which could precipitate new data needs, additional surveillance activities or new variables to be collected to inform actions. For example, outbreaks among temporary foreign workers have highlighted the need to be prepared to rapidly implement specific surveillance and coordination mechanisms, as well as drawn attention to how social determinants of health (e.g., crowded housing, precarious work, access to medical services) can impact transmission and control of COVID-19.

6.2 Laboratory Response Activities

Laboratory-based surveillance is an integral part of monitoring respiratory virus activity. Because there are numerous respiratory viruses circulating at one time especially during the fall and winter seasons, laboratory testing using validated tests is critical for diagnosing COVID-19. Since the start of the COVID-19 outbreak, Canada's National Microbiology Laboratory (NML) has been providing leadership in regard to testing for COVID-19 and surge capacity for provincial and territorial public health laboratories. The NML has also contributed to domestic and international efforts to better understand COVID-19 virus characteristics that can inform the development of medical countermeasures.

Current Status/Focus

Canada's public health laboratories response activities are currently focused on the following:

- optimizing molecular testing to reduce reagent consumption by exploring the reduction in PCR target genes, pooling of samples, evaluating the optimal types of samples, swabs and transport media, through the Canadian Public Health Laboratory Network (CPHLN);
- working to evaluate serological testing kits as well as developing in-house contingency serological tools such as ELISA, neutralization assays and point of care tests (serological work is in support of the broader Canadian Immunology Task Force);

- supporting work being done by the Canadian COVID Genomics Network (CanCOGeN) to sequence 150,000 genomes;
- working closely with northern, remote and Indigenous communities to enable those communities to have greater access to laboratory diagnostic tools (e.g., diagnostic platforms, reagents, training, supply chain management, and augmentation of Transport of Dangerous Goods (TDG) sample shipping requirements) to meet pandemic challenges in those and all Canadian communities; and
- undertaking (through the NML) animal research that will aid in understanding pathogen characteristics.

Preparations/Forward Planning

The NML together with the CPHLN undertaking the following activities in order to prepare for a potential fall resurgence based on the reasonable worst case scenario but also as part of the laboratory preparedness long-term vision.

Short term:

- Optimizing molecular testing to be able to distinguish COVID from non-COVID respiratory infections during the coming flu season
- Continuing strong communication among Canada's public health partners through CPHLN to ensure aligned and appropriate laboratory response strategies

Mid term:

- Optimizing serological testing to be able to determine whether individuals have been previously infected, especially for healthcare and other service providers such as police, fire, long-term care facilities, etc.
- Streamlining molecular and serological testing, including stewardship of reagents so they are conserved as testing demands increase
- Developing, validating, and enabling greater access to faster diagnostic tools such as Point of Care tests (prioritizing northern, remote, isolated and Indigenous communities)
- Working with manufacturers to enhance the sourcing of critical laboratory supplies that meet appropriate standards
- Working with P/Ts and other stakeholders to inform the use of testing in specialized settings (such as borders)

Planning Variables or Signals

Although the percentage of positivity has been diminishing recently, a change in the inflection of that curve (i.e., switch to increasing trend) is an immediate signal that a second wave has been triggered and therefore may affect timelines, strategy or prioritization of these activities.

6.3 Public Health Measures

PHM are the activities implemented by public health authorities to support individuals and communities to prevent, delay or mitigate infectious disease transmission. These include measures focused on individuals (i.e., personal practices, case and contact tracing, self-monitoring, isolation and quarantine) to protect themselves and others, and community measures such as public education campaigns and general recommendations for non-pharmaceutical interventions (e.g., hand hygiene, physical distancing

and use of non-medical masks) to protect groups and the community at large. The community-based measures should be informed by a risk assessment tailored to each setting. Some measures are referred to as "restrictive" if they include limiting the movement, activities, or access to resources/facilities/institutions, at the community as opposed to individual level (e.g., school closure, cancellation of mass gatherings, access to workplaces, businesses or event venues). Many of these measures have important consequences beyond the context of COVID-19 management which require careful consideration and prioritization in relation to other determinants of health, such as childhood development.

Since the start of the COVID-19 outbreak the F/P/T public health response has involved working closely with multilateral partners, other government departments, First Nations, Inuit and Métis stakeholders to develop, update and disseminate appropriate public health guidance for a range of target audiences on how to detect, report, prevent and manage COVID-19 infection. One example of this is the formation of the Public Health Working Group on Remote, Isolated and Northern Indigenous Communities that is working to adapt public health measures guidance to the unique needs, context and considerations of these communities in the response.

Current Status/Focus

Current FPT PHM include:

- Focusing on isolating all cases, and tracing and quarantine of all contacts in a timely manner;
- Monitoring the evolving domestic and international situation, updating advice and adjusting PHM accordingly (e.g., advice on non-medical mask use);
- Phased lifting of restrictive PHM by PTs while monitoring for signals of concern (e.g., increases in unlinked cases) and protecting high-risk populations;
- Promoting risk based approaches to using PHM based on the setting and consideration of the broad impacts of PHM on health and wellbeing;
- Supporting workplaces/businesses by working with the Canadian Centre for Occupational Health and Safety, to provide guidance for safe and healthy workplaces; and
- Developing and updating national guidance as information becomes available.

Preparations/Forward Planning

In terms of F/P/T preparations, the focus is on building, adjusting and updating existing PHM guidance and resource products as needed, based on new knowledge, experience and contingencies (including planning for the reasonable worst case scenario).

It is important that these ongoing activities continue to be as timely and responsive as possible and take into consideration the specific needs of high-risk populations by social, economic and demographic factors. Community-based PHM are most effective when implemented as early as possible in response to epidemiological triggers of concern. Therefore, preparations include being ready to re-implement restrictive community PHM if required, while modifying them if possible to avoid negative impacts on health, wellbeing and society. Communication activities that continue to build public trust and confidence will be critical to facilitating public understanding and cooperation with respect to recommended PHM.

These preparations and ongoing activities based on the anticipated short, mid or long-term timeframe are identified below.

Short term:

- Ongoing updates to existing national guidance as evidence evolves;
- Completing new guidance (e.g., post secondary guidance);
- Updating public and health professional communication and education products;
- Developing sufficient P/T public health capacity to isolate cases, trace and quarantine contacts in place, including through the use of digital tools;
- Establishing a process for providing comprehensive advice to workplaces/businesses.

Mid term:

- Ongoing situational monitoring of COVID-19 and broader impacts of PHM and recommendations, updating advice and adjusting PHM accordingly;
- Ongoing guidance updates;
- Monitoring public compliance with PHM; adjusting messaging and enforcement as required;
- Re-instituting PHM in jurisdictions, if resurgence occurs;
- Providing considerations for PHM into plans for vaccination clinics (influenza and COVID-19); and
- Re-evaluating F/P/T plans for stockpiling supplies (e.g., hand sanitizer, gloves, masks, disinfectant supplies) in consideration of PHM

Long term:

- Evaluating the long-term strategy for PHM and developing/updating F/P/T plans;
- Providing public education to entrench PHMs as a core practices that will become the new baseline practices based on effectiveness of measures (evidence reviews); and
- Work with other sectors to strengthen the social services to protect health and mitigate risk.

Planning Variables or Signals

Preparations and forward planning will consider adaptations to current activities, recommendations and guidance, e.g., if there are significant changes in diseases activity, high risk groups or public adherence to recommended PHM, and the impact these may have in various population groups.

6.4 Infection Prevention and Control and Clinical Care Guidance

While impacting the F/P/T public health response, the provision of infection prevention and control (IPC) and clinical care guidance and expert advice has predominantly been aimed at informing practising health care professionals. Therefore engagement with stakeholders outside of the public health sector, in particular front line health care workers, is a key part of supporting preparedness.

Current Status/Focus

The current focus of response activities pertaining to IPC and Clinical Care include:

- Ensuring that previously published COVID-19 Infection Prevention and Control documents continue to provide relevant and evidence-informed guidance;
- Updating (based on new information) the interim guidance for the clinical management of patients with moderate to severe COVID-19;
- Providing clinical guidance on the changing presentation, complications, risk factors and outcomes of COVID-19;
- Completing any outstanding guidance products;

- Planning for joint PHAC/Association of Medical Microbiology and Infectious Disease Canada (AMMI) webinars addressing ongoing key clinical issues that will occur once a month starting July 2020, potentially through to March, 2021; and
- Providing key clinical journal articles review and summation to F/P/T public health tables.

Preparations/Forward Planning

All Clinical Care Guidance and Infection Prevention and Control documents are being reviewed on an ongoing basis to ensure they reflect the most up to date information on clinical care and IPC. This includes key clinical findings in the literature, responding to new and/or changing science.

Planning Variables or Signals

If additional clinical or infection prevention and control information emerges, (e.g., a change in mode of transmission or additional or unknown risk groups), there may be a need to revise or develop additional IPC or Clinical care guidance documents. Similarly, the identification and availability of an effective treatment will requires updating of Clinical care guidance.

6.5 Vaccination

The World Health Organization (WHO) is providing information on the progress of over 150 COVID-19 vaccine candidates[9]. At this time 21 candidate vaccines are in clinical evaluation and 139 candidate vaccines are in preclinical evaluation. It is necessary to start planning for implementation of a COVID-19 vaccine strategy for Canada now, however, for planning purposes it is assumed that an efficacious vaccine will not be available until 2021 at the earliest.

Reducing hospitalizations due to seasonal influenza and invasive pneumococcal disease through increased vaccine coverage can preserve both public health (e.g., diagnostic/testing, outbreak response) resources and health care (i.e., outpatient visits and inpatient stays) capacity[10]. For these reasons it has been identified as a forward planning element.

Current Status/Focus

PHAC is involved in COVID-19 vaccine planning through strategic discussions with the regulator and potential manufacturers. PHAC has also engaged the National Advisory Committee on Immunization (NACI) to develop an equitable, ethical, feasible and accessible framework outlining prioritization principles that will optimize pubic health benefits from vaccination against COVID-19 during the pandemic. NACI has also published guidance on COVID-19 vaccine research priorities.

Preparations/Forward Planning

Anticipating that it will take time to manufacture a sufficient supply of a new COVID-19 vaccine, and shipments may be staggered, Canadians need to be aware that the vaccine will not be offered to all Canadians at the same time. Furthermore, the traditional influenza pandemic vaccine approach (i.e. to vaccinate everyone immediately) may not be advisable or appropriate for a novel coronavirus vaccine developed where there is limited experience of its safety and effectiveness.

It is expected that PHAC will have an interim framework informed by NACI at the end of summer 2020, following extensive evidence reviews and F/P/T engagement to identify target groups for the first available doses of COVID-19 vaccine and vaccine program strategies. In the absence of a COVID-19

vaccine, general planning (as outlined in the Vaccine Annex of the CPIP) is proceeding, for example, enhanced tracking systems for adverse events following immunization (AEFI), vaccine effectiveness (VE) assessment and uptake; allocation, storage and handling; vaccine delivery strategies, are all being addressed as part of the vaccine strategy for COVID-19 vaccination in Canada. In the event vaccine is sourced from manufacturers that do not have an existing Canadian presence, PHAC may also be involved in contracting for vaccine storage and distribution centres. In addition, the Government of Canada is proactively procuring essential supplies (e.g., needles, syringes, epinephrine, etc.) on behalf of the PTs via the National Emergency Strategic Stockpile to mitigate against potential supply shortages when a COVID vaccine becomes available for use in Canada.

A newly formed Government of Canada COVID-19 Vaccine Task Force will focus on strategic investments in vaccine research, development, and domestic bio-manufacturing to facilitate domestic vaccine supply. In addition, a COVID-19 Vaccine Clinical Trial Discussion Forum is convening academic, government, and industry partners to discuss vaccine clinical trial challenges and optimal designs.

While a COVID-19 vaccine is not anticipated in time to respond to any fall resurgence of COVID-19, the timelines for guidance products is as follows:

Short term*:*

- Interim NACI guidance (this fall) on COVID-19 vaccine strategies and target groups for early vaccines.

Mid term:

- Adaption of the contents of the CPIP Vaccine Annex for the COVID-19 context.

Longer term:

- Enhancements/preparations for AEFI tracking and analysis;
- NACI final programmatic guidance on the use of authorised COVID-19 vaccine(s); and
- Logistical planning for supply chain, including for transport /storage /use of vaccines in northern, remote, isolated settings and Indigenous communities.

Influenza vaccines and routine programs

F/P/T public health responders are concerned about interruptions to routine immunization programs due to COVID-19 PHM and physical distancing, and are monitoring trends. To this end, PHAC has issued guidance on the importance of immunization program continuity in particular to mitigate the risk of measles and other vaccine-preventable disease outbreaks once international travel resumes.

Also of concern is the potential convergence of COVID-19 and influenza in fall 2020, which could exacerbate pressures to the health system. In response, PHAC is taking action to order a specialty influenza vaccine (Fluzone High Dose) on behalf of the P/Ts for the 2020 influenza season to support the prevention of influenza transmission and outbreaks in long term care (LTC) homes. PHAC has ordered enough vaccine for all adults over 65 years in LTC. The intent is to reduce the burden of influenza on the healthcare system and LTC homes/facilities that will potentially be dealing with concurrent COVID-19 outbreaks.

In anticipation of increased or sustained COVID-19 transmission during the roll-out of influenza vaccination programs (fall, 2020), PHAC is also preparing guidance on the delivery of influenza vaccine in the presence of COVID-19. The guidance will focus on alternative delivery models, clinic set up, changes

to immunization practices and processes, infection prevention and control, and personal protective equipment at influenza vaccine clinics.

Planning Variables or Signals

It is important for planning purposes to recognize that the final vaccine strategy in Canada cannot be designed until more is known about the new COVID-19 vaccine's characteristics (e.g., efficacy, safety, dosing schedule), how well the candidate vaccines work in different populations (e.g., elderly), and the supply situation. Forward planning should include consideration of variations in vaccine acceptability and response to AEFI reports or signals. This will require AEFI surveillance, health promotion and education and risk communication expertise.

6.6 International Border and Travel Health Measures

Since the onset of the pandemic, the Public Health Agency of Canada (PHAC) has significantly shifted its border and travel health programs to focus primarily on mitigating the risk of COVID-19 importation and together with other response measures, protecting the capacity of provinces and territories to offer health services to Canadians. Prior to this pandemic, it was not envisioned that extensive international border closures would be implemented as a pandemic response measure.

Current Status/Focus

Several new and enhanced border and travel health measures critical to the COVID-19 response have been developed and implemented including:

- an increased capacity for PHAC to undertake health-related risk assessments and provide travel advice and other measures to minimize the risk of Canadians' exposure to the disease, including on conveyances (air, marine, land);
- leveraging the provisions of the *Quarantine Act*, together with the creation of a new compliance and enforcement regime, to limit entry of foreign nationals and impose new quarantine and isolation requirements for incoming travellers to Canada;
- the establishment of a stronger public health presence at the border (i.e., public health officers being assigned to 36 high volume points of entry) as well as enhanced PHAC capacity to conduct virtual health assessments for COVID-19 via access to a 24/7 Central Notification System;
- the establishment of temporary federal quarantine facilities across the country and their continued management to support enforcement of public health Orders;
- enhanced partnerships with provincial and territorial health authorities and other key players to support data-sharing, compliance, enforcement of quarantine and awareness on COVID-19 (e.g., through the ArriveCan app); and
- messaging and communication tools for the travelling public.

Preparations/Forward Planning

Moving forward as part of planning for a potential resurgence of the disease, PHAC will continue to maintain a high level of readiness to respond to COVID-19 through a combination of border and travel measures that are calibrated to:

- Evolution of the domestic COVID-19 situation and provincial and territorial considerations;
- Updated modelling and risk analysis of other countries and international experiences to ensure lessons learnt;

- Operational capacity pre-, at- and post-border to handle anticipated increased incoming and outbound travel volumes;
- Consideration of public health/health system capacity to manage potential increase in imported cases (testing, contact tracing and reporting, provincial and territorial health care capacities); and
- Volumes that different classes/sectors or arrival modes bring to Canada.

Planning Variables or Signals

Should the international and/or domestic context shift, signalling a need for Canada to consider border and travel measures anew, there are a variety of possible approaches that could be explored:

- **Global restrictions:** Increase/impose global restrictions for all destinations, control through health-related measures. Possible exclusion of high-risk countries based on country risk assessments.
- **Country-specific restrictions:** Remove global advisory/prohibition of entry, but maintain/impose restrictions for individual destinations by exception, based on risk of importation
- **Sectoral/class restrictions:** Decrease exemptions to travel measures based on a sectoral analysis
- **Reciprocal:** Leave global advisory/prohibition of entry, remove or ease restrictions based on reciprocal arrangements with individual states (or regions e.g., Caribbean) and assessment of respective COVID situations
- **Modal:** Ease measures first for entry by air/sea and later for entry by land

6.7 Health Care System Infrastructure

A peak in pandemic activity greater than the first COVID-19 wave in any jurisdiction can have a substantial impact on health care service capacity and the ability of health care organizations to keep those providing or receiving health care services safe.

Current Status/Focus

The F/P/T public health response in terms of health care system infrastructure has involved linking with those partners responsible for monitoring, anticipating and planning for surges in health care system capacity in order to increase mutual knowledge and situational awareness, and support response activities regarding the delivery of health care to COVID-19 cases in Canada. To support this work:

- the Government of Canada together with the PTs have taken steps to support hospital surge capacity and ensure timely access to critical equipment and supplies;
- funding has been provided for the development, expansion and launch of virtual care and mental health tools to support P/T services;
- modelling has been used to project anticipated demands;
- sharing of hospital-based data (on rates of admission, current capacity and equipment/supplies/resources usage) has been included in surveillance products; and
- the Logistics Advisory Committee (LAC) has been convened to facilitate resource procurement.

Preparations/Forward Planning

In terms of forward planning, the Government of Canada will continue to:

- consult with PTs and use modelling to assess need for additional procurement of personal protective equipment (PPE), essential supplies, and life-saving medical equipment to support P/T health care systems and increase National Emergency Strategic Stockpile (NESS) capacity

- explore opportunities to build domestic production capacity for critical PPE and other essential supplies
- monitor for potential COVID-related drug shortages and work with P/Ts and stakeholders to proactively develop and implement strategies to manage these risks
- provide PPE to First Nations, Inuit and Métis communities to ensure the safety of healthcare workers and others supporting the delivery of health services through the Indigenous Services Canada (ISC) PPE Stockpile and PHAC's National Emergency Strategic Stockpile (NESS)
- facilitate sharing of best practices on alternate care facilities, triage and management of delivery of non-COVID-19 health care services review the latest available scientific evidence to inform guidance for health settings and develop tailored approaches for communities with specific health care needs, such as remote, northern and isolated communities as well as Indigenous peoples in urban settings.

Health care institutions, many of which are already working close to full capacity, need to plan for how they will accommodate potentially large influxes of patients, including establishing ethical frameworks for the allocation of scarce resources such as ICU beds and ventilators. In remote, northern and isolated communities it is also critical to plan for potential supply-chain and medical evacuation interruptions due to weather.

Forward planning must consider the broad health care system impacts and changes that occurred during the initial wave of COVID-19 in Canada. Specifically, the unanticipated reduction in emergency room visits for serious conditions, the shift of primary care to virtual care, and the backlog of surgery, need to be addressed both in terms of the implications for "catchup" and the need to plan for future waves in a way that doesn't shut down the health care system more than is necessary.

Planning Variables or Signals

In the event health care institutions start to see an increase in the number or change in the characteristics (e.g., demographics, underlying medical conditions) of patients being treated for COVID-19, the Government of Canada will work with PTs to monitor capacity and use of PPE, ventilators, intensive care unit (ICU) beds, and other critical supplies, to enable collaborative and effective management of outbreaks. Surge capacity in terms of health care workers and other human resources is also being examined.

6.8 Risk Communications and Outreach

Communication of information and advice in a public health emergency is a critical public health intervention that helps to protect public health, save lives, and minimize the overall social and economic impacts**.** Using a risk communications approach, the Public Health Agency of Canada, together with other government departments and P/Ts counterparts, have worked hard to provide health care providers, Canadians and key stakeholders with the timely, trusted, accessible, evidence-informed and complete information they require to protect themselves, their families, their communities and businesses.

Current Status/Focus

The current focus is on communicating clear, concise and concrete messages that will cut through the current fatigue, confusion and fragile compliance, in order to: ensure Canadians have the information they need to protect themselves and others from the virus and to reduce its impacts on personal health,

the healthcare system, social life and the economy as Canadians' transition into the new reality of 'Living with COVID-19'; and to help Canadians make a conscious and informed decision about the activities that they will participate in outside the home and how they can participate in a way that protects them, their families and communities.

Key activities to date include:

- engagement of F/P/T and Indigenous networks to ensure consistency of messaging and to share best practices (and lessons learned) across jurisdictions;
- briefings by Chief Medical Officers of Health and local Medical Officers of Health in the PTs and nationally by the Chief Public Health Officer and Deputy Chief Public Health Officer –including modelling and epi updates;
- targeted communications on enhanced border measures;
- use of all communications levers (advertising, web, social media, regular briefings, national mail outs, partnerships, P/T collaboration, community outreach, etc.) to reach stakeholders (including the Canadian public);
- The implementation of a four-phased COVID-19 Risk Communications Strategy with different foci (e.g., containment and delay, tools and empowerment, mitigation and working together to 'flatten the curve', perseverance and ongoing vigilance in context of disease reduction and re-opening of society); and
- F/P/T and Indigenous community collaboration to share best practices and lessons learned and to ensure future messaging is aligned and consistent (via Public Health Network Communications Network and the Special Advisory Committee).

Challenges and Considerations:

Messages in the earliest phase of the pandemic were clear – stay home; wash your hands – now the environment is much more complex:

- There are different epidemics across the country so different public health measures are in place across jurisdictions. Messages and their delivery must be clear and firm to combat any confusion.
- There is still much uncertainty that impacts how precise and definitive we can be in our messaging. As science evolves and we learn more, advice to Canadians may change, adding to confusion and accusations of flip-flopping from earlier messages.

Communicating is becoming more complex as the economy reopens and Canadians engage in social and economic activities following a prolonged period of disruption to their lives:

- Canadians are being encouraged to participate in the economy as it re-opens in this period of recovery. We need to help people make an informed and conscious decision each time they leave their home to help them protect themselves and others.
- Canadians need to assess their activity, their risk tolerance, their risk to others and the importance of their own behaviour in reducing risk. Our communications efforts must arm them with the information to do so easily and accurately.

The risk perception (and compliance) of Canadians will vary based on their individual experiences and their unique reality.

- We need to maintain the current level of compliance and find ways to continue to encourage and provide positive reinforcement to those who are following public health guidance while tackling low risk perception and compliance among specific groups.

Preparations/Forward Planning

It is now important to shift messaging as we transition Canadians into the reality of 'Living with COVID' and transition nationally from an acute response to the loosening of public measures to varying degrees across the country. The lifting and loosening of PHM needs to be balanced with the message that certain measures must remain in place in order to keep the level of transmission at a locally manageable rate. All levels of government need to communicate that Canadians should be prepared for a walk back or tightening of PHM if necessary.

The forward planning communications approach includes:
Provide clear, consistent, concise and concrete messages and advice with relatable examples and tools for Canadians:

- Apply behavioural science to test a variety of public health messages and tools.
- Guidance to help the public minimize risk while venturing out into public spaces.
    - Checklists for when you leave the house
    - Decision making tools

Stop telling and start showing:

- The best way to reinforce the behavior we want from Canadians is to demonstrate it.
- Showcase community members/organizations/spokespersons who are "doing it right."
- Leverage more storytelling to motivate behavior (youth testimonials, etc.).
- Recognition and celebration of those who have made a difference.

Communicate with empathy and honesty

- The efforts of Canadians through the first phase have very likely saved thousands of lives. Need to acknowledge that and encourage everyone to keep doing that.

This approach will be supported by F/P/T strategies, content and implementation plans that include:

- Sufficient public opinion research (POR) and behavioural insights (re. behaviours, vaccine, public health measures, back to school) to identify all Canadians' priorities, values and concerns, and capture regional variations;
- Public Education Campaigns
- Vaccine readiness campaigns (seasonal flu and COVID-19);
- Travel readiness campaigns;
- Contact tracing related communication activities;
- F/P/T collaboration to share best practices and lessons learned and to ensure future messaging is aligned and consistent (via PHN Communications Network and SAC).

This will predominantly be achieved through strategic outreach and engagement by the Chief Public Health Officer (CPHO), Deputy Chief Public Health Officer (DCPHO) and P/T spokespersons, public education campaigns, media relations and issues management, social media, and website updates. Significant outreach and engagement with a range of health and non-health stakeholders has been an essential part of the national response to COVID-19. This outreach and engagement has evolved throughout the pandemic from a focus on proactively sharing the latest public health developments and resources to identifying stakeholder information needs and perspectives, to collaborating on guidance development and joint communication messages. A range of stakeholders have been engaged through

regular COVID-19 briefings, teleconferences and webinars including the following: CPHO Health Professionals Forum (national health professional organizations), national allied health organizations, local public health medical officers of health, critical infrastructure stakeholders, agriculture and agri-food stakeholders, business groups, and childcare and education stakeholders.

It has been and continues to be especially important to engage community leaders from Indigenous communities, racialized communities/communities of color, and faith-based organizations to help deliver critical information[11].

Planning Variables or Signals

Surges in cases requiring change in or implementation of restrictive community PHM along with any changes in science (e.g., new information about COVID-19 that requires a shift in Canada's public health response or guidance to specific populations), changes to border measures, indicators of vaccine hesitancy and vaccine availability, will all necessitate updating of the current F/P/T communication strategy and products.

6.9 Research

The Government of Canada has mobilized Canada's research and scientific communities in response to the spread of the novel coronavirus (COVID-19). Priority research areas include medical countermeasures (vaccines, therapeutics, and diagnostics), clinical management research, as well as social and policy research.

Current Status/Focus

Currently:

- the Government of Canada has established mechanisms for mobilizing rapid research responses for this type of emergency, which have been activated to accelerate development of medical countermeasures, to support priority research on the transmission and severity of COVID-19, and to understand the potential benefits and potential limitations of medical, social and policy countermeasures;
- Health Canada has established a number of temporary innovative and flexible measures to help prioritize and expedite the regulatory review of COVID-19 health products without compromising Canada's high standards for safety, efficacy and quality (these measures have been put in place to facilitate safe and timely access to products Canadians and health care workers need);
- there are several federal programs available aimed at mobilizing industry, innovation and research to respond to COVID-19;
- capacity at federal research facilities is being leveraged, and federal granting agencies are strategically aligned to support Canadian research capacity;
- the Canadian private sector (R&D, manufacturing) is being engaged to contribute research and development solutions; and
- the Government of Canada is also supporting various strategies to bring significant findings arising from these research efforts to decision-makers in a useful and timely way.

Preparations/Forward Planning

In order to prepare for a fall resurgence based on the reasonable worst case scenario, the following needs have been identified:

- Need to prioritize and pursue a wide array of **Clinical Trials activities** for therapeutics and vaccines.
- Need to strengthen our capacity to deliver on **relevant COVID-19 modelling work**: The COVID-19 epidemic has demonstrated the important role and need for greater and ongoing capacity to implement the full range of modelling tools required to support decision-making during a complex public heath crisis. Models help to predict where and when COVID-19 infections may emerge or re-emerge, and they can be used to explore the best combinations of approaches to control disease progression and protect the health of Canadians.
- Need to **pursue research and surveillance studies** aiming at better understanding mechanisms of infections and immunity against the COVID-19 virus. Investigating and tracking the genetic diversity of SARS-CoV-2, the virus that causes COVID-19, across Canada to better respond to its spread; evaluating and establishing blood test (serologic) methods to determine the immune status of Canadian populations; and research and research coordination with partners to develop COVID-19 animal models and medical countermeasures.
- There is a need to invest in and mobilize knowledge relating to social sciences such as sociology, anthropology and psychology. Specifically **behavioural science and ethnic research** can guide future policy and regulatory actions.
- Need to strengthen our capacity to perform **rigorous and rapid evidence review** to generate evidence reviews and answer specific questions to provide the most up-to-date science evidence for optimal decision-making.
- Need to explore the epidemiological value of new, innovative methods to track community spread, such as **testing SARS-CoV-2 from sewage water** to provide early warning ability at the community level (municipality, special settings such as Long-Term Care Facilities, prisons, hospitals and remote communities).

Short to Mid term:
In the short to mid term, the approach to these preparations is to:

- Work collaboratively with National partners, FPT, stakeholders groups (including National Indigenous Organizations; Indigenous researchers and scholars; National Collaborating Centre for Indigenous Health), and the Federal Science Community to support the work of key task groups mandated to support Canada's COVID-19 response (Immunity Task Group, the Vaccine Task Force, the Therapeutic task Group) and Indigenous-led culturally grounded research;
- Work collaboratively with Federal Science Based departments with specific targeted engagement with the CIHR and the Chief Science Advisor of Canada; and
- Continue engagement with the pan-Canadian Public Health Network (via the Technical Advisory Committee and Special Advisory Committee). Activities include sharing research, data and local experience that will inform further planning in alignment with our stated public health pandemic goal and objectives (e.g., quantifying the negative and positive consequences of the PHM that were uses in the initial response to be better able to address the inequities that have arisen).

Long term:
In the longer-term, efforts will include seeking investment to strengthening laboratory capacity in the area of genomic innovation and bio-informatics.

Planning Variables or Signals

As with other response component several factors including: evidence of significant increased in the mortality ratio, data from vaccine and therapeutic clinical trials, data on immunological protection of Canadians, new / rigorous knowledge on the impact of COVID-19 specific high-risk groups, a significant shift in genomic pattern of SARS-CoV2 (leading to examine possible shift in virulence or infectivity) and new / rigorous knowledge of the importance of a non-respiratory mode of transmission, would potentially impact preparations for the ongoing COVID-19 response.

7. Planning with Indigenous Communities

Indigenous communities have been supported as they worked to update and activate their community pandemic plans. Over 30 Indigenous organizations have been engaged and collaborating together to support public health response through the Public Health Working Group on Remote, Isolated and Indigenous Communities as part of the SAC structure. Indigenous Services Canada (ISC) together with National Indigenous Organizations (NIOs), have been leading work with PHAC, Statistics Canada and the First Nations Information Governance Centre to address data gaps regarding the impacts of COVID-19 on Indigenous Peoples.

As a result of community supported response efforts, infection rates on-reserve and in the North have remained lower than the rate in the overall Canadian population. However, it is important to note that gaps for urban, Métis, Inuit and off reserve First Nations populations persist and increased linkages are required to support these populations. A summary of the response activities that have been supported to date in addition to the strategy/approach, actions and deliverables for these preparations for the short, mid and long term (i.e., being before September, September to December, and 2021 and beyond, respectively) are included in *Appendix 3: COVID-19 Response Planning with Indigenous Communities*.

8. Planning for High-risk settings and populations

A specific setting may be considered as “high-risk” due to:

- the potential for higher rates of severe disease or death amongst those in the setting compared to that of the general population (because of clustering of people with underlying medical conditions, clustering of those in high-risk age group or both); and/or
- potential for high rates of transmission (because of unavoidable crowding indoors with limited ability to use or inconsistent use of protective measures).

Epidemiologic investigations of outbreaks in these settings are key to improving our understanding of transmission dynamics and setting-specific risks. It can be challenging to significantly mitigate these risks; therefore planning activities need to look at the specific circumstances of each setting and what enhanced measures can be put in place to prevent and manage COVID-19 outbreaks in these highly variable contexts. This should include measures to prevent introduction of the virus into these settings, (e.g., through screening of employees and visitors, restriction of visitation, efforts to prevent work at more than one high-risk location, implementation of a quarantine period for people entering the setting).

As has been observed during the first wave of COVID-19, high-risk settings that would benefit from special planning considerations have included:

- Long-Term Care facilities.
- Worksites necessitating close proximity to others (e.g., meat processing) or with communal housing (e.g., temporary foreign workers living on work farms, remote/fly-in work camps like northern mines).
- Remote populations without ready access to advanced health services (e.g., fly-in only access communities), and with potentially elevated rates of underlying medical conditions or other pre-existing disparities.
- Homeless shelters.
- Prisons.

While guidance has been developed and measures have been put in place aimed at preventing further outbreaks in these settings, planning for the reasonable worst case scenario necessitates that we undertake activities in the short term to shore up capacity to undertake prevention and outbreak response measures, as well as, continuously monitoring these measures and adjusting as necessary. For example:

- If there were to be a high level of pandemic activity in the surrounding geographic areas would the response plans for these settings be applicable and sufficient?
- What are the existing gaps in guidance, measures or resources, and how can these be addressed prior to a potential fall resurgence?
- Are prevention measures that were implemented during the first wave of COVID-19 sustainable and realistic for a fall resurgence and/or the reasonable worst case scenario?
- What impact could these measures have on high-risk populations?

This collaborative work to plan and support high risk settings and populations will continue at all levels of government and across multiple sectors and stakeholders from public health, health care, education, agriculture/agri-food, immigration, economic development, corrections, social services/housing, science/research and labour.

As work continues, it is important to take into consideration the impact that these measures may have on the various sociodemographic groups most likely to be affected. Considerations for low-income workers, seniors, migrant workers, persons living in overcrowded housing, persons experiencing homelessness, and prisoners, among others, will need to remain a cornerstone of all response plans.

9. Assessment and Evaluation

Assessing and evaluating pandemic response efforts during periods of relatively lower response tempo will help identify areas of improvement and prioritize future planning efforts. It is also vital, on an ongoing basis, to determine whether response activities have been effective and implemented efficiently so as to achieve the intended results and whether areas of uncertainty (see Section 4) can or have been addressed. The F/P/T COVID-19 response governance structure (see Appendix 1), which includes the Special Advisory Committee (SAC), Technical Advisory Committee (TAC) and Logistics Advisory Committee (LAC), provides multiple forums for these discussions and opportunities for sharing of experience, lessons learned and identified best practices. More structured processes for assessment

and evaluation, including in-action and after-action reviews should be considered at all levels of government to inform forward planning and future pandemic preparations.

Now that the initial wave of COVID-19 is subsiding and our collective knowledge about this disease and its impact has increased, the broader direct and indirect consequences of the COVID-19 response in terms of other physical and mental health outcomes as well as societal and economic impacts must be acknowledged and assessed so that reduction of negative impacts can be accounted for in comprehensive forward planning efforts.

This should involve consideration of the impact response measures may have on individuals' physical, social, mental and emotional health and wellbeing, including how this may affect the adoption of control measures. The broader impact of restrictive community PHM in terms of health, wellbeing, child development and welfare needs to be assessed and plans implemented to prevent other immediate health harms and to prevent increasing health inequities for higher risk populations. These could be in the area of other direct impacts to health including; risks of delaying health procedures, domestic violence, child welfare/neglect, reducing access to harm reduction services or safe drug supply and mental health services. It could also involve addressing indirect COVID-19 associated health and wellbeing risks such as congregate housing, low employment standards, lack of access to educational supports for high need students, and risk of visitor restriction policies (e.g., family caregivers in long-term care homes).

Resources and guidance to support mental health is in development, however the need for other resources needs to be considered. Furthermore, improving the conditions (such as housing and employment conditions) that increase the risks associated with COVID-19, could also help reduce the health and societal impacts of future pandemics.

Appendix 1: Canada's Public Health Emergency Response System and Inventory of Resources, Guidelines and Agreements to inform COVID-19 Preparedness and Response

Canada's public health emergency response "system" comprises a series of complementary, mutually reinforcing plans, arrangements, protocols and networks that incorporate lessons-learned from previous outbreaks like SARS, 2009 H1N1 pandemic and Ebola which are regularly updated to reflect the latest evidence and scientific advance. Taken together, they span the local, provincial, territorial, pan-Canadian, North American and international levels and provide a strong and proven framework for Canada's response to COVID-19.

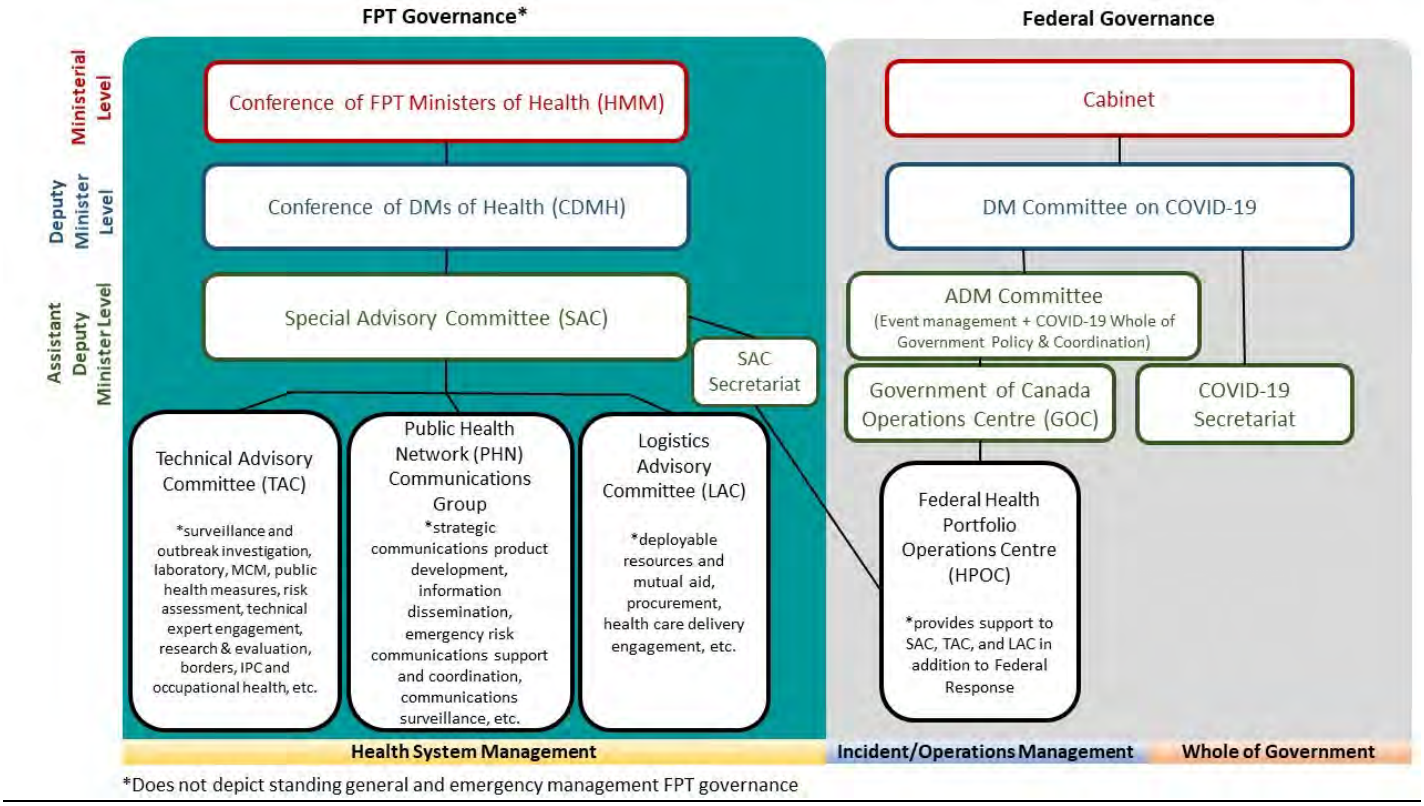
As public health in Canada is an area of shared jurisdiction, federal, provincial and territorial health officials and experts are working together through the *Special Advisory Committee (SAC) on COVID-19* and its various expert committees and working groups to ensure a coordinated and effective response to the COVID-19 outbreak in accordance with the *F/P/T Public Health Response Plan for Biological Events.* The Plan, which includes a summary of F/P/T roles and responsibilities in a public health emergency, can be found at https://www.canada.ca/en/public-health/services/emergency-preparedness/public-health-response-plan-biological-events.html

The SAC draws on the pan-Canadian Public Health Network (PHN) structure. Established in 2005, the PHN reflects lessons-learned from the Severe Acute Respiratory Syndrome (SARS) outbreak, which highlighted the imperative for a proactive and collaborative approach to public health emergency planning and response in Canada. PHN has since proven its value and effectiveness as a vehicle for collaborative leadership during the 2009 H1N1 pandemic, Middle Eastern Respiratory Syndrome (MERS-CoV) and Zika outbreaks.

SAC comprises members of the PHN Council and the Council of Chief Medical Officers of Health (CCMOH). Three expert groups comprising senior F/P/T officials and public health experts from across the country support SAC:

- Technical Advisory Committee (TAC): monitors COVID-19 epidemiology, shares information and advises on technical issues through the development of recommendations, guidelines and protocols.
- Logistics Advisory Committee (LAC): supports logistics (e.g., supplies, joint procurement, scarce resources), shares information and advises on logistical issues through the development of recommendations, guidelines and protocols.
- Public Health Network Communications Group: supports consistent and coordinated public communications and messages on COVID-19 across jurisdictions.
- Public Health Working Group on Remote and Isolated Communities supports Indigenous public health response in remote and isolated Indigenous communities.

Graphic 1: COVID-19 Governance Structure



*Does not depict standing general and emergency management FPT governance

Graphic 1 – Text Description

This graphic depicts two main hierarchical governance structures and linkages between the two particularly at the working level. The structure on the left side of the graphic on the teal background shows the Federal/Provincial/Territorial Governance structure that has been activated for the COVID-19 response as per the Federal/Provincial/Territorial (F/P/T) Public Health Response Plan for Biological Events. There is an asterisk linked to text to remind the viewer that this does not depict standing general and emergency management F/P/T governance. At the top of this structure is the Conference of FPT Ministers of Health (HMM) which operates at the Ministerial level. Directly below the HMM is the Conference of Deputy Ministers of Health (CDMH) which operates at the Deputy Minister level. Directly below the CDMH is the Special Advisory Committee (SAC) which is considered to operate at the Assistant Deputy Minister Level. Below the SAC are 3 committees/groups and a brief description of the types of response issues they lead on from a F/P/T public health response perspective. The Technical Advisory Committee (TAC) reports up to the SAC and leads on: surveillance and outbreak investigation, laboratory, medical countermeasures (MCM), public health measures, risk assessment, technical expert engagement, research & evaluation, borders, infection prevention and control, and occupational health, etc. The Public Health Network (PHN) Communications Group, also reports to SAC and leads on: strategic communications product development, information dissemination, emergency risk communications support and coordination, communications surveillance, etc. The Logistic Advisory Committee (LAC) is the third main group that reports to SAC and leads on: deployable resources and mutual aid, procurement, health care delivery engagement etc. This entire FPT governance structure has a health system management perspective/focus, as is indicated in a yellow bar spanning the bottom of this side of the graphic.

On the right side of the graphic on a grey background is the Federal Governance structure which has more of an incident/operations management and whole of (federal) government focus. At the top of this structure is the Cabinet which like the HMM on the left (FPT side) operates at the Ministerial Level. Reporting up to Cabinet is during this response is the Deputy Ministers Committee on COVID-19, which operates at the Deputy Minister Level and is directly supported by an Associate Deputy Ministers Committee (that oversees federal event management

and the COVID-19 whole of government policy and coordination) and the COVID-19 Secretariat. These two groups along with the Government of Canada Operations Centre (GOC), operate at the Assistant Deputy Minister Level. The Federal Health Portfolio Operations Centre (HPOC), which is linked to the GOC, provides support to the SAC, TAC and LAC in addition to the federal response. The HPOC formally links to the SAC via the SAC secretariat which functions as is a key linkage point between these two governance structures. At the working level the HPOC Incident Management Structure (IMS) includes groups that develop F/P/T response products and support the TAC, LAC PHN Communications Group and SAC.

The Government of Canada has also established a Cabinet Committee on the federal response to COVID-19 that meets regularly to ensure whole-of-government leadership, coordination, and preparedness for a response to the health and economic impacts of the virus.

FPT Collaborative Agreements: Mutual Aid, Information Sharing and Emergency Supplies

***Federal/Provincial/Territorial Public Health Response Plan for Biological Events*:** is a federal, provincial, and territorial (F/P/T) guidance document that provides an overarching governance framework to ensure a coordinated intergovernmental health sector response to public health events that are biological in nature and of a severity, scope or significance to require a high level, coordinated F/P/T response**.**

Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector (CPIP): is an F/P/T guidance document that outlines how jurisdictions will work together to ensure a coordinated and consistent health-sector approach to pandemic preparedness and response. While CPIP is specific to pandemic influenza, much of its guidance is also applicable to other public health emergencies. CPIP consists of a main body, which outlines overarching principles, concepts, and shared objectives, as well as a series of technical annexes that provide operational advice and technical guidance, along with tools and checklists on specific elements of pandemic planning. CPIP is regularly updated to reflect new evidence and best practices.

Operational Framework for Mutual Aid Surge Requests for Health Care Professionals: is a guidance document that provides for a consistent and timely pan-Canadian approach to inter-jurisdictional health care professional mutual aid during health emergencies. The framework identifies roles and responsibilities and provides standard processes to guide jurisdictions making requests for, and offers of, mutual aid and the mobilization/demobilization of health care professionals. It also informs a complementary *Memorandum of Understanding (MOU) on the Provision of Mutual Aid in Relation to Health Resources During an Emergency Affecting the Health of the Public*.

Multilateral Information Sharing Agreement (MLISA): is a legal agreement that establishes standards on sharing, usage, disclosure and protection of public health information for infectious diseases and public health emergencies of international concern. The MLISA sets out what public health information is to be shared and how it will be used. It allows for trends and/or urgent public health events to be identified more rapidly and to reduce duplication of information requests. MLISA also informs an *FPT MOU on the Sharing of Information during a Public Health Emergency*. The Memorandum of Understanding (MOU) provides a framework for the sharing of information between and among its signatories during public health emergencies.

National Emergency Strategic Stockpile (NESS): contains supplies that provinces and territories can request in emergencies, such as infectious disease outbreaks, natural disasters and other public health events, when their own resources are not enough. These include a variety of items such as medical equipment and supplies, pharmaceuticals and social service supplies, such as beds and blankets.

Public Health Ethics Framework: A Guide for Use in Response to the COVID-19 Pandemic in Canada: is a framework is intended for use by policy makers and public health professionals making public health decisions in the context of COVID-19. Section 1 articulates ethical principles and values for public health authorities to consider, and Section 2 sets out a framework to help clarify issues, analyse and weigh relevant considerations, and assess options, in order to support decision making in real situations.

Federal Emergency Response Plans

The Federal Emergency Response Plan (FERP): is the Government of Canada's all-hazards response plan. The FERP outlines the processes and mechanisms required to facilitate a whole-of-government response to an emergency. The FERP is designed to harmonize federal emergency response efforts with the efforts of PT governments, non-governmental organizations (NGO) and the private sector.

The Federal Policy on Emergency Management (FPEM): promotes an integrated and resilient whole-of-government approach to emergency management planning, which includes better prevention/mitigation of, preparedness for, response to, and recovery from emergencies. It provides direction to federal institutions on mandate-specific all-hazards risk identification and management within a federal institutions area of responsibility.

International Response Plans and Protocols

North American Plan for Animal and Pandemic Influenza (NAPAPI): outlines how Canada, the United States and Mexico intend to strengthen their emergency response capacities, as well as trilateral and cross-sectoral collaborations and capabilities, in order to assist each other and ensure a faster and more coordinated response to outbreaks of animal influenza or an influenza pandemic. The NAPAPI complements national emergency management plans in each of the three countries.

Global Health Security Initiative (GHSI): is an informal, international partnership among like-minded countries and organizations to exchange information and coordinate practices within the health sector to strengthen public health preparedness and response globally, including pandemic influenza.

International Health Regulations (IHR): represent an international agreement between all World Health Organization (WHO) Member States to build capacity to detect, prevent, assess, notify and response to public health events. Canada has a legal obligation to meet the core public health capacities set out by the IHR.

World Health Organization (WHO) Strategic Response Plan: outlines the public health measures that the international community stands ready to provide to support all countries to prepare for and respond to COVID-19. The document (published February 3, 2020 and updated on April 14, 2020) takes what has been learned so far about the SARS-CoV-2 virus and translates that knowledge into strategic action that can guide the efforts of all national and international partners when developing context-specific national and regional operational plans.

Appendix 2: Modelling Support for Forward Planning

Modelling recreates the essential components of pathogen transmission cycles from our understanding of the biology of the pathogens and their interactions with their hosts. Models help to predict where and when infectious diseases may emerge or re-emerge, and they can be used to explore the best methods or combinations of methods to control disease outbreaks or epidemics and protect the health of Canadians. For response to COVID-19, there are three broad types of model being used:

1. Deterministic compartment models. These are Susceptible-Exposed-Infectious-Recovered (SEIR) type dynamic models in which the population is divided into "susceptible", "exposed", "infectious" and "recovered" classes. After encountering infection, individuals in a population move from one state to the next. This basic structure includes elements to model SARS-CoV-2 and impacts of public health measures, with more realism. These elements include compartments for isolated cases and quarantined "exposed" contacts from which onward transmission to susceptible people is limited or absent, compartments for asymptomatic cases that may or may not be detected by surveillance, as well as flows to "isolation" and "quarantine" compartments that allow variation according to different levels of public health effort. These models are used to inform broad policies at a national level, including i) estimating numbers of cases, hospitalisations and deaths; ii) estimating the effects of non-pharmaceutical interventions (NPIs), (physical distancing, case detection and isolation, and contact tracing and quarantine), iii) design of vaccination programs; and iv) the design of programs to enhance "herd immunity" via use of antivirals/therapies if vaccines prove ineffective.

2. Agent-based models. These are also SEIR models, and they can also be used to inform development of national strategies. However, because they can simulate disease transmission with some detail in and amongst homes, work places leisure spaces etc., they are particularly useful for decision-making at an individual community level regarding needs for NPIs, and strategies for relaxing restrictive closures.

3. Branching models. These are a more recent addition to the types of models used for COVID-19. They simply assess what factors cause single chains of transmission to expand or become extinct. They are being used to assess the needs for controlling transmission in work places and institutions.

The PHAC has developed models that can be shared, and are constantly undertaking modelling to support decisions. The PHAC External COVID-19 Modelling Expert Group was formed in February 2020, and currently comprises 33 members from 21 universities across Canada, as well as 43 members from other Federal departments/organisations provincial/territorial public health organisations. The group comprises the majority of infectious disease modelling group leads in Canadian universities, and is capable of supporting modelling needs for decision-making.

Appendix 3: COVID-19 Response Planning with Indigenous Communities

A summary of response activities for Indigenous Communities, including the work of SAC's FPTI Public Health Working Group on Remote and Isolated Communities, that have been supported by Indigenous Services Canada (ISC) and the F/P/T response partners to date include:

- **Preparedness:** Resources to support pandemic planning updates/activation; access to medical supplies and PPE; training; and, guidelines.
- **Health Human Resources:** Resources to support surge capacity for health human resources, including nursing, medical and paramedical supports; as well as, charter services to get health human resources into communities with reduction to commercial airline service.
- **Infrastructure:** Resources to procure temporary shelter solutions and to support communities in efforts to re-tool existing spaces to offer safe assessment and overflow space; and, additional surge supports for food, water and other supply chain components.
- **Infection prevention and control (IPC):** Shared information (i.e., public health measures and promoting personal health measures for individuals and health providers), training and increasing capacity to support community response, including public service announcements in Indigenous languages. Provided training of community workers and health providers on IPC. Funded communities and service providers to increase their capacity for infection prevention and control, including First Nations-run schools, boarding homes, family violence shelters and friendship centres.
- **Medical transportation:** Supported medical transportation or adapting its polices (i.e., to use private modes of transportation where possible for those with higher risk factors) to minimize transmission; and, offered IPC support for service providers such as boarding homes.
- **Governance:** Worked with Indigenous partners, the Public Health Agency of Canada (PHAC), Health Canada, Public Safety's Government Operations Centre, and other departments, as well as their provincial and territorial counterparts for a coordinated and consistent Canadian approach to COVID-19 to protect the health and safety of First Nations, Inuit and Métis communities.
- **Communications and Surveillance:** Developed and broadly disseminated communication messaging through Department's COVID-19 Single Window to networks with Public Service Announcements in multiple Indigenous languages. Used digital media to further reach stakeholders with communications such as public health measures**.** Multilateral calls with partners at the national and regional levels.
- **Monitoring:** Adapted the Department's flu surveillance tool to track COVID-19 across First Nations communities; and developed a tracking tool to develop dashboards on key indicators of COVID-19.

Based on knowledge and feedback learned to date, ongoing preparations needed to support Indigenous populations to respond to a possible fall resurgence include continued planning and logistics that support food security; and, also medical supplies, including PPE, needs of communities and off-reserve Indigenous organizations providing essential services. Continued access to timely testing supplies, P/T labs for processing, and results, including point of care testing for northern, remote and isolated communities. There is also a need to plan for reduced flight schedules, which can create supply chain challenges for food, medical supplies, and health human resources reaching communities; and for communities to send swab tests taken for processing at PT labs.

Additional refresher training in infection prevention control is required to support health professionals and communities, for example in donning and doffing PPE and environmental cleaning practices to

reduce the spread of COVID-19. In addition to supporting training for health human resources working in communities, increased funding for telemedicine and virtual health care providers is required to support ongoing health service delivery, and to avoid a potential backlog in appointments following the pandemic or worsening health conditions.

Access to care to treat more severe symptoms of COVID-19 in remote and isolated communities also requires that ongoing arrangements, or new ones, are in place to ensure an adequate number of beds in hospitals south of 60, to support the treatment of Indigenous peoples living in northern, remote and/or isolated communities without this type of service. In communities where there are long-term care facilities, or Elders residences, it is important to have access to adequate resources to support their planning in keeping Elders safe and healthy – this includes funding to take basic infection prevention control measures (i.e. PPE, high dose flu vaccine, cleaning supplies, etc.), to engineered and more administrative public health measures.

A distinctions-based approach has been adopted by the Federal Government to ensure that the unique rights, interests and circumstances of the First Nations, the Métis Nation and Inuit are acknowledged, affirmed, and implemented. In this context, it takes into account the cultural and socio-economic particularities of each of the Indigenous Nations involved. Distinctions-based, Indigenous-led analysis of this information is necessary to advancing culturally appropriate and science-based approaches, for First Nations, Inuit and Métis Nation communities. Learning from H1N1, we know that long standing public health gaps and health disparities between First Nations and non-Indigenous Canadians increase the likelihood and potential severity of a coronavirus disease outbreak in Indigenous communities. These disparities are often exacerbated in remote or fly-in communities, where access to necessary supplies and health care services is limited as compared to non-Indigenous communities. We also know that in H1N1 data for First Nations/Inuit/Métis populations were not captured in a consistent way, or a way that supported communities in their preparedness and response efforts.

Surveillance activities are critical to informing public health responses to a pandemic. They support the early detection and description of potential health threats present in Canada, including on-reserve First Nations communities. In order to be able to make informed decisions, decision makers and leaders throughout the system need reliable public health data. Existing data quality and gaps for First Nations, Inuit and Métis populations living both on and off reserve are critical to effectively responding to future waves of COVID-19 among this population, protecting their health and safety by getting them the access to care required.

The strategy/approach, actions and deliverables for these preparations for the short, mid and long-term (i.e., being before September, September to December, and 2021 and beyond, respectively) include:

Short term: In the short term, ongoing work to continue to secure medical supplies & PPE are necessary, both to support future waves of COVID-19; and, to support the return of services in communities (i.e. immunization, water monitoring, treatment for substance use, etc.). Access to point of care testing is vital to supporting the safe reopening of northern, remote and/or isolated communities and continued work to advocate for access to test cartridges available or GeneXpert machines, and for new point of care technologies when approved will continue. Flu and pneumococcal vaccine planning, from securing vaccines, working with PTs on vaccine strategies, mobile clinics, etc. as well as planning for flu vaccine mass immunization strategies in light of COVID-19, and potential space limitations in communities, leading to prolonged clinics to allow for appropriate physical distancing, regular disinfection of spaces,

etc. Ongoing monitoring of forest fires for possible evacuations and planning in light of COVID-19 over the summer and fall months.

Medium term: Ongoing access to funding to support food security, working with Transport Canada and Agriculture and Agri-Food Canada essential. Access to required PPE for Inuit, Métis and off reserve First Nations organizations providing new services as an interim measure to respond to COVID-19 and links with local public health authorities and the Public Heath Agency of Canada required to support these services and population. Access to care and planning for the availability of hospital beds required to support possible influx of Indigenous patients requiring care for more severe symptoms of COVID-19. Resources needed to bolster long-term care in communities and mental wellness supports to address impacts associated with pandemic and isolation; as well as, ongoing substance use (i.e. opioid, crystal meth, etc.). COVID vaccine prioritization and deployment strategy planning for First Nations, Inuit and Métis populations.

Longer term: Resources to support Indigenous-led data collection/governance/infrastructure to support data optimization for the longer term in Canada is essential. Resources to bolster community-led public health supports and work are required, as well as training to support these functions. To support access to patient care, as well as the work of community based workers and nurses in northern, remote and/or isolated communities increased funding for telemedicine and virtual health care providers is necessary. This will avoid a backlog of medical or specialist appoints after COVID-19, and support access to timely care supporting better health outcomes.

High level signals that would necessitate a change in timelines or strategy/approach and sub-sequent actions and deliverables, include:

- ongoing and prolonged active cases – either slow, or in an outbreak scenario on reserve
- signals and risks of community spread, where communities may be at a higher risk due to geographic location
- access to health care to treat more severe symptoms
- strain on system for medivacs should there be a greater need in PTs
- shifts in hospitalization rate, ICU admission rate, case fatality rate
- reproductive rate
- Long-term care (LTC) outbreaks
- shift in age/sex distribution of cases

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Appendix

Reconsideration Process for Provincial Health Officer Orders
August 12, 2020

Introduction

As stringent public health measures are eased and society continues to restart, Provincial Health Officer (PHO) orders are increasing in complexity and requests for reconsideration are mounting. Reconsideration of PHO orders per sections 38 and 43 of the *Public Health Act* (appended) are allowed but have not been done. Not undertaking reconsiderations results in some organizations or groups of organizations potentially not becoming as operational as they could, and potentially prolongs harms to them longer than necessary. As such a reconsideration process is needed. This paper describes a reconsideration process that is fair, applies objective criteria to support consistency of decision making, recognizes local circumstances, and supports maintenance of the integrity of the public health response. [1]

Principles

1. Consistency of decision making is important. Substantial or unsupportable inconsistency may undermine the objectives of the orders, messaging and actions.

2. Scaling back restrictions is more complex than imposing broad restrictions. Recommendations about reconsiderations based on local knowledge, which allow for nuance and discretion, will result in better decisions and responses.

3. Confidentially sharing information about reconsideration decisions among the public health leadership in BC will support achieving principles 1 and 2.

Proposed Process

1. All requests for reconsiderations will be coordinated through the Office of the PHO (OPHO), documenting the specifics of the request. A template may be needed, and a tracking process developed.

2. The OPHO will screen requests according to screening criteria (below) to determine whether to deal directly with a request or refer for regional input.

3. If the OPHO is to deal with request, specific decision-making criteria (below) will be applied and the decision shared with Chief MHOs, RDs Health Protection and the Ministry of Health's Health Protection Branch.

4. If the OPHO decides to refer for a regional recommendation the request is sent to the relevant Chief MHO, who assigns the request to a regional process. The designated MHO will make a recommendation about the reconsideration according to the decision-making criteria (below).

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[1] Note that considerations specific to the BC *Declaration on the Rights of Indigenous Peoples Act* have not been included in this process but may be included in the future.

5. If straight forward a MHO makes a recommendation to the OPHO for decision.

6. If not straight forward, and after internal health authority discussion, MHO (or the OPHO at any point) may request a consultation with:
    a. BCCDC Safe Operations Working Group
    b. Regional Directors Health Protection
    c. Ministry of Health's Health Protection Branch
    d. Office of PHO
    e. Others as appropriate

Criteria for Processing and Granting a Variance to an Order following a Request for Reconsideration

PHO Screening Criteria

1. Is the situation covered by the order? If not, the order does not apply.

2. Can the request be readily processed by the Office of the PHO, or is local input needed?

3. Will the PHO order likely be changing to address the request?

4. Is this a unique situation, or does the request represent a class of activities that should be considered from a provincial perspective?

Decision Making Criteria

1. Will granting a variance undermine the overall intent of the order? (likely just applied by the OPHO)

2. Will granting a variance be inconsistent with how the order has been implemented to a degree that would undermine the implementation of the order elsewhere? (more likely just applied by the OPHO, but may be applied by MHO)

3. Will not granting a variance result in extra-ordinary hardship that is out of proportion to the risk posed by adherence to the order as published?

4. Will the proposal, if implemented, meet the objectives of the order? i.e. is there a proposed safety plan to protect public health?; should an exposure occur, will it be manageable in terms of timely and efficient public health contact tracing?

5. Will granting a variance likely have a negative consequence for a third party or contravene a local requirement (e.g. a bylaw)?

Appendix - *Public Health Act* Excerpt

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

BC Centre for Disease Control

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

How it Spreads

COVID-19 is spread by the respiratory droplets an infected person produces when they breathe, cough, sneeze, talk, or sing. If you are in contact with an infected person, the virus can enter your body if droplets get into your throat, nose, or eyes.

Last updated: January 5, 2021

COVID-19 Transmission

Respiratory infections such as influenza (flu) and COVID-19 are mainly spread by liquid droplets that come out of the mouth and nose when a person with the virus breathes, coughs, sneezes, talks, or sings. Droplets come in a wide range of sizes, from smaller than the width of a hair to larger than a grain of sand. A few large droplets or many small droplets can contain enough virus to infect another person.

Droplet Sizes

Larger droplets are heavier, and they usually fall to the ground within two meters. The majority of COVID-19 infections are spread from one person to another through larger droplets. This is why maintaining physical distance, adding physical barriers, wearing masks, and hand hygiene are all important protective measures.

Smaller droplets come out of the mouth and nose at the same time as larger droplets. These smaller droplets are light, and they can float in the air for a longer time. Because of this, smaller droplets may collect in enclosed spaces unless they are diluted with clean air from the outdoors or from a ventilation system. If many people are sharing a space without enough clean air, it can lead to COVID-19 infections.

Surface Contact

Even though COVID-19 can survive for hours or days on different surfaces, infection from contact with contaminated surfaces appears to be less common. The most common type of

spread is through larger droplets from close contact with an infected person.
There is no evidence that the virus transmits through food as it is destroyed almost immediately by stomach acid. Good hand hygiene is always important for food safety. For more information, see the BCCDC page on Food Safety and COVID-19.

Ways You Can Reduce Transmission

- Wash your hands often with soap and water for at least 20 seconds, or use an alcohol-based hand sanitizer containing at least 60% alcohol
- Stay home if you are sick
- Limit the number of people and time you spend time with people you don't live with.
- Practice physical distancing and avoid crowded areas.
- Wear a mask
- Cough and sneeze into a tissue or the bend of your arm, discard tissues safely, and wash your hands after
- Avoid touching your face (eyes, nose, mouth) with unwashed hands
- Clean and disinfect surfaces and objects
- Get immunized with a COVID-19 vaccine when eligible
- Avoid or take extra precautions and keep exposure brief in:
    - closed spaces, crowded places and settings where you are in close contact with others.
    - It is particularly important to avoid settings where these situations overlap e.g., closed, crowded spaces where close-range conversations occur.

For more information on how you can reduce transmission, see the BCCDC's page on COVID-19 Prevention and Risks.

Public exposures

If you were in attendance at any of these locations during these times, public health recommends you self-monitor for symptoms of COVID-19.

Common symptoms of COVID-19 may include fever, chills, cough or worsening of chronic cough, shortness of breath, sore throat, runny nose, loss of sense of smell or taste, headache, fatigue, diarrhea, loss of appetite, nausea and vomiting and/or muscle aches.

If you have symptoms related to COVID-19, however mild, please use the B.C. COVID-19 Self Assessment Tool, call 8-1-1, seek testing and then self-isolate

COVID-19 is spread by respiratory droplets when a person who is sick coughs or sneezes. It can also be spread when a healthy person touches an object or surface (e.g. a doorknob or a table) with the virus on it, and then touches their mouth, nose or eyes before washing their hands.

Most people who get COVID-19 have only mild disease, but a few people can get very sick and may need to go to hospital.

Current public exposure notifications

Fraser Health updates this list with the locations and times of known possible exposures to COVID-19 to the public in our region when we have been unable to reach or identify all individuals potentially exposed via contact tracing.

If you have been in one of these locations at the times of possible exposure, it does not mean you will develop COVID-19. The possible exposures listed on this site are **believed to be low risk** but, out of an abundance of caution, Public Health asks anyone who may have visited any of the locations listed on the specified dates and times **to monitor themselves for symptoms.**

There is no known risk to anyone who attended any listed locations outside of the specified dates and times. If people remain healthy and do not develop symptoms, there is no need to self-isolate and people can continue with their usual daily activities.

If you develop any symptoms of COVID-19, please seek testing and then self-isolate. Please call ahead and wear a mask when seeking testing.

If you have been identified as a COVID-19 case or close contact, be assured that Fraser Health's public health team will contact you directly and provide further instruction.

If you have visited a business that you have learned has had exposures, and it is not listed here, it is because Public Health believes they have contacted everyone who was potentially exposed during the dates and times of exposure.

Current public exposures

Community	Location	Address	Date	Times	Additional notes
Surrey	The Restored House Chapel	Unit 107-11267 125A St. Surrey BC V3V 8C5	December 30, 2020 - January 20, 2021	Fridays: 19:00 - 21:00 Sundays: 10:00 - 1200 Tuesdays: 19:00 - 21:00	

<< scroll for more >>

**Locations will be removed from the current public exposures list one month after the last exposure date, and then archived below.*

Archives

Community	Location	Address	Date	Times	Additional notes
Surrey	Hookah Lounge	10609 King George Hwy	July 31, 2020 - August 1, 2020 August 1, 2020 - August 2, 2020 August 7, 2020 - August 8, 2020 August 8, 2020 - August 9, 2020	23:59 on July 31 to 04:00 on August 1 23:59 on August 1 to 05:00 on August 2 23:59 on August 7 to 04:00 on August 8 23:59 on August 8 to 04:00 on August 9	
Surrey	Event name: Royal Jerk Spot Weekend Summer Fest Day and Night Rave Endorsed by Royal Beauty Location: Royal Beauty Supply	13553 105a Ave	July 31, 2020 - August 1, 2020 August 1, 2020 - August 2, 2020	22:00 on July 31, 2020 to 02:00 August 1, 2020 22:00 on August 1, 2020 to 02:00 August 2, 2020	
Coquitlam	The Taphouse Coquitlam	405 North Road #2	August 1, 2020 - August 2, 2020	21:00 on August 1, 2020 to 02:00 on August 2, 2020	
Coquitlam	Charlie Hamiltons Pub	1031-1163 Pinetree Way (Facing, Lincoln Ave)	August 4, 2020	19:00 on August 4, 2020 to 21:00 on Aug	
Hope	Hope River General Store	28605 Trans-Canada Hwy	August 6, 2020 August 7, 2020 August 13, 2020 August 14, 2020	09:30 - 17:30 on August 6, 2020 10:30 - 18:30 on August 7, 2020 10:00 -17:30 on August 13, 2020 11:30 - 18:30 on August 14, 2020	
Surrey	Willowbrook Used Ltd.	19561 Langley Bypass	October 4, 5, 6, 7, 8, 2020	8:00 a.m. - 6:00 p.m. each day	This public exposure notice includes test drives from the sales lot.

<< scroll for more >>

Langley	Willowbrook Motors Ltd.	19611 Langley Bypass	October 3, 4, 5, 6, 7, 8, 2020	8:00 a.m. - 6:00 pm on October 3 and 4 8:00 a.m. - 9:00 pm on October 5, 6, 7 and 8	This public exposure notice includes test drives from the sales lot.
Surrey	Dicks Lumber	12433 80 Avenue	September 30, October 1, 5, 7, 8 and 9, 2020		8:30 a.m. – 5:00 p.m. each day
Lake Errock and Port Moody	Wedding events at Lake Errock and Saint St. Grill in Port Moody		Lake Errock Saint St. Grill 2514 St Johns St, Port Moody	October 10, 2020	5:00 a.m. - 11:00 p.m. on October 10
Pitt Meadows	Jolly Coachman Pub	19167 Ford Rd	October 9,10,11,12, 2020	10:00 a.m. - 5:00 p.m. on October 9, 10, and 11 9:30 a.m. - 11:30 p.m. on October 12 5:00 p.m. - 11:00p.m. on October 14	

<< scroll for more >>

Surrey	Hanaya Japanese Restaurant	#106 2828 152 St.	October 16, 17, 19, 2020	11:00 a.m. - 10:00 p.m. on October 16 11:00 a.m. - 10:00 p.m. on October 17 4:00 p.m. - 9:30 p.m. on October 19	
Port Moody	Atrack Restaurant	3180 St Johns St.	October 11,16, 17, 18, 19, 20, 2020	4:00 p.m. to midnight on October 11 11:00 a.m. - 10:00 p.m. on October 16, 17, 18, 19, 20	
Abbotsford	Bow & Stern	2551 Montrose Ave.	October 24, 25, 26, 2020	5:00 p.m. - 10:00 p.m. on October 24 3:00 p.m. - 10:00 p.m. on October 25 5:30 p.m. - 10:30 p.m. on October 26	
Surrey	Baselines Pub	8233 166 St.	October 23, 24, 25, 26, 2020	5:00 p.m. - 11:00 p.m. on October 23 5:00 p.m. - 11:00 p.m. on October 24 9:30 p.m. -11:00 p.m. on October 25 5:00 p.m. - 11:00 p.m. on October 26	
Langley	Willowbrook Chrysler, Jeep, Dodge RAM Dealership	19611 Langley Bypass	October 24 and 26, 2020	7:30 a.m. - 4:00 p.m. on October 24 7:30 a.m. - 4:00 p.m. on October 26	This public exposure notification only applies to the shuttle bus and the service department.
Abbotsford	Bow & Stern	2551 Montrose Ave.	October 29, 30, 31 and November 1, 2020	11:00 a.m. - 9:00 p.m. on October 29 3:30 p.m. - 10:00 p.m. on	

			October 30 3:00 p.m. - 10:00 p.m. on October 31 11:00 a.m. - 6:30 p.m. on November 1		
Abbotsford	Gurdwara Baba Banda Singh Bahadar Sikh Society	31631 S Fraser Way	October 26, 27, 29, 30, 31, 2020 November 3, 4, 5, 6, 2020	4:30 a.m. - 8:30 p.m. each day	
Hope	Slumber Lodge Motel	250 Fort St.	November 7, 8 and 9, 2020	4:00 p.m. to 9:30 p.m. on November 7 8:00 a.m. to 12:00 p.m. and 4:00 p.m. to 9:30 p.m. on November 8 8:00 a.m. to 12:00 p.m. on November 9	
Surrey	Platinum Athletic Club	7635 King George Blvd.	October 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31, 2020. November 1, 2, 3, 4, 5, 6 and 7, 2020.	During operational hours.	If you were at the Platinum Athletic Club during the dates mentioned, please self-isolate for 14 days after your last visit. If you develop cold, influenza or COVID-19-like symptoms, please self-isolate and get tested for COVID-19.
Langley	Gritt Athletics	20445 62 Ave.	November 9, 10, 11 and 12, 2020	During operational hours.	Anyone who was on-site during this time must self-isolate for 14 days after last time at the site.
Burnaby	Haven Nails and Spa	6544 Hastings Street	November 14, 15, 16 and 17, 2020	During operational hours.	Anyone who was on-site during this time must self-isolate for 14 days after last time at the site.
Abbotsford - Kelowna	Ebus Travel	EBUS #5725	December 20, 2020	4:20 p.m. to 9:00 p.m. on December 20	

<< scroll for more >>

Resources

- Fraser Health COVID-19 information hub
- B.C. COVID-19 Self-Assessment Tool
- Testing site locator

For notifications of public exposures related to flights, work sites, cruises, long-distance bus and train travel, and public events, please visit the B.C. Centre for Disease Control public exposures page.

For public exposures in the Lower Mainland/Vancouver area, visit Vancouver Coastal Health.

In this section

Public exposures

Doing business safely

Information for community agencies, first responders and municipal staff

Medical Health Officer orders

How you can help during COVID-19

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About us

Fraser Health is responsible for the delivery of hospital and community-based health services to over 1.8 million people in 20 diverse communities from Burnaby to Fraser Canyon on the traditional territories of the Coast Salish and Nlaka'pamux Nations.

Our team of nearly 40,000 staff, medical staff and volunteers is dedicated to serving our patients, families and communities to deliver on our vision: Better health, best in health care.

About Fraser Health

Our development projects

Leadership

News

Accountability

Awards and Recognition

Events

Patient care quality office

Compliments and complaints

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Hospitals

Abbotsford Regional Hospital and Cancer Centre

Burnaby Hospital

Chilliwack General Hospital

Delta Hospital

Eagle Ridge Hospital

Fraser Canyon Hospital

Jim Pattison Outpatient Care and Surgery Centre

Langley Memorial Hospital

Ridge Meadows Hospital

Mission Memorial Hospital

Peace Arch Hospital

Royal Columbian Hospital

Surrey Memorial Hospital

Information for

Contractors and consultants

Daycare operators

Job seekers

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Volunteer opportunities

For staff

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Due to **COVID-19**, VCH facilities are under restricted visitation. Review our current **visitor guidelines**.

COVID-19 public exposures

A A Share Print

COVID-19 is spread by respiratory droplets when a person who is sick coughs or sneezes. It can also be spread when a healthy person touches an object or surface (e.g. a doorknob or a table) with the virus on it, and then touches their mouth, nose or eyes before washing their hands. Most people who get COVID-19 have only mild disease, but a few people can get very sick and may need to go to hospital. The symptoms of COVID-19 may include fatigue, loss of appetite, fever, cough, sore throat, runny nose, loss of smell and/or diarrhea.

As a precaution, Vancouver Coastal Health (VCH) updates this list with the locations and times of known possible exposures to COVID-19 to the public in our region. The possible exposures listed on this site are believed to be low risk but, out of an abundance of caution, Public Health asks anyone who may have visited any of the locations listed on the specified dates and times to monitor themselves for symptoms. There is no known risk to anyone who attended any listed locations outside of the specified dates and times.

- If you remain healthy and do not develop symptoms, there is no need to self-isolate and you can continue with your usual daily activities.
- If you have symptoms related to COVID-19, however mild, please call your family doctor or 8-1-1, seek testing and then self-isolate. Please call ahead and wear a mask when seeking testing.

During contact tracing, our Public Health team does a thorough assessment of where the person has been during their infections period and if there was any risk of public exposure. Depending on the type of interactions a case has had and the measures and safety plans in place at the time, we are often able to identify and notify all close contacts directly and determine there is no further risk. Public health only issues public exposure alerts if:

1. They've determined there was a risk of public exposure and
2. They're not able to contact everyone who may have been exposed

If you have been identified as a COVID-19 case or close contact, please know that VCH Public Health will contact you directly and provide further instructions.

Current public exposures

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Boulevard Kitchen & Oyster Bar

Address: 845 Burrard Street, Vancouver, B.C.

Potential exposure date(s): January 19 to January 23

Potential exposure time: During operating hours

Buffalo Bill's Bar & Grill

Address: 4122 Village Green, Whistler, B.C.

Potential exposure date(s): January 4 to January 27

Potential exposure time: During operating hours

Black's Pub

Address: 7-4340 Sundial Place, Whistler, B.C.

Potential exposure date(s): January 5 to January 27

Potential exposure time: During operating hours

Dubh Linn Gate Irish Pub

Address: 170-4320 Sundial Crescent, Whistler, B.C.

Potential exposure date(s): January 1 to January 27

Potential exposure time: During operating hours

The Longhorn Saloon

Address: 4280 Mountain Square, Whistler, B.C.

Potential exposure date(s): January 16 to January 25

Potential exposure time: During operating hours

Hy's Steakhouse & Cocktail Bar

Address: 4308 Main Street, Whistler, B.C.

Potential exposure date(s): January 13 and January 15-16

Potential exposure time: During operating hours

EI Furniture Warehouse

Address: 4314 Main Street, Whistler, B.C.

Potential exposure date(s): January 12 and January 14 to January 21

Potential exposure time: During operating hours

Hail Mary's

Address: 670 East Broadway, Vancouver, B.C.

Potential exposure date(s): January 13 to January 16

Potential exposure time: During operating hours

Rumble Boxing

Address: 968 Expo Boulevard, Vancouver, B.C.

Potential exposure date(s): January 11 to January 18

Potential exposure time: During operating hours

Nook

Address: 1525 Yew Street, Vancouver, B.C.

Potential exposure date(s): December 31

Potential exposure time: During operating hours

Denny's

Address: 622 South West Marine Drive, Vancouver, B.C.

Potential exposure date(s): December 26 to January 5

Potential exposure time: During operating hours

Park Drive Restaurant

Address: 1815 Commercial Drive, Vancouver, B.C.

Potential exposure date(s): December 31

Potential exposure time: 3:00 p.m. to 9:00 p.m.

**Locations will be removed from the list one month after the last exposure date, and then archived.*

Archive

Pioneers Pub

Address: 10111 No. 3 Road, Richmond, B.C.

Potential exposure date(s): November 28 to December 9

Potential exposure time: During operation hours

The Morrissey

Address: 1227 Granville St.

Potential exposure date(s): Nov 12-13

Potential exposure time: 6 p.m. to 11 p.m. (both days)

Earls Kitchen + Bar

Address: 4295 Blackcomb Way, Unit 220/221, Whistler, B.C.

Potential exposure date(s): October 31 to November 6

Potential exposure time: During operating hours

The Longhorn Saloon

Address: 4280 Mountain Sq., Whistler, B.C.

Potential exposure date(s): October 31, November 2, 3, 4 and 5

Potential exposure time: During operating hours

Buffalo Bill's Bar & Grill

Address: 4122 Village Green, Whistler, B.C.

Potential exposure date(s): October 31

Potential exposure time: During operating hours

Park Drive

Address: 1815 Commercial Dr., Vancouver, B.C.

Potential exposure date(s): September 26

Potential exposure time: Between 6:00 p.m. and 10:00 p.m.

Abruzzo Cappuccino Bar

Address: 1321 Commercial Dr., Vancouver, B.C.

Potential exposure date(s): September 23 to 26

Potential exposure time: Between 1:00 p.m. and 3:00 p.m.

Wreck Beach

Address: S.W. Marine Dr., Vancouver, B.C.

Potential exposure date(s): September 7

Potential exposure time: Between 1:00 p.m. and 8:30 p.m.

The King's Head Public House

Address: 1618 Yew St., Vancouver, B.C.

Potential exposure date(s): September 4 to September 7

Potential exposure time: During operating hours

Athens Cultural Club

Address: 114 W. Broadway, Vancouver, B.C.

Potential exposure date(s): August 26 to September 8

Potential exposure time: During operating hours

The West Pub

Address: 488 Carrall St., Vancouver, B.C.

Potential exposure date(s): August 20 to September 8

Potential exposure time: Between During operating hours

Flying Beaver Bar and Grill

Address: 4760 Inglis Dr., Richmond, B.C.

Potential exposure date(s): August 28 to September 3

Potential exposure time: During operating hours

You Plus One electronic music event

Address: Private event in Granville Street and Helmcken Street area, downtown Vancouver

Potential exposure date(s): August 29

Potential exposure time: Night of August 29 and early morning of August 30

The Compound/ Heaven

Address: 1026 Granville St., Vancouver, B.C.

Potential exposure date(s): August 29

Potential exposure time: 9:45 p.m. to 1:00 a.m

Studio Lounge and Nightclub

Address: 919 Granville St., Vancouver, B.C.

Potential exposure date(s): August 28

Potential exposure time: During operating hours

Cabana Lounge

Address: 1159 Granville St., Vancouver, B.C.

Potential exposure date(s): August 28

Potential exposure time: During operating hours

Lions MMA

Address: 1256 Granville St., Vancouver, B.C.

Potential exposure date(s): August 18 to August 28 (inclusive)

Potential exposure time: During operating hours

Banter Room

Address: 1039 Mainland St., Vancouver, B.C.

Potential exposure date(s): August 20 to August 27

Potential exposure time: During operating hours

EI Furniture Warehouse Granville

Address: 989 Granville St., Vancouver, B.C.

Potential exposure date(s): August 25 & 26

Potential exposure time: During operating hours

Privé Kitchen and Bar

Address: 1001 W. Broadway, Vancouver, B.C.

Potential exposure date(s): August 3, 6, 7, 8, 15, 16, and 17

Potential exposure time: During operating hours

Wreck Beach

Address: Southwest Marine Dr., Vancouver, B.C.

Potential exposure date(s): August 15

Potential exposure time: All day

Bartholomew Bar

Address: 1026 Mainland St., Vancouver, B.C.

Potential exposure date(s): August 13, August 14

Potential exposure time: During operating hours

Hawksworth Restaurant

Address: 801 W. Georgia St., Vancouver, B.C.

Potential exposure date(s): August 13

Potential exposure time: 6:00 p.m. to 12:00 a.m.

IVY Lounge

Address: 3rd Floor - 1161 W. Georgia St., Vancouver, B.C.

Potential exposure date(s): August 7 to August 9

Potential exposure time: During operating hours

Levels Nightclub

Address: 560 Seymour St., Vancouver, B.C.

Potential exposure date(s): August 4, 6, 7, and 8

Potential exposure time: 9:00 p.m. to closing (3:00 a.m.) on all dates

Pierre's Champagne Lounge

Address: 1028 Hamilton St., Vancouver, B.C.

Potential exposure date(s): July 31 to August 8

Potential exposure time: During operating hours

West Oak Restaurant

Address: 1035 Mainland St., Vancouver, B.C.

Potential exposure date(s): July 31 to August 8

Potential exposure time: During operating hours

Foot Locker

Address: 919 Robson St., Vancouver, B.C.

Potential exposure date(s): August 4, August 5

Potential exposure time: During operating hours

PumpJack Pub

Address: 1167 Davie St., Vancouver, B.C.

Potential exposure date(s): July 31 to August 2

Potential exposure time: During evening and late night hours

Lions Bay Beach Park

Address: 60 Lions Bay Ave., Lions Bay, BC

Potential exposure date(s): July 26, 27, 29, 30, and 31

Potential exposure time: During daytime hours

Sandman Suites - Davie Street

Address: 1160 Davie St., Vancouver, B.C.

Potential exposure date(s): July 7 to 16

Potential exposure time: All times inclusive of exposure dates

News release: COVID-19 notification for Sandman Suites

No5 Orange

Address: 205 Main St., Vancouver, B.C.

Potential exposure date(s): July 1, 3, 4 and 7

Potential exposure time: During operating hours

News release: Expanded COVID-19 notification for No5 Orange (July 1, 3, 4 and 7)

Hotel Belmont bar and nightclub

Address: 654 Nelson St., Vancouver, B.C.

Potential exposure date(s): June 27, 29

Potential exposure time: During operating hours

News release: COVID-19 notification for Hotel Belmont bar and nightclub

Brandi's Exotic Show Lounge

Address: 5th Floor, 595 Hornby St., Vancouver, B.C.

Potential exposure date(s): June 21 to 24

Potential exposure time: Between 9 p.m. and 3 a.m.

News release: COVID-19 notification for Brandi's Exotic Show Lounge (June 21–24)

For exposure notification information related to COVID-19 within schools in the VCH region, please visit our School exposures page.

Resources

- COVID-19 information
- COVID-19 self-assessment tool
- Testing site locations
- FAQs

For notifications of public exposures related to flights, work sites, cruises, long-distance bus and train travel, and public events, please visit the B.C. Centre for Disease Control public exposures page. For notifications of public exposures from Burnaby to Fraser Canyon on the traditional territories of the Coast Salish peoples, visit the Fraser Health public exposures page.

Feedback

Vancouver Coastal Health (VCH) provides health-care services through a network of hospitals, primary care clinics, community health centres and long-term care homes. Search our health-care services in Vancouver, Richmond, North and West Vancouver and along the Sea-to-Sky Highway, Sunshine Coast and BC's Central Coast.

⚠ Visitor restrictions in place at Island Health facilities

Data, Outbreaks and Public Exposures

This page contains information on public COVID-19 exposures and current outbreaks. It is updated when the Island Health region experiences an outbreak or exposure.

Exposure notices for schools are posted on our **Exposures in Schools** page.

Current data

Data shows that our public health practices are working. Recently identified individuals with COVID-19 are required to self-isolate; therefore, the risk to the community remains low. Please continue with preventative measures, such as frequent hand washing, keeping two metres from people outside your household, wearing a mask when in situations where physical distancing is not possible, and staying home when sick.

The **BC Centre for Disease Control** is the source of truth for province-wide information, including current **COVID-19 case counts** for Island Health and all other BC health authorities. Learn more about the **BC COVID-19 SPEAK survey**.

Island Health's COVID-19 data dashboard breaks down North, Central and South Island case counts and lists the number of days since any new lab-diagnosed cases. It also includes exposure history and other important information.

Please note: Island Health case counts may appear higher or lower than those reported by BCCDC, as they may include cases with rapid tests that are not included in BCCDC lab data or include/exclude cases from other jurisdictions, which will be resolved during case follow-up.

It is updated each weekday after 4 p.m.

VIEW THE LATEST VERSION:

COVID-19 data dashboard for Island Health region

COVID-19 Outbreaks

See the **latest news for COVID-19 Outbreaks**

Location	Type	Date
Chartwell Malaspina Care Residence 100 Eleventh Street Nanaimo, B.C.	Outbreak	Dec 27 and 28, 2020
Nanaimo Regional General Hospital 1200 Dufferin Crescent Nanaimo, BC	Outbreak	January 23, 2021

Active outbreaks of other infections or illnesses at Island Health facilities

Possible exposures

Island Health will provide updates on the locations and times of known possible exposures to COVID-19 to the public in our region when we have been unable to reach or identify all individuals potentially exposed via contact tracing. **A close contact exposure means face-to-face contact for an extended period of time with a person who is infectious.**

If you have been in one of these locations at times of possible exposure, it does not mean you will develop COVID-19. The possible exposures listed on this site are **believed to be low risk** but, out of an abundance of caution, we ask that anyone who may have visited any of the locations listed on the specified dates and times to **monitor themselves for symptoms.**

Locations will be removed from the current public exposures list 14 days after the last exposure date, and then archived below.

See the **latest news for possible COVID-19 Exposures**

Location	Address	Date	Time

There is no known risk to anyone who attended any listed locations outside of the specified dates and times. If people remain healthy and do not develop symptoms, there is no need to self-isolate and people can continue with their usual daily activities.

If you develop any symptoms of COVID-19, please seek testing and self-isolate – for more information, please see the Frequently Asked Questions on our **Information for the General Public page**.

If you have been identified as a COVID-19 case or close contact, Island Health's public health team will contact you directly and provide further instruction.

If you have visited a location that has made an exposure public, and it is not listed here, it is likely because we have completed our contact tracing and have determined that no increased risk to others exists.

Archive

December

November

October

August

Mary's Bleue Moon Cafe - 9535 Canora Road, Sidney, B.C.
August 21: Between 4 p.m. and 9:15 p.m.
August 22: Between 9:30 a.m. and 3 p.m. OR between 5 p.m. and 10 p.m.

10 Acres Cafe & Market at the Sidney Pier Hotel & Spa (NOT The Pier restaurant) - 9805 Seaport Place, Sidney, B.C.
August 20: Between 8:00 a.m. and 4:00 p.m.
August 21: Between 8:00 a.m. and 4:00 p.m.

Il Falcone Restaurant - 536 6th Street Courtenay, B.C.
August 16, 2020 between 3:00 p.m. to 9:30 p.m.

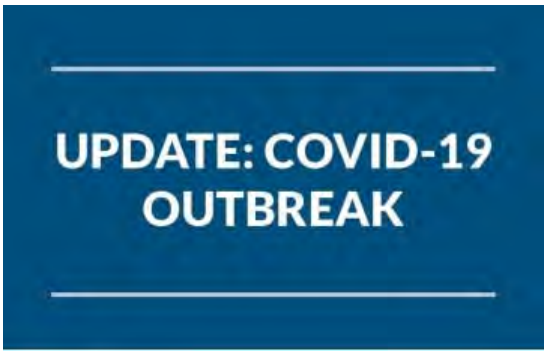
March

Flights

For notifications of public exposures related to flights, work sites, cruises, long-distance bus and train travel, and public events, please visit the BC Centre for Disease Control Public Exposures page.

Reviewed: DAILY

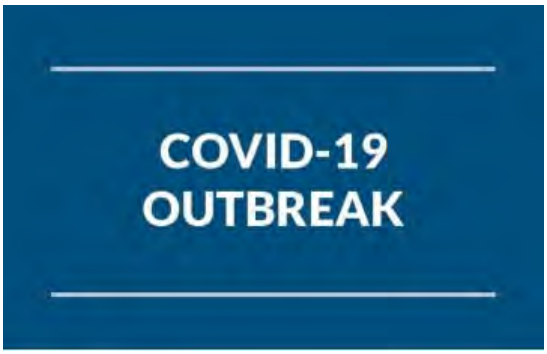
News & Events



JANUARY 23, 2021

Update to COVID-19 outbreak at Chartwell Malaspina Care Residence

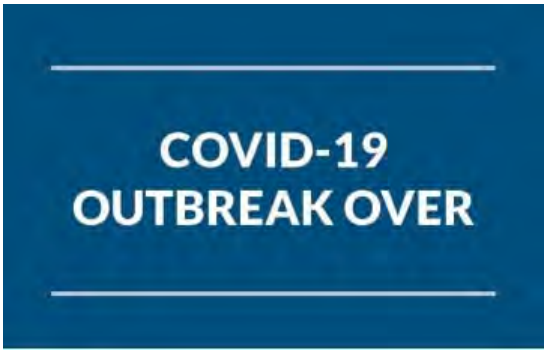
Island Health's outbreak response has identified one additional case of COVID-19 related to the outbreak which was declared at Chartwell Malaspina Care Residence long-term care home in Nanaimo.
Read more



JANUARY 23, 2021

COVID-19 outbreak at Nanaimo Regional General Hospital

Island Health has declared an outbreak of COVID-19 at Nanaimo Regional General Hospital (NRGH).
Read more



JANUARY 21, 2021

Island Health declares COVID-19 outbreak over at Hart House long-term care home in Victoria

Island Health has declared the COVID-19 outbreak over at Hart House long-term care home in Victoria.
Read more

EMERGENCIES

If you are in urgent need of medical care, please call 911. If you require health care advice for a non-urgent concern, call HealthLink BC at 811.

TERRITORIAL ACKNOWLEDGEMENT

Before Canada and BC were formed, Indigenous peoples lived in balance and interconnectedness with the land and water in which the necessities of life are provided. Health disparities persist, which are due to the impacts of colonization and Indigenous-specific racism. Healthy lands, healthy people. Island Health acknowledges and recognizes these homelands and the stewardship of Indigenous peoples of this land; it is with humility we continue to work toward building our relationship.

Thank you for printing this page from IslandHealth.ca. You might find this additional information useful.

Contact Island Health
Phone: (250) 370-8699 Toll-free: 1 (877) 370-8699

Compliments & Complaints
Phone: (250) 370-8323 Toll-free: 1 (877) 977-5797

Interior Health
Every person matters

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

PUBLIC SERVICE ANNOUNCEMENT

For Immediate Release | July 10, 2020

Advisory:
Potential COVID-19 exposures in recent Kelowna gatherings

KELOWNA - Interior Health is advising individuals who attended gatherings in the Kelowna downtown and waterfront areas from June 25 to July 6 that they may have been exposed to COVID-19.

This advisory comes after IH's communicable disease unit (CDU) has been made aware of a number of positive COVID-19 cases attending private gatherings and visiting businesses (restaurants, bars, etc.) over these dates. Of specific concern are larger Canada Day and holiday weekend events.

Public health contact tracing is underway and, if IH is made aware of potential exposures to COVID-19, our CDU will be reaching out directly to ask those individuals to self-isolate for 14 days.

However, given the number of cases and potential locations involved, we are urging anyone who participated in events over these dates to monitor closely for symptoms of COVID-19.

The symptoms of COVID-19 include the following:

- Fever
- Cough
- Shortness of breath or difficulty breathing
- Loss of sense of taste or smell
- Other milder symptoms may include: runny nose, fatigue, body aches (muscles and joints aching), diarrhea, headache, sore throat, vomiting and red eyes.

Anyone who develops COVID-19 symptoms is asked to get themselves tested for COVID-19. A list of testing and assessment centres is available here: https://news.interiorhealth.ca/news/testing-information/.

Testing is not recommended for people who have no symptoms. Individuals seeking a test should call their primary care provider (family physician or nurse practitioner) or the closest Interior Health community testing and assessment centre.

IH reminds everyone of the importance of following COVID-19 precautions:

- Stay home and avoid travel if you have symptoms, even mild ones.
- Maintain physical distancing (two metres apart) and use masks when distancing is not possible.
- Wash your hands regularly and do not touch your face.
- Do not plan or attend gatherings of more than 50 people. Limit gatherings to out of doors whenever possible.

Of the eight cases identified to date, six are in individuals who reside outside of IH. IH continues to work with other jurisdictions to determine the source of disease for these cases.

Answers to frequently asked questions are available on the Interior Health public website here: https://news.interiorhealth.ca/news/frequently-asked-questions/.

British Columbia Weekly COVID-19 Surveillance Report*

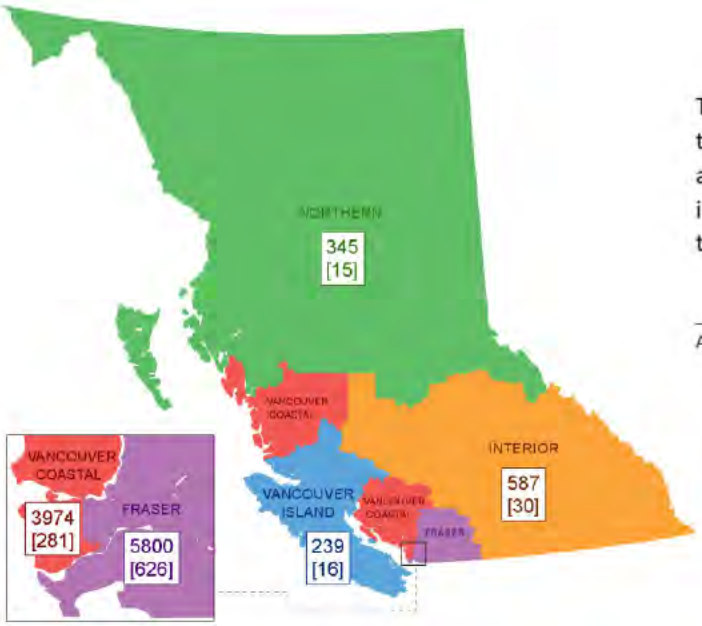
October 9 – October 15, 2020**

Key Findings

BC continues to report a relatively stable weekly number of COVID-19 cases in the second wave; the number of hospitalisations and deaths remain lower than in the first wave.

- The number of new cases reported this week (968) increased slightly compared to last week (846); the majority of new cases were reported by FHA (Table 1, Fig 3).
- The number of active cases (1,494) has increased compared to last week (1,394); however the proportion of active cases remained the same (14%) (Table 1).
- The most likely source of infection remains contact with a local case or cluster, with a large proportion of recent cases still pending exposure information (Table 2, Fig 4).
- Cases increased in most age groups in the past week; cases between 20-39 years increased again after a decrease in the previous week and cases between the ages of 40-59 years continue to increase (Fig 9).
- The numbers of new hospital admissions by day shows variability over the past two weeks, but new hospitalisations remain lower than in late March and early April (Fig 5). The number of total cases currently in hospital has increased over the past 3 days (Fig 12). The number of new deaths remains low (Fig 5).
- The number of cases currently in critical care has increased over the past week, but remains lower than in late March and early April (Fig 11).

Figure 1: Map of total and new COVID-19 cases reported since last week by health authority of residence, BC, January 1 – October 15, 2020 (**N=10,945**)^ †



This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

^New cases reported since last week by health authority are denoted in parentheses.
† Cases reported as "Out of Canada" (n=89) are excluded from the map.

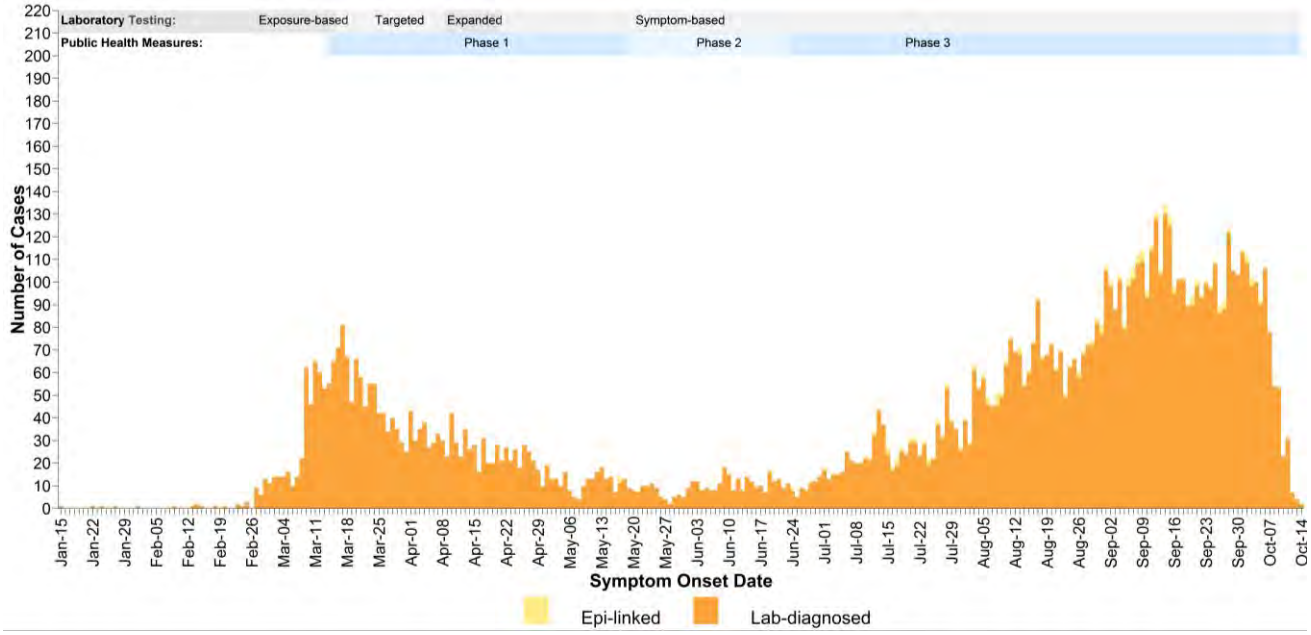
**Findings are based on lab-confirmed, lab-probable, and epi-linked cases (case definition found here: http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus) reported from Health Authorities to BCCDC as of 10am, except where otherwise noted. Data represent a subset of actual infections and are subject to change with changes in testing recommendations and practices, changes in case definitions, data reconciliation and/or as data become more complete. As of July 3, residents of other Canadian provinces/territories are reported by that province/territory.*
*** Produced weekly (Thursdays) effective July 16, 2020.*

Table 1: Epidemiological profile of reported cases by health authority of residence, BC, January 1 – October 15, 2020 (**N=11,034**)

	Health Authority of Residence [c]						Total N (%)[d]
	Fraser	Interior	Vancouver Island	Northern	Vancouver Coastal	Out of Canada	
Total number of cases[a,b]	**5,800**	**587**	**239**	**345**	**3,974**	**89**	**11,034**
Number of lab-confirmed and lab-probable cases	5,720	555	235	320	3,918	88	10,836
Number of epi-linked probable cases[b,e]	80	32	4	25	56	1	198
New cases since last week (October 8)[f]	**626**	**30**	**16**	**15**	**281**	**0**	**968**
Median age in years, cases[g]	38	36	41	39	37	42	38 years (range 0-104y)
Female sex, cases[d]	2,842	299	119	188	1,980	14	5,442 (50%)
Cumulative incidence per 100,000 population[h]	**302.4**	**73.3**	**28.1**	**114.9**	**320.5**	**-**	**214.2**[h]
Ever hospitalized[i]	**465**	**44**	**26**	**31**	**305**	**6**	**877 (8%)**
Median age in years, ever hospitalized[g]	68	63	72	59	64	51	66 years (range 0-98y)
Currently hospitalized[i,l]	42	2	0	1	28	1	74
Currently in critical care[j,l]	**10**	**0**	**0**	**1**	**13**	**-**	**24**
Total deaths, case fatality and cumulative mortality[h,i]	**115**	**2**	**6**	**3**	**124**	**0**	**250 (2%) 4.9 per 100,000**[h]
New deaths since last week (October 8)[f]	**2**	**0**	**0**	**0**	**3**	**0**	**5**
Median age in years, deaths[g]	84	73	78	64	87	NA	85 years (range 44-103y)
Discontinued isolation[k]	**4,620**	**559**	**219**	**331**	**3,446**	**82**	**9,257 (84%)**
Currently active cases[m]	**1,036**	**26**	**14**	**11**	**401**	**6**	**1,494 (14%)**

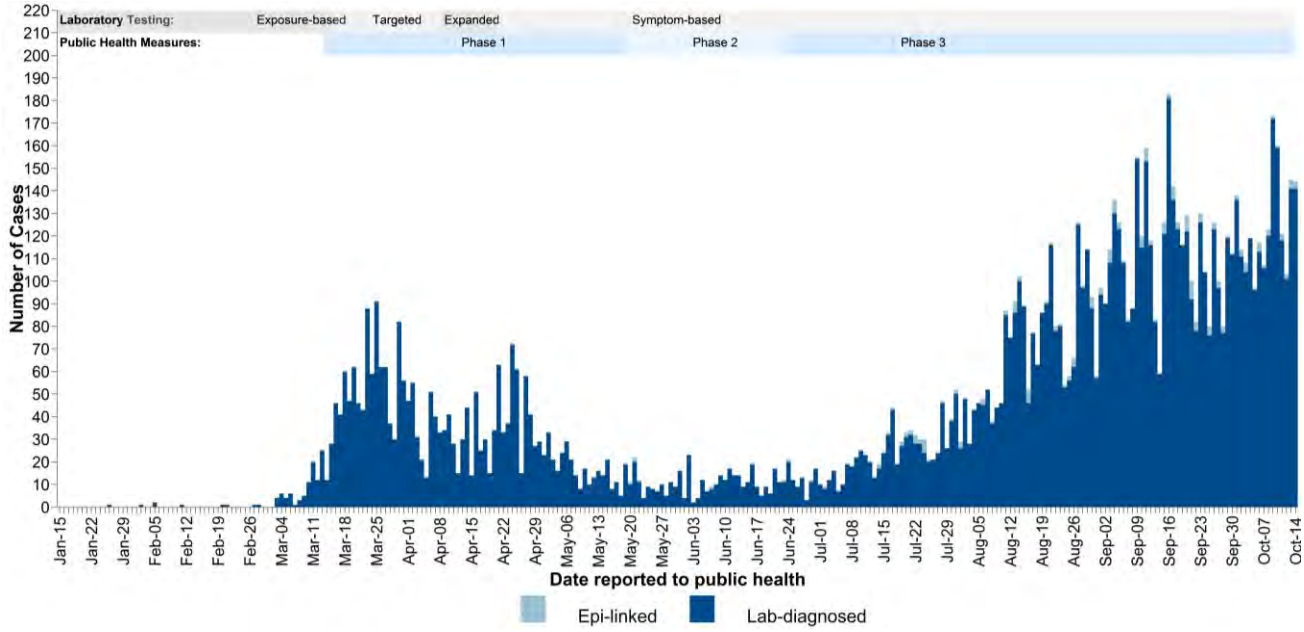
a. Total COVID-19 cases includes lab-confirmed, lab-probable and epi-linked cases. Case definitions can be found at: http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus). As of July 3, residents of other Canadian provinces/territories are reported by that province/territory.
b. Epi-linked cases reported on or after May 19, 2020 are included.
c. As of July 9, cases are reported by health authority of residence. When health authority of residence is not available, cases are assigned to the health authority reporting the case. Cases whose primary residence is outside of Canada are reported as "Out of Canada". Previously, cases were assigned to the health authority that reported the case. Please note that the health authority of residence and the health authority reporting the case do not necessarily indicate the location of exposure or transmission.
d. Denominator for % derivation is total number of cases (N), except sex which is calculated based on those with known information on sex.
e. Epi-linked case counts may decrease if cases are tested and meet a different case classification.
f. "New" cases and deaths reflect the difference in counts reported to the BCCDC between the day of the last report and today's report as of 10am (net new). This may not be equal to the number of cases/deaths by date reported to HAs, as: (1) cases/deaths reported prior to 10am would be included as new cases/deaths in today's report and cases reported after 10am would be included in the next report's count; (2) there may be some delays between cases/deaths being reported to HAs and then reported to BCCDC; and (3) cases may be attributed to different health authorities or may be excluded from case counts as new information is obtained.
g. Median age is calculated based on those with known information on age.
h. PEOPLE2019-2020 population estimates. Incidence and mortality rates calculated only for BC residents.
i. Serious outcome (e.g. hospitalization, death) tallies may be incomplete or out of date (i.e. under-estimates) owing to the timing and processes for case status update.
j. Source: PHSA October 15 @10am. The number of COVID cases in critical care units is reported daily by each Health Authority and includes the number of COVID patients in all critical care beds (e.g., intensive care units; high acuity units; and other surge critical care spaces as they become available and/or required). Cases are reported by health authority of hospital. Work is ongoing to improve the completeness and accuracy of the data reported.
k. Self-isolation has been discontinued per the criteria outlined in the BC guidelines for public health management of COVID-19: http://www.bccdc ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/2019-nCoV-Interim_Guidelines.pdf
l. Current cases for October 15, 2020.
m. Active cases exclude those who have died, discontinued isolation or been lost to follow up (n=33).

Figure 2: Epidemic curve, COVID-19 cases in BC by symptom onset date January 15 – October 14, 2020 **(N=9,585[†])**



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

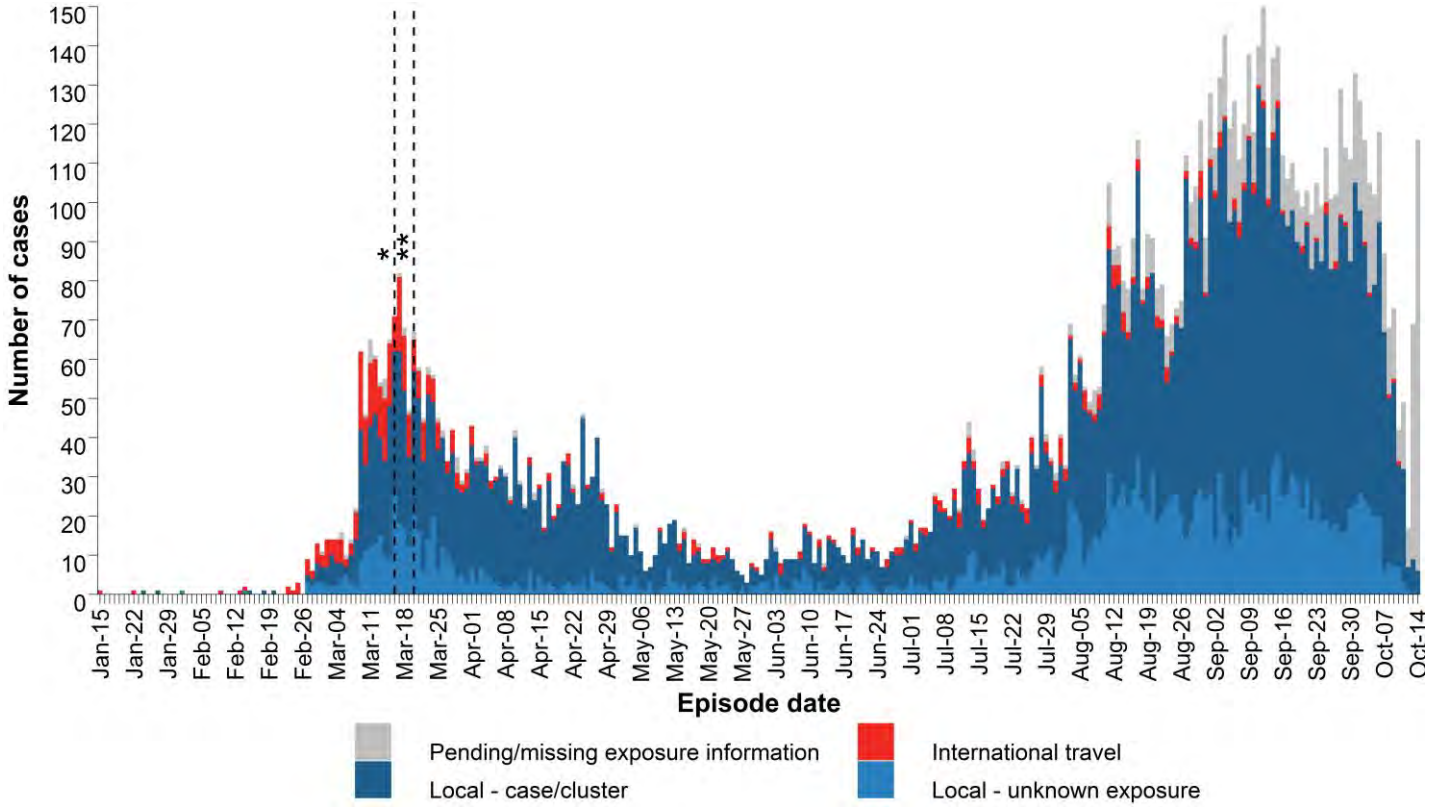
Figure 3: Epidemic curve, COVID-19 cases in BC by reported date January 15 – October 14, 2020 **(N=11,033[‡])**



[‡] 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.

Phase 1 – Public health measures enacted: March 14: Spring break started for most schools; March 16: Mass gatherings public health order implemented (>50 people), entry of foreign nationals banned, symptomatic individuals banned from flights to Canada, international flights restricted to four national airports; March 17: BC public health emergency declared, traveller self-isolation public health order implemented; March 18: Provincial state of emergency declared, food and drink service restrictions public health order implemented; March 20: US/Canada border closed to non-essential travel; March 21: closure of personal service establishments. **Phase 2 – Start of reopening:** May 19: Restoration of health services, retail, hair salons, in-person counselling, restaurants, cafes, pubs, museums, libraries, office-based worksites, sports, outdoor spaces, and child care. June 1: Students in K-12 return to school on a gradual and part-time basis.
Phase 3 – Continued reopening: June 24: Non-essential travel within BC permitted with reopening of accommodation industry (hotels, motels, RV parks, cabins, etc.), overnight camping in BC parks, motion pictures and television production, and movie theatres. Please refer to http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc for laboratory testing criteria changes.
How to interpret the epidemic curves: Figure 2 shows the date that a case's illness started. Figure 3 shows the date the illness was confirmed and reported by the laboratory. There is a delay between the beginning of a person's illness (symptom onset date) and the date the laboratory confirms and reports the illness (reported date). New cases only have a reported date available and appear on the right of the curve in Figure 3, but their symptom onset would have occurred prior. As information on symptom onset becomes available through public health investigation, cases are expected to appear on earlier dates in Figure 2.

Figure 4: Likely source of infection for COVID-19 cases in BC by episode date[§], January 15 – October 14, 2020 **(N=11,033)**

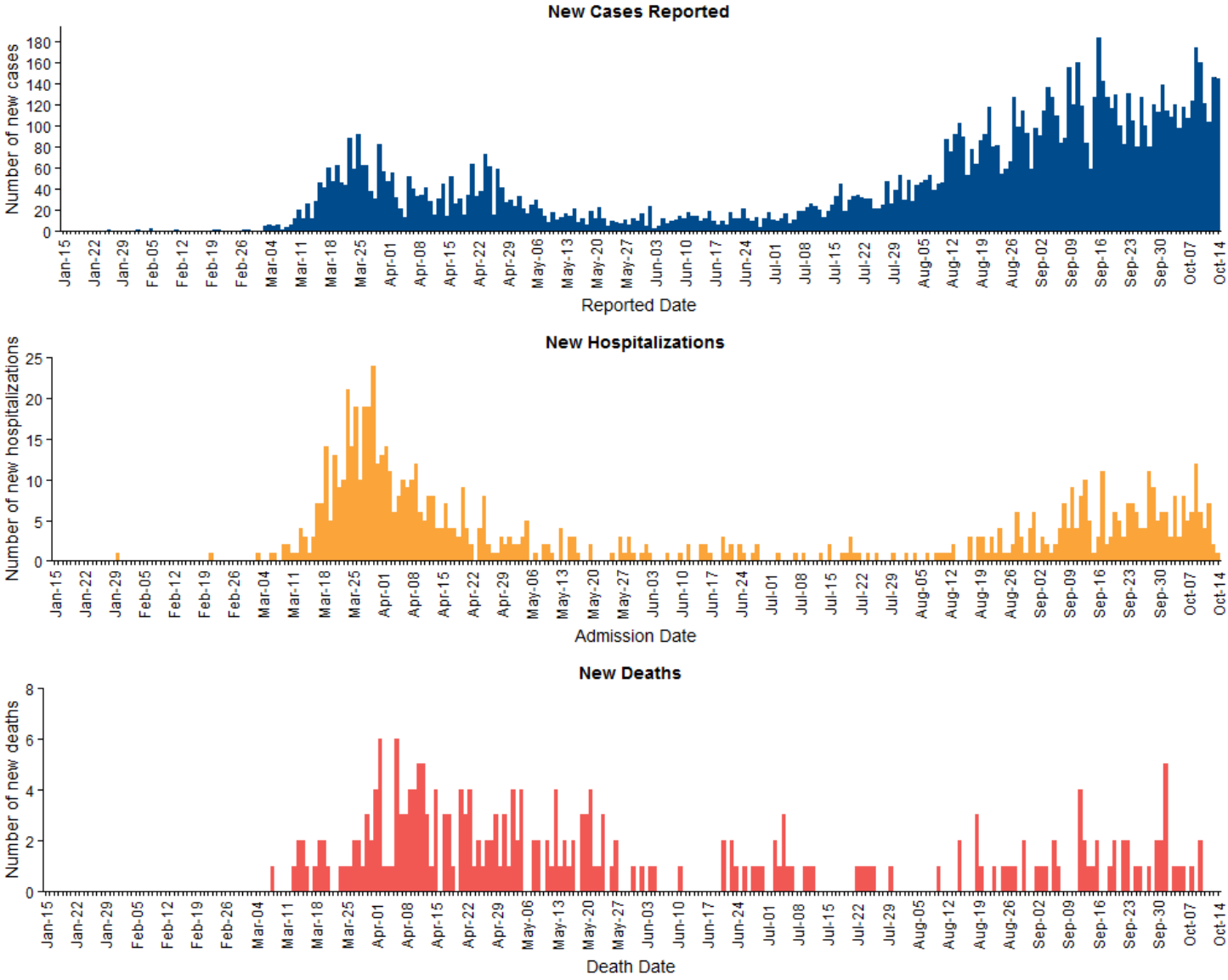


§ Episode date is based on symptom onset date (n=8,782), if not available then date COVID-19 was reported to health authority (n=1,276).
* March 16: Entry of foreign nationals banned; symptomatic individuals banned from flights to Canada; international flights restricted to four national airports.
** March 20: US/Canada border closed to non-essential travel.

Table 2: Number and proportion of likely source of infection for COVID-19 cases in BC by phase of epidemic, January 15 – October 14, 2020 **(N=11,033)**

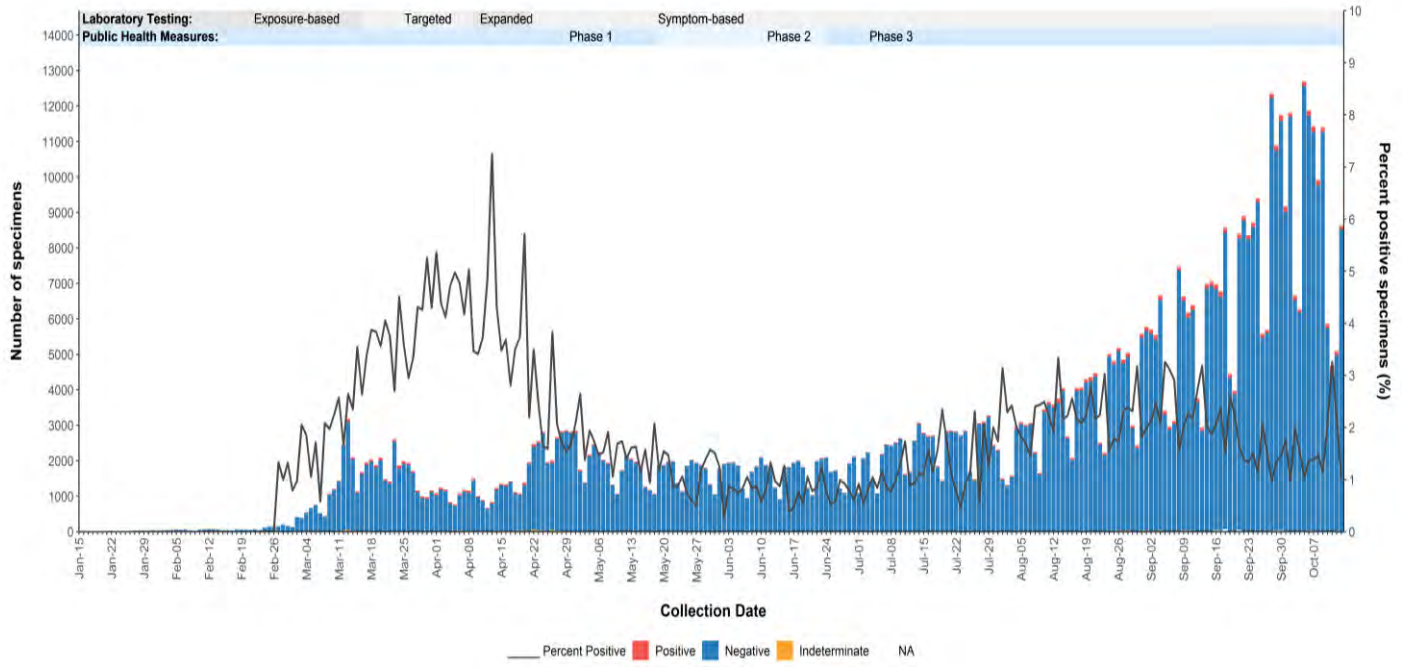
Phase of epidemic	International travel n (%)	Local – case/cluster n (%)	Local – unknown source n (%)	Pending/missing info n (%)	Total N (%)
Jan 15 – Mar 13 (Pre-Phase 1)	135 (30.1)	206 (45.9)	93 (20.7)	15 (3.3)	**449 (100)**
Mar 14 – May 18 (Phase 1)	188 (9.0)	1,498 (72.1)	347 (16.7)	45 (2.2)	**2,078 (100)**
May 19 – yesterday (Phase 2 & 3)	233 (2.7)	5,374 (63.2)	1,756 (20.6)	1,143 (13.4)	**8,506 (100)**
Total	**556 (5.0)**	**7,078 (64.2)**	**2,196 (19.9)**	**1,203 (10.9)**	**11,033 (100)**

Figure 5: Number of COVID-19 cases, hospital admissions, and deaths by event date, BC, January 15 – October 14, 2020 (**N=11,033***)



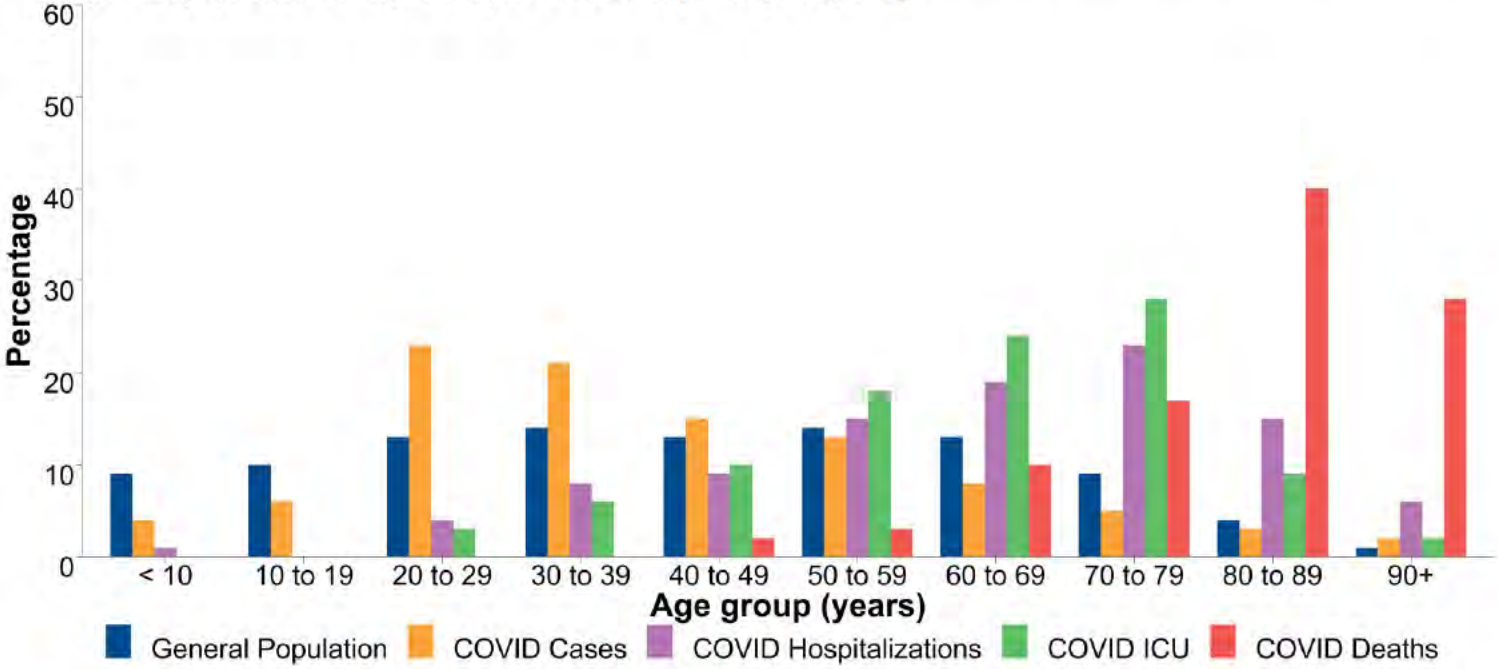
* Excludes hospitalizations with unknown admission dates or admission dates which precede symptom onset and/or discharge date.

Figure 6: Number and proportion of SARS-CoV-2 positive respiratory specimens, BC, January 15– October 13, 2020 **(N=691,741 Positive=1.82%)**



Data source: PLOVER extract on October 15, 2020. Methods and caveats: SARS-CoV-2 specimens are tallied at the specimen level by date the specimen was collected. The proportion positive on a given date may include new positive cases and retested positive cases; this may over-estimate proportionate positivity. Similarly, individuals may be tested repeatedly after becoming negative; this may under-estimate proportionate positivity. Refer to http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc for description of laboratory testing phases. Refer to footnotes on page 3 for description of public health measures.

Figure 7: Percentage distribution of COVID-19 cases, hospitalizations, ICU admissions and deaths by age, compared to the general population† of BC, January 1 – October 15, 2020 (**N=10,995***)



*Only cases with age information available are included.

† PEOPLE2019-2020 population estimates

Note: COVID hospitalizations have been reported in the 10-19y age group but represent <1% of hospitalizations and are therefore not visible.

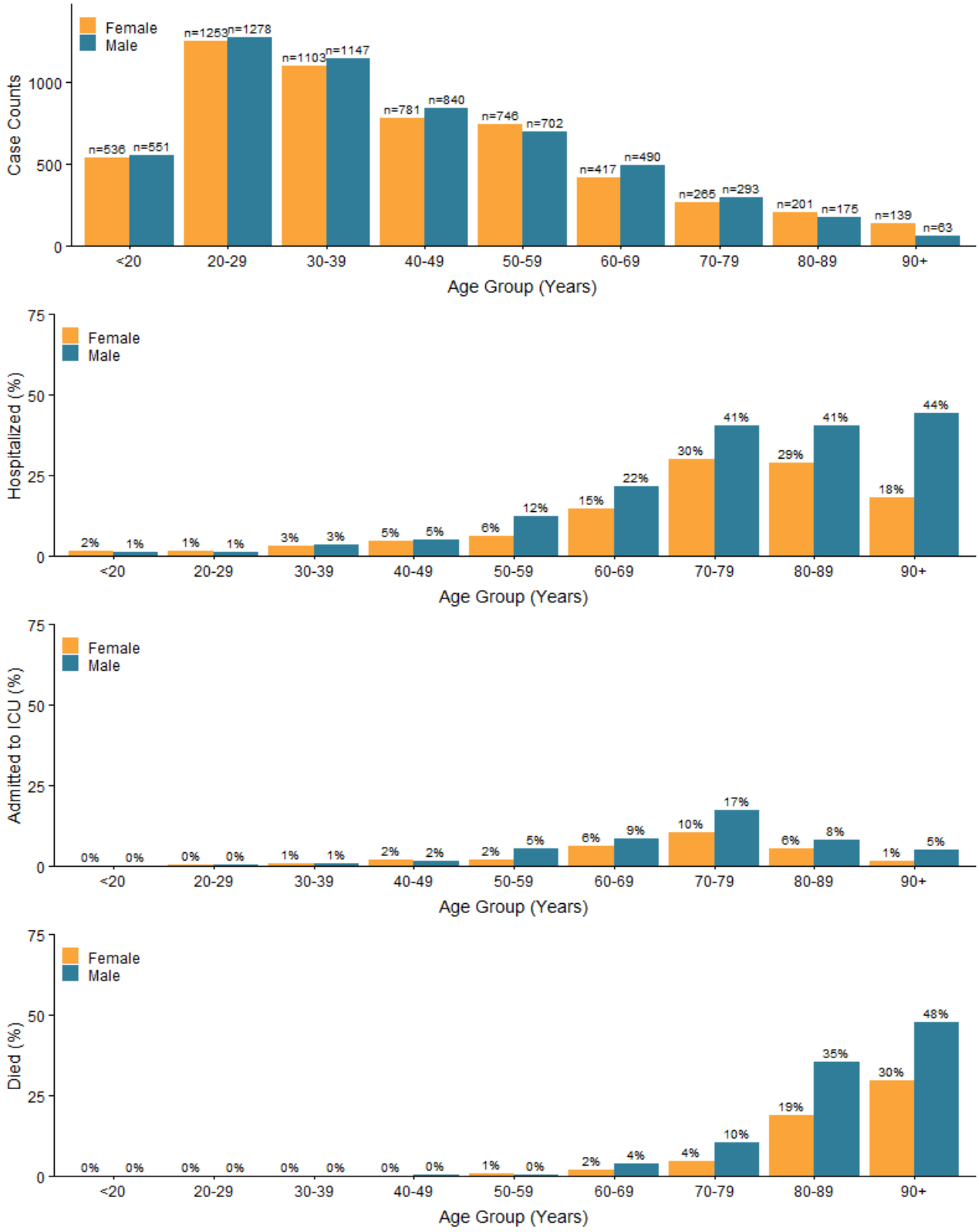
Table 3: Number and percentage distribution of COVID-19 cases, hospitalizations, ICU admissions and deaths by age, compared to the general population of BC, January 1 – October 15, 2020 (**N=10,995***)

Age group	COVID cases n (%)	Cases ever hospitalized n (%)	Cases ever in ICU n (%)	COVID deaths n (%)	General population† n (%)
<10 Years	400 (4)	9 (1)	0 (0)	0 (0)	468,280 (9)
10-19 Years	689 (6)	4 (<1)	0 (0)	0 (0)	507,197 (10)
20-29 Years	2534 (23)	31 (4)	8 (3)	0 (0)	684,681 (13)
30-39 Years	2255 (21)	73 (8)	18 (6)	0 (0)	730,523 (14)
40-49 Years	1622 (15)	79 (9)	27 (10)	4 (2)	647,790 (13)
50-59 Years	1450 (13)	132 (15)	51 (18)	7 (3)	721,355 (14)
60-69 Years	908 (8)	167 (19)	68 (24)	26 (10)	675,632 (13)
70-79 Years	559 (5)	199 (23)	78 (28)	42 (17)	436,179 (9)
80-89 Years	376 (3)	129 (15)	25 (9)	100 (40)	188,010 (4)
90+ Years	202 (2)	53 (6)	5 (2)	71 (28)	50,876 (1)
Total	**10,995**	**876**	**280**	**250**	**5,110,523**

* Only cases with age information available are included.

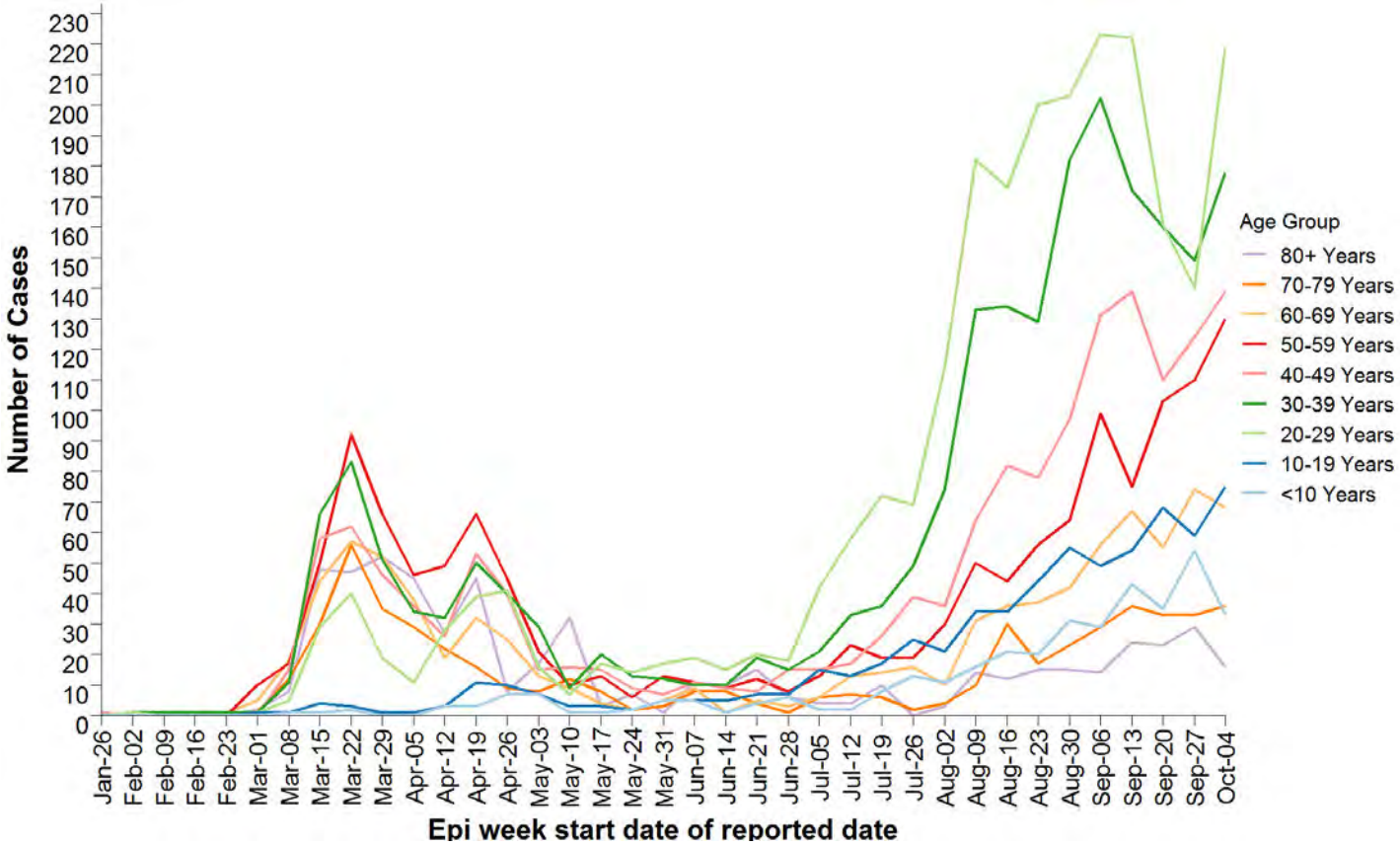
† PEOPLE2019-2020 population estimates

Figure 8: Counts of COVID-19 cases and proportions ever hospitalized, ever admitted to ICU, and with outcome of death by sex and age group, BC, January 1 – October 15, 2020 **(N=10,980*)**



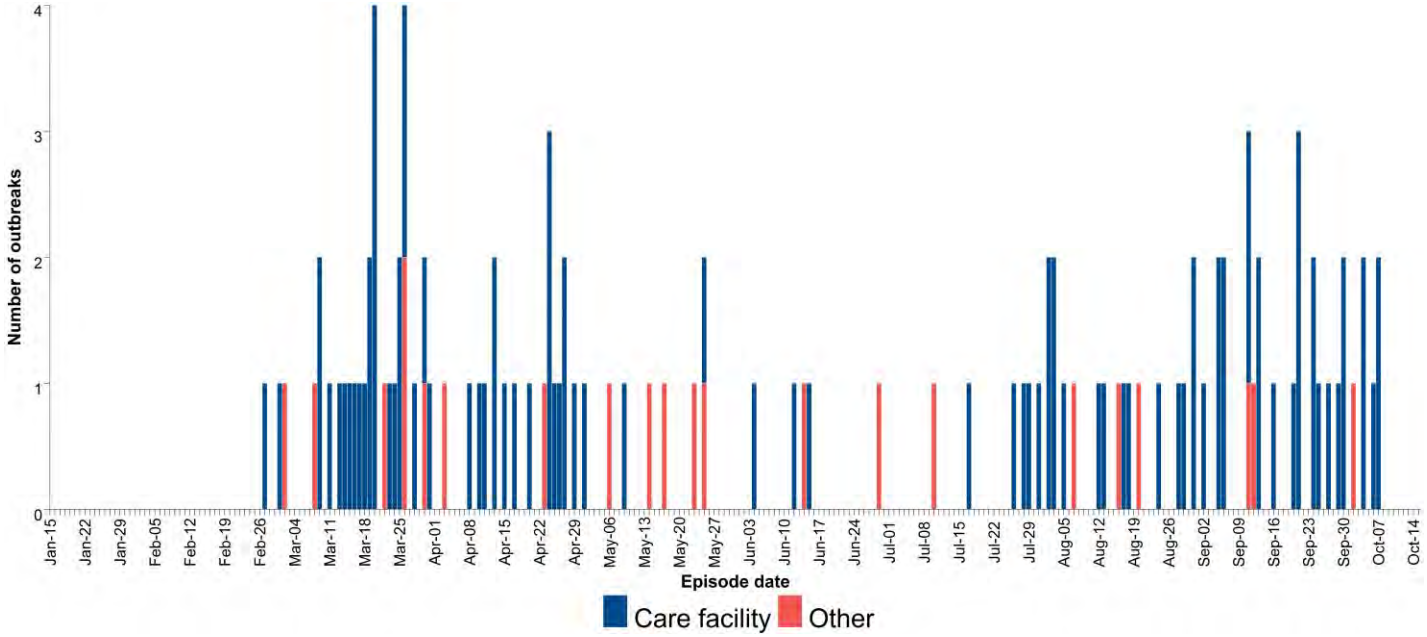
* Includes cases with sex and age information available.
Note: Proportions calculated using the total number of cases in each sex and age group (displayed in top figure) as the denominator.

Figure 9: Counts of COVID-19 cases by ten year age groups and epidemiological week of report, BC, January 26 – October 10, 2020 **(N=10,495*)**



* Only cases with age information available are included.

Figure 10: COVID-19 outbreaks* by earliest date**, BC, January 15 – October 15, 2020 **(N=115)**



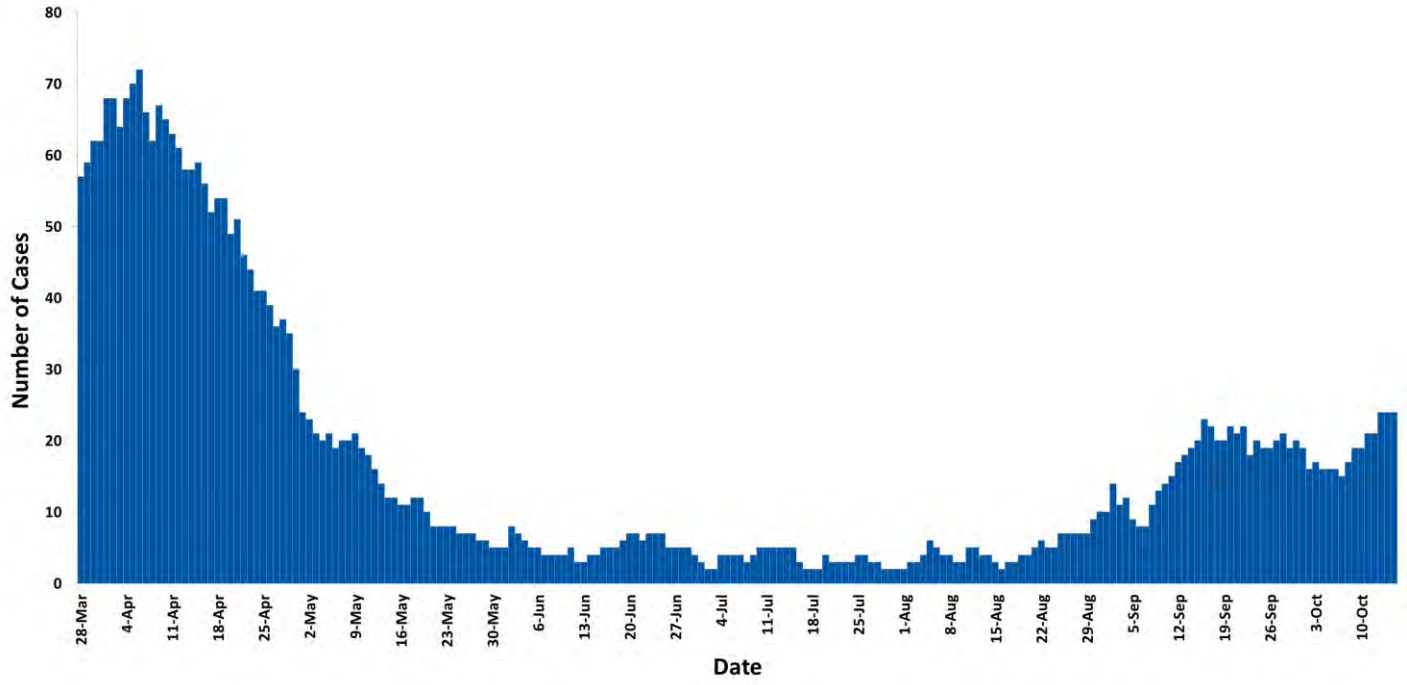
* Care facility (acute/long term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident. Other outbreaks have two or more lab-confirmed COVID-19 cases diagnosed within a 14-day period in closed or common settings (e.g. penitentiary, shared living or work setting).
** 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 outbreaks*, BC, January 15 – October 15, 2020 (**N=115**)

	Care facility	Other settings	Total
Outbreaks			
Total outbreaks	**94**	**21**	**115**
New since last week (October 8)	5	1	6
Active outbreaks	19	2	21
Outbreaks declared over	75	19	94
Outbreak cases**			
Total cases	**921**	**548**	**1,469**
Residents/patients	533	122	655
Staff/other	388	426	814
Total deaths	**174**	**2**	**176**
Residents/patients	174	1	175
Staff/other	0	1	1

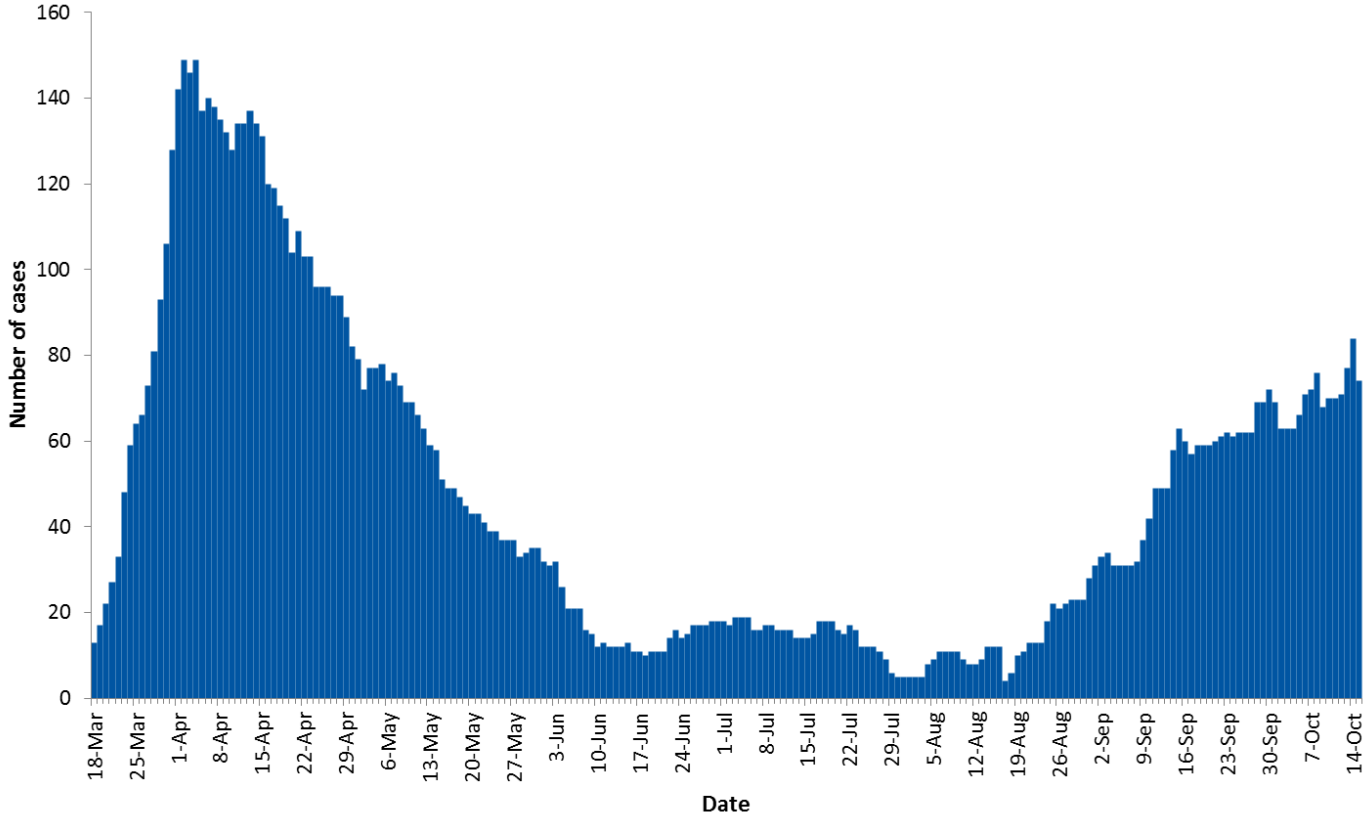
* Care facility (acute/long term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident. Other outbreaks have two or more lab-confirmed COVID-19 cases diagnosed within a 14-day period in closed or common settings (e.g. penitentiary, shared living or work setting).
** Cases include lab-confirmed, lab-probable and epi-linked cases. Case definitions can be found at: http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus).

Figure 11: Total COVID-19 cases in critical care by day, BC, March 25 – October 15, 2020



Data source: PHSA October 15, 2020. Note: critical care data may change over time due to small adjustments and improvements in data quality.

Figure 12: Number of COVID-19 cases in hospital by day, BC, March 18 – October 15, 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 13: Daily new and cumulative diagnosed COVID-19 case and death rates by select countries vs BC and Canada

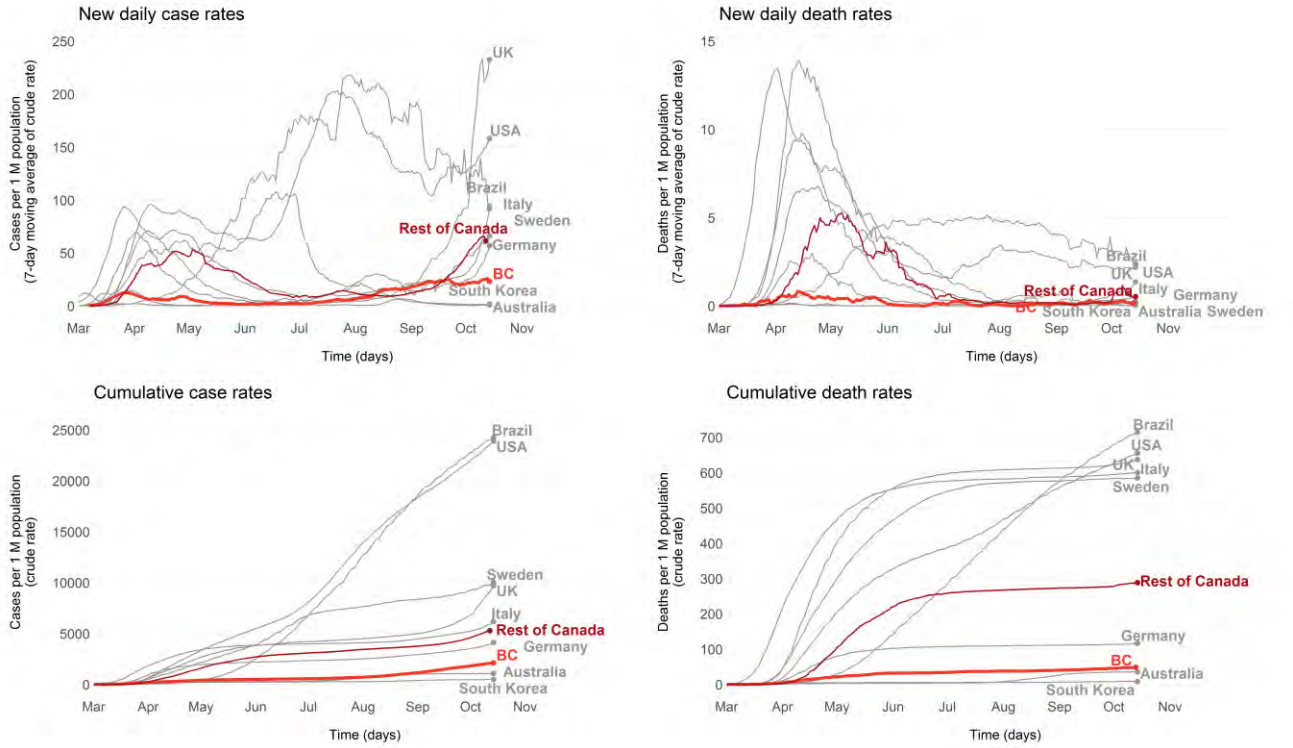
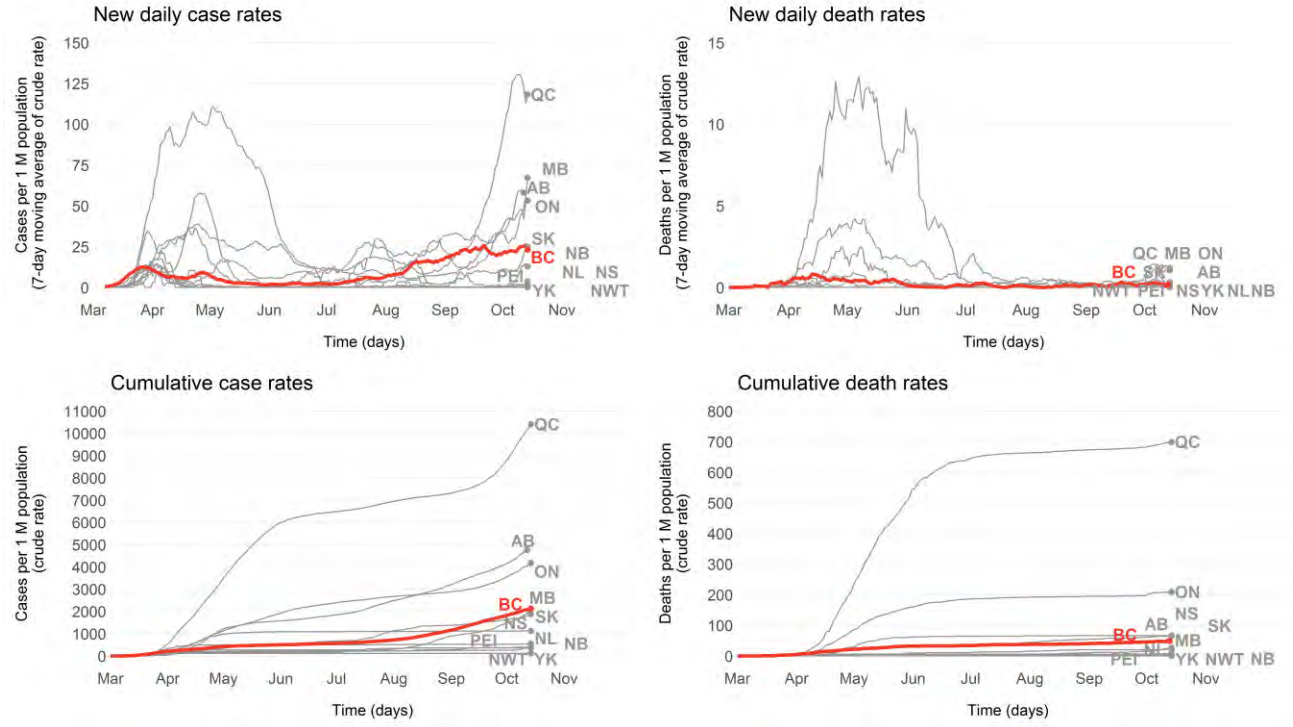


Figure 14: Daily new and cumulative diagnosed COVID-19 case and death rates in Canada



Data sources for international and national epidemiological comparison (all extracted October 15, 2020):
JHU CSSE for global cases and deaths, and Canadian provincial deaths outside of BC: https://github.com/CSSEGISandData/COVID-19
For Canadian provincial cases: https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html
BC cases and deaths: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/data?bcgovtm=20200319_GCPE_AM_COVID_4_NOTIFICATION_BCGOV_BCGOV_EN_BC__NOTIFICATION
Global population denominator from the United Nations

British Columbia (BC)
COVID-19 Situation Report

BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 42: October 11 – October 17, 2020

This bulletin provides weekly data and refers to pandemic phases defined by population-level changes specified in the table* below. Note also that unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when these dates are unknown, report date is used.

Table of Contents

Elevated COVID-19 incidence during second provincial wave

To the end of week 42, there have been 11,875 COVID-19 cases, 894 hospitalizations, and 253 deaths in BC. Of all COVID-19 associated deaths, 85% were adults 70+ years.

To date during this current second wave, incidence has peaked in week 37 (18 per 100,000), remaining elevated through weeks 38-41 (avg. 16 per 100,000) and the current report week 42 (15 per 100,000). Increasing trend is most evident in Fraser Health Authority, whereas recent activity levels appear more stable in other regions. In week 42, there were 37 hospitalizations and 3 deaths, lower than week 41 (54 and 6).

The number of SARS-CoV-2 tests in BC steadily increased from >20,000 in week 33 to >65,000 in weeks 40 and 41, falling just below 60,000 in week 42. Conversely, percent positivity showed general decline from week 33 (2.40%) to week 41 (1.36%), increasing above 2.0% in week 42 (2.13%). Percent positivity varied regionally, being highest in Fraser Health Authority and lowest in Vancouver Island Health Authority.

Compared to Phase 3a, testing of children surged with the start of the new school year in Phase 3b. In week 42, testing rates decreased in children <15 years old but increased in all other age groups. Percent positivity in week 42 was <2% in children <15 years but >2% in other age groups, being highest in 15-19 and 80+ year olds (>2.5%).

Adults 20-39 years old comprised fewer of the cases in week 42 (42%) and Phase 3b (42%) than Phase 3a (53%). Adults 40-69 years comprised a slightly greater share in week 42 (35%) and Phase 3b (37%) than Phase 3a (30%).

Although the number of care facility outbreaks prior to Phase 3a is equal to that from Phase 3a onwards (each 48), the number of associated cases among residents (386 vs. 151) and staff/visitors (231 vs. 163) is lower.

***Pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 42), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

This is EXHIBIT " " referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

A Commissioner for taking affidavits in British Columbia

A. COVID-19 case counts and epidemic curve

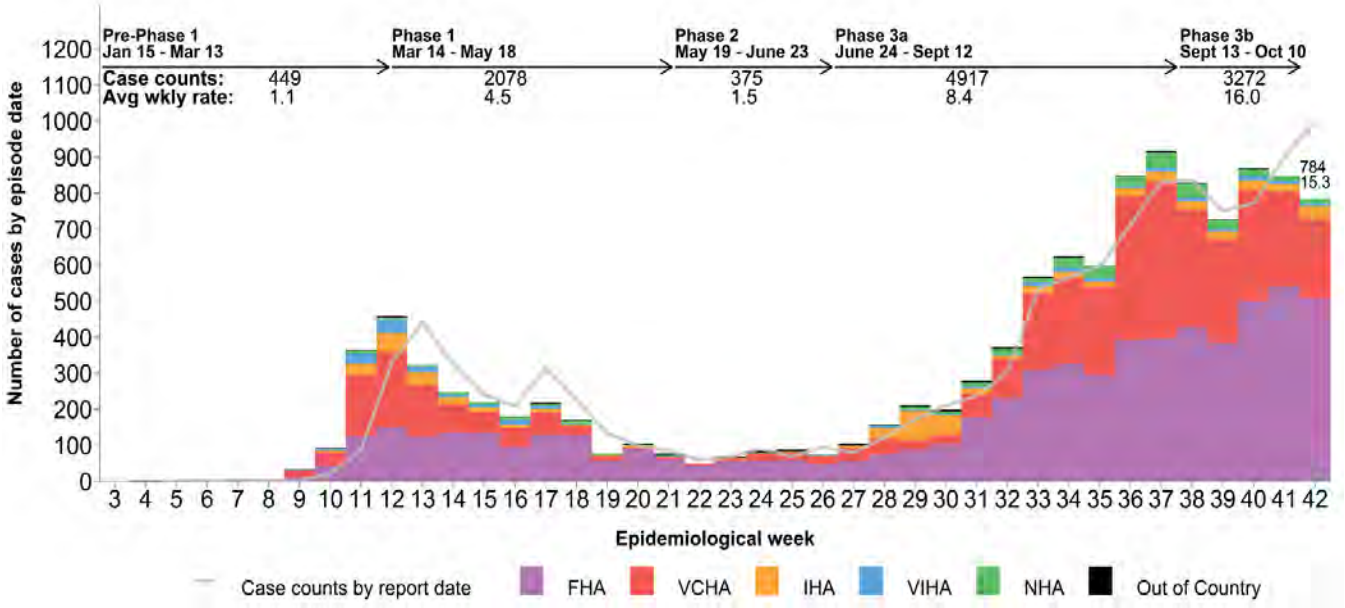
There were 998 COVID-19 cases reported in week 42, which is higher than recent prior weeks. The weekly tally of cases by report date, however, includes cases whose illness onset was in prior weeks.

Based instead upon episode date (i.e. illness onset date and only if that is unknown, then report date) the number of cases and weekly incidence to date during this second wave peaked in week 37 of Phase 3a (917 cases, 17.9 per 100,000). During subsequent weeks 38-41 of Phase 3b there were minor fluctuations but case counts remained elevated provincially with an average weekly incidence of 16.0 per 100,000. Increasing trend is evident in Fraser Health Authority, whereas recent activity levels appear more stable in other regions. Weekly tallies will change as data, notably onset dates, become more complete; this is especially relevant to consider for the current report week 42 (784 cases, incidence 15.3 per 100,000 provincially as of data extraction).

Table 1. Case tallies by episode date[a] and health authority of residence[b], British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42)[c]

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Week 42, case counts	**509**	**35**	**8**	**12**	**220**	**0**	**784**
Week 42, incidence per 100,000[d]	**26.5**	**4.4**	**0.9**	**4.0**	**17.7**	**NA**	**15.3**
Cumulative counts, weeks 3[c] to 42	**6,365**	**626**	**246**	**364**	**4,186**	**88**	**11,875**
Laboratory-diagnosed	6,275	594	241	334	4,132	87	11,663 (98)
Epidemiologically-linked	90	32	5	30	54	1	212 (2)
Active	1,081	39	12	12	331	5	1,480 (12)
Discontinued isolation	5,130	585	228	349	3,727	82	10,101 (85)
Deceased	117	2	6	3	125	0	253 (2)
Cumulative incidence per 100,000[d]	**331.8**	**78.1**	**28.9**	**121.3**	**337.6**	**NA**	**230.6**

Figure 1. Epidemic curve by episode date (coloured bars)[a], report date (line) and health authority[b], British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42) (N=11,875)[c,d]



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b, excluding the current report week (4 weeks). The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

a. Episode date is the illness onset date, or if onset date remains unknown, then the date the case was reported to the health authority.
b. FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA=Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority
c. First onset date of a case in BC was January 15, 2020. Data presented were extracted after noon on Thursday, October 22, 2020.
d. All per capita rates/incidences and BC population estimates in the current report are based on PEOPLE2019-2020 population estimates (n= 5,110,523).

B. Test rates and percent positive

As shown by the bars in **Figure 2**, the number of respiratory specimens tested for SARS-CoV-2 in BC steadily increased from just over 20,000 tests in week 33 to more than 65,000 tests in each of weeks 40 and 41, falling to just below 60,000 tests in week 42. Conversely, the percent of specimens that tested positive (line in **Figure 2**) showed general decline from week 33 (2.40%) to week 41 (1.36%), increasing above 2.0% again in week 42 (2.13%). As shown in **Figure 3,** the increase in percent positivity in week 42 in BC was greatest in Fraser Health Authority where it rose to above 3.5%, whereas in all other health authorities, percent positivity remained below 2.0% and was lowest in Interior Health Authority and Vancouver Island Health Authority (each below 1.0%).

Figure 2. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, British Columbia March 15, 2020 (week 12) – October 17, 2020 (week 42)[a]

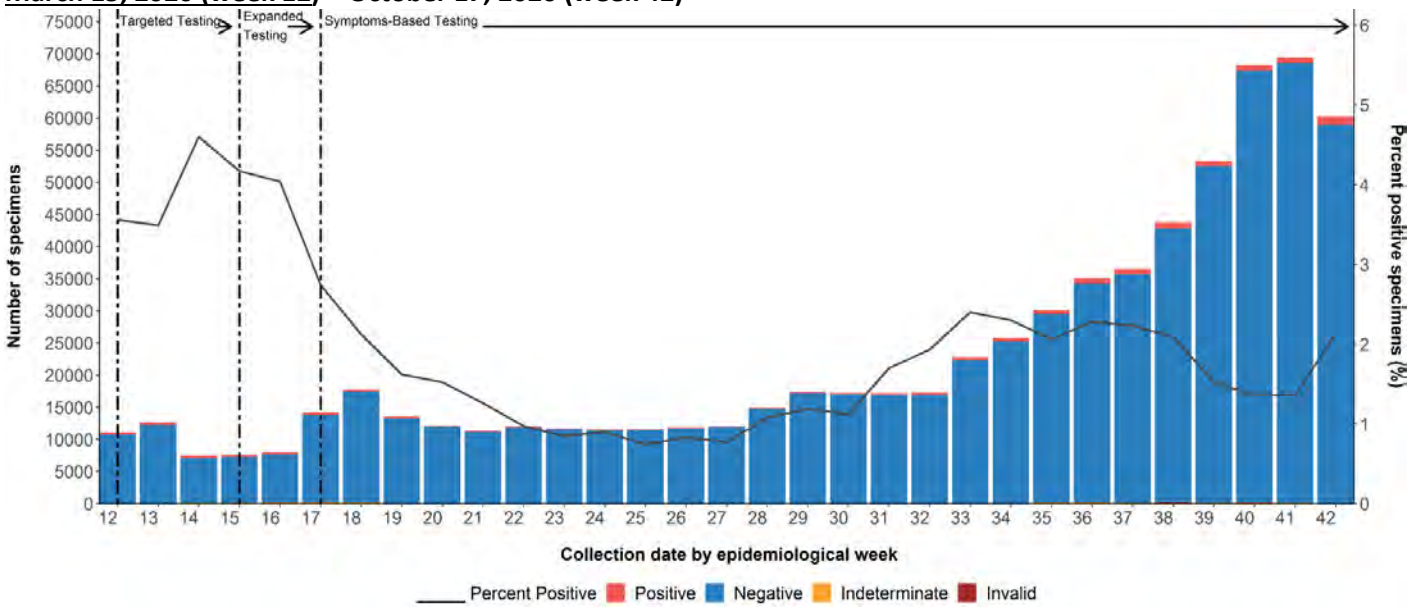
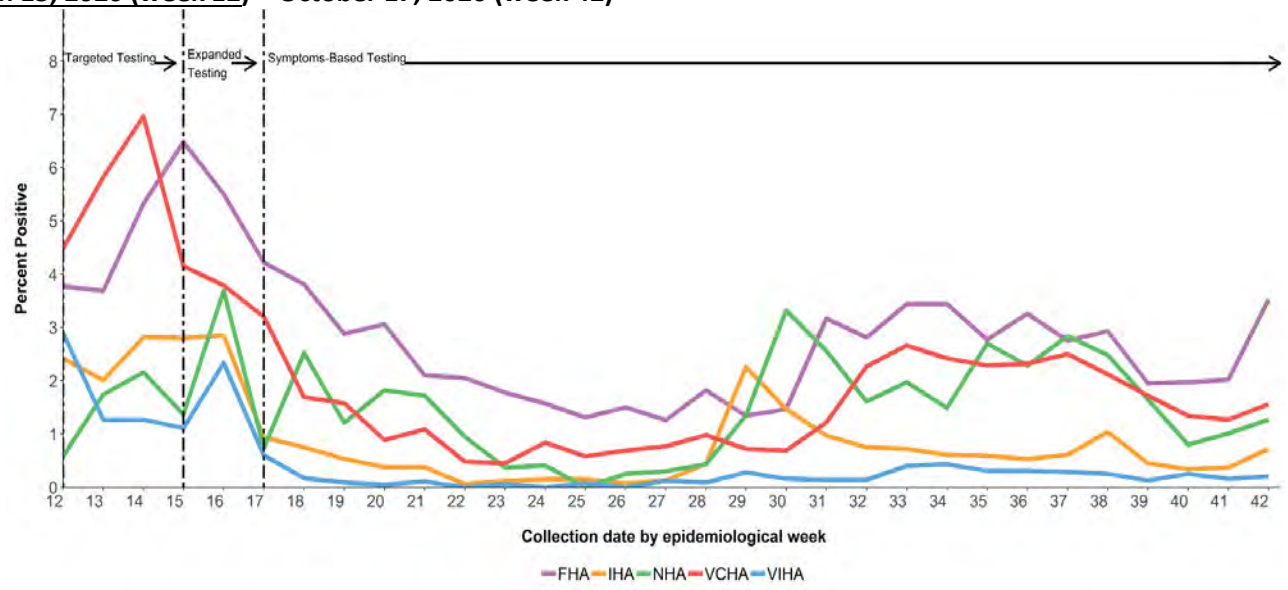


Figure 3. Percent SARS-CoV-2 positive, by health authority and collection week, British Columbia March 15, 2020 (week 12) – October 17, 2020 (week 42)[a]



a. PLOVER extract on October 22, 2020 reflecting all clinical diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc

b. FHA=Fraser Health Authority; IHA=Interior Health Authority; VIHA=Vancouver Island Health Authority; NHA=Northern Health Authority; VCHA=Vancouver Coastal Health Authority

C. Age profile – Testing and cases

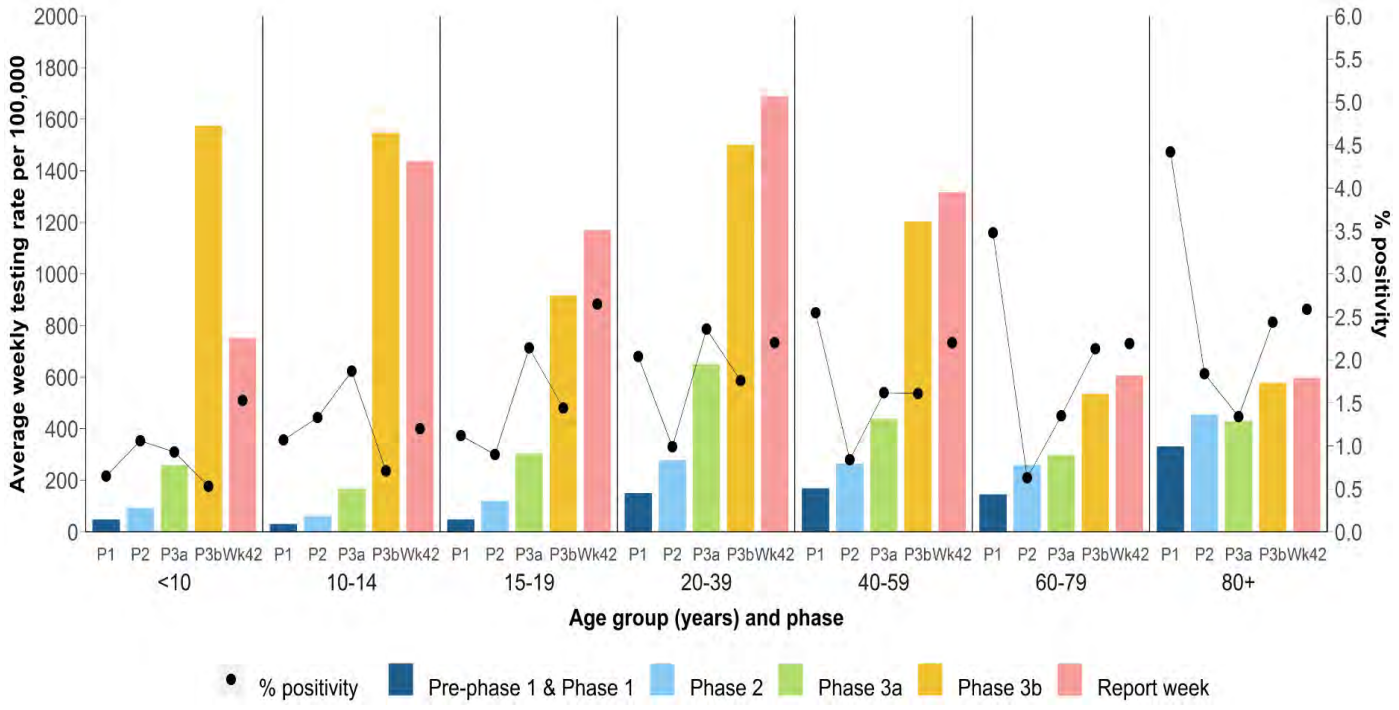
As shown by the coloured bars in **Figure 4**, the average weekly testing rate surged in Phase 3b compared to Phase 3a, notably among children <15 years old following the start of the 2020-21 school year. Compared to average testing rates in weeks 38-41 of Phase 3b, testing rates in week 42 decreased among children <15 years old whereas it increased in teens 15-19 years old and in adult age groups. The highest test rates in week 42 were among adults 20-39 years old.

As shown by the dots in **Figure 4**, the percent of respiratory specimens tested that were found to be SARS-CoV-2 positive (i.e. percent positivity) increased for all age groups in week 42 compared to weeks 38-41 of Phase 3b, most notably among children <10 and 15-19 years old (~1% increase each). Overall, the percent positivity in week 42 was less than 2.0% in children <15 years old but exceeded 2.0% in all other age groups, being highest in children 15-19 years (2.65%) and elderly adults 80+ years (2.59%).

Children 15-19 years old contributed slightly more in week 42 (7%) than across weeks 38-41 (5%) or in Phase 3a (5%). Whereas in Phase 3a, adults 20-39 years comprised more than half (53%) of all cases, they contributed less in weeks 38-41 (42%) and current report week 42 (42%) of Phase 3b (**Figure 5** and **Figure 6**). Conversely, adults 40-69 years comprised a greater share of cases across weeks 38-41 (37%) and in week 42 (35%) of Phase 3b compared to Phase 3a (30%).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 37 years for Phase 3b (excluding week 42) and 34 years in week 42 (not shown).

Figure 4. Average weekly SARS-CoV-2 testing rates and percent positive by age group and phase[a], British Columbia January 20, 2020 (week 4) – October 17, 2020 (week 42)[b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b: 4 weeks). The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

b. PLOVER extract on October 22, 2020 reflecting all diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc.

Figure 5. COVID-19 case distribution by known age group (years) and episode date, British Columbia March 15, 2020 (week 12) – October 17, 2020 (week 42) (N= 11,349)

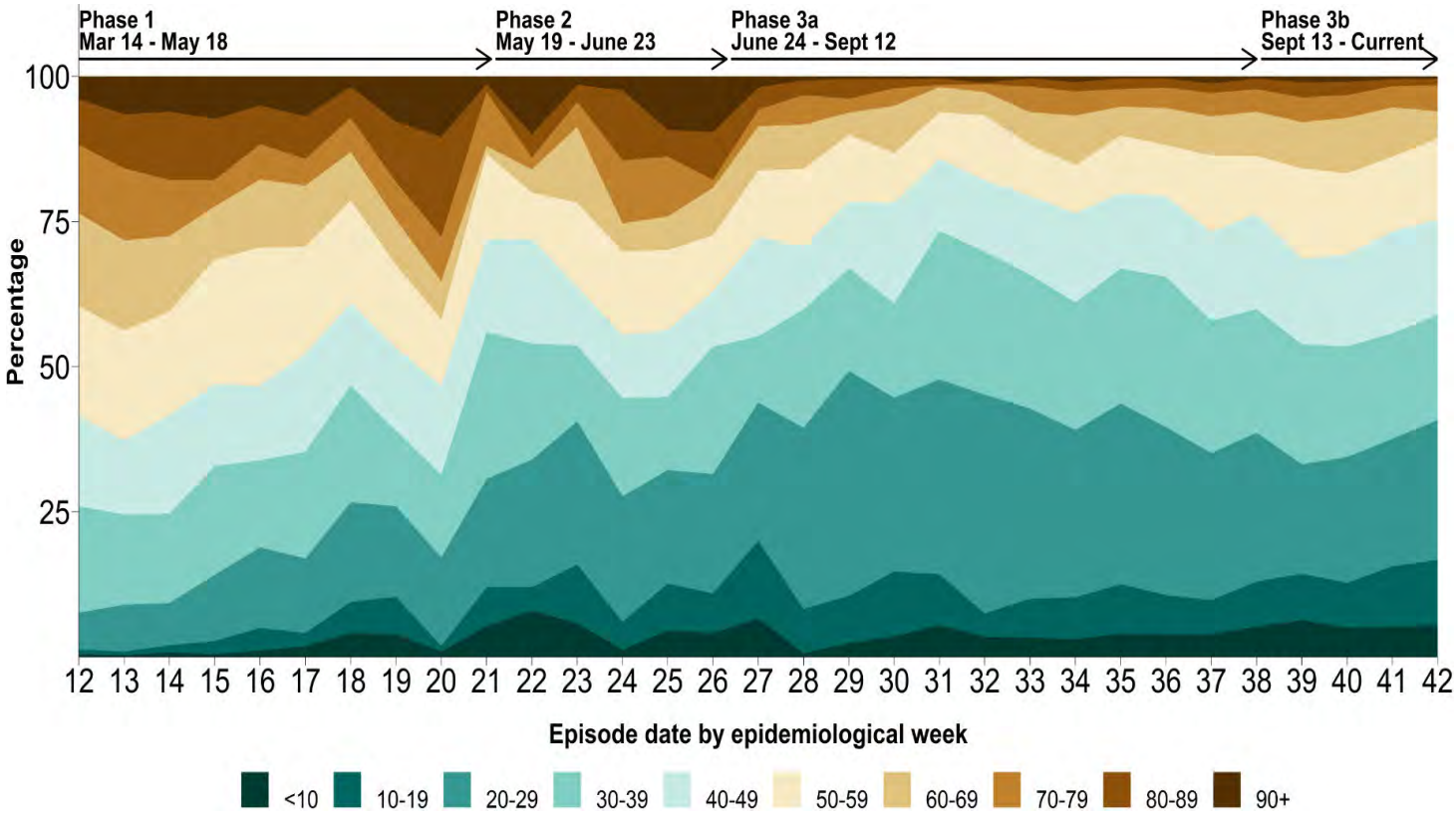
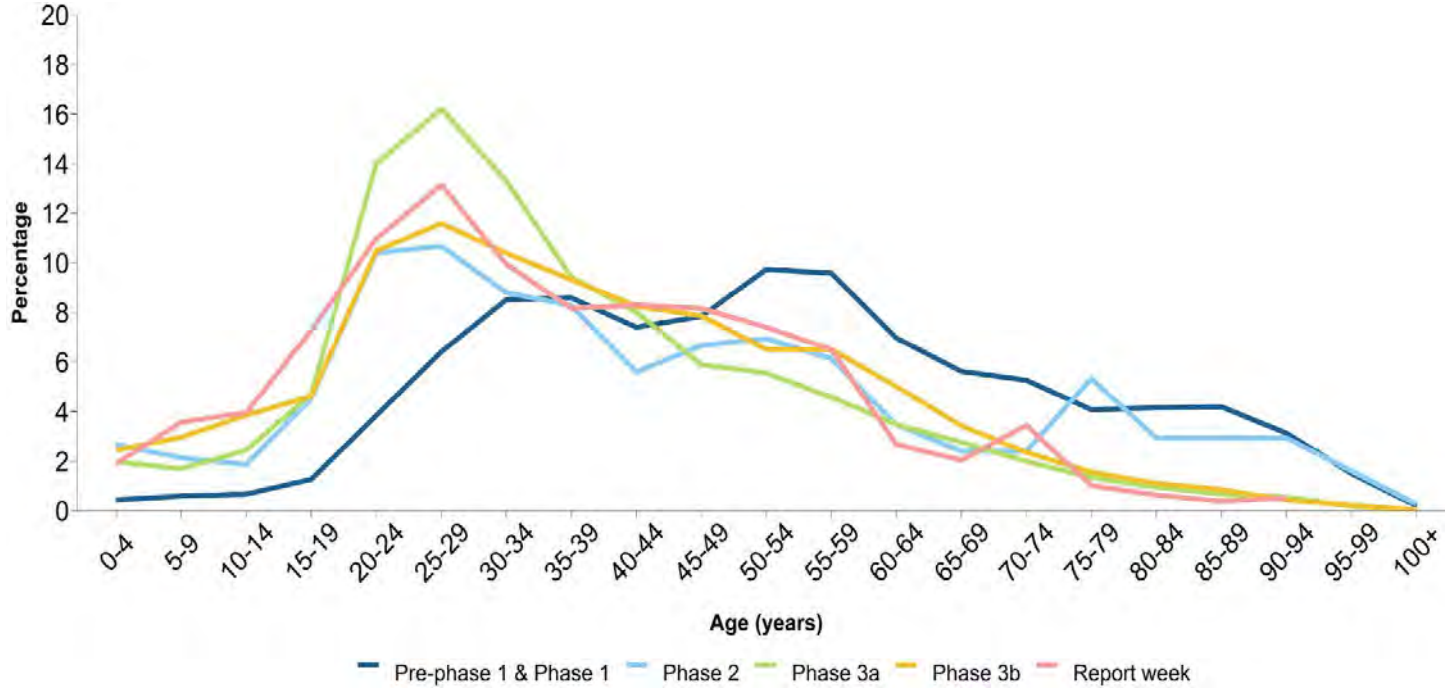


Figure 6. COVID-19 case distribution by known age group (years) and pandemic phase[a], British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42) (N=11,850)



a. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

More than two-thirds of COVID-19 cases in BC accrued after broad re-opening of services in Phase 3a (8,973/11,875; 76%). However, as shown in **Table 2 and Figure 7**, about 60% of hospitalizations (522/894; 58%), and two-thirds of ICU admissions (183/282; 65%) and deaths (172/253; 68%) accrued before Phase 3a.

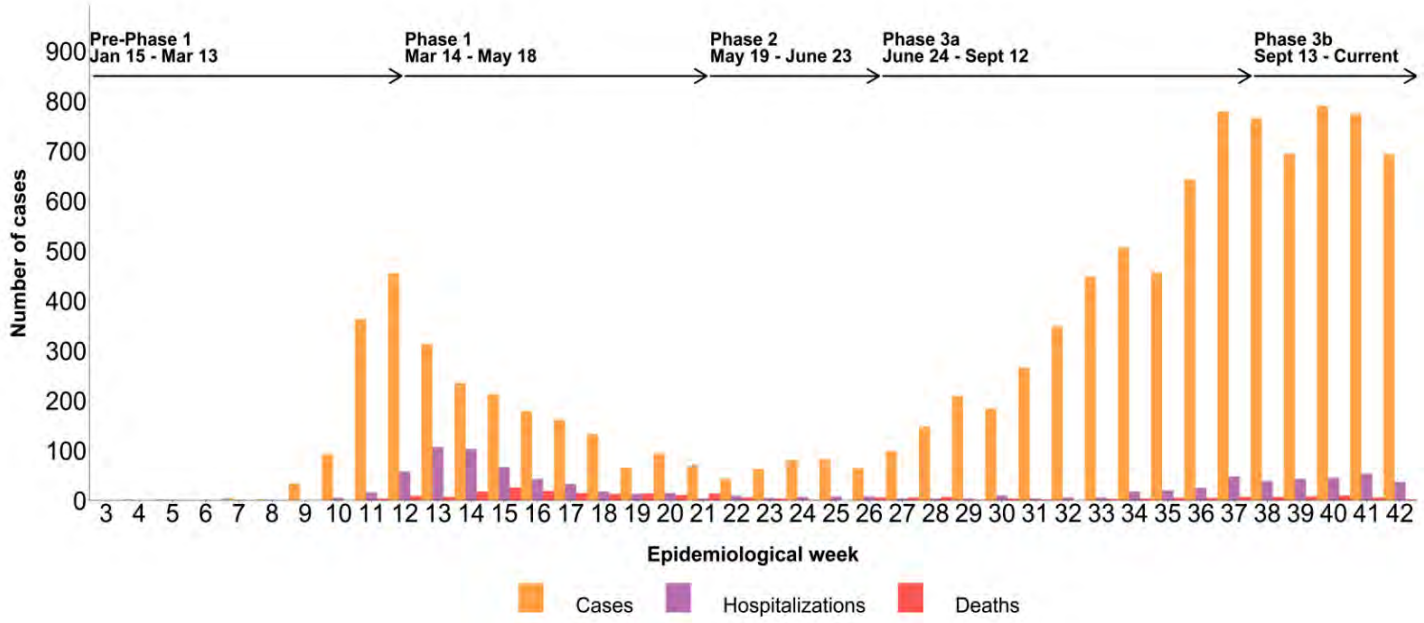
In week 42, compared to week 41, there were fewer hospitalizations (37 vs. 54) and deaths (3 vs. 6). In week 42, one of three deaths was 60-69 years old and two were 80+ years old. Overall, males comprised 5,967/11,838 (50%) cases, 522/892 (59%) hospitalizations, 176/282 (62%) ICU admissions, and 147/253 (58%) deaths with known sex to date (not shown).

Table 2. COVID-19 severe outcomes by episode date[a], health authority of residence, and phase, British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**474**	**45**	**26**	**31**	**312**	**6**	**894/11,875 cases (8)[b]**
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	25	12	174	2	487/894 (54)
Phase 2 (5 weeks)	26	1	0	2	5	1	35/894 (4)
Phase 3a (11.5 weeks)	97	5	0	10	40	2	154/894 (17)
Phase 3b (4 weeks, excluding week 42)	84	7	0	7	82	1	181/894 (20)
Week 42	22	3	1	0	11	0	37/894 (4)
Ever ICU	**129**	**16**	**9**	**15**	**111**	**2**	**282/11,875 cases (2)[b]**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/282 (61)
Phase 2 (5 weeks)	7	0	0	1	2	0	10/282 (4)
Phase 3a (11.5 weeks)	26	1	0	7	15	1	50/282 (18)
Phase 3b (4 weeks, excluding week 42)	13	0	0	0	26	0	39/282 (14)
Week 42	7	2	0	0	1	0	10/282 (4)
Deaths	**117**	**2**	**6**	**3**	**125**	**0**	**253/11,875 cases (2)[b]**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	145/253 (57)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/253 (11)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/253 (18)
Phase 3b (4 weeks, excluding week 42)	18	0	1	2	11	0	32/253 (13)
Week 42	2	0	0	0	1	0	3/253 (1)

a. Episode date defined by date of case illness onset, hospital admission or death; only when these dates are unknown is report date used.
b. Outcomes with unknown status are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 7. COVID-19 cases (n=10,559), hospitalization admissions (n= 890), and deaths (n= 244)[a], British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42)



a. By epidemiological week corresponding to cases with known onset date; hospitalizations with known admission date; and deaths with known death date.

E. Age profile, severe outcomes

As shown in **Table 3 and Figure 8**, elderly adults 70+ years comprise 10% of COVID-19 cases, generally commensurate with their share of the general population of BC (14%), but they are greatly over-represented among severe outcomes including hospitalizations (42%), ICU admissions (39%), and deaths (85%).

Adults 40-59 years comprise 28% of COVID-19 cases, 25% of hospitalizations, and 28% of ICU admissions, commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (5%).

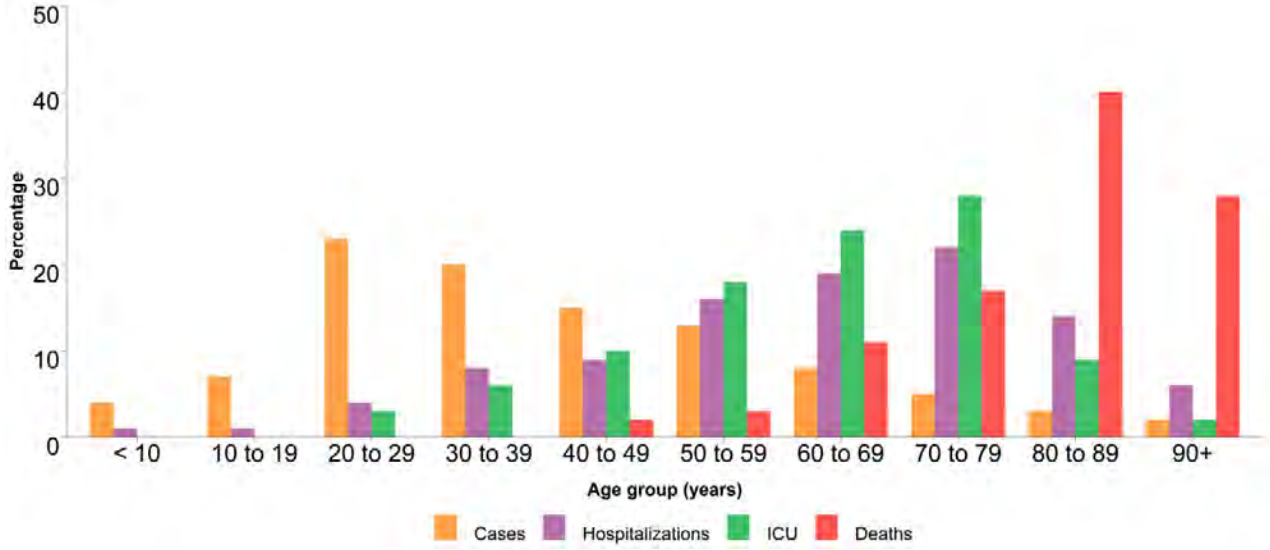
Adults 20-39 years comprise a greater share of COVID-19 cases (43%) than their share of the BC population (27%), but are under-represented among COVID-19 hospitalizations (12%), ICU admissions (9%) and deaths (0%).

Children <20 years are under-represented overall among COVID-19 cases (11%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Table 3. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and British Columbia population January 15, 2020 (week 3) – October 17, 2020 (week 42)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population[b] n (%)
<10	444 (4)	9 (1)	0 (0)	0 (0)	468,280 (9)
10-19	789 (7)	5 (1)	0 (0)	0 (0)	507,197 (10)
20-29	2,734 (23)	32 (4)	8 (3)	0 (0)	684,681 (13)
30-39	2,401 (20)	73 (8)	18 (6)	0 (0)	730,523 (14)
40-49	1,771 (15)	82 (9)	27 (10)	4 (2)	647,790 (13)
50-59	1,570 (13)	140 (16)	52 (18)	7 (3)	721,355 (14)
60-69	960 (8)	171 (19)	68 (24)	27 (11)	675,632 (13)
70-79	592 (5)	200 (22)	79 (28)	42 (17)	436,179 (9)
80-89	385 (3)	128 (14)	25 (9)	101 (40)	188,010 (4)
90+	204 (2)	53 (6)	5 (2)	72 (28)	50,876 (1)
Total	**11,850**	**893**	**282**	**253**	**5,110,523**
Median age	**37**	**65**	**65**	**85**	**41**

Figure 8. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42) (N=11,850)[a]



a. Among those with available age information only.
b. Based on PEOPLE2019-2020 population estimates.

F. Likely sources of infection

As shown in **Table 4** and **Figure 9**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

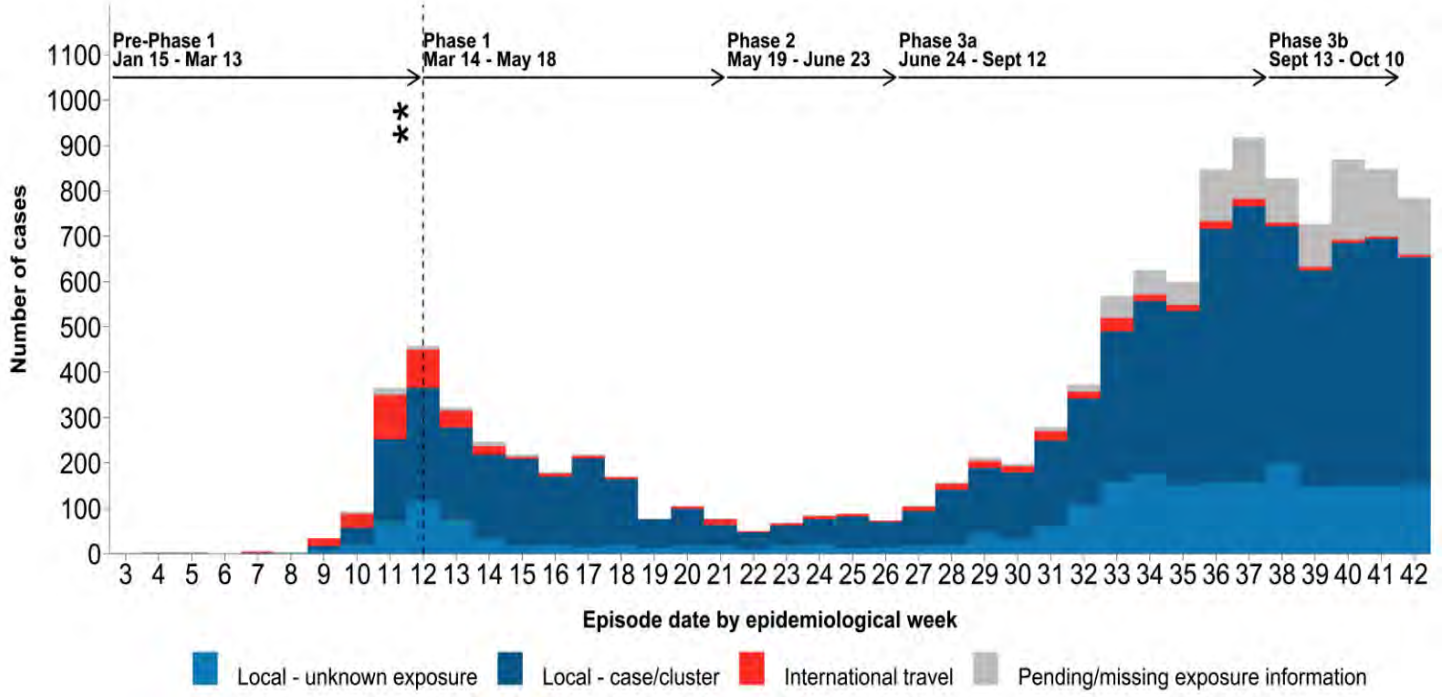
Since week 33 of Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have generally been maintained through week 42.

Table 4. Likely source of COVID-19 infection by pandemic phase[a] of episode date, British Columbia
January 15, 2020 (week 3) – October 17, 2020 (week 42)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	206 (46)	93 (21)	15 (3)
Phase 1	188 (9)	1,498 (72)	347 (17)	45 (2)
Phase 2	30 (8)	261 (70)	82 (22)	2 (1)
Phase 3a	180 (4)	3,206 (65)	1,088 (22)	443 (9)
Phase 3b[a]	28 (1)	2,075 (63)	650 (20)	519 (16)
Week 42	5 (1)	505 (64)	149 (19)	125 (16)
Total	**566 (5)**	**7,751 (65)**	**2,409 (20)**	**1,149 (10)**

a. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 9. Likely source of COVID-19 infection by episode date, British Columbia
January 15, 2020 (week 3) – October 17, 2020 (week 42)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 5 and Figure 10** although the number of care facility outbreaks before Phase 3a (48) equals that of Phase 3a onwards (48), the number of associated cases is less among both residents (386 vs. 151) and staff or visitors (231 vs. 163). Of 4,056 cases in total in BC with episode date in Phase 3b (inclusive of week 42), 133 (3%) have been associated with care facility outbreaks, a proportion similar to Phase 3a overall (184/4,917; 4%), but lower than before Phase 3a (613/2902; 21%).

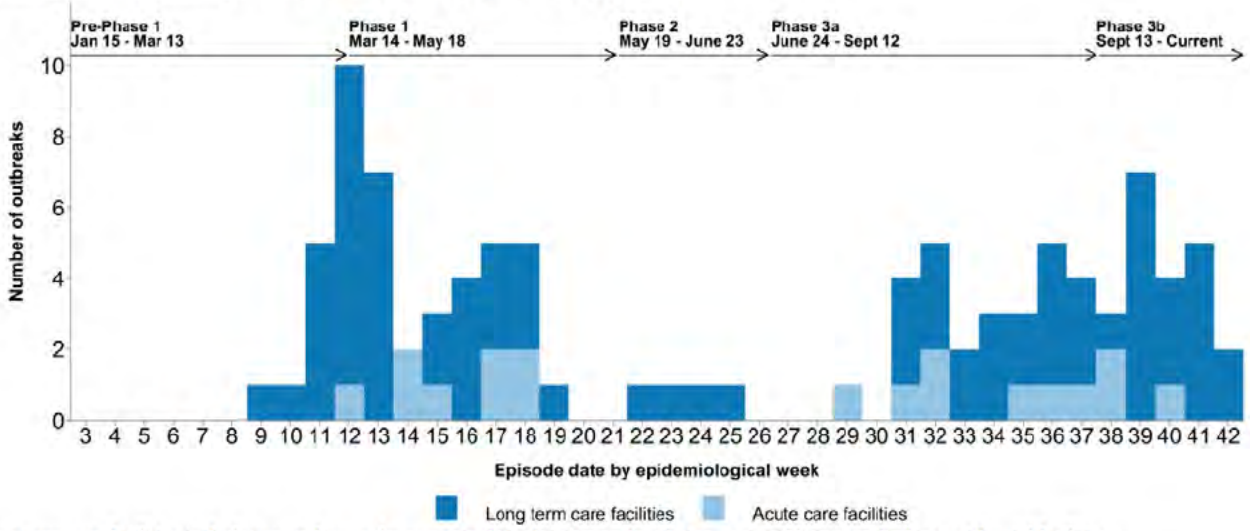
More than two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (176/253; 70%) and of those, more than two-thirds occurred before Phase 3a (120/176; 68%).

There were 5 new care facility outbreaks reported in week 42 (four of which were reported by Fraser Health Authority), with 3 of these outbreaks having earliest onset date in preceding weeks. Two of the 3 deaths in week 42 involved elderly adults 80+ years in a care facility setting.

Table 5. COVID-19 care facility[a] outbreaks[b] and associated cases and deaths by phase[c,d], British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42) (N=96)[e]

COVID-19 care facility outbreaks, cases, and deaths, by phase of episode date							
	Care facility Outbreaks[a]	Cases[b]			Deaths[b]		
		Residents	Staff/other	Total	Residents	Staff/other	Total
Total	**96**	**535**	**394**	**930**	**176**	**0**	**176**
Pre-/Phase One (17 weeks)	44	331	213	544	96	0	96
Phase 2 (5 weeks)	4	51	18	69	24	0	24
Phase 3a (11.5 weeks)	27	91	93	184	39	0	39
Phase 3b[d] (4 weeks)	19	57	66	124	15	0	15
Week 42	2	5	4	9	2	0	2
Active outbreaks[e]	18	-	-	-	-	-	-
Outbreaks declared over[e]	78	--	-	-	-	-	-

Figure 10. COVID-19 care facility[a] outbreaks[b] by week of earliest case onset[f], British Columbia January 15, 2020 (week 3) – October 17, 2020 (week 42) (N=96)[e]



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities.
b. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
c. Phase allocation for cases according to symptom onset date and for deaths by death date, or if unavailable, then date case was reported to health authority.
d. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.
e. As of October 17, 2020
f. Earliest date of onset of outbreak cases are subject to change as investigations and data are updated.

H. Clinical indicators

HealthLink calls (**Figure 11**) related to COVID-19 have shown an overall increasing trend from about week 28 stabilizing from week 39 to 41 at >13,000 calls per week but decreasing in week 42 to just over 10,000 calls.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 12**) related to COVID-19 (including telehealth) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to 2750 visits in week 42.

Figure 11. HealthLink BC calls related to COVID-19, British Columbia
March 1, 2020 (week 10) – October 17, 2020 (week 42)

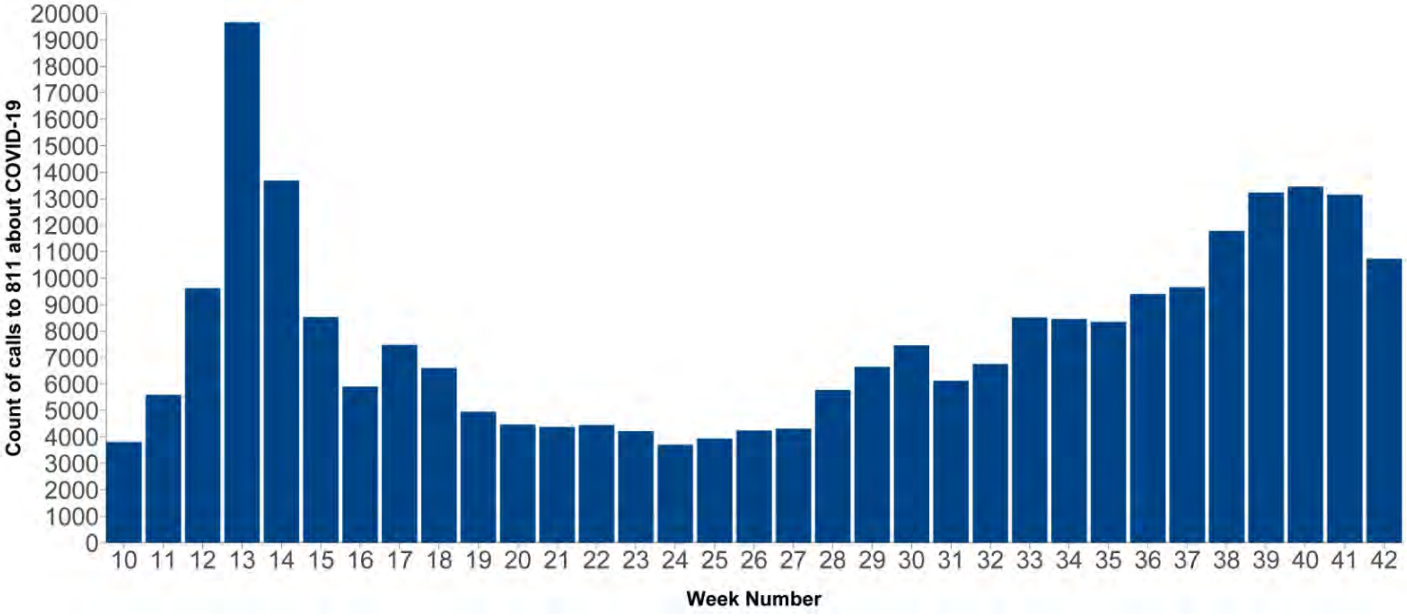
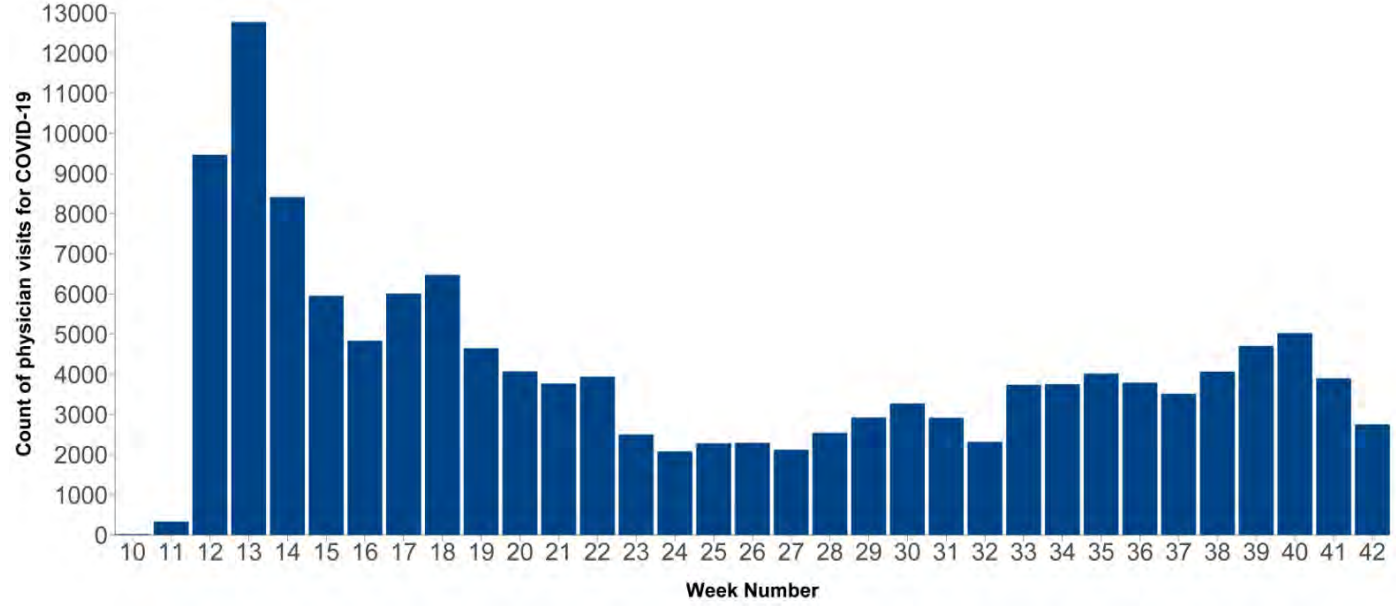


Figure 12. Medical Service Plan (MSP) claims (including telehealth) for COVID-19, British Columbia
March 1, 2020 (week 10) – October 17, 2020 (week 42)



British Columbia (BC)
COVID-19 Situation Report

BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 43: October 18 – October 24, 2020

This bulletin provides weekly data and refers to pandemic phases defined by population-level changes specified in the table* below. Note also that unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when these dates are unknown, report date is used.

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Upswing in COVID-19 surveillance indicators in BC: Fraser Health Authority predominantly affected

COVID-19 incidence per 100,000 population in BC has steadily increased since week 31 (August) with a notable jump from week 41 (17.6) to week 42 (24.5) (October). Incidence for current report week 43 (20.2) was highest in Fraser Health Authority (FHA: 35.6), lowest in Vancouver Island Health Authority (VIHA: 0.6). Tallies for recent weeks are expected to increase as data, notably onset dates, become more complete.

SARS-CoV-2 test positivity increased between weeks 41-43 (1.4%, 2.1%, 2.9%), being highest in FHA (2.0%, 3.6%, 4.6%) and lowest in VIHA (0.2% each week). Positivity also increased from week 41-43 in Interior (0.4%, 0.7%, 1.9%) and Northern (1.0%, 1.3%, 2.6%) HAs but was more stable in Vancouver Coastal HA (1.3%, 1.6%, 1.6%).

In week 43, testing rates decreased in children <15 years old but increased in other age groups relative to the average test rate across prior weeks of Phase 3b. Positivity exceeded 2% in most age groups, highest in 15-19 (3.5%) and 20-39 year olds (3.1%).

More care facility outbreaks occurred after vs before Phase 3a (63 vs 48), but with half as many associated cases (362 vs 613). In week 43, 15 outbreaks were reported.

Alongside the increase in cases, a gradual increase in hospitalizations has been observed since week 33. During the first wave, the peak tally of hospitalizations per week was 107 (week 13, mid-March) whereas to date during the second wave the peak tally is about half that at 55 (week 41). Given the recent upswing in cases from week 42, the ultimate timing of the [delayed] peak in severe outcomes has yet to be determined. In week 43, there were 50 hospitalizations.

In total, 258 COVID-associated deaths were reported in BC, of which two-thirds occurred before Phase 3a, two-thirds were associated with a care facility outbreak, and 86% were 70+ years. In week 43, 5 deaths were recorded, all 70+ years.

***Pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 43), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

A. COVID-19 case counts and epidemic curve

As shown by the gray line in **Figure 1**, there were 1,656 COVID-19 cases reported in week 43, a sudden and substantial two-third increase over week 42 (999), the latter just a 10% increase over week 41 (900). The weekly tally by report date, however, includes cases with illness onset distributed over preceding weeks.

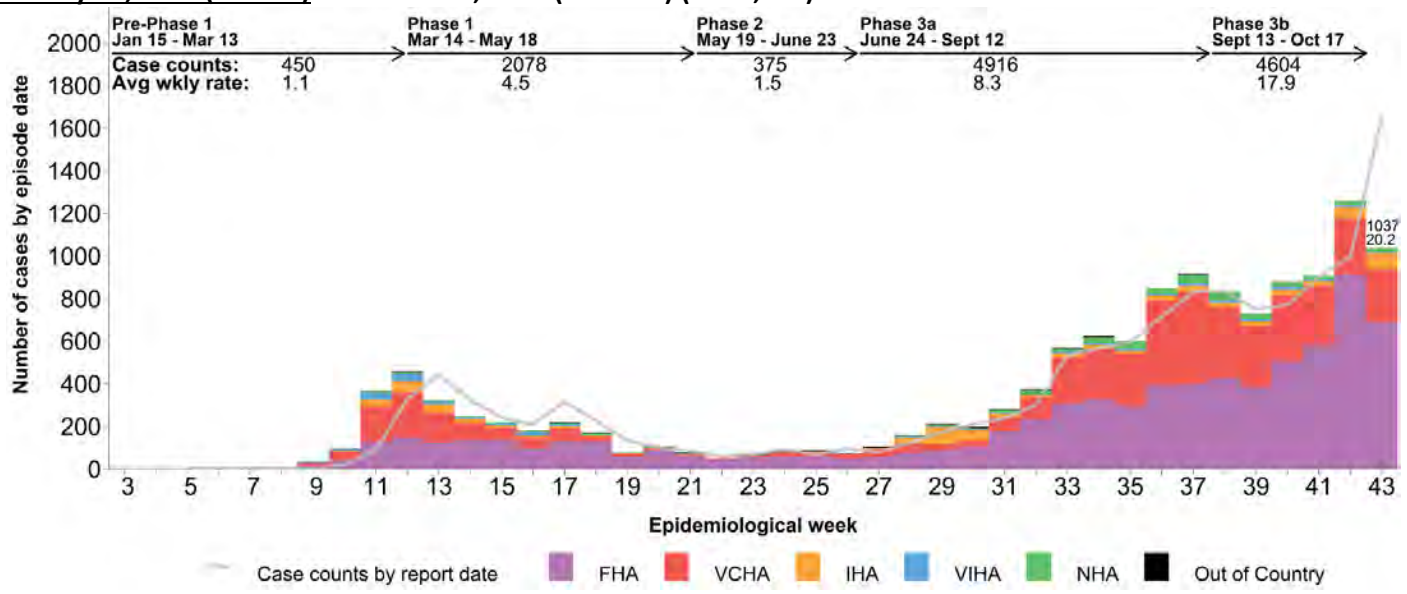
The coloured bars in **Figure 1** instead display the epidemic curve by episode date (i.e. illness onset date and only if that is unavailable, then report date). This similarly shows a gradual increase in cases since week 31, but a sudden jump beginning in week 42 (1,261 cases; 24.5 per 100,000), representing a 40% increase over week 41 (907 cases; 17.6 per 100,000).

Incidence based on episode date for the current report week 43 (20.2 per 100,000) already exceeds the average weekly incidence across preceding weeks 38-42 of Phase 3b (17.9 per 100,000) but is expected to increase further as data, notably onset dates, become more complete. In **Figure 1 and Table 1**, the recent surge in COVID-19 cases is driven by Fraser Health Authority where week 42 and 43 incidences so far are 47.1 and 35.6 per 100,000, respectively. Conversely, incidence in week 42 and 43 were lowest in Vancouver Island Health Authority at 1.2 and 0.6 per 100,000, respectively.

Table 1. Case tallies by episode date[a] and health authority of residence[b], British Columbia
January 15, 2020 (week 3) – October 24, 2020 (week 43)[c]

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Week 43, case counts	**690**	**74**	**5**	**17**	**250**	**1**	**1,037**
Week 43, incidence per 100,000[d]	**35.6**	**8.9**	**0.6**	**5.9**	**20.7**	**NA**	**20.2**
Cumulative counts, weeks 3[c] to 43	**7,509**	**717**	**253**	**396**	**4,496**	**89**	**13,460**
Laboratory-diagnosed	7,404	683	247	365	4,437	88	13,224 (98)
Epidemiologically-linked	105	34	6	31	59	1	236 (2)
Active	1,247	74	7	19	358	5	1,710 (13)
Discontinued isolation	6,092	641	240	374	4,007	83	11,437 (85)
Deceased	119	2	6	3	128	0	258 (2)
Cumulative incidence per 100,000[d]	**387.2**	**85.9**	**29.2**	**137.9**	**371.4**	**NA**	**260.2**

Figure 1. Epidemic curve by episode date (coloured bars)[a], report date (line) and health authority[b], British Columbia
January 15, 2020 (week 3) – October 24, 2020 (week 43) (N=13,460)[c,d]



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b, excluding the current report week (5 weeks). The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

a. Episode date is the illness onset date, or if onset date remains unknown, then the date the case was reported to the health authority.
b. FHA=Fraser; IHA=Interior; VIHA=Vancouver Island; NHA=Northern; VCHA=Vancouver Coastal Health Authorities
c. First onset date of a case in BC was January 15, 2020. Data presented were extracted after noon on Thursday, October 29, 2020.
d. All per capita rates/incidences and BC population estimates in the current report are based on PEOPLE2020 population estimates (n= 5,139,568).

B. Test rates and percent positive

As shown by the bars in **Figure 2**, the weekly number of respiratory specimens tested for SARS-CoV-2 in BC has steadily increased from week 33 (~20,000) to weeks 40 and 41 (~70,000), declining slightly in weeks 42 and 43 (~60,000).

Conversely, the percent that were SARS-CoV-2 positive (i.e. percent positivity, shown by the line in **Figure 2**) declined from week 33 (2.4%) to week 41 (1.4%), increasing above 2% again in week 42 (2.1%) and approaching 3% in week 43 (2.9%).

As shown in **Figure 3,** Fraser Health Authority had the highest positivity rate, increasing across weeks 41 to 43 (2.0%, 3.6%, 4.6%). Percent positivity also increased in Interior (0.4%, 0.7%, 1.9%) and Northern (1.0%, 1.3%, 2.6%) Health Authorities. Greater variability due to smaller population size and, in turn, specimens tested should be taken into account when interpreting the latter. Positivity was more stable in Vancouver Coastal (1.3%, 1.6%, 1.6%) and Vancouver Island (0.2% each week) Health Authorities.

Figure 2. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, British Columbia March 15, 2020 (week 12) – October 24, 2020 (week 43)[a]

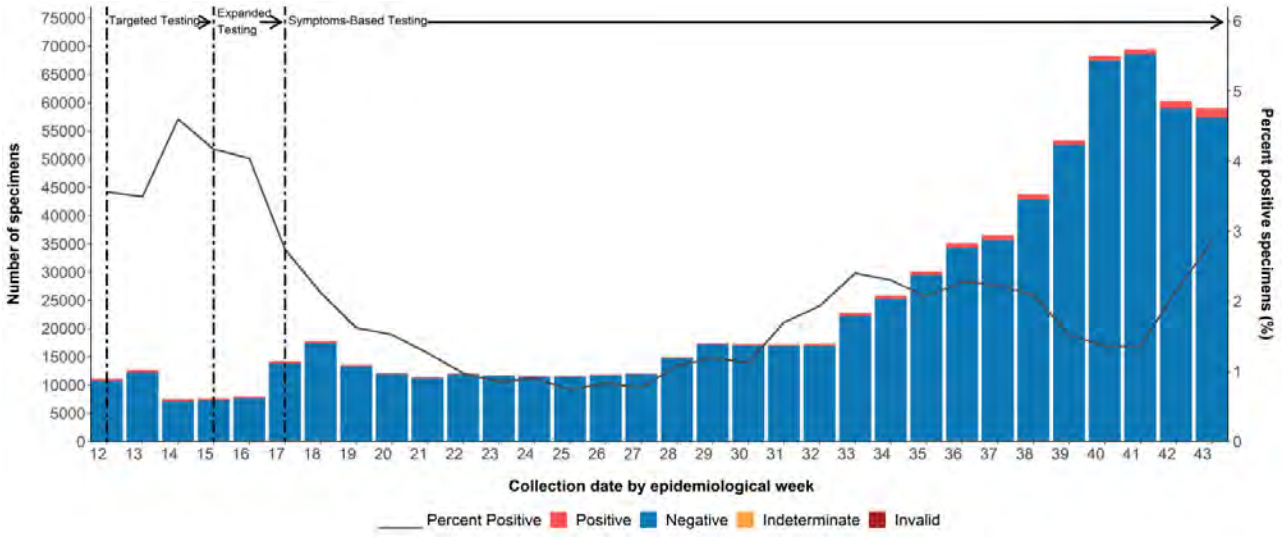
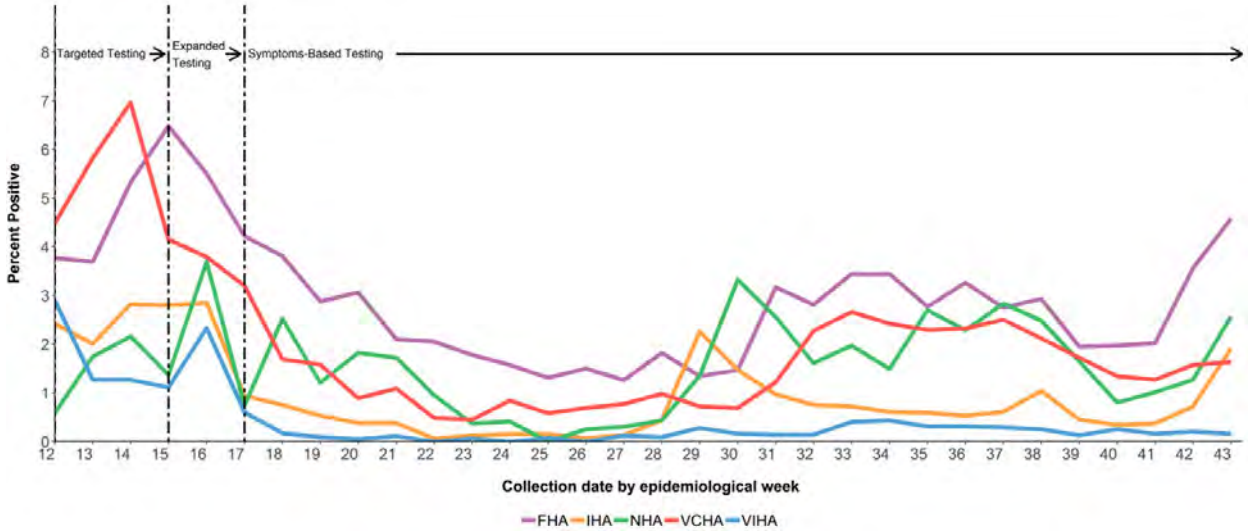


Figure 3. Percent SARS-CoV-2 positive, by health authority and collection week, British Columbia March 15, 2020 (week 12) – October 24, 2020 (week 43)[a]



a. PLOVER extract on October 29, 2020 reflecting all clinical diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc

b. FHA=Fraser; IHA=Interior; VIHA=Vancouver Island; NHA=Northern; VCHA=Vancouver Coastal Health Authorities

C. Age profile – Testing and cases

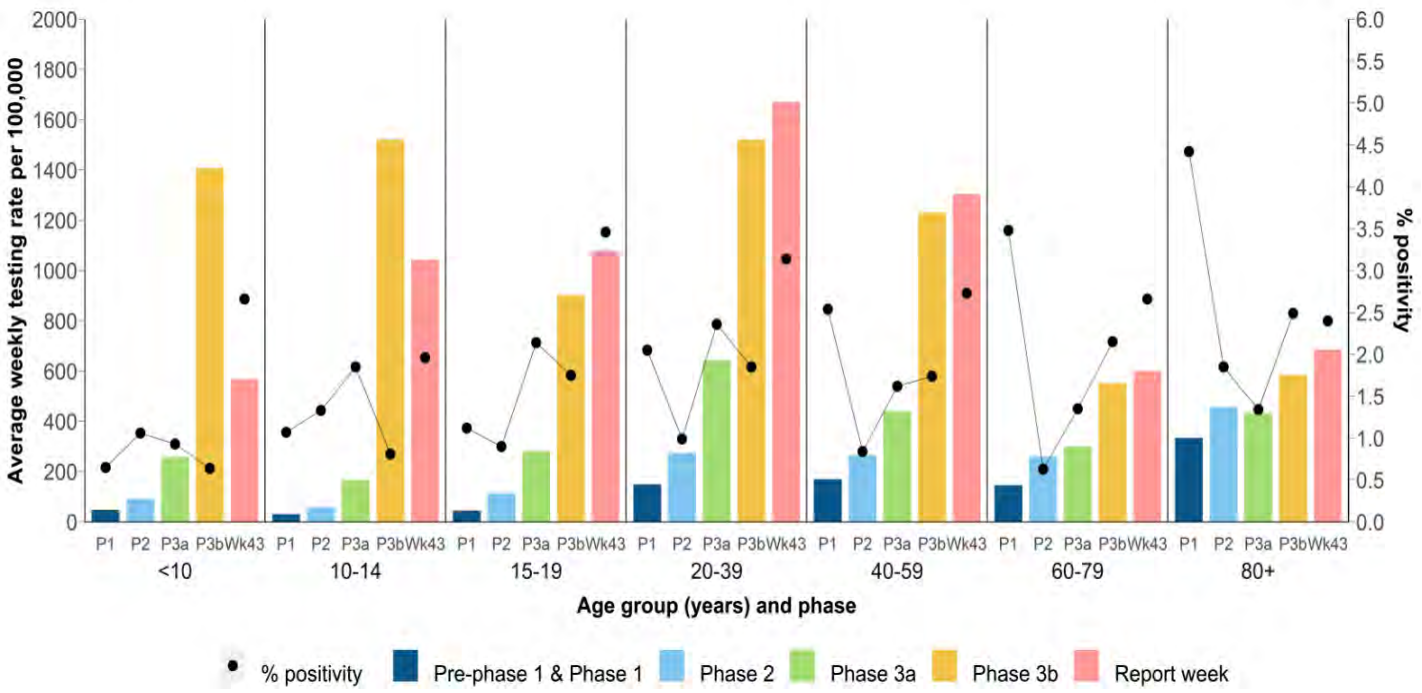
As shown by the coloured bars in **Figure 4**, testing surged in Phase 3b compared to Phase 3a, notably among children <15 years old following the start of the 2020-21 school year. Compared to average weekly testing rates across weeks 38-42 of Phase 3b, in week 43 testing rates decreased among children <15 years old, whereas it increased in those 15 years of age and older. The highest test rates in week 43 were among adults 20-39 years old.

As shown by the dots in **Figure 4**, the percent positivity was higher in week 43 compared to preceding weeks 38-42 of Phase 3b for all age groups except elderly adults 80+ years. Overall, positivity in week 43 was 2% or more in all age groups, lowest in children 10-14 years (2.0%) and elderly adults 80+ years (2.4%), but highest in teens 15-19 years (3.5%) and adults 20-39 years (3.1%).

Children 15-19 years old contributed slightly more in week 43 (7%) than across weeks 38-42 (5%) or in Phase 3a (5%). Whereas in Phase 3a adults 20-39 years comprised more than half (53%) of all cases, they contributed less in weeks 38-42 (42%) and current report week 43 (44%) (**Figure 5** and **Figure 6**). Conversely, adults 40-69 years comprised a greater share of cases in week 43 (35%) and across weeks 38-42 (37%) of Phase 3b compared to Phase 3a (30%).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for Phase 3b (excluding week 43) and 34 years in week 43 (not shown).

Figure 4. Average weekly SARS-CoV-2 testing rates and percent positive by age group and phase[a], British Columbia January 20, 2020 (week 4) – October 24, 2020 (week 43)[b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b: 5 weeks). The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

b. PLOVER extract on October 29, 2020 reflecting all diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc.

Figure 5. COVID-19 case distribution by known age group (years) and episode date, British Columbia
March 15, 2020 (week 12) – October 24, 2020 (week 43) (N= 12,925)

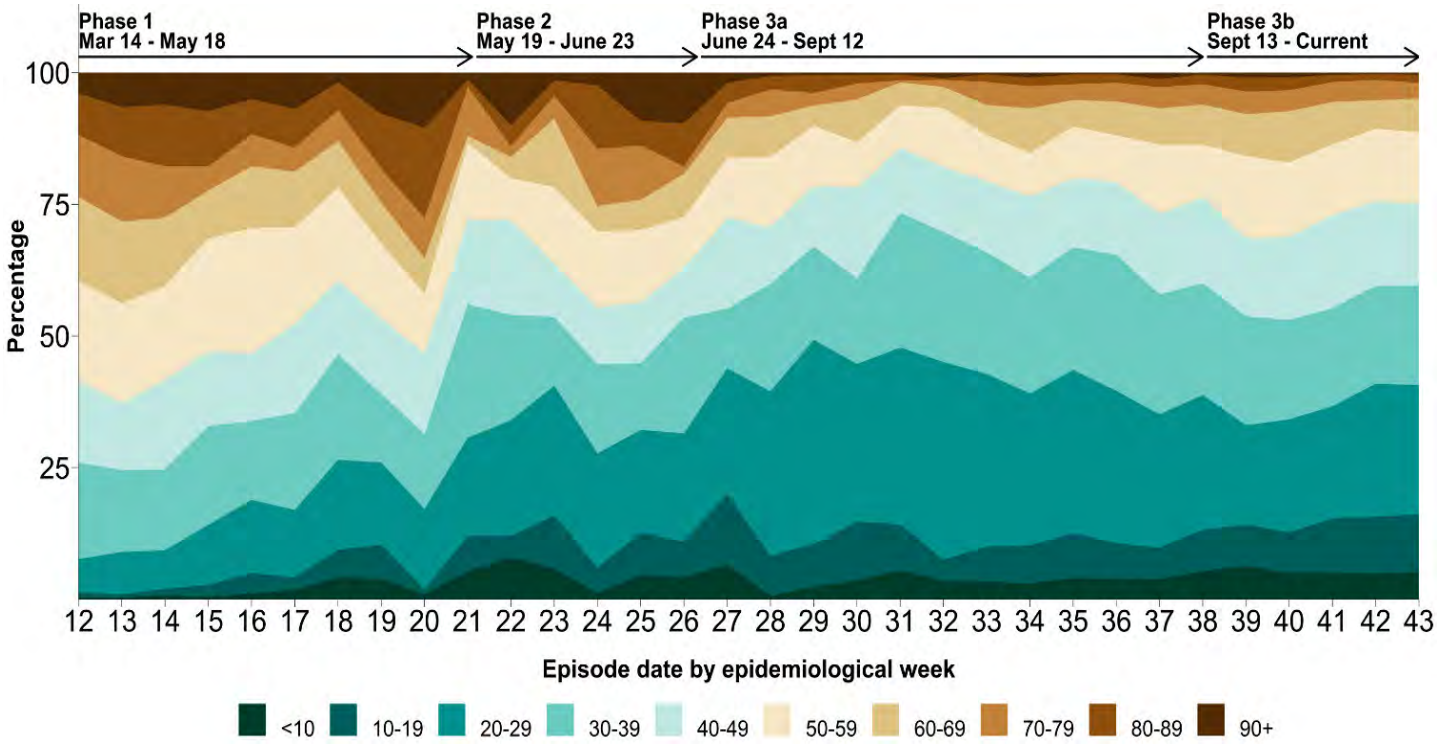
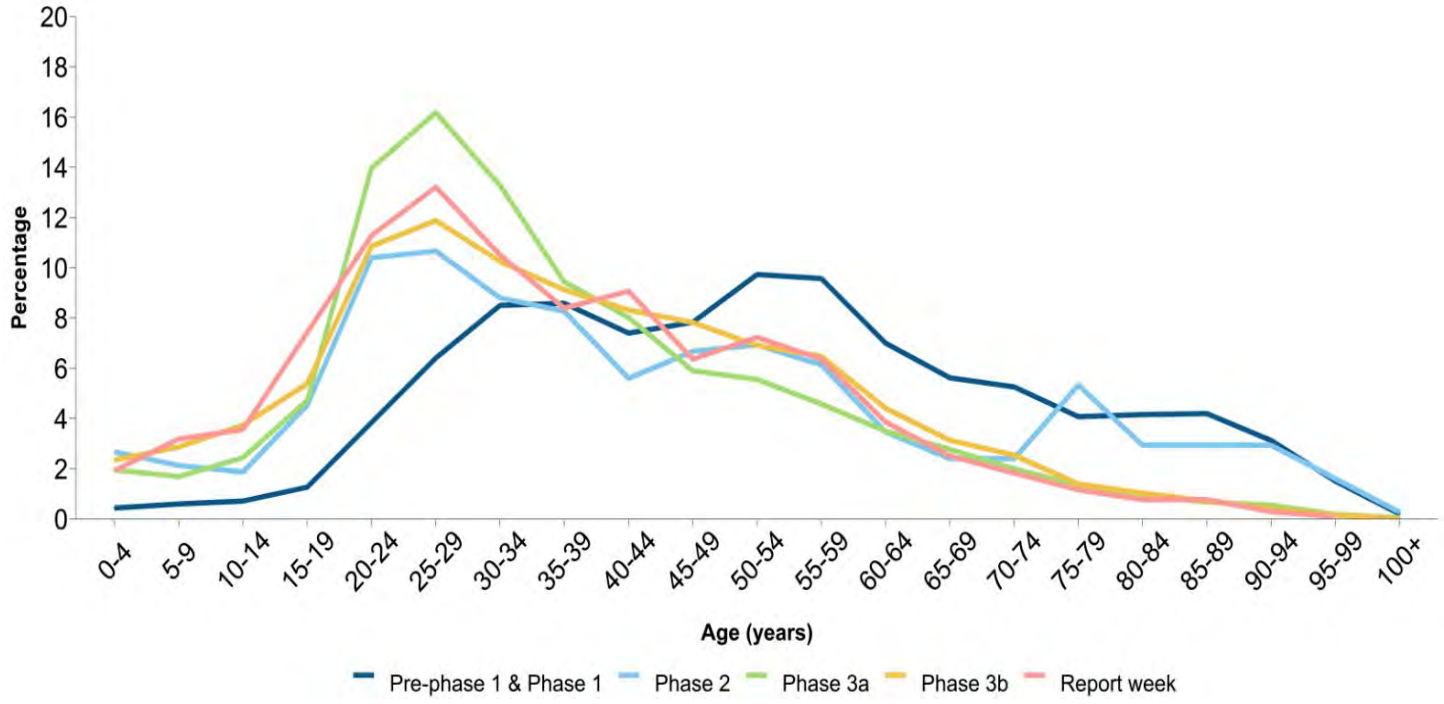


Figure 6. COVID-19 case distribution by known age group (years) and pandemic phase[a], British Columbia
January 15, 2020 (week 3) – October 24, 2020 (week 43) (N=13,427)



a. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

Alongside the increase in cases, increase in hospitalizations has been observed since week 33. Of cases within the Lower Mainland hospitalized since week 33, 58% were from Fraser and 42% were from Vancouver Coastal Health Authority.

Overall, nearly 80% of COVID-19 cases in BC accrued after Phase 3a re-opening (10,557/13,460; 78%). As shown in **Table 2 and Figure 7**, however, most hospitalizations (524/948; 55%) and deaths (172/258; 67%) occurred before Phase 3a. During the first wave, the peak number of hospitalizations per week was 107 (week 13) whereas to date during wave two the peak number is about half that at 55 (week 41). Similarly, the peak number of deaths per week during the first wave was 26 (week 15), whereas to date during the second wave the peak number is about half that at 10 (week 40). Given the recent upswing in cases from week 42, the ultimate timing of the [delayed] peak in severe outcomes has yet to be determined for wave two.

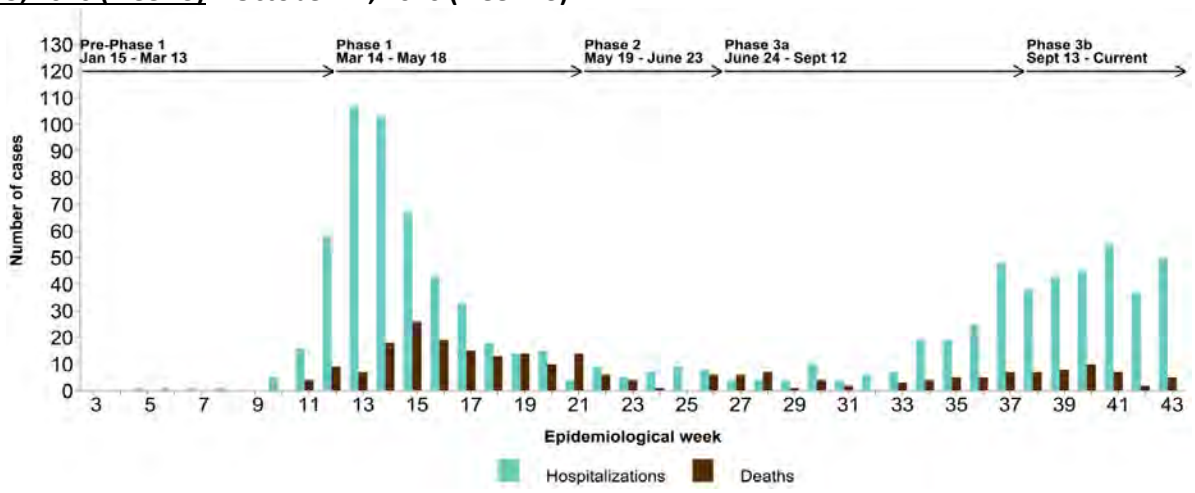
Median age of hospitalizations before vs. after Phase 3a is 68 vs. 61 years and of deaths is 85 vs. 87 years (not shown). Overall, males comprise 6,742/13,414 (50%) cases, 560/946 (59%) hospitalizations, 185/295 (63%) ICU admissions, and 148/258 (57%) deaths with known sex to date (not shown).

Table 2. COVID-19 severe outcomes by episode date[a], health authority of residence, and phase, British Columbia January 15, 2020 (week 3) – October 24, 2020 (week 43)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**503**	**45**	**26**	**32**	**336**	**6**	**948/13,460 cases (7)[b]**
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	25	12	175	2	488/948 (51)
Phase 2 (5 weeks)	27	1	0	2	5	1	36/948 (4)
Phase 3a (11.5 weeks)	98	5	0	10	40	2	155/948 (16)
Phase 3b (5 weeks, excluding week 43)	107	10	1	7	93	1	219/948 (23)
Week 43	26	0	0	1	23	0	50/948 (5)
Ever ICU	**137**	**16**	**9**	**16**	**115**	**2**	**295/13,460 cases (2)[b]**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/295 (59)
Phase 2 (5 weeks)	7	0	0	1	2	0	10/295 (3)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/295 (17)
Phase 3b (5 weeks, excluding week 43)	19	2	0	0	27	0	48/295 (16)
Week 43	10	0	0	1	4	0	15/295 (5)
Deaths	**119**	**2**	**6**	**3**	**128**	**0**	**258/13,460 cases (2)[b]**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	145/258 (56)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/258 (10)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/258 (18)
Phase 3b (5 weeks, excluding week 43)	20	0	1	2	12	0	35/258 (14)
Week 43	2	0	0	0	3	0	5/258 (2)

a. Episode date defined by date of case illness onset, hospital admission or death; only when these dates are unknown is report date used.
b. Outcomes with unknown status are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 7. COVID-19 hospitalization admissions (n= 943) and deaths (n= 249)[a], British Columbia January 15, 2020 (week 3) – October 24, 2020 (week 43)



a. By epidemiological week corresponding to hospitalizations with known admission date and deaths with known death date.

E. Age profile, severe outcomes

As shown in **Table 3 and Figure 8**, elderly adults 70+ years comprise 10% of COVID-19 cases, generally commensurate with their share of the general population of BC (14%), but are over-represented among hospitalizations (42%) and deaths (86%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (19%) but a commensurate proportion of deaths (10%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 26% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (5%).

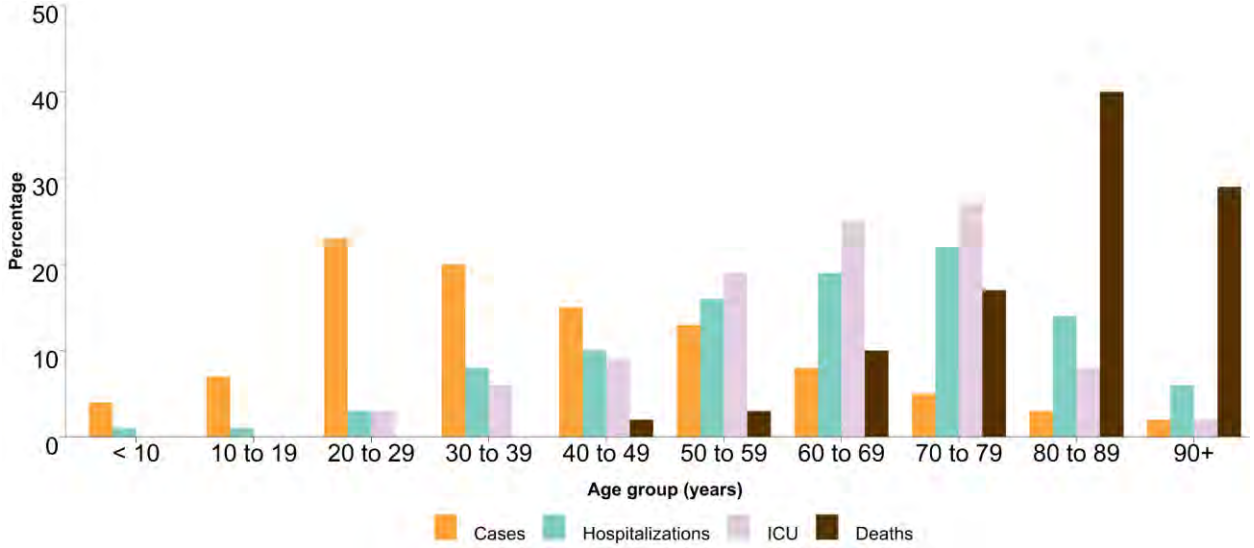
Adults 20-39 years comprise a greater share of COVID-19 cases (43%) than their share of the BC population (27%), but are under-represented among COVID-19 hospitalizations (11%) and deaths (0%).

Children <20 years are under-represented overall among COVID-19 cases (11%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Table 3. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and British Columbia population January 15, 2020 (week 3) – October 24, 2020 (week 43)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population[b] n (%)
<10	516 (4)	11 (1)	0 (0)	0 (0)	469,351 (9)
10-19	960 (7)	6 (1)	0 (0)	0 (0)	527,805 (10)
20-29	3,121 (23)	33 (3)	8 (3)	0 (0)	697,691 (14)
30-39	2,701 (20)	77 (8)	18 (6)	0 (0)	735,052 (14)
40-49	2,018 (15)	93 (10)	28 (9)	4 (2)	646,035 (13)
50-59	1,792 (13)	152 (16)	57 (19)	7 (3)	718,272 (14)
60-69	1,062 (8)	179 (19)	73 (25)	27 (10)	673,131 (13)
70-79	641 (5)	213 (22)	81 (27)	43 (17)	435,062 (8)
80-89	408 (3)	130 (14)	25 (8)	102 (40)	187,443 (4)
90+	208 (2)	53 (6)	5 (2)	75 (29)	49,726 (1)
Total	**13,427**	**947**	**295**	**258**	**5,139,568**
Median age	**37**	**65**	**65**	**85**	**41**

Figure 8. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, British Columbia January 15, 2020 (week 3) – October 24, 2020 (week 43) (N=13,427)[a]



a. Among those with available age information only.
b. Based on PEOPLE2020 population estimates.

F. Likely sources of infection

As shown in **Table 4** and **Figure 9**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

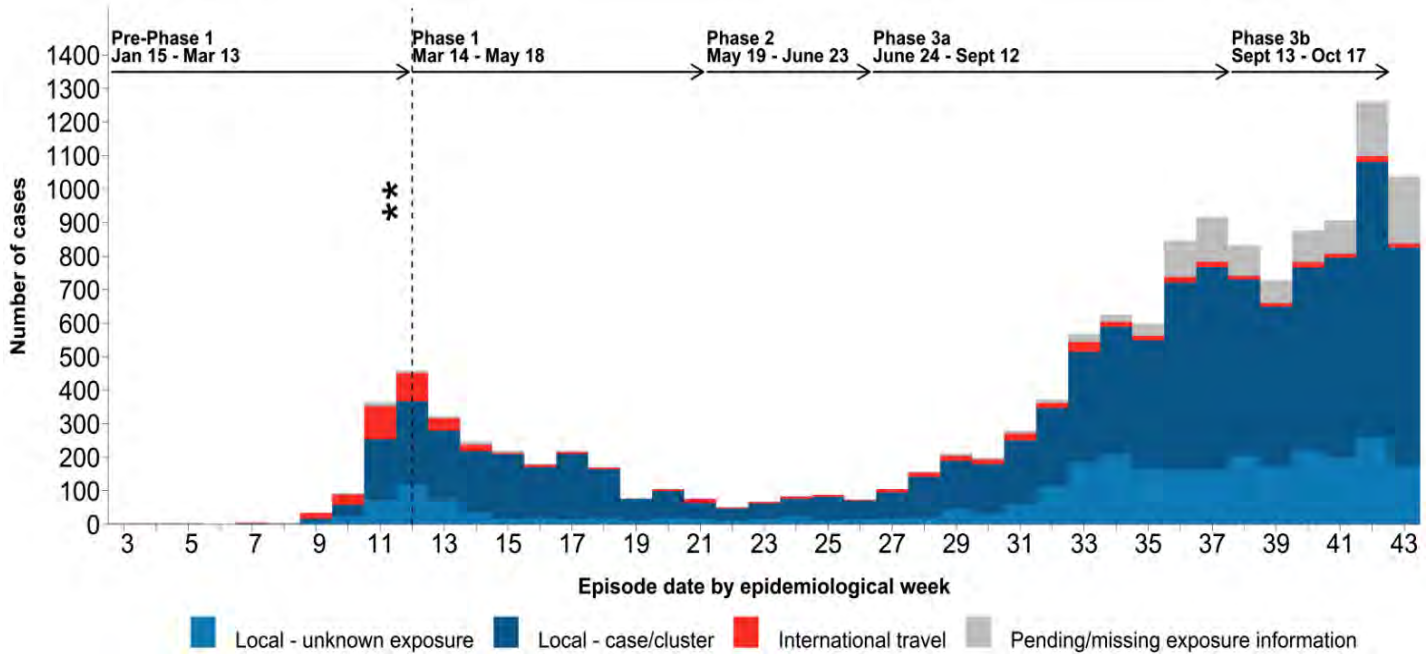
Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 43.

Table 4. Likely source of COVID-19 infection by pandemic phase[a] of episode date, British Columbia
January 15, 2020 (week 3) – October 24, 2020 (week 43)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	207 (46)	95 (21)	13 (3)
Phase 1	188 (9)	1,498 (72)	350 (17)	42 (2)
Phase 2	30 (8)	261 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,204 (65)	1,173 (24)	358 (7)
Phase 3b[a]	67 (1)	2,966 (64)	1,055 (23)	516 (11)
Week 43	13 (1)	651 (63)	174 (17)	199 (19)
Total	**614 (5)**	**8,787 (65)**	**2,929 (22)**	**1,130 (8)**

a. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 9. Likely source of COVID-19 infection by episode date, British Columbia
January 15, 2020 (week 3) – October 24, 2020 (week 43)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 5 and Figure 10** the number of care facility outbreaks is greater in the period following Phase 3a re-opening (63) compared to before Phase 3a (48), but the number of associated cases among residents is reduced by more than half (173 vs. 382) and among staff or visitors is lower by about 20% (189 vs. 231). Of 5,641 cases in total in BC with episode date in Phase 3b (inclusive of week 43), 179 (3%) have been associated with care facility outbreaks, a proportion similar to Phase 3a overall (184/4,917; 4%), but lower than before Phase 3a (613/2,903; 21%).

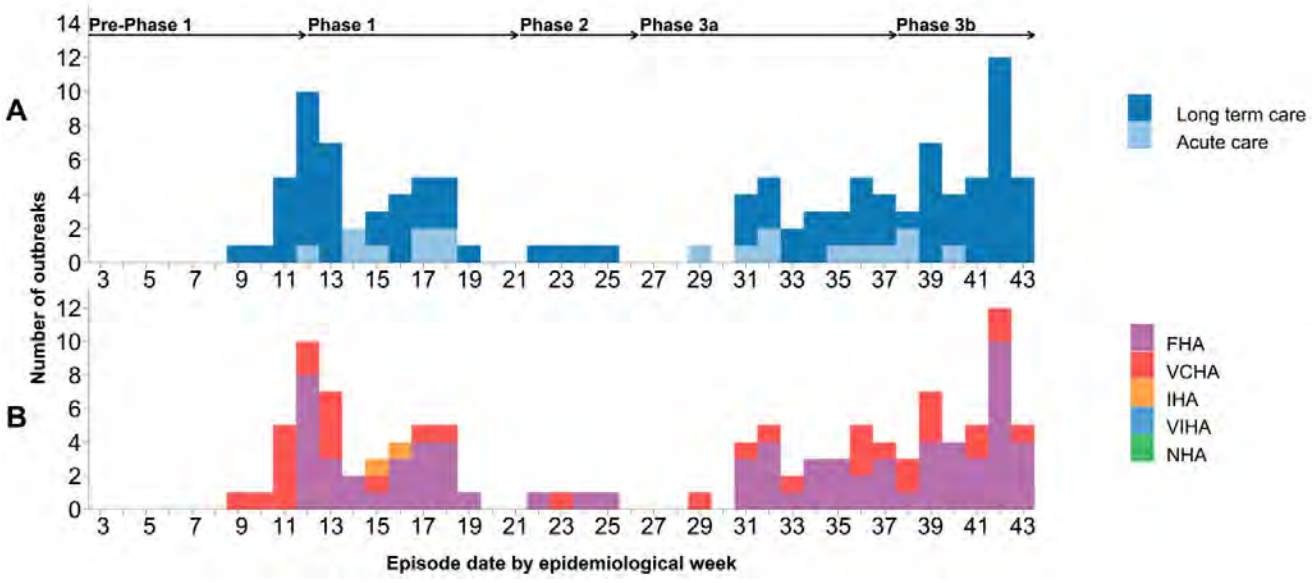
More than two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (181/258; 70%) and of those, more than two-thirds occurred before Phase 3a (120/172; 70%).

There were 15 new care facility outbreaks reported in week 43 (12 of which were reported by Fraser Health Authority), with 10 of these outbreaks having earliest onset date in preceding weeks. All of the 5 deaths in week 43 involved elderly adults 70+ years in a care facility setting. Two were from Fraser and three were from Vancouver Coastal Health Authorities.

Table 5. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date[b], BC January 15, 2020 (week 3) – October 24, 2020 (week 43) (N=111)

	Outbreaks	Cases[b]			Deaths[b]		
		Residents	Staff/visitors	Total	Residents	Staff/ visitors	Total
Total	**111**	**555**	**420**	**976**	**181**	**0**	**181**
Pre-/Phase One (17 weeks)	44	331	213	544	96	0	96
Phase 2 (5 weeks)	4	51	18	69	24	0	24
Phase 3a (11.5 weeks)	27	91	93	184	39	0	39
Phase 3b[c] (5 weeks)	31	64	85	150	17	0	17
Week 43	5	18	11	29	5	0	5
Active outbreaks[d]	21	-	-	-	-	-	-
Outbreaks declared over[d]	90	--	-	-	-	-	-

Figure 10. COVID-19 care facility outbreaks[a] by earliest case onset[e], facility type (A) and health authority[f] (B), BC January 15, 2020 (week 3) – October 24, 2020 (week 43) (N=111)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. Week/phase allocation for cases according to earliest symptom onset date and for deaths by death date, or if unavailable, then date case was reported to health authority.
c. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.
d. As of October 17, 2020
e. Earliest date of onset of outbreak cases are subject to change as investigations and data are updated.
f. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 11**) related to COVID-19 have shown an overall increasing trend from about week 28 stabilizing from week 39 to 41 at >13,000 calls per week but decreasing in weeks 42 and 43 to just over 10,000 calls.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 12**) related to COVID-19 (including telehealth) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to just over 2,500 visits in week 43.

Figure 11. HealthLink BC calls related to COVID-19, British Columbia
March 1, 2020 (week 10) – October 24, 2020 (week 43)

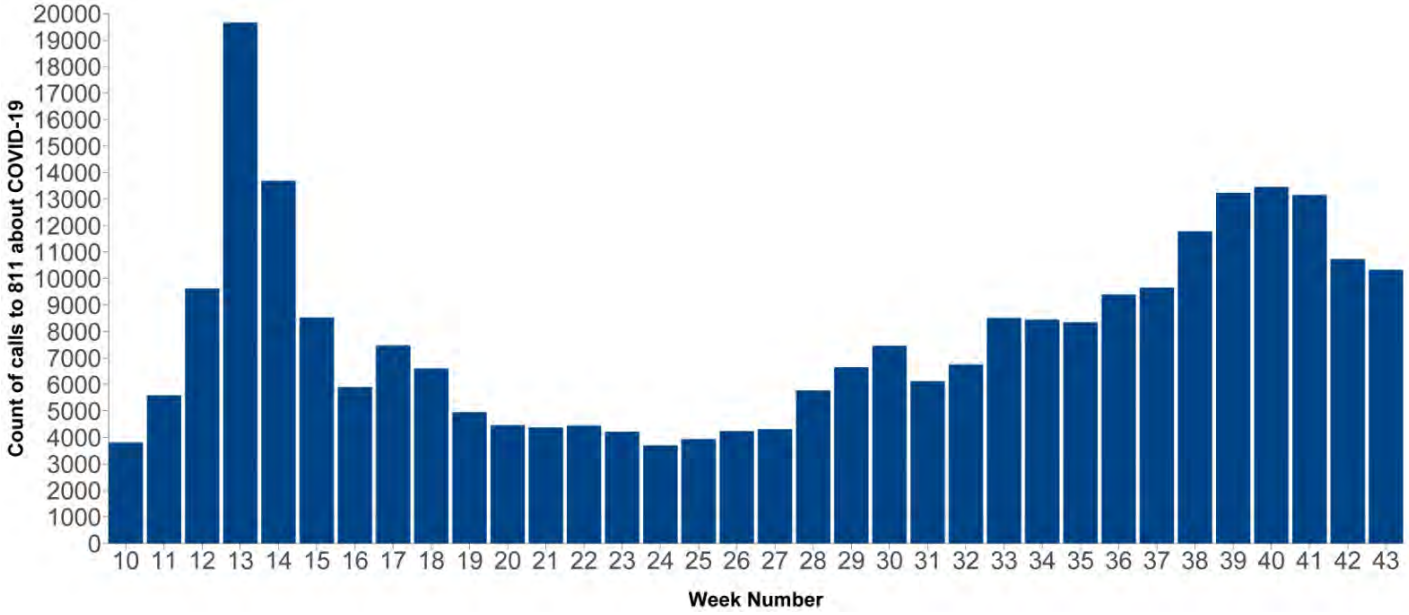
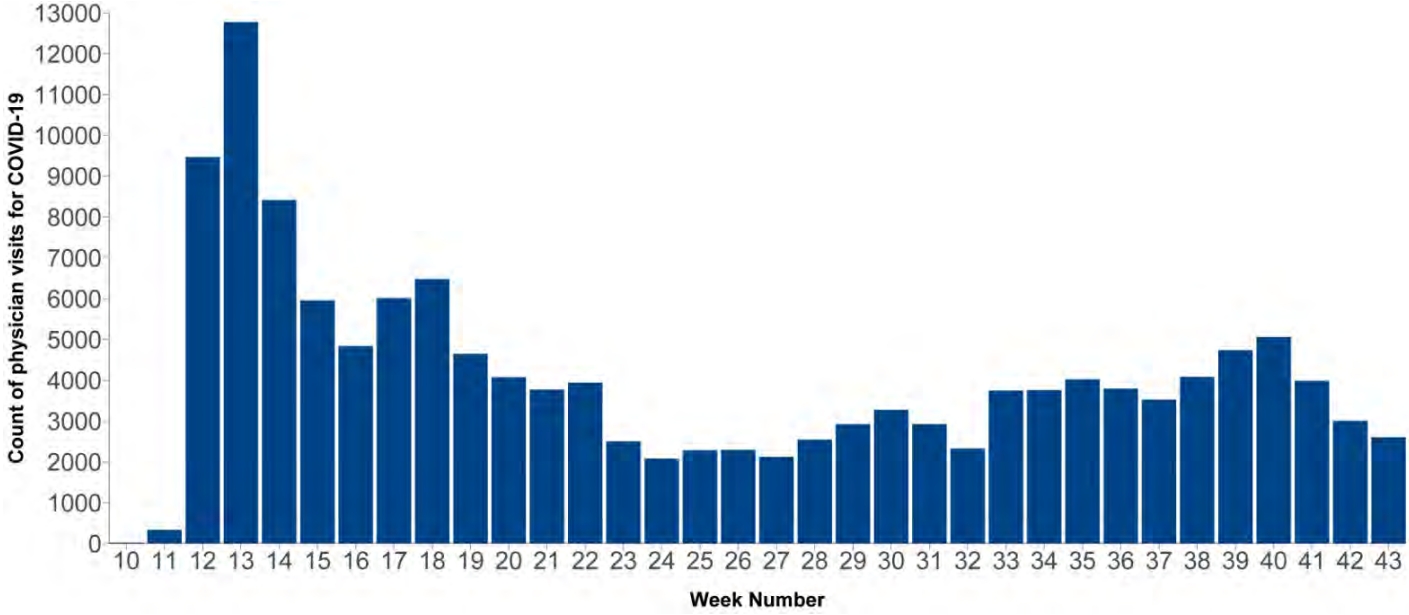


Figure 12. Medical Service Plan (MSP) claims (including telehealth) for COVID-19, British Columbia
March 1, 2020 (week 10) – October 24, 2020 (week 43)



British Columbia (BC)
COVID-19 Situation Report

BC Centre for Disease Control
Provincial Health Services Authority

This is EXHIBIT " " referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

A Commissioner for taking affidavits in British Columbia

British Columbia (BC) COVID-19 Situation Report
Week 44: October 25 – October 31, 2020

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Substantial increase in COVID-19 indicators in BC: variably apparent in most health authorities, foremost Fraser Health

During wave one, weekly COVID-19 incidence in BC peaked at 9 per 100,000 in week 12 (mid-March). After Phase 3a re-opening of services in week 26 (June), incidence has consistently surpassed 10 per 100K since week 33 (mid-August), increasing gradually to 18 per 100K by week 41 but jumping to 26 per 100K in week 42 (mid-October). Incidences for recent weeks 43 and 44 are already at least 30 per 100K, recognizing these will increase as data become more complete. Overall increased incidence through the month of October (week 41-44) is variably apparent in most Health Authorities, most substantially in Fraser Health Authority, least so to date in Vancouver Island Health Authority.

Percent positivity increased between week 41 and 44 (through October) from 1.4% to 3.8%. Prior peak positivity provincially was 4.6% during week 14 of wave one, a period of targeted high-risk testing when the number of tests per week was eight times lower. In Fraser Health Authority, positivity tripled from week 41 to 44 (2.0% to 6.1%) with increase in percent positivity in other HAs also, but less markedly.

Week 44 testing rates decreased in children <15 years old but increased in other age groups compared to prior weeks of Phase 3b (defined by the start of the school year). Percent positivity increased in week 44 to at least 3.0% in all age groups, highest at 5.1% in teens 15-19 years and elderly adults 80+ years.

Hospitalizations per week have increased provincially since week 33, peaking at 67 in current report week 44 – about one third lower so far than the first wave peak of 107 hospitalizations in week 13. However, the ultimate tally and timing of the [delayed] second wave peak in severe outcomes has yet to be determined.

Of 266 COVID-associated deaths recorded in total by end of week 44, about two-thirds occurred before Phase 3a, two-thirds were associated with a care facility outbreak, and 85% were 70+ years. In week 44, eight deaths were recorded of which two were associated with a facility outbreak and six were 70+ years old.

More care facility outbreaks occurred after vs before Phase 3a (75 vs 48), but with a third fewer resident cases (244 vs 382). In week 44, 12 outbreaks were reported.

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when these dates are unknown, report date is used.
- Data are provided by epidemiological week. Episode-based tallies and incidences for recent weeks, notably the current report week, are expected to increase as case data, notably onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- This bulletin refers to pandemic phases defined by population-level changes as described in the Table* on the next page.
- Unless otherwise specified, the current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed in some figures and tables.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

PRE-PHASE 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**PHASE 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**PHASE 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**PHASE 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**PHASE 3b** Start of school year Sept 13 (wk 38) to Current (wk 44), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there have been at least 1000 new COVID-19 reports per week in BC since week 42, including 1665 reports in week 43 (a two-third increase over week 42) and 1944 reports in week 44. The weekly tally by report date, however, includes cases with illness onset date in preceding weeks. In that regard, analyses based on episode date (i.e. illness onset date and only if that is unavailable, then report date) may better represent the evolution of the epidemic curve. The bars in **Figure 1** display the epidemic curve (i.e. tally of COVID-19 cases in BC by epidemiological week) based on episode date, coloured by health authority.

Cumulative tallies and incidence: provincially and by health authority (HA) (not shown)

Provincially, there has been a cumulative tally of 15,612 cases between week 3 (mid-January) and week 44 (end of October), corresponding to a cumulative incidence of 302 per 100,000 (100K). By HA, this cumulative tally (and incidence) includes: 9,036 cases in Fraser Health Authority (FHA: 466 per 100K); 4,984 cases in Vancouver Coastal Health Authority (VCHA: 412 per 100K); 796 cases in Interior Health Authority (IHA: 95 per 100K); 430 cases in Northern Health Authority (NHA: 150 per 100K); and 276 cases in Vancouver Island Health Authority (VIHA: 32 per 100K).

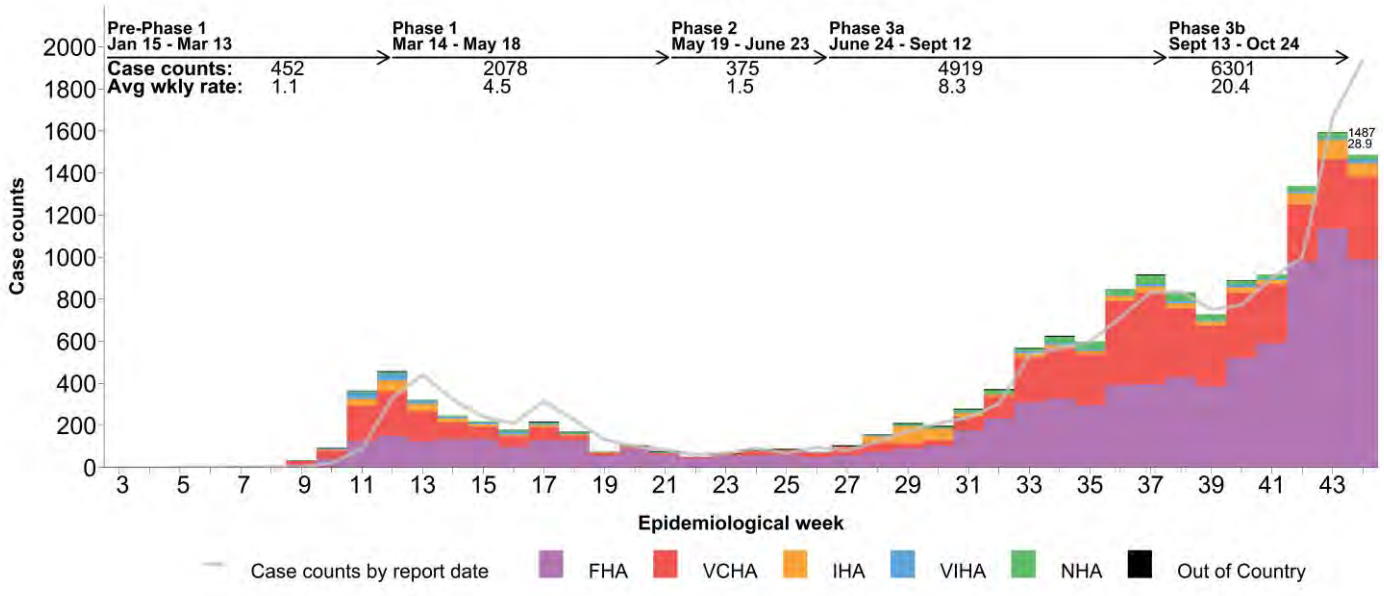
Episode-based tallies and incidence by week: provincially and by HA and health service district area (HSDA)

As shown in **Figure 1**, the weekly tally of COVID-19 cases by episode date in wave one peaked provincially during week 12 (mid-March), corresponding to a weekly incidence of 9 per 100K. After the Phase 3a re-opening of services, weekly incidence has consistently surpassed 10 per 100K since week 33 (mid-August), with gradual increase to 18 per 100K by week 41 (mid-October) but jumping to 26 per 100K in week 42. Incidence increased further to 31 per 100K in week 43, and as of data extraction for this bulletin is already 29 per 100K in week 44. Incidence for recent weeks will increase as data, notably onset dates, become more complete.

As shown in **Figure 2**, overall increase in incidence between week 41 and 44 is evident in all HAs, driven by FHA (increase from 30 to 51 per 100K) and VCHA (23 to 33 per 100K). In FHA, Fraser South HSDA has been most affected and in VCHA, Vancouver HSDA is driving rates. In IHA where week 41 to 44 rates increased from 3 to 8 per 100K, this has primarily been within the Okanagan HSDA. Incidence in NHA showed greater variability between weeks 41 and 44. In VIHA, incidence rates increased minimally between week 41 and 44 from 1 to 2 per 100K, notably in North Vancouver Island, while remaining the lowest rates overall by HA.

It warrants repeating that episode-based tallies for recent weeks will further increase as data become more complete.

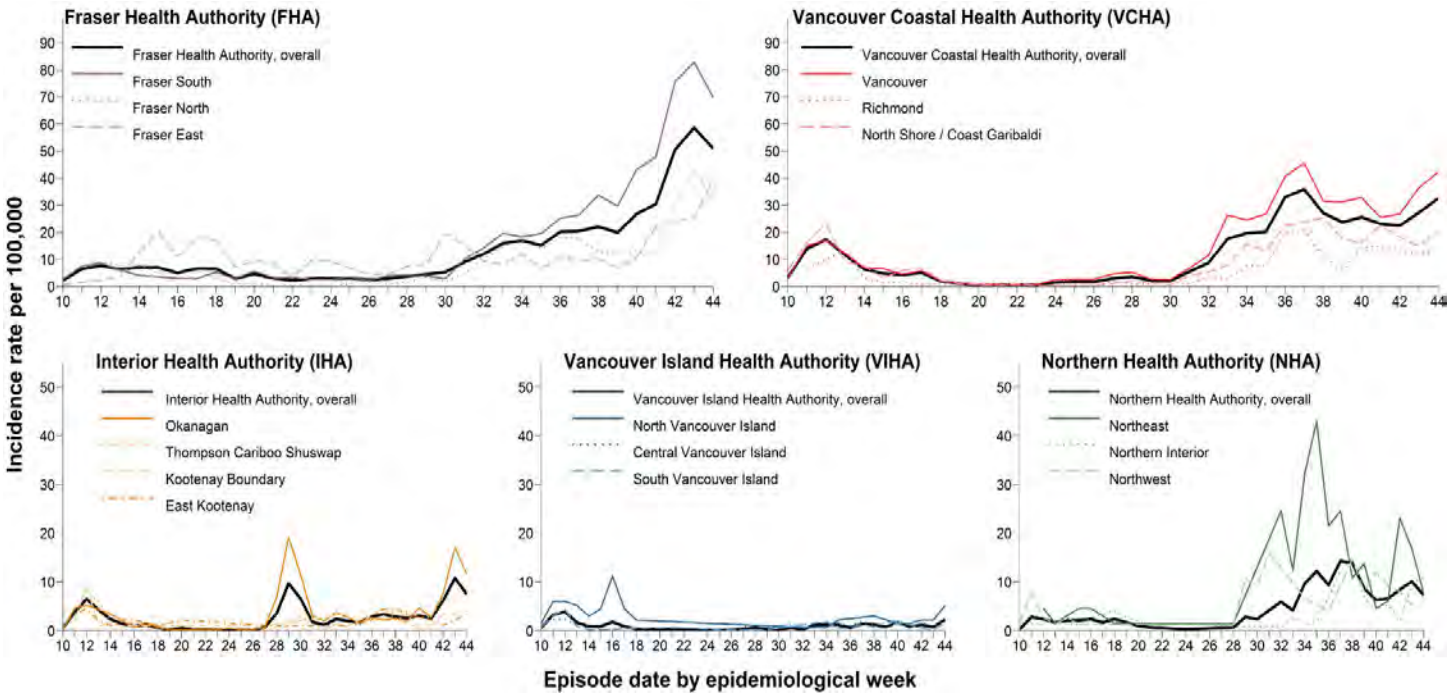
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44) (N= 15,612)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (6 weeks), excluding the current report week.

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Thursday, November 5, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), British Columbia March 1, 2020 (week 10) – October 31, 2020 (week 44)



B. Test rates and percent positive

As shown by the bars in **Figure 3**, the weekly number of respiratory specimens tested for SARS-CoV-2 in BC steadily increased from week 33 (~20,000) to weeks 40 and 41 (~70,000 each week), declining slightly in weeks 42 to 44 (~60,000 each week). Conversely, as shown by the line in **Figure 3**, the percent that were SARS-CoV-2 positive (i.e. percent positivity) has increased steadily from 1.4% in week 41, to 2.2% in week 42, 2.8% in week 43 and 3.8% in week 44. Prior peak positivity provincially was in wave one during week 14 (4.6%) when testing was targeted to high risk individuals and the number of tests per week (~7,500) was eight times lower than in week 44.

As shown in **Figure 4**, the SARS-CoV-2 testing rate per capita by health authority in BC was highest in VCHA, increasing substantially since week 32 to a peak of ~2000 per 100K population in weeks 40 and 41, followed by FHA where test rates also peaked in weeks 40 and 41 at ~1,500 per 100K. Conversely, the highest percent positivity was in FHA, where this has tripled across weeks 41 to 44 (2.0%, 3.6%, 4.5%, and 6.1%, respectively). Increase in percent positivity through the month of October (week 41-44) is also seen in VCHA (1.3%, 1.6%, 1.6%, and 2.3%), IHA (0.4%, 0.7%, 1.9% and 1.7%), and NHA (1.0%, 1.3%, 2.6% and 2.4%), although the latter two HAs are subject to greater variability given lower testing volumes. Positivity remained lowest in VIHA across this period (0.2%, 0.2%, 0.2% and 0.4%).

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, British Columbia March 15, 2020 (week 12) – October 31, 2020 (week 44) [a]

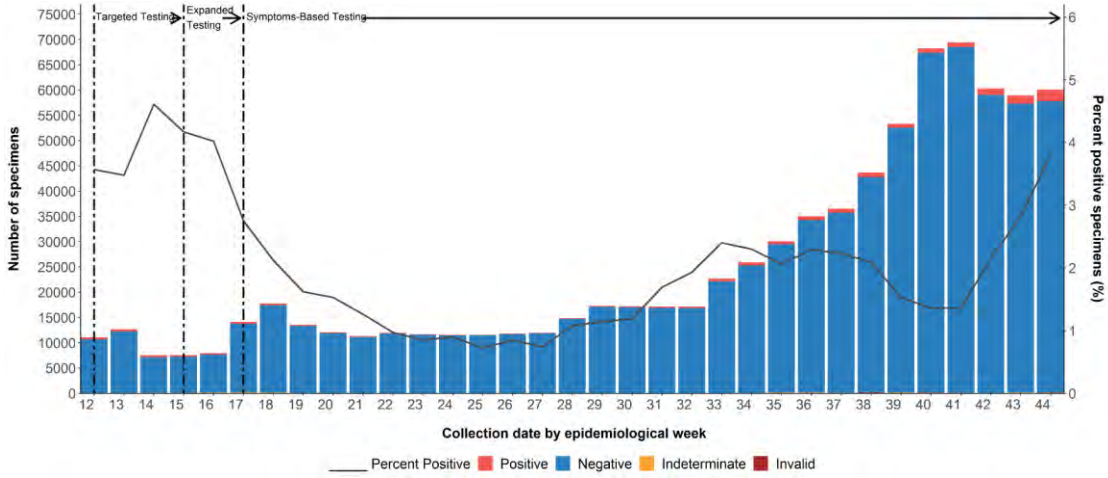
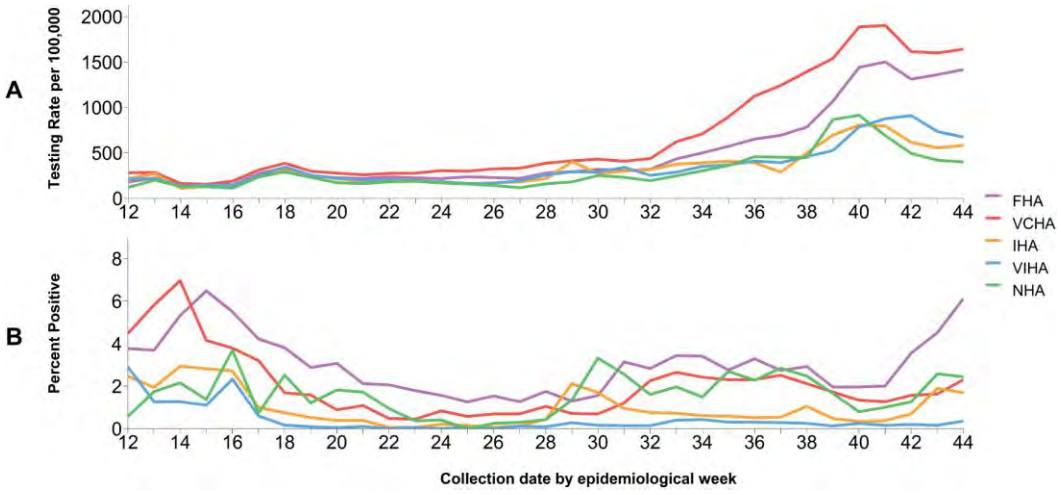


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, British Columbia March 15, 2020 (week 12) – October 31, 2020 (week 44) [a]



a. PLOVER extract on November 5, 2020 reflecting all clinical diagnostic laboratories in BC.
b. FHA=Fraser; IHA=Interior; VIHA=Vancouver Island; NHA=Northern; VCHA=Vancouver Coastal Health Authorities

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing surged in Phase 3b compared to Phase 3a, notably among children <15 years old following the start of the 2020-21 school year. Compared to average weekly testing rates across weeks 38-43 of Phase 3b, week 44 testing rates decreased among children <15 years old, whereas it increased in all other age groups. The highest testing rates in week 44 were among adults 20-39 years old.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 44 was at least 3% in all age groups and substantially higher than weeks 38-43 of Phase 3b for all age groups. In week 44, positivity was lowest in children <10 years old (3.0%), but highest in teens 15-19 years (5.1%) and elderly adults 80+ years (5.1%). In adults 20-39 years, percent positivity was 3.8%.

Case distribution by age group

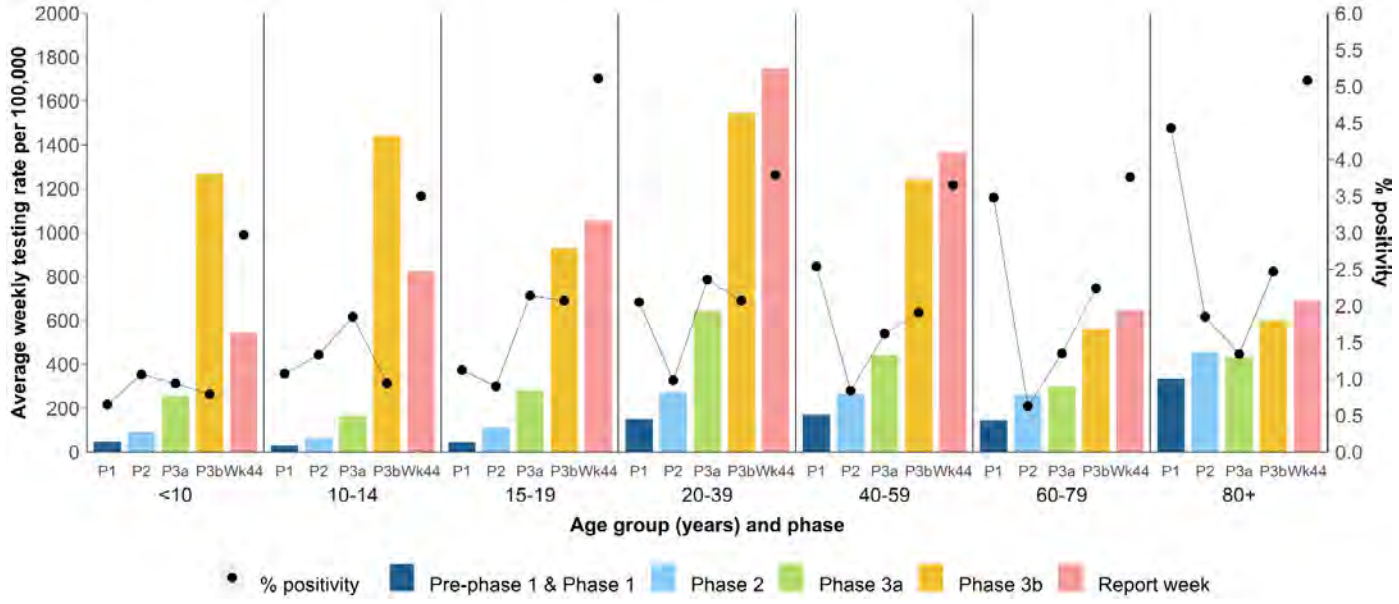
Children 10-19 years old contributed more in week 44 (12%) than across weeks 38-43 of Phase 3b (9%) or in Phase 3a (7%), notably teens 15-19 years (8%, 6%, 5%, respectively). Whereas in Phase 3a adults 20-39 years comprised 53% of all cases, they contributed less in weeks 38-43 of Phase 3b (43%) and current report week 44 (41%) (**Figure 6** and **Figure 7**). Adults 40-69 years comprised a greater share of cases in week 44 (36%) and weeks 38-43 of Phase 3b (36%) compared to Phase 3a (30%).

Incidence rates of cases by age group (not shown)

Among age groups as defined in Figure 5, incidence rates per 100K population in week 44 were highest in adults 20-39 years (43 per 100K), closely followed by 15-19 year-olds (41 per 100K) and lowest in children <10 years old (13 per 100K). Of note, incidence increased substantially from week 43 to 44 in elderly adults 80+ years (from 11 to 26 per 100K).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for Phase 3b (excluding week 44) and 35 years in week 44 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by age group and phase[a], British Columbia January 20, 2020 (week 4) – October 31, 2020 (week 44) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b: 6 weeks).

b. PLOVER extract on November 5, 2020 reflecting all diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc.

Figure 6. COVID-19 case distribution by known age group (years) and episode date, British Columbia March 15, 2020 (week 12) – October 31, 2020 (week 44) (N= 15,073)

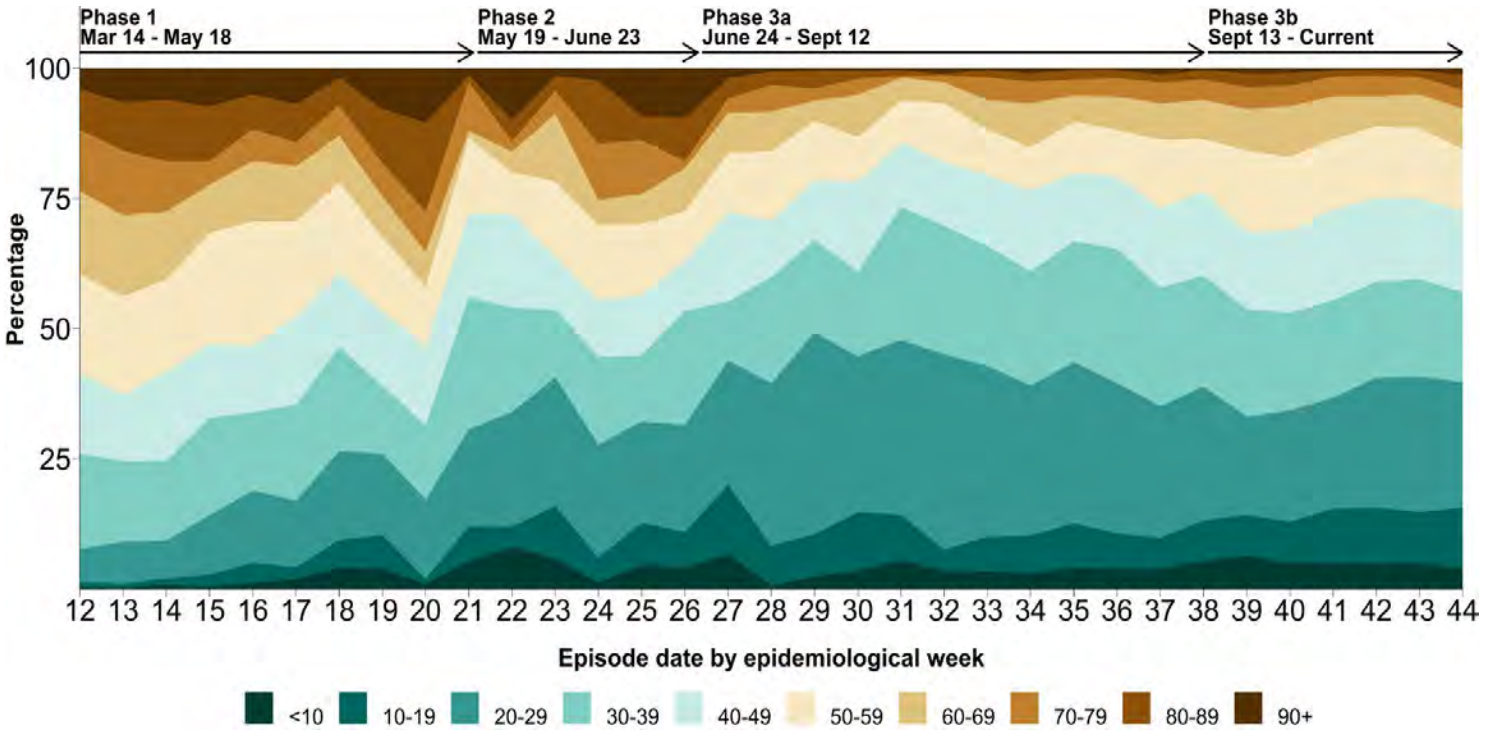
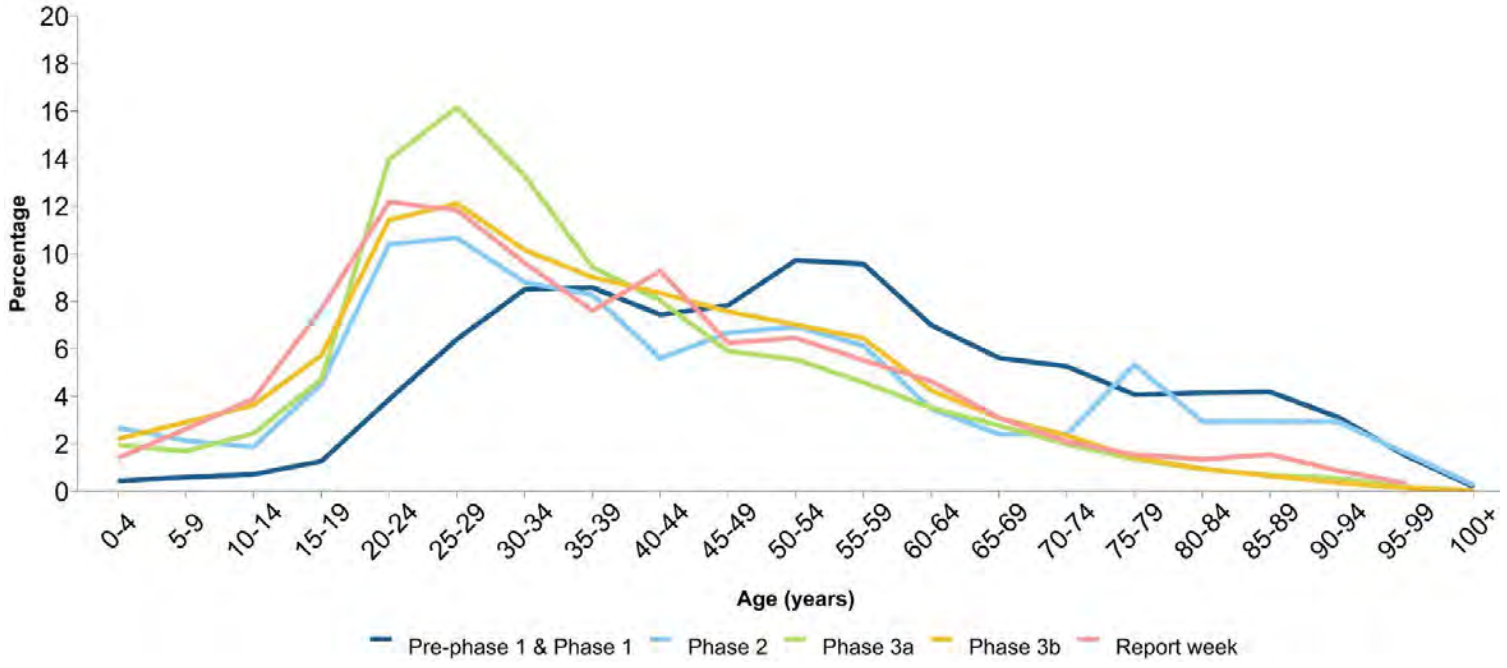


Figure 7. COVID-19 case distribution by known age group (years) and pandemic phase, British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44) (N= 15,577)



D. Severe outcome counts and epi-curve

Alongside the increase in cases, the number of hospitalizations has increased since week 33, peaking at 67 hospital admissions during the current report week 44 (**Figure 8**). Of the 8 deaths in week 44, two were associated with a care facility outbreak and 6 were 70+ years old. Of the 6 that were not associated with a care facility outbreak, 4 were 70+ years.

During the first wave, the peak number of hospitalizations per week was 107 in week 13 whereas to date during wave two the peak number of hospitalizations to date is about 35% lower than that at 67 hospitalizations in week 44. Similarly, the peak number of deaths during the first wave was 26 in week 15, whereas to date during the second wave the peak number is less than half that at 10 deaths in week 40. Given the ongoing increase in cases, however, the ultimate timing of the [delayed] second wave peak in severe outcomes has yet to be determined.

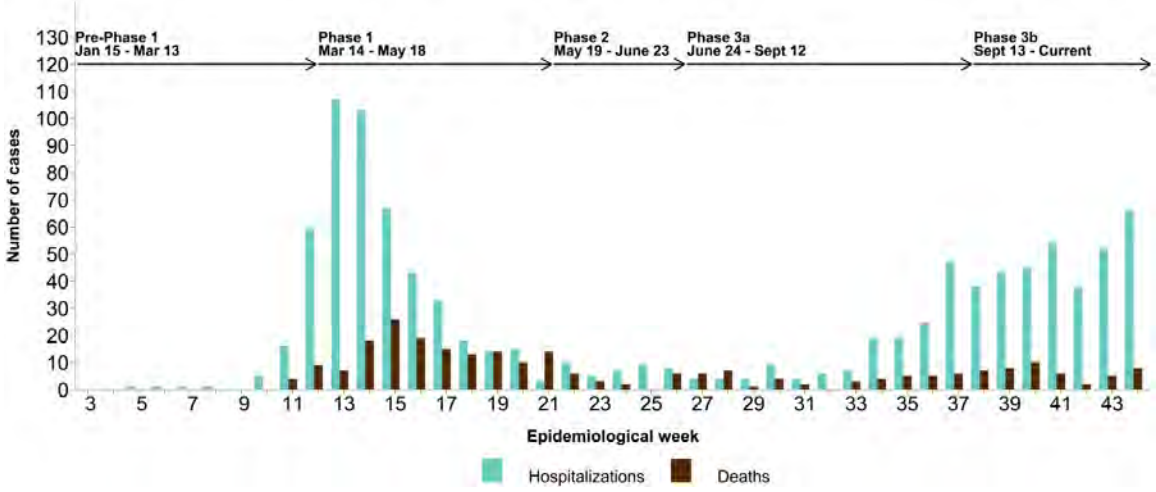
Overall to date, ~ 80% of COVID-19 cases in BC accrued after Phase 3a re-opening (12,707/15,612; 81%). As shown in **Table 2 and Figure 8**, however, more hospitalizations (527/1,019; 52%) and deaths (173/266; 65%) occurred before Phase 3a. Overall, males comprise 7,878/15,560 (51%) cases, 609/1,017 (60%) hospitalizations, 187/301 (62%) ICU admissions, and 154/266 (58%) deaths with known sex to date (not shown).

Table 2. COVID-19 severe outcomes by episode date, health authority of residence, and phase, British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	549	45	26	32	361	6	**1,019/15,612 cases (7)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	246	29	25	12	177	2	491/1,019 (48)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/1,019 (4)
Phase 3a (11.5 weeks)	96	5	0	10	40	2	153/1,019 (15)
Phase 3b (6 weeks, excluding week 44)	136	10	1	8	116	1	272/1,019 (27)
Week 44	45	0	0	0	22	0	67/1,019 (7)
Ever ICU	140	16	9	16	118	2	**301/15,612 cases (2)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/301 (57)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/301 (3)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/301 (16)
Phase 3b (6 weeks, excluding week 44)	29	2	0	1	32	0	64/301 (21)
Week 44	4	0	0	0	2	0	6/301 (2)
Deaths	**119**	**2**	**6**	**3**	**128**	**0**	**266/15,612 cases (2)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	146/266 (55)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/266 (10)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	45/266 (17)
Phase 3b (6 weeks, excluding week 44)	20	0	1	2	12	0	40/266 (15)
Week 44	3	1	0	0	4	0	8/266 (3)

a. Outcomes with unknown status are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 8. COVID-19 hospitalization admissions (n= 1,010) and deaths (n= 255) British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44)



E. Age profile, severe outcomes

As shown in **Table 3** and **Figure 9**, elderly adults 70+ years comprise 9% of COVID-19 cases, commensurate with their share of the general population of BC (14%), but are greatly over-represented among hospitalizations (42%) and deaths (84%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (18%) but a commensurate proportion of deaths (11%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 27% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (5%).

Adults 20-39 years comprise a greater share of COVID-19 cases (44%) than their share of the BC population (27%), but are under-represented among COVID-19 hospitalizations (13%) and deaths (0%).

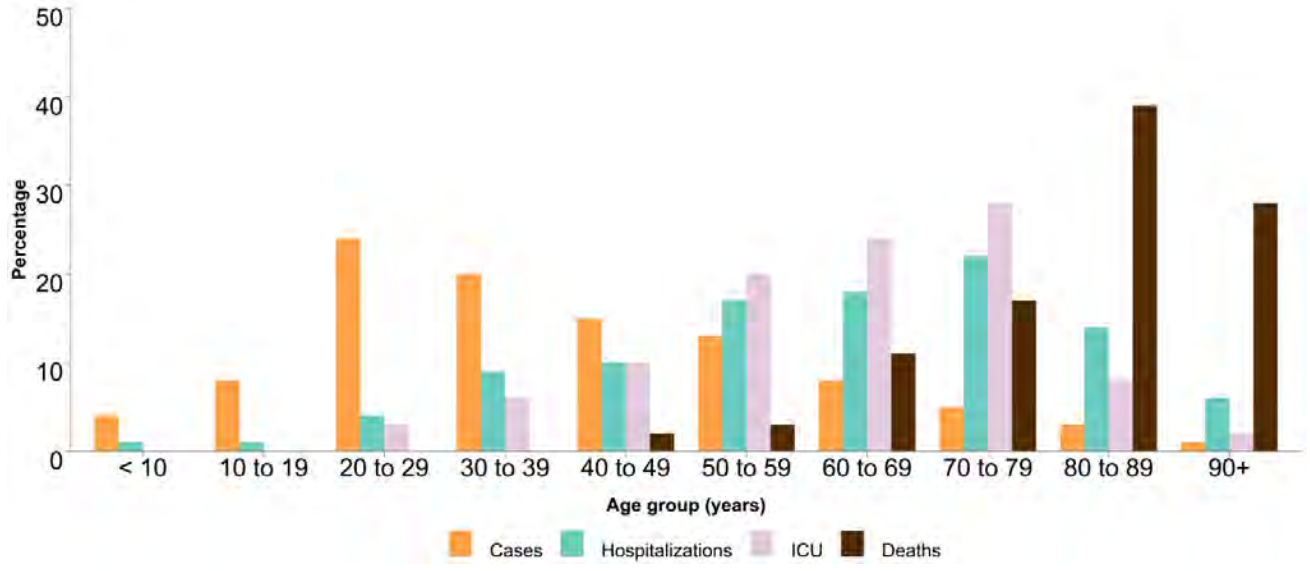
Children <20 years are under-represented overall among COVID-19 cases (12%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (59 vs. 69 years) but older for deaths (86 vs. 84 years).

Table 3. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and British Columbia population January 15, 2020 (week 3) – October 31, 2020 (week 44)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	605 (4)	11 (1)	0 (0)	0 (0)	469,351 (9)
10-19	1,188 (8)	7 (1)	0 (0)	0 (0)	527,805 (10)
20-29	3,661 (24)	38 (4)	8 (3)	0 (0)	697,691 (14)
30-39	3,077 (20)	87 (9)	18 (6)	0 (0)	735,052 (14)
40-49	2,351 (15)	103 (10)	29 (10)	4 (2)	646,035 (13)
50-59	2,062 (13)	168 (17)	60 (20)	7 (3)	718,272 (14)
60-69	1,227 (8)	185 (18)	72 (24)	29 (11)	673,131 (13)
70-79	721 (5)	222 (22)	84 (28)	46 (17)	435,062 (8)
80-89	456 (3)	139 (14)	25 (8)	105 (39)	187,443 (4)
90+	229 (1)	58 (6)	5 (2)	75 (28)	49,726 (1)
Total	**15,577**	**1,018**	**301**	**266**	**5,139,568**
Median age	**37**	**64**	**65**	**85**	**41**

Figure 9. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44) (N=15, 577)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 4** and **Figure 10**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

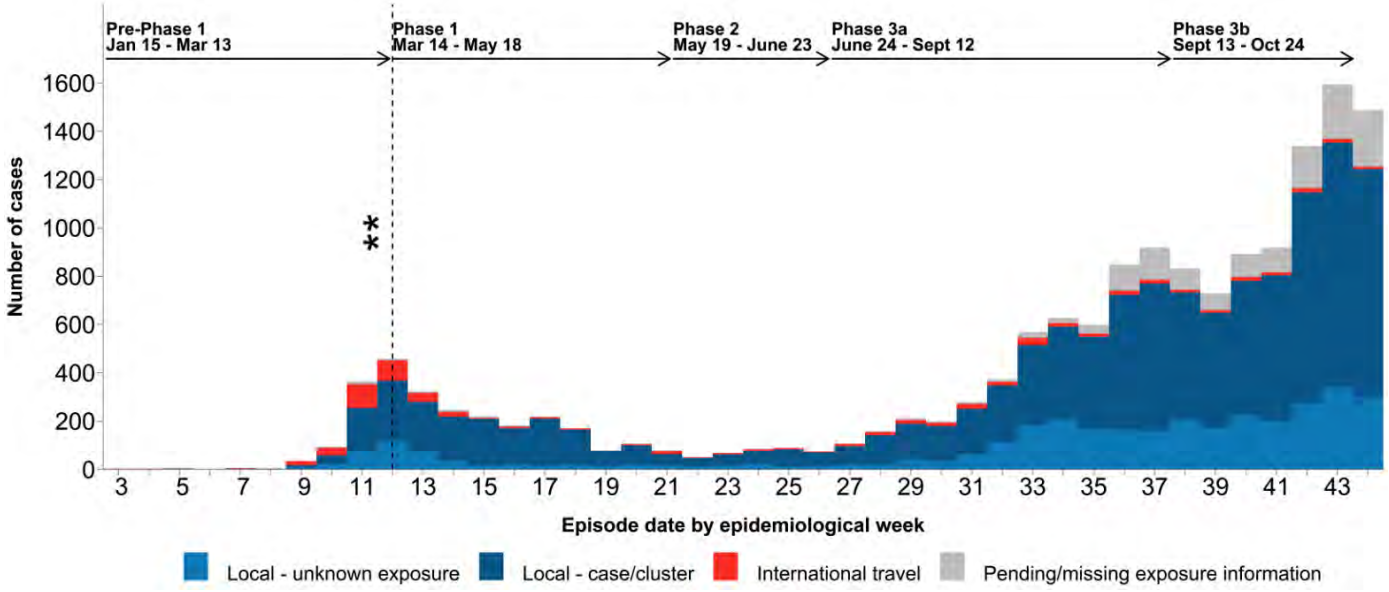
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 44.

Table 4. Likely source of COVID-19 infection by pandemic phase of episode date, British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	208 (46)	95 (21)	14 (3)
Phase 1	188 (9)	1498 (72)	350 (17)	42 (2)
Phase 2	30 (8)	261 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,207 (65)	1,174 (24)	357 (7)
Phase 3b[a]	84 (1)	4,046 (64)	1,415 (22)	756 (12)
Week 44	10 (1)	941 (63)	302 (20)	234 (16)
Total	**628 (4)**	**10,161 (65)**	**3,418 (22)**	**1,405 (9)**

Figure 10. Likely source of COVID-19 infection by episode date, British Columbia January 15, 2020 (week 3) – October 31, 2020 (week 44)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 5** and **Figure 11** the number of care facility outbreak reports is more than 50% greater after Phase 3a re-opening (75) compared to before Phase 3a (48), but the number of associated cases among residents is about one third lower (244 vs. 382). The number of associated cases among staff or visitors is about the same (235 vs. 231). Of 7,788 cases in total in BC with episode date in Phase 3b (inclusive of week 44), 295 (4%) have been associated with care facility outbreaks, a proportion similar to Phase 3a overall (184/4,919; 4%), but lower than before Phase 3a (613/2,905; 21%).

More than two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (183/266; 69%) and of those, more than two-thirds occurred before Phase 3a (121/173; 70%).

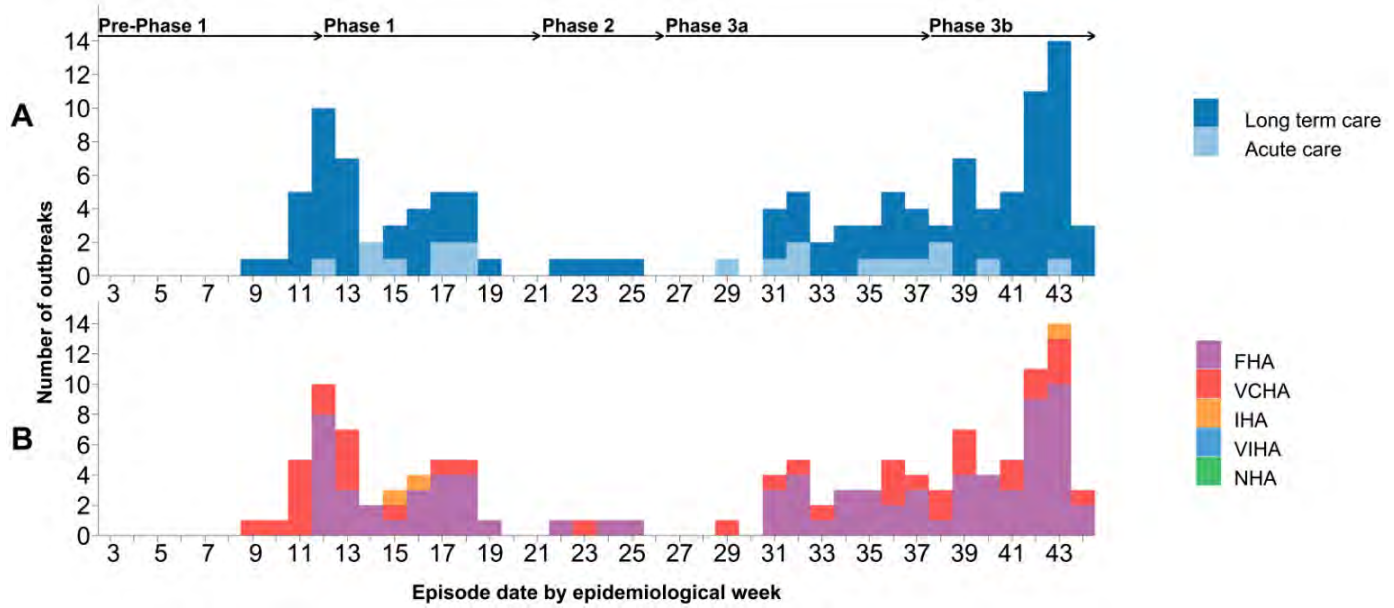
There were 12 new care facility outbreaks reported in week 44 (8 of which were reported by Fraser Health Authority, 3 by VCHA and 1 by IHA), with 8 of these outbreaks having earliest onset date in preceding weeks.

Two of the 8 deaths reported in week 44 involved elderly adults 80+ years in a care facility setting in Fraser Health Authority.

Table 5. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – October 31, 2020 (week 44) (N=123)

	Outbreaks	Cases			Deaths		
		Residents	Staff/visitors	Total	Residents	Staff/ visitors	Total
Total	**123**	**626**	**464**	**1,092**	**183**	**0**	**183**
Pre-/Phase One (17 weeks)	44	331	213	544	97	0	97
Phase 2 (5 weeks)	4	51	18	69	24	0	24
Phase 3a (11.5 weeks)	27	91	93	184	38	0	38
Phase 3b (6 weeks)	45	87	112	199	22	0	22
Week 44	3	66	30	96	2	0	2
Active outbreaks[b]	25	-	-	-	-	-	-
Outbreaks declared over[b]	97	-	-	-	-	-	-

Figure 11. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – October 31, 2020 (week 44) (N=123)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of October 31, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 12**) related to COVID-19 have shown an overall increasing trend from about week 28 stabilizing from week 39 to 41 at >13,000 calls per week but decreasing in weeks 42 and 43 to just over 10,000 calls. In week 44, call volume increased to just over 11,000 calls.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 13**) related to COVID-19 (including telehealth) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to stabilize at around 3,000 visits in weeks 42 and 43; and increasing to just over 3,100 visits in week 44.

Figure 12. HealthLink BC calls related to COVID-19, British Columbia
March 1, 2020 (week 10) – October 31, 2020 (week 44)

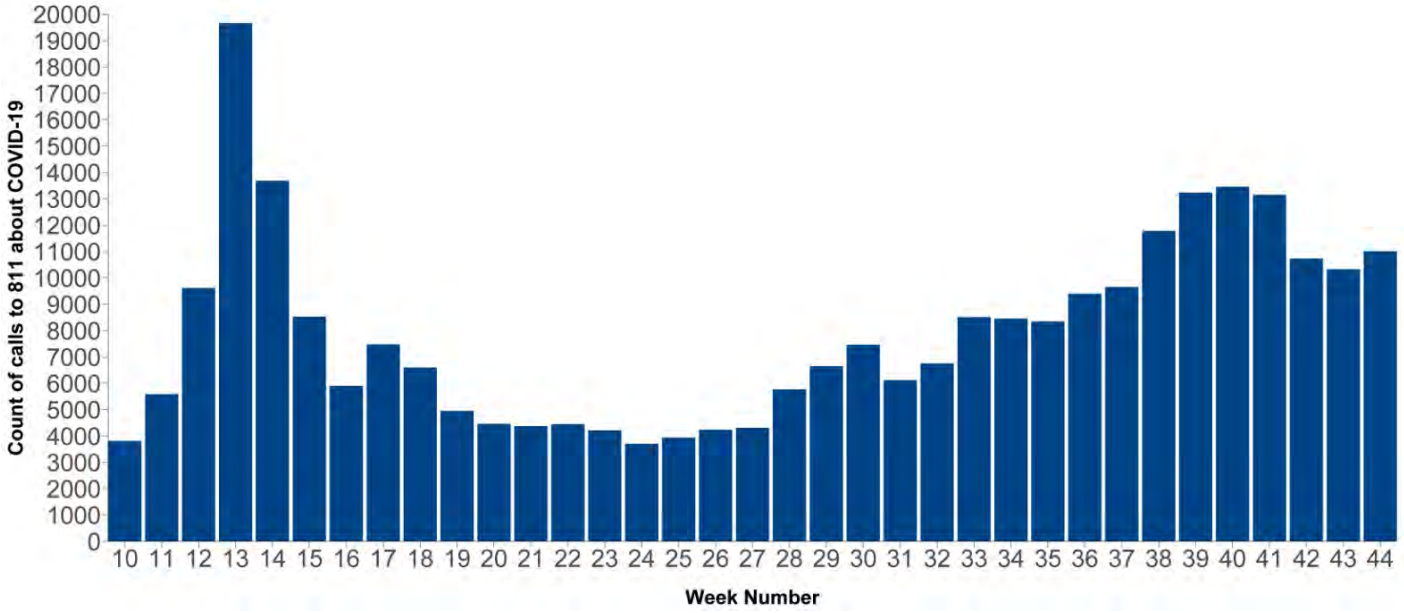
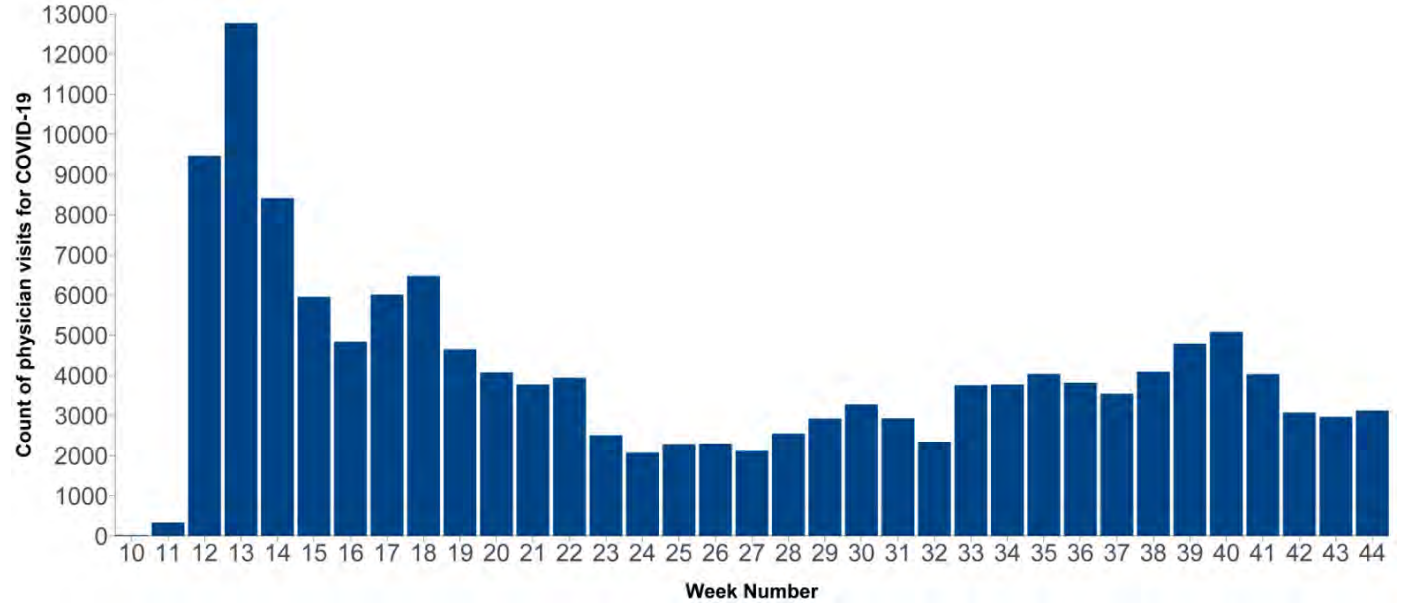


Figure 13. Medical Service Plan (MSP) claims (including telehealth) for COVID-19, British Columbia
March 1, 2020 (week 10) – October 31, 2020 (week 44)



British Columbia (BC)
COVID-19 Situation Report

BC Centre for Disease Control
Provincial Health Services Authority

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

A Commissioner for taking affidavits in British Columbia

British Columbia (BC) COVID-19 Situation Report
Week 45: November 1 – November 7, 2020

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Steep autumn climb in COVID-19 indicators continues in BC, becoming more generalized across age groups and regions

COVID-19 incidence in BC continued its upward trajectory through the first week of November, exceeding 48 per 100K in week 45, more than 2.5 times higher than the first week of October (week 41: 18 per 100K). Week 45 incidence increased in all health authorities, highest in Fraser (FHA: 93 per 100K) and Vancouver Coastal (VCHA: 41 per 100K), lowest in Vancouver Island (VIHA: 4 per 100K). Note that recent weeks' tallies are expected to increase as data become more complete.

Percent positivity in week 45 was 5.4%, exceeding peak positivity in week 14 of wave one (4.6%) when testing was targeted to the high-risk. Week 45 positivity was elevated in most HAs, highest in FHA (7.8%), followed by VCHA (3.9%), Northern Health Authority (NHA: 3.6%), and Interior Health Authority (IHA: 2.9%). Percent positivity also increased in VIHA, but remained below 1% overall.

Percent positivity was at least 4% in all age groups in week 45: lowest in children <15 years (4%), highest in adults 60+ years (6%). Week 45 incidence exceeded 50 per 100K in age groups 15-49 years (highest in adults 20-29 years: 85 per 100K). Compared to week 41, the week 45 incidence also increased by at least two-fold in other age groups and by five-fold in elderly adults 80+ years (7 to 35 per 100K).

There were 104 hospitalizations with a known admission date in week 45, a 28% increase from week 44 (81) and almost double the week 41 tally (55). The week 45 tally is already comparable to the first wave peak of 107 hospital admissions in week 13. Given ongoing increase in cases, the ultimate tally and timing of the second wave peak in severe outcomes has yet to be determined.

In week 45, 13 deaths were recorded, an increase from week 44 (8) and about twice the week 43 tally (7) but half the first wave peak of 26 deaths in week 15. In week 45, 8/13 deaths were associated with a care facility outbreak and 11/13 were 70+ years old. Of 279 deaths in total in BC, about two-thirds (190) were associated with a care facility outbreak and 85% (237) were 70+ years.

There were 17 care facility outbreaks reported in week 45 (13 by FHA, 2 in VCHA and 1 each in IHA and NHA), 9 with earliest onset date in prior weeks. Facility outbreak tallies by earliest onset date are highest so far in week 43 (14 outbreaks).

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, and unless otherwise specified, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. When these dates are unknown, report date is used.
- Data are provided by epidemiological week. Episode-based tallies and incidences for recent weeks, notably the current report week, are expected to increase as case data, in particular onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- This bulletin refers to pandemic phases defined by population-level changes as described in the Table* on the next page.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 44), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there have been at least 1,000 new COVID-19 reports per week in BC since week 42, with 3,115 reports in week 45, a 60% increase over the 1,941 reports in week 44. The weekly tally by report date, however, includes cases with illness onset date in preceding weeks. In that regard, analyses based on episode date (i.e. illness onset date and only if that is unavailable, then report date) may better represent the evolution of the epidemic curve. The bars in **Figure 1** display the epidemic curve (i.e. tally of COVID-19 cases in BC by epidemiological week) based on episode date, coloured by health authority.

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

Provincially, there was a cumulative tally of 18,985 cases between week 3 (mid-January) and week 45 (first week of November), corresponding to a cumulative incidence of 368 per 100,000 (100K) during that period. By HA, this cumulative tally (and incidence) includes: 11,606 cases in Fraser Health Authority (FHA: 599 per 100K); 5,588 cases in Vancouver Coastal Health Authority (VCHA: 462 per 100K); 906 cases in Interior Health Authority (IHA: 109 per 100K); 481 cases in Northern Health Authority (NHA: 168 per 100K); and 315 cases in Vancouver Island Health Authority (VIHA: 36 per 100K).

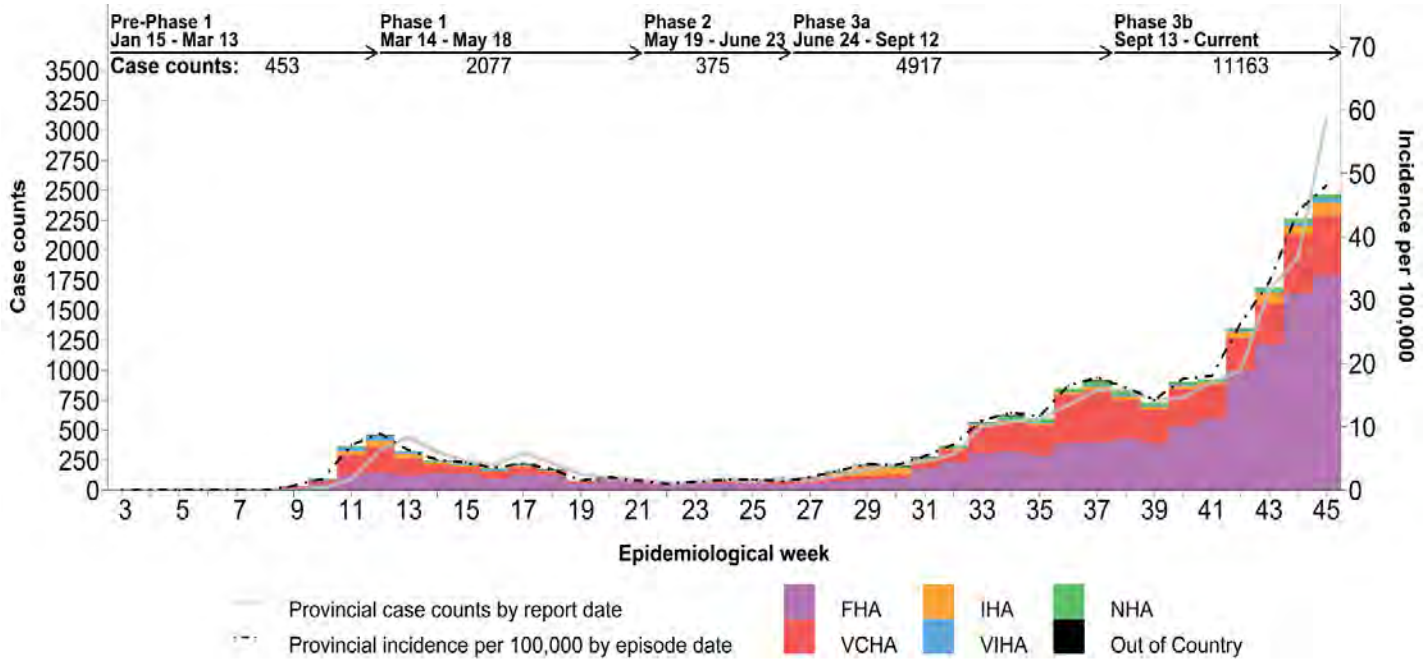
Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

As shown in **Figure 1**, the weekly tally of COVID-19 cases by episode date in wave one peaked provincially during week 12 (mid-March), corresponding to a weekly incidence of 9 per 100K. After the Phase 3a re-opening of services in week 26 (June), weekly incidence has consistently surpassed 10 per 100K starting week 33 (mid-August), with gradual increase to 18 per 100K by week 41 but jumping to 26 per 100K in week 42 (mid-October). Incidence increased to 33 per 100K in week 43. As of data extraction for the current bulletin, there were 2,262 cases with episode date in week 44 and 2,470 with episode date in week 45, corresponding to incidences of 44 and 48 per 100K, respectively. Note that the week 45 episode-based incidence is already 2.5 times higher than week 41 and is expected to further increase as data, notably onset dates, become more complete.

As shown in **Figure 2**, increase in weekly incidence from week 41 to 45 is evident in all HAs, driven by FHA (a three-fold increase from 31 to 93 per 100K) and VCHA (an 80% increase from 23 to 41 per 100K). In FHA, Fraser South HSDA has been most affected and in VCHA, Vancouver HSDA is driving rates. In IHA, week 41 to 45 rates increased from 3 to 13 per 100K, driven by the Okanagan HSDA. Incidence also increased in NHA from 7 to 13 per 100K between weeks 41 and 45. In VIHA, incidence increased from 1 to 4 per 100K between weeks 41 and 45, notably in North Vancouver Island, while remaining the lowest overall by HA.

It warrants repeating that episode-based tallies for recent weeks will further increase as data become more complete.

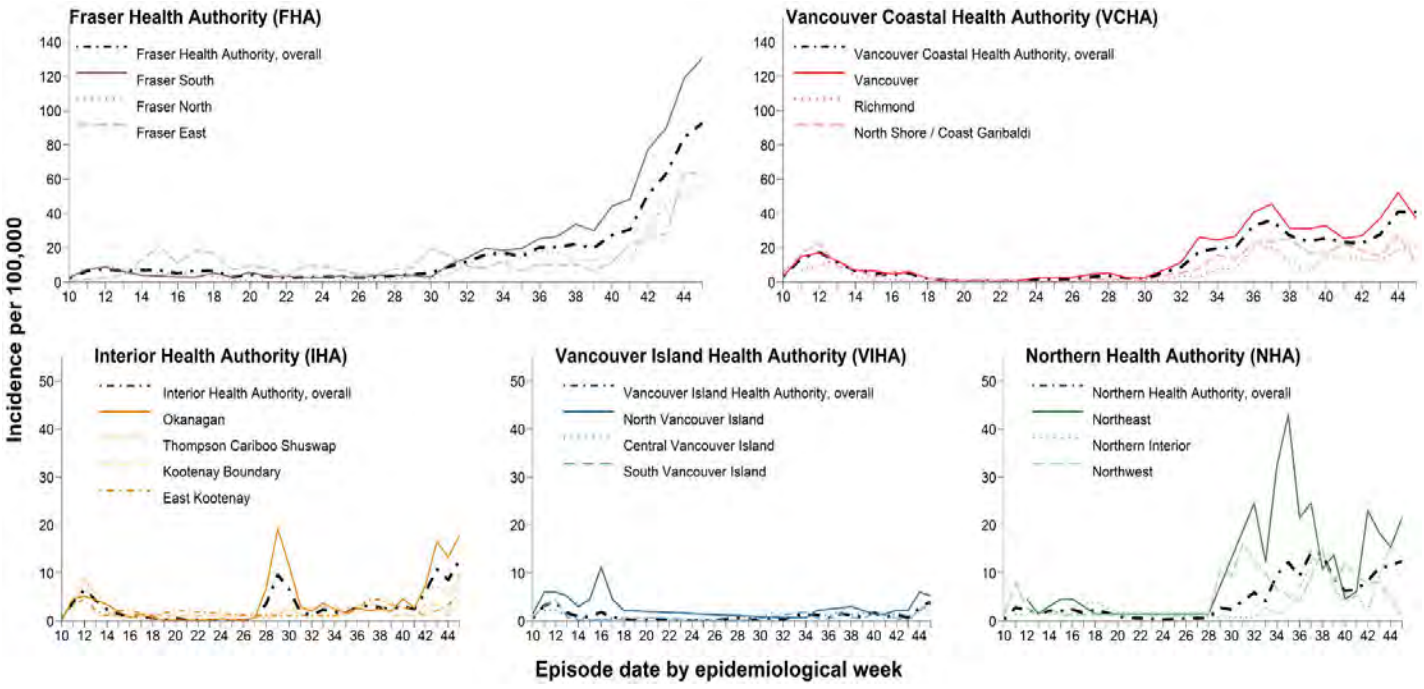
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), BC January 15, 2020 (week 3) – November 7, 2020 (week 45) (N= 18,985)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (8 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Thursday, November 12, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – November 7, 2020 (week 45)



B. Test rates and percent positive

As shown by the bars in **Figure 3**, the weekly number of respiratory specimens tested for SARS-CoV-2 in BC was highest at about 70,000 tests per week in weeks 40 and 41, declining slightly in weeks 42 to 44 (~60,000 each week) and increasing to about 64,000 tests in week 45. As shown by the line in **Figure 3**, the percent that were SARS-CoV-2 positive (i.e. percent positivity) has increased steadily and steeply from 1.4% in week 41 to 5.4% in week 45, now exceeding the peak positivity during wave one in week 14 (4.6%) when testing was targeted to high risk individuals and the number of tests per week (~7,500) was more than eight times lower than in week 45.

As shown in **Figure 4**, the SARS-CoV-2 testing rate per capita by health authority in BC remains highest in VCHA followed by FHA. Conversely, the highest percent positivity is in FHA, where it has increased substantially across weeks 41 to 45 (nearly quadrupling from 2.0% to 7.8%, respectively). Substantial increase (roughly tripling) in percent positivity between weeks 41 and 45 is also evident in VCHA (from 1.3% to 3.9%), NHA (from 1.0% to 3.6%), and IHA (from 0.4% to 2.9%). Positivity also increased in VIHA (from 0.2% to 0.7%) but remained <1% and the lowest provincially.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – November 7, 2020 (week 45)[a]

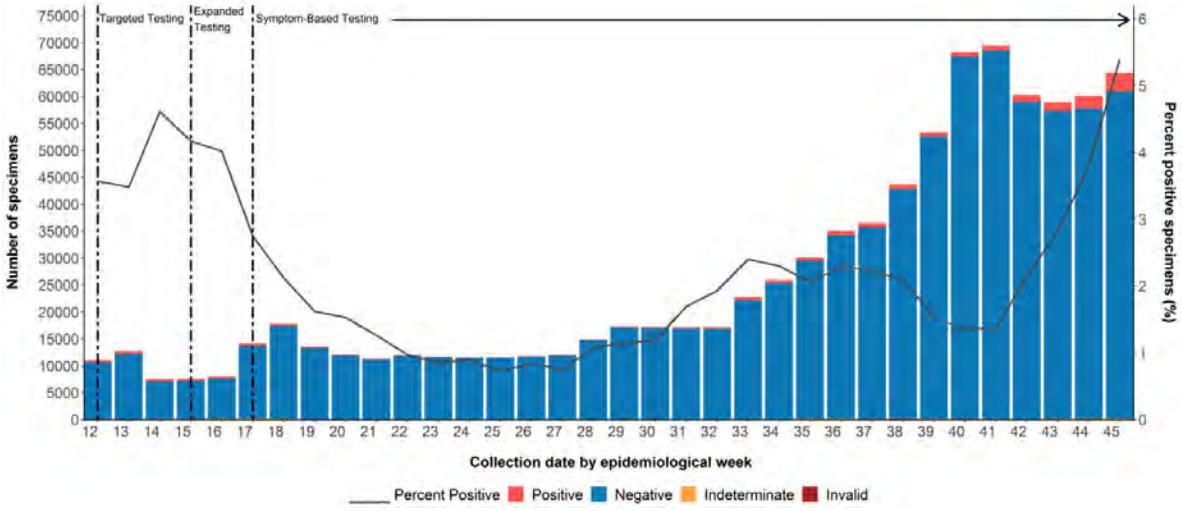
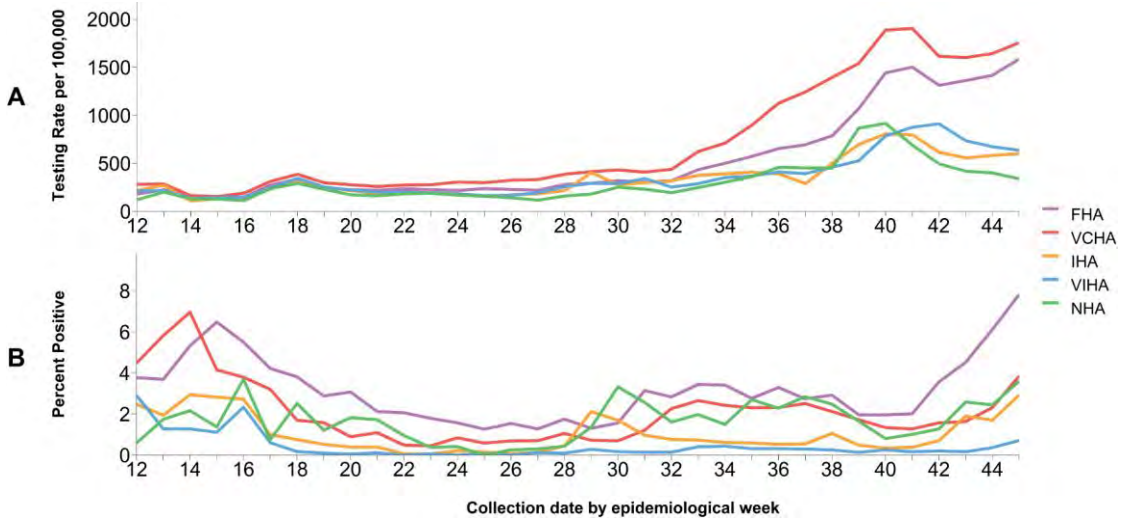


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – November 7, 2020 (week 45) [a]



a. PLOVER extract on November 12, 2020 reflecting all clinical diagnostic laboratories in BC.
b. FHA=Fraser; IHA=Interior; VIHA=Vancouver Island; NHA=Northern; VCHA=Vancouver Coastal Health Authorities.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing surged in Phase 3b compared to Phase 3a, notably among children <15 years old following the start of the 2020-21 school year. Compared to average weekly testing rates across prior weeks 38-44 of Phase 3b, week 45 testing rates decreased among children <15 years old, whereas it increased in all other age groups. The highest testing rates in week 45 were among adults 20-39 years old.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 45 increased substantially from prior weeks 38-44 of Phase 3b, exceeding 4% in all age groups. In week 45, positivity was lowest in children <10 years old (4.5%) and 10-14 years (4.3%). Positivity was 5.7% in each of 15-19 and 20-39 year olds, lower among those 40-59 years (4.8%), but highest of all age groups among adults 60-79 years (6.2%) and 80+ years (6.4%).

Case distribution by age group

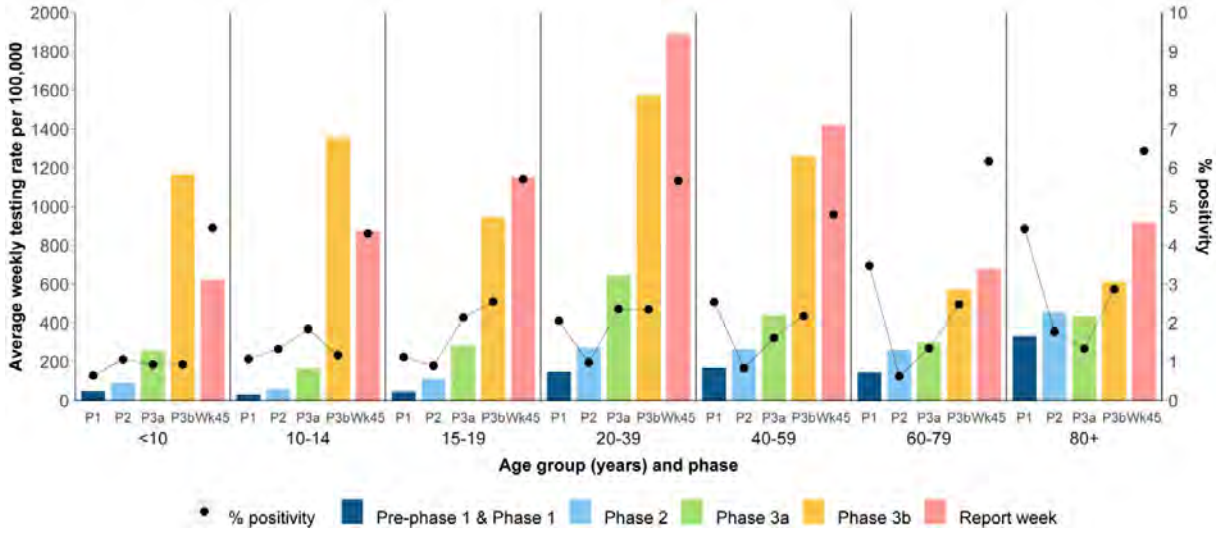
As shown in **Figure 6** and **Figure 7**, the percentage distribution of cases by age group remained fairly stable in week 45 compared to prior weeks 38-44 of Phase 3b, with adults 20-49 years old comprising more than half of all cases. The subset of adults 20-39 years, however, contributed less in week 45 (44%) and weeks 38-44 (43%) than in Phase 3a (53%).

Weekly incidence by age group

As shown in **Figure 8**, weekly incidence at least doubled in all age groups between weeks 41 and 45, recognizing recent weeks' incidences will increase further as data become more complete. Week 45 incidence exceeded 50 per 100K across displayed age groups 15-49 years being highest in adults 20-29 years (85 per 100K) and adults 30-39 years (60 per 100K). Also exceeding 50 per 100K were incidences in teens 15-19 years (54 per 100K) and adults 40-49 years (55 per 100K). In those <15 years and 50+ years, week 45 incidences were below 50 per 100K, but showed substantial increase from week 41. Increase from week 41 to 45 is particularly noteworthy for elderly adults 70-79 years (8 to 23 per 100K, three-fold increase) and 80+ years (7 to 37 per 100K, five-fold increase), given their higher risk of severe outcomes (**Section E**).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for Phase 3b (excluding week 45) and 35 years in week 45 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by age group and phase[a], BC January 20, 2020 (week 4) – November 7, 2020 (week 45) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b: 7 weeks). The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

b. PLOVER extract on November 12, 2020 reflecting all diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc.

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC
March 15, 2020 (week 12) – November 7, 2020 (week 45) (N= 18,295)

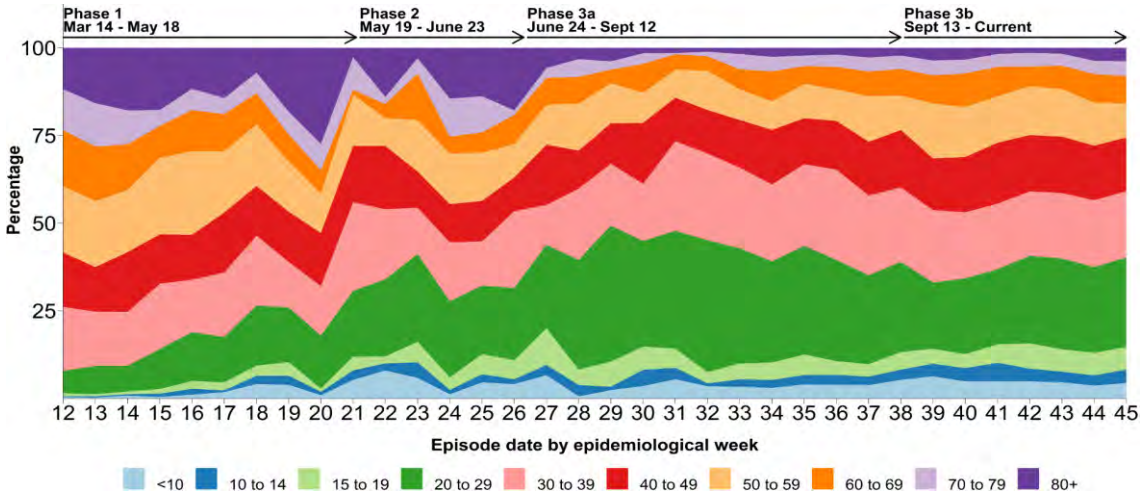


Figure 7. COVID-19 case distribution by known age group (years) and pandemic phase, BC
January 15, 2020 (week 3) – November 7, 2020 (week 45) (N= 18,799)

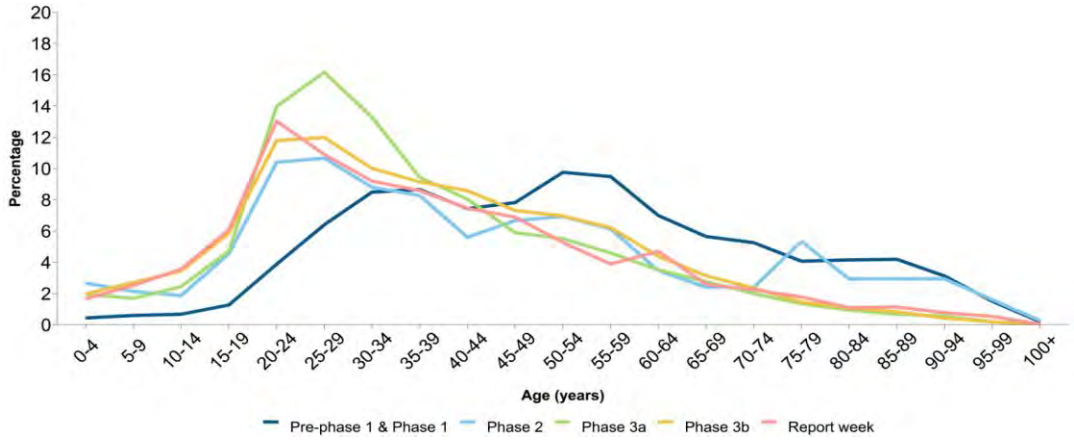
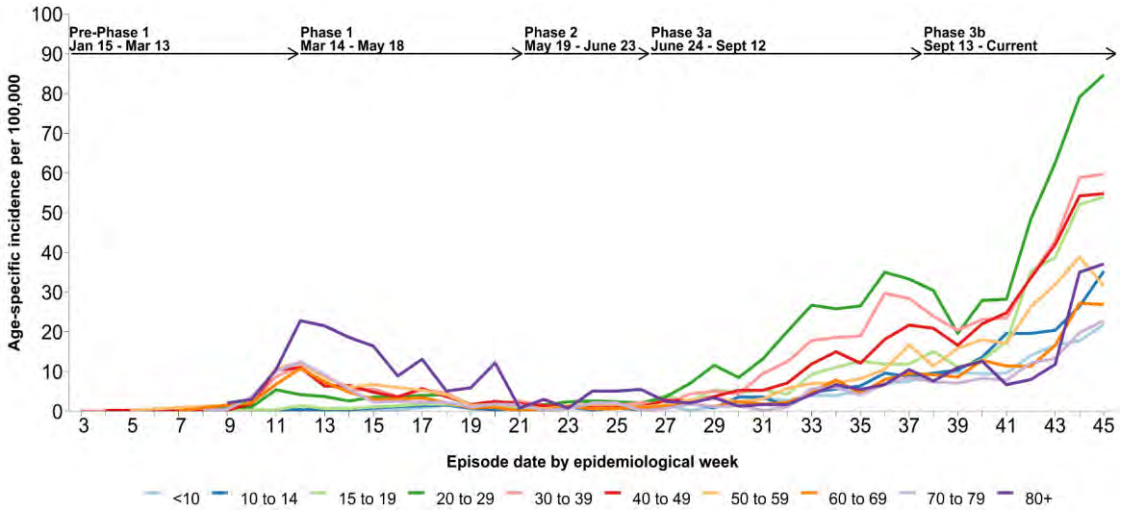


Figure 8. Weekly age-specific incidence per 100K population, BC
January 15, 2020 (week 3) – November 7, 2020 (week 45) (N= 18,799)



D. Severe outcome counts and epi-curve

There were 104 hospitalizations with known admission date (of 105 reported) in week 45 (**Table 1**), a 28% increase from the prior week 44 (81) and almost double the week 41 tally (55). The week 45 tally is expected to increase further but is already comparable to the first wave peak of 107 hospitalizations with known admission date in week 13 (**Figure 9**). In week 45 there were 13 deaths recorded, an increase over week 44 (8) and double the week 41 tally (7) but half the first wave single week peak of 26 deaths in week 15. Note, that with ongoing increase in cases, the ultimate timing of the second wave peak in severe outcomes has yet to be determined. Of the 13 deaths in week 45, 8 were associated with a care facility outbreak and 11 were 70+ years old. This profile is consistent with observations throughout the pandemic; in particular, of the 279 total deaths in BC, about two-thirds (190) were associated with a care facility outbreak and 85% (237) were 70+ years of age.

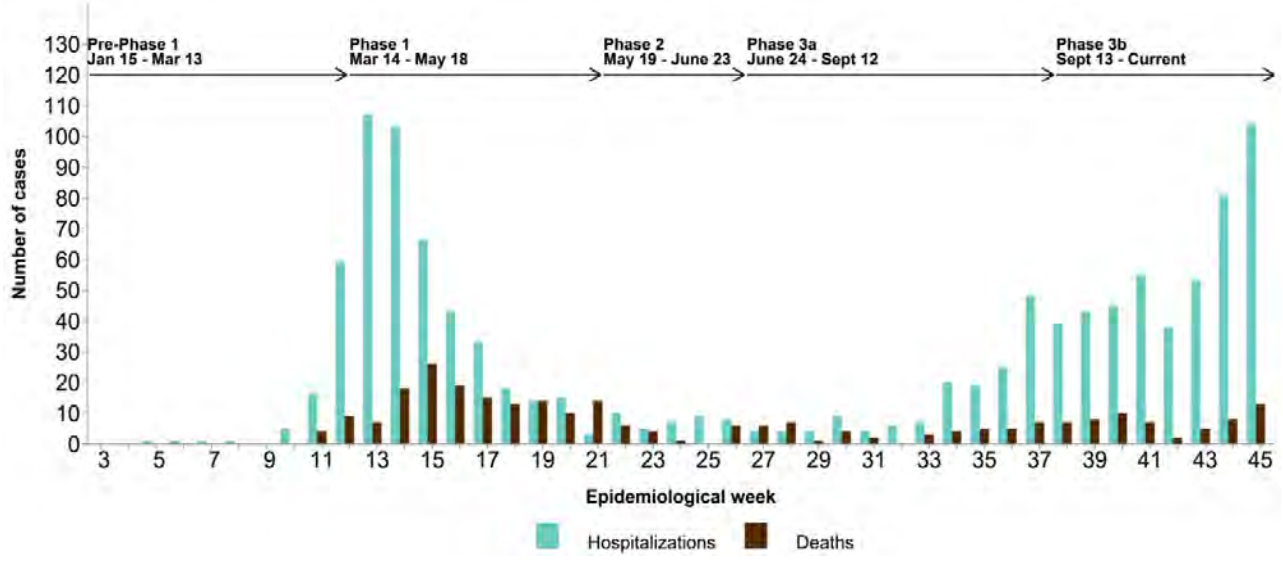
Overall, males comprise 9,549/18,778 (51%) cases, 681/1,138 (60%) hospitalizations, 212/339 (63%) ICU admissions and 161/279 (58%) deaths with known sex to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC
January 15, 2020 (week 3) – November 7, 2020 (week 45)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**635**	**46**	**26**	**34**	**395**	**6**	**1,142/18,985 cases (6)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	25	12	177	2	490/1,142 (43)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/1,142 (3)
Phase 3a (11.5 weeks)	98	5	0	10	40	2	155/1,142 (14)
Phase 3b (7 weeks, excluding week 45)	197	10	1	8	139	1	356/1,142 (31)
Week 45	69	1	0	2	33	0	105/1,142 (9)
Ever ICU	**163**	**17**	**9**	**17**	**132**	**2**	**340/18,985 cases (2)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/340 (51)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/340 (3)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/340 (14)
Phase 3b (7 weeks, excluding week 45)	40	2	0	1	34	0	77/340 (23)
Week 45	16	1	0	1	14	0	32/340 (9)
Deaths	**127**	**3**	**6**	**3**	**140**	**0**	**279/18,985 cases (1)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	145/279 (52)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/279 (10)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/279 (16)
Phase 3b (7 weeks, excluding week 45)	25	1	1	2	19	0	48/279 (17)
Week 45	5	0	0	0	8	0	13/279 (5)

a. Outcomes with unknown status are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 9. COVID-19 hospitalization admissions (n= 1,133) and deaths (n= 270), BC
January 15, 2020 (week 3) – November 7, 2020 (week 45)



E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 10**, elderly adults 70+ years comprise 9% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (41%) and deaths (85%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (17%) but a commensurate proportion of deaths (10%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 27% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (4%).

Adults 20-39 years comprise a greater share of COVID-19 cases (44%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (13%) and deaths (0%).

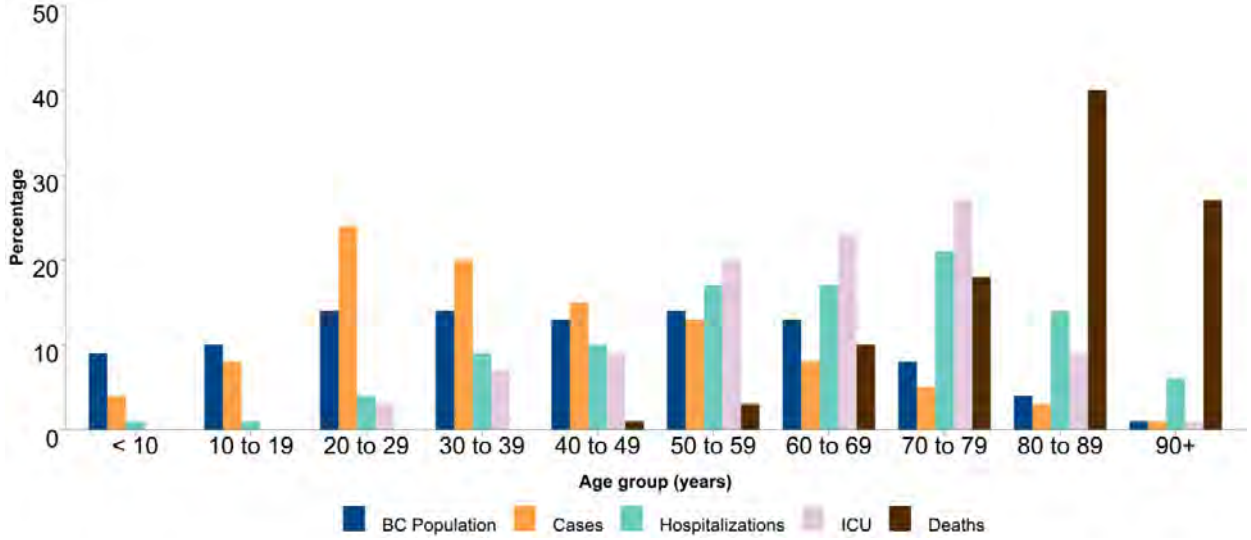
Children <20 years are under-represented overall among COVID-19 cases (12%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (61 vs. 69 years) but unchanged for deaths (85 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – November 7, 2020 (week 45)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	732 (4)	11 (1)	0 (0)	0 (0)	469,351 (9)
10-19	1,471 (8)	9 (1)	0 (0)	0 (0)	527,805 (10)
20-29	4,479 (24)	47 (4)	9 (3)	0 (0)	697,691 (14)
30-39	3,719 (20)	99 (9)	24 (7)	0 (0)	735,052 (14)
40-49	2,853 (15)	113 (10)	32 (9)	4 (1)	646,035 (13)
50-59	2,404 (13)	193 (17)	69 (20)	9 (3)	718,272 (14)
60-69	1,485 (8)	197 (17)	79 (23)	29 (10)	673,131 (13)
70-79	858 (5)	244 (21)	92 (27)	49 (18)	435,062 (8)
80-89	533 (3)	163 (14)	29 (9)	112 (40)	187,443 (4)
90+	265 (1)	63 (6)	5 (1)	76 (27)	49,726 (1)
Total	**18,799**	**1,139**	**339**	**279**	**5,139,568**
Median age	**37**	**64**	**64**	**85**	**41**

Figure 10. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, BC January 15, 2020 (week 3) – November 7, 2020 (week 45) (N=18,799)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 3** and **Figure 11**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

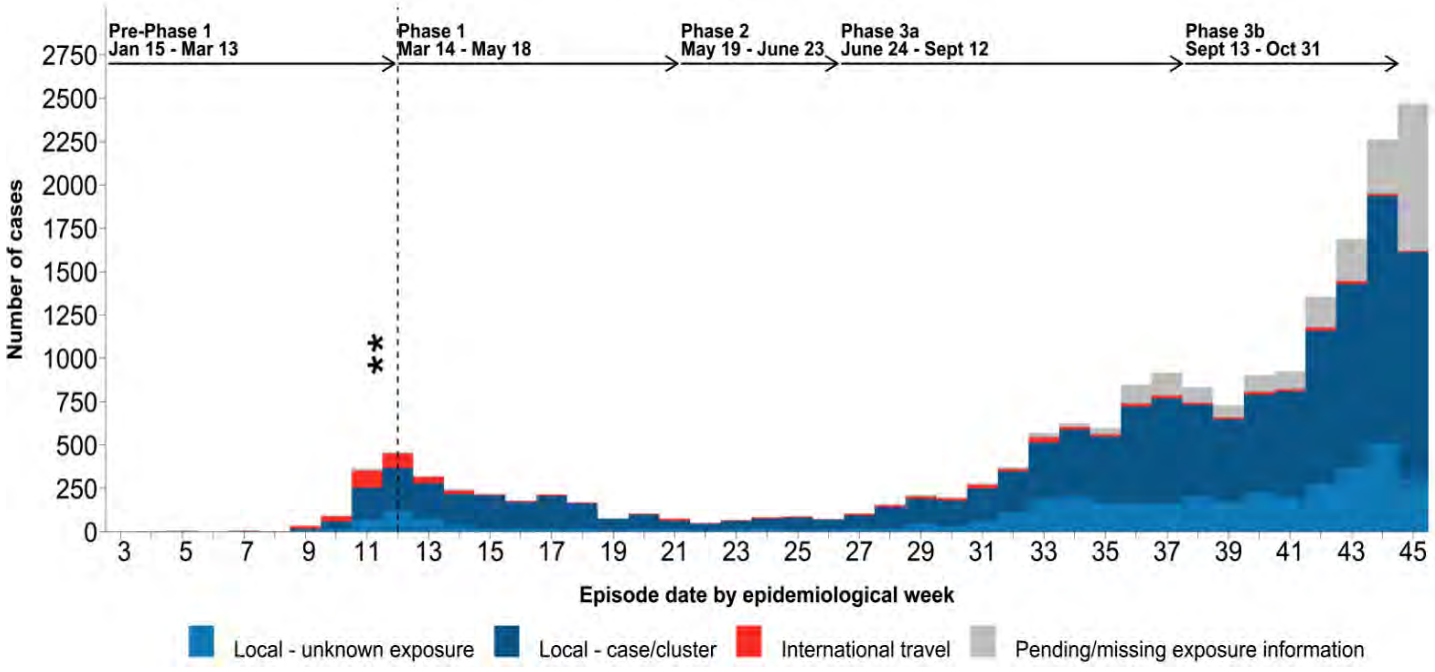
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 45.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, British Columbia January 15, 2020 (week 3) – November 7, 2020 (week 45)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	208 (46)	96 (21)	14 (3)
Phase 1	188 (9)	1,497 (72)	350 (17)	42 (2)
Phase 2	30 (8)	261 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,206 (65)	1,174 (24)	356 (7)
Phase 3b (excluding week 45)	96 (1)	5,550 (64)	1,955 (22)	1,092 (13)
Week 45	8 (<1)	1,305 (53)	308 (12)	849 (34)
Total	638 (3)	12,027 (63)	3,965 (21)	2,355 (12)

Figure 11. Likely source of COVID-19 infection by episode date, British Columbia January 15, 2020 (week 3) – November 7, 2020 (week 45)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 12** 140 care facility outbreaks were reported in total in BC to the end of week 45. There were 17 new care facility outbreaks reported in week 45 (13 of which were reported by Fraser Health Authority, 2 by VCHA, 1 by IHA, and 1 by NHA), with 9 of these outbreaks having earliest onset date in preceding weeks. Facility outbreak tallies by earliest onset date are highest thus far in week 43 (14 outbreaks).

Eight of the 13 deaths in total reported in week 45 in BC involved adults in a care facility setting in Vancouver Coastal Health Authority (7 deaths) or Fraser Health Authority (1 death). Seven of these 8 deaths were elderly adults 70+ years.

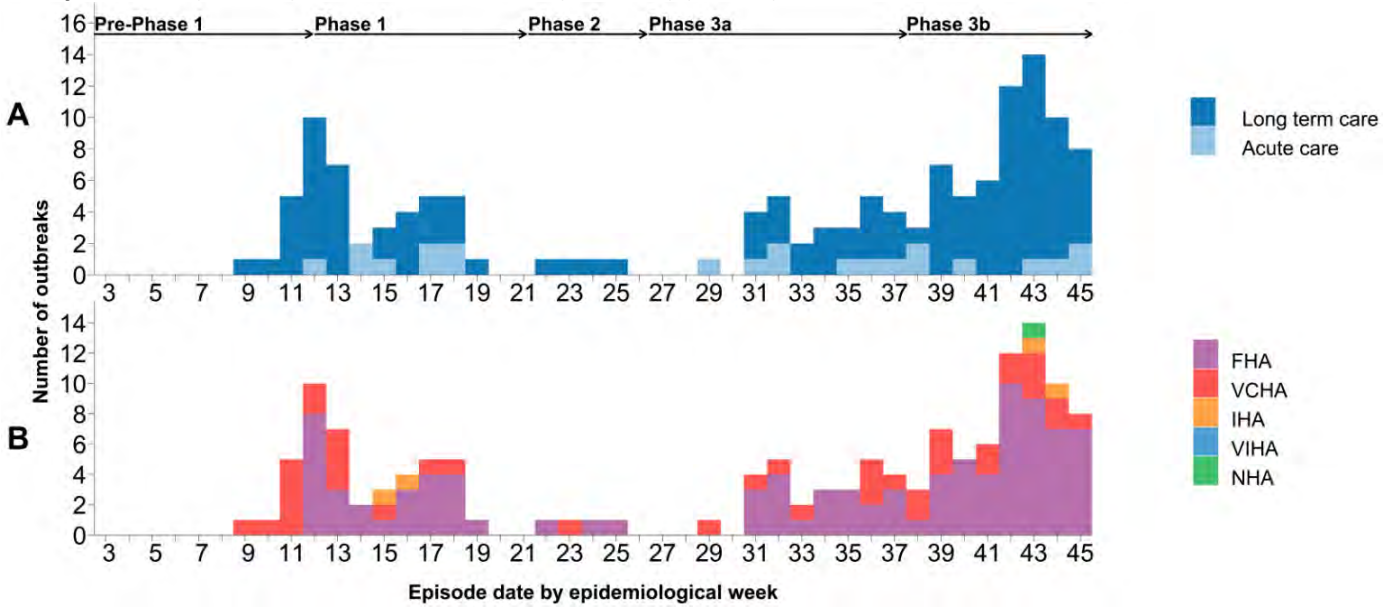
Of 11,163 cases overall in BC with episode date in Phase 3b (i.e. weeks 38-45), 461 (4%) were associated with a care facility outbreak, a proportion similar to Phase 3a overall (184/4,917; 4%), but lower than before Phase 3a (613/2,905; 21%).

More than two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (190/279; 68%) and of those, more than two-thirds occurred before Phase 3a (120/172; 70%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – November 7, 2020 (week 45) (N=140)

	Outbreaks	Cases				Deaths		
		Residents	Staff/ visitors	Unknown	Total	Residents	Staff/ visitors	Total
Total	**140**	**720**	**533**	**5**	**1,258**	**190**	**0**	**190**
Pre-/Phase One (17 weeks)	44	331	213	0	544	96	0	96
Phase 2 (5 weeks)	4	51	18	0	69	24	0	24
Phase 3a (11.5 weeks)	27	91	93	0	184	39	0	39
Phase 3b (7 weeks, excluding week 45)	57	164	157	4	325	24	0	24
Week 45	8	83	52	1	136	7	0	7
Active outbreaks[b]	37	-	-	-	-	-	-	-
Outbreaks declared over[b]	103	-	-	-	-	-	-	-

Figure 12. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – November 7, 2020 (week 45) (N=140)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of November 7, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 13**) related to COVID-19 have shown an overall increasing trend from about week 28 stabilizing from week 39 to 41 at >13,000 calls per week but decreasing in weeks 42 and 43 to just over 10,000 calls. In weeks 44 and 45, call volume increased to just over 11,000 and 12,000 calls, respectively.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 14**) related to COVID-19 (including telehealth) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to stabilize at around 3,500 visits in weeks 44 and 45.

Figure 13. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – November 7, 2020 (week 45)

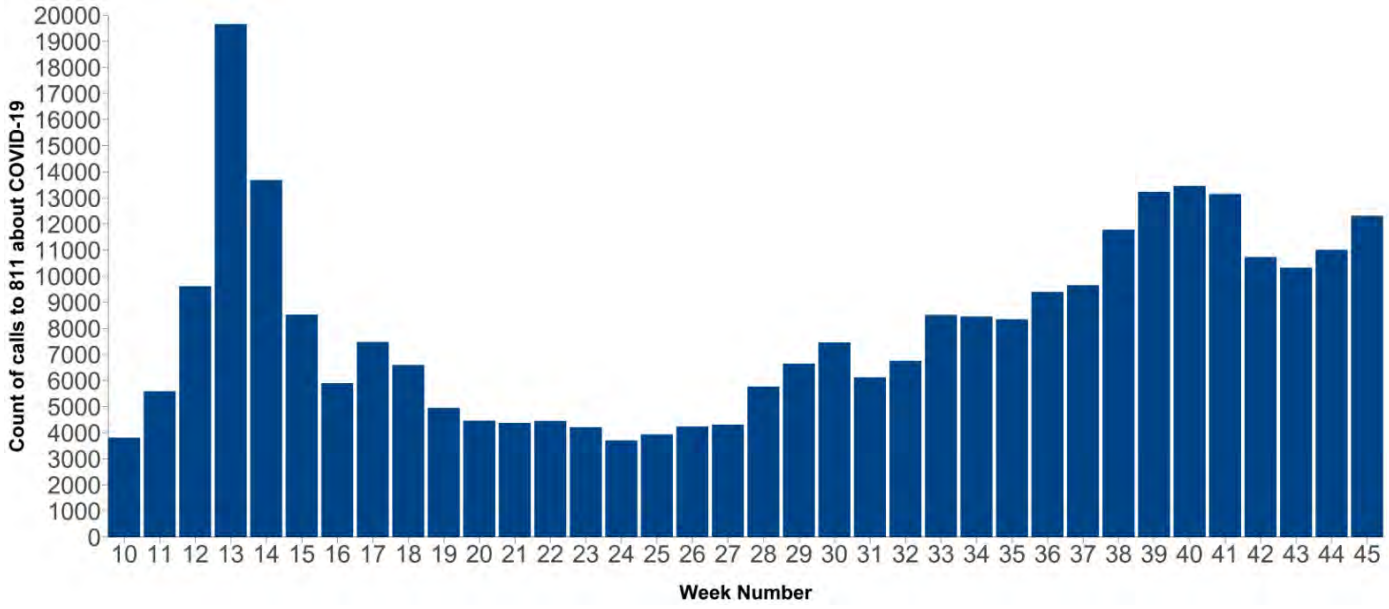
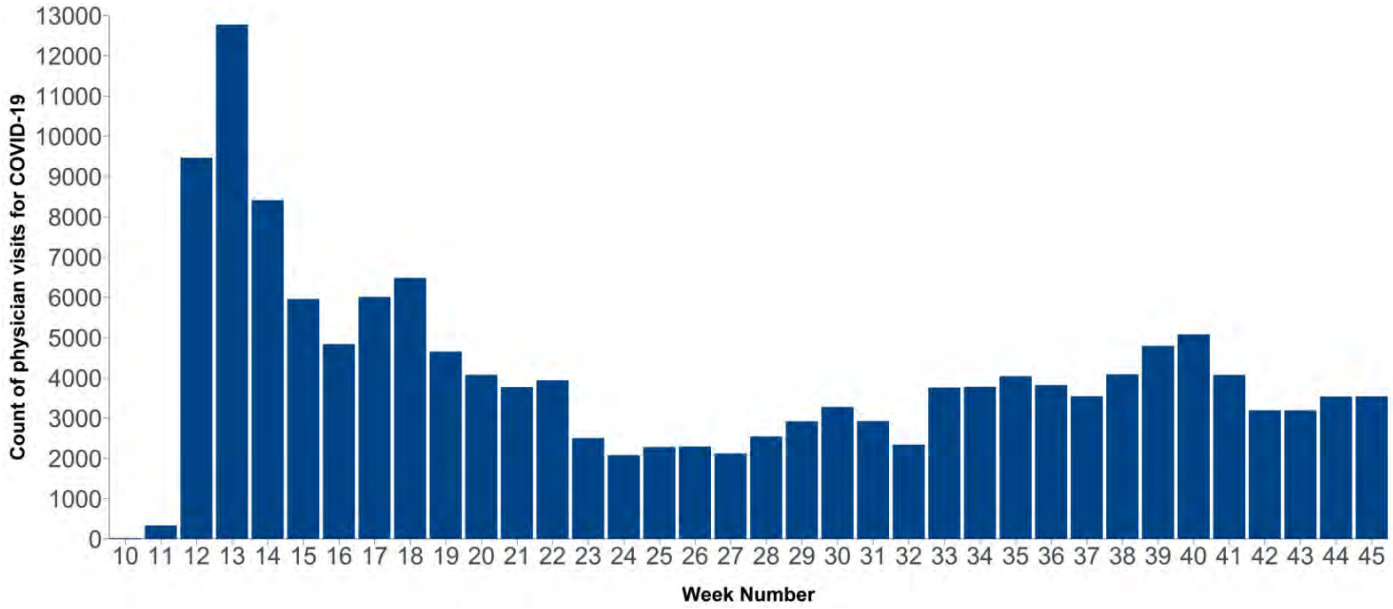


Figure 14. Medical Service Plan (MSP) claims (including telehealth) for COVID-19, BC
March 1, 2020 (week 10) – November 7, 2020 (week 45)



Media Availability, 07-Nov-2020

Dix/Henry - COVID-19 VCH/FH crackdown

By Vancouver Cabinet Offices

Adrian Dix: Good afternoon, my name is Adrian Dix. I'm BC's Minister of Health. To my right is Dr Bonnie Henry, BC's Provincial Health Officer. This is our COVID-19 briefing for Saturday, November 7th.

We are honoured to be here on the territories of the Musqueam, of the Squamish and Tsleil-Waututh peoples. We are honoured and thankful to them for allowing us here today. We're obviously having this briefing today, we'll be having another briefing on Monday at 3:00 in the Press Theatre in Victoria.

With that, it's my honour to introduce Dr Bonnie Henry.

Bonnie Henry: Thank you and good afternoon. This is another challenging here in BC. I will start by announcing we have 567 new cases reported today in BC, of COVID-19, bringing our total to 17,715 people in BC who have been diagnosed with COVID-19.

The new cases included 122 people in the Vancouver Coastal Health region, 411 people in the Fraser Health region, three people in the Vancouver Island Health region, 22 people in Interior Health, and nine in Northern Health. We now have over 100 people who are in hospital, 31 of whom are in critical care or ICU.

In addition, we have one new health care outbreak, The Residence in Mission. So we now have 37 active outbreaks in our health care system, 33 in long-term care and 4 in acute care.

This abbreviated number that we have today is the reason we are having this discussion and this briefing today.

As you know, in the last two weeks, we have seen a dangerously high and rapid increase of COVID-19 cases and outbreaks affecting primarily our health care system, but also many other places across the province, particularly here in the Fraser Health and Vancouver Coastal Health regions.

We are also watching what is happening around the world, and we are not alone in seeing this rise in cases. We have seen them in jurisdictions all around us and around the globe. We have had transmission in a number of workplaces where the virus has really accelerated, including fish processing and food processing facilities, retail locations, places like car dealerships, indoor group physical activities, and other places around the province, but particularly concentrated in this region.

We have had many episodes of transmission in people's homes over the last few weeks, as we know. We have talked about this. We've also had transmission in health care facilities across the Lower Mainland. The result is that we're seeing a steady increase and worrisome increase of people with serious illness requiring hospitalization and intensive care. From the outset of our pandemic, the goal of our COVID-19 response has been to maintain capacity within our health care system, so we can support and care for people not only who are suffering from this virus, but for all of the other health care needs that we have to protect those who are most vulnerable, particularly now we know, our elders and seniors.

As well, as to keep as much as possible going in our communities, because we know that, as well, has affects on our health and wellbeing. We need to keep our essential services and essential activities from schools to work places open and operating safely. Right now, this is in jeopardy.

As a result, we will be taking further actions and we must now step back from our restart activities. We need to take urgent and focused actions, here in particular in the Vancouver Coastal and Fraser Health regions, to avoid the serious consequences for all of us. Not just in this region, but around the province.

Today, I am putting in place new provincial health officer orders for all individuals, places of work, and businesses in communities within the Vancouver Coastal and Fraser Health regions, with the exception of the Central Coast and Bella Coola Valley. The orders will be in effect for the next two weeks. From today at 10:00pm through to Monday, November 23rd at 12:00pm. This will give us a chance to stop the transmission. To have a break in that rising transmission rate that we're seeing. We need to focus our attention on that now.

The orders will focus on four areas: on social gatherings, on travel, on indoor group physical activities, and on workplace safety. Right now, it's very important that everyone in these areas of Vancouver Coastal and Fraser Health significantly reduce their social interactions. We also need to better manage indoor group physical activities where we have seen rapid transmission of this virus.

We also are requiring all businesses and worksites in this area to revisit and ensure strict adherence to COVID-19 safety plans and adequate COVID-19 safety plans. We'll be working with WorkSafe BC, with our public health inspectors, and our bylaw officers around this region to facilitate that.

I know this is hard. I know we don't want to have to be doing this. We have to support each other right now to make this break. We appreciate this takes a sustained daily effort, and these efforts are critical to keeping our businesses, our schools, open and our community safe as we go into winter.

So today's orders include, in more detail, for social gatherings there are to be no social gatherings of any size with anyone other than your immediate household. This includes indoor gatherings of fewer than 50 people, even in controlled settings. It supersedes our masked gathering order that we've had in place for some time. Funerals and weddings may proceed with your immediate household, but there are to be no associated receptions inside or outside your home, or at any public or community venues.

This is a time-limited order, but this is what we need to do now. We need to stop our social connections where we, unfortunately, are seeing this virus spread, and spread to those we are closest to and that we care most about.

For travel, we are strongly recommending that travel into and out of areas of Vancouver Coastal and Fraser Health should be limited to essential travel only. Those who live outside these areas should not visit unless it is urgently required or essential and travel through only when needed. In addition, travel for sports into and out of this region is suspended for this period of time.

In terms of group physical activities, this unfortunately is an area where we have seen spread in multiple different settings. As of today, businesses, recreation centres, or other organizations that organize or operate indoor, group physical activities must stop holding these activities until updated COVID-19 safety plans are in place so they can be held safely. These need to be approved by our local medical health officers.

This includes spin classes, yoga classes, group fitness, dance classes or other group indoor activities where people are increasing their heart rate and we have seen repeatedly, not just here, but around the world that these are venues that we see rapid spread of this virus. Even with people who don't recognize that they are ill.

Indoor sports, where physical distancing cannot be maintained, are suspended for these two weeks. This includes no indoors competitions or games for this short period of time. These activities can be replaced with individual exercise or practice and drills, as we did previously before we started the phases of our restart our sports programs. That allows everyone to maintain safe, physical distancing when participating in these important physical activities. I will note that this is not applying to physical activities that part of a school-based program.

We also need to pay strict attention to increasing physical distance off the field of play, so areas like on the bench, or when we're warming up ahead of time, or in some cases, where there's spectators. Our advice has been for the last few weeks that we need to reduce or not have spectators, particularly at children's games, whether they're inside or outside.

For workplace safety, all businesses and worksites must conduct active, in-person screening according to our COVID-19 safety plans for their workers on site now. We must go back to those plans and re-enforce the importance that they have. Workplaces must ensure that all workers and customers maintain appropriate physical distancing, wear masks as appropriate and be especially vigilant in small office spaces, in break rooms and kitchens. This is where we're seeing people transmit the virus to each other in our work settings.

We also know that in some work settings, places like restaurants when COVID safety plans and the new restrictions.reducing the hours, making sure that we have physical barriers, small numbers of people, that we don't see transmission of this virus, but we do see it when those plans slip, or when they're not being followed or adhered to religiously. Right now we have to go back. If we cannot maintain those plans, then local medical health officers will shut those businesses down and we have seen that happen. It may need for people, if they feel they cannot maintain those COVID safety plans in a restaurant, then looking at other options like take-out only. In addition, we need to consider going back to actively supporting people working from home for certain businesses if that's possible.

We will be, as I mentioned, increasing active inspections with public health, WorkSafe BC, and our bylaw officers in this local area. We know that this has been hard for businesses. We have seen measures slip in some businesses, and that has led to transmission. So now is time for you to re-look at your COVID safety plans, to go to the WorkSafe BC website, to update the plans, and to re-enforce them. And if you are a worker, you need to look at those plans and make sure you are adhering as well.

We need to redouble our efforts, as we are seeing multiple places where this is being transmitted within those settings, and then spill over into health care settings, into our families, into our communities.

We know that some of the facilities that provide these group physical activities, for example, have already taken steps, such as screening participants, reducing density, increasing spaces, putting in physical barriers. We know that some people have been doing a good job on that. What we are doing is looking at the literature around the world of what we know is safe, and we will be revising and updating

the guidance from public health and from WorkSafe. We will be working with the communities and each business and group to make sure that when you have appropriate safety plans in place, you can re-open.

Finally, I'm also going to order that party buses, group limousines, and other perimeter seating vehicles, which is the technical name, are ordered to stop operating until further notice, effective immediately.

As you know, provincial health orders are always a last resort. But right now these additional measures are needed. They are needed here in this community, in Vancouver Coastal and Fraser Health regions, and I am working very closely with our public health teams, our medical health officers in these regions to make sure that we can support all of the needs we have in this community to keep everyone going and functioning with the essential services that we have.

We need everyone to help us to keep this wall strong. We know that we need, now, to redouble our efforts to protect our hospitals, our schools, our families, our workplaces, our communities and our elders.

Now is the time that we need to do this, despite being tired, despite the uncertainty, despite what has been happening for the last few months. This is the road we must walk right now. We must walk it together.

We need now, more than ever, to support our local businesses, our local schools, our local communities and our own families. This virus has shown us that it doesn't recognize any of our geopolitical social boundaries and that we are all in this together. We will come through it together.

We will get through these challenges. We have flattened our curve in the past, and we will do it again. It's going to be a challenge for all of us. But we must do it together. This next two weeks will be critical for us. I am calling on all of you to do this together, to do our part, and to remember how important it is to do this by being kind to each other, by staying calm, and by being safe.

Thank you.

Dix: Thank you, Dr Henry.

First of all, I want to start by expressing my condolences to the one person who has passed away from COVID-19, or to their families and friends and caregivers to the one person who has passed away from COVID-19 in the last 24 hours.

We know for this family and for those caregivers, like in the case of the 273 who have passed away from COVID-19 up to today, that this is an extraordinarily difficult time. It's a difficult time to grieve. We are thinking of that family today, and of all those families today, as they deal with their grief.

As Dr Henry has said, 567 cases of COVID-19 today. Just to put that in context, as you know, in the last two weeks especially, we've seen a significant increase in COVID-19 across our two Metro Vancouver and beyond health authorities, the Vancouver Coastal Health authority and the Fraser Health authority, from Chilliwack to North Vancouver and West Vancouver. Yesterday, an all-time number of cases of 546. Today in those two health authorities, 533 cases.

Hospitalizations have risen to just over 100. While this is below the peak in the early part of April, the 149, and well below our capacity to address it, nonetheless it is reflects the severity of COVID-19 in our province.

In addition, I would say yesterday, and this is particularly important to Dr Henry and myself, there were seven health facility outbreaks declared in 24 hours from Thursday to Friday. There was one further one today. This is a matter of serious concern to us. As all of you know, the level of COVID-19 and the response to COVID-19 and the levels of mortality and transmission have consistently been lower in BC than other jurisdictions across North America, and indeed across the world. Even in the last week, our rolling daily average of cases was about 8.5-per-100,000 here in BC. That compares, for example, to 108 in Belgium, or 97 in Switzerland or 70 in France or 30 in the United States. That said, we need to take urgent and focused action now to significantly bring down the rate of transmission across our two Metro Vancouver health authorities. Not doing so will have serious consequences for all of us, independent of our age, if our health care system in the Lower Mainland cannot provide the quality of care needed to respond to accidents, to surgical, medical care due to increased sickness rates among health care workers or excessive demand on in-patient beds. That's why the actions announced by Dr Henry are so significantly important.

I want to note, and continue to note, that the most intense public health effort of our lifetime is underway in BC to keep us safe from COVID-19. The effort is massive in its size, its scope and commitment. It's important, it's crucial to all of us, so is our ongoing individual duty, of course, to stop the spread and keep one another safe as we enter the winter of COVID-19. As all of you know, we have seen very little evidence of influenza so far, but we are expecting and we are entering respiratory illness season. That will present continuing challenges for all of us. As I noted on Thursday, we have now hired an additional 580 contact tracers, surpassing the initial target of 500 first announced in August and provided approval to increase the total number of contact tracers to approximately 800 additional positions. We currently have 78 candidates in the offer process, and over 300 candidates in the interview stage. In the Fraser Health authority alone, we've added 259 contact tracers in the past two weeks, and have approximately an additional 200 in progress.

In the past week, we've increased our overall daily lab testing capacity from 16,085 to 18,633. We'll exceed our target of 20,000 by the middle of the month.

I want to send a message of deep gratitude to those health care workers providing services directly to patients, as well as those behind the scenes who are working incredibly hard to keep us safe and our health care system safe and operating fully.

It is up to all of us to take the necessary steps directed by the PHO to substantially reduce transmission in the Fraser Health authority, and the Vancouver Coastal Health authority in the next two weeks.

The pandemic is tough on all of us, but we will get through this, and there is indeed hope on the horizon in the new year with potential vaccines. But right now we need to take action. No ifs, ands or buts. The time is now in Metro Vancouver, in Fraser Health, in Vancouver Coastal Health. Full-on, full-in everyone. For those who live in the rest of the province, you need to keep your guard up, and double down on the actions that we know will keep us safe, in our home and in work places. In our communities. I will repeat again, the virus does not follow geographical boundaries, it does not care about how nice we are. It lives to transmit and we must, in this time, to do everything we can to avoid this.

I want to say something, finally, and in particular, to people live in the health authorities outside of Fraser Health and Vancouver Coastal. We have, today, more active cases in the Interior Health authority than we have had during this pandemic. Nothing like the rise in cases we've seen in the area around

Vancouver and Fraser Health, but still significant cases. We've seen in other jurisdictions, jurisdictions that have had very few cases and seen that change very quickly.

In Northern Health, we've seen significant outbreaks in the northwest area, in the central area, in the northeast area, we have in Interior Health. we've seen outbreaks on Vancouver Island. What is required now is to remember the provincial health orders that are in place and to follow the guidance and to follow the orders. This is a worldwide pandemic, and we need to address it everywhere in BC.

In BC, we can turn the tables on COVID-19 by not turning on each other. We need to turn our trend around. We need to support each other, all of us. We must not give up or lose purpose or hope when others stumble. We must fight COVID-19 and we must fight it harder than at any time so far. Let it be said here and now, the worst of the pandemic can, and will, bring out the best in each of us.

We're happy to take your questions.

Henry: Can I just clarify something? I guess before we start on the questions, just to clarify. the orders that are put in place today are regional orders. So they are provincial health officer orders that will be in effect in the affected here in Vancouver Coastal and Fraser Health. I understand there was some confusion about that. Reporter: Thanks for taking my question. I think at the last modelling update you mentioned that the numbers in BC were increasing in a linear fashion rather than exponentially. Has that changed? Have we reached an exponential growth? Or are there any specific areas or regions of BC that are increasing exponentially more than others?

Henry: That's exactly the reason we're here today. We were seeing linear growth, which was concerning but controllable. And in the last two weeks, we started to see rapid increasing growths, so more exponential growth, particularly focused in the Vancouver Coastal-Fraser Health regions. That's the reason why we're taking these additional actions, to address that rapid transmission and rapid increase in people being affected here in this region. We will, on Thursday, be presenting the monthly update in the numbers, and the modelling that we've been using that has shown this to be the case here.

Reporter: The number of people that are being monitored by public health has been continually and rapidly increasing. I know that there have been some jurisdictions that have stopped contact tracing because the numbers are so large it was no longer useful or possible. Would you be able to say where we are in relation to that situation?

Henry: Another good question. One of the reasons why, again, we're taking these actions today. We have been able to continue with our aggressive and pinpoint contact tracing. And our case management, so identifying where people are being infected and that is what has helped us understand the scenarios, the settings where we're seeing transmission to larger numbers of people. These measures that we're taking today are to try and reduce those numbers so we're transmitting to, that people are transmitting to. We now have community transmission in this area, which is at that point that even small groups we can get rapid transmission to larger numbers and then it gets multiplied from there.

Yes, we are still able to manage with the additional contact tracers that we started hiring earlier on in the summer, when we were having a bit of a lull, because we knew this was going to be incredibly important for helping us keep things open that are supportive for our communities and our society.

So right now, yes, in Vancouver Coastal and Fraser Health, we are still doing contact tracing and case management of every single case. That is why we need to take these actions for the next two weeks to get those numbers back down again, to reduce our numbers of contacts so that if we're carrying this virus, we are not spreading it to the 15 or 20 people that are in our spin class or... [Vancouver Cabinet Office audio interrupted at source] Reporter: During the course of the pandemic, we've really taken a province-wide approach. Obviously we're seeing more cases now in Vancouver Coastal and Fraser Health, but with cases increasing elsewhere, I'm wondering why you didn't choose to apply these restrictions across the province?

Henry: This is something that we've had ongoing discussions about. We do have PHO orders that do apply across the province, the most recent of which was around social gatherings in one's home. And those continue to apply. In discussions with my public health colleagues and other parts of other regions, we feel that we are able to manage the cases that we know where the clusters are coming from, and that the measures that are in place there are working.

We're not seeing that rapidly increasing numbers of cases like what we're seeing in this region. And geographically, this is a region where there's a lot of movement back and forth between Vancouver, Surrey, Chilliwack, the Lower Mainland region. That is where the focus of this activity and where the amplifying of the outbreaks is happening.

We made the decision that we need to take time-limited additional measures to reduce that rapidly increasing transmission rate here. It does not mean that we're out of the woods and we can back off in other areas of the province. It just means we need to keep holding the fort there, continuing to pay attention and do the things that we need to do there.

Reporter: I know you mentioned the exemption of the Central Coast. Can you tell me why it's exempt?

Henry: The Central Coast and Bella Coola Valley are geographically quite different, in terms of where people travel back and forth and their interactions with things like health services, where they're more closely aligned to some of the lower-risk areas in the province right now. It made more sense to not include them in these orders, to allow for ongoing. what's the right word? So the catchment area for health care, for example, is more aligned with Interior Health region. We didn't want to put in barriers that were not necessary in those areas.

Reporter: My question is for Minister Dix. Maybe Dr Henry can help too. From my understanding, there was a meeting between Premier Horgan and influential members and residents in the Fraser Health community yesterday. I'm wondering what were the key takeaways from that discussion and how are you really working to further cultural care in that particular region? What are you going to do with the information you received from residents and influential voices yesterday?

Henry: I cannot comment on that meeting. I don't have any knowledge about it. But I can tell you I have been working, and Minister Dix as well, but we have been working with our Fraser Health colleagues and have had a number of conversations with local media, but also with key people and influencers and health care providers and others in the Fraser Health region.

As you know, we have had an increase in cases there related to a whole bunch of different things. We've talked about this a number of times over the past month or so, and even into late summer where we

started to have a steady increase. We have been doing outreach in different cultural communities, ethnic communities, and different geographic communities in the Fraser Health region.

Dix: Thanks for the question. That meeting is one of about a dozen I've had with people Fraser Health in the last period, to talk about how we can better communicate and better work together to see that the guidance of Dr Henry is followed everywhere in the province.

That particular call I think you're referring to is with leaders in the South Asian community, but we've had similar calls with leaders from other communities in both recent periods and before. I would expect, for example, on Monday you'll see a renewed media campaign from the government on some of these questions and as it builds out in multiple languages. But what the message there was, and the message at every meeting is, is that we can all be better influencers, better teachers. We can lead in our household, we can lead in our communities, we can lead in multiple languages. We can lead by following, in a sense. by showing how and working together on how, for example, at a time of celebration of life when we can't get together, how we can support people who are grieving, how at a time when we can't get together that we can celebrate events such as Diwali or Christmas, how in a time when we can't get together in person, how we can continue to support one another through the real and profound mental health and social challenges brought by the pandemic everywhere in the world. There are lots of takeaways. I've been doing a lot of talking, but also a lot of listening to people as to how we can better communicate that message.

In May, as you know, we conducted a survey of 300,000 BCers that was filled out in multiple languages at that time to hear from people how to better communicate. We've got to continue to do that effort. I expect you'll see some of those takeaways taken away. But mostly by us in terms of how we deliver the message, but also what we're doing is enlisting everyone. I want to repeat that today, for everyone to be leaders on our core messages. Right now we can't gather together in private homes. We just can't do that. How we have to continue to wash our hands and stay socially distant, how, in our work places, we can keep our customers and co-workers safe. How we can do these things and why it's necessary. It is so important that our hospitals and our surgeries continue to work at full capacity, that we continue to ensure that elders are safe in long-term care, that we continue to have classroom education and businesses operating and people working. These are the values and the things we want to do.

I was very moved by the presentations on the call yesterday, as I have been on the multiple calls I've been on in the last weeks and months, and we're going to continue to talk, of course, but we're going to continue to learn how we can better deliver the message. We can all be better leaders and better teachers. I take away a lot from what people tell me today, by email and in meetings.

Reporter: Fraser Health has had 400 cases test positive in the last two days, each day. I know the goal is to keep schools open. If we continue at 400 cases a day in Fraser Health, will schools in that reason be expected to still be open? I know we don't have a lot of transmission in schools, but is 400 a danger level?

Henry: Obviously schools are one of the things we want to protect because we know how important it is for teachers, for students, for families to have schools operating. What you say is exactly right, we've had a number of exposure events higher in those areas where there's higher community transmission. This is something we know.

If there's more. what happens in schools reflects what's happening in our community. That's why the focus is on reducing transmission in our communities. What we have not seen is a lot of transmission events in schools. Schools are not amplifying this virus. They are merely reflecting what's going on in the community.

So, yes, we need to make sure that we're taking those precautions if we're a teacher or a student and there's people in our family who have COVID, we need to stay away from school. That is working. What we are seeing is that the plans that are in place in our communities and in our schools are working to prevent transmission and public health is working very closely with schools to make sure that that continues.

Reporter: More of a clarification because I'm already getting questions from people on Twitter. What impact does this, if any, have on kids' minor indoor hockey?

Henry: Minor indoor hockey. those are some of the things, some of the sports teams that we're looking at. We need to take a pause in this region right now and make sure that these can continue, but we're not having games across regions, we're not travelling with hockey teams or other sports teams, that we take a step back and make sure that they're able to do this safely. And I will also say that we need to focus right now. We talked about this a few weeks ago, that we need to make some decisions given that we're in a very unusual year with this pandemic. That may mean that we don't play on multiple hockey teams or multiple sports teams. If we're involved with school sports, then we may not want to be involved with sports outside of the school setting, so we keep those potential connections small.

The other things that are really important are the none-game field settings where we can and we have seen people get together. Whether it's parents or the players themselves on the bench, in the locker room, afterwards when families are getting together. We have seen transmission happen in those settings as well. The off-the-field of play settings. We have a working group that's been working with viaSport, for example, here in BC, and the amateur sports agencies with the public health teams at BC CDC and from the regions that have been looking at sports in particular. They will be supporting this region and making sure that they can take measures that keep all children safe.

We know how important it is to continue with physical activity. We don't say stop it all, but we need to say is for this next two weeks we need to take a step back from some of the reopening and that there's no travel for games, and that we focus on keeping kids active in a safe way.

Reporter: With this new order, what happens to people where you live alone, perhaps, and have been really limited to the safe six? Does that now go down to the safe zero?

Henry: No. I hear you. It's very challenging for those who live alone. Yes, those are where you can have those very small number of people who are in your bubble. So it really is about looking at your household and the connections that you have and reducing those social connections where we have larger groups of people.

We've talked about going down to six. For some people that is a lot. For many people, that have large households, that may be too many. Now we need to scale those back. It means if you have one or two people that you are close with that you are considering, your family, your bubble, your household, then stick to those people.

Dix: One small point to say that at the beginning of the pandemic we started a program that a colleague and the seniors advocate, Isobel Mackenzie, helped lead with members from all the political parties and what involved the United Way and Better at Home and what it intended to do was address issues of social isolation and we're obviously continuing with those efforts.

This is a two week period. What I'm asking people to do in addition to all the other things we're asking people to do is to reach out to people via phone, via FaceTime, people who might be in the circumstances you're describing, and provide them with support at this time. We know. and one of the reasons we're taking the kinds of actions that are being taken today, is to ensure that those kind of necessary. those kinds of other impacts that happen with respect to COVID-19 don't happen in this period.

While we can't get together in person, I would like everyone to reach out to someone they know or someone they love, or maybe only know a little bit, who might be isolated and reach out in these times and talk more and be available more on the phone and via the internet and other means so that we can get through this period together and support one another in these times. I think that's what BCers have done extremely well from the beginning of this pandemic, and that's what we have to do now.

Reporter: Just wondering, there are some jurisdictions, countries like Australia which have taken more restrictive measures like actually closing borders to outside travel including within states and then also places like South Korea which have used tracing apps which maybe have a little bit of an evasiveness to it, to really knock down the numbers, like to orders of magnitude lower to what they are right here in BC. Is there any consideration as to taking those measures to get this under control?

Henry: [audio interrupted at VCO] .what measures seem to work and we know what measures work here. They have worked before so we are taking a measured approach, I'm very aware of what's happened in Australia. We have been watching very carefully there, it is a lot easier when you are an island to control movement back and forth and we talked about them at some length about should this be across the province or in the areas where we are seeing this mostly.

I believe we're taking measures that will work in the areas where we need to pay attention right now. We always are looking at do we need to do more? When can we back off and allow things to open up again?

In terms of apps, Korea, I've been on a number of calls where they have talked about the issues and how they used their app or not and it is not a tracing app, it's a notification app and we, right now, the way our processes are working, we don't feel it would be helpful to add that sort of an app in though we are leaving the door open we certainly think that there are areas where it could assist in notifying people and I have said this a number of times, places like if we go to bars or parties, and of course right now in this area, we are not doing that. So we need to take account of these measures and make sure we are doing what we need to do right now to keep as much as we can open to support our communities here.

Reporter: Is it a recommendation that people don't travel outside of their health region borders or is it an actual order? I am just wondering for example with BC Ferries, does that mean that, you actually aren't allowed to take a ferry to Vancouver Island if you live in either FH or VCH? Or is that just a recommendation?

Henry: It is a recommendation in the very strongest terms, right now we need to go back to what we were doing in March and April and May where it was essential travel only and we recognize that there are very valid and important reasons why people have to move to different areas of the province but we also recognize that this virus travels with people and we bring our risk with us and we take that risk back from where we have been.

So right now, we are advising in the strongest terms that people need to stay in the local community, reduce their social interactions and travel when it is essential.

Reporter: In terms of these new orders, how will household gatherings and restrictions on those be enforced?

Henry: [audio interrupted at VCO] .we have not always. we have not made a focus on enforcement and we don't necessarily need to enforce it. These are the rules and we know that people understand the rationale for the rules and that for the most part they follow them. So we are telling people that this is the risk in this area right now and these are the things we need to do to protect our families and our communities and our health care system and it's very important that people do take these actions now. Having said that, we do have the ability to enforce rules and that can be done through public health inspectors, we have now also the ability to enforce them by bylaw officers and police, but I don't believe that is necessary. We don't need a stick for people to realize the importance of taking these measures now, for this time limited period, to break those changes of transmission, to bend our curve.

Reporter: Many experts continue, including doctors are advocating for collecting race-based data. You know they are saying that Black Canadians are disproportionately contacting and dying from COVID-19 because they are working on front lines like factories and retail work. I mean, at this point, you have touched on this in the past, what do you think will be done in the near future? What do you think should be done?

Henry: [audio interrupted at VCO]. challenging this and from the outset of this, we have been. we have a way we can link indigenous data and that we have been following that in particular because we know the differential impacts pandemics have had on First Nations communities in this province and this country. So that has been our focus. We have been working with the federal government to come up with a standard for how we collect raced-based data or desegregated data by race, the challenge that we have run into is that means additional questions on our case investigation form and that means additional time to actually enter that data and it has not been collected in a systematic way, although we tried through the summer, we were hopeful we would get a reprieve and be able to add in some additional measures - that was not to be. As you know, at this point, we do not have the capacity to add that information to each individual case report form. And we don't, frankly, have a coordinated information technology system, an IT system that allows us to easily transmit and share that information either across the province or across the country.

So we are not able to do that on our case-based investigations. We are focussing on the public health actions that we need to take for every individual person in the midst of this pandemic. Having said that, there are other ways that we can retrospectively look at the impacts of the pandemic, and of the measures that we have put in place to deal with a pandemic on populations in BC. And one of the ways they have done that in the past is the survey that we did that had desegregated information collected that helped us understand that better and we are looking at ways that we can. we are talking with the

government and our provincial and territorial colleagues about how can we do that by linking information with things that we know about neighbourhoods and census tracks and things like that and I know there has been some work done in Toronto that we have very similar align with so it has been very much a challenge, we absolutely believe that if you don't measure and look at those differences that we are going to be missing inequities and we have seen that in the survey we did and we are continuing to look at how we can address those issues but we were not able to add it in a way that allowed us to continue the. as you can imagine it is quite a detailed process for every individual and there is now over 17,000 people who understand this a little better, when public health calls you, it is a stressful thing for people to either find out that they have this disease or that they have been exposed to it. There are many, many questions that people have and our focus is on finding out how the virus is being transmitted and where it is coming from so we can put in those control measures, so we have not added it to our case report forms at this point.

Reporter: [audio interrupted at VCO]. I will go through them quickly and if you can touch on each of them that would be great - what are the restrictions on gyms? Is it just indoor sport that is impacted here? Does it include, soccer or other outdoor sports? What happens with churches and other faith groups and gatherings? Are those impacted by the restrictions? And what happens at. if a grandparent is care taking for their grandchild, can they go to their home to do that? Or tutoring? Or home daycares?

Henry: Sure, so what this refers to is. so in terms of the gyms we are talking about the in-door group activities in gyms. So there are gyms that are operating where they are doing one-on-one or where people go in and there is adequate space and they can be on machines that are separated from each other. It is those group activities that are done in the in-door setting that we are talking about. For some gyms or businesses that is their only model and they need to either stop or make sure that they have in place approved safety plans and that will be working. local public health will be working with those facilities around those. So it does apply to those group activities within a gym setting so some community centres for example have a gym where there is weight lifting that people do individually, those sorts of things can continue and when we are talking about the sports teams, some restrictions are on the indoor sport and some restrictions like. restrictions on traveling outside the region to play games are on the outdoor sports and the indoor sports. Does that make sense?

What other questions? The churches, so those are not social gatherings those. so the fifty person limit with the fiscal distancing and all of the important restrictions that have been in place around churches and other religious centres remain in place and I will again take this opportunity to send my thanks and gratitude to the many, many faith leaders around this province who have been supporting their communities and their congregants in doing this safely and I know it has been hard for many people not to come together and worship together or have their ceremonies together but we cannot do that yet. We will be able to come together again but it is not that time yet. So the mass gathering restriction apply there. In terms of going to a household to look after children and daycares, the orders do not apply to those. It applies to social gatherings.

Reporter: Last one about people visiting from outside the province. I know Gord alluded to this but, is there a restriction on people coming from outside the province to visit in FH and VCH? And will you be having a conversation with BC Ferries or the federal government about imposing additional restrictions at ferries asking people if they are traveling if it is essential travel?

Henry: The short answer is no. We have never had restrictions on people coming in and out of the province. We have again asked our. you know across the country we have all talked about you know staying put, we are seeing a resurgences in every province in this country with the exception of the Atlantic bubble perhaps but certainly Manitoba, Saskatchewan, Alberta, Quebec and Ontario are in the same boat so we are asking people not to come unless it is essential travel into this region right now recognizing that that is where our biggest risk is and we are asking people here not to travel unless it is essential but no we will not be putting in orders or restrictions on BC Ferries.

Reporter: I want to ask a bit about the social gatherings outdoors and at restaurants and how that will be working and if that will be restricted as well to just our households but in a restaurant or outside our homes, how does that work?

Henry: [audio interrupted at VCO]. we have across the province here which means no more than six people at a table, no table hopping, everybody wearing masks, keeping their distances, those restrictions are still in place and we have also, as you may recall, we have limited the hours or operation and serving of alcohol. Since we have done that, restaurants that have been following those rules have not had transmission events. We are now however, in this region, you know, we know that the community transmission is higher so we need to pay attention to those rules and I know there have been concerns that in some restaurants there has been slippage of these rules or that we as consumers in the community have maybe become complacent and feel that these rules don't apply to us.

We will be cracking down on those. We know, the inspectors know where the restaurants are, we have been working with WorkSafeBC and we will be paying attention, particularly to restaurants because we know it can become an environment where we have seen transmission to large numbers of people when these rules aren't being followed so now, fair warning, but now is the time, we need to all pull back in this region and make sure that we are following those safety plans because when we follow those, they work. So we are not adding additional measures there and I am sorry, I lost the last part of your question.

Reporter: It was just about social gatherings outside our own homes.

Henry: So when we have those rules in place, then those are. but the other part of it, you know, parties, events, right now for the next two weeks, those are not to happen.

Reporter: So regarding the indoor [inaudible] what kind of changes to their plans are you looking for compared to what they have already presented right now and when is the earliest that they could re-open?

Henry: [audio interrupted at VCO]. we have a team that has been looking at the risk that has become apparent across the world, across Canada and here in BC for some of these activities so we know that there are some spin class or spin companies that only do that, that have put in barriers like people only going at the same time with a cohort of people, putting in physical barriers between bikes for example, keeping the music down low so we are not shouting, making sure that the ventilation is adequate, I know some of the spin classes have been outside and that is of course less risky, so there are things like that.

We know that there is enhanced and best practices around dance studios and other indoor group activities that we need to upgrade and update our guidance on and that will be worked on in the next

few days so the soonest that we can see people with the appropriate measures reopen will be in the coming week. I think what we have seen is that some gyms are doing this really well and some gyms are not. So, what they need now to really show that they have these plans in place because we have started to see increased numbers of people that report that that is where their infections have come from so it will be a process and it will be a process that will take a the very least days and for some facilities this risk period, they may choose to stay closed.

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

COVID-19 PREVENTION REGIONAL MEASURES

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF THE AFFECTED AREA

TO: PERSONS WHO PROVIDE OR PARTICIPATE IN INDOOR FITNESS ACTIVITIES IN A GROUP SETTING

TO: PERSONS WHO PROVIDE OR PARTICIPATE IN INDOOR SPORT

TO: EMPLOYERS

TO: PERSONS WHO TRAVEL FOR SPORT

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact, through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. The gathering of people in close contact with one another can promote the transmission of SARS-CoV-2 and increase the number of people who develop COVID-19 and become seriously ill;

5. In the last two weeks, there has been a rapid increase in COVID-19 cases, hospitalizations and outbreaks in health-care facilities centred primarily in the Fraser and Vancouver Coastal health authority regions;

6. There are increasing and accelerating numbers of people being hospitalized and admitted to critical care and intensive care as a result being of infected with COVID-19;

7. Outbreaks of COVID-19 were declared in 7 facilities in the Fraser and Vancouver Coastal health authority regions in a period of 24 hours from November 5 to November 6;

8. For certainty, the Order does not apply to physical fitness and sport activities provided by schools operating under the *School Act* [RSBC 1996] Ch. 412 or the *Independent School Act* [RSBC] Ch.216 or a First Nations School;

9. For certainty, Part A does not apply to the situation where a person is working at their private residence or vacation accommodation and it is necessary for them to have another person at the private residence or vacation accommodation for work related purposes, including providing services to the other person;

10. For certainty, Part A does not apply to a person who is present at the private residence or vacation accommodation of another person for the purpose of a visit by a child with a parent or guardian with whom the child does not reside on a regular basis, being provided with care, or providing assistance, care or services which can only be provided in-person including, health care, personal care, child care, educational programming or tutoring, music lessons, legal services, emergency services, housekeeping, repairs, maintenance, moving services and gardening;

11. For certainty, this order does not apply to rehabilitation or exercise therapy programs or to group outdoor fitness activities.

12. I have reason to believe and do believe that

    (i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

    (ii) there is an immediate and urgent need for focused action in the Fraser and Vancouver Coastal health authority regions to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers and coordinated action is needed to protect the public from the transmission of COVID-19 in the Fraser and Vancouver Coastal health authority regions and in other parts of the province as a result of travel to and from the affected area and between the Fraser and Vancouver Coastal health authority regions for the purpose of sport related activities, and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER CONFIRMS MY ORAL ORDERS OF NOVEMBER 7, 2020 AND IS LIMITED IN APPLICATION TO THOSE AREAS OF BRITISH COLUMBIA THAT UNDER THE *HEALTH AUTHORITIES ACT* [RSBC 1996] CH.180 HAVE BEEN DESIGNATED AS THE REGIONS FOR THE FRASER HEALTH AUTHORITY AND THE VANCOUVER COASTAL HEALTH AUTHORITY, EXCEPT THOSE AREAS WHICH MAKE UP THE LOCAL HEALTH AREAS OF BELLA COOLA VALLEY AND CENTRAL COAST [HEREINAFTER REFERRED TO AS THE "AFFECTED AREA"]

TO THE EXTENT THAT THE PROVISIONS OF THIS ORDER ARE INCONSISTENT WITH THE PROVISIONS OF ANY OF MY OTHER ORDERS, THE PROVISIONS OF THIS ORDER SUPERSEDE THE INCONSISTENT PROVISIONS OF MY OTHER ORDERS IN THE AFFECTED AREA

Definitions in this Order:

"group indoor fitness activity" means an organized activity that involves a number of people doing a physical activity together indoors, examples of which are spin, pilates, zumba, other group fitness, yoga and dance;

"sport" means an organized sports activity that involves a number of people doing a physical activity together in a structured way;

"vacation accommodation" has the same meaning as in the *Gatherings and Events Order*.

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may have present at a private residence or vacation accommodation, either inside or outside, a person who does not reside with them.

2. No person may be present at another person's private residence or vacation accommodation, either inside or outside.

3. Despite sections 1 and 2, a person who lives on their own (hereinafter referred to as the "resident") may have up to two other persons present at their private residence or vacation accommodation, if the other persons are individuals with whom the resident regularly interacts. If the other two persons regularly interact with one another, as well as with the resident, they may be present in residence at the same time.

B. WEDDINGS AND FUNERALS

1. Despite the provisions of the *Gatherings and Events Order*, no person may organize, host or attend a reception or informal gathering, including at a private residence or vacation accommodation, either inside or outside, before or after a wedding or funeral.

C. GROUP INDOOR FITNESS ACTIVITY

1. No person or municipality may provide or host and no person may participate in a group indoor fitness activity until the person or municipality who provides or hosts the activity has submitted a safety plan with respect to the activity to the Medical Health Officer and the safety plan has been approved. Once a safety plan has been approved, it must be posted in a place easily visible to participants.

D. INDOOR SPORT

1. No person or municipality may provide or host and no person may participate in an indoor sport unless the sport involves no physical contact between the participants.

2. No person may attend as a spectator at an indoor sport activity unless this is necessary to provide care to a participant.

E. TRAVEL RELATED TO SPORT

1. No person may travel to or from the affected area or between the regions of the Fraser Health Authority and the Vancouver Coastal Health Authority for any sport related activity, including practice, training, games or tournaments, unless they are an identified by Canadian Sports Institute Pacific as a high performance athlete affiliated with an accredited provincial or national sports organization and are already training in the affected area and subject to the safety guidelines of their provincial sports organization.

F. WORKPLACE SAFETY

1. Employers must review their COVID-19 Safety Plans to ensure that they adequately protect workers from the transmission of COVID-19 in the workplace and are consistent with WorkSafeBC requirements.

2. An employer of a worker who is working in a workplace other than the worker's private residence must ensure that the worker has done a daily health check for the symptoms of COVID-19.

3. If an employer is not satisfied that a worker has done a daily health check the employer must not permit the worker to work at the workplace.

4. Employers should encourage workers to work from their private residence if feasible, unless there is a preference on the part of the employer or the worker for the worker to work at the workplace.

5. Employers must ensure that their COVID-19 Safety Plan includes measures to prevent workers from crowding together or congregating in higher risk spaces, including elevators, lobbies, stairwells, corridors, bathrooms, break rooms and kitchens.

This Order takes effect on Saturday, November 7, 2020 at 10:00 P.M. and, unless earlier extended by me, expires on Monday, November 23, 2020 at 12:00 P.M., except PART C, which remains in effect until rescinded.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would
   (a) meet the objective of the order, and
   (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

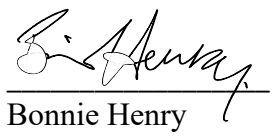
Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 10th day of November 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"*health hazard*" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.
(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.
(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).
(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.
(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.
(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

COVID-19 PREVENTION REGIONAL MEASURES

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF THE AFFECTED AREA

TO: PERSONS WHO PROVIDE OR PARTICIPATE IN INDOOR FITNESS ACTIVITIES IN A GROUP SETTING

TO: PERSONS WHO PROVIDE OR PARTICIPATE IN INDOOR SPORT

TO: EMPLOYERS

TO: PERSONS WHO TRAVEL FOR SPORT

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact, through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. The gathering of people in close contact with one another can promote the transmission of SARS-CoV-2 and increase the number of people who develop COVID-19 and become seriously ill;

5. In the last two weeks, there has been a rapid increase in COVID-19 cases, hospitalizations and outbreaks in health-care facilities centred primarily in the Fraser and Vancouver Coastal health authority regions;

6. There are increasing and accelerating numbers of people being hospitalized and admitted to critical care and intensive care as a result being of infected with COVID-19;

7. Outbreaks of COVID-19 were declared in 7 facilities in the Fraser and Vancouver Coastal health authority regions in a period of 24 hours from November 5 to November 6;

8. For certainty, the Order does not apply to physical fitness and sport activities provided by schools operating under the *School Act* [RSBC 1996] Ch. 412 or the *Independent School Act* [RSBC] Ch.216 or a First Nations School;

9. For certainty, Part A does not apply to the situation where a person is working at their private residence or vacation accommodation and it is necessary for them to have another person at the private residence or vacation accommodation for work related purposes, including providing services to the other person;

10. For certainty, Part A does not apply to a person who is present at the private residence or vacation accommodation of another person for the purpose of a visit by a child with a parent or guardian with whom the child does not reside on a regular basis, being provided with care, or providing assistance, care or services which can only be provided in-person including, health care, personal care, child care, educational programming or tutoring, music lessons, legal services, emergency services, housekeeping, repairs, maintenance, moving services and gardening;

11. For certainty, this order does not apply to rehabilitation or exercise therapy programs or to group outdoor fitness activities.

12. I have reason to believe and do believe that

    (i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

    (ii) there is an immediate and urgent need for focused action in the Fraser and Vancouver Coastal health authority regions to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers and coordinated action is needed to protect the public from the transmission of COVID-19 in the Fraser and Vancouver Coastal health authority regions and in other parts of the province as a result of travel to and from the affected area and between the Fraser and Vancouver Coastal health authority regions for the purpose of sport related activities, and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER REPEALS AND REPLACES MY ORDER OF NOVEMBER 10, 2020 AND IS LIMITED IN APPLICATION TO THOSE AREAS OF BRITISH COLUMBIA THAT UNDER THE *HEALTH AUTHORITIES ACT* [RSBC 1996] CH.180 HAVE BEEN DESIGNATED AS THE REGIONS FOR THE FRASER HEALTH AUTHORITY AND THE VANCOUVER COASTAL HEALTH AUTHORITY, EXCEPT THOSE AREAS WHICH MAKE UP THE LOCAL HEALTH AREAS OF BELLA COOLA VALLEY AND CENTRAL COAST [HEREINAFTER REFERRED TO AS THE "AFFECTED AREA"]

TO THE EXTENT THAT THE PROVISIONS OF THIS ORDER ARE INCONSISTENT WITH THE PROVISIONS OF ANY OF MY OTHER ORDERS, THE PROVISIONS OF THIS ORDER SUPERSEDE THE INCONSISTENT PROVISIONS OF MY OTHER ORDERS IN THE AFFECTED AREA

Definitions in this Order:

"group indoor fitness activity" means an organized activity that involves a number of people doing a physical activity together indoors, examples of which are spin, pilates, zumba, other group fitness, yoga and dance;

"sport" means an organized sports activity that involves a number of people doing a physical activity together in a structured way;

"vacation accommodation" has the same meaning as in the *Gatherings and Events Order*.

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may have present at a private residence or vacation accommodation, either inside or outside, a person who does not reside with them.

2. No person may be present at another person's private residence or vacation accommodation, either inside or outside.

3. Despite sections 1 and 2, a person who lives on their own (hereinafter referred to as the "resident") may have up to two other persons present at their private residence or vacation accommodation, if the other persons are individuals with whom the resident regularly interacts. If the other two persons regularly interact with one another, as well as with the resident, they may be present in residence at the same time.

B. WEDDINGS AND FUNERALS

1. Despite the provisions of the *Gatherings and Events Order*, no person may organize, host or attend a reception or informal gathering, including at a private residence or vacation accommodation, either inside or outside, before or after a wedding or funeral.

C. GROUP INDOOR FITNESS ACTIVITY

1. No person or municipality may provide or host and no person may participate in a group indoor fitness activity until guidelines for group indoor fitness activities have been approved by the provincial health officer and the person or municipality who provides or hosts the activity has submitted an updated safety plan in accordance with those guidelines with respect to the activity to the Medical Health Officer and the safety plan has been approved. Once a safety plan has been approved, it must be posted in a place easily visible to participants.

D. INDOOR SPORT

1. No person or municipality may provide or host and no person may participate in an indoor sport unless the sport involves no physical contact between the participants.

2. No person may attend as a spectator at an indoor sport activity unless this is necessary to provide care to a participant.

E. TRAVEL RELATED TO SPORT

1. No person may travel to or from the affected area or between the regions of the Fraser Health Authority and the Vancouver Coastal Health Authority for any sport related activity, including practice, training, games or tournaments, unless they are an identified by Canadian Sports Institute Pacific as a high performance athlete affiliated with an accredited provincial or national sports organization and are already training in the affected area and subject to the safety guidelines of their provincial sports organization.

F. WORKPLACE SAFETY

1. Employers must review their COVID-19 Safety Plans to ensure that they adequately protect workers from the transmission of COVID-19 in the workplace and are consistent with WorkSafeBC requirements.

2. An employer of a worker who is working in a workplace other than the worker's private residence must ensure that the worker has done a daily health check for the symptoms of COVID-19.

3. If an employer is not satisfied that a worker has done a daily health check the employer must not permit the worker to work at the workplace.

4. Employers should encourage workers to work from their private residence if feasible, unless there is a preference on the part of the employer or the worker for the worker to work at the workplace.

5. Employers must ensure that their COVID-19 Safety Plan includes measures to prevent workers from crowding together or congregating in higher risk spaces, including elevators, lobbies, stairwells, corridors, bathrooms, break rooms and kitchens.

This Order takes effect on Saturday, November 7, 2020 at 10:00 P.M. and, unless earlier extended by me, expires on Monday, November 23, 2020 at 12:00 P.M., except PART C, which remains in effect until rescinded.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would
   (a) meet the objective of the order, and
   (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 11th day of November 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"*health hazard*" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.
(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.
(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).
(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.
(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.
(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

British Columbia (BC)
COVID-19 Situation Report

BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 46: November 8 – November 14, 2020

Table of Contents

General increase in COVID-19 across BC, with concerning trend toward greater involvement of older adults

Weekly COVID-19 incidence in BC was at least 65 per 100K in week 46, which is more than 4 times higher than at the start of Phase 3b in week 38 (mid-September: 16 per 100K). Week 46 incidence was elevated in all health authorities, highest in Fraser (FHA: 116 per 100K) and Vancouver Coastal (VCHA: 74 per 100K), lowest in Vancouver Island (VIHA: 8 per 100K). Note that recent weeks' tallies are expected to increase as data become more complete.

Percent positivity has also continued to climb, exceeding 6% provincially in week 46. Increase was evident in all HAs, with percent positivity in week 46 exceeding 9% in FHA, 4% in VCHA and Northern Health Authority (NHA), 3% in Interior Health Authority (IHA) and, for the first time since April, exceeding 1% in VIHA.

Percent positivity exceeded 5% in all age groups, but notably exceeded 10% in elderly adults 80+ years. Week 46 incidence exceeded 100 per 100K in adults 20-29 years; 75 per 100K in adults 30-39 and 80+ years; and 50 per 100K in other age groups except children <10 years and adults 60-79 years (~35 per 100K). Of note, incidence among elderly adults 80+ years in week 46 is at least 50% higher than in week 45 and 10 times higher than week 38. **Given their greater risk of severe outcomes, this greater involvement of elderly adults is concerning.**

There were 142 hospitalizations with a known admission date in week 46, about one-third higher than week 45 (109) or the first wave peak in hospital admissions in week 13 (107). Given ongoing increase in cases, the ultimate tally and timing of the second wave peak in severe outcomes has yet to be determined.

In week 46, 22 deaths were recorded, an increase from week 45 (13) and a tally now approaching the first wave peak of 26 deaths in week 15. In week 46, 17/22 deaths were 70+ years old, but the first death in BC under 40-years-old (i.e. 30-39 years) was also recorded. Of 302 deaths in total in BC, about two-thirds (205) were associated with a care facility outbreak and 84% (255) were 70+ years.

There were 22 care facility outbreaks reported in week 46 (13 by FHA, 5 in VCHA, 3 in IHA and 1 in VIHA), 11 with earliest onset date in prior weeks. Facility outbreak tallies by earliest onset date are highest so far in week 45 (16 outbreaks).

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, and unless otherwise specified, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. When these dates are unknown, report date is used.
- Data are provided by epidemiological week. Episode-based tallies and incidences for recent weeks, notably the current report week, are expected to increase as case data, in particular onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- This bulletin refers to pandemic phases defined by population-level changes as described in the Table* on the next page.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 46), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there have been at least 1,000 new COVID-19 reports per week in BC since week 42, with steady sharp increase to 4,062 reports during week 46. The weekly tally by report date, however, includes cases with illness onset date in preceding weeks. In that regard, analyses based on episode date (i.e. illness onset date and only if that is unavailable, then report date) may better represent the evolution of the epidemic curve. The bars in **Figure 1** display the epidemic curve (i.e. tally of COVID-19 cases in BC by epidemiological week) based on episode date, coloured by health authority.

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

Provincially, there have been 23,652 cases between week 3 (mid-January) and week 46 (second week of November), corresponding to a cumulative incidence of 458 per 100,000 (100K). By HA, this cumulative tally (and incidence) includes: 14,616 cases in Fraser Health Authority (FHA: 754 per 100K); 6,910 cases in Vancouver Coastal Health Authority (VCHA: 571 per 100K); 1,091 cases in Interior Health Authority (IHA: 131 per 100K); 543 cases in Northern Health Authority (NHA: 189 per 100K); and 402 cases in Vancouver Island Health Authority (VIHA: 46 per 100K).

Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

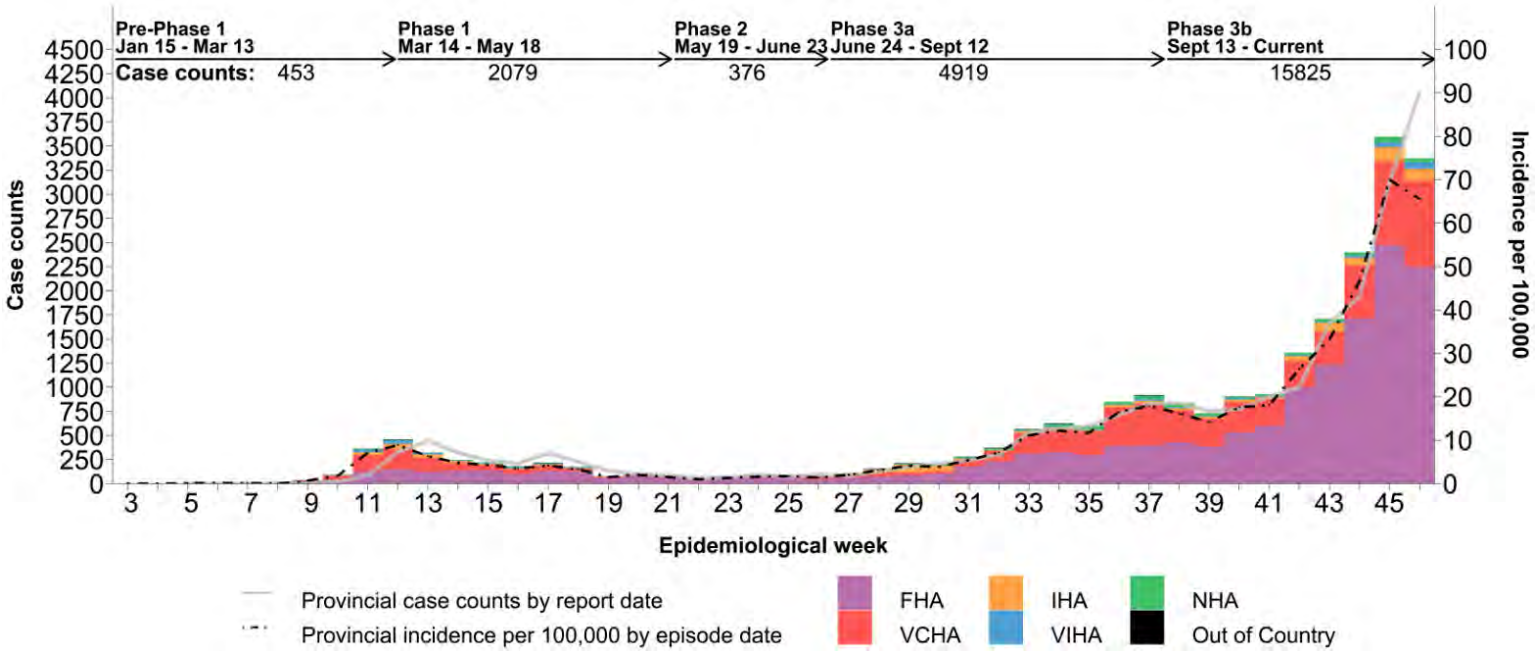
As shown in **Figure 1**, the weekly tally of COVID-19 cases by episode date peaked for wave one in week 12 (mid-March), corresponding to a weekly incidence of 9 per 100K. After the Phase 3a re-opening of services in week 26 (June), weekly incidence has consistently surpassed 10 per 100K starting week 33 (mid-August), with gradual increase to 18 per 100K by week 41, jumping to 26 per 100K in week 42 (mid-October). Weekly incidence has shown steady sharp increase thereafter.

As of data extraction for the current bulletin, there were 3,596 and 3,373 cases with episode date in weeks 45 week 46, respectively, corresponding to incidences of 70 and 66 per 100K. Compared to the week 38 start of Phase 3b, the incidence for current report week 46 is already four times higher (16 vs. 66 per 100K) and is expected to further increase as data, notably onset dates, become more complete. In fact, if previous trends continue, we may expect the episode-based rate in week 46 to match or exceed the rate based on report date, which is currently 79 per 100K.

As shown in **Figure 2**, incidence in week 46 is higher than week 38 in all HAs, particularly in FHA (a five-fold increase from 22 to 116 per 100K) and VCHA (a three-fold increase from 27 to 74 per 100K). In FHA, Fraser South HSDA has been most affected and in VCHA, Vancouver HSDA is driving rates. In IHA, week 38 to 46 rates increased from 3 to 15 per 100K, driven by the Okanagan HSDA. In VIHA, incidence increased from 1 to 8 per 100K between weeks 38 and 46, notably in Central and North Vancouver Island in weeks 45-46, while remaining the lowest incidence overall by HA. Incidence in NHA has increased from week 38 at 14 per 100K to week 45 at 20 per 100K, and is currently 14 per 100K at week 46.

It warrants repeating that episode-based tallies for recent weeks will further increase as data become more complete.

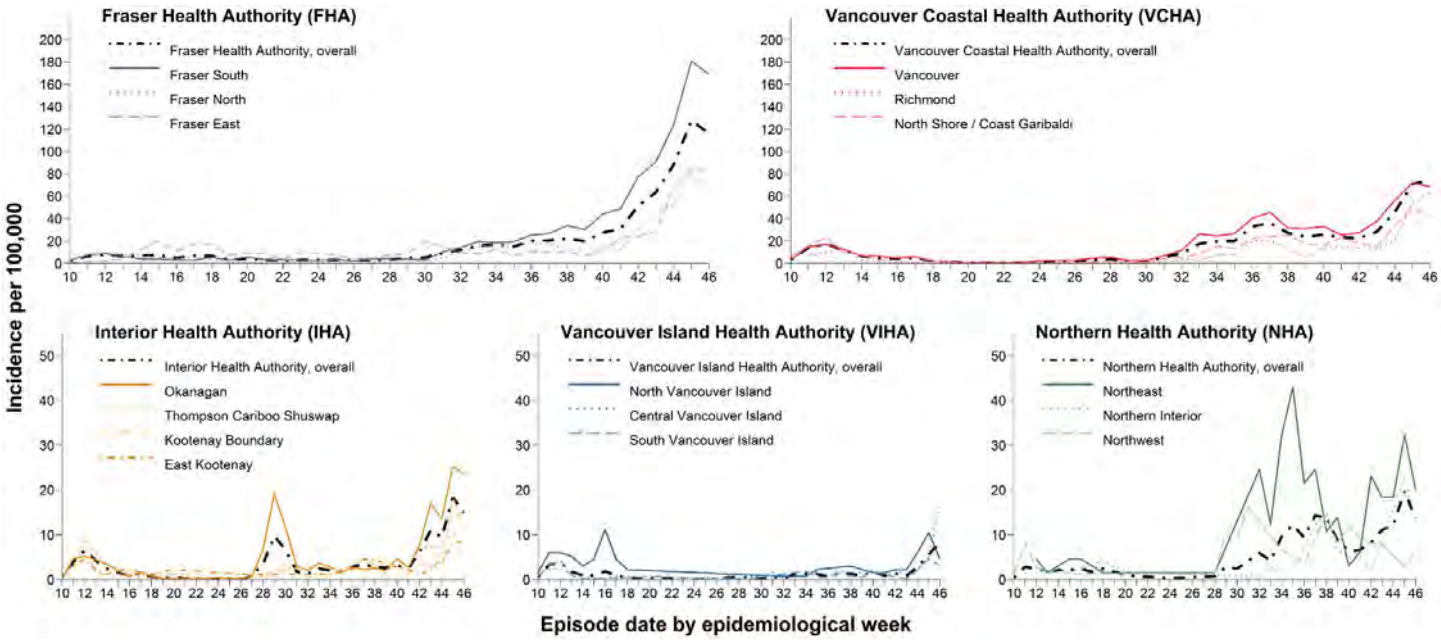
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), BC
January 15, 2020 (week 3) – November 14, 2020 (week 46) (N= 23,652)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (9 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Thursday, November 19, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC
March 1, 2020 (week 10) – November 14, 2020 (week 46)



B. Test rates and percent positive

As shown by the bars in **Figure 3**, the weekly number of respiratory specimens tested for SARS-CoV-2 in BC was highest at about 70,000 tests per week in weeks 40 and 41, declining slightly in weeks 42 to 44 (~60,000 each week), increasing again to about 70,000 tests in week 46. As shown by the line in **Figure 3**, the percent that were SARS-CoV-2 positive (i.e. percent positivity) has increased steadily and steeply from week 41 (~1-2%) to week 46 (>6%), exceeding the peak positivity during wave one in week 14 (5%) when testing was targeted to high risk individuals and the number of tests per week (~7,500) was more than nine times lower than in week 46.

As shown in **Figure 4**, the SARS-CoV-2 testing rate per capita by health authority in BC remains highest in VCHA and FHA. As also shown in **Figure 4**, percent positivity has continued to climb in all health authorities, exceeding 9% in FHA, 4% in VCHA and NHA, 3% in IHA and for the first time since April, exceeding 1% in VIHA.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – November 14, 2020 (week 46)[a]

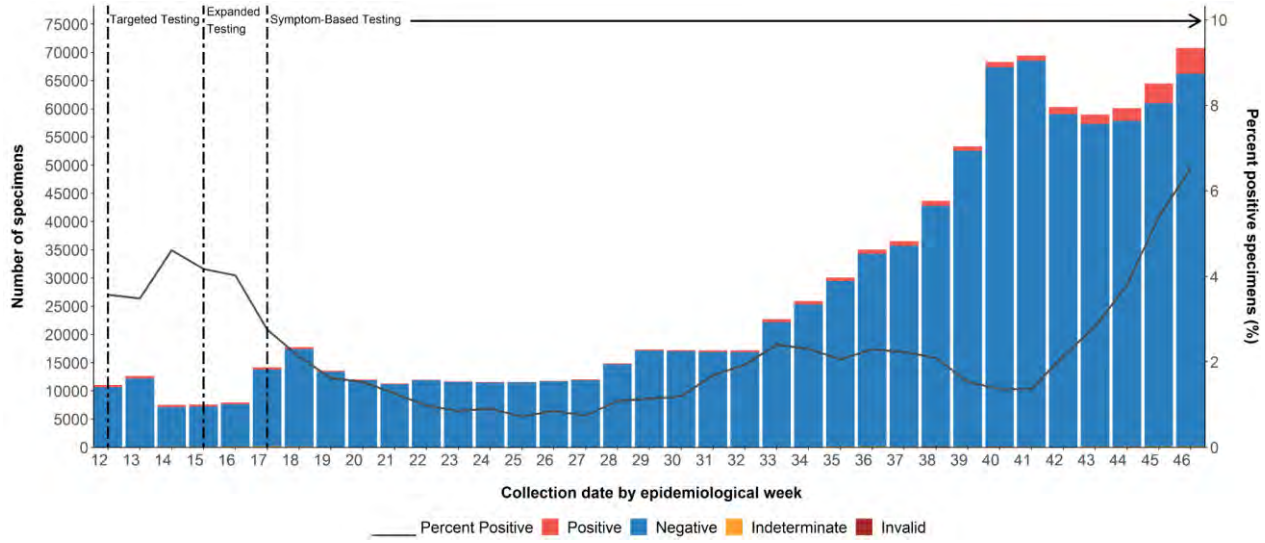
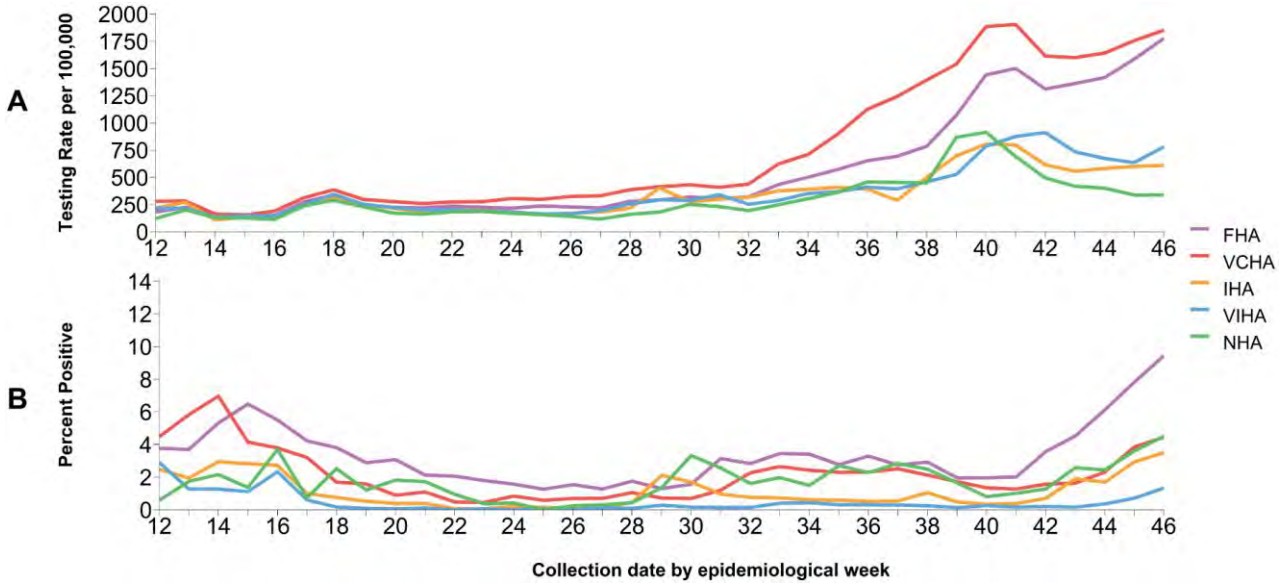


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – November 14, 2020 (week 46) [a]



a. PLOVER extract on November 18, 2020 reflecting all clinical diagnostic laboratories in BC.
b. FHA=Fraser; IHA=Interior; VIHA=Vancouver Island; NHA=Northern; VCHA=Vancouver Coastal Health Authorities.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, average weekly testing rates surged in Phase 3b compared to Phase 3a. Compared to average weekly testing rates across prior weeks 38-45 of Phase 3b, week 46 testing rates decreased among children <15 years but increased in all other age groups. The highest testing rates in week 46 were in adults 20-39 years old.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 46 was substantially higher than prior weeks 38-45 of Phase 3b, exceeding 5% in all age groups but notably exceeding 10% among adults 80+ years.

Case distribution by age group

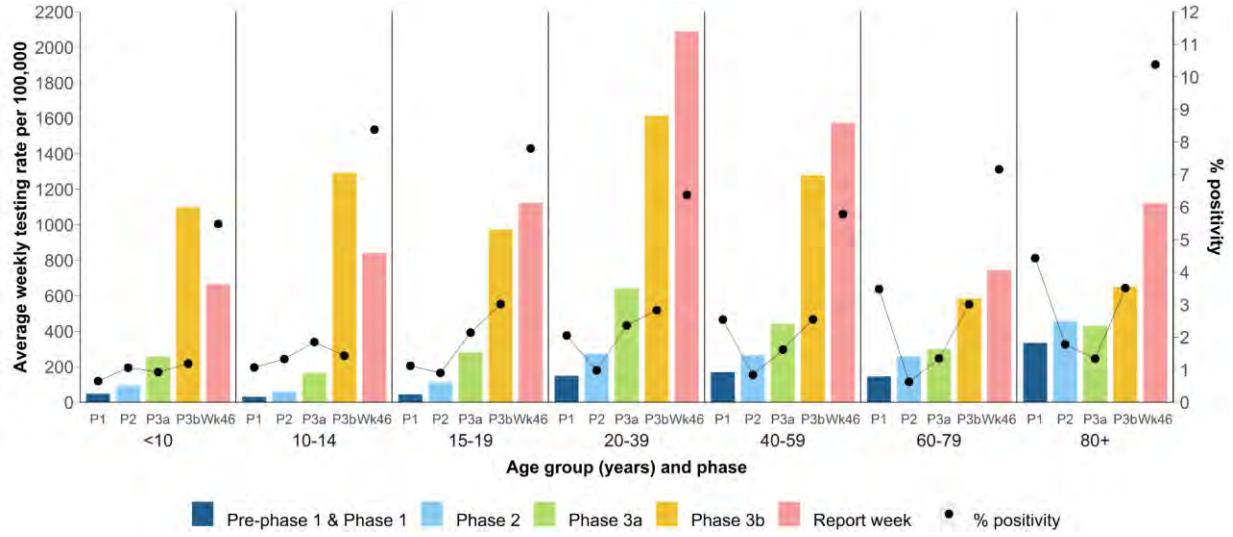
As shown in **Figure 6** and **Figure 7**, adults 20-49 years contributed the greatest share of cases in week 46 (55%) as in prior weeks 38-45 of Phase 3b (59%). The subset of adults 20-39 years, however, contributed less in week 46 (41%) and weeks 38-45 (43%) than in Phase 3a (53%). Whereas contribution by other groups was relatively stable, the greatest increases in proportionate contribution by age group from prior weeks 38-45 of Phase 3b to current report week 46 were among those 10-14 years (from 3.4 to 4.8%; a 41% increase) and 80+ years (from 2.8% to 5.4%, a nearly two-fold increase).

Weekly incidence by age group

As shown in **Figure 8** and **Figure 9** since the start of Phase 3b in week 38 to current report week 46, the weekly incidence has increased in all age groups. Incidence was at least 3.5 times higher in all age groups in week 46 compared to week 38, increasing most among children 10-14 years (7 times) and elderly adults 80+ years (10 times), the latter two groups also showing the greatest increase relative to week 45 (38% and 50%, respectively). The increased incidence among 80+ year-olds (78 per 100K in week 46) is particularly concerning given their greater risk of severe outcomes (**Section E**).Week 46 incidence was highest in adults 20-29 years (109 per 100K) and adults 30-39 years (85 per 100K) but exceeded 50 per 100K in all age groups except children <10 years (34 per 100K), and adults 60-69 years (37 per 100K) and 70-79 years (34 per 100K).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for prior weeks 38-45 of Phase 3b (excluding week 46) and 36 years in week 46 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by age group and phase[a], BC January 20, 2020 (week 4) – November 14, 2020 (week 46) [b,c]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b: 8 weeks). The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

b. PLOVER extract on November 18, 2020 reflecting all diagnostic laboratories in BC. Laboratory testing criteria: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/testing/phases-of-covid-19-testing-in-bc.

c. Among those with available age information only.

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC March 15, 2020 (week 12) – November 14, 2020 (week 46) (N= 23,110)[a]

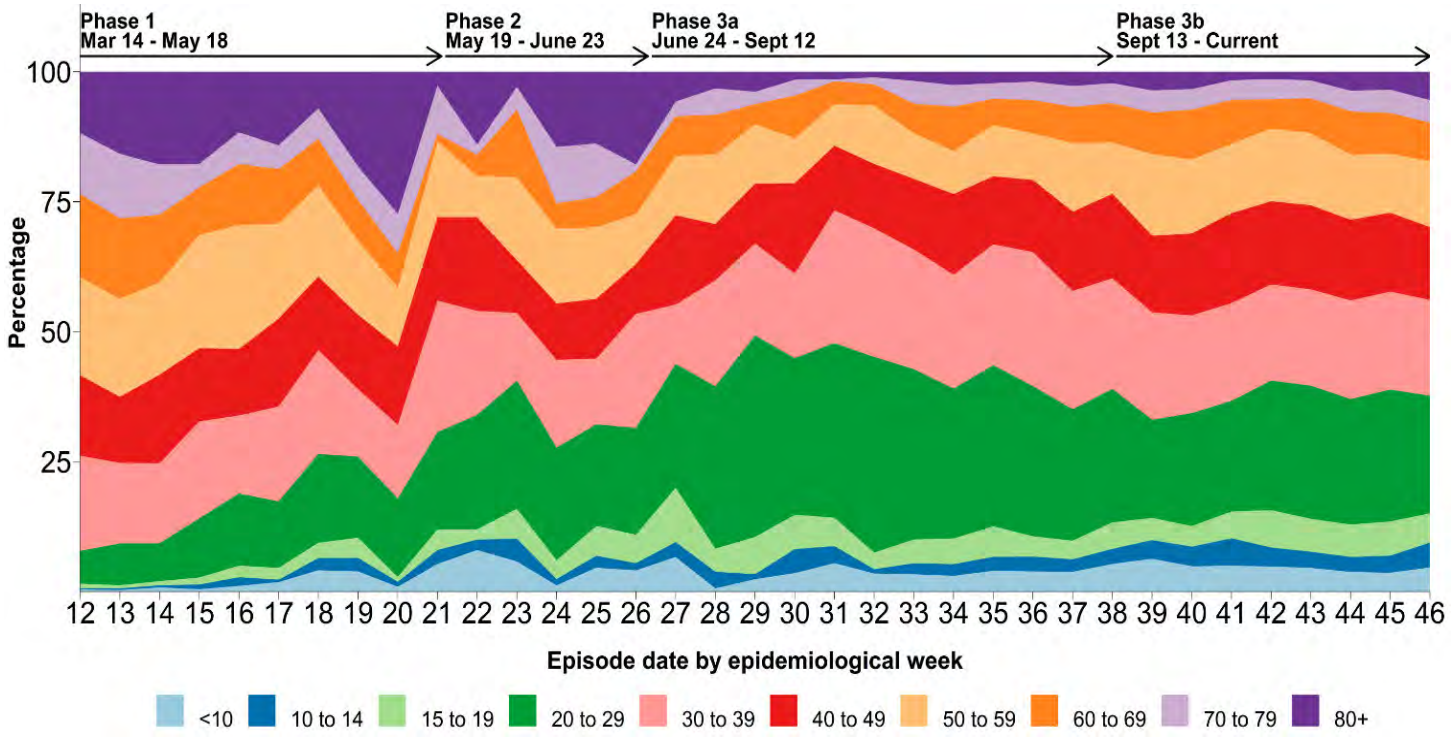
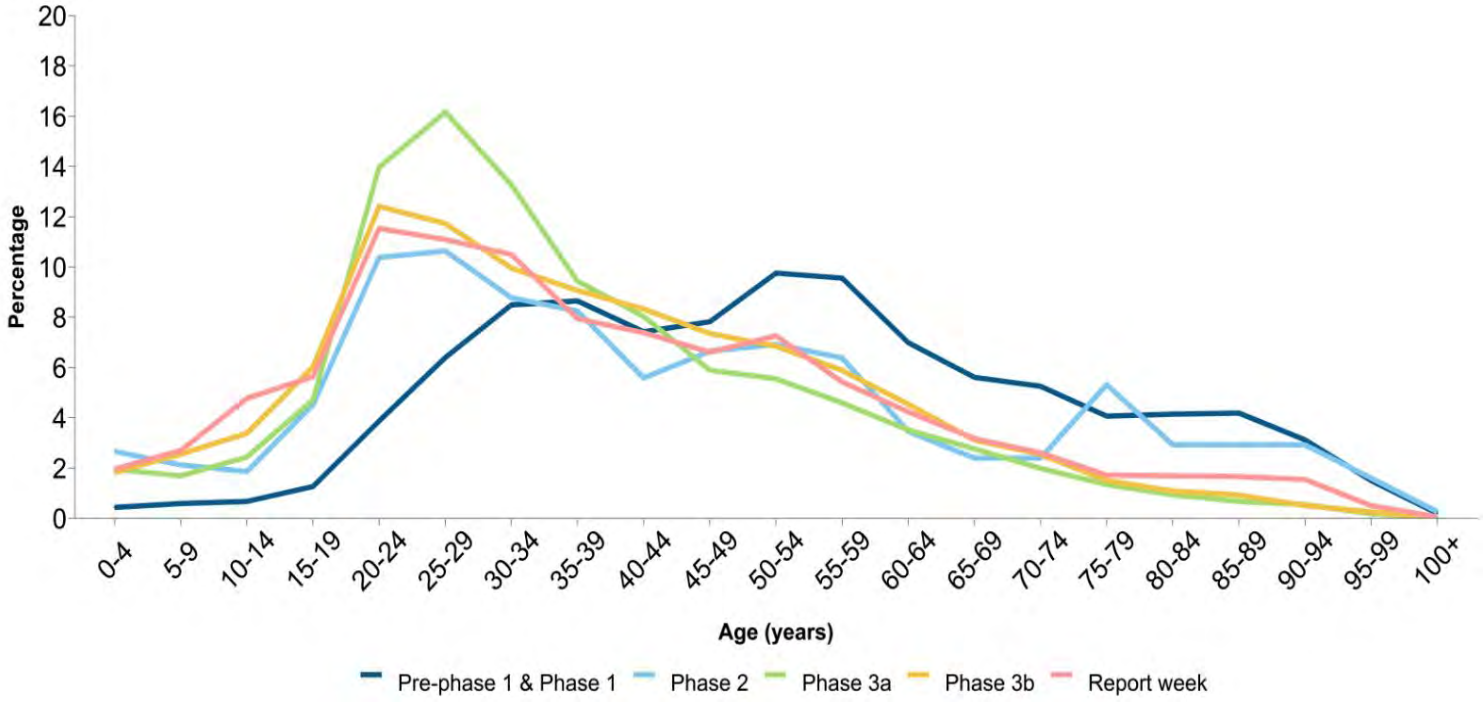


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week[b], BC January 15, 2020 (week 3) – November 14, 2020 (week 46) (N= 23,614)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 8. Weekly age-specific incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – November 14, 2020 (week 46) (N= 23,614)[a]

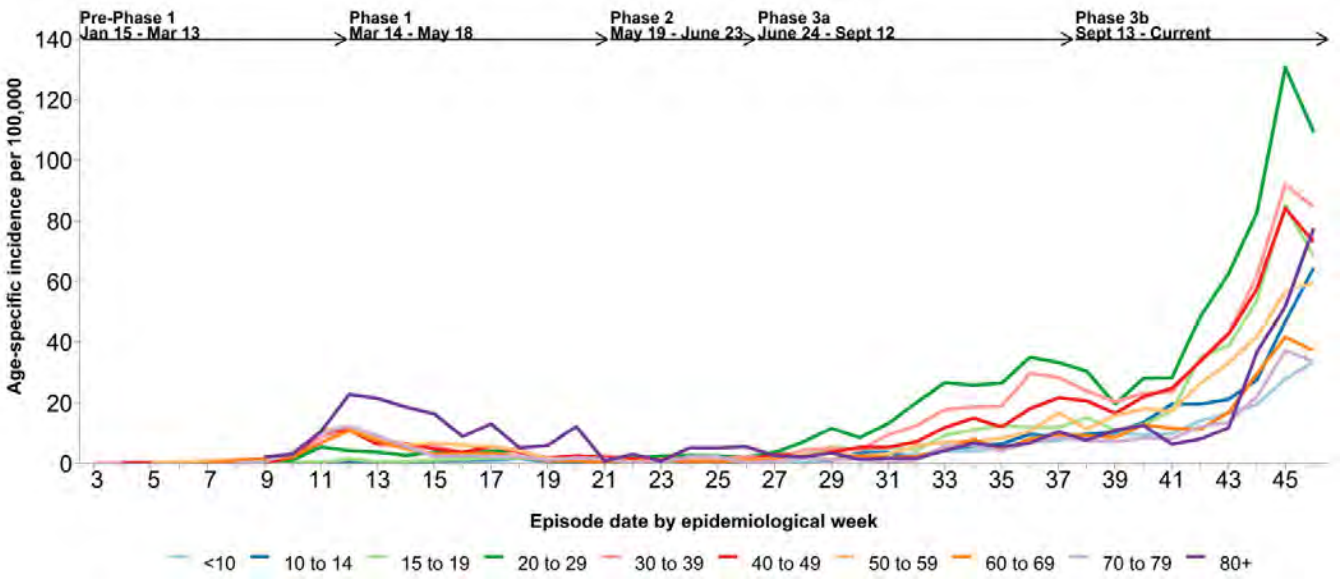
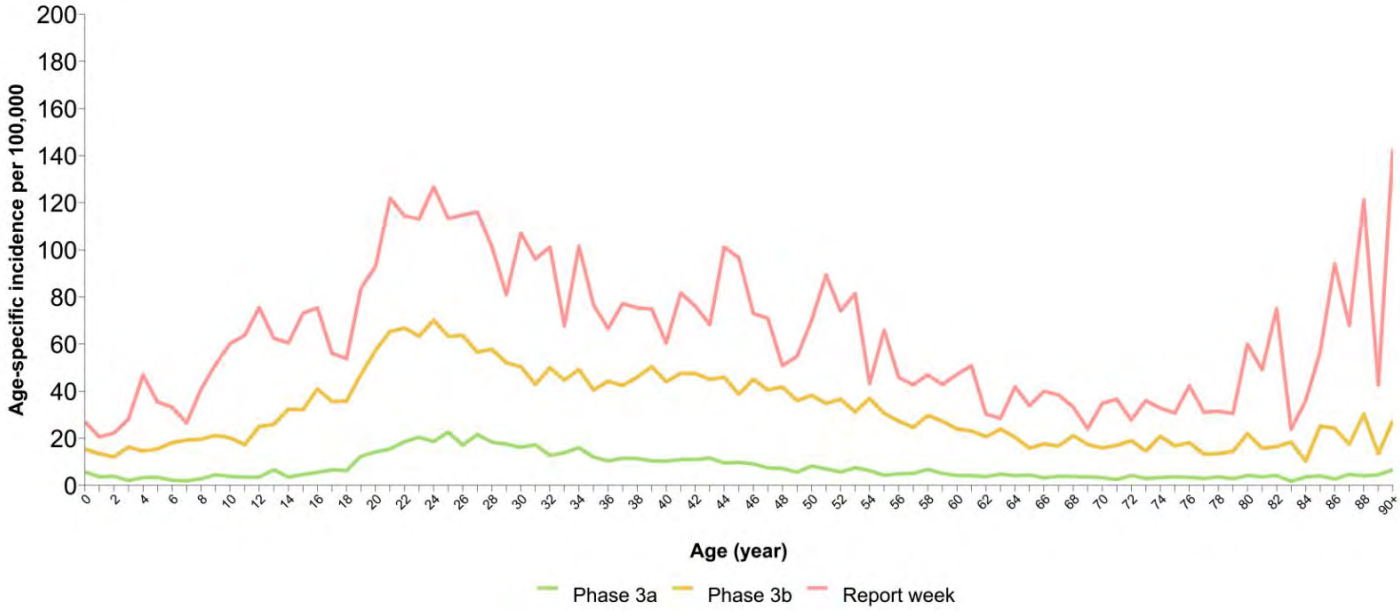


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a and 3b and current report week 46[b], BC
January 15, 2020 (week 3) – November 14, 2020 (week 46) (N= 23,614)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

There were 142 hospitalizations with known admission date (of 143 reported) in week 46 (Table 1), about one third higher than week 45 (109) or the first wave peak in hospital admissions in week 13 (Figure 10). In week 46 there were also 22 deaths recorded, an increase over week 45 (13) and a tally now approaching the first wave peak of 26 deaths in week 15. Of the 22 deaths in week 46, 14 were associated with a care facility outbreak and 17 were 70+ years old but the first COVID-19-associated death in BC under 40-years-old (i.e. 30-39 years) was also recorded. Of the 302 deaths in BC in total to date, about two-thirds (205) were associated with a care facility outbreak and 84% (255) were 70+ years old. Note, that with ongoing increase in cases, the ultimate timing of the second wave peak in severe outcomes has yet to be determined.

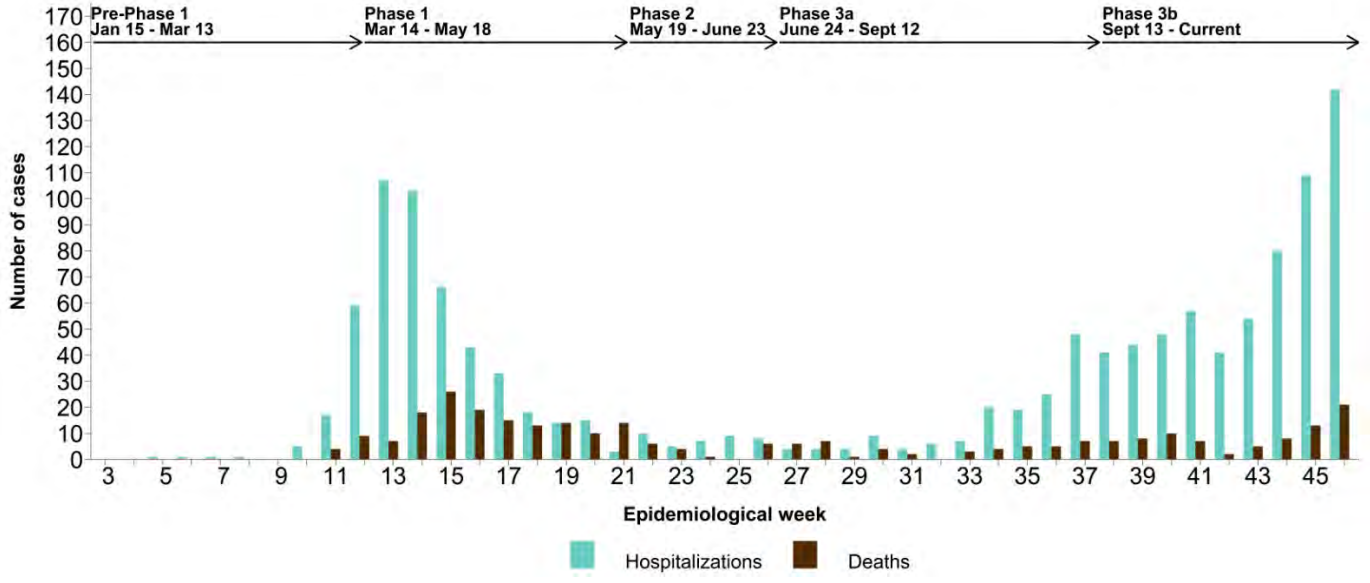
Overall, males comprise 12,028/23,590 (51%) cases, 767/1,302 (59%) hospitalizations, 236/381 (62%) ICU admissions and 176/302 (58%) deaths with known sex to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC January 15, 2020 (week 3) – November 14, 2020 (week 46)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**751**	**50**	**27**	**44**	**425**	**7**	**1,304/23,652 cases (6)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	25	12	179	2	492/1,304 (38)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/1,304 (3)
Phase 3a (11.5 weeks)	98	5	0	10	40	2	155/1,304 (12)
Phase 3b (8 weeks, excluding week 46)	277	12	1	12	175	1	478/1,304 (37)
Week 46	105	3	1	8	25	1	143/1,304 (11)
Ever ICU	**185**	**17**	**9**	**27**	**141**	**2**	**381/23,652 cases (2)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/381 (45)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/381 (2)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/381 (13)
Phase 3b (8 weeks, excluding week 46)	60	3	0	4	49	0	116/381 (30)
Week 46	18	0	0	8	8	0	34/381 (9)
Deaths	**140**	**3**	**6**	**5**	**148**	**0**	**302/23,652 cases (1)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	145/302 (48)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/302 (9)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/302 (15)
Phase 3b (8 weeks, excluding week 46)	30	1	1	3	27	0	62/302 (21)
Week 46	13	0	0	1	8	0	22/302 (7)

a. Outcomes with unknown status are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 10. COVID-19 hospitalization admissions (n= 1,293) and deaths (n= 291), BC January 15, 2020 (week 3) – November 14, 2020 (week 46)



E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 11**, elderly adults 70+ years comprise 9% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (42%) and deaths (84%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (18%) but a commensurate proportion of deaths (10%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 26% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (5%).

Adults 20-39 years comprise a greater share of COVID-19 cases (44%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (13%) and deaths (<1%).

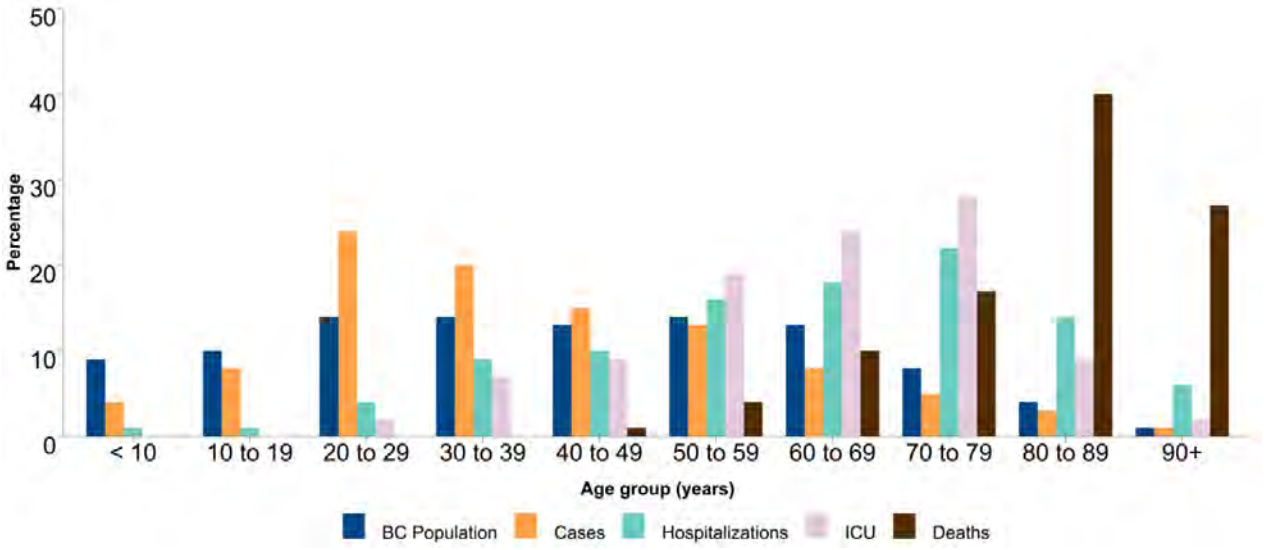
Children <20 years are under-represented overall among COVID-19 cases (12%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (62 vs. 69 years) but unchanged for deaths (85 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – November 14, 2020 (week 46)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	926 (4)	13 (1)	0 (0)	0 (0)	469,351 (9)
10-19	1,947 (8)	11 (1)	0 (0)	0 (0)	527,805 (10)
20-29	5,590 (24)	55 (4)	9 (2)	0 (0)	697,691 (14)
30-39	4,606 (20)	112 (9)	25 (7)	1 (<1)	735,052 (14)
40-49	3,541 (15)	124 (10)	34 (9)	4 (1)	646,035 (13)
50-59	3,052 (13)	214 (16)	72 (19)	11 (4)	718,272 (14)
60-69	1,853 (8)	234 (18)	93 (24)	31 (10)	673,131 (13)
70-79	1,079 (5)	282 (22)	106 (28)	52 (17)	435,062 (8)
80-89	675 (3)	185 (14)	35 (9)	121 (40)	187,443 (4)
90+	345 (1)	73 (6)	7 (2)	82 (27)	49,726 (1)
Total	**23,614**	**1,303**	**381**	**302**	**5,139,568**
Median age	**37**	**64**	**65**	**85**	**41**

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, BC January 15, 2020 (week 3) – November 14, 2020 (week 46) (N=23,614)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 3** and **Figure 12**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

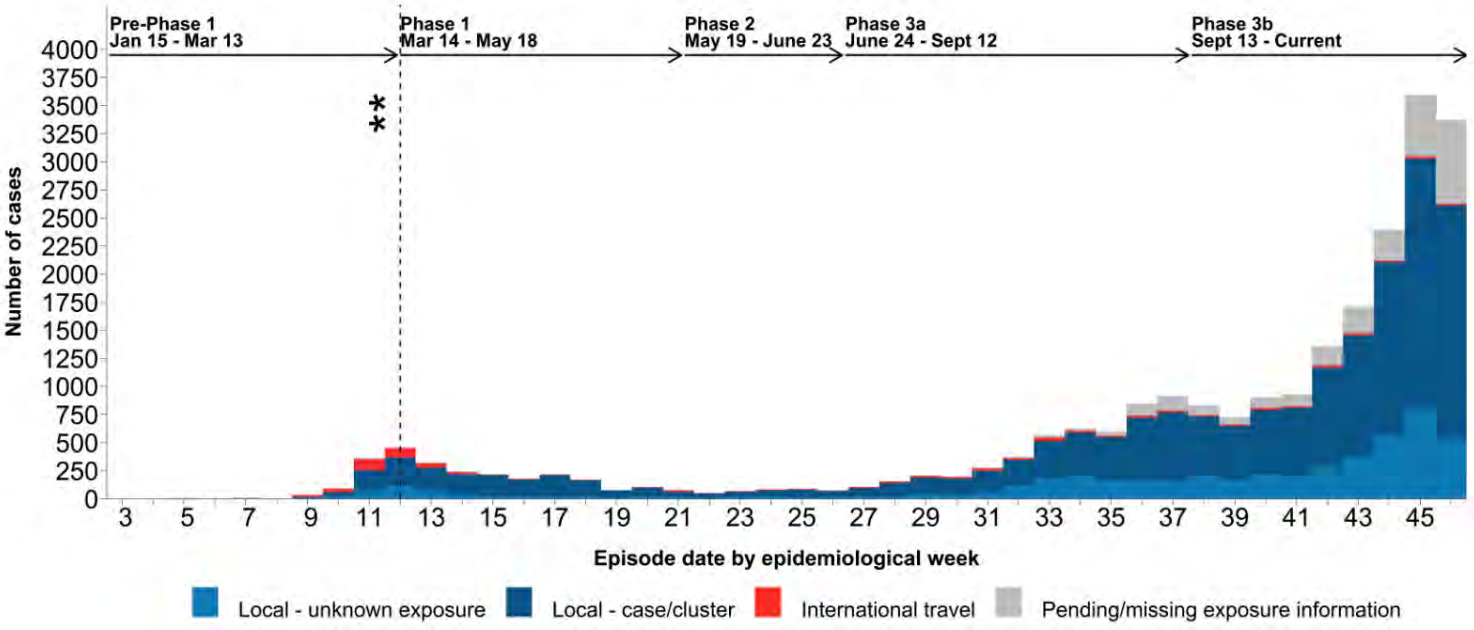
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 46.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, British Columbia
January 15, 2020 (week 3) – November 14, 2020 (week 46)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	208 (46)	96 (21)	14 (3)
Phase 1	188 (9)	1,499 (72)	350 (17)	42 (2)
Phase 2	30 (8)	262 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,208 (65)	1,174 (24)	356 (7)
Phase 3b (excluding week 46)	120 (1)	7,921 (64)	2,821 (23)	1,590 (13)
Week 46	15 (<1)	2,082 (62)	529 (16)	747 (22)
Total	**669 (3)**	**15,180 (64)**	**5,052 (21)**	**2,751 (12)**

Figure 12. Likely source of COVID-19 infection by episode date, British Columbia
January 15, 2020 (week 3) – November 14, 2020 (week 46)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 13** 162 care facility outbreaks were reported in total in BC to the end of week 46. There were 22 new care facility outbreaks reported in week 46 (13 of which were reported by Fraser Health Authority, 5 by VCHA, 3 by IHA, and 1 by VIHA), with 11 of these outbreaks having earliest onset date in preceding weeks. Facility outbreak tallies by earliest onset date are highest thus far in week 45 (16 outbreaks).

Fourteen of the 22 deaths in total reported in week 46 in BC involved adults in a care facility setting in Fraser Health Authority (9 deaths), Vancouver Coastal Health Authority (4 deaths) or Northern Health Authority (1 death). Thirteen of these 14 deaths were elderly adults 70+ years.

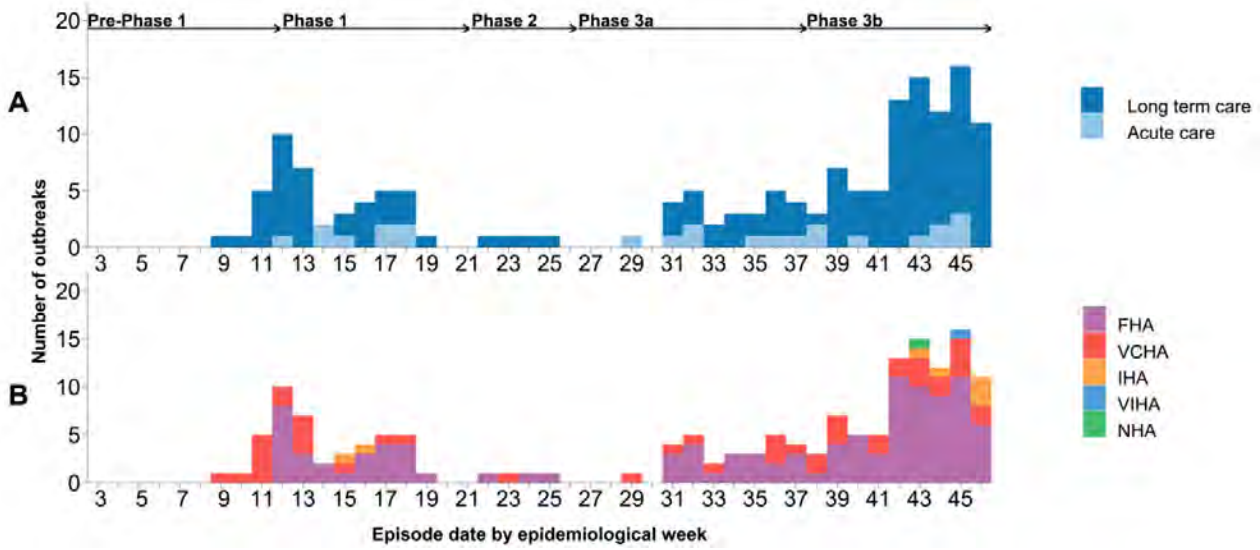
Of 15,825 cases overall in BC with episode date in Phase 3b (i.e. weeks 38-46), 773 (5%) were associated with a care facility outbreak, a proportion similar to Phase 3a overall (184/4,919; 4%), but lower than before Phase 3a (613/2,908; 21%).

More than two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (205/302; 68%) and of those, more than two-thirds occurred before Phase 3a (120/172; 70%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – November 14, 2020 (week 46) (N=162)

	Outbreaks	Cases				Deaths		
		Residents	Staff/ visitors	Unknown	Total	Residents	Staff/ visitors	Total
Total	**162**	**890**	**672**	**8**	**1,570**	**205**	**0**	**205**
Pre-/Phase One (17 weeks)	44	331	213	0	544	96	0	96
Phase 2 (5 weeks)	4	51	18	0	69	24	0	24
Phase 3a (11.5 weeks)	27	91	93	0	184	39	0	39
Phase 3b (8 weeks, excluding week 46)	76	259	246	5	510	32	0	32
Week 46	11	158	102	3	263	14	0	14
Active outbreaks[b]	47	-	-	-	-	-	-	-
Outbreaks declared over[b]	115	-	-	-	-	-	-	-

Figure 13. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – November 14, 2020 (week 46) (N=162)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of November 14, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 14**) related to COVID-19 have shown an overall increasing trend from week 32 to 40 at ~13,500 calls per week but decreasing in later weeks reaching>10,000 calls in 43. Calls have gradually increased thereafter, reaching ~13,500 calls once again in week 46.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 15**) related to COVID-19 (including telehealth billings) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to around 3,200 visits in weeks 42 and 43, before increasing again in weeks 44 to 46 to ~4,200.

Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – November 14, 2020 (week 46)

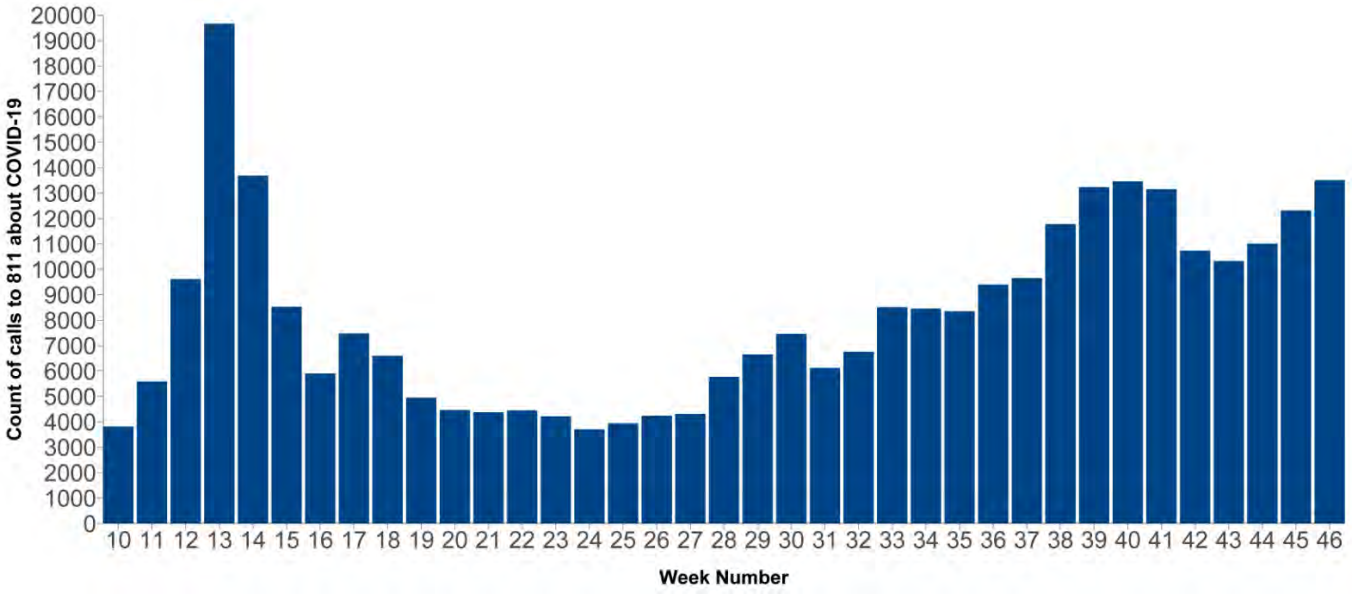
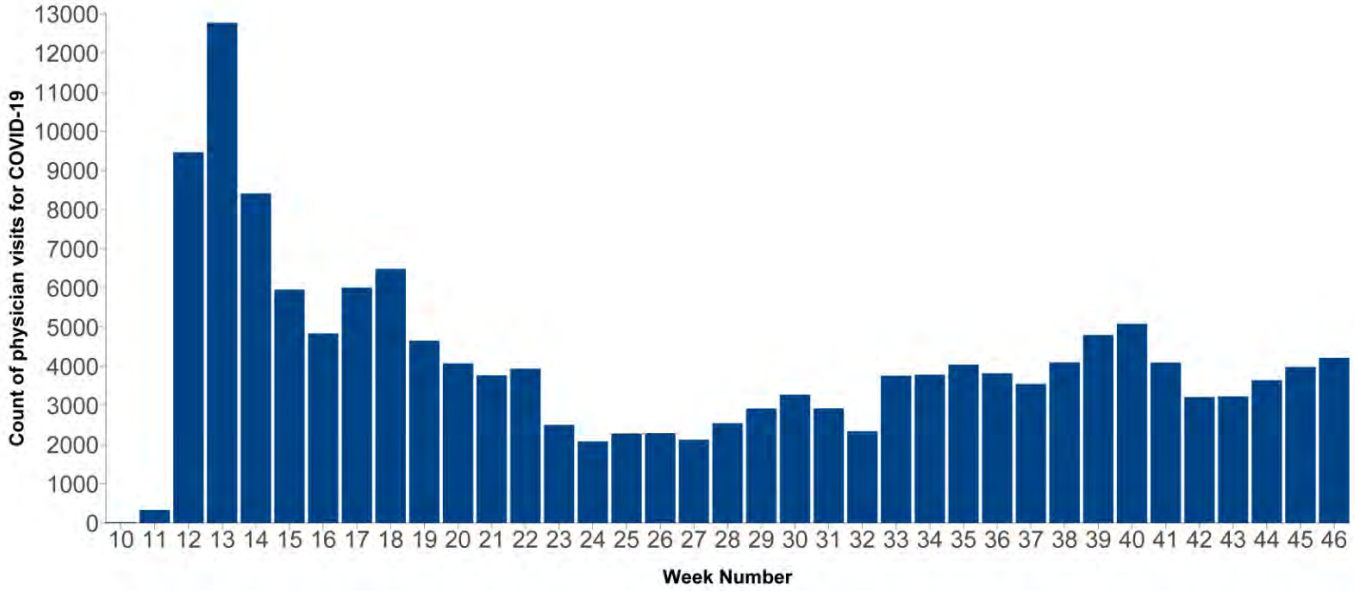


Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – November 14, 2020 (week 46)



British Columbia (BC)
COVID-19 Situation Report
BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 47: November 15 – November 21, 2020

Table of Contents

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

COVID-19 levels remain elevated in BC: older adult involvement escalates

COVID-19 incidence remained elevated in week 47 in all health authorities (HA), and is expected to further increase as data become more complete. In week 47, incidence provincially was 77 per 100K, about 5 times higher than the week 38 (mid-September) start of Phase 3b. Week 47 incidence was 132 per 100K in Fraser (FHA), 78 per 100K in Vancouver Coastal (VCHA), 35 per 100K in Northern (NHA), 27 per 100K in Interior (IHA), and 12 per 100K in Vancouver Island (VIHA).

Incidence in week 47 was at least triple that of week 38 for all age groups. Of concern, adults 80+ had amongst the highest incidence at 116 per 100K which is ~35% higher than in week 46 and 16 times higher than in week 38. Adults 80+ years comprised 7% of cases in week 47, double their share in week 38 (3%).

Lab surveillance data include Medical Service Plan (MSP) (e.g. clinical diagnostic) as well as non-MSP (e.g. asymptomatic screening) specimens. However, screening specimens have lower likelihood of testing positive and comprise an increased share of specimens tested across Phase 3b, notably in the Lower Mainland. In prior reports, percent positivity was based on all specimens but will now also be presented separately for MSP specimens only.

Percent positivity (MSP only) remained elevated in week 47, at 8.5% provincially: 11% in FHA, 8% in VCHA and NHA, 5% in IHA and 1.5% in VIHA. Positivity exceeded 8% in all age groups except children 0-9 years (5%): highest (approaching 10%) in 15-19 year olds and next highest (approaching 9%) in adults 20-39 and 80+ years.

There were 199 hospitalizations with a known admission date in week 47, about 33% higher than week 46 (150) and 86% higher than the first wave peak in week 13 (107). Given ongoing increase in cases among older adults, the ultimate tally and timing of the second wave peak in severe outcomes has yet to be determined.

In week 47, there were 48 deaths, about double the tally in week 46 (22) and the first wave peak in week 15 (26). In week 47, 31 (65%) deaths were associated with a care facility outbreak and 43 (90%) were 70+ years. Of 354 total deaths in BC to date, 239 (68%) were facility outbreak-associated and 300 (85%) were 70+ years.

There were 23 care facility outbreaks reported in week 47 (16 in FHA, 4 in VCHA, 1 in IHA and 2 in VIHA), 15 with earliest onset date in prior weeks. Facility outbreak tallies by earliest onset date are highest so far in week 46 (23 outbreaks).

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when those dates are unknown, is report date used.
- Data are provided by epidemiological week. Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- Laboratory data include Medical Service Plan (MSP) (e.g. clinical diagnostic) as well as non-MSP (e.g. screening) specimens. The percent of specimens testing positive is presented here for all specimens tested as well as separately for MSP-funded specimens only. Given the systematically lower likelihood of test positivity among screening vs diagnostic specimens, summary analyses are foremost based on MSP-funded diagnostic specimens unless otherwise specified.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 47), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there were 4,498 new COVID-19 reports in week 47 which is ten times higher than the wave one peak of 442 reports in week 13. The weekly tally by report date, however, includes cases with illness onset date in preceding weeks. Analyses instead based on episode date (i.e. illness onset date and, only if that is unavailable, then report date) may better represent the evolution of the epidemic curve. The bars in **Figure 1** display the epidemic curve based on episode date, coloured by health authority. Note that episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete.

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

Provincially, between week 3 (mid-January) and week 47 (third week of November), there have been 28,718 cases in total in BC, corresponding to a cumulative incidence of 557 per 100K. By HA, this cumulative tally (and incidence) includes: 18,000 cases in Fraser Health Authority (FHA: 928 per 100K); 8,067 cases in Vancouver Coastal Health Authority (VCHA: 666 per 100K); 1,356 cases in Interior Health Authority (IHA: 162 per 100K); 674 cases in Northern Health Authority (NHA: 235 per 100K); and 530 cases in Vancouver Island Health Authority (VIHA: 61 per 100K).

Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

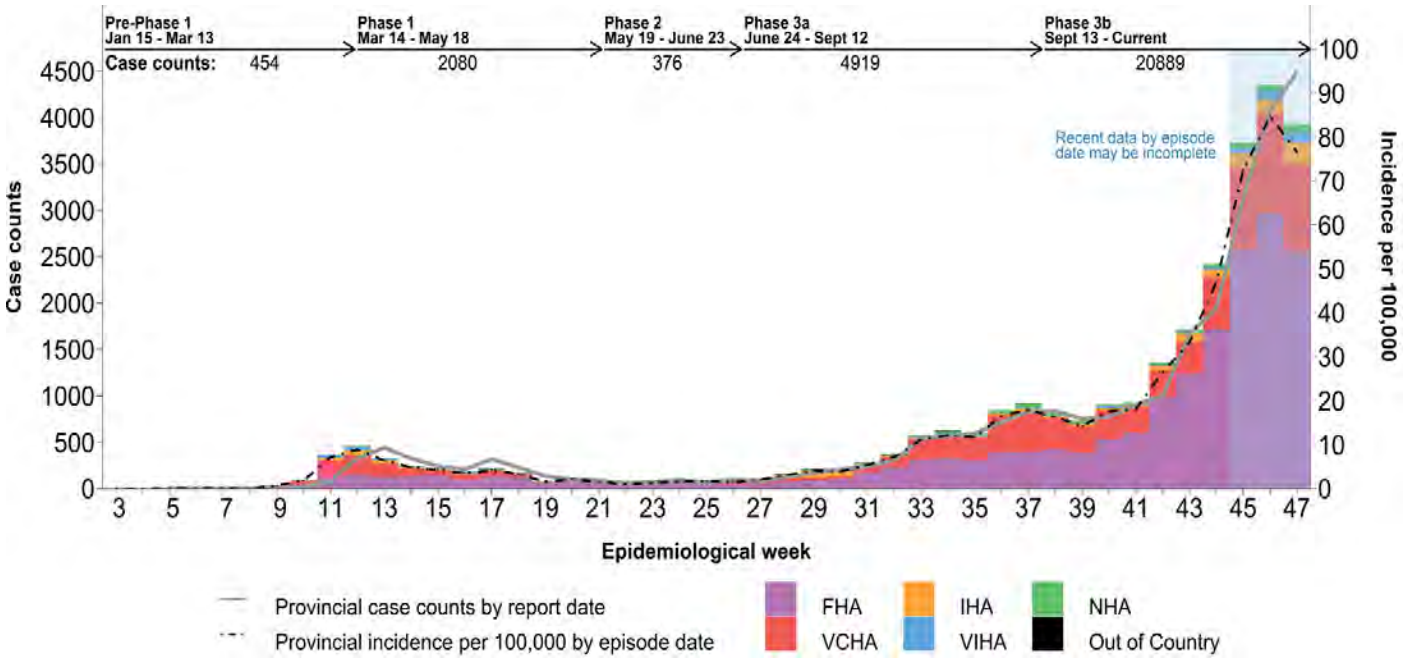
As shown in **Figure 1**, at the week 38 (mid-September) start of Phase 3b and in week 41, COVID-19 incidence was <20 per 100K (16 and 18 per 100K, respectively) but has shown steady increase since week 41.

As of data extraction for the current bulletin, there were 4,354 and 3,931 cases with episode date in weeks 46 week 47, respectively, corresponding to incidences of 85 and 77 per 100K – about five times higher than the start of Phase 3b. Recognizing that episode-based data for week 47 are still incomplete, and if previous trends continue, we may expect the episode-based rate in week 47 to match or exceed the rate based on report date, which is 88 per 100K.

As shown in **Figure 2**, incidence in week 47 was highest in FHA and VCHA. In FHA, incidence in week 47 was six times higher than week 38 (132 vs 22 per 100K). Week 47 incidence was 2.5 times that of week 38 in VCHA (78 vs 27 per 100K) and NHA (35 vs 14 per 100K). In IHA, week 47 incidence was nine times higher than in week 38 (27 vs 3 per 100K), with noteworthy increase in the Okanagan HSDA, where there was a sharp increase in the most recent week 47. In VIHA, week 47 incidence was 12 times higher than week 38 (12 vs 1 per 100K), notably in Central Vancouver Island, while remaining the lowest incidence overall by HA.

It warrants repeating that episode-based tallies for recent weeks will further increase as data become more complete, as emphasized by the pale blue shading in Figure 1.

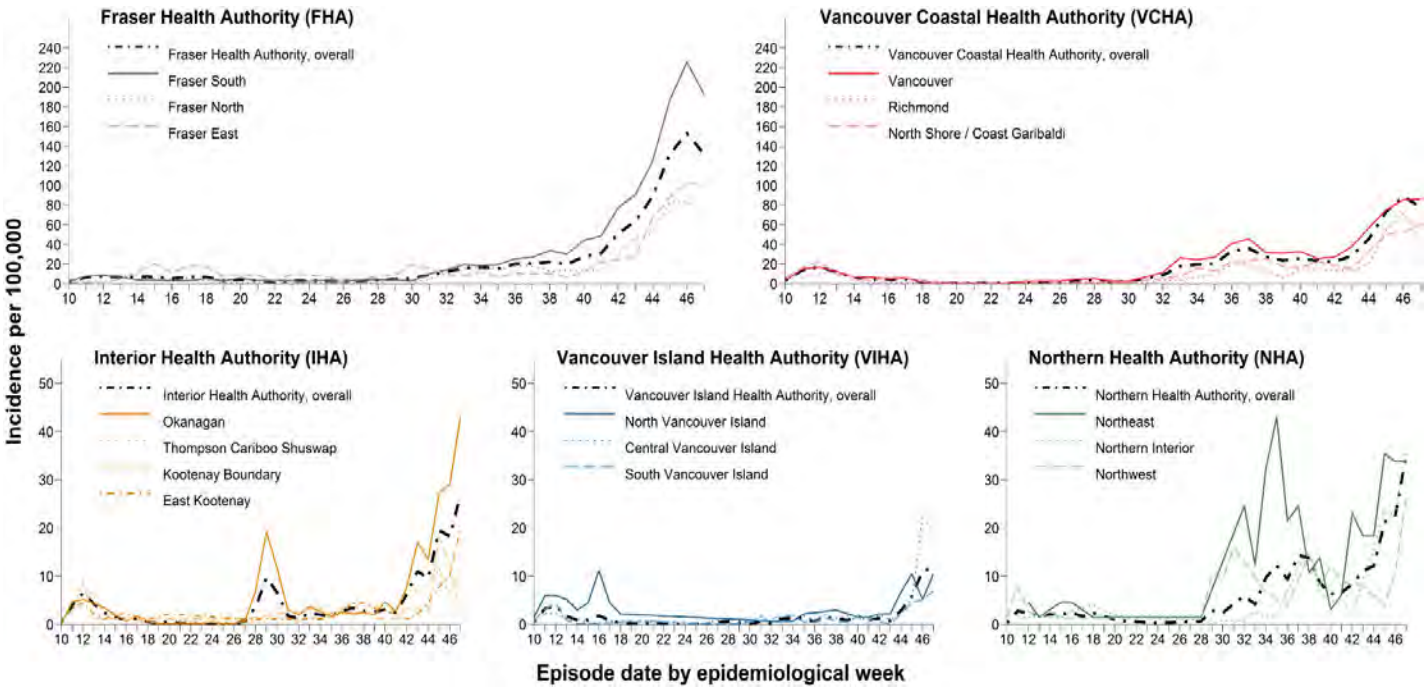
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), BC January 15, 2020 (week 3) – November 21, 2020 (week 47) (N= 28,718)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (10 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Friday, November 27, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – November 21, 2020 (week 47)



B. Test rates and percent positive

In BC, laboratory-based surveillance captures the mostly symptom-based diagnostic testing conducted under the Medical Service Plan (MSP) funding scheme, as well as any non-MSP funded screening tests. As shown by the bars in **Figure 3**, the total weekly number of respiratory specimens, both MSP and non-MSP funded, exceeded 80,000 in week 47.

Screening tests have a lower likelihood of testing SARS-CoV-2 positive (i.e. percent positivity) than symptom-based diagnostic testing; therefore, including screening specimens will lower the overall percent positivity indicator and the impact of that will be greater when more screening specimens are included. Below we therefore present percent positivity based on all (MSP and non-MSP funded) specimens and separately also for MSP-funded specimens only.

As shown in **Figure 3**, percent positivity has increased from week 41-47, from 1.4% to 6.6% based on all specimens (solid line) but more steeply from 1.8% to 8.5% with restriction to MSP-funded specimens only (dotted line). As shown in **Panel A** of **Figure 4**, whether based on all specimens or MSP-funded specimens only, the per capita testing rate in week 47 was highest in VCHA and FHA. As shown in **Panel B**, percent positivity was also highest in FHA whether based on all specimens (9.0%) or MSP-funded specimens only (11.2%), and next highest in VCHA (4.8% and 7.9%, respectively). In other health authorities, non-MSP funded specimens contributed less to overall tested specimens, with percent positivity for MSP-funded specimens of 7.8% in NHA, 4.6% in IHA and 1.5% in VIHA, each varying within 0.2% of positivity when all specimens are included.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – November 21, 2020 (week 47)[a]

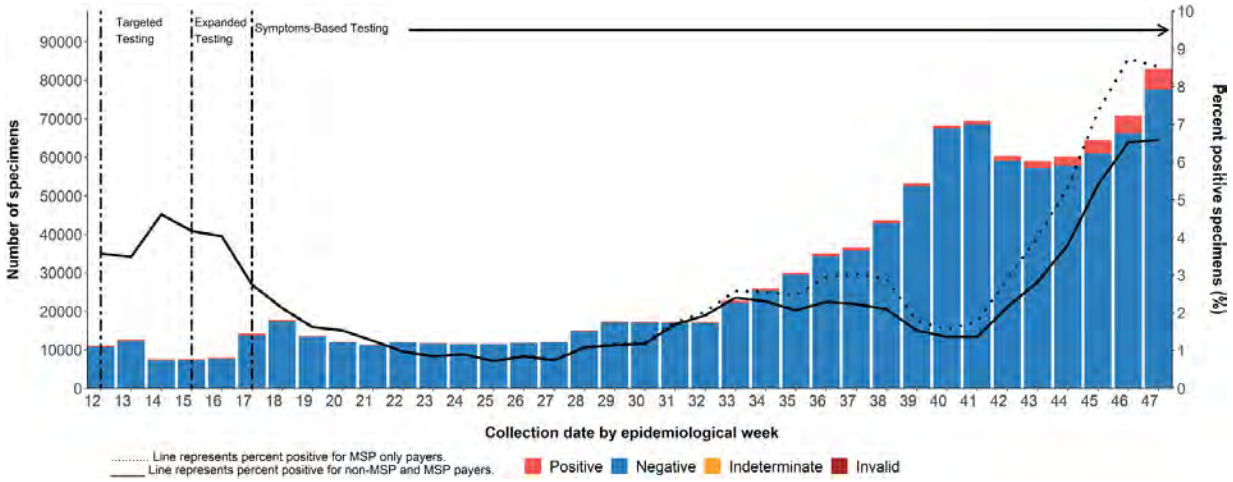
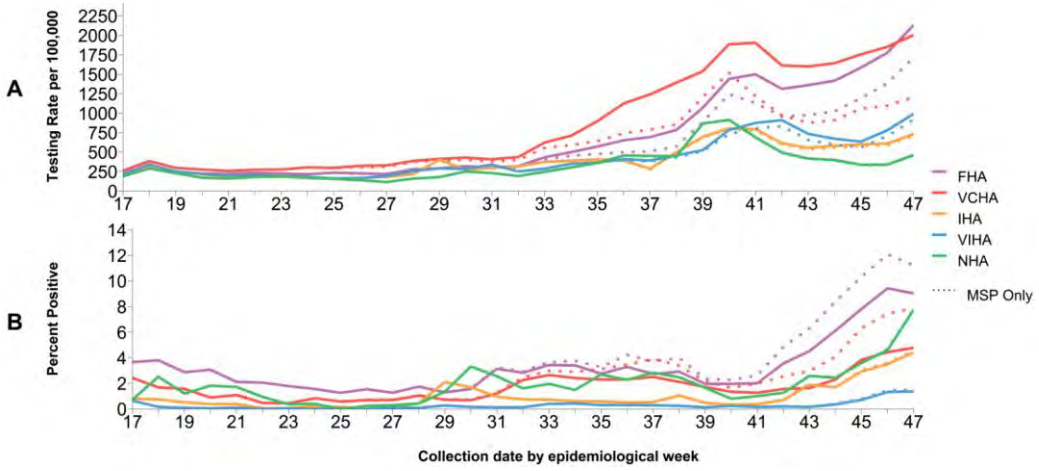


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – November 21, 2020 (week 47) [a]



a. PLOVER extract on November 26, 2020.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing rates in week 47 compared to prior weeks 38-46 of Phase 3b were lower in children <15 years old, but higher in all other age groups. The highest testing rates in week 47 remain in adults 20-39 years, similar to weeks 38-46 of Phase 3b.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 47 was substantially higher than prior weeks 38-46 of Phase 3b whether based on all specimens (black dots) or restricted to MSP specimens only (grey dots). With restriction to MSP specimens only, percent positivity exceeded 8% in all age groups except children 0-9 years (5.2%), highest and approaching 10% in 15-19 year olds (9.6%), next highest and approaching 9% in adults 20-39 and 80+ years (8.9% and 8.8%, respectively).

Case distribution by age group

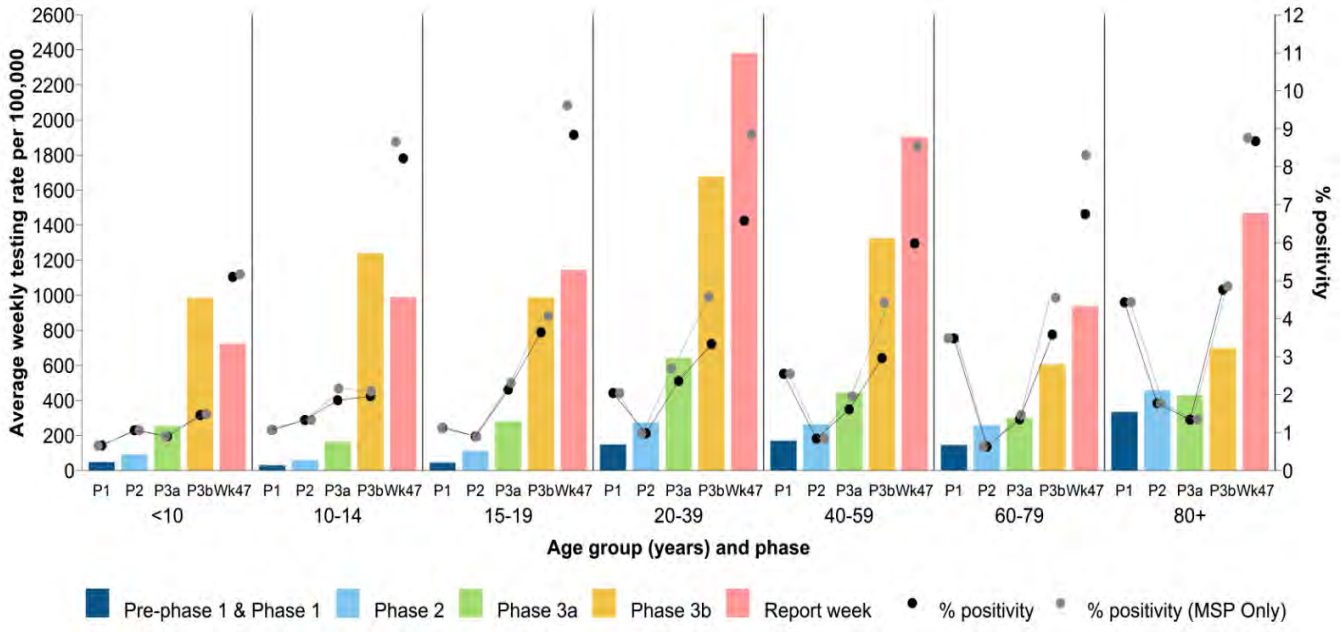
As shown in **Figure 6** and **Figure 7**, elderly adults 80+ years showed the greatest increase in contribution from prior weeks 38-46 of Phase 3b to current report week 47 (from 3.3% to 7.0%: more than a doubling). Contribution by other age groups was relatively stable, although adults 20-39 years who contributed more than half the cases in Phase 3a (53%) contributed less in week 47 (39%) and prior weeks 38-46 of Phase 3b (43%).

Weekly incidence by age group

As shown in **Figure 8** and **Figure 9** incidence in all age groups in week 47 was at least triple that of week 38. In week 47, incidence was highest in adults 20-29 years (124 per 100K), fourfold higher than in week 38 (30 per 100K). Of concern, week 47 incidence was next highest in elderly adults 80+ years (116 per 100K): 16-fold higher than week 38 (7 per 100K) and 35% higher than prior week 46 (86 per 100K). As shown in **Figure 9**, incidence among the very old 90+ years is also dramatically elevated in week 47 compared to the average weekly incidence of Phase 3b (5-fold higher from 38 to 189 per 100K). The elevated incidence among the elderly is particularly concerning given their greater risk of severe outcomes (**Section E**).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for prior weeks 38-46 of Phase 3b (excluding week 47) and 38 years in week 47 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase[a], BC January 20, 2020 (week 4) – November 21, 2020 (week 47) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b: 9 weeks). The current report week, although part of Phase 3b, is excluded from Phase 3b as displayed here to enable comparison.

b. Laboratory extract from PLOVER on November 26, 2020. Testing rates displayed are based on all specimens (MSP and non-MSP).

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC March 15, 2020 (week 12) – November 21, 2020 (week 47) (N= 28,162)[a]

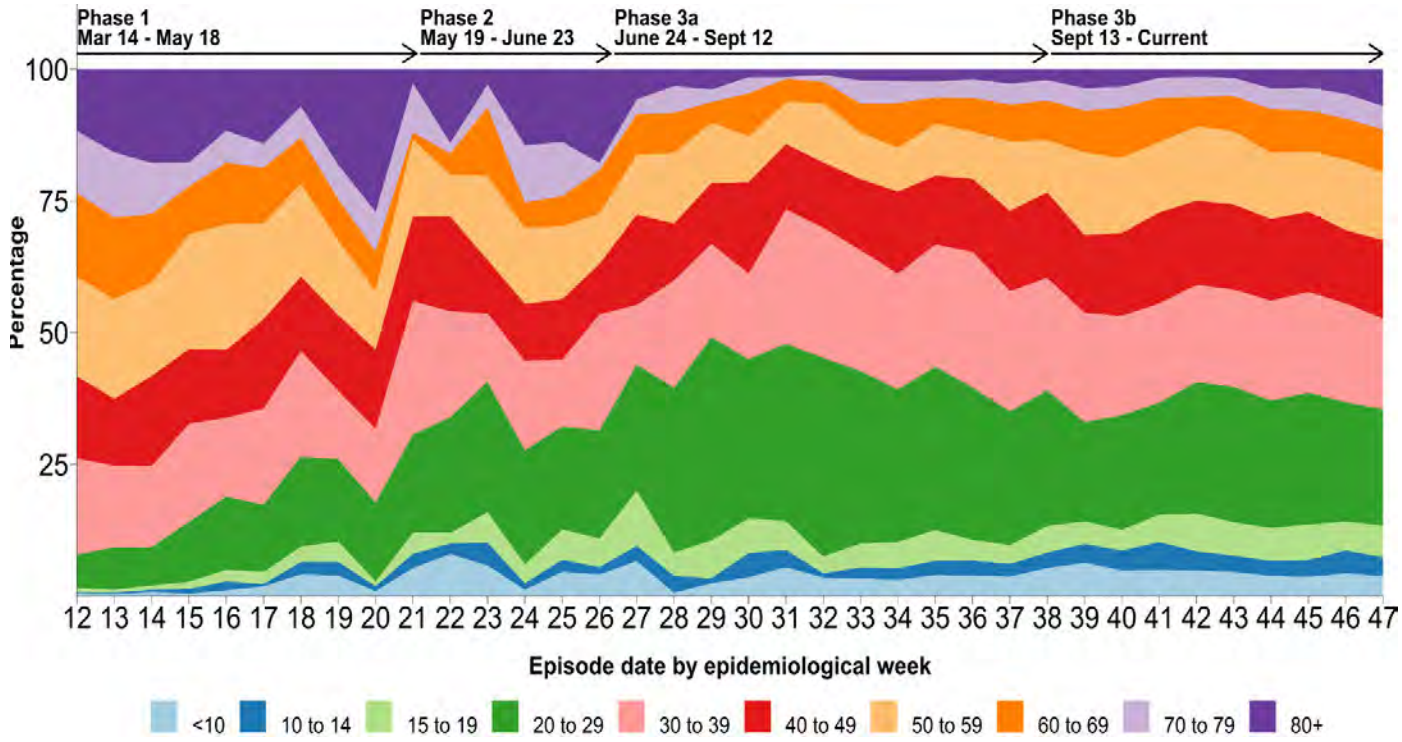
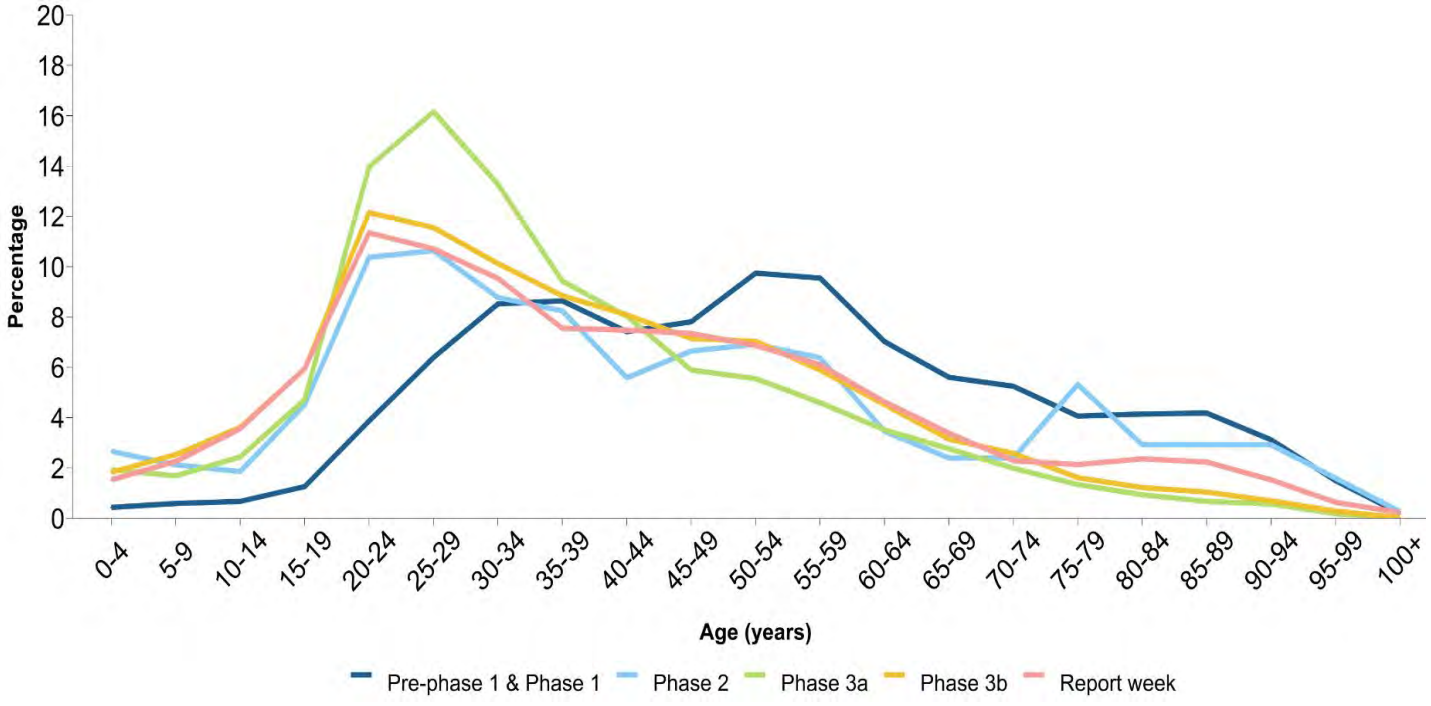


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week[b], BC January 15, 2020 (week 3) – November 21, 2020 (week 47) (N= 28,667)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 8. Weekly age-specific incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – November 21, 2020 (week 47) (N= 28,667)[a]

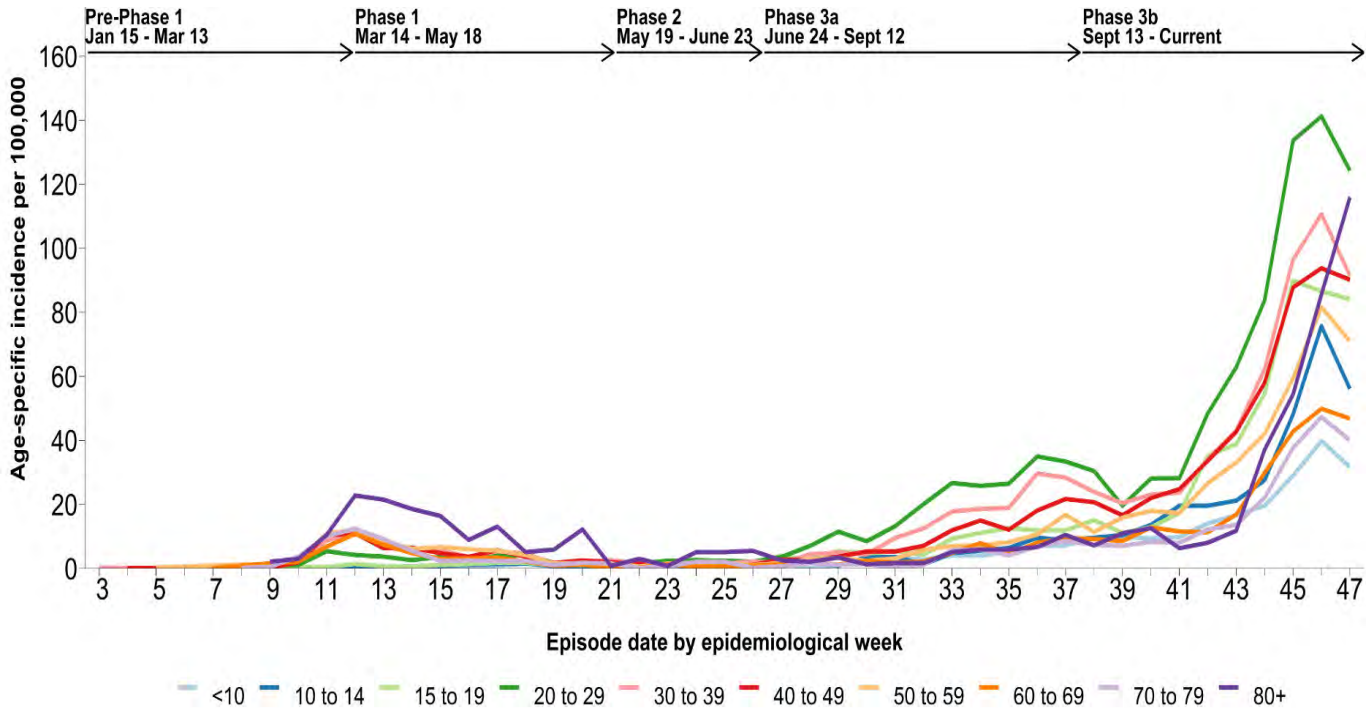
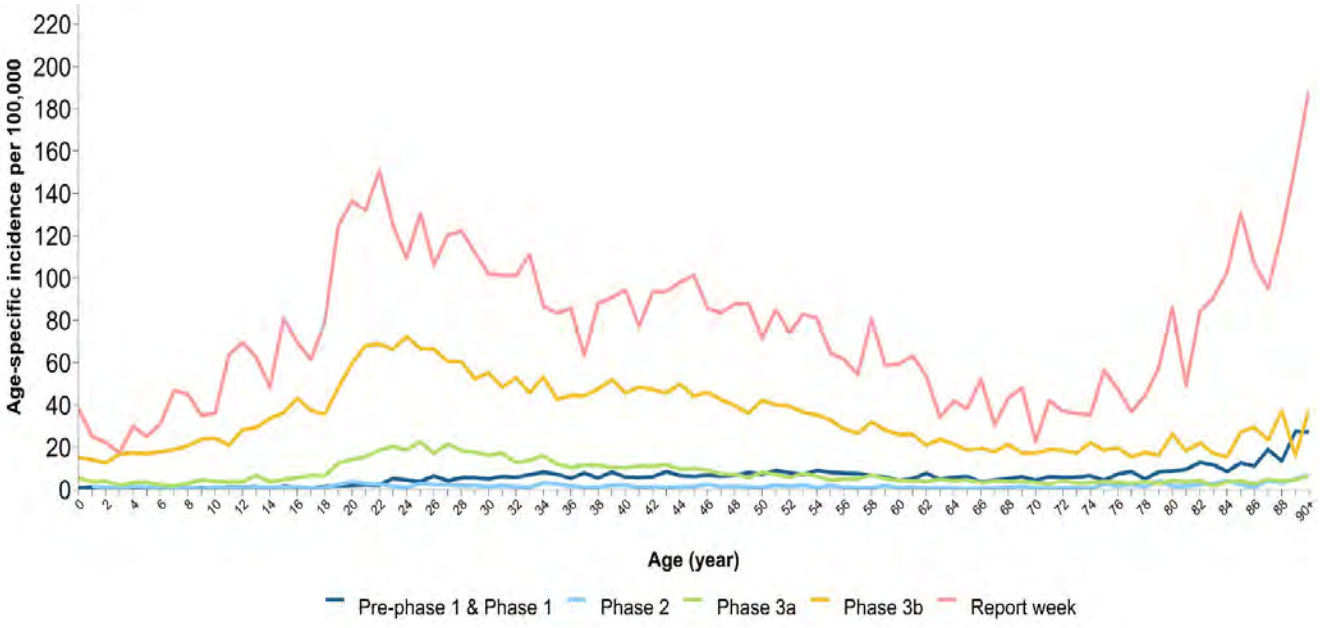


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a and 3b and current report week 46[b], BC
January 15, 2020 (week 3) – November 21, 2020 (week 47) (N= 28,667)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

There were 199 hospitalizations with known admission date (of 202 reported) in week 47 (Table 1), 33% higher than week 46 (150) and 86% higher than the first wave peak of 107 hospital admissions in week 13 (Figure 10). In week 47 there were 48 deaths, about double the tally of week 46 (22) and the first wave peak in week 15 (26). In week 47, 31/48 (65%) deaths were associated with a care facility outbreak and 43/48 (90%) were 70+ years old, with the remainder between 50 and 69 years old. Of the 354 total deaths to date, 239 (68%) were associated with a care facility outbreak and 300 (85%) were 70+ years old. Note that the ultimate timing of the second wave peak in severe outcomes has yet to be determined.

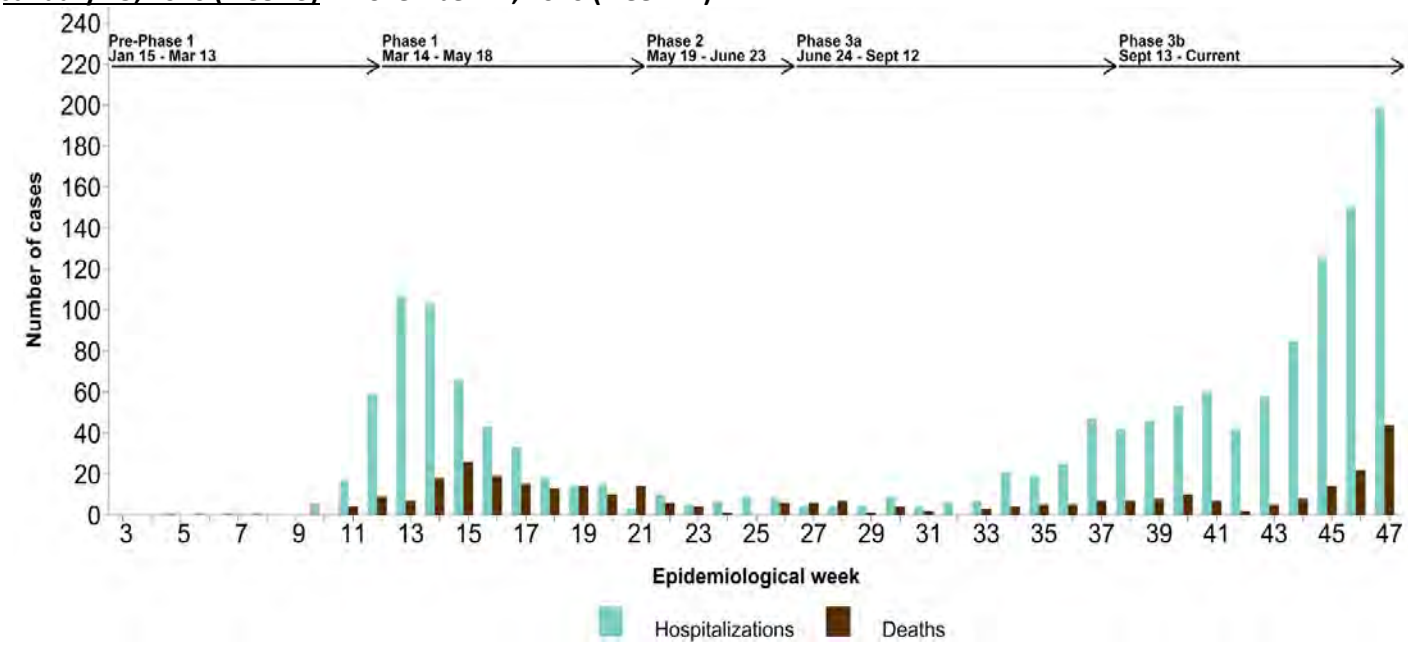
Overall, males comprise 14,574/28,636 (51%) cases, 917/1,553 (59%) hospitalizations, 254/417 (61%) ICU admissions and 201/354 (57%) deaths with known sex to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC January 15, 2020 (week 3) – November 21, 2020 (week 47)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**912**	**56**	**29**	**58**	**492**	**8**	**1,555/28,718 (5)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	246	29	25	12	179	2	493/1,555 (32)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/1,555 (2)
Phase 3a (11.5 weeks)	99	5	0	10	40	2	156/1,555 (10)
Phase 3b (9 weeks, excluding week 47)	412	15	3	21	215	2	668/1,555 (43)
Week 47	129	6	1	13	52	1	202/1,555 (13)
Ever ICU	**209**	**17**	**9**	**33**	**147**	**2**	**417/28,718 (1)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/417 (41)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/417 (2)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/417 (12)
Phase 3b (9 weeks, excluding week 47)	79	3	0	13	57	0	152/417 (36)
Week 47	23	0	0	5	6	0	34/417 (8)
Deaths	**175**	**3**	**6**	**6**	**164**	**0**	**354/28,718 (1)[a]**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	145/354 (41)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/354 (8)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/354 (13)
Phase 3b (9 weeks, excluding week 47)	44	1	1	4	38	0	88/354 (25)
Week 47	34	0	0	1	13	0	48/354 (14)

a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 10. COVID-19 hospitalization admissions (n=1,538) and deaths (n= 337), BC January 15, 2020 (week 3) – November 21, 2020 (week 47)



E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 11**, adults 70+ years comprise 10% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (44%) and deaths (86%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (17%) but a commensurate proportion of deaths (10%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 26% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (5%).

Adults 20-39 years comprise a greater share of COVID-19 cases (42%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (12%) and deaths (<1%).

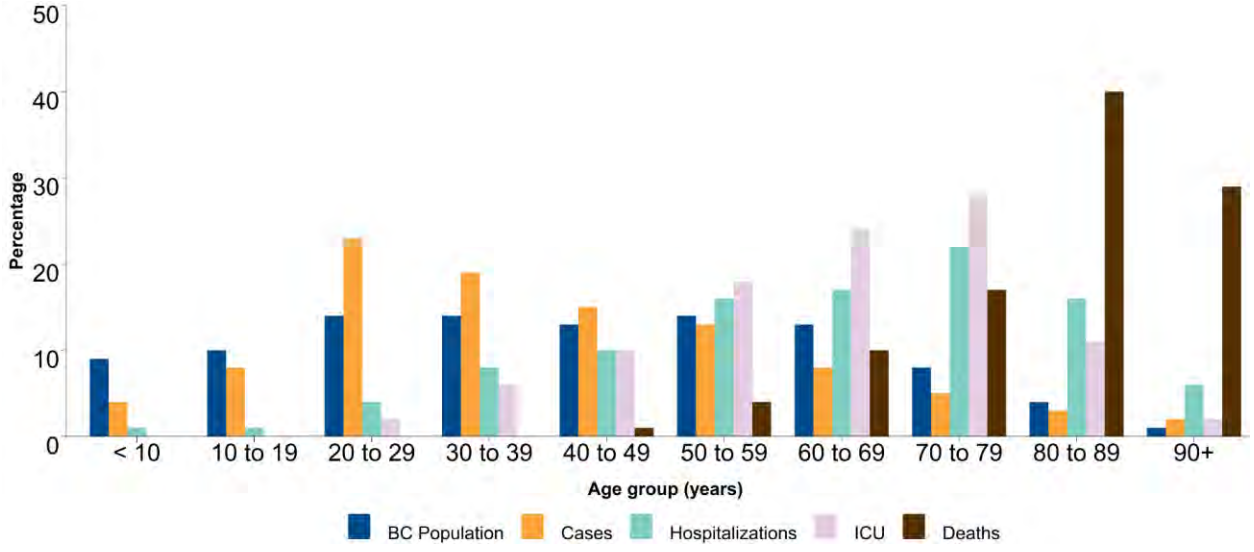
Children <20 years are under-represented overall among COVID-19 cases (12%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (64 vs. 69 years) but unchanged for deaths (85 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – November 21, 2020 (week 47)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	1,110 (4)	18 (1)	0 (0)	0 (0)	469,351 (9)
10-19	2,418 (8)	11 (1)	0 (0)	0 (0)	527,805 (10)
20-29	6,708 (23)	62 (4)	9 (2)	0 (0)	697,691 (14)
30-39	5,505 (19)	125 (8)	26 (6)	1 (<1)	735,052 (14)
40-49	4,284 (15)	148 (10)	40 (10)	4 (1)	646,035 (13)
50-59	3,741 (13)	249 (16)	77 (18)	14 (4)	718,272 (14)
60-69	2,265 (8)	267 (17)	99 (24)	35 (10)	673,131 (13)
70-79	1,315 (5)	336 (22)	115 (28)	59 (17)	435,062 (8)
80-89	877 (3)	247 (16)	44 (11)	140 (40)	187,443 (4)
90+	444 (2)	91 (6)	7 (2)	101 (29)	49,726 (1)
Total	**28,667**	**1,554**	**417**	**354**	**5,139,568**
Median age	**37**	**66**	**65**	**85**	**41**

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, BC January 15, 2020 (week 3) – November 21, 2020 (week 47) (N=28,667)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 3** and **Figure 12**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

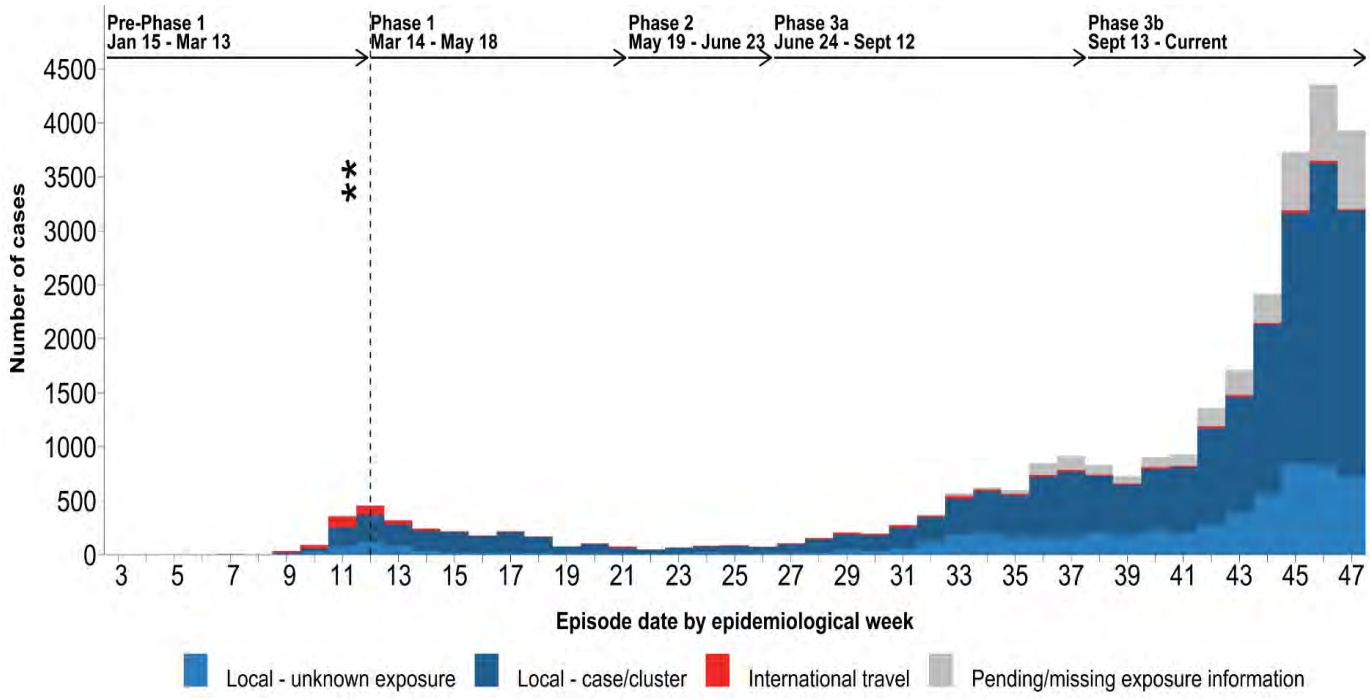
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 47 during which international travel was cited <1%.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, British Columbia
January 15, 2020 (week 3) – November 21, 2020 (week 47)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	208 (46)	97 (21)	14 (3)
Phase 1	188 (9)	1,499 (72)	350 (17)	43 (2)
Phase 2	30 (8)	262 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,208 (65)	1,174 (24)	356 (7)
Phase 3b (excluding week 47)	149 (1)	10,836 (64)	3,698 (22)	2,275 (13)
Week 47	13 (<1)	2,463 (63)	724 (18)	731 (19)
Total	**696 (2)**	**18,476 (64)**	**6,125 (21)**	**3,421 (12)**

Figure 12. Likely source of COVID-19 infection by episode date, British Columbia
January 15, 2020 (week 3) – November 21, 2020 (week 47)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 13** 185 care facility outbreaks were reported in total in BC to the end of week 47. There were 23 new care facility outbreaks reported in week 47 (16 of which were reported by FHA, 4 by VCHA, 1 by IHA, and 2 by VIHA), with 15 of these outbreaks having earliest onset date in preceding weeks. Facility outbreak tallies by earliest onset date are highest thus far in week 46 (23 outbreaks).

Thirty-one of the 48 deaths in total reported in week 47 in BC involved adults in a care facility setting in Fraser Health Authority (22 deaths) or Vancouver Coastal Health Authority (9 deaths). All of these 31 deaths were elderly adults 70+ years.

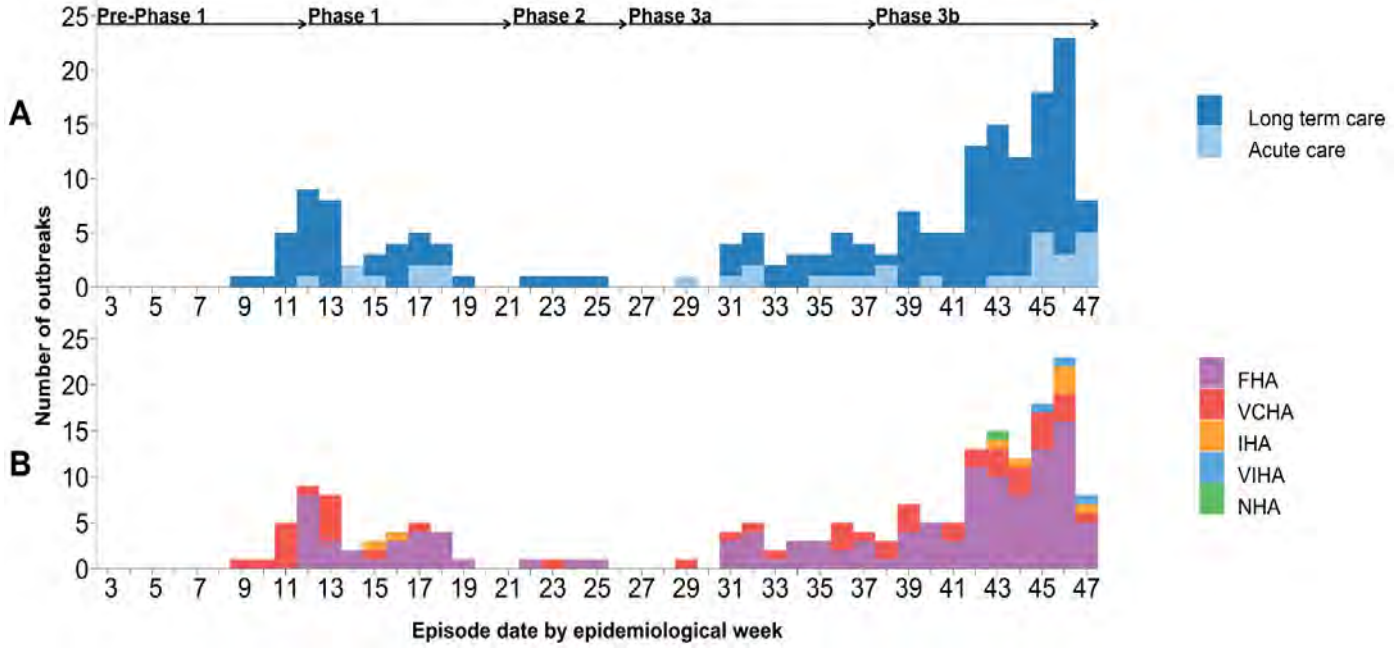
Of 20,889 cases overall in BC with episode date in Phase 3b (i.e. weeks 38-47), 1,210 (6%) were associated with a care facility outbreak, a proportion similar to Phase 3a overall (185/4,919; 4%), but lower than before Phase 3a (602/2,910; 21%).

Two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (239/354; 68%). Of those 239 facility outbreak-associated deaths, one-third have occurred since the week 38 start of Phase 3b (80; 33%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – November 21, 2020 (week 47) (N=185)

	Outbreaks	Cases				Deaths			
		Residents	Staff/ visitors	Unknown	Total	Residents	Staff/ visitors	Unknown	Total
Total	**185**	**1,157**	**828**	**12**	**1,997**	**237**	**0**	**2**	**239**
Pre-/Phase One (17 weeks)	45	326	207	0	533	96	0	0	96
Phase 2 (5 weeks)	4	51	18	0	69	24	0	0	24
Phase 3a (11.5 weeks)	27	92	93	0	185	39	0	0	39
Phase 3b (9 weeks, excluding week 47)	101	433	380	6	819	49	0	0	49
Week 47	8	255	130	6	391	29	0	2	31
Active outbreaks[b]	66	-	-	-	-	-	-		-
Outbreaks declared over[b]	119	-	-	-	-	-	-		-

Figure 13. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – November 21, 2020 (week 47) (N=185)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of November 21, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 14**) related to COVID-19 have shown an overall increasing trend from week 32 to 40 at ~13,500 calls per week but decreasing in later weeks reaching just over 10,000 calls in week 43. Calls have gradually increased thereafter, reaching ~15,000 calls in week 47.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 15**) related to COVID-19 (including telehealth billings) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to around 3,200 visits in weeks 42 and 43, before increasing again in weeks 46 and 47 to ~4,800.

Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – November 21, 2020 (week 47)

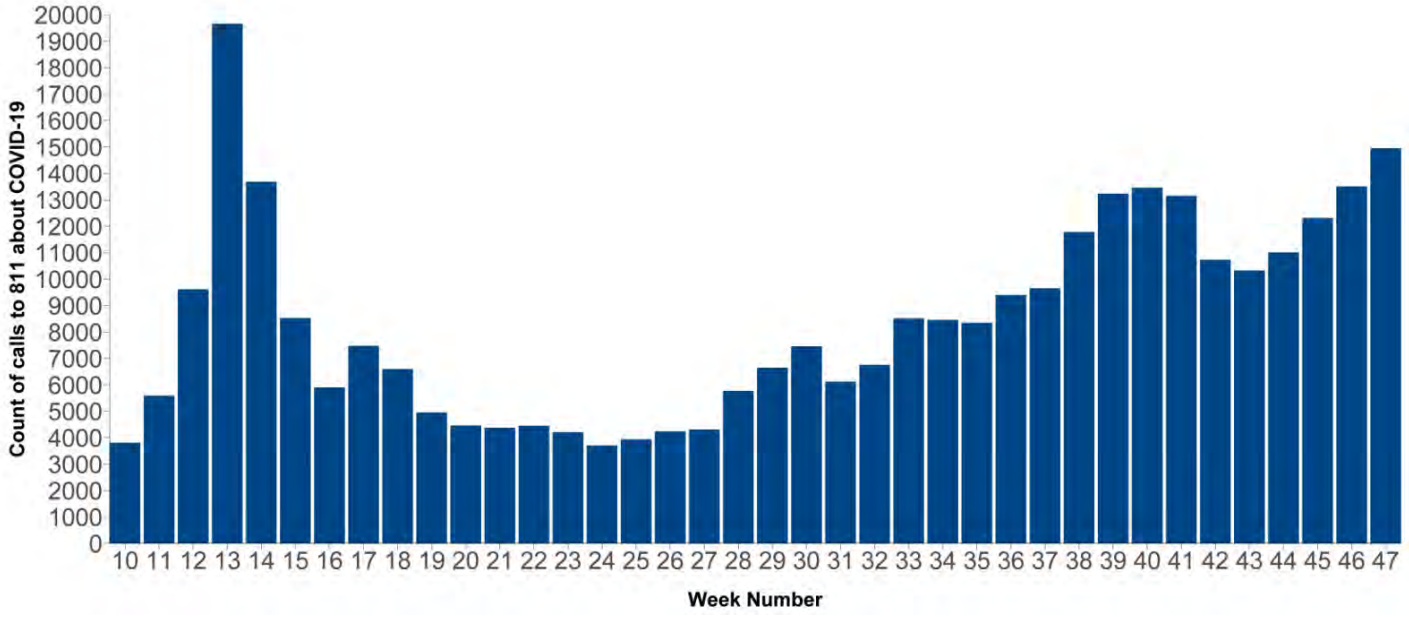
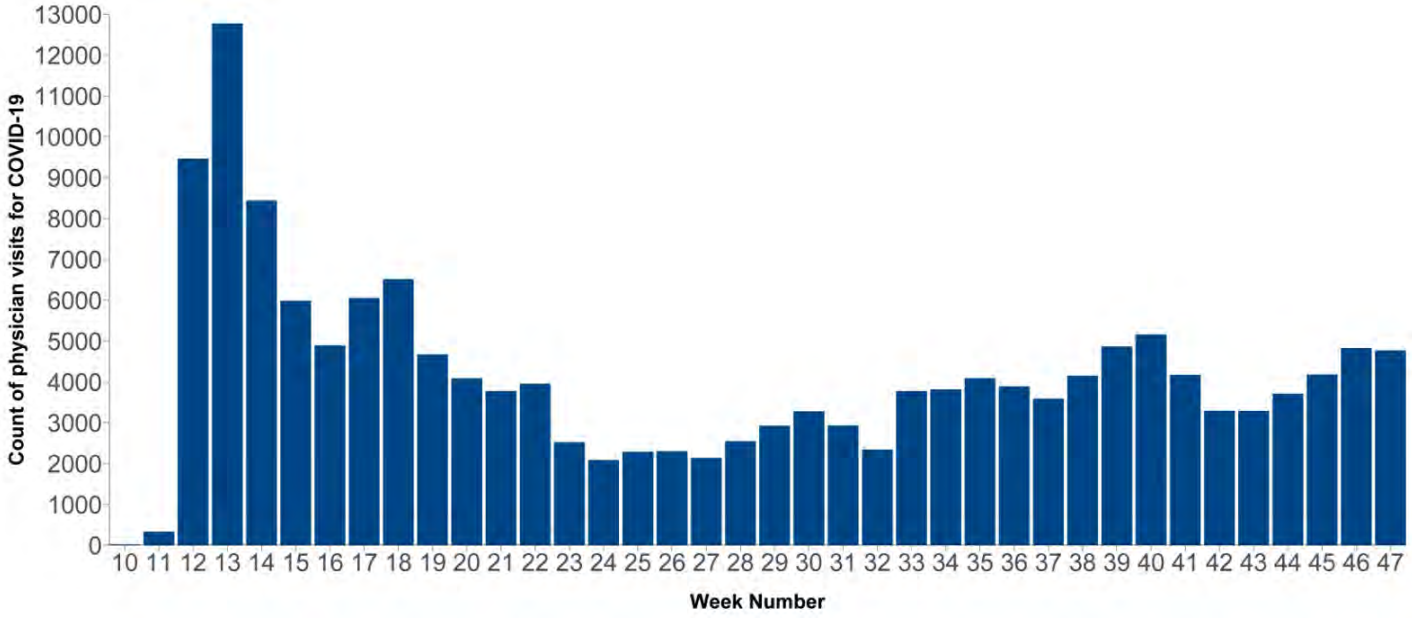


Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – November 21, 2020 (week 47)



This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Media Availability, 19-Nov-2020
Dix/Henry - COVID-19 update
By Legislature Press Theatre

Good afternoon, my name is Adrian Dix. I'm BC's Minister of Health. To my right is Dr Bonnie Henry, BC's Provincial Health Officer. This is our COVID-19 briefing for British Columbia for Thursday, November the 19th, 2020.

I want to say we're honoured to be on the territory of the Lekwungen-speaking people of the Songhees and the Esquimalt First Nations.

Tomorrow, Friday, at around 3 o'clock we'll be providing a written briefing with relevant information about COVID cases in BC. On Monday we'll be back here in Victoria, in the Press Gallery theatre, briefing -- Dr Henry and I will be -- at 3 o'clock. And with that it's my honour to introduce Dr Bonnie Henry.

Bonnie Henry: Thank you very much and good afternoon. So for today I want to report a total of 538 new cases of COVID-19 in BC, including nine epidemiologically linked cases, bringing our total to 24,960 in BC with COVID-19. The new cases by health authority -- 178 are in the Vancouver Coastal Health region, 309 people are in the Fraser Health region, 12 people reside in the Vancouver Island Health region, 28 people in the Interior Health region, and 11 people are from the Northern Health region.

We now have 6,929 active cases of COVID-19 in the province in all of our health authorities, of whom 217 are in hospital, 59 of whom are in critical care or ICU. We have had, sadly, one additional death in the last 24 hours bringing the number of people in BC who've died from COVID-19 to 321. As always, we send our deep condolences to the family, to the care providers of this person, one of our seniors who we've lost from long term care.We now have 9,929 people under active public health monitoring across the province and 17,207 people who have recovered from COVID-19.

We have six new health care outbreaks to report, and no new ones that have been declared over, bringing our total to 59 active outbreaks in our health care system -- 40 in long term care and assisted living and 19 in acute care. We also have an additional outbreak in a community to report and this is at the Fluor BC LNG joint venture, a contracted site of the LNC Canada plant and project in Kitimat, where we have a number of workers at that site who have tested positive for COVID-19 and the investigation with Northern Health and the owners and contractor of that facility are ongoing.

So today, as is no surprise to anybody, we are in our second surge and it is proving to be a challenge. While we all hoped that we would not experience a second wave based on what has been happening around the world, around this country, and around our province, we anticipated that this may occur. We knew that every pandemic that we've ever had had more than one wave and this has been proving to us and to people around the globe that this is a challenging virus to deal with.

Despite where we may be today, I remain confident and I know we will get through this, but we need to take more action now. COVID-19 is a virus that is proving to be a long road, this pandemic, and this is the road that we must travel. It will have bumps and will have challenges and we are facing them today. As we know, we have seen a significant rise in new cases, hospitalizations, and, tragically, deaths. Four weeks ago we had about 175 cases a day and I was anxious then.

Yesterday we had over 700 people in our province affected and we know that our hospitals are getting stretched, our ICU capacity is getting stretched, our communities are suffering. We also know that as more people are infected the risk of somebody younger and others having severe illness or dying are greater, and tragically this past week we had a young person in his 30s who died from COVID-19. This is a reminder to all of us that this virus can have tragic effects on the people we are closest to and the people we love.

We also have over 50 active outbreaks in our health care system. We have seen that transmission has happened sometimes in social events in our communities and it's spilled over into our long term care homes and our hospitals. This increase has been most acute, as we know, in the Vancouver Coastal and Fraser Health regions of the province and that is why I put in regional orders about ten days ago. However, as we've been watching so carefully over the last few weeks, it has become apparent that this surge in transmission is happening across the province.

We are now seeing increased activity in terms of community transmission, outbreaks, and effects on our health care system in every health authority in the province. So now we need to do more. We need to keep our essential service, our essential activities open and operating safely. We need to keep our schools open and operating safely and our workplaces that can be open safely open.

And we need to relieve the stress on our health care system right now.

Right now we are holding our own but we know that if people cannot access health care that it is not only people with COVID-19 but people with other urgent health issues that will suffer and we need to do this across the province.

As a result, I am extending the regional orders that currently apply to the Fraser and Vancouver health regions across the entire province and I am putting new province-wide orders in place.

These expanded orders will come into effect today and run until for starting with a two week period. That's the period of the incubation period and we will be extending the orders from November 23rd so that the orders across the province will be in place until December 7th at midnight.

We want to ensure we get through 1 to 2 incubation periods and we will be reviewing our progress regularly as we move through this next two weeks.

We want to see a clear and notable difference and slowing of transmission in our province, across the province, so that we can get back into that balance that control that we have with public health.

So what does this mean? This means that the orders with regards to our social gatherings apply to the entire province.

Right now we at home need to only socialize with our immediate households.

We need to delay inviting over friends and family for this period of time and reduce our social interactions as much as possible outside of our homes.

As a result, I'm ordering that there'll be no social gatherings of any size with anyone other than your immediate household. This applies in our homes, vacation rentals and in the community and in public venues including those with less than 50 people in controlled settings. Your immediate household can of course include roommates and if you live on your own, you can visit with up to one or two people if you regularly spend time with them. We need to go back to what we were doing in April and May and March when we had our pandemic bubble.

And so if you are somebody who lives alone, that's that one or two people that you have a close relationship with.

All indoor and outdoor events as defined in my gathering and events order are not allowed to take place until further notice. So that goes back and that's a bit of a technical language of the mass gathering and events order is on the website and it refers to the restrictions and limits the maximum number of people we could have in an event was 50 and these events could take place in many different places.

Those are now suspended across the province for the next two weeks.

While places of worship are to have in no in-person group services for this period of time -- I've had the privilege of meeting with a number of our a large number of faith leaders from around the province -- and this is important and they understand that we need our faith services more than ever right now but we need to do them in a way that's safe. With the community transmission that we're seeing and the fact that we have seen transmission in some of our faith based settings.

We need to suspend those and support each other and find those ways to care for each other remotely.

The exceptions will be those important events -- funerals and weddings and ceremonies such as baptisms -- which may proceed in a limited way with a maximum of ten people including the officiant.

There are be to be no associated receptions inside or outside your home or at any public or community based venue associated with these important celebrations.

The exceptions do include other activities that happen with COVID safety plans in these gathering sites, including medical group sessions, sessions like NA and AA meetings with a maximum of 50 people, less if the space is smaller. And ensuring that you have COVID-19 safety plans that are in place and are being acted upon.

It also does not apply to those very important work functions that we have. What we are talking about is reducing our social activities both in our home and outside our home and around our work periods.

So if I work in the social services and I need to check on families, this does not apply to that situation as well. As well, if we have people who are doing work in our house, people who are grandparents are coming to pick up children. Those are not social gatherings. Those are essential functions that happen in and out of our home. And so those are not affected by this order.

I have for many, many weeks made clear the importance of wearing masks particularly now as one of the measures that we have that can prevent transmission along with those important things that we

know work like physical distancing, cleaning our hands and staying away from others when we're not feeling well.

But based on continued requests, particularly from the retail and other public sectors, to have more explicit direction for the use of masks in indoor public and retail spaces. I've asked the Minister of Public Safety and the Solicitor General to issue a requirement for the wearing of masks for all indoor public and retail spaces for staff and customers except where eating or drinking.

This means if you are at work at your desk you do not need to wear a mask, but if you are in a shared workspace, a common space or a public space like elevators, hallways and other common areas you do. If you are behind service counters and you have plexiglass between you and everyone else, you do not need to wear a mask unless there are others back there with you.

If you are serving customers, you do need to wear a mask. If you are in a restaurant, you need to wear a mask when you are not at your table. That includes coming into the restaurant, leaving the restaurant, going to the washroom. And staff must wear masks when they're interacting with others and with other staff and with the tables.

Again, this does not apply to anyone who is unable to put on or remove the mask on their own. We know that there are people with certain conditions and disabilities in some ways that would make mask wearing challenging.

It does not apply to children under the age of two and we need to be aware that some peoples disabilities or inability to wear a mask may not be readily apparent to people.

Technically this will mean mandatory wearing of masks in all indoor public and retail spaces, not only as a workplace health and safety issue, as one of the mandates that we have had, but also to ensure that owners and operators of these spaces have the support behind them to ensure that customers are aware of this mandate as well.

The use of the Emergency Act to do this will enable us to cover that overlap of workplace and public safety around this issue.

As I announced last week we need to understand and better manage and control indoor group physical activities where we have seen transmission happen.

We've seen notable levels of transmission and there are some particular activities that are higher risk.

I have tasked the group to look at this issue over the past 10 days and as of today I am ordering that all businesses, recreation centres or other organizations that organize or operate indoor group physical activities that include spin classes, hot yoga and high intensity interval training must stop until further notice.

All other group fitness activities indoors can continue to operate but they must adhere to the updated guidance that we are developing.

This is a change from what we put in place last week for the lower mainland. It gave us an opportunity to -- once we recognized that there was transitioning happening.

Transmission happening in some of these settings. We took the opportunity to stop those, to put a pause, so we could understand the conditions that made these more risky in some situation and others.

So what we have determined that it is a combination and this is nothing -- this is what we're learning over time, it's those closed environments where we have people close together where we're exerting for and when we have poorer ventilation and when there's often loud music, those are the settings that are most at risk. And we are seeing around the world that those are our challenging settings and they invite this virus to spread. We know that at this time of year when we know the virus is spreading faster in the climate that we have right now and the higher rates in our community, that these high risk activities cannot happen for the foreseeable future.

So that is the focus that we are looking at right now.

We had included other indoor group fitness activities like dance, like some of the other lower intensity fitness classes and we will be updating the guidance on how those can operate safely, including additional space, reduced numbers, making sure that people have book ahead for example and have the same class with the same people at the same time.

So there's a number of new guidelines that are being finalized and will be posted.

Last week I made the requirement that people had to adhere to the updated guidance and had to have their new plans approved by the local MHO before they could restart these activities. That is no longer the case.

We have narrowed down those activities that we feel are too high risk to happen right now and those will be suspended. All other indoor group activities must, as we've had in the past, must update their COVID safety plans to adhere to the new guidelines and have those publicly posted.

They are however placed on our watch list and we will be watching carefully because we know even some of these lower risk activities if these plans are not followed intensely, that we can have transmission. We will be monitoring this and we will be shutting down gyms or studios where these safety plans are not being followed.

There were, I understand, a small number of these facilities that may have included some of these high risk activities that had received a notice from Vancouver Coastal Health. That notice will be rescinded if you have any of these high risk activities. So spin classes, hot yoga, high intensity interval training. Those are not approved right now.

For all sports -- the other issue that we talked about 10 days ago was about reducing contact sports indoors and we have looked again at the measures and the risks that are associated with ongoing sporting activities.

We also recognize how important it is particularly for youth but for adults as well to have the opportunities to engage in these sporting activities in a safe way during this pandemic.

So what we have done now is that we will continue with VIA Sport Phase 3 activities with the exception there are to be no spectators at indoor or outdoor sports and there will be no travel for any of these sports outside of your local community.

So that is the restrictions that we need to have in place now across the province to ensure that we can have these important sport activities continue, but in a safe way during this pandemic.

I've seen the incredible effort that so many businesses and organizations have put in to retooling, adjusting their businesses to make sure they can stay open and do it safely. The vast majority of businesses around the province are doing a great job.

We only have to look at things like hair salons and spas and retail stores to show that when rules are followed and when safety measures are in place we're not seeing transmission of this virus and we see that as well in restaurants where we are following the conditions that we've put in place that we don't see transmission.

Right now, we are asking all office based employers to temporarily suspend those important efforts to safely get workers back into their workplaces and to support working at home where possible until at least the new year.

For anyone going to work it is important that we minimize all of those social interactions with our colleagues before, during and after work. Those are the things where we are seeing transmission in communities, in workplaces, around the province and it is many different types of workplaces. So many of them are essential workplaces. We know we have seen it recently in food production plants in retail outlets where staff are gathering together.

We've seen it in every setting from banks to car dealerships to other settings, where it is staff who are getting together and we don't remember that we have to take precautions with each other, that we have our own social networks, our social connections and can inadvertently bring that virus in and spread it within our work settings as well.

We talked about this for the Lower Mainland, but across the province active inspections will be increased in all business settings to ensure that we have those important COVID safety plans and that workers and the public are protected in all settings around the province. And I want to make a particular note about bars and pubs. As you know there are some challenges with the way liquor licenses are run; those are settings where we have confirmed that safety plans may not be followed and people may be mixing in a way that can be risky. We will be paying particular effort to inspective COVID safety plans to make sure they are being adhered to in these settings, and if we have challenges, if we find they are not being adhered to these businesses will be closed down.

Specifically in the Vancouver Coastal and Fraser Health regions where we have seen a lot of transmission in recent weeks related to spillover into workplaces. I've asked one of my deputy provincial health officers to work with the environmental health officers from both Fraser Health and Vancouver Coastal Health to establish a rapid response team to focus on those workplace issues, to liaise with the inspectors from WorkSafeBC, but also to find and target the clusters and outbreaks that we're seeing and manage them rapidly. Part of that, again, will be shutting down businesses where the safety plans are not adequate.

This is the time for everybody to pay attention, to make sure you revisit and step up your safety efforts to ensure these protocols are fully implemented. I know many people did an excellent job very early on, but we have seen slippage. This means all businesses and worksites across the province must conduct active, daily health screenings; it can be done through an app, online, or when people arrive at the site and businesses need to ensure that all workers and customers maintain that appropriate physical distancing, maintain all of the safety measures in place and wear masks when needed.

I also want to talk about travel. We talked about this 10 days ago, and I am not putting a travel order in place. However, as the Premier mentioned yesterday, it is our expectation that everybody in BC right now limit their travel as much as possible unless it is essential. It is limiting our recreational and travel for social reasons that we're talking about. This includes travel within the province and travel to other parts of Canada. I'm asking people again: we need to step back, we need to stay local. Stay within your community as much as possible. Od course if you need to travel for work, for a medical appointment, for reasons that are essential that does not apply.

I absolutely recognize that tourism is important to our communities, our economy and the significant effort that many of our tourist businesses have put in place for safety plans for guests and staff. The challenge we are facing is that we have seen a significant increase in transmission across many jurisdictions across this country -- we wish we had the same small number of people coming here as to the Atlantic Bubble, but that's not to be for us. The challenge we are facing is people are coming to BC from these other jurisdictions as well, and we know for international travel there are appropriate mechanisms in place for quarantine that is not in place for travel inter-provincially, so we are asking people coming to BC in the next 2-4 weeks to postpone their trip here if they can. If not, then we need to be sure that they will minimize the need to be aware that the expectation is that they will follow the orders that we have in place here and these orders are enforceable. That will mean minimizing your social interactions with others, making sure you follow all orders and guidelines we have in place here.

For students who may be returning home, keep to your household only when you come back; that applies to people who are returning to be with their families right now. As previously noted, any travel within the region is suspended for sports for everyone right now.

What does this mean? It means yes, you can move about within your region. If you live in Pentiction you can go to Summerland. If you live in Victoria and want to go to Tofino -- not such a good idea right now. If you need to go to a store in another community then plan ahead and go as infrequently as possible for this next short period of time.

If you are thinking about skiing, go to a local mountain. And if you are in doubt, postpone it until a time when we have better management of the transmission we're seeing in our communities right now. The focus of this is making sure that we can keep our communities functioning, we can keep our businesses that are working safely open, we can keep the pressure off our hospitals, our ICUs, our long-term care homes. We can protect those people who are elders and seniors and people in need of health care. As well, it's important for us to keep schools open. We know that schools are an important, safe place for children around this province.

Many of the additional efforts announced today are to focus on those priorities including our schools. As I noted last week, transmission in schools has been low but we have had many, many more exposure events from the adults and the students in our school settings. I'm also hearing that this is concerning to

our parents, to teachers, to all of us in the school community, and we need to make sure that we can keep up and make sure everybody is informed as best as possible.

We know this is most acute in areas where most of our schools are, and right now where most of the transmission is happening, and that is in the Lower Mainland in the Fraser and Vancouver Coastal Health areas. This week I've directed one of my deputy provincial health officers to lead a coordinated effort to try and manage and improve that situation with a focus of working with our teams in Vancouver Coastal and Fraser Health to have a coordinated approach to identifying and managing school exposures and outbreaks quickly, and to improve our ability to manage these events together with our school communities. As part of this, I also remind parents and caregivers to be aware of things like mingling and the drop-offs before and after school and reminding the adults in our settings that the out of classroom interactions are important to manage safely as well.

Getting through this surge in new cases and through our pandemic requires all of us to do our part and to support each other to do this. We need to urgently reduce the level of transmission and our cases across the province in these next two weeks. We need to ensure our health care system can meet the health needs of all of us here in BC.

I especially want to recognize and appeal to young people and young adults to help us in this effort. I know how difficult this has been for you and the impact on your lives. I know you have been missing birthdays, graduations, and celebrations of these important transitional moments in our lives. I also know that you have been role models and inspirations. Young people have proven that they have resilience, that you're adaptable and that you're brave, and I'm calling on all of you right now. I need you. I need you to be super heroes, to step up, to hold the line and to help all of us get through this.

As we approach the darkest days of this year, there is light at the end of that tunnel. We know that there are vaccines on the horizon and I am hopeful that early in the new year we'l start to have some of those tools to help us protect those who are most at risk. But right now we all need to focus our efforts on slowing the spread and bending our curve back down.

That is what will get us through these next few months. We need to support our friends, our neighbours, and take care of those who are most at risk. We need to protect our hospitals, our long-term care homes, our seniors, our elders and our communities. We will get through this and we will do it as we have been doing it: by being kind to each other, by being calm even when it's uncertain and anxious, and that is what will keep us safe.

Adrian Dix: I wanted to start by expressing my condolences, those of the Premier and those of the province, to the family of the person who passed away in the last day from COVID-19 in BC in Fraser Health. We know what a difficult time this is to grieve and every case, every person matters to their family, to their friends, their community. I think it's fair to say this has been particularly difficult week, particularly in long-term care with people passing away and I want to express our profound thoughts to all of the families, all of those who have lost loved ones in this pandemic which is significant and very challenging right now to grieve.

I wanted to express my ongoing appreciation to the extraordinary teams in public health. You've heard from Dr Henry that 6,929 active cases of COVID-19 in BC, 9,977 people in isolation under public health surveillance, and significant numbers of people in our hospitals -- 217 people, 204 in the Fraser Health

and Vancouver Coastal health Authorities. It's that context, the fact that over the last four weeks our rolling average, our seven day average of case counts has increased four times, the fact that the number of people in hospital has increased over that four week period -- some number between 60 and 70 have been bouncing around to today's number of 217. The fact that the number of people in ICU has gone up and the fact that we have a significantly greater number of outbreaks in our long-term care homes -- these are all reasons for action.

When we summarize those actions, when we say gathering right now only with the people in your immediate households, when Dr Henry orders that outside social gatherings -- not the 50 person maximum -- but outside social gatherings not occur in this two week period. We discussed with faith leaders yesterday, more than 140 of them from around BC with the Premier and Dr Henry, that places of worship will move to virtual services for this period with the exception of baptisms, weddings and funerals where a maximum of 10 people can be, but where there are no associated receptions. When we ask people to travel for essential purposes only, when we ask all businesses in BC to revisit their safety plans to ensure active daily screening of workers and the other conditions that are so central to the control of COVID-19. When it's ordered under the Provincial Emergencies Act that it's mandatory to wear masks in all public and retail spaces, for staff and customers and all workplaces, elevators, corridors between shared areas, group or break rooms and shared kitchens except when people need to eat.

It's because of that that we need people to suspend and ensure that as many people as possible in office settings can work at home and continue to work at home, we're increasing site inspections and we're saying there are no more indoor group fitness classes and we're saying there are specific rules for people involved in team sports; no spectators at indoor sports events and no travel outside of your local community for sports related activities and that the effort of the public health care system expands outward.

All of those things are what we can do together to help stop the spread and help our fellow citizens, our families, our friends, our communities, our workplaces, the children in our society who need to go to school, all those who need surgery and need our support in long-term care. These are the means through which, in every part of BC because the number of cases in the three other health authorities have increased, all of us can help flatten the curve but also do what we want to do in this pandemic -- which is our part.

I wanted to give two reports that I usually give on Thursday -- I'm going to do them very briefly because this has been, as you know, a very busy day. Pursuant to the Premier's announcement at the end of August, 702 contact tracers have been hired in BC; that's an increase of 66 from last week, 434 more are in the interview stage and 102 in the offer stage. We're also funding culturally sensitive contact tracing supports for 76 positions with the First Nations Health Authority -- that's more than 1,000 people in the end because we're going to add the number of people we intend to hire to do contact tracing. It's going to now be 950 plus the 76 in FNHA -- more than 1,000 people in addition to those who were doing contact tracing prior to the Premier's announcement in August.

Finally I want to say with respect to surgeries that rom the week of November 2nd to 8th we set a record for this year in the number of surgeries completed in BC, both scheduled and non-scheduled surgeries -- that number was 7,280. This past week, the 9th to the 15th, the number is less because of Remembrance Day -- it's 5,520; more than the equivalent period last year. This reflects an extraordinary achievement by our entire health care system. Essentially and simply, the question remains: do we

fight? Do we fight together in this important time when we perhaps see some opportunity, with respect to vaccines, on the horizon? Do we fight right now to reduce the spread of COVID-19 in BC and help one another help each other help ourselves get through this pandemic?

I think the answer is yes -- we all have the tools in our hands, the guidance provided by our medical health officers, guidance provided by Dr Henry to do so. These orders today give us all the means to be 100% all in. I can tell you that our health care system is, our health care workers are. Across BC society, people who work in our grocery stores are, people who work in transportation are, I know the people in education are. We need to all be 100% all in in the battle against COVID-19. These orders give us direction and we must give them the power they require to be effective. We need to make these orders work to stop the spread and being 100% all in will get each of us and all of us there.

Reporter: I just would like to ask why the travel restrictions are not a provincial order, and what would have been different if you had gone that route in terms of checking to make sure people are traveling inappropriately or having some mechanism to sort of stop and make sure that they are following the rules?

Henry: You know, it's exactly that.

I don't believe that we need to do that. We have a lot of essential travel that comes back and forth. We get a lot of our essential goods that come here on the island by ferry, back and forth and through the United States and other parts of Canada.

So, to step up that infrastructure and to have some mechanism to do that is very challenging, but we also know that when we had these same requirements in place earlier this year that people took them to heart. We're talking about recreational and social travel, and it's very challenging sometimes to be able to understand.

I know I started to get concerns from people again that they're seeing Alberta licence plates and US licence plates, and it really is about remembering that we don't always know people's stories and there are many reasons why somebody may be coming. They may have been here for a number of months now. We know that. They may have a need to check on a family member.

There's many different ways that we understand essential travel and we trust people to take the right actions now because we are all being affected by this.

Reporter: Can I get a sense from you what kind of metrics you'll be using to determine if these restrictions are successful over the next two weeks? Is it daily case counts or how much of a percentage decrease you see in certain areas to be able to know that this is the circuit breaker method that you've been talking about?

Henry: We watch a lot of things. Certainly daily case counts are part of it and our rolling average, because the day to day variation can reflect a number of things.

So we are watching that very carefully. We're watching our ability to find people quickly, and that has been challenged particularly in the Lower Mainland health authorities where we have had so many

cases per day. It's been a challenge for us to find people to find their contacts in a safe and quick way, in a timely way.

So we're watching that.

We're watching a very important metric that helps us understand if we're holding on in public health, which is the percentage of people where we cannot link them to a known case or cluster, and being able to follow up and stop clusters before they grow into larger outbreaks.

And so we're at the brink with that, and that is the area that I'm most concerned about. Initially that was in the Lower Mainland health authorities and that's why we put the restrictions on there to start, but as you have seen, you know, there are things that we are learning about this virus, that it can spread more easily, that people's trajectories of how they move from place to place are not always linear, and that means we can get wide transmission before we recognize it.

So we need to put these in place across the province now and we'll be watching that. We'll be watching the spill over piece into where people are getting infected and where they're going. We now are seeing, as you know, long-term care breaks and acute care facilities outbreaks.

So yes, those are important.

We have seen a decrease in the number of people who have been infected from attending social gatherings. So, it is making a difference in the Lower Mainland. We started to see that decrease.

Now we need to focus on some of the workplace settings where we're seeing increases and long-term care we're seeing increases.

So, it is a balance. There's a whole bunch of things that we look at and agonize about every day, but those are the basic ones.

Reporter: I just want to go back to the issue of Fraser Health, which I know was something dealt with in the background briefing on this. Public health officials, especially in light of the new high counts there today, public health officials are sort of flagged such issues as dense housing and essential workers as key to the high counts in the Fraser Health region, but these are presumably relevant to other parts of BC.

So, are there more essential workers in Fraser Health? More dense housing? What's making these high counts so distinct? What would explain these high counts?

Henry: There's a variety of things. We know that the highest population base is in the Lower Mainland, particularly how we've broken it up by health region. The largest health region by population is Fraser Health. It's a lot younger population with larger numbers of families and children. The vast majority of our schools by a large amount. The highest numbers of schools are in the Fraser Health region. We have lots of families that live in multi-generational homes. There's cultural reasons why people come together, why it's so important to have community together in large numbers.

I know many of my colleagues and friends who are from the South Asian community, for example. You know, having two or three hundred people is your immediate family is normal and is important and is part of how life is lived, and these are things, unfortunately, that this virus can exploit. It doesn't recognize who we are, but it recognizes that when we're in crowded situations indoors that we can pass on.

And from the very beginning we have said that this virus is transmitted most often to the people we are closest to. So we are seeing some of that effect.

We also know that many of those high risk businesses, essential businesses like our food processing plants, like fruit warehousing. All of those places are in the Fraser Valley. Poultry plants. We know that much of the trucking industry, people live there, and many of our essential workers, health care workers in Vancouver Coastal live in the Fraser Health region.

So, there's a whole variety of reasons why we are seeing increased numbers there. We knew that was likely to happen, but we had that rapid increase in the middle of October that was a whole bunch of different issues coming together. Once it was social gatherings, it was the fact that this virus was being transmitted, that we were having things indoors. I think right now we're seeing that reflected in a smaller scale around the province and we all need to pay attention to the things that we can do to stop our social interactions, to put the brakes on this virus now.

Dix: Just one thing further to remember and I very strongly believe this. I know Dr Henry does as well, that we're all in this together, and there was a time early in the pandemic when more of the cases, even though Vancouver Coastal Health was smaller, were in Vancouver Coastal Health. The reverse of what we say about Fraser Health, which is BC's youngest population, also has an impact on other health authorities. Vancouver Coastal Health is essentially the same number of people who passed away as Fraser Health, even though it has significantly fewer people.

In the middle of the summer in Fraser Health, a disproportionate number of our cases within Fraser Health were in the Abbotsford area. Now it's in Surrey, but we have cases throughout the province. And just to put it in context, I think the number of cases today outside of the Metro Vancouver health authorities is 51. Well, four weeks ago that averaged about four or five.

This pandemic is everywhere. We need to support each other everywhere, and that is right now particularly true in Fraser Health.

These circumstances can change in communities and it shows why the steps we have to take in Fraser Health today need to be taken everywhere and why it's so important, I think, and Dr Henry made the decision today to extend the orders that were for Vancouver Coastal Health and for Fraser Health to the whole province.

I live in Vancouver Coastal Health, four for blocks from Fraser Health. That's an administrative distinction, but what it tells us I think, what all of this information tells us is what a difficult pandemic this is. How difficult it is to manage this and how we're all in this together. Every single one of us.

Reporter: Given these numbers that are still consistently high, are there any specific or distinct strategies being considered to get things under control or the numbers down in Fraser Health? If yes, what, and if not, why not?

Henry: I've sort of announced all of those strategies that we're talking about, in particular we focused on supporting our contact tracers in the Lower Mainland -- so both Vancouver and Fraser Health -- to get on top of being able to find people in a timely way, to make sure that we're catching, that we're understanding where the clusters are happening, getting on them quickly and focusing on where we are seeing transmission happening.

So, having our, for lack of a better name, a rapid response team that one of my deputies will be supporting with the environmental health officers, focusing on where we are seeing transmission now in some business settings, focusing on what we've been doing all along, but enhancing our ability to protect our health care system, whether it's long-term care or acute, where we're seeing outbreaks happening.

So, there is absolutely an intense focus on that, but the measures that you're seeing today are the ones that we expect will work if we all do our part.

Dix: Just one statistical thing as well. We've transferred significant contract tracing capacity to Fraser Health, including 43 staff people from the Provincial Health Services Authority who do contact tracing to Fraser Health. Obviously the largest share of the people we've hired are working in Fraser Health.

Dr Henry and I had a chance when we were in Surrey recently to see them do their work and they're doing an extraordinary job, and I think we'll continue, obviously, as we have in the past, to focus resources where resources are needed.

So in terms of the significant amount of resources being transferred, obviously in terms of the resources, the health care system, contact tracing, primary care to support our hospitals, support for long-term care. Obviously right now Fraser Health is at the centre of all that, although we have significant issues in all of the other health authorities.

Reporter? Dr Henry, I just want to ask about masks. Why the switch now after there's been a lot of questions queued towards that? Will people be given a badge or some sort of identifier to show that they can't wear a mask or don't have to for those physically unable to and why no masks schools?

Henry: Okay.

So, the answer to the first question is as I have said many, many times, there is a mandate in our occupational health and safety and that is what is reflected in the orders that are coming from the Minister of Public Safety. I stand by what we have always had in place and I think we won't get into semantics, but what we have said is it is my expectation that we wear masks as an important piece and no more important than now in terms of one of the measures that we have to prevent infections.

Sorry, I got distracted by . . . You had three questions.

We take people at their word. There is no way that we will force people to have medical notes or other things. We need to trust that people who cannot wear masks, and there are some people who cannot wear masks. We need to be able to accommodate them, and that will mean in some cases that they can have remote pick up or that they go to receive services at times when there are other people not around, and I think we have to focus on people in retail settings going into get a driver's licence renewed. Those are not the situations where we're seeing transmission of infection, but it is important that workers feel that they are protected and that they have the appropriate measures in place to require both workplaces and people who are entering those public spaces in retail spaces to protect them and protect each other.

Schools are not public open spaces. You cannot go walk into a school. We have layers of measures of protection in place in schools, and like I wouldn't wear a mask sitting at my office, we don't expect children to wear masks sitting at their desks all day long.

We do have expectations in schools around those common areas where children and adults in the school setting are mingling and those are part of the safety plans that are in place in all of the schools.

Reporter: I apologize for the multipart questions. This is going to be another one.

A lot of questions around what it means to have activities within your own community. So, can you explain to people when these sports games take place where can people go to play? Is it your city? Is your neighbourhood? Your health authority?

The same with something like skiing? How far can someone ski to one of the North Shore ski hills?

And another point of clarity that faith organizations have brought up is what if they're holding things like, in some cases Gurdwara holding community . . . They prepare meals for a number of people in the community. Are they still allowed to gather in order to hold those events to provide meals or other things for community?

Henry: Addressing the second one first, and we did talk about things like that, and no, it's not an event to prepare meals, and they need to have COVID safety plans in place, which they have in many of the settings where meals are provided, and they need to be individually packaged.

What we aren't having is people coming in and sitting together and having those meals. They have a process and I have tremendous admiration for the Gurdwara, in particular, who do this, where they provide those meals to families in need. So those absolutely can continue.

I know many of our faith buildings are used for 12 step meetings, for example, or for day care or for additional studies for children, and those can continue with the appropriate safety measures in place. Those are not events in the context of this order.

In terms of how far can you go? Well, you know, this is not an order. This is telling people to use their common sense, and when we're talking about the sports teams, part of the sports networks and the sports organizations had interregional travel. So they have their own defined regions and that needs to stop. You can play the games within your own region only and there's no travel between different areas.

That is where we're seeing the risk, and the risk is people carpooling together, having to stay overnight because some of the regions where, you know, from south island to north island or, you know, Powell River to the mainland. That has to stop right now. We can't have that type of travel.

We also need to pay attention to those pre-game, post-game, off the field play situations where we're coming together, and that's where the no spectators come in because we have seen that people are getting together. It's hard. You know, you go into the locker room.

So, having provisions in place, and I know some teams have done this really well, where people come pre-dressed and so we're not in the locker room. We have to resist that temptation to go out with the guys after the hockey game.

So, those are the things that we need to put aside right now so that we can continue to focus on the opportunities, particularly for kids, to get out there with their teammates, to do drills, to have games in their local community.

Reporter: Dr Henry, thank you for taking my question.

A portion of it you have already answered, but could you explain, or rather, elaborate on the new orders around religious places. Can people visit temples and go to Gurdwara with their families, or are you banning visits to religious places completely?

Henry: No. I'm not banning visits to religious places at all. There needs to be processes in place so that people can go. They can keep their distance. They wear masks when they're in common areas -- all of the things that you have been doing so far.

What we're saying is those services that were explicitly under the event order, where people came together at specific times and it was up to 50 people in a space, depending on how the large space was, that we need those to be suspended for this short period of time, because we have seen that despite our best efforts we have transmission happening in those events.

Reporter: In terms of essential travelling, if someone has booked a vacation to maybe go to Whistler next week, are you asking them to cancel it?

Henry: I'm asking them to consider whether they need to go, whether this is the time they can go, and if they can postpone it.

Reporter: Dr Henry, when it comes to the mask mandate, when does that come into effect? How is that going to be enforced? Will there be fines? What can an employee do if somebody comes in and refuses to wear a mask?

Henry: Those details are being worked out by the Ministry of Public Safety and the Solicitor General under the Emergency Programs Act.

It does give owners and operators of retail spaces, public spaces the ability to call on police. It also means that there can be fines and there are ways that they can deal with employee safety under the Public Safety Act.

The details will become clear over the next week.

Reporter: Yes. On schools, parents are wondering if the winter break will be extended. Some might see these numbers and think maybe they need to pull their kids out of school.

I'm just wondering when that decision will be made and what case numbers need to be, essentially, to keep schools open?

Henry: As we have seen all along, schools are a safe place. We are not seeing lots of transmission. We've seen lots of exposure events. And that reflects what's happening in our community, so we are not at the point where we would consider closing schools.

And we know that we have to do our best in the community so we can protect the essential work that's going on in schools, how important it is for children.

I just have to say that I so admire our teachers and educators and the work that they've been doing to make sure that children have that learning experience that is so critical for them at this point in their lives. We need to celebrate and support the work they're doing and part of these orders is to make sure that we can continue to do that.

In terms of over the holidays, those discussions are ongoing. It is not only about the schools. It's about our community. It's about a number of different issues, and there are many people that need to be involved in those discussions.

When we have come up with our decision about that, we'll let you know.

Reporter: For out-of-province residents working in BC on major projects, like the Trans Mountain pipeline, for example, who might go home to Alberta or from Kamloops to the Lower Mainland, for example, to see families on their days off, I'm assuming, would that be deemed essential travel? Yes or no?

And how much of a concern has this been for you and health officials about the potential spread from those situations, especially when you consider the cases reported at LNG Canada today?

Henry: Yes, it is essential travel. Work travel is essential travel.

Industrial camps have been a huge concern of ours from the very beginning. You will recall that we actually have an order around a COVID safety plan in industrial plants and other settings, like the silviculture in the summer, where we had thousands of people coming to plant trees over the summer period.

Those safety plans have been really good. They have worked. We've had very few cases. Those cases have been isolated. For people it's been a challenge, I know, for people working in those environments because they cannot have those social interactions that they would normally have had in those work environments. They've have barriers in place when people come in. There's testing in place, as needed. There's isolation and monitoring of contacts. We've had less than half a dozen individual cases of people being having exposure events, so, people coming in and testing positive for COVID.

So this is our first outbreak. It was caught and is being managed.

We know there's about 30 or 40 people who are in isolation and being monitored. We don't believe that there have been exposures in the community.

I know Northern Health is working really carefully with them on managing this outbreak.

It is a reflection of the risk that we run across the province -- across the country -- when rates are high all over the place.

So far, the safety plans have been something that we have been focused on and are important and have been working.

Celebrating the things. . . . They planted three million trees this summer, trees that would have been lost if we had not had those plans in place and been able to get people up into some of the more remote areas to do the planting.

Reporter: Yes. Thanks for that answer. Just a quick question for clarity because, obviously, this is an extension for the restrictions already in place for the Lower Mainland, but it's new for places like Interior Health. Is this immediate from when you spoke about this about an hour ago, or would it be 10pm tonight?

Henry: We're saying midnight tonight. And then we'll catch it up. All of these will apply until at least December 7th. We will be monitoring and we'll be talking, of course, over that period of time and watching how things are going, and adjusting if we need to.

Reporter: Thank you. My question, I would like to ask Minister Dix if he can talk a little more about, and maybe, before Dr Henry.

When you see what's going on in Quebec with schools [audio drops out] if it's something that you're thinking about here.

And then if Minister Dix can say this in French, if school is going to be closed or if the Christmas holidays are going to be extended for kids here in BC.

Henry: I have to say that I know that Quebec was making an announcement at five o'clock their time, but I have not heard what the announcement was, so I can't actually respond to your question, other than we are looking at whether we will extend the holiday break or not.

There's pros and cons, as we talked about the other day here, on doing that and there's implications on a variety of different parts of our communities. That decision has not yet been made here. [sss, adv, agg, mjag, mcfd, ctz, edu, embc, empr, env, fin, forr, hlth, tnf, jtst, lbrr, mhaa, maz, pjjh, pssg, msd, tacz, tran, dbc

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 2, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; the distribution of food or other supplies to people in need; health and social services provided to people in need such as warming centres; an episodic market at which only food for human consumption is sold; health care related events such as immunization clinics, health authority COVID-19 testing centres and blood donation clinics, court sittings wherever they occur; workers at a worksite when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412 or the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School or a post-secondary educational institution when engaged in educational activities; students and instructors when engaged in occupational training activities which cannot be provided virtually by their nature; individuals attending regularly scheduled classes or practices in a recreation centre other than indoor group high intensity fitness activities, indoor group low intensity fitness activity or adult team sport; customers in a mall or retail or service business when engaged in shopping activities or seeking services; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; or the use of any place for municipal, provincial or federal election purposes.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

(i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

(ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

(iii) coordinated action is needed to protect the public from the transmission of COVID-19

(iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF NOVEMBER 10, 2020 WITH RESPECT TO GATHERINGS AND EVENTS AND MY ORDER OF NOVEMBER 13, 2020 WITH RESPECT TO COVID-19 PREVENTION REGIONAL MEASURES;

CONFIRMS MY ORAL ORDER OF NOVEMBER 19, 2020 WITH RESPECT TO GATHERINGS AND EVENTS AND PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES;

MY ORAL ORDER OF NOVEMBER 19, 2020 REMAINS IN EFFECT WITH RESPECT TO WORKPLACE SAFETY AND TRAVEL RELATED TO TEAM SPORT;

Definitions in this Order:

"adult team sport" means an organized and structured activity involving a number of participants, including basketball, cheerleading, combat sports, floor hockey, floor ringette, road hockey, ice hockey, ringette, netball, skating, soccer, curling, volleyball, indoor bowling, lawn bowling, lacrosse, hockey, ultimate, rugby, football, baseball, softball;

"affected area" means British Columbia:

"banquet hall" means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

"children or youth" refers to persons under nineteen years of age;

"event" refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service; ceremony or celebration; , a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life,; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; adult team sport; indoor group high intensity fitness activity; indoor group low intensity fitness activity; exhibition; market or fair, including a trade fair, agricultural fair, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event, but does not include a gathering or event which is permitted under, and in compliance with, another Order;

"group high intensity fitness activity" means a group fitness activity which causes a sustained and accelerated rate of breathing and/or involves close contact including hot yoga, spin, aerobics, bootcamp, dance classes, dance fitness, circuit training, and high-intensity interval training;

"group low intensity fitness activity" means a group fitness activity which does not cause a sustained and accelerated rate of breathing or involve close contact with another person, including yoga, Pilates, stretching, Tai-Chi, light weightlifting, stretching or strengthening;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, a officiant at a wedding, baptism or funeral, volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, recreational, outdoor fitness, or social activity supervised by an adult and provided for children or youth, but does not include a performance, recital or demonstration by children or youth;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

A. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this order.

4. No person may be present at an event except as provided for in this Order.

5. For certainty, this Part applies to and prohibits indoor group high intensity fitness activity, and adult team sport in any place.

B. PERMITTED EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host, a support group meeting, a meal provided without charge to people in need, a wedding, baptism or funeral, a program for children or youth or sport for children or youth subject to the provisions of this Part.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, a meal provided without charge to people in need, or a program for children or youth, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting or program for children or youth at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. **In this section**

"event" means a support group meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral or a program for children or youth;

An event may only proceed if the following conditions are met:

a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated sit at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized.

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. there are no spectators at a program for children or youth unless the presence of a spectator is necessary in order to provide care to a child or youth.

5. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

6. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

7. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be

present in the place under the COVID - 19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

8. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

    a. patrons attending an event do not have contact with patrons attending an event\ in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

    b. there is a separate entrance to each of the premises in which an event is being held; and

    c. there are separate washrooms for each of the premises.

9. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

10. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

11. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

12. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

13. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer;

    c. and destroy the information after thirty days.

14. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

15. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending,

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11 and

    c. a request to provide the information required in section 13.

16. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

17. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

18. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, sport for children or youth if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. there are no spectators unless the presence of a spectator is necessary in order to provide care to a child or youth.

19. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, indoor group low intensity fitness activity if the following conditions are met:
    a. I have posted guidelines for indoor group low intensity fitness activities on my website;
    b. the person who provides or hosts the indoor group low intensity fitness activity or developed an updated COVID-19 safety plan in accordance with my guidelines; and
    c. the COVID-19 safety plan has been posted in a place easily visible to participants.

20. No person may participate in indoor group low intensity fitness activity unless the conditions in section 19 have been met.

C. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
   a. an occupant's work,
   b. being provided with care,
   c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
   d. providing assistance, care or services, including care to a child or an adult who requires care, health care, personal care or grooming services,
   e. educational programming or tutoring,
   f. music lessons,
   g. legal and financial services,
   h. emergency services,
   i. housekeeping and window washing,
   j. gardening and landscape services,
   k. maintenance,
   l. repairs,
   m. renovations,
   n. moving services,
   o. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 4 regularly interact with one another, as well as with the occupant, they may be present for social

purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

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D. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than

        i. maintenance, fueling or a related purpose; or

        ii. transport; or

    b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely

E. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19 **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, except as it applies to indoor group high intensity fitness activity and adult team sport, B, except at it applies to indoor group low intensity fitness activity and C of this Order expire at 12:00 PM on December 7, 2020 unless extended by me; Parts D and E do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would
   (a) meet the objective of the order, and
   (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

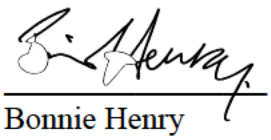
Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 2nd day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 4, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person; the distribution of food or other supplies to people in need; health or social services provided to people in need, such as warming centres; an episodic market at which only food for human consumption is sold; health care related events such as immunization clinics, health authority COVID-19 testing centres and blood donation clinics, court sittings wherever they occur; workers at a worksite when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412, the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School, or a post-secondary educational institution when engaged in educational activities; students and instructors when engaged in occupational training activities which cannot be provided virtually by their nature; individuals attending regularly scheduled classes or practices in a recreation centre, other than indoor group high intensity fitness activities, indoor group low intensity fitness activity or adult team sport; customers in a mall or retail or service business when engaged in shopping activities or seeking services; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; or the use of any place for local government, provincial or federal election purposes.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

    (i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

    (ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

    (iii) coordinated action is needed to protect the public from the transmission of COVID-19

    (iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF DECEMBER 2, 2020 WITH RESPECT TO GATHERINGS AND EVENTS

RE-CONFIRMS MY ORAL ORDER OF NOVEMBER 19, 2020 WITH RESPECT TO GATHERINGS AND EVENTS AND PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES;

MY ORAL ORDER OF NOVEMBER 19, 2020 REMAINS IN EFFECT WITH RESPECT TO WORKPLACE SAFETY AND TRAVEL RELATED TO TEAM SPORT;

Definitions in this Order:

"adult team sport" means an organized and structured activity involving a number of participants, including basketball, cheerleading, combat sports, floor hockey, floor ringette, road hockey, ice hockey, ringette, netball, skating, soccer, curling, volleyball, indoor bowling, lawn bowling, lacrosse, hockey, ultimate, rugby, football, baseball, softball;

"affected area" means British Columbia:

"banquet hall" means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

"children or youth" refers to persons under nineteen years of age;

"event" refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service; ceremony or celebration; , a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life,; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; adult team sport; indoor group high intensity fitness activity; indoor group low intensity fitness activity; exhibition; market or fair, including a trade fair, agricultural fair, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event, but does not include a gathering or event which is permitted under, and in compliance with, another Order;

"group high intensity fitness activity" means a group fitness activity which causes a sustained and accelerated rate of breathing and/or involves close contact including hot yoga, spin, aerobics, bootcamp, dance classes, dance fitness, circuit training, and high-intensity interval training;

"group low intensity fitness activity" means a group fitness activity which does not cause a sustained and accelerated rate of breathing or involve close contact with another person, including yoga, Pilates, stretching, Tai-Chi, light weightlifting, stretching or strengthening;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, a officiant at a wedding, baptism or funeral, volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, recreational, outdoor fitness, or social activity supervised by an adult and provided for children or youth, but does not include a performance, recital or demonstration by children or youth;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

A. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this order.

4. No person may be present at an event except as provided for in this Order.

5. For certainty, this Part applies to and prohibits indoor group high intensity fitness activity, and adult team sport in any place.

B. PERMITTED EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host, a support group meeting, a meal provided without charge to people in need, a wedding, baptism or funeral, a program for children or youth or sport for children or youth subject to the provisions of this Part.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, a meal provided without charge to people in need, or a program for children or youth, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting or program for children or youth at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. **In this section**

"event" means a support group meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral or a program for children or youth;

An event may only proceed if the following conditions are met:

a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated sit at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

   i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

   ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

   iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized.

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. there are no spectators at a program for children or youth unless the presence of a spectator is necessary in order to provide care to a child or youth.

5. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

6. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

7. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be

present in the place under the COVID - 19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

8. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

    a. patrons attending an event do not have contact with patrons attending an event\ in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

    b. there is a separate entrance to each of the premises in which an event is being held; and

    c. there are separate washrooms for each of the premises.

9. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

10. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

11. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

12. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

13. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer;

    c. and destroy the information after thirty days.

14. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

15. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending,

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11 and

    c. a request to provide the information required in section 13.

16. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

17. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

18. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, sport for children or youth if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. there are no spectators unless the presence of a spectator is necessary in order to provide care to a child or youth.

19. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, indoor group low intensity fitness activity if the following conditions are met:
    a. I have posted guidelines for indoor group low intensity fitness activities on my website;
    b. the person who provides or hosts the indoor group low intensity fitness activity has developed an updated COVID-19 safety plan in accordance with my guidelines; and
    c. the COVID-19 safety plan has been posted in a place easily visible to participants.

20. No person may participate in indoor group low intensity fitness activity unless the conditions in section 19 have been met.

C. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
   a. an occupant's work,
   b. being provided with care,
   c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
   d. providing assistance, care or services, including care to a child or an adult who requires care, health care, personal care or grooming services,
   e. educational programming or tutoring,
   f. music lessons,
   g. legal and financial services,
   h. emergency services,
   i. housekeeping and window washing,
   j. gardening and landscape services,
   k. maintenance,
   l. repairs,
   m. renovations,
   n. moving services,
   o. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 5 regularly interact with one another, as well as with the occupant, they may be present for social

purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

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D. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than

        i. maintenance, fueling or a related purpose; or

        ii. transport; or

    b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely

E. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19 **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, except as it applies to indoor group high intensity fitness activity and adult team sport, B, except at it applies to indoor group low intensity fitness activity and C of this Order expire at 12:00 PM on December 7, 2020 unless extended by me; Parts D and E do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would
   (a) meet the objective of the order, and
   (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

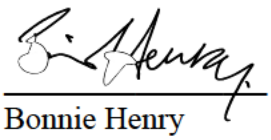
Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 4th day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

British Columbia (BC)
COVID-19 Situation Report
BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 48: November 22 – November 28, 2020

Table of Contents

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

COVID-19 incidence still elevated in BC: potential plateau in percent positivity and weekly hospitalizations, but ongoing increase in deaths

There were 5,796 new COVID-19 reports in week 48, nearly 30% higher than the week 47 tally of 4,501 reports. Weekly tallies by report date, however, include cases with illness onset date in preceding weeks. Based upon episode date, incidences in weeks 47 and 48 were both elevated at 96 and 83 per 100K – each more than five times higher than week 38 (mid-September), the start of Phase 3b. Furthermore, episode-based incidences will increase as data (notably onset dates) become more complete and given prior trends, we may expect the week 48 rate based on episode date to at least match that based on report date (113 per 100K).

Week 48 incidence remained elevated in all health authorities (HA), highest in Fraser (FHA) and Vancouver Coastal (VCHA). Both Northern (NHA) and Interior (IHA), however, continued to show steep incline over recent successive weeks. In Vancouver Island (VIHA), incidence remained elevated but still the lowest by HA.

Incidence in week 48 was at least four times that of week 38 for all age groups. Of concern, adults 80+ again had amongst the highest incidence, exceeding 100 per 100K, still about 15 times higher than in week 38.

Whereas percent positivity increased steadily from weeks 41-46 (1.8% to 8.7%), it plateaued or slightly decreased in weeks 47 and 48 (8.5% and 7.9%). Positivity in week 48 was 10.4% in FHA, 7.4% in NHA, 6.9% in VCHA, 5.8% in IHA, and 1.8% in VIHA. Positivity exceeded 7.5% in all age groups except children 0-9 years (5.4%).

There were 217 hospitalizations in week 48, comparable to week 47 (219) but double the first wave peak in week 13 (107). Given the expected lag from case onset to potential development of severe outcomes, the ultimate tally and timing of the second wave peak in severe outcomes has yet to be determined.

In week 48, there were 82 deaths, about 60% higher than week 47 (51) and triple the first wave peak in week 15 (26). In week 48, 57 (70%) deaths were associated with a care facility outbreak and 77 (94%) were 70+ years. Of 435 deaths in BC to date, 298 (69%) were facility outbreak-associated and 378 (87%) were 70+ years.

There were 16 care facility outbreaks reported in week 48 (8 in FHA, 7 in VCHA, 1 in NHA), 11 with earliest onset date in prior weeks. Facility outbreak tallies by earliest onset date are highest so far in week 46 (24).

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when those dates are unknown, is report date used.
- Data are provided by epidemiological week. Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- Laboratory data include Medical Service Plan (MSP) (e.g. clinical diagnostic) as well as non-MSP (e.g. screening) specimens. The percent of specimens testing positive is presented here for all specimens tested as well as separately for MSP-funded specimens only. Given the systematically lower likelihood of test positivity among screening vs diagnostic specimens, summary analyses are foremost based on MSP-funded diagnostic specimens unless otherwise specified.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 48), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there were 5,796 new COVID-19 cases reported in week 48 which is nearly 30% higher than the 4,501 reports in prior week 47 and 13 times higher than the wave one peak of 442 reports in week 13. The weekly tally by report date, however, includes cases with illness onset date in preceding weeks. Analyses instead based on episode date (i.e. illness onset date and, only if that is unavailable, then case report date) may better represent the evolution of the epidemic. The bars in **Figure 1** display the epidemic curve based on episode date, coloured by health authority. Note that episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete.

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

Provincially, between week 3 (mid-January) and week 48 (fourth week of November), there have been 34,180 cases in total in BC, corresponding to a cumulative incidence of 663 per 100K. By HA, this cumulative tally (and incidence) includes: 21,762 cases in Fraser Health Authority (FHA: 1,122 per 100K); 9,042 cases in Vancouver Coastal Health Authority (VCHA: 747 per 100K); 1,784 cases in Interior Health Authority (IHA: 214 per 100K); 869 cases in Northern Health Authority (NHA: 303 per 100K); and 630 cases in Vancouver Island Health Authority (VIHA: 73 per 100K).

Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

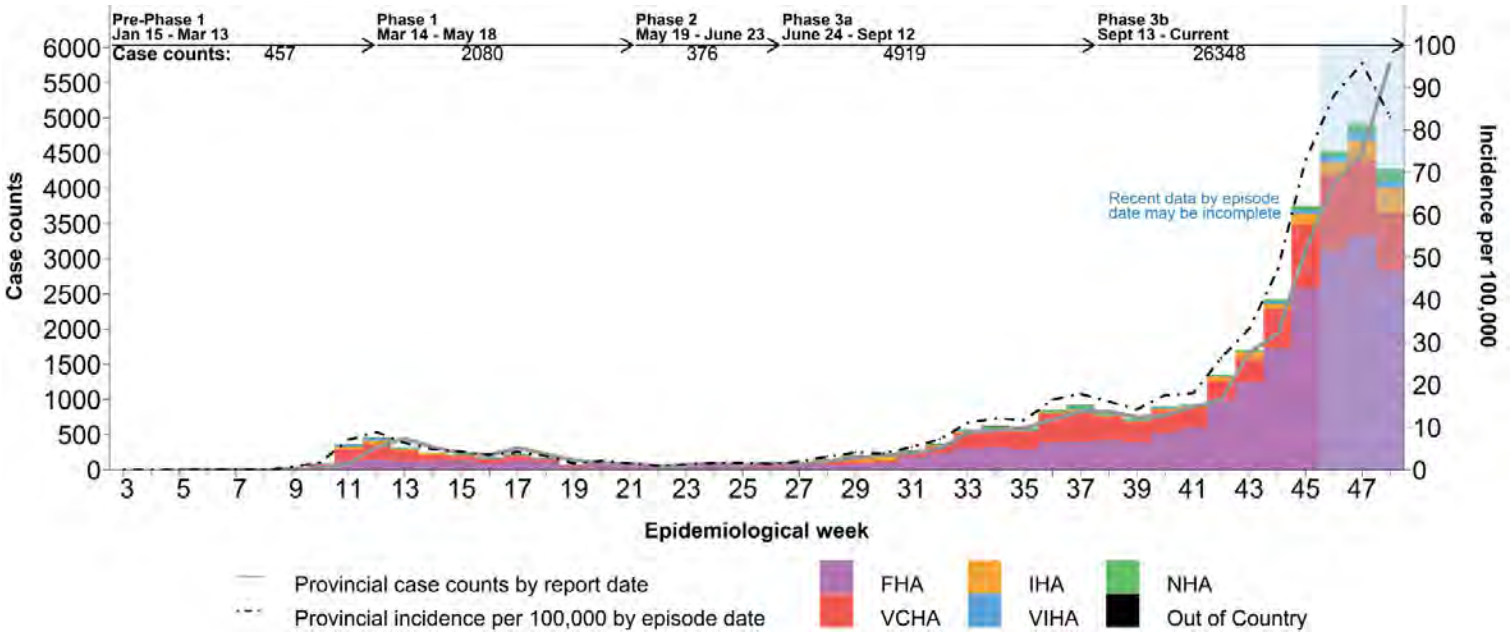
As shown in **Figure 1**, at the week 38 (mid-September) start of Phase 3b and in week 41, COVID-19 incidence was <20 per 100K (16 and 18 per 100K, respectively) but has shown steady increase since week 41.

As of data extraction for the current bulletin, there were 4,918 and 4,271 cases with episode date in weeks 47 and 48, respectively, corresponding to incidences of 96 and 83 per 100K – more than five times higher than the start of Phase 3b. Recognizing that episode-based data for week 48 are still incomplete, and if previous trends continue, we may expect the episode-based rate in week 48 to match or exceed the rate based on report date, which is 113 per 100K.

As shown in **Figure 2**, incidence in week 48 remained elevated in all health authorities relative to the week 38 start of Phase 3b, highest in FHA (146 per 100K) and VCHA (69 per 100K). Both NHA and IHA, however, continued to show steep incline over recent successive weeks with incidences that were more than double week 46 (i.e. 57 vs. 23 and 43 vs. 19 per 100K, respectively), the latter foremost observed in Okanagan HSDA. In VIHA, week 48 incidence also remained elevated (11 per 100K), notably in Central Vancouver Island, comparable to week 46 (11 per 100K) but still lowest overall by HA.

It warrants repeating that episode-based tallies for recent weeks will further increase as data become more complete, as emphasized by the pale blue shading in Figure 1.

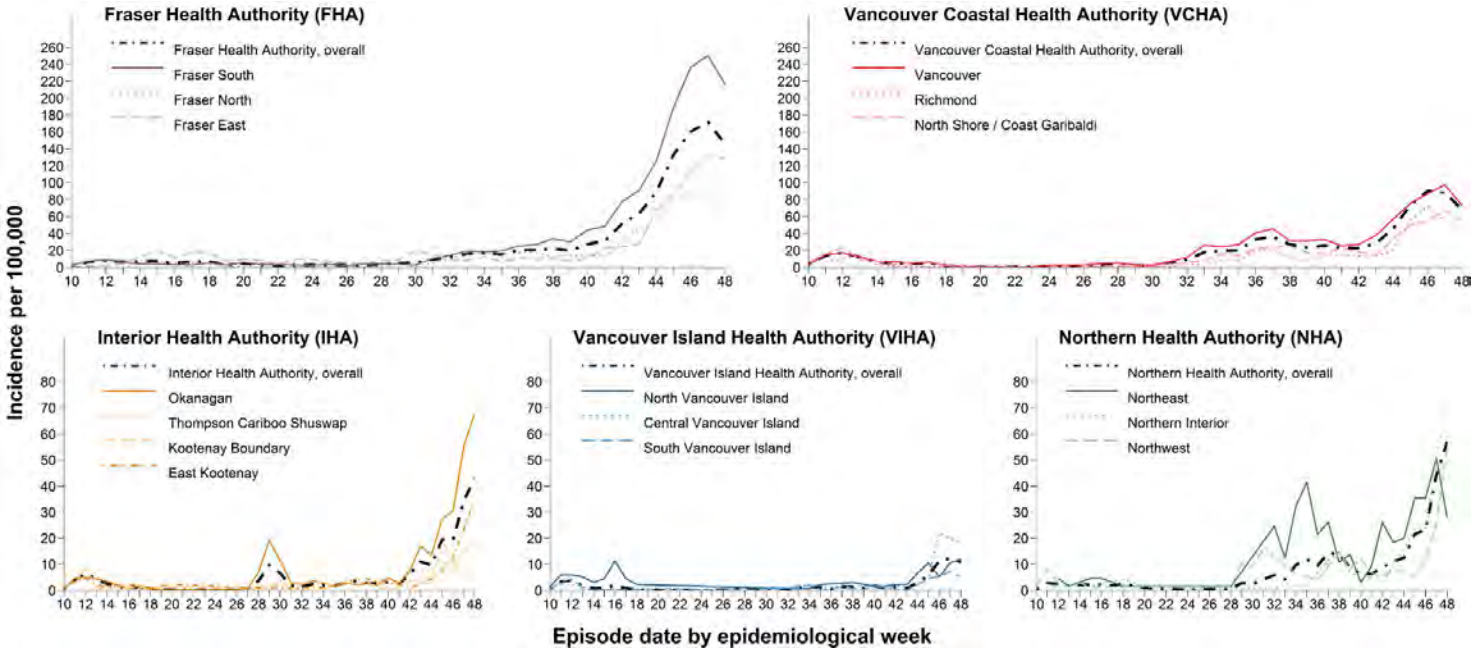
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), BC January 15, 2020 (week 3) – November 28, 2020 (week 48) (N= 34,180)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (11 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Friday, December 4, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – November 28, 2020 (week 48)



B. Test rates and percent positive

In BC, laboratory-based surveillance captures the mostly symptom-based diagnostic testing conducted under the Medical Service Plan (MSP) funding scheme, as well as any non-MSP funded screening tests. As shown by the bars in **Figure 3**, the total weekly number of respiratory specimens, both MSP and non-MSP funded, exceeded 80,000 in weeks 47 and 48.

Screening tests have a lower likelihood of testing SARS-CoV-2 positive (i.e. percent positivity) than symptom-based diagnostic testing; therefore, including more screening specimens will lower the overall percent positivity indicator and the impact of that will be greater when more screening specimens are included. Below we therefore present percent positivity based on all (MSP and non-MSP funded) specimens and separately also for MSP-funded specimens only.

As shown in **Figure 3**, percent positivity showed steady increase from week 41-46, evident based on all specimens (solid line: 1.4% to 6.5%) and more steeply for MSP-funded specimens only (dotted line: 1.8% to 8.7%). In weeks 47 and 48, percent positivity plateaued or decreased slightly based on all specimens (6.6% and 6.3%, respectively), also more evident based on MSP-funded specimens only (8.5% and 7.9%, respectively). As shown in **Panel A** of **Figure 4**, the per capita testing rate in week 48 was highest in FHA and VCHA. As shown in **Panel B**, percent positivity for MSP-funded specimens was also highest in FHA at 10.4%, next highest in NHA (7.4%) and VCHA (6.9%), followed by IHA (5.8%) and lowest in VIHA (1.8%).

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – November 28, 2020 (week 48)[a]

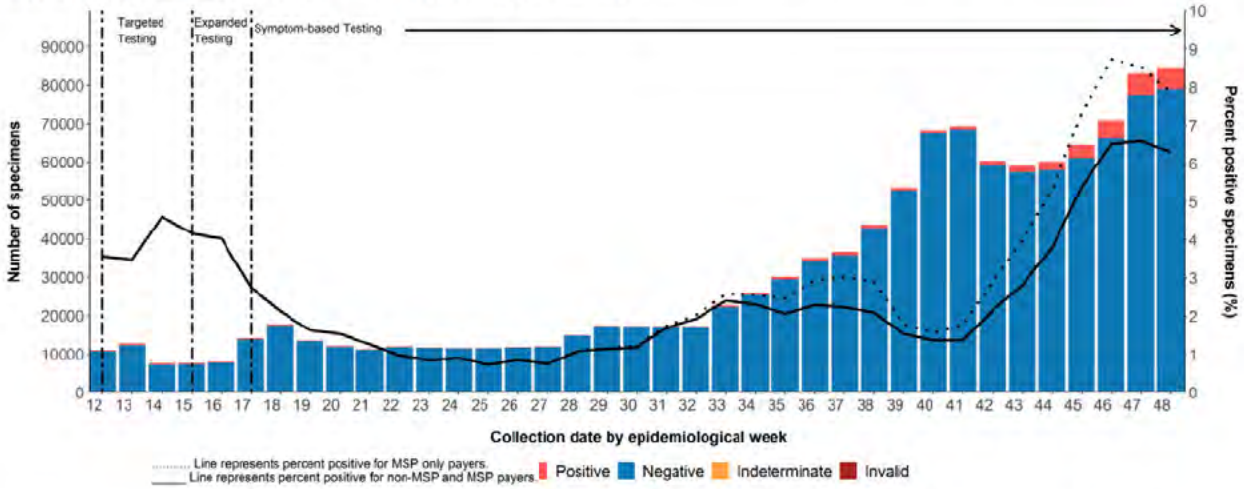
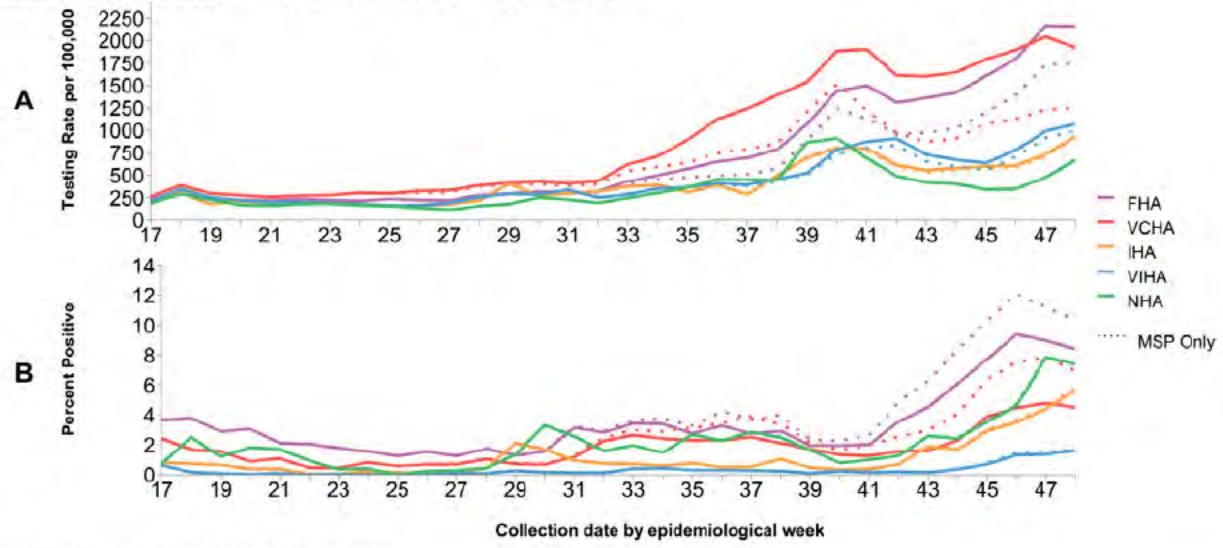


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – November 28, 2020 (week 48) [a]



a. PLOVER extract on Thursday, December 3, 2020.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing rates in week 48 compared to prior weeks 38-47 of Phase 3b were lower in children <15 years old, but higher in all other age groups. The highest testing rates in week 48 remain in adults 20-39 years, similar to weeks 38-47 of Phase 3b.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 48 was substantially higher than prior weeks 38-47 of Phase 3b whether based on all specimens (black dots) or restricted to MSP specimens only (grey dots). With restriction to MSP specimens only, percent positivity exceeded 7.5% in all age groups except children 0-9 years (5.4%), being highest in 15-19 year olds (9.1%), and next highest in adults 20-39 and 60-79 years (8.0% and 8.1%, respectively).

Case distribution by age group

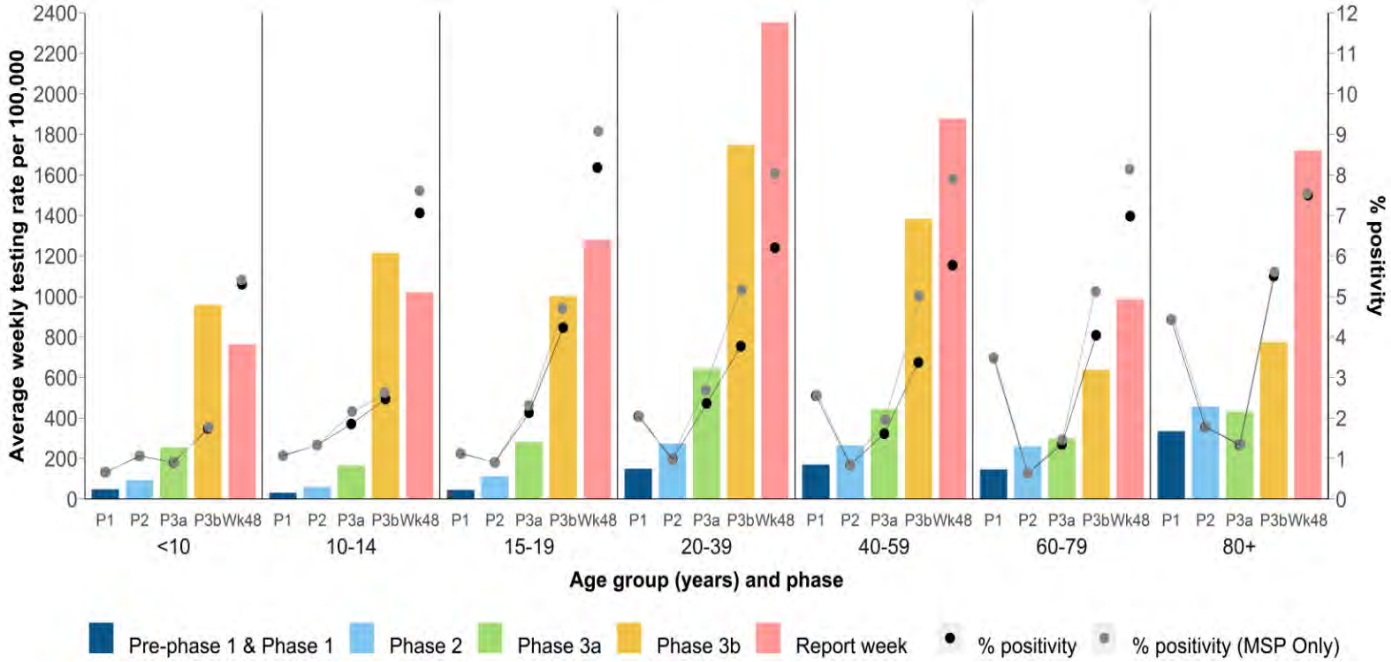
As shown in **Figure 6** and **Figure 7**, relative contribution by age group was stable over the past several weeks. Compared to week 38, however, older adults 80+ years contributed more in week 48 (2% and 6% of all cases, respectively) as did adults 50-59 years (10% and 13%, respectively) whereas the percentage contribution of other age groups to overall cases in week 48 either decreased or remained within 1% (absolute) of their contribution in week 38.

Weekly incidence by age group

As shown in **Figure 8** and **Figure 9** incidence in all age groups in week 48 was at least four times that of week 38. In week 48, incidence was highest in adults 20-29 years (135 per 100K), 4.5 times higher than in week 38 (30 per 100K). Of concern, week 48 incidence was next highest in elderly adults 80+ years (107 per 100K): 15-fold higher than week 38 (7 per 100K). As shown in **Figure 9**, incidence among the very old 90+ years is also dramatically elevated in week 48 compared to the average weekly incidence across Phase 3b (almost 4-fold higher from 55 to 213 per 100K). The ongoing elevated incidence among elderly adults remains particularly concerning given their greater risk of severe outcomes (**Section E**).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for prior weeks 38-47 of Phase 3b (excluding week 48) and 37 years in week 48 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase[a], BC January 20, 2020 (week 4) – November 28, 2020 (week 48) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b:10 weeks). The current report week, although part of Phase 3b, is excluded from Phase 3b as displayed here to enable comparison.

b. Laboratory extract from PLOVER on December 3, 2020. Testing rates displayed are based on all specimens (MSP and non-MSP).

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC
March 15, 2020 (week 12) – November 28, 2020 (week 48) (N= 33,615)[a]

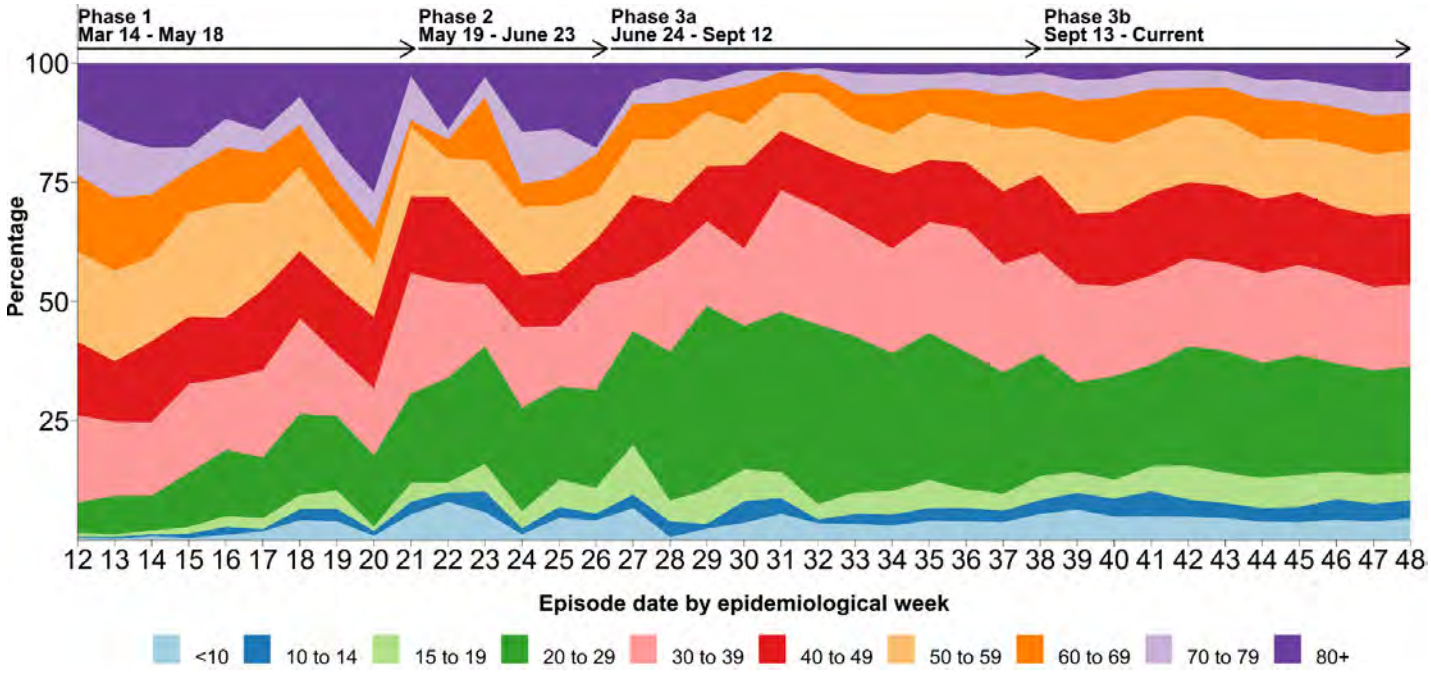
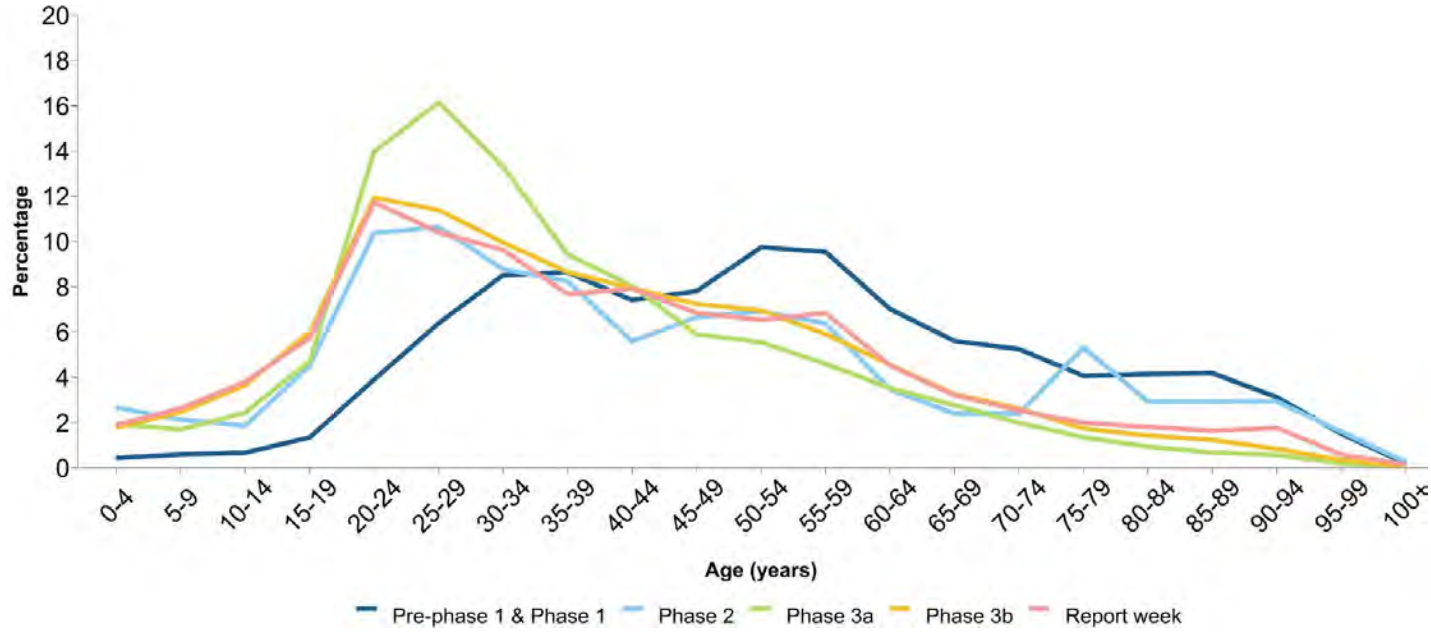


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week[b], BC
January 15, 2020 (week 3) – November 28, 2020 (week 48) (N= 34,123)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 8. Weekly age-specific incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – November 28, 2020 (week 48) (N= 34,123)[a]

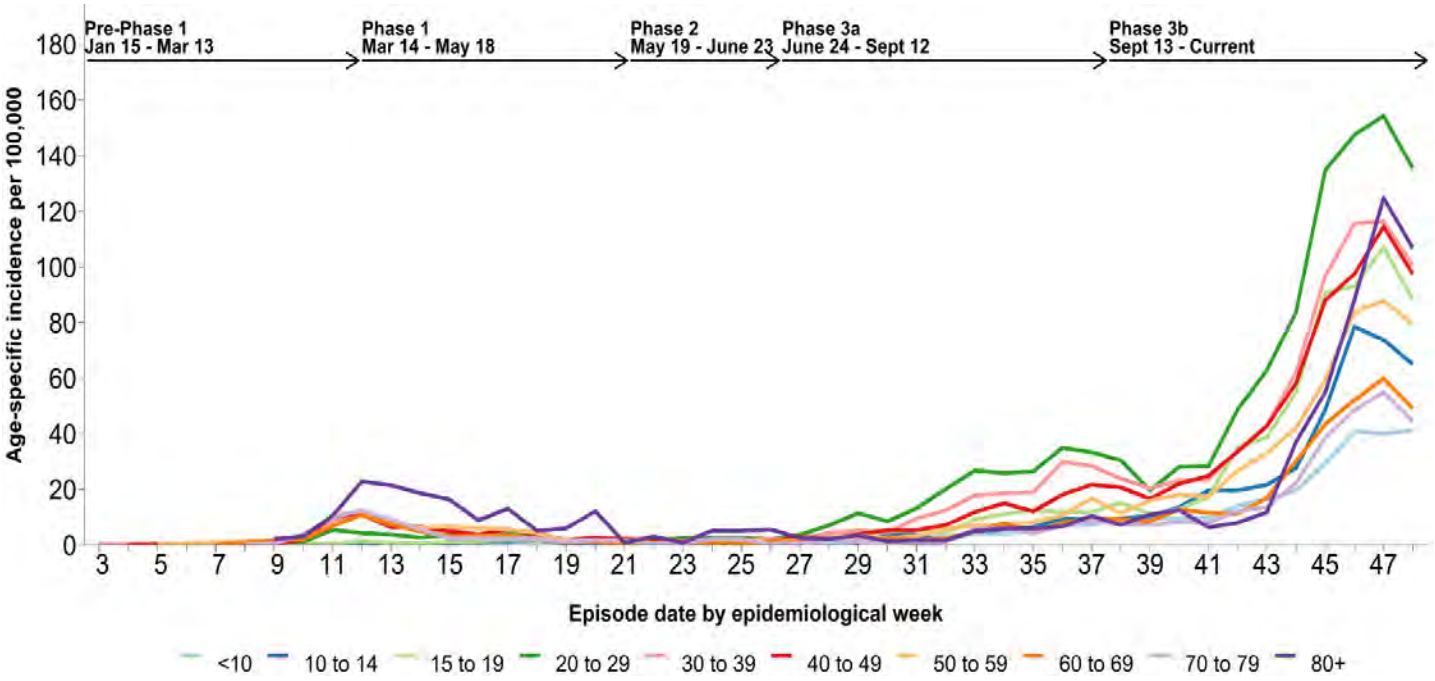
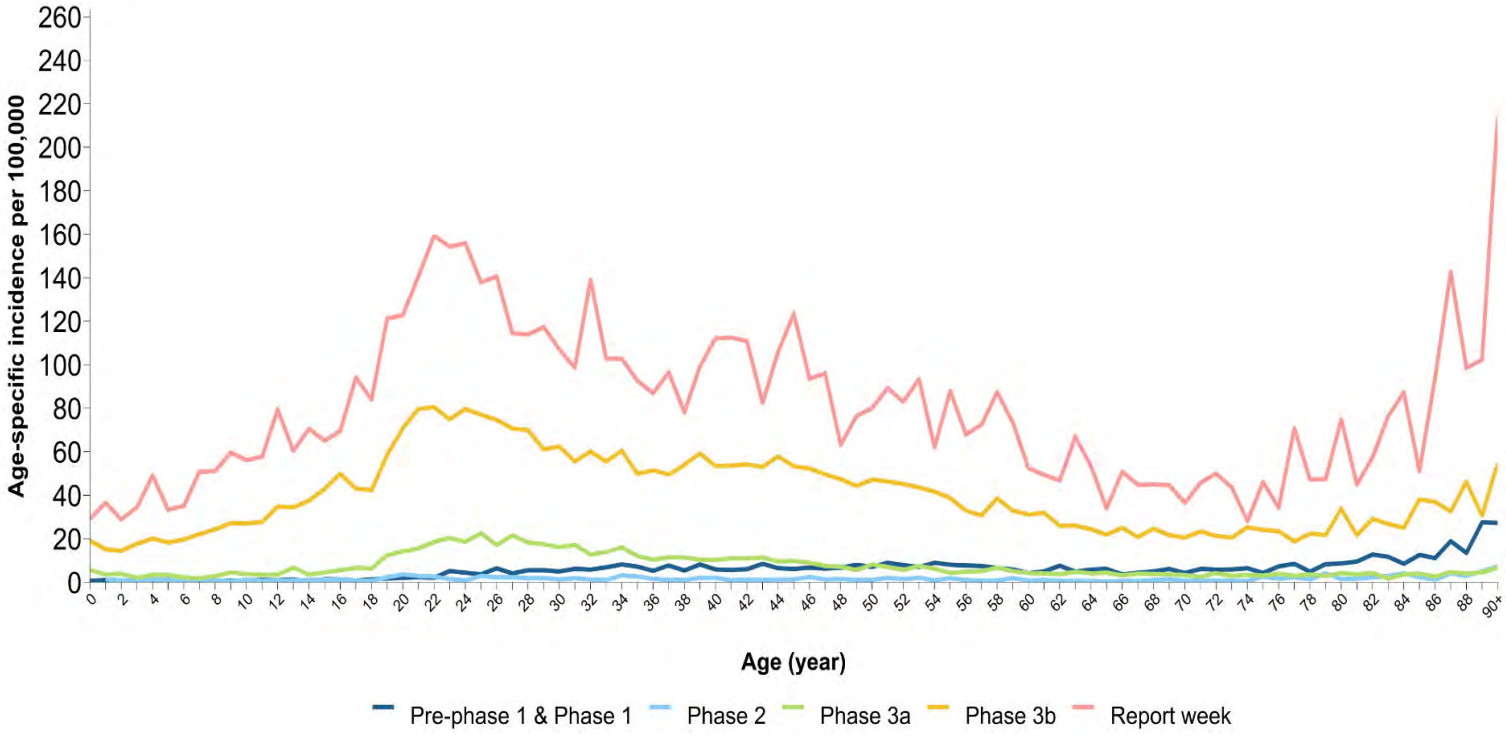


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a and 3b and current report week 46[b], BC
January 15, 2020 (week 3) – November 28, 2020 (week 48) (N= 34,123)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

There were 217 hospitalizations reported in week 48 (Table 1), comparable to the 219 admissions reported in week 47 but double the first wave peak of 107 hospital admissions in week 13 (Figure 10). In week 48 there were 82 deaths, 61% more than in week 47 (51) and triple the first wave peak in week 15 (26). In week 48, 57/82 (70%) deaths were associated with a care facility outbreak and 77/82 (94%) of deaths in week 48 were 70+ years old. Of the 435 total deaths to date, 298 (69%) were associated with a care facility outbreak and 378 (87%) were 70+ years old. Note that the ultimate timing of the second wave peak in severe outcomes has yet to be determined.

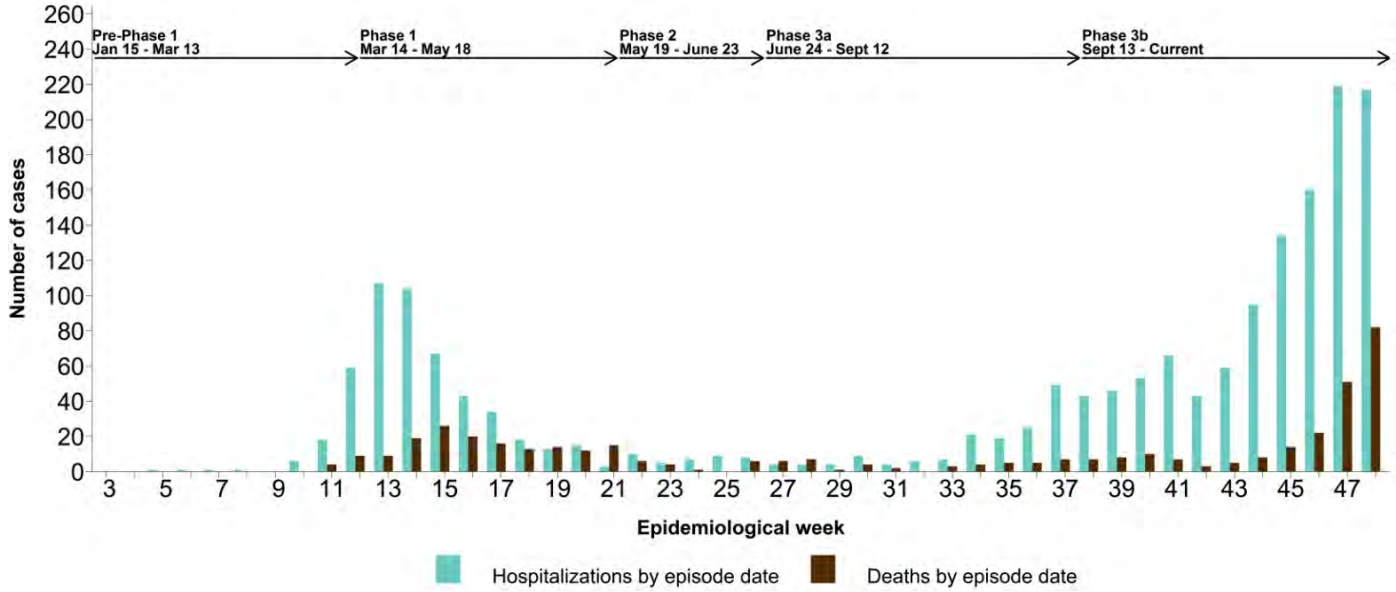
Overall, males comprise 17,359/34,084 (51%) cases, 1,066/1,813 (59%) hospitalizations, 288/468 (62%) ICU admissions and 245/435 (56%) deaths with known sex to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC January 15, 2020 (week 3) – November 28, 2020 (week 48)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**1,075**	**74**	**37**	**82**	**542**	**7**	**1,817/34,180 (5)** [a]
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	25	12	176	2	489/1,817 (27)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/1,817 (2)
Phase 3a (11.5 weeks)	100	5	0	10	40	2	157/1,817 (9)
Phase 3b (10 weeks, excluding week 48)	573	22	5	36	280	2	918/1,817 (51)
Week 48	131	17	7	22	40	0	217/1,817 (12)
Ever ICU	**235**	**22**	**10**	**46**	**153**	**2**	**468/34,180 (1)** [a]
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/468 (37)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/468 (2)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/468 (10)
Phase 3b (10 weeks, excluding week 48)	104	3	0	20	63	0	190/468 (41)
Week 48	24	5	1	11	6	0	47/468 (10)
Deaths	**230**	**3**	**6**	**8**	**188**	**0**	**435/34180 (1)** [a]
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	83	0	145/435 (33)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/435 (6)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/435 (11)
Phase 3b (10 weeks, excluding week 48)	81	1	1	5	47	0	135/435 (31)
Week 48	52	0	0	2	28	0	82/435 (19)

a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 10. COVID-19 hospitalization admissions (n=1,817) and deaths (n= 435) by episode date[a], BC January 15, 2020 (week 3) – November 28, 2020 (week 48)



a. Note that in previous reports this figure was displayed only using available admission and death dates. With this week's report, data are displayed by episode date (i.e. date of hospital admission or date of death, and if those dates are missing, then report date).

E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 11**, adults 70+ years comprise 10% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (44%) and deaths (88%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (17%) but a commensurate proportion of deaths (9%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 26% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (4%).

Adults 20-39 years comprise a greater share of COVID-19 cases (42%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (12%) and deaths (<1%).

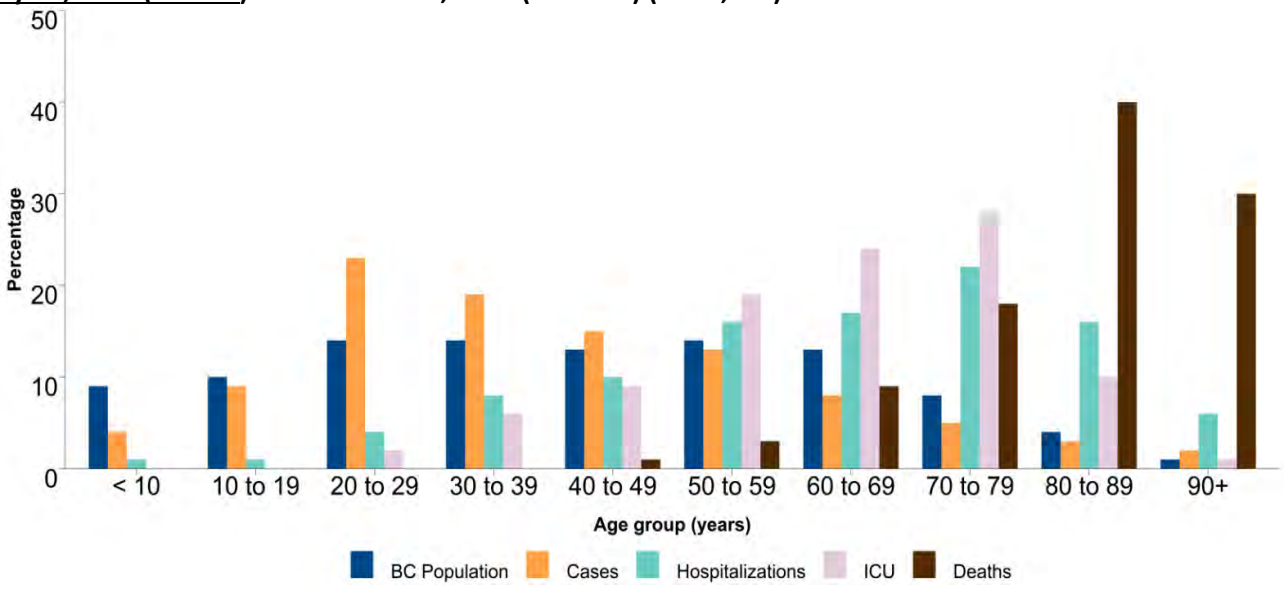
Children <20 years are under-represented overall among COVID-19 cases (13%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (64 vs. 69 years) but similar for deaths (86 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – November 28, 2020 (week 48)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	1,350 (4)	18 (1)	0 (0)	0 (0)	469,351 (9)
10-19	2,964 (9)	13 (1)	0 (0)	0 (0)	527,805 (10)
20-29	7,915 (23)	74 (4)	9 (2)	0 (0)	697,691 (14)
30-39	6,461 (19)	148 (8)	30 (6)	1 (<1)	735,052 (14)
40-49	5,096 (15)	173 (10)	44 (9)	4 (1)	646,035 (13)
50-59	4,449 (13)	293 (16)	88 (19)	15 (3)	718,272 (14)
60-69	2,703 (8)	307 (17)	110 (24)	37 (9)	673,131 (13)
70-79	1,583 (5)	393 (22)	133 (28)	77 (18)	435,062 (8)
80-89	1,044 (3)	290 (16)	47 (10)	172 (40)	187,443 (4)
90+	558 (2)	107 (6)	7 (1)	129 (30)	49,726 (1)
Total	**34,123**	**1,816**	**468**	**435**	**5,139,568**
Median age	**37**	**66**	**65**	**85**	**41**

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, BC January 15, 2020 (week 3) – November 28, 2020 (week 48) (N=34,123)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 3** and **Figure 12**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

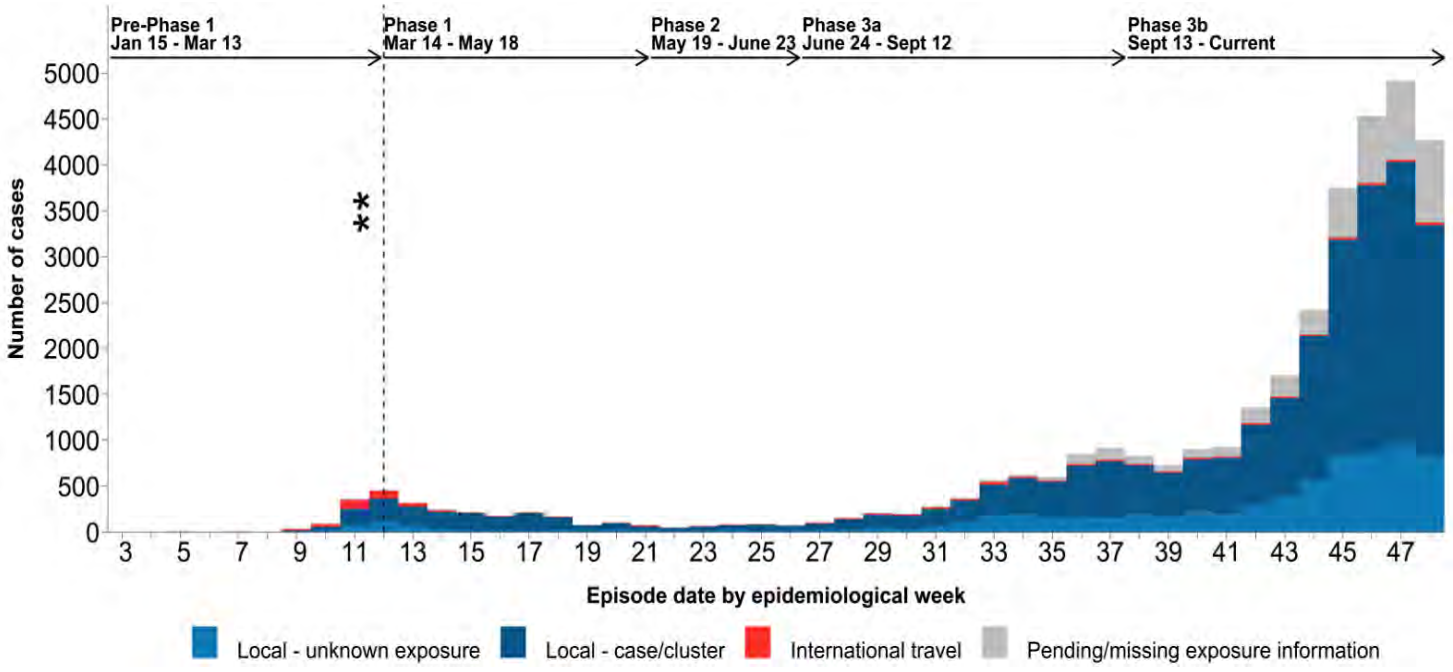
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 48 during which international travel was cited 1%.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, British Columbia
January 15, 2020 (week 3) – November 28, 2020 (week 48)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	211 (46)	97 (21)	14 (3)
Phase 1	188 (9)	1,499 (72)	350 (17)	43 (2)
Phase 2	30 (8)	262 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,212 (65)	1,174 (24)	352 (7)
Phase 3b (excluding week 48)	169 (1)	14,035 (64)	4,711 (21)	3,162 (14)
Week 48	29 (1)	2,503 (59)	840 (20)	899 (21)
Total	**732 (2)**	**21,722 (64)**	**7,254 (21)**	**4,472 (13)**

Figure 12. Likely source of COVID-19 infection by episode date, British Columbia
January 15, 2020 (week 3) – November 28, 2020 (week 48)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 13** 201 care facility outbreaks were reported in total in BC to the end of week 48. There were 16 new care facility outbreaks reported in week 48 (8 of which were reported by FHA, 7 by VCHA, and 1 by NHA), with 11 of these outbreaks having earliest onset date in preceding weeks. Facility outbreak tallies by earliest onset date are highest thus far in week 46 (24 outbreaks).

Fifty-seven of the 82 deaths in total reported in week 48 in BC involved adults in a care facility setting in Fraser Health Authority (41 deaths) or Vancouver Coastal Health Authority (16 deaths). All of these 57 deaths were elderly adults 70+ years.

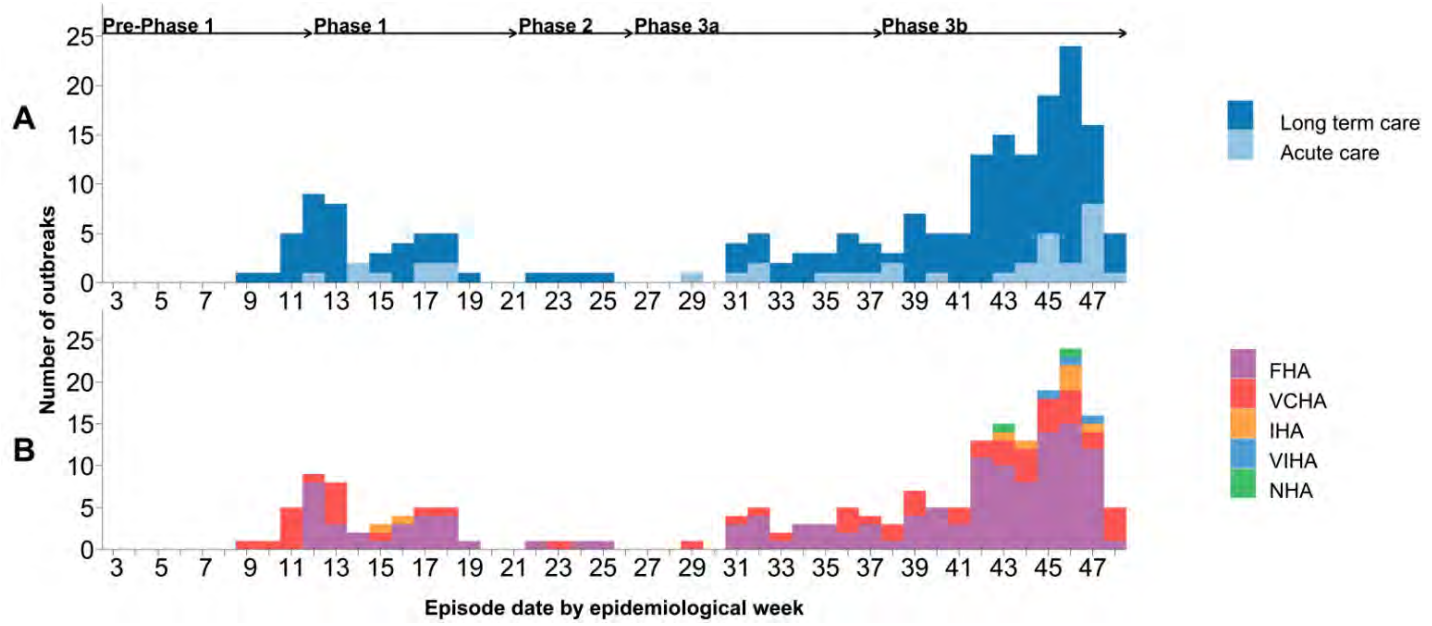
Of 26,348 cases overall in BC with episode date in Phase 3b (i.e. weeks 38-48), 1,632 (6%) were associated with a care facility outbreak, a proportion similar to Phase 3a overall (185/4,919; 4%), but lower than before Phase 3a (602/2,913; 21%).

Two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (298/435; 69%). Of those 298 facility outbreak-associated deaths, about half have occurred since the week 38 start of Phase 3b (139; 47%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – November 28, 2020 (week 48) (N=201)

	Outbreaks	Cases				Deaths			
		Residents	Staff/ visitors	Unknown	Total	Residents	Staff/ visitors	Unknown	Total
Total	**201**	**1,423**	**975**	**21**	**2,419**	**298**	**0**	**0**	**298**
Pre-/Phase One (17 weeks)	45	326	207	0	533	96	0	0	96
Phase 2 (5 weeks)	4	51	18	0	69	24	0	0	24
Phase 3a (11.5 weeks)	27	92	93	0	185	39	0	0	39
Phase 3b (10 weeks, excluding week 48)	120	722	543	17	1,282	82	0	0	82
Week 48	5	232	114	4	350	57	0	0	57
Active outbreaks[b]	70	-	-	-	-	-	-		-
Outbreaks declared over[b]	131	-	-	-	-	-	-		-

Figure 13. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – November 28, 2020 (week 48) (N=201)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of November 28, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 14**) related to COVID-19 have shown an overall increasing trend from week 32 to 40 at ~13,500 calls per week but decreasing in later weeks reaching just over 10,000 calls in week 43. Calls have gradually increased thereafter, and exceeded 14,000 calls in week 48.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 15**) related to COVID-19 (including telehealth billings) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to around 3,300 visits in weeks 42 and 43, before increasing again in weeks 47 and 48 to ~5,200.

Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – November 28, 2020 (week 48)

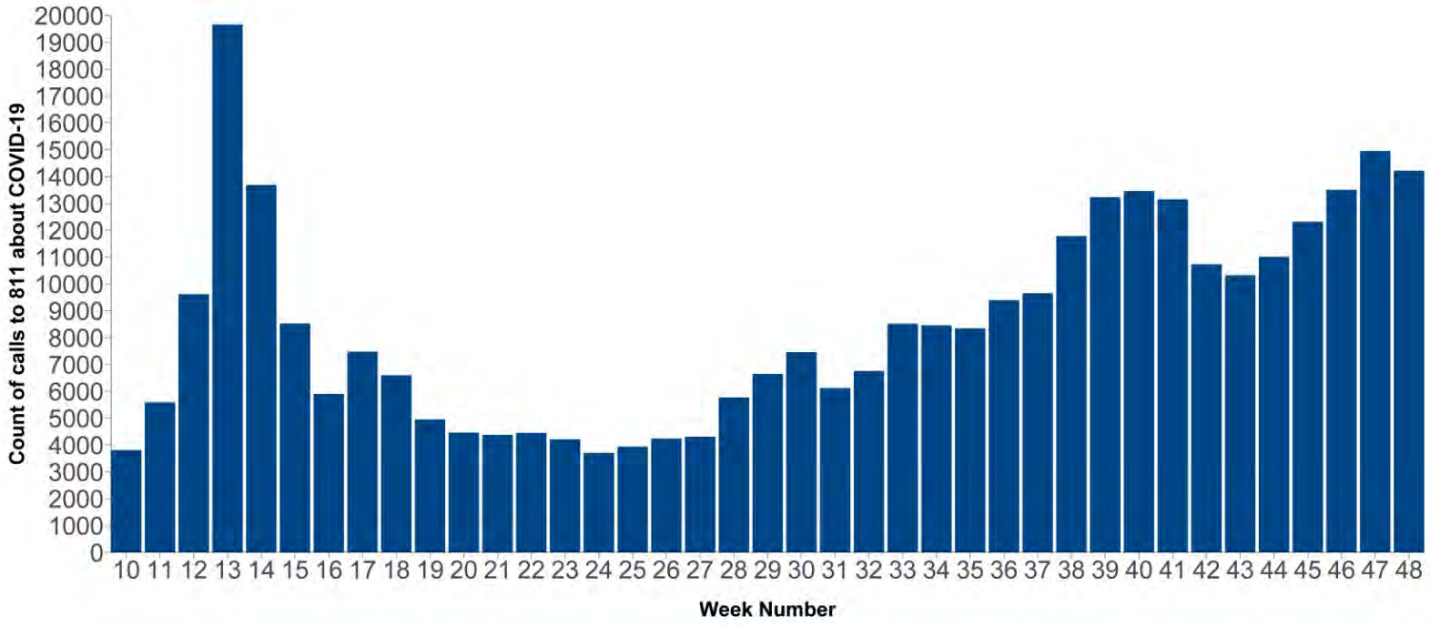
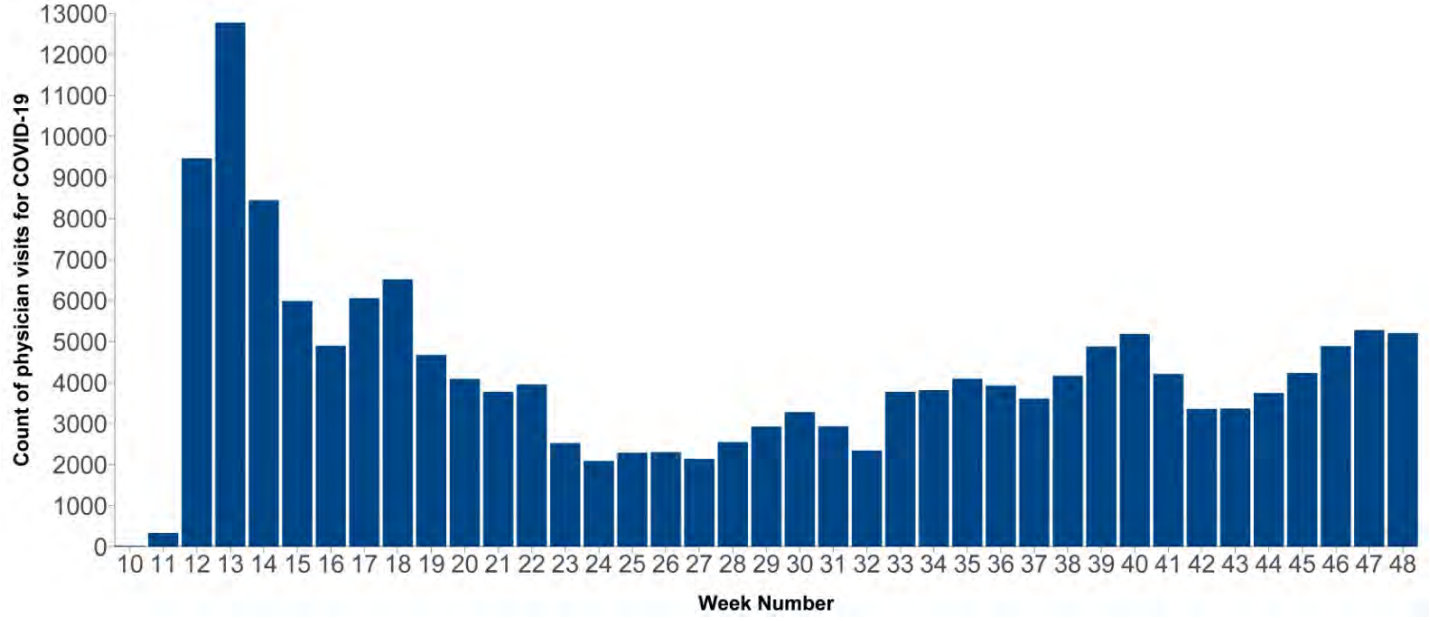


Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – November 28, 2020 (week 48)



British Columbia (BC) COVID-19 Situation Report
Week 49: November 29 – December 5, 2020

Table of Contents

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

COVID-19 plateaus in the Lower Mainland and Vancouver Island, but continues to climb in Northern and Interior Health Authorities

Cumulatively, there have been 38,851 COVID-19 cases in BC to end of week 49 (754 per 100K population). There were 4,867 new reports in week 49 (95 per 100K), a 16% decrease from the 5,796 reports in week 48 (113 per 100K), and representing the first substantial decline in weekly reports since the September start of Phase 3b. Note that weekly tallies by report date include cases with onset in prior weeks. Based upon episode date, incidences in weeks 48 and 49 were 94 and 77 per 100K, respectively, subject to change as data (notably onset dates) become more complete, but lower so far than week 47 (97 per 100K).

Incidence in week 49 exceeded 130 per 100K in Fraser (FHA) and 60 per 100K in Vancouver Coastal (VCHA), both lower than week 47. Incidence also exceeded 60 per 100K in Northern (NHA) and 45 per 100K in Interior (IHA), both higher than week 47. In Vancouver Island (VIHA) incidence was <10 per 100K, lower than week 47. Incidence decreased in recent weeks in all age groups, albeit still elevated and notably so for adults 80+ years at 123 per 100K.

Whereas percent positivity increased steadily from weeks 41-46 (from about 2% to 9%), it remained stable in weeks 48 and 49 (at about 8%). Positivity in week 49 exceeded 10% in FHA and NHA; 6% in VCHA and IHA; and 1% in VIHA. In NHA, positivity increased from week 47 (8%), but elsewhere was relatively stable. Positivity was lowest in children 0-9 years (5%) but otherwise similar at about 8% in other age groups, highest in elderly adults 80+ years (9%).

Cumulatively, there have been 2,066 hospitalizations in BC to end of week 49. Whereas the weekly tally of hospitalizations increased steadily from weeks 41-46 (from 68 to 167), it remained elevated but relatively stable in weeks 47 and 48 (223 and 229, respectively), decreasing slightly in week 49 (212).

Cumulatively, there have been 559 deaths in BC to end of week 49. The number of deaths per week increased substantially from weeks 41-46 (from 7 to 26), and (unlike hospitalizations) has continued to increase in weeks 47, 48 and 49 (60, 93 and 98, respectively). In week 49, 79/98 (81%) deaths were associated with a care facility outbreak and 93/98 (95%) were 70+ years.

Cumulatively, there have been 216 care facility outbreaks to end of week 49, with 15 reported in week 49 (9 FHA, 3 VIHA, 2 IHA, 1 VCHA), 12 with earliest onset date in prior weeks. The highest tally so far by earliest onset date was in week 46 (26).

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when those dates are unknown, is report date used.
- Data are provided by epidemiological week. Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- Laboratory data include Medical Service Plan (MSP) (e.g. clinical diagnostic) as well as non-MSP (e.g. screening) specimens. The percent of specimens testing positive is presented here for all specimens tested as well as separately for MSP-funded specimens only. Given the systematically lower likelihood of test positivity among screening vs diagnostic specimens, summary analyses are foremost based on MSP-funded diagnostic specimens unless otherwise specified.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

Pre-Phase 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**Phase 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**Phase 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**Phase 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**Phase 3b** Start of school year Sept 13 (wk 38) to Current (wk 49), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there were 4,867 (95 per 100K) new COVID-19 cases reported in week 49 which represents a 16% decrease from the 5,796 (113 per 100K) reports in prior week 48. This is the first substantial decrease in reported cases since the start of Phase 3b, although still 13 times higher than the wave one peak of 442 new reports in week 13. Note that the weekly tally by report date includes cases with illness onset date in preceding weeks. Analyses instead based on episode date (i.e. illness onset date and, only if that is unavailable, then case report date) may better represent the timing of epidemic evolution. The bars in **Figure 1** display the epidemic curve based on episode date, coloured by health authority. Note that episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete (as emphasized by the pale blue shading in **Figure 1**).

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

Provincially, between week 3 (mid-January) and week 49 (late November, early December), there have been 38,851 cases in total in BC, corresponding to a cumulative incidence of 754 per 100K. By HA, this cumulative tally (and incidence) includes: 24,751 cases in Fraser Health Authority (FHA: 1,276 per 100K); 9,894cases in Vancouver Coastal Health Authority (VCHA: 817 per 100K); 2,288 cases in Interior Health Authority (IHA: 274 per 100K); 1,095 cases in Northern Health Authority (NHA: 381 per 100K); and 729 cases in Vancouver Island Health Authority (VIHA: 84 per 100K).

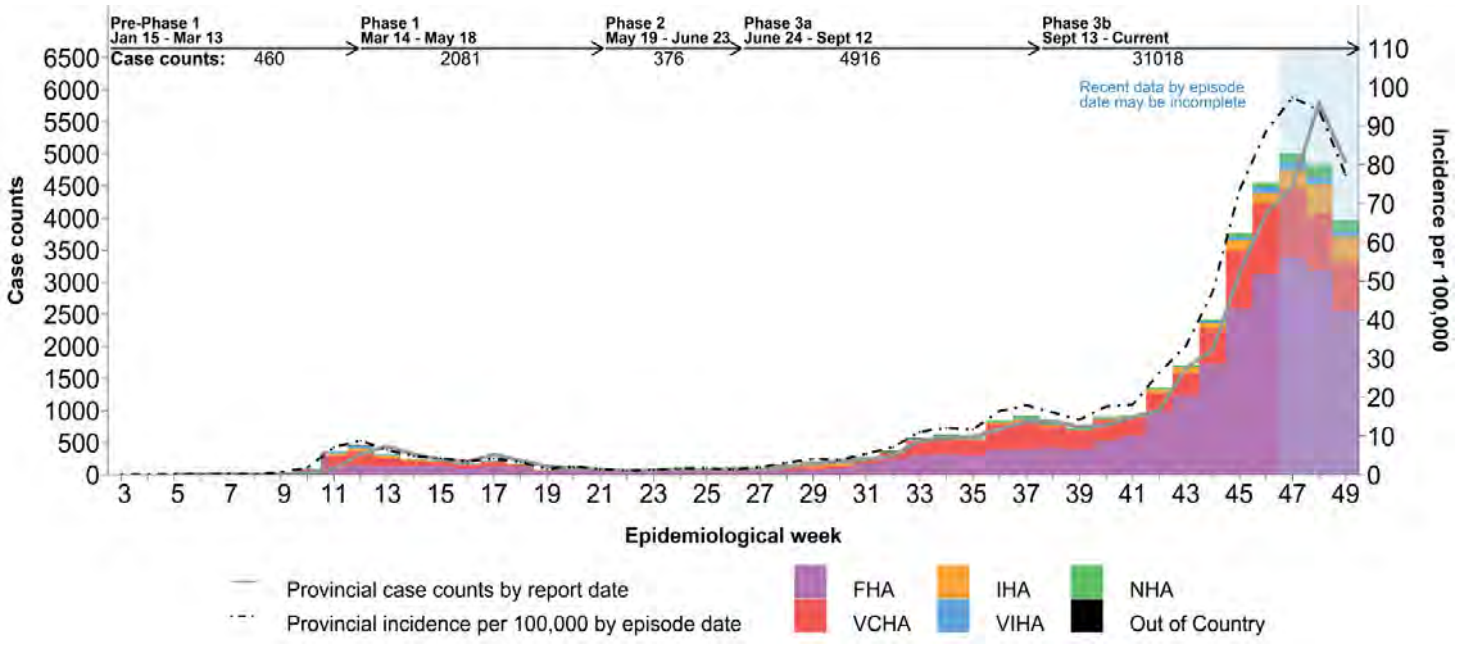
Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

As shown in **Figure 1**, COVID-19 incidence in week 38, the mid-September start of Phase 3b, was 16 per 100K but showed steady increase from week 41 (18 per 100K) to week 47 (97 per 100K).

As of data extraction for the current bulletin, there were 4,831 and 3,971 cases with episode date in weeks 48 and 49, respectively, corresponding to incidences of 94 and 77 per 100K – about five times higher than the start of Phase 3b, but lower than week 47. These episode-based rates are also subject to change as data (notably onset dates) become more complete, but are so far lower than week 47.

As shown in **Figure 2**, week 49 incidence was highest in FHA at 131 per 100K and was 64 per 100K in VCHA, both lower than week 47 (174 and 88 per 100K, respectively). Incidence in NHA was 64 per 100K and in IHA was 48 per 100K, both higher than week 47 (45 and 36 per 100K, respectively), indicating ongoing increase. Rates in these respective health authorities were driven by: Fraser South; Vancouver; Northern Interior and Northwest; and Okanagan health service district areas (HSDAs). In VIHA, week 49 incidence was 8 per 100K, led by North Vancouver Island HSDA but lower overall than week 47 (15 per 100K) and still the lowest overall by HA.

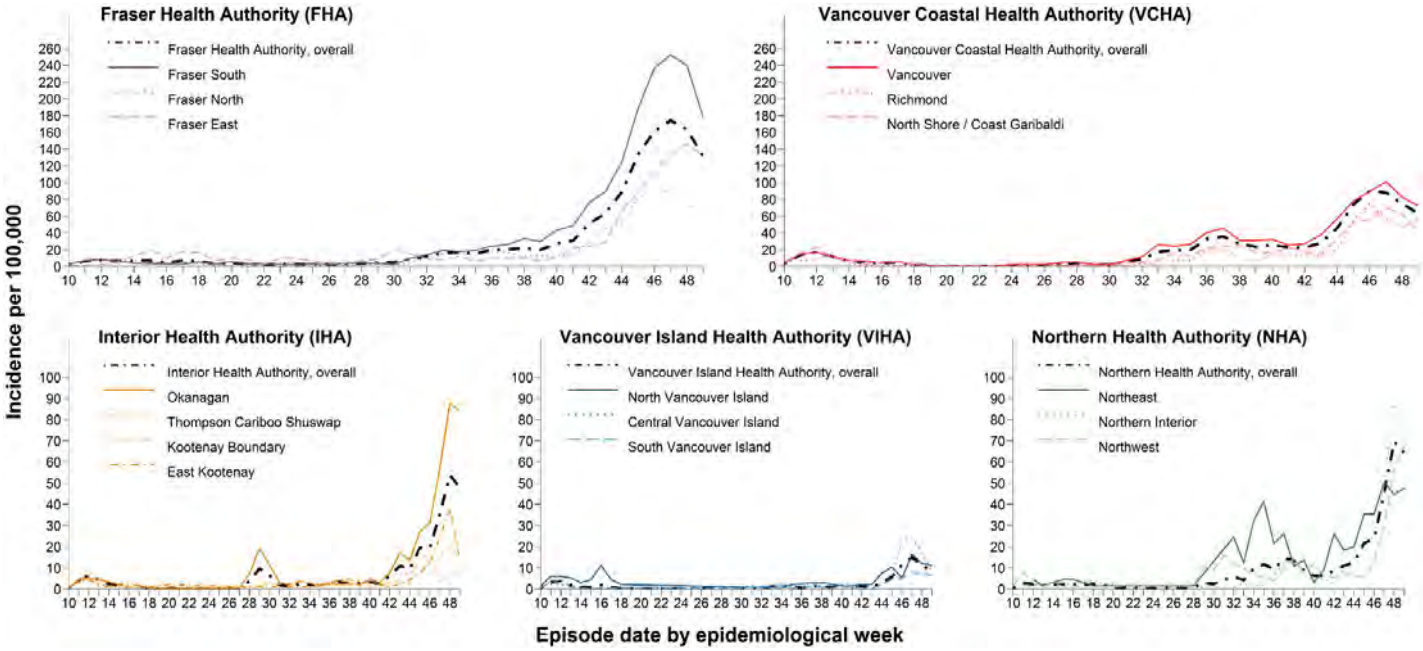
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), BC
January 15, 2020 (week 3) – December 5, 2020 (week 49) (N= 38,851)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for: Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (12 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Friday, December 11, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC
March 1, 2020 (week 10) – December 5, 2020 (week 49)



B. Test rates and percent positive

In BC, laboratory-based surveillance captures mostly symptom-based diagnostic testing conducted under the Medical Service Plan (MSP) funding scheme, as well as any non-MSP funded screening tests. As shown by the bars in **Figure 3**, the total weekly number of respiratory specimens, both MSP and non-MSP funded, were around 80,000 in weeks 48 and 49.

Screening tests have a lower likelihood of testing SARS-CoV-2 positive (i.e. percent positivity) than symptom-based diagnostic testing; therefore, including screening specimens will tend to lower the overall percent positivity indicator and the impact of that will be greater when more screening specimens are included. Figures below therefore present percent positivity based on all (MSP and non-MSP funded) specimens and separately based on MSP-funded specimens only.

As shown in **Figure 3**, percent positivity showed steady increase from week 41-46, evident based on all specimens (solid line: 1.4% to 6.5%) and more steeply for MSP-funded specimens only (dotted line: 1.8% to 8.7%). In weeks 48 and 49, percent positivity plateaued based on all specimens (6.3% in both weeks) and based on MSP-funded specimens only (7.9% and 8.1%, respectively). As shown in **Panel A** of **Figure 4**, the per capita testing rate in week 49 was highest in FHA and VCHA. As shown in **Panel B**, percent positivity for MSP-funded specimens was highest in FHA at 10.6% and NHA at 10.1%, followed by VCHA at 6.9% and IHA at 6.3%, lowest in VIHA at 1.4%. In NHA, positivity increased from week 47 (8%), but elsewhere was relatively stable.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – December 5, 2020 (week 49)[a]

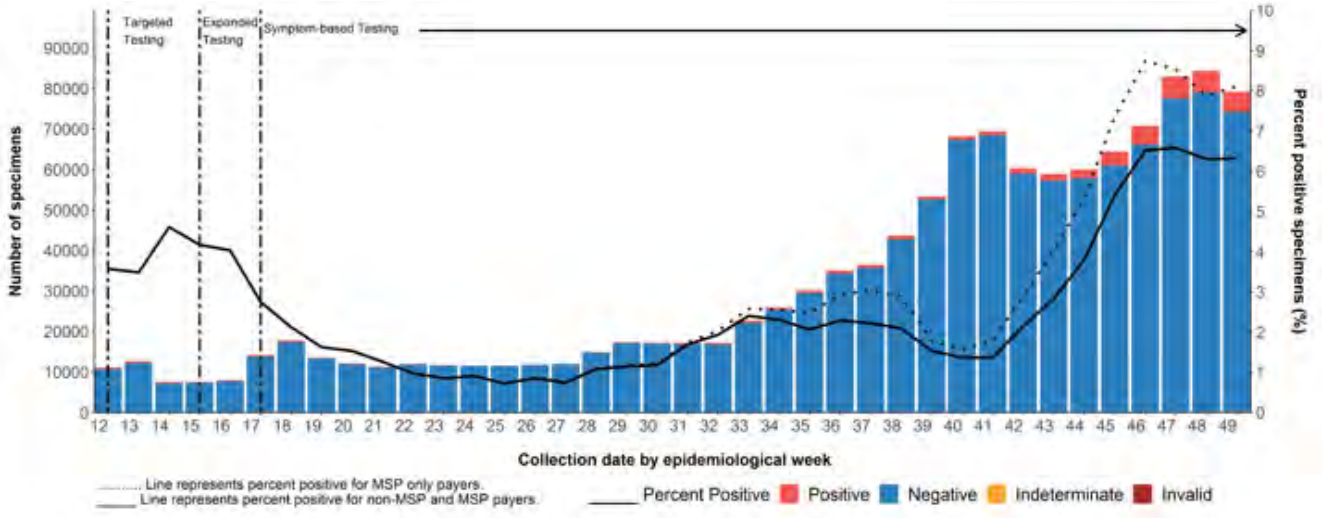
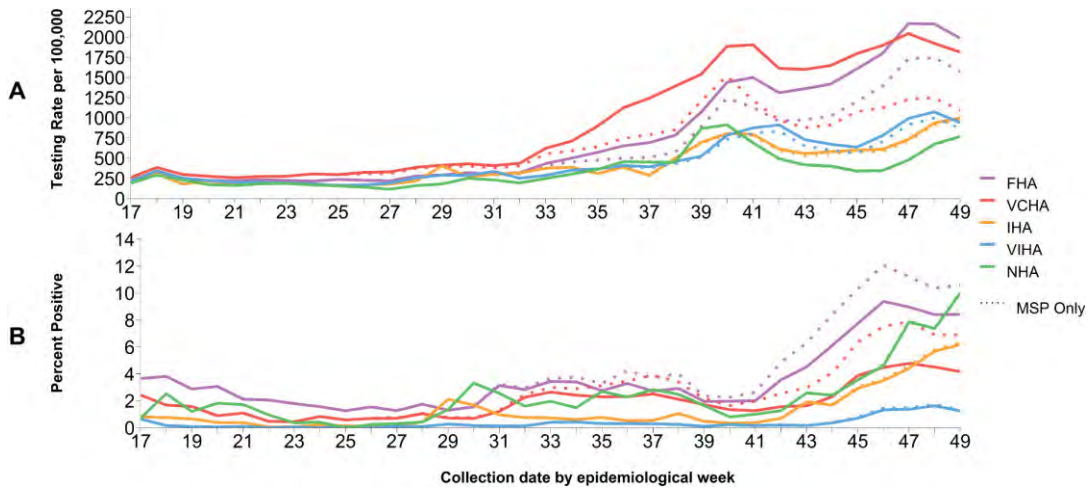


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – December 5, 2020 (week 49) [a]



a. PLOVER extract on Thursday, December 10, 2020.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing rates in week 49 compared to prior weeks 38-48 of Phase 3b were lower in children <15 years old, but higher in all other age groups. The highest testing rates in week 49 were among adults 20-39 years, similar to weeks 38-48 of Phase 3b.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 49 remains elevated and was substantially higher than prior weeks 38-48 of Phase 3b whether based on all specimens (black dots) or restricted to MSP specimens only (grey dots). With restriction to MSP specimens only, percent positivity was lowest in children 0-9 years (4.9%) and 10-14 years (7.6%), but otherwise exceeded 8% in all other age groups, highest in elderly adults 80+ years old (9.1%).

Case distribution by age group

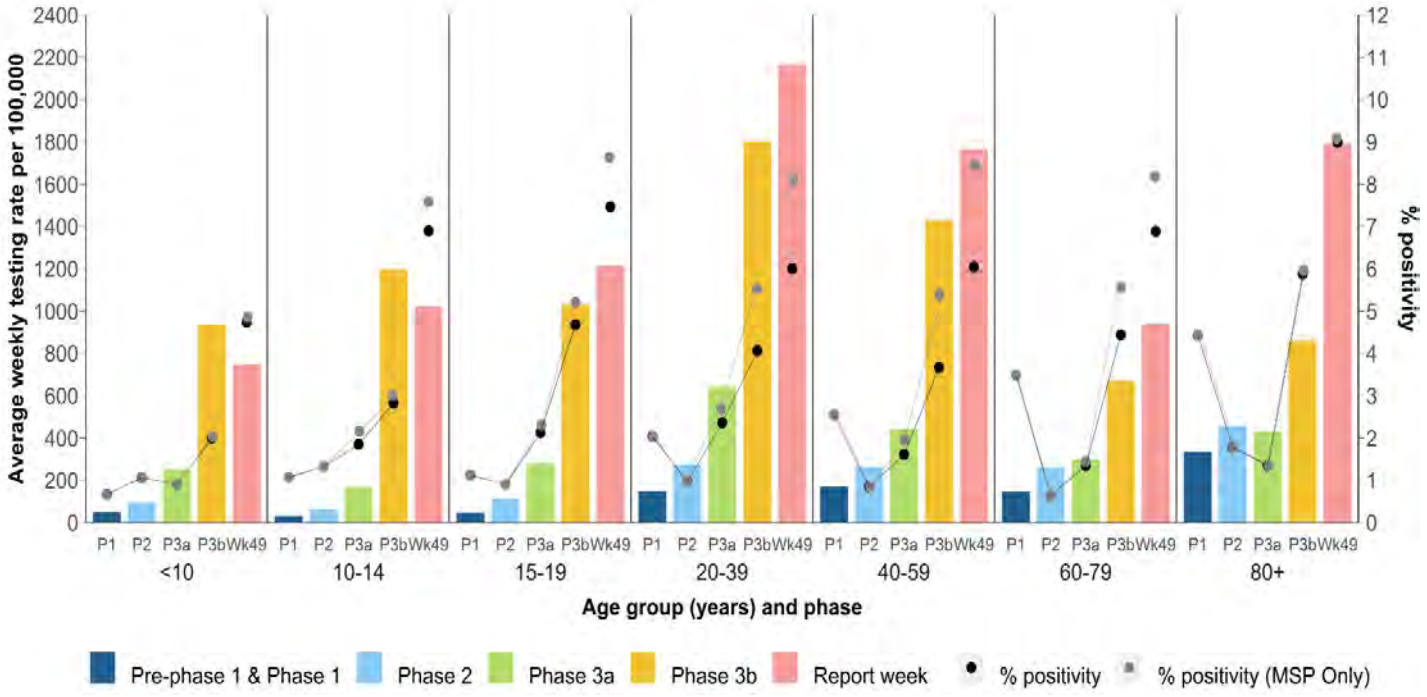
As shown in **Figure 6** and **Figure 7**, compared to weeks 38-48 of Phase 3b, in week 49 older adults 80+ years contributed more (4% vs. 7%, respectively), while adults 20-39 years contributed less (42% vs. 36%, respectively). The percentage contribution of other age groups was otherwise relatively stable.

Weekly incidence by age group

As shown in **Figure 8** incidence in all age groups in week 49 remained elevated but with signs of decrease compared to recent prior weeks. As compared to prior bulletins the difference in incidence between current week 49 and all prior weeks 38-48 of Phase 3b shown in **Figure 9** is narrowing for each year of age, with the exception of the very old. In week 49, and of particular concern, incidence remains highest in elderly adults 80+ years (123 per 100K), 18 times higher than in week 38 (7 per 100K). Incidence was next highest in adults 20-29 years (118 per 100K), 4 times higher than week 38 (30 per 100K).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 36 years for prior weeks 38-48 of Phase 3b (excluding week 49) and 39 years in week 49 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase[a], BC January 20, 2020 (week 4) – December 5, 2020 (week 49) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b:11 weeks). The current report week, although part of Phase 3b, is excluded from Phase 3b as displayed here to enable comparison.

b. Laboratory extract from PLOVER on December 10, 2020. Testing rates displayed are based on all specimens (MSP and non-MSP).

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC
March 15, 2020 (week 12) – December 5, 2020 (week 49) (N= 38,786)[a]

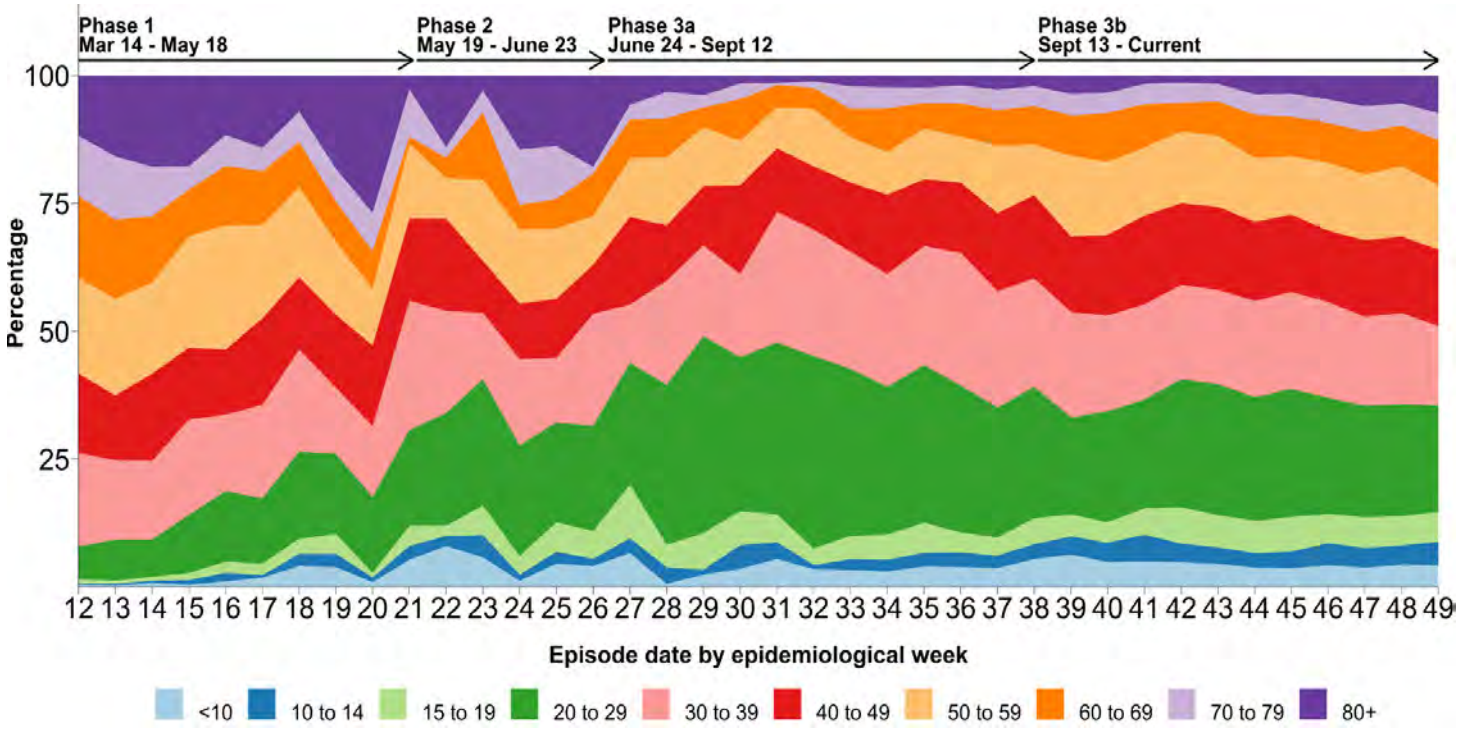
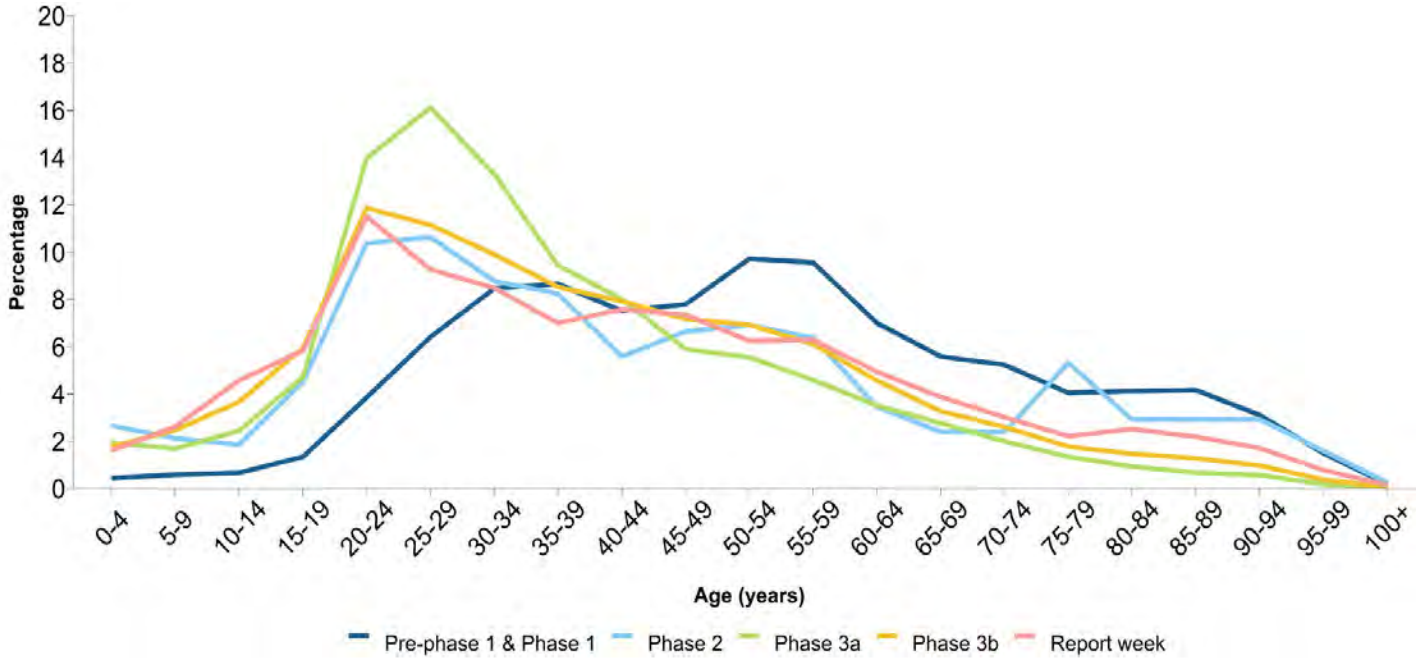


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week[b], BC
January 15, 2020 (week 3) – December 5, 2020 (week 49) (N= 38,786)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 8. Weekly age-specific incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – December 5, 2020 (week 49) (N= 38,786)[a]

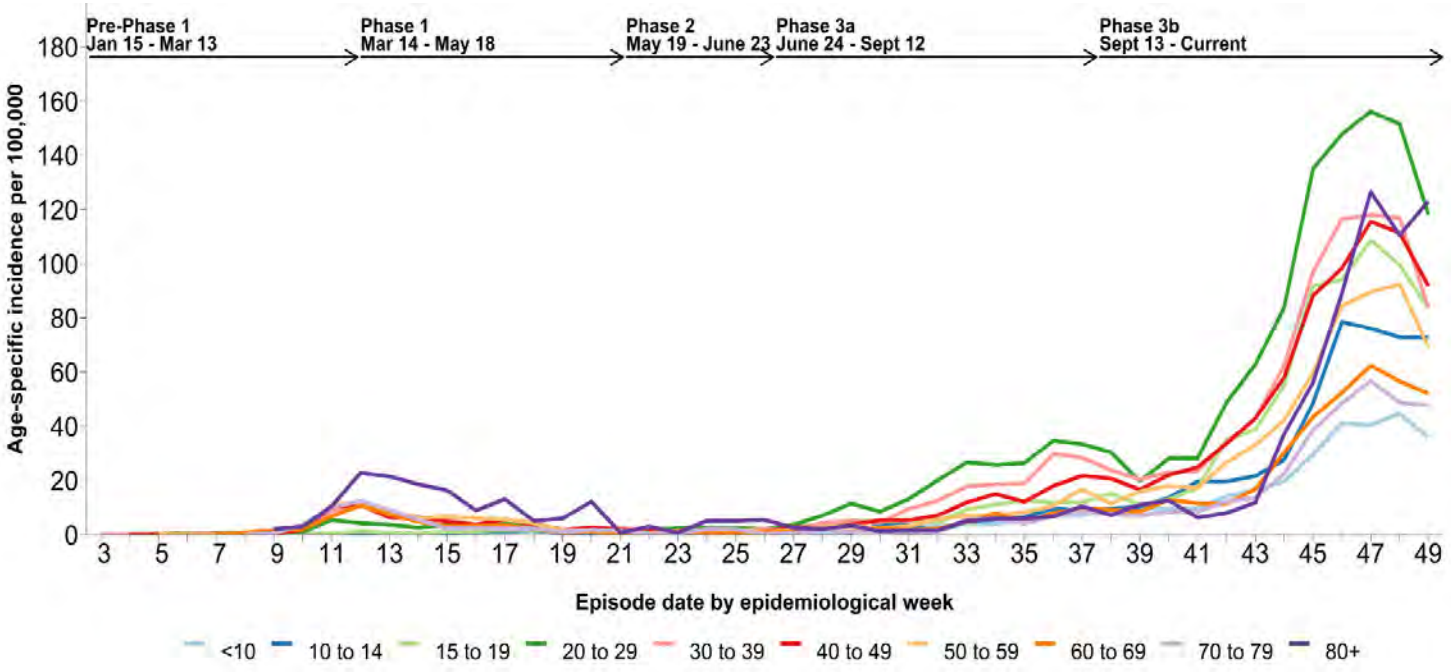
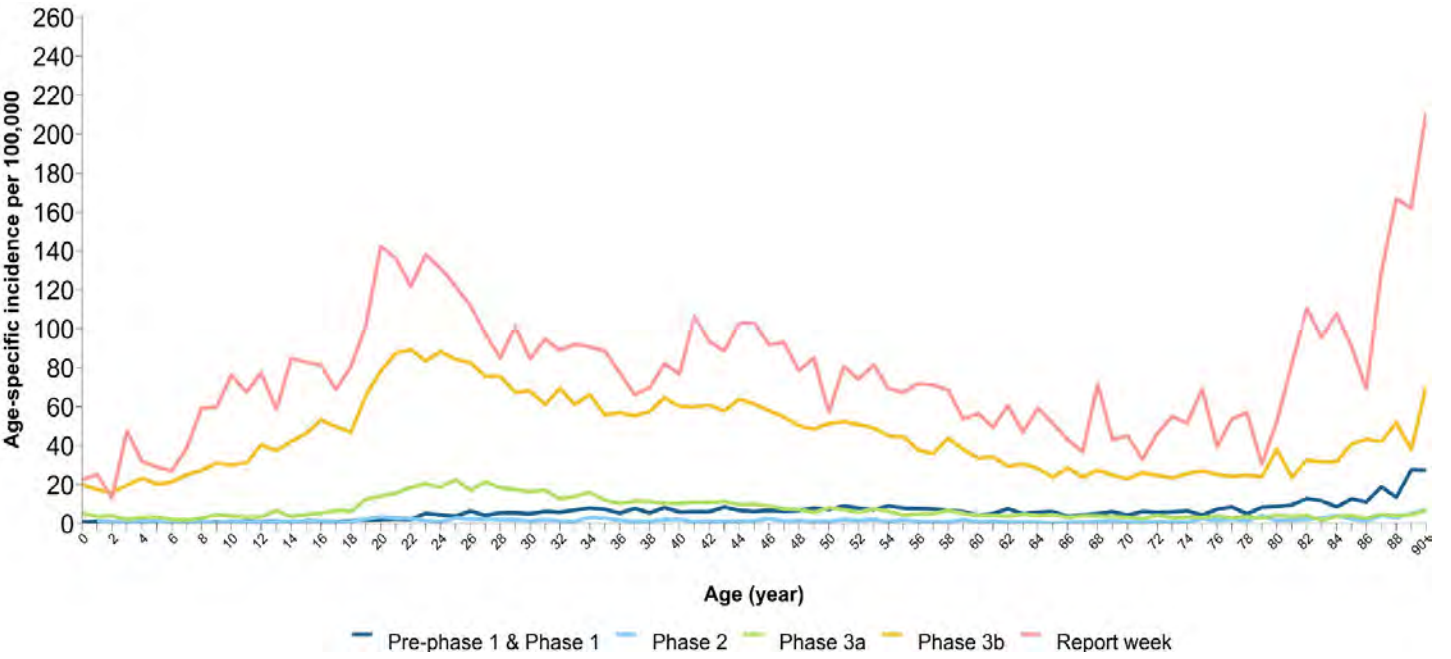


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a and 3b and current report week 46[b], BC
January 15, 2020 (week 3) – December 5, 2020 (week 49) (N= 38,786)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

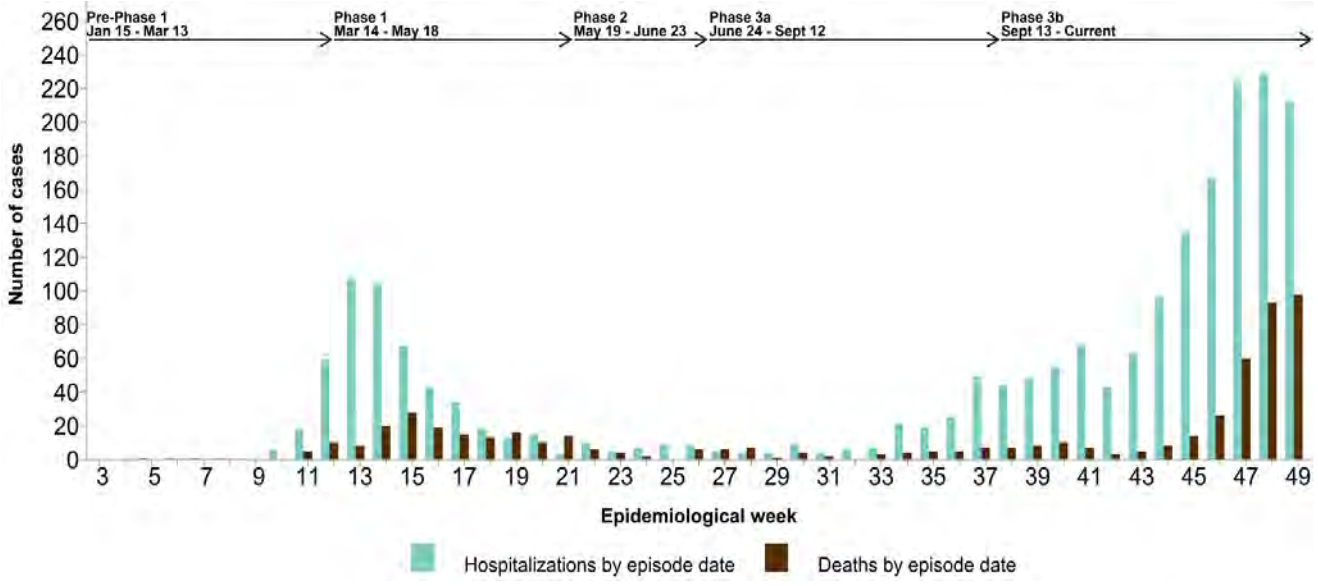
The tally of severe COVID-19 outcomes by pandemic phase is shown in Table 1 and by week in Figure 10. Whereas hospitalizations increased steadily from weeks 41- 46 (from 68 to 167 per week), the number of hospitalizations remained elevated but stable in weeks 47 (223) and 48 (229), showing slight decrease in week 49 (212), which is about double the first wave peak of 107 hospitalizations in week 13. The number of deaths per week also increased substantially from weeks 41-46 (from 7 to 26 per week), with continued increase in weeks 47 (60) and 48 (93) and further slight increase in week 49 (98), which is about triple the first wave peak of 28 deaths in week 15. In week 49, 79/98 (81%) deaths were associated with a care facility outbreak and 93/98 (95%) were 70+ years old. Of the 559 total deaths in BC to date, 398 (71%) were associated with a care facility outbreak and 496 (89%) were 70+ years old. Overall, males comprise 19,748/38,747 (51%) cases, 1,210/2,063 (59%) hospitalizations, 320/520 (62%) ICU admissions, and 313/559 (56%) deaths to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC January 15, 2020 (week 3) – December 5, 2020 (week 49)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**1,222**	**88**	**42**	**109**	**597**	**8**	**2,066/38,851 (5)** [a]
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	25	12	176	2	489/2,066 (24)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/2,066 (2)
Phase 3a (11.5 weeks)	100	5	0	11	40	2	158/2,066 (8)
Phase 3b (11 weeks, excluding week 49)	722	43	11	64	329	2	1,171/2,066 (57)
Week 49	129	10	6	20	46	1	212/2,066 (10)
Ever ICU	**270**	**29**	**12**	**53**	**154**	**2**	**520/38,851 (1)** [a]
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	9	7	67	1	173/520 (33)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/520 (2)
Phase 3a (11.5 weeks)	26	1	0	7	15	1	50/520 (10)
Phase 3b (11 weeks, excluding week 49)	130	11	2	32	65	0	240/520 (46)
Week 49	32	4	1	6	5	0	48/520 (9)
Deaths	**303**	**6**	**7**	**9**	**234**	**0**	**559/38,851 (1)** [a]
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	84	0	146/559 (26)
Phase 2 (5 weeks)	22	0	0	0	6	0	28/559 (5)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/559 (8)
Phase 3b (11 weeks, excluding week 49)	138	1	1	7	94	0	241/559 (43)
Week 49	68	3	1	1	25	0	98/559 (18)

a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 10. COVID-19 hospitalization admissions (n= 2,066) and deaths (n= 559) by episode date[a], BC January 15, 2020 (week 3) – December 5, 2020 (week 49)



a. Note that in previous reports this figure was displayed only using available admission and death dates. With this week's report, data are displayed by episode date (i.e. date of hospital admission or date of death, and if those dates are missing, then report date).

E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 11**, adults 70+ years comprise 10% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (44%) and deaths (89%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (17%) but a commensurate proportion of deaths (7%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 24% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (4%).

Adults 20-39 years comprise a greater share of COVID-19 cases (42%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (12%) and deaths (<1%).

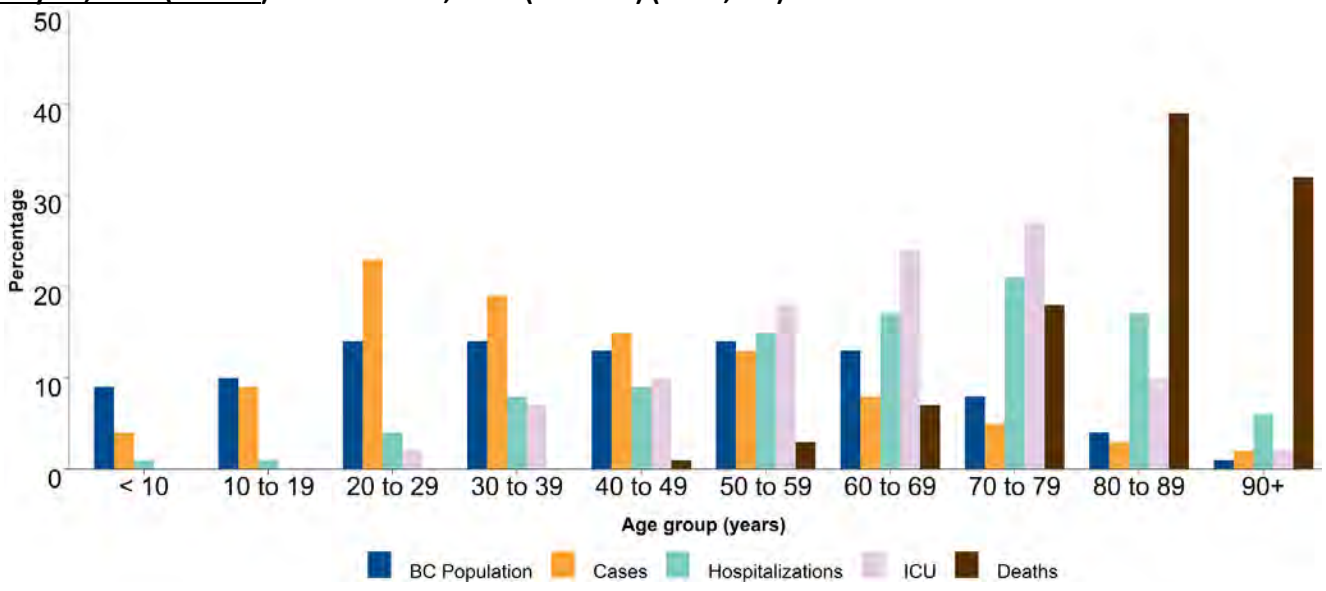
Children <20 years are under-represented overall among COVID-19 cases (13%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (65 vs. 69 years) but similar for deaths (86 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – December 5, 2020 (week 49)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	1,539 (4)	20 (1)	0 (0)	0 (0)	469,351 (9)
10-19	3,446 (9)	15 (1)	0 (0)	0 (0)	527,805 (10)
20-29	8,869 (23)	90 (4)	11 (2)	0 (0)	697,691 (14)
30-39	7,217 (19)	169 (8)	35 (7)	1 (<1)	735,052 (14)
40-49	5,796 (15)	193 (9)	51 (10)	6 (1)	646,035 (13)
50-59	5,062 (13)	317 (15)	96 (18)	15 (3)	718,272 (14)
60-69	3,124 (8)	352 (17)	123 (24)	41 (7)	673,131 (13)
70-79	1,821 (5)	441 (21)	142 (27)	99 (18)	435,062 (8)
80-89	1,244 (3)	347 (17)	54 (10)	219 (39)	187,443 (4)
90+	668 (2)	121 (6)	8 (2)	178 (32)	49,726 (1)
Total	**38,786**	**2,065**	**520**	**559**	**5,139,568**
Median age	**37**	**66**	**65**	**86**	**41**

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, BC January 15, 2020 (week 3) – December 5, 2020 (week 49) (N=38,786)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 3** and **Figure 12**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

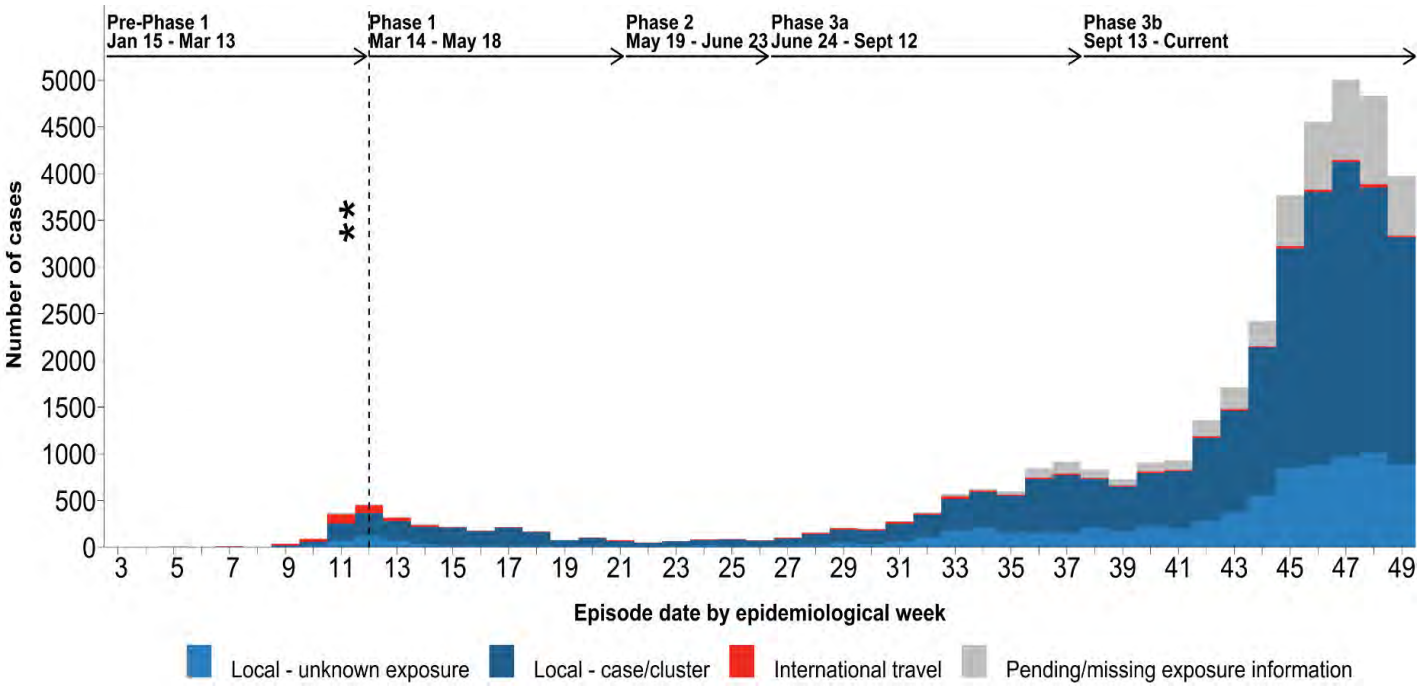
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 49 during which international travel was cited <1%.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, British Columbia
January 15, 2020 (week 3) – December 5, 2020 (week 49)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (29)	214 (47)	97 (21)	14 (3)
Phase 1	188 (9)	1,504 (72)	346 (17)	43 (2)
Phase 2	30 (8)	262 (70)	82 (22)	2 (1)
Phase 3a	181 (4)	3,237 (66)	1,155 (23)	343 (7)
Phase 3b (excluding week 49)	206 (1)	17,004 (63)	5,727 (21)	4,110 (15)
Week 49	17 (<1)	2,433 (61)	883 (22)	638 (16)
Total	**757 (2)**	**24,654 (63)**	**8,290 (21)**	**5,150 (13)**

Figure 12. Likely source of COVID-19 infection by episode date, British Columbia
January 15, 2020 (week 3) – December 5, 2020 (week 49)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 13**, 216 care facility outbreaks were reported in total in BC to the end of week 49. There were 15 new care facility outbreaks reported in week 49 (9 of which were reported by FHA, 3 by VIHA, 2 by IHA, and 1 by VCHA), with 12 of these outbreaks having earliest onset date in preceding weeks. Facility outbreak tallies by earliest onset date are highest thus far in week 46 (26 outbreaks).

Seventy-seven of the 79 deaths in total reported in week 49 in BC involved adults in a care facility setting in Fraser Health Authority (54 deaths) or Vancouver Coastal Health Authority (23 deaths). Of the 77 deaths, 74 were elderly adults 70+ years.

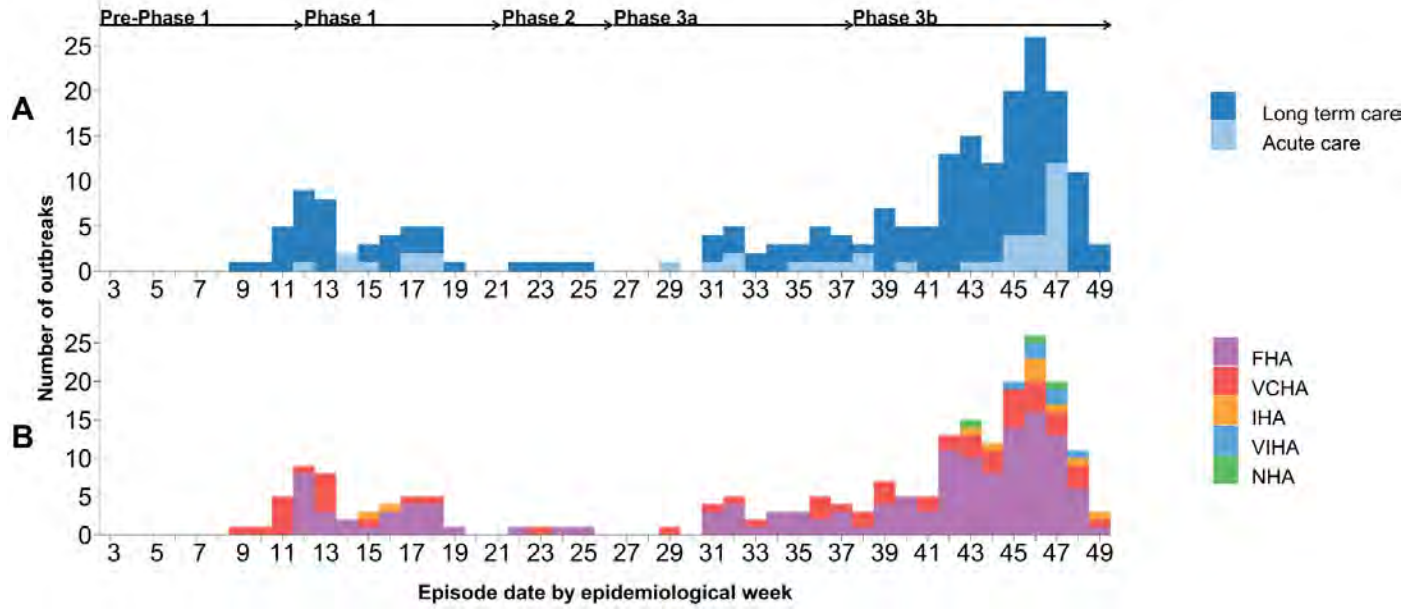
Of 31,018 cases overall in BC with episode date in Phase 3b (i.e. weeks 38-49), 2,117 (7%) were associated with a care facility outbreak, a proportion slightly higher than Phase 3a overall (185/4,916; 4%), but lower than before Phase 3a (602/2,917; 21%).

More than two-thirds of all COVID-19 deaths in BC have been associated with care facility outbreaks (398/559; 71%). Of those 398 facility outbreak-associated deaths, more than half have occurred since the week 38 start of Phase 3b (238; 60%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – December 5, 2020 (week 49) (N=216)

	Outbreaks	Cases				Deaths			
		Residents	Staff/ visitors	Unknown	Total	Residents	Staff/ visitors	Unknown	Total
Total	**216**	**1,741**	**1,150**	**13**	**2,904**	**398**	**0**	**0**	**398**
Pre-/Phase One (17 weeks)	45	326	207	0	533	96	0	0	96
Phase 2 (5 weeks)	4	51	18	0	69	25	0	0	25
Phase 3a (11.5 weeks)	27	92	93	0	185	39	0	0	39
Phase 3b (11 weeks, excluding week 49)	137	972	677	12	1,661	159	0	0	159
Week 49	3	300	155	1	456	79	0	0	79
Active outbreaks[b]	72	-	-	-	-	-	-		-
Outbreaks declared over[b]	144	-	-	-	-	-	-		-

Figure 13. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – December 5, 2020 (week 49) (N=216)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of December 5, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 14**) related to COVID-19 have shown an overall increasing trend from week 32 to 40 at ~13,500 calls per week but decreasing in later weeks reaching just over 10,000 calls in week 43. Calls have gradually increased thereafter, to ~15,000 calls in week 47, to later decrease to ~13,000 in week 49.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 15**) related to COVID-19 (including telehealth billings) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to around 3,300 visits in weeks 42 and 43. Visits then gradually increased reaching >6,000 visits in week 48. There were 4,931 visits reported in week 49.

Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – December 5, 2020 (week 49)

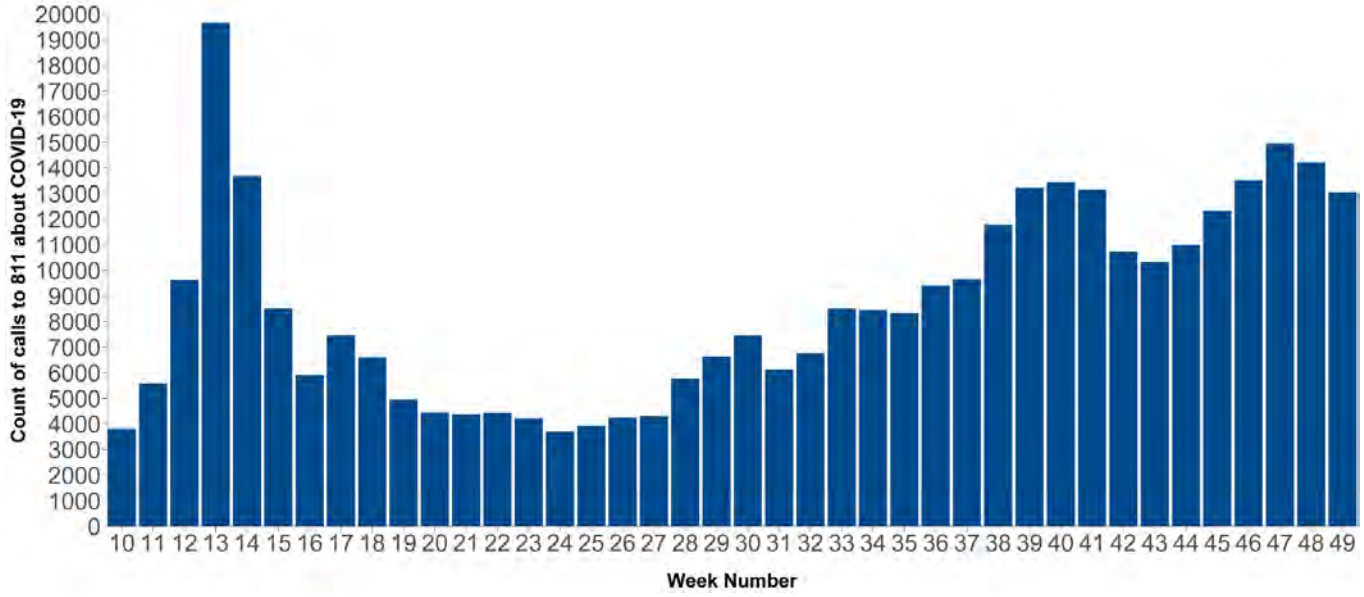
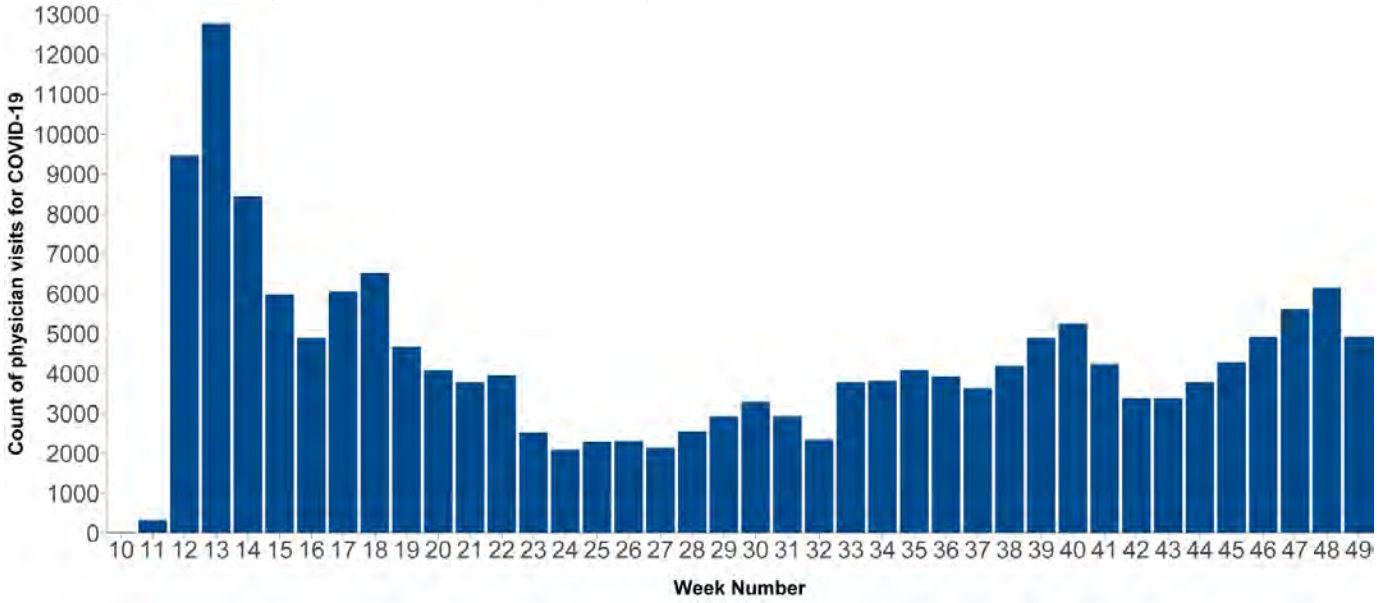


Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – December 5, 2020 (week 49)



British Columbia (BC)
COVID-19 Situation Report
BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 50: December 6 – December 12, 2020

Table of Contents

This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Decreasing COVID-19 incidence, with the exception of Northern and Interior Health Authorities

Cumulatively, there have been 43,628 COVID-19 cases in BC to end of week 50 (847 per 100K population). There were 4,698 new reports in week 50 (91 per 100K), a 19% decrease from the 5,800 reports in week 48 (113 per 100K) and the second week of decrease in reported cases since the start of Phase 3b. Note that weekly tallies by report date include cases with onset in prior weeks. Based on episode date, incidences in weeks 49 and 50 were 89 and 79 per 100K, respectively, subject to change as data (notably onset dates) become more complete, but lower so far than week 47 (the highest week of cases by episode date in Phase 3b (98 per 100K)).

Incidence in week 50 exceeded 130 per 100K in Fraser (FHA) and 55 per 100K in Vancouver Coastal (VCHA), Interior (IHA), and Northern (NHA) health authorities. Incidence in Vancouver Island (VIHA) was <10 per 100K. In weeks 48-49, incidence decreased in FHA, VCHA and VIHA, stabilized in IHA and increased in NHA. Incidence decreased in recent weeks in all age groups, although it is still elevated for the highest risk group of adults 80+ years at 103 per 100K.

Whereas percent positivity increased steadily from weeks 41-46, it remained stable between weeks 47-50 (at about 8%). Positivity in week 50 exceeded 10% in FHA and NHA; 6% in VCHA and IHA; and at 1% in VIHA. In NHA and IHA, positivity continues to increase since week 44, but elsewhere has stabilized since week 46. Positivity was lowest in children 0-9 years (5%) but otherwise similar at about 8% in other age groups, highest in children 10-14 (11%) and 15-19 years (10%).

Cumulatively, there have been 2,309 cases hospitalized in BC to end of week 50. Whereas the weekly tally of admissions increased steadily from weeks 41-46 (from 68 to 168), it remained elevated but relatively stable in weeks 47 to 50 (~220).

Cumulatively, there have been 678 deaths in BC to end of week 50. The number of deaths per week increased substantially from weeks 42-49 (from 4 to 111 per week), and decreased slightly to 94 deaths in week 50. In week 50, 73/94 (78%) deaths were associated with a care facility outbreak and 86 (91%) were 70+ years.

Cumulatively, there have been 224 care facility outbreaks to end of week 50, with 8 reported in week 50 (4 FHA, 2 VCHA, and 2 IHA), all with earliest onset date in prior weeks. The number of care facility outbreaks has been declining since week 46 (26).

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Unlike other summaries based on report date, this bulletin mainly adopts episode date defined by dates of illness onset, hospital admission, or death. Only when those dates are unknown, is report date used.
- Data are provided by epidemiological week. Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- Laboratory data include Medical Service Plan (MSP) (e.g. clinical diagnostic) as well as non-MSP (e.g. screening) specimens. The percent of specimens testing positive is presented here for all specimens tested as well as separately for MSP-funded specimens only. Given the systematically lower likelihood of test positivity among screening vs diagnostic specimens, summary analyses are foremost based on MSP-funded diagnostic specimens unless otherwise specified.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

PRE-PHASE 1 Before implementation January 15 (wk 3) to March 13 (wk 11), 2020	**PHASE 1** Implementation March 14 (wk 11) to May 18 (wk 21), 2020	**PHASE 2** Initial relaxation May 19 (wk 21) to June 23 (wk 26), 2020	**PHASE 3a** Further relaxation June 24 (wk 26) to Sept 12 (wk 37), 2020	**PHASE 3b** Start of school year Sept 13 (wk 38) to Current (wk 50), 2020
From earliest onset date	**From start of March break** Additionally: ○ Mass gatherings >50 banned (Mar 16) ○ Traveller self-isolation required (Mar 17) ○ Service restrictions (Mar 18) ○ US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: ○ Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: ○ Re-opening non-essential travel in BC, hotels, TV/film ○ Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there were 4,698 (91 per 100K) new COVID-19 cases reported in week 50 which represents a 4% decrease from reports in week 49 (4,869; 95 per 100K) and a 19% decrease from week 48 (5,800; 113 per 100K). This is the second week of decrease in reported cases since the start of Phase 3b, although incidence remains ~11 times higher than the wave one peak of 442 new reports in week 13. Note that the weekly tally by report date includes cases with illness onset date in preceding weeks. Analyses instead based on episode date (i.e. illness onset date and, only if that is unavailable, then case report date) may better represent the timing of epidemic evolution. The bars in **Figure 1** display the epidemic curve based on episode date, coloured by health authority. Note that episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete (as emphasized by the pale blue shading in **Figure 1**).

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

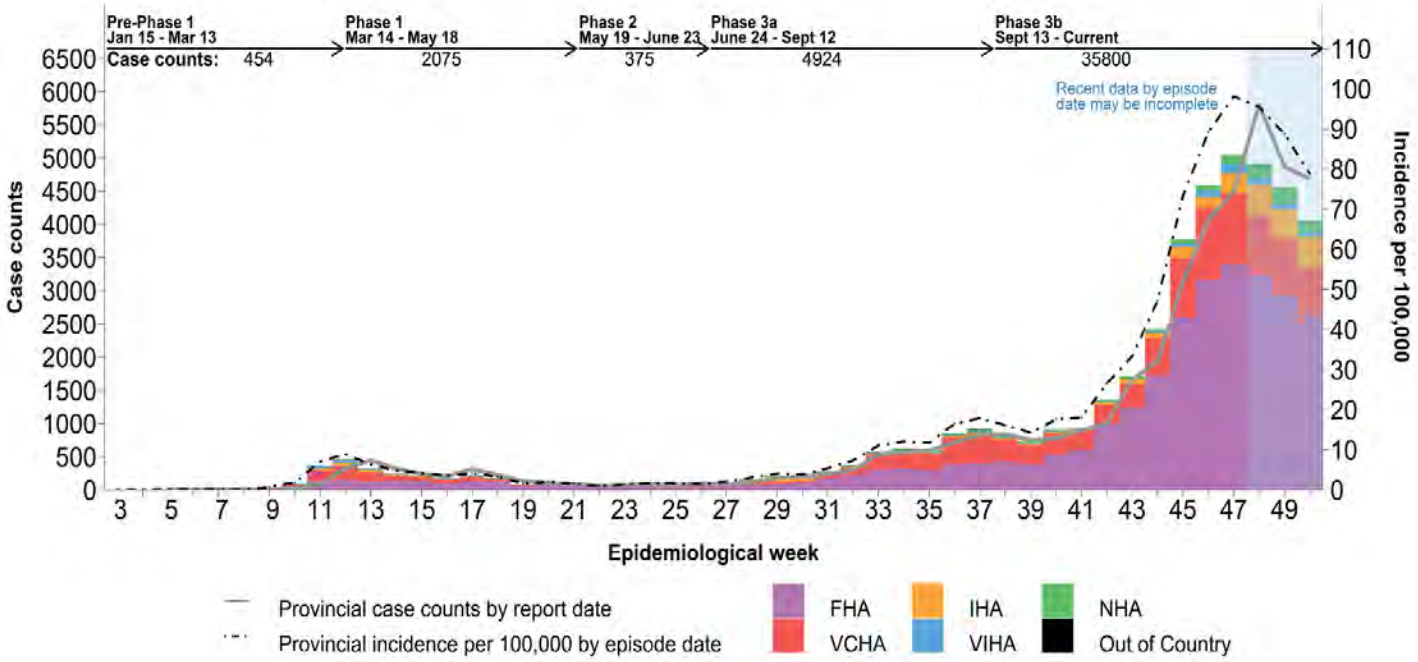
Provincially, between week 3 (mid-January) and week 50 (early December), there have been 43,628 cases in total in BC, corresponding to a cumulative incidence of 847 per 100K. By HA, this cumulative tally (and incidence) includes: 27,871 cases in Fraser Health Authority (FHA: 1,437 per 100K); 10,669 cases in Vancouver Coastal Health Authority (VCHA: 881 per 100K); 2,844 cases in Interior Health Authority (IHA: 341 per 100K); 1,345 cases in Northern Health Authority (NHA: 468 per 100K); and 800 cases in Vancouver Island Health Authority (VIHA: 92 per 100K).

Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

As shown in **Figure 1**, COVID-19 incidence in week 38, the mid-September start of Phase 3b, was 16 per 100K but showed steady increase from week 41 (18 per 100K) to week 47 (98 per 100K). Week 47 experienced the highest number of cases by episode date to date. As of data extraction for the current bulletin, there were 4,561 and 4,052 cases with episode date in weeks 49 and 50, respectively, corresponding to incidences of 89 and 79 per 100K – about five times higher than the start of Phase 3b, but lower than week 47. These episode-based rates are also subject to change as data (notably onset dates) become more complete, but are so far lower than week 47.

As shown in **Figure 2**, week 50 incidence was highest in FHA at 136 per 100K, followed by VCHA, IHA and NHA where rates were comparable at 58, 57, and 61 per 100K, respectively. Incidence was the lowest in VIHA at 7 per 100K. In recent weeks 48 and 49, FHA (166 to 151 per 100K), VCHA (76 to 69 per 100K), and VIHA (12 to 9 per 100K) all showed decreasing trends, rates in IHA were stable (at 56 per 100K), while NHA experienced an increase (71 to 88 per 100K). Rates in these health authorities were driven by: Fraser South; Vancouver; Okanagan; Northern Interior; and North and Central Vancouver Island health service district areas (HSDAs).

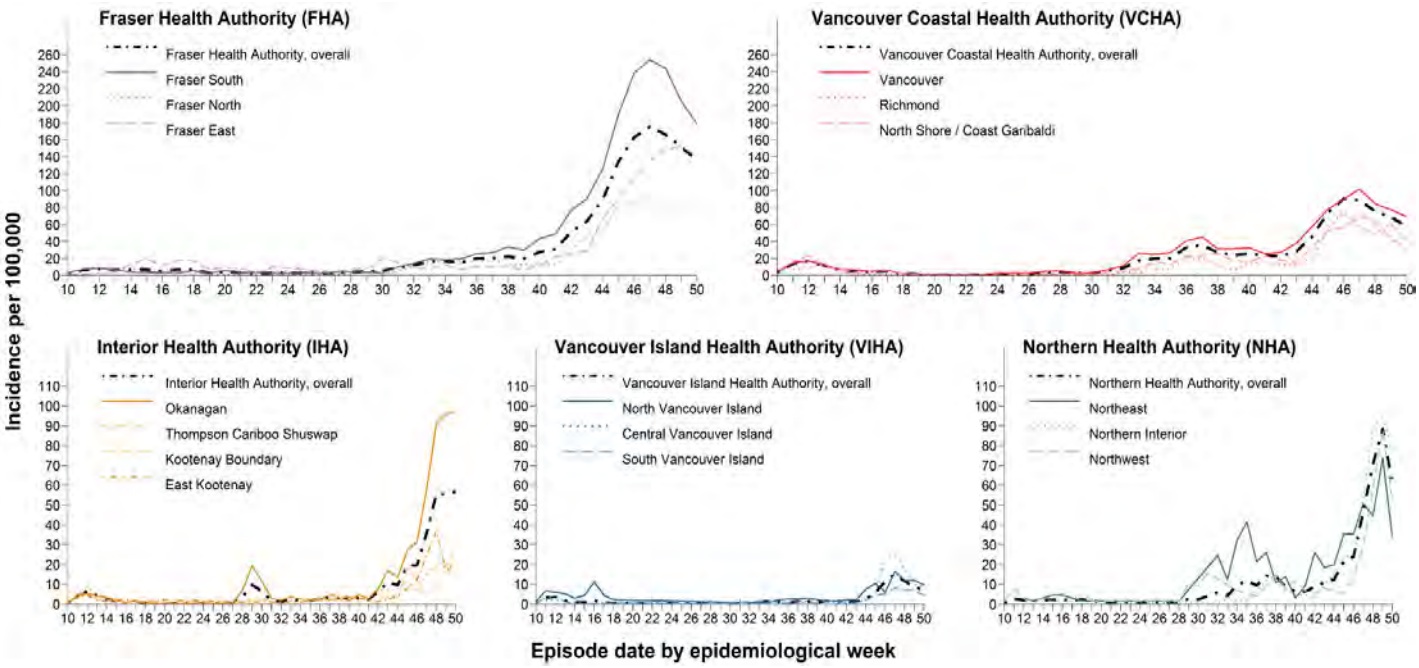
Figure 1. Episode-based epidemic curve (bars)[a], report date (line) and health authority (HA), BC
January 15, 2020 (week 3) – December 12, 2020 (week 50) (N= 43,628)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for: Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), and Phase 3b (13 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Friday, December 18, 2020.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC
March 1, 2020 (week 10) – December 12, 2020 (week 50)



B. Test rates and percent positive

In BC, laboratory-based surveillance captures mostly symptom-based diagnostic testing conducted under the Medical Service Plan (MSP) funding scheme, as well as any non-MSP funded screening tests. As shown by the bars in **Figure 3**, the total weekly number of respiratory specimens, both MSP and non-MSP funded, were around 76,000 in week 50.

Screening tests have a lower likelihood of testing SARS-CoV-2 positive (i.e. percent positivity) than symptom-based diagnostic testing; therefore, including screening specimens will tend to lower the overall percent positivity indicator and the impact of that will be greater when more screening specimens are included. Figures below therefore present percent positivity based on all (MSP and non-MSP funded) specimens and separately based on MSP-funded specimens only.

As shown in **Figure 3**, percent positivity showed steady increase from week 41-46, evident based on all specimens (solid line: 1.4% to 6.5%) and more steeply for MSP-funded specimens only (dotted line: 1.8% to 8.7%). In weeks 47 to 50, percent positivity plateaued based on all specimens (6.6% in both weeks 47 and 50) and based on MSP-funded specimens only (8.5% and 8.4%, respectively). As shown in **Panel A** of **Figure 4**, the per capita testing rate in week 50 was highest in FHA and VCHA. As shown in **Panel B**, percent positivity for MSP-funded specimens was highest in FHA at 11.0% and NHA at 10.8%, followed by IHA at 7.1% and VCHA at 6.6%, lowest in VIHA at 1.0%. In NHA and IHA, positivity increased from week 44 (5.1% and 3.6% respectively), but elsewhere was relatively stable since week 46.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – December 12, 2020 (week 50)[a]

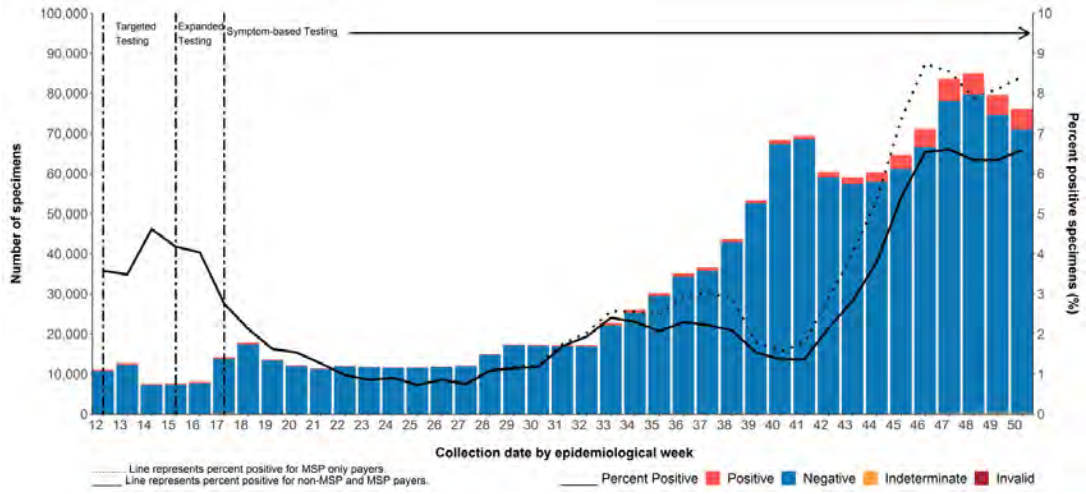
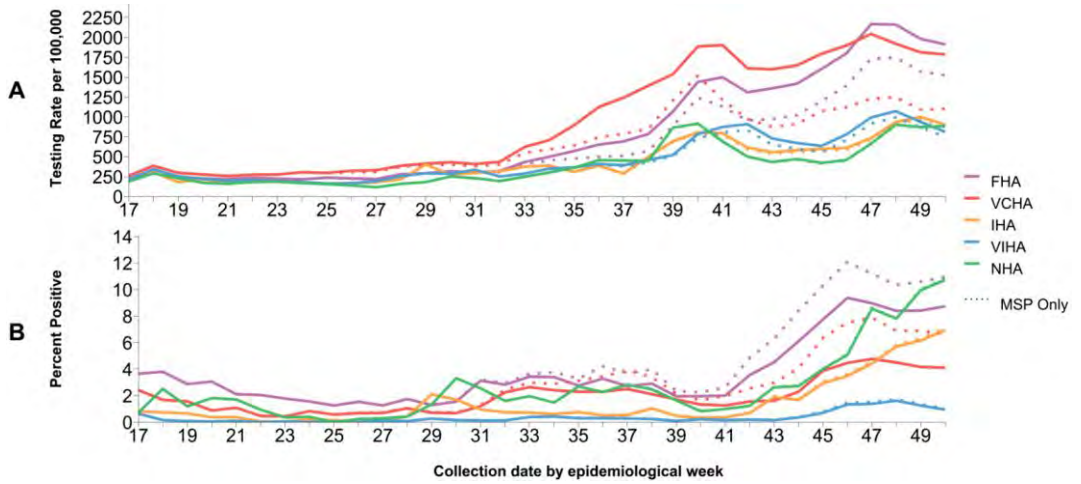


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – December 12, 2020 (week 50) [a]



a. PLOVER extract on Thursday, December 17, 2020.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing rates in week 50 compared to prior weeks 38-49 of Phase 3b were lower in children <15 years old, but higher in all other age groups. The highest testing rates in week 50 were among adults 20-39 years, similar to weeks 38-49 of Phase 3b.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 50 remains elevated and was substantially higher than prior weeks 38-49 of Phase 3b whether based on all specimens (black dots) or restricted to MSP specimens only (grey dots). With restriction to MSP specimens only, percent positivity was lowest in children 0-9 years (5.1%), but otherwise exceeded 8% in all other age groups, highest in children 10-14 (11%) and 15-19 years (10%).

Case distribution by age group

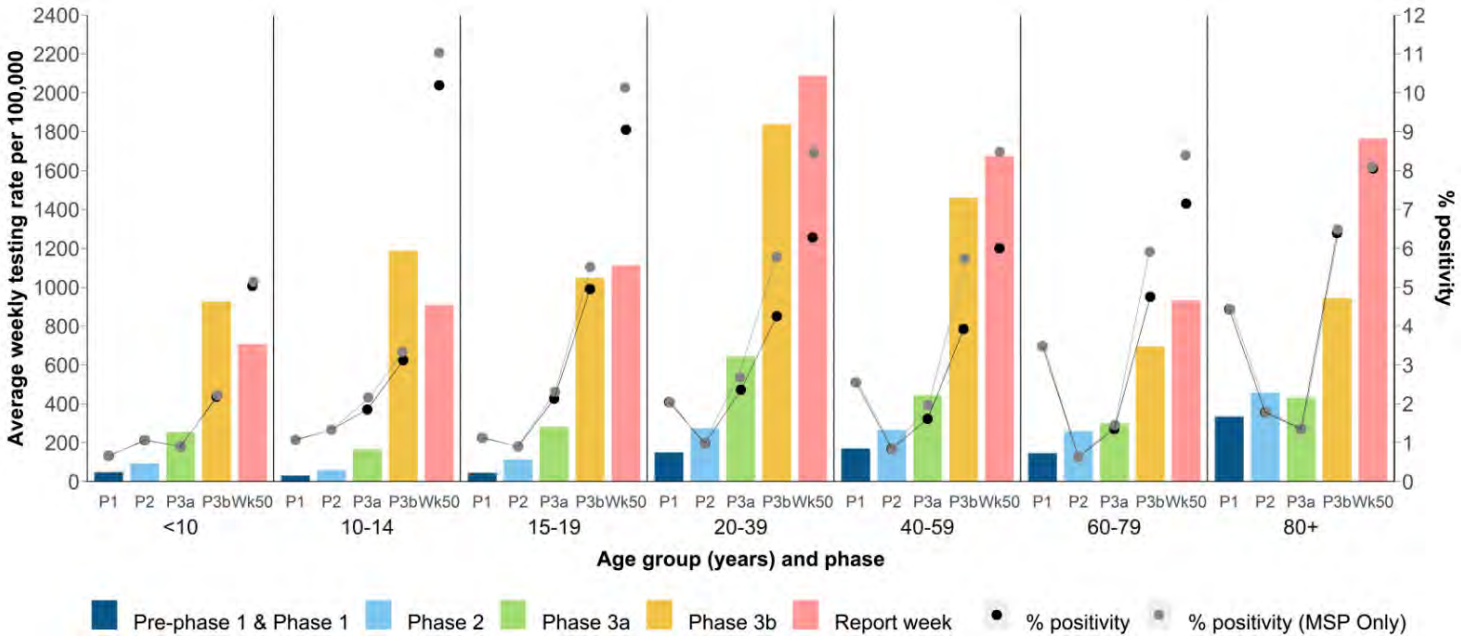
As shown in **Figure 6** and **Figure 7**, the percentage contribution of most age groups has been relatively stable in week 50 compared to weeks 38-49 of Phase 3b. Whereas in Phase 3a adults 20-39 years comprised more than half of all cases (53%), they contributed less in weeks 38-49 (41%) and current report week 50 (38%). From week 43 to week 50, the contribution of adults 80+ has increased from 1.4% to 6.2% of cases.

Weekly incidence by age group

As shown in **Figure 8** incidence in week 50 and recent weeks showed signs of decrease or stability in all age groups compared to prior weeks. As compared to prior bulletins, the difference in incidence between current week 50 and all prior weeks 38-49 of Phase 3b shown in **Figure 9** is narrowing for each year of age, with the exception of the very old. In week 50, incidence was highest in adults 20-29 years (127 per 100K), 4 times higher than week 38 (30 per 100K). Of particular concern, incidence also remains high in elderly adults 80+ years (106 per 100K), 15 times higher than in week 38 (7 per 100K).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 40 years in Phase 2; 33 years in Phase 3a; 37 years for prior weeks 38-49 of Phase 3b (excluding week 50) and 38 years in week 50 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase[a], BC January 20, 2020 (week 4) – December 12, 2020 (week 50) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), and Phase 3b, excluding the current report week (P3b:12 weeks). The current report week, although part of Phase 3b, is excluded from Phase 3b as displayed here to enable comparison.

b. Laboratory extract from PLOVER on December 17, 2020. Testing rates displayed are based on all specimens (MSP and non-MSP).

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC March 15, 2020 (week 12) – December 12, 2020 (week 50) (N= 43,053)[a]

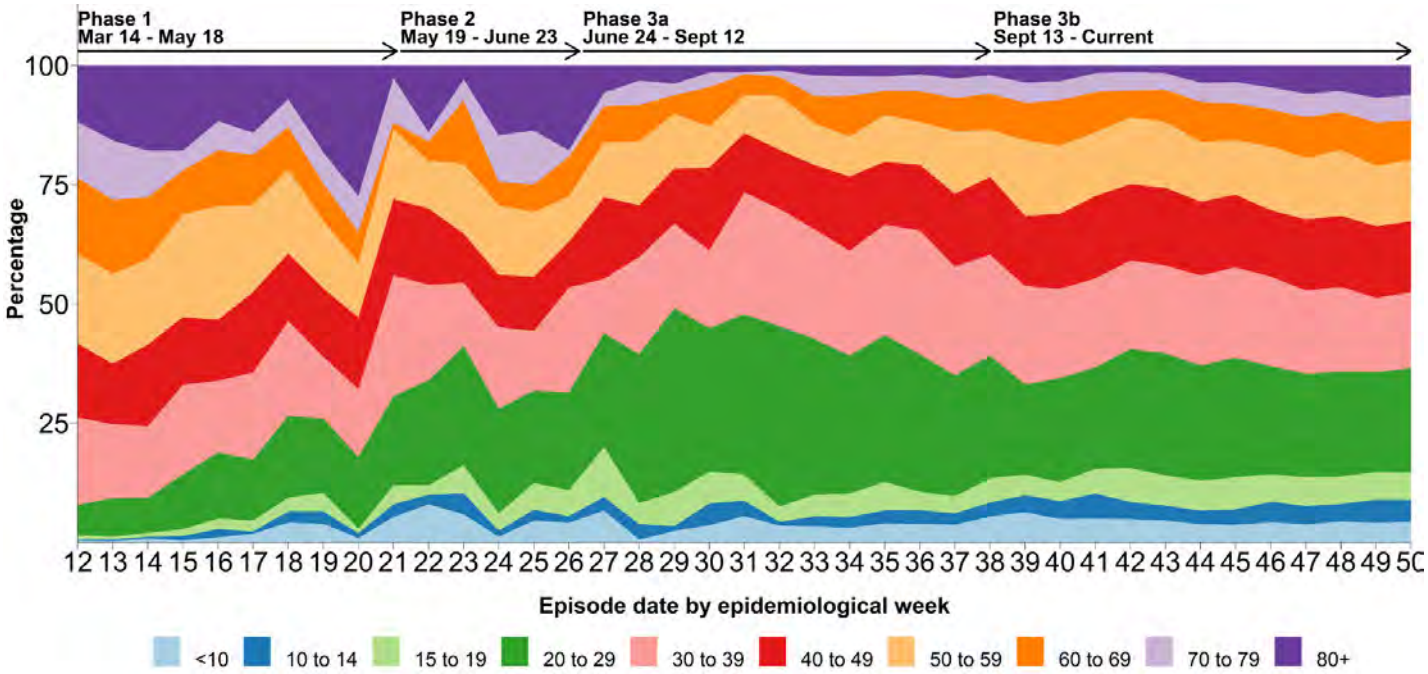
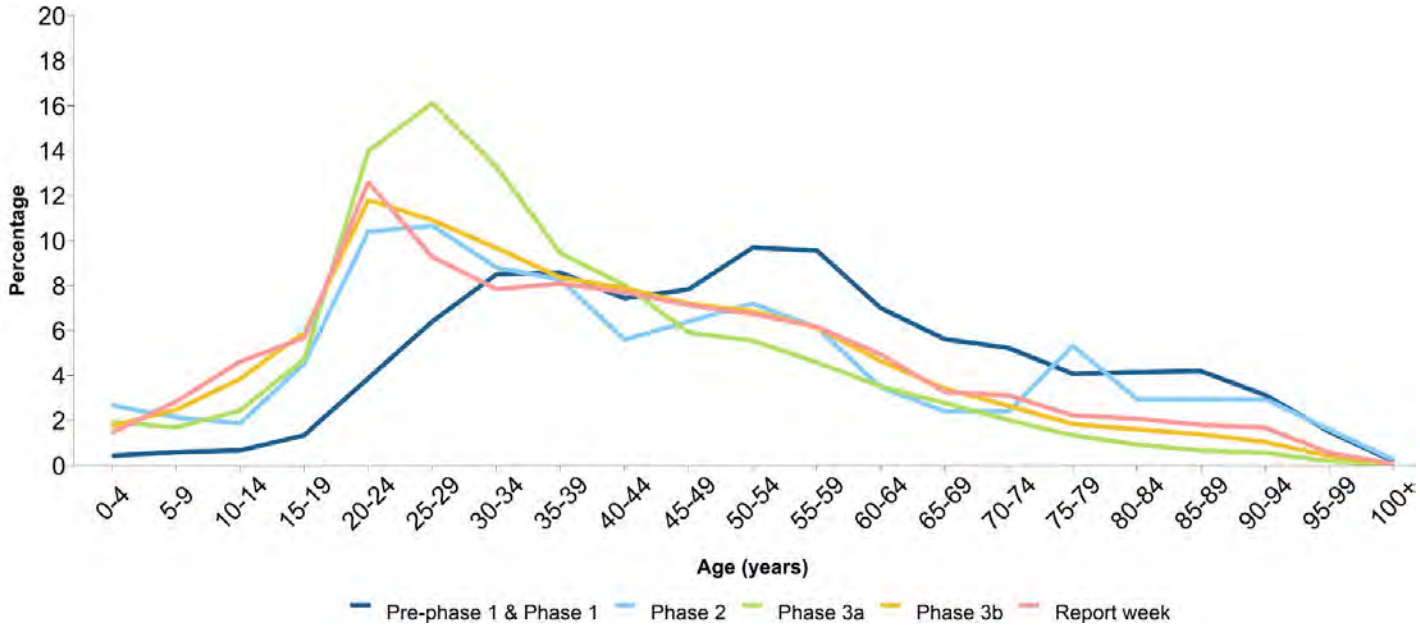


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week[b], BC January 15, 2020 (week 3) – December 12, 2020 (week 50) (N= 43,558)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

Figure 8. Weekly age-specific incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – December 12, 2020 (week 50) (N= 43,558)[a]

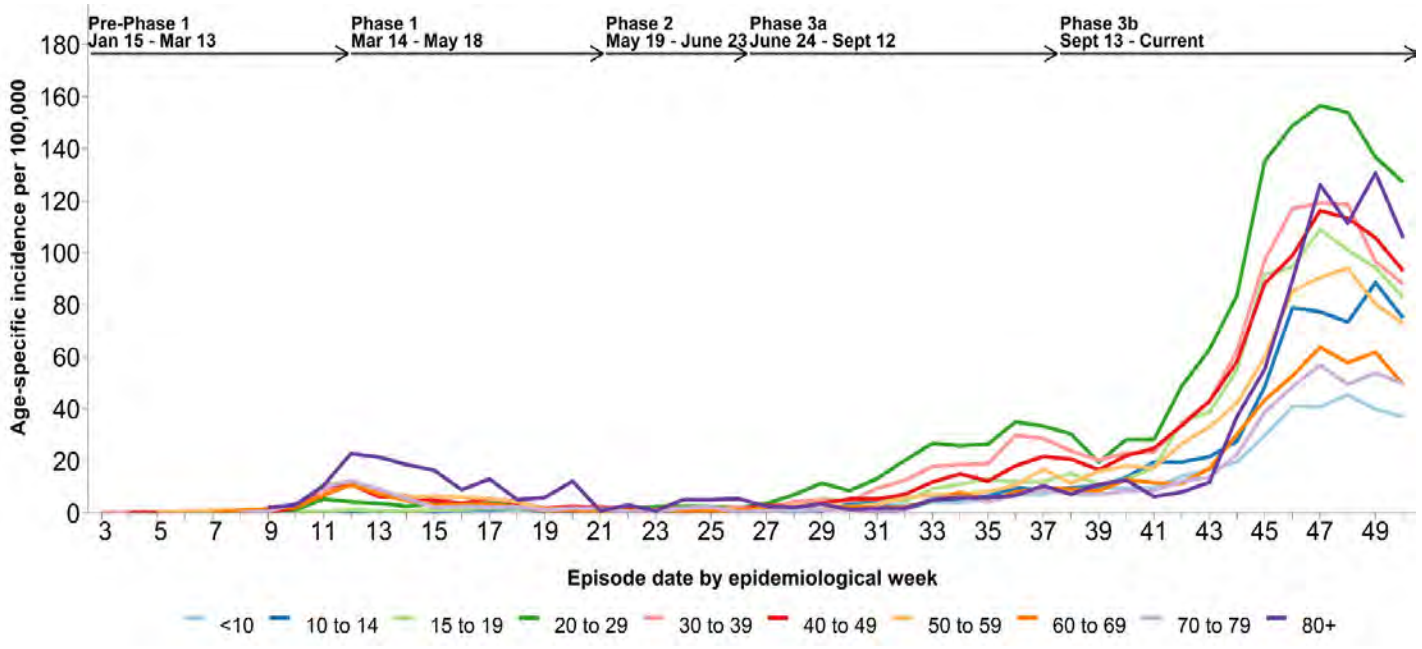
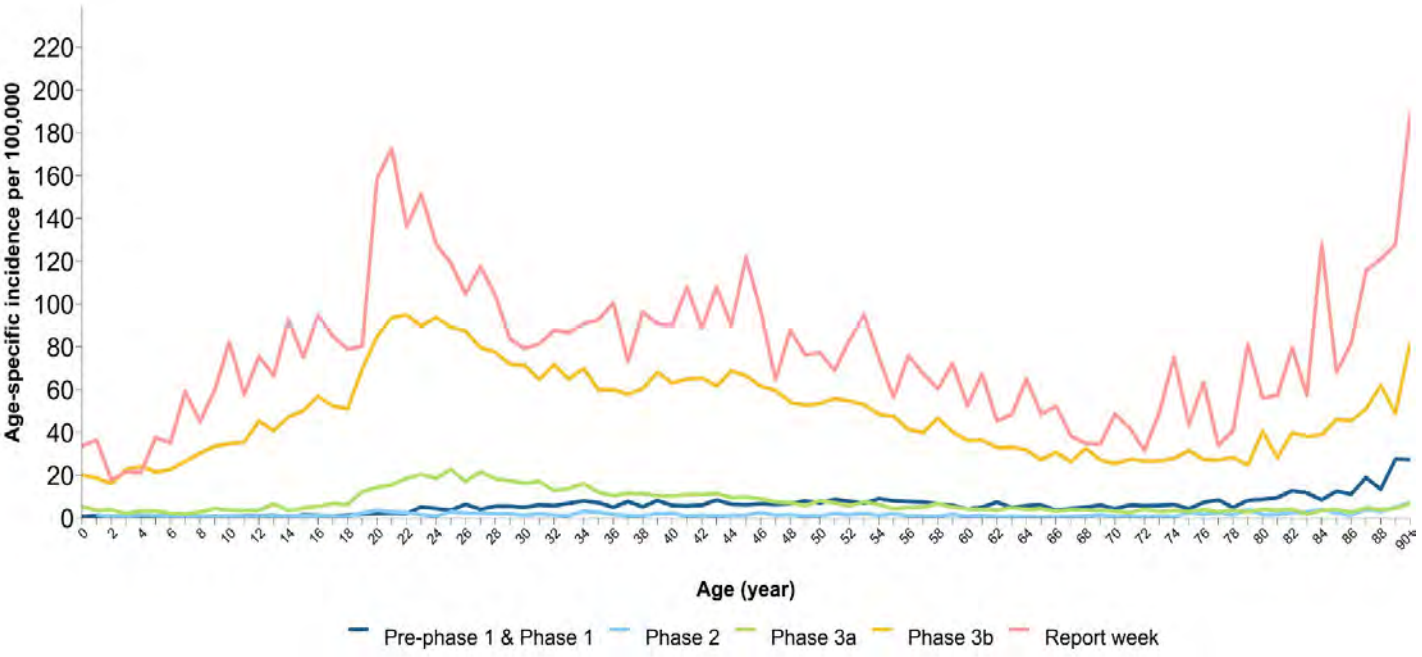


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a and 3b and current report week 46[b], BC
January 15, 2020 (week 3) – December 12, 2020 (week 50) (N= 43,558)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3b, is excluded from derivations across prior weeks of Phase 3b to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

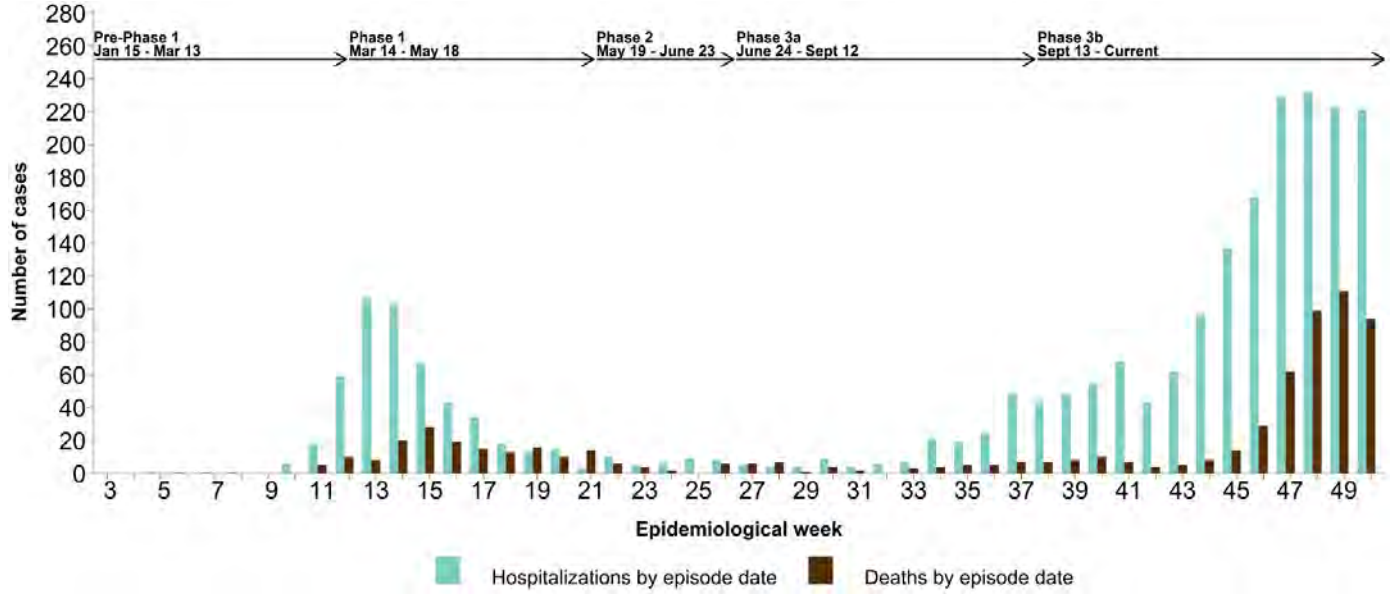
The tally of severe COVID-19 outcomes by pandemic phase is shown in **Table 1** and by week in **Figure 10**. Whereas hospital admissions increased steadily from weeks 41-46 (from 68 to 168 per week), the number of admissions remained elevated but stable in weeks 47 to 50 (~220), which is about double the first wave peak of 107 admissions in week 13. The number of deaths per week also increased substantially from weeks 42-49 (from 4 to 111 per week), and then decreased slightly to 94 deaths in week 50. These recent death tallies are more than 3.5 times higher the first wave peak of 28 deaths in week 15. In week 50, 86/94 (91%) deaths were in 70+ year olds. Of the 678 total deaths in BC to date, 496 (73%) were associated with a care facility outbreak and 606 (89%) were 70+ years old. Overall, males comprise 22,123/43,508 (51%) cases, 1,343/2,304 (58%) hospitalizations, 349/565 (62%) ICU admissions, and 379/678 (56%) deaths to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC January 15, 2020 (week 3) – December 12, 2020 (week 50)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**1,353**	**119**	**47**	**131**	**650**	**9**	**2,309/43,628 (5)**
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	24	12	176	2	488/2,309 (21)
Phase 2 (5 weeks)	26	1	0	2	6	1	36/2,309 (2)
Phase 3a (11.5 weeks)	100	5	0	11	40	2	158/2,309 (7)
Phase 3b (12 weeks, excluding week 50)	865	57	17	84	380	3	1,406/2,309 (61)
Week 50	117	27	6	22	48	1	221/2,309 (10)
Ever ICU	**301**	**32**	**12**	**56**	**162**	**2**	**565/43,628 (1)**
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	8	7	67	1	172/565 (30)
Phase 2 (5 weeks)	6	0	0	1	2	0	9/565 (2)
Phase 3a (11.5 weeks)	25	1	0	7	15	1	49/565 (9)
Phase 3b (12 weeks, excluding week 50)	163	16	3	38	70	0	290/565 (51)
Week 50	31	2	1	3	8	0	45/565 (8)
Deaths	**376**	**6**	**8**	**15**	**273**	**0**	**678/43,628 (2)**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	84	0	146/678 (22)
Phase 2 (5 weeks)	22	0	0	0	6	0	28/678 (4)
Phase 3a (11.5 weeks)	20	0	0	1	25	0	46/678 (7)
Phase 3b (12 weeks, excluding week 50)	215	4	1	9	135	0	364/678 (54)
Week 50	64	0	2	5	23	0	94/678 (14)

a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 10. COVID-19 hospitalization admissions (n= 2,309) and deaths (n= 678) by episode date[a], BC January 15, 2020 (week 3) – December 12, 2020 (week 50)



a. Note that in previous reports (week 48 and earlier) this figure was displayed only using available admission and death dates. With this week's report, data are displayed by episode date (i.e. date of hospital admission or date of death, and if those dates are missing, then report date).

E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 11**, adults 70+ years comprise 10% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (44%) and deaths (89%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (17%) but a commensurate proportion of deaths (7%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 24% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (4%).

Adults 20-39 years comprise a greater share of COVID-19 cases (41%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (13%) and deaths (<1%).

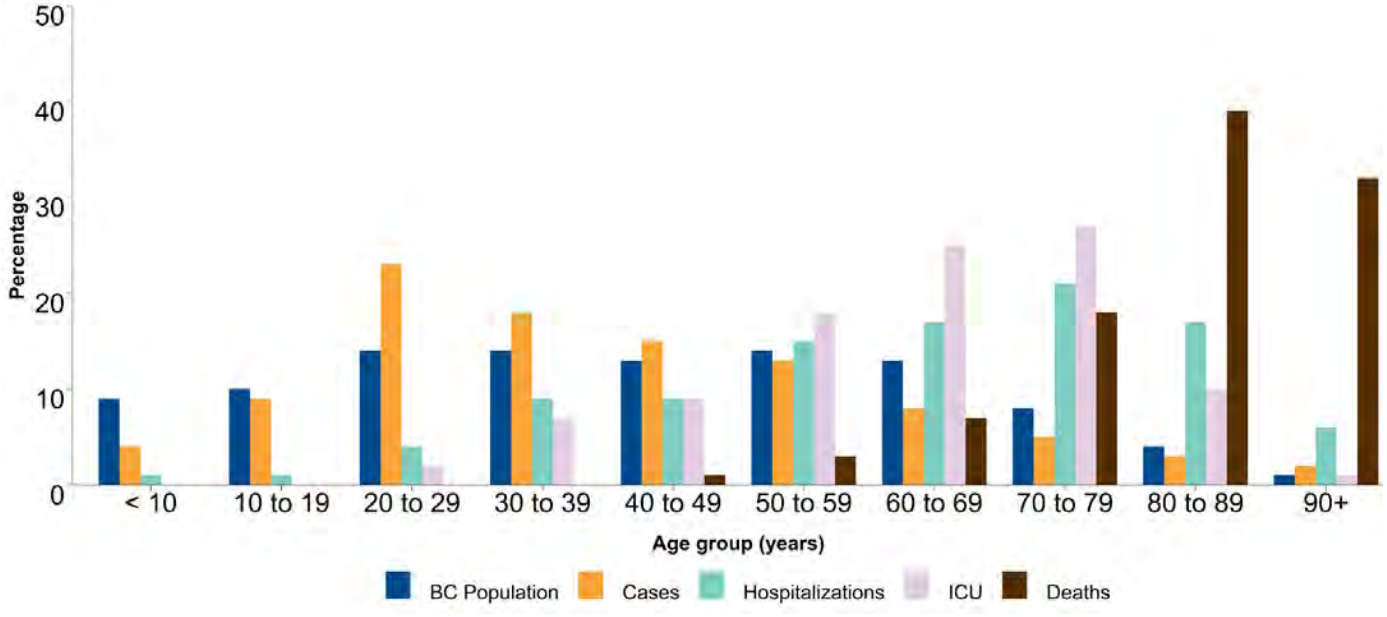
Children <20 years are under-represented overall among COVID-19 cases (13%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is younger for hospitalizations (65 vs. 69 years) but similar for deaths (86 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – December 12, 2020 (week 50)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	1,736 (4)	21 (1)	0 (0)	0 (0)	469,351 (9)
10-19	3,944 (9)	20 (1)	0 (0)	0 (0)	527,805 (10)
20-29	9,914 (23)	103 (4)	13 (2)	0 (0)	697,691 (14)
30-39	7,986 (18)	197 (9)	37 (7)	1 (<1)	735,052 (14)
40-49	6,506 (15)	215 (9)	53 (9)	8 (1)	646,035 (13)
50-59	5,685 (13)	340 (15)	102 (18)	17 (3)	718,272 (14)
60-69	3,539 (8)	402 (17)	141 (25)	46 (7)	673,131 (13)
70-79	2,067 (5)	491 (21)	153 (27)	124 (18)	435,062 (8)
80-89	1,418 (3)	385 (17)	59 (10)	262 (39)	187,443 (4)
90+	763 (2)	132 (6)	7 (1)	220 (32)	49,726 (1)
Total	**43,558**	**2,306**	**565**	**678**	**5,139,568**
Median age	**37**	**66**	**65**	**86**	**41**

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, and BC population January 15, 2020 (week 3) – December 12, 2020 (week 50) (N=43,558)[a]



a. Among those with available age information only.

F. Likely sources of infection

As shown in **Table 3** and **Figure 12**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

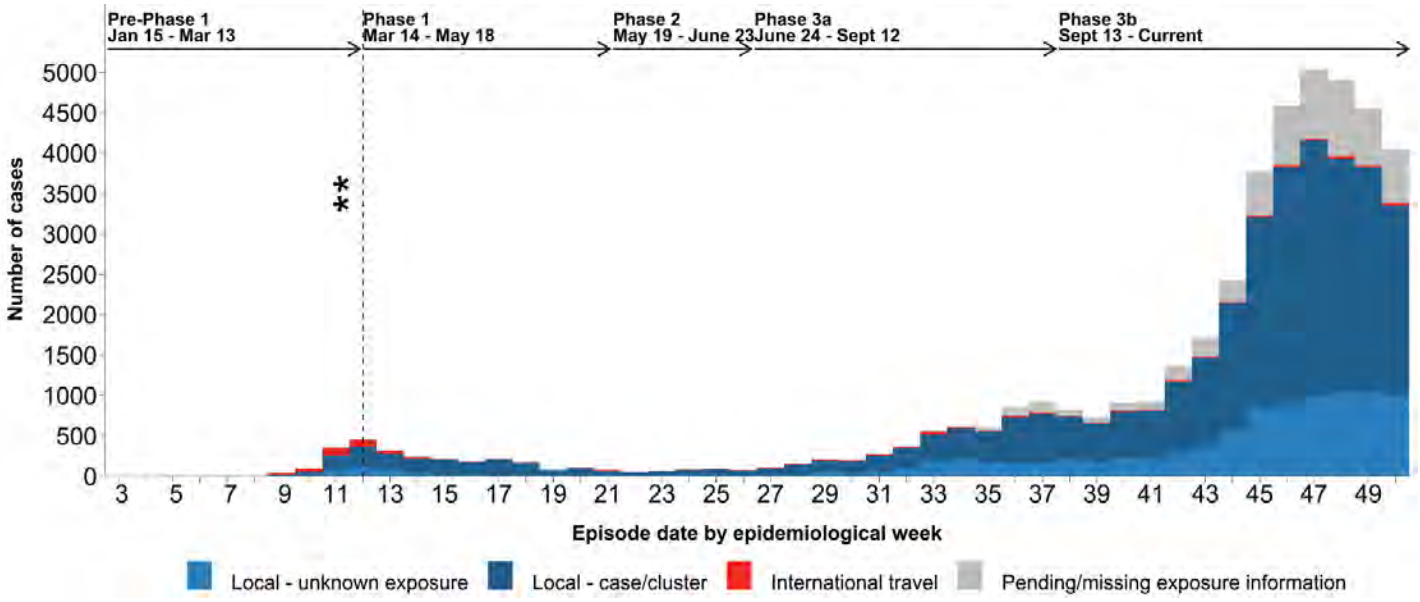
Prior to Phase 1, international travel was also a frequently cited source of SARS-CoV-2 infection in part reflecting high risk testing that targeted returning travelers. However, travel-related restrictions introduced in Phase 1 limited that contribution thereafter with clusters, such as in care facility settings, becoming a more prominent source.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 50 during which international travel was cited 1%.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, BC
January 15, 2020 (week 3) – December 12, 2020 (week 50)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	209 (46)	96 (21)	14 (3)
Phase 1	188 (9)	1,500 (72)	346 (17)	41 (2)
Phase 2	30 (8)	260 (69)	83 (22)	2 (1)
Phase 3a	181 (4)	3,241 (66)	1,155 (23)	347 (7)
Phase 3b (excluding week 50)	233 (1)	19,871 (63)	6,814 (21)	4,830 (15)
Week 50	31 (1)	2,347 (58)	1,005 (25)	669 (17)
Total	**798 (2)**	**27,428 (63)**	**9,499 (22)**	**5,903 (14)**

Figure 12. Likely source of COVID-19 infection by episode date, BC
January 15, 2020 (week 3) – December 12, 2020 (week 50)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 13**, 224 care facility outbreaks were reported in total in BC to the end of week 50. There were 8 new care facility outbreaks reported in week 50 (4 of which were reported by FHA, 2 IHA, and 2 by VCHA), with all 8 of these outbreaks having earliest onset date in preceding weeks. Facility outbreak tallies by earliest onset date are highest thus far in week 46 (26 outbreaks).

Seventy-three of the 94 deaths in total (78%) reported in week 50 in BC involved adults in a care facility setting in FHA (49 deaths), VCHA (20 deaths), NHA (2 deaths) and VIHA (2 deaths). Of the 73 deaths, 69 were elderly adults 70+ years.

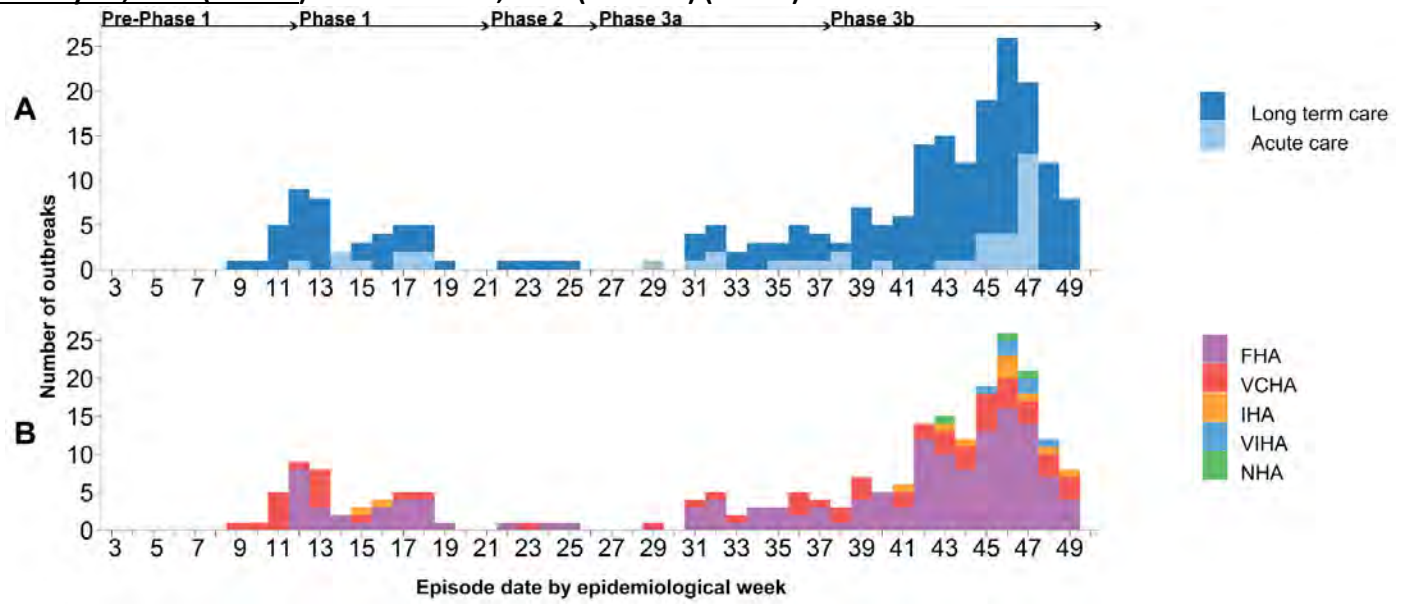
Of 35,800 cases overall in BC with episode date in Phase 3b (i.e. weeks 38-50), 2,539 (7%) were associated with a care facility outbreak, a proportion slightly higher than Phase 3a overall (185/4,924; 4%), but lower than before Phase 3a (605/2,904; 21%).

Almost three-quarters of all COVID-19 deaths in BC have been associated with care facility outbreaks (496/678; 73%). Of those 496 facility outbreak-associated deaths, more than half have occurred since the week 38 start of Phase 3b (336; 68%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – December 12, 2020 (week 50) (N=224)

	Outbreaks	Cases				Deaths			
		Residents	Staff/ visitors	Unknown	Total	Residents	Staff/ visitors	Unknown	Total
Total	**224**	**2,009**	**1,295**	**22**	**3,326**	**496**	**0**	**0**	**496**
Pre-/Phase One (17 weeks)	45	326	207	0	533	96	0	0	96
Phase 2 (5 weeks)	4	51	18	0	69	25	0	0	25
Phase 3a (11.5 weeks)	27	92	93	0	185	39	0	0	39
Phase 3b (12 weeks, excluding week 50)	148	1,281	839	13	2,133	263	0	0	263
Week 50	0	259	138	9	406	73	0	0	73
Active outbreaks[b]	66	-	-	-	-	-	-		-
Outbreaks declared over[b]	157	-	-	-	-	-	-		-

Figure 13. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority[d] (B), BC January 15, 2020 (week 3) – December 12, 2020 (week 50) (N=224)



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of December 12, 2020
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. FHA=Fraser; VCHA=Vancouver Coastal; IHA=Interior; VIHA=Vancouver Island; NHA=Northern Health Authorities

H. Clinical indicators

HealthLink calls (**Figure 14**) related to COVID-19 have shown an overall increasing trend from week 32 to 40 at ~13,500 calls per week but decreasing in later weeks reaching just over 10,000 calls in week 43. Calls gradually increased thereafter, to ~15,000 calls in week 47, to later decrease to ~12,500 in week 50.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 15**) related to COVID-19 (including telehealth billings) showed slight increase from week 37 reaching >5,000 visits in week 40 but decreasing thereafter to around 3,300 visits in weeks 42 and 43. Visits then gradually increased reaching >6,000 visits in week 48. MSP claims have decreased slightly in weeks 49 and 50 to ~4,500 visits.

Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – December 12, 2020 (week 50)

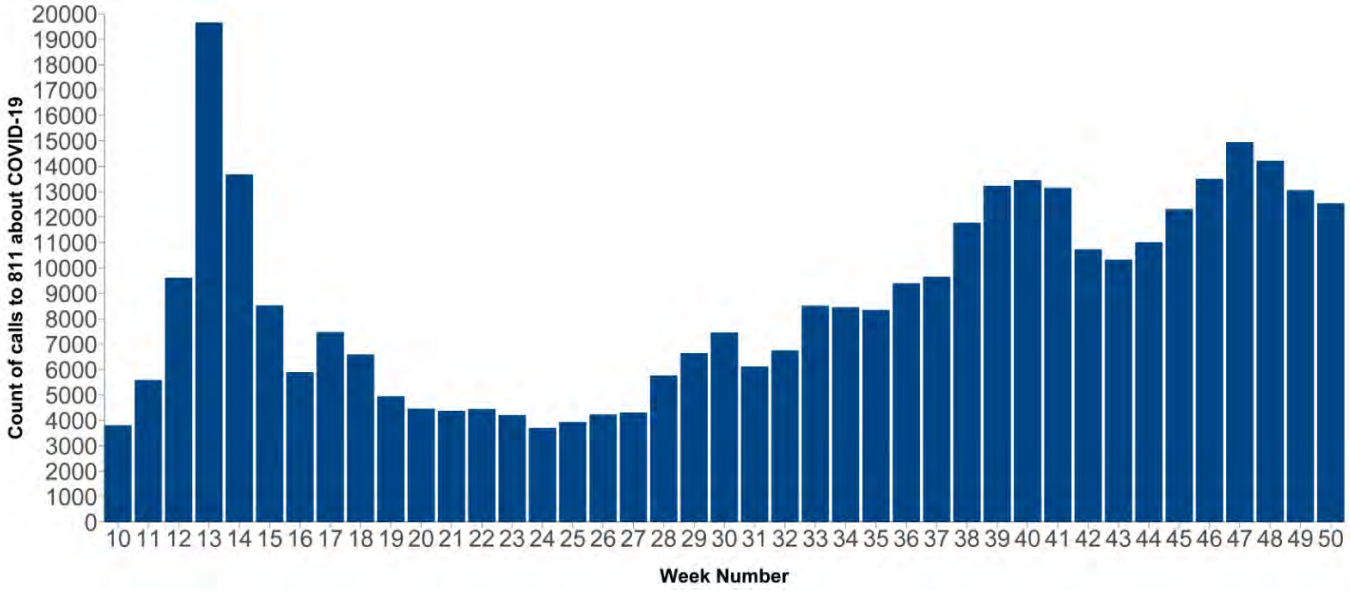
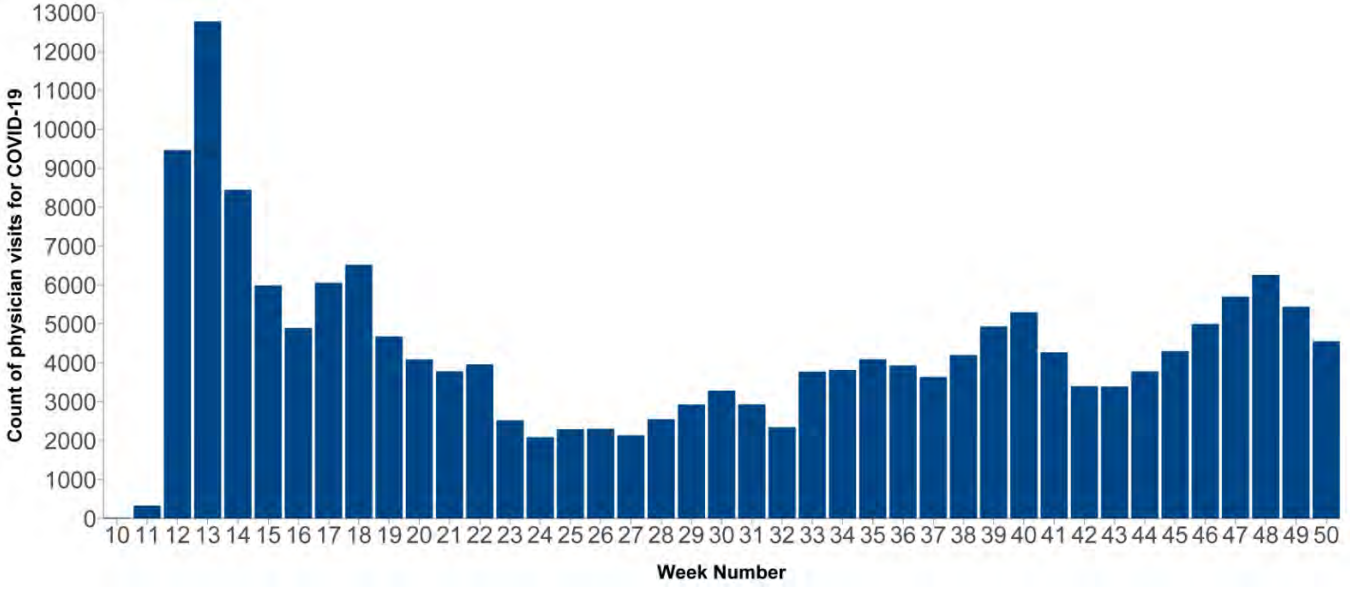


Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – December 12, 2020 (week 50)



This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

Dix/Henry - COVID-19 Christmas restrictions
Media Availability
Monday, December 07, 2020

By Legislature Press Theatre

Adrian Dix: Good afternoon. My name is Adrian Dix. I'm BC's Minister of Health. To my right is Dr Bonnie Henry, BC's Provincial Health Officer, and this is our COVID- 19 briefing for British Columbia for Monday, December 7th.

We're honoured to be here on the territory of the Lekwungen-speaking people of the Songhees and the Esquimalt First Nations. We're honoured to be here on their territories.

Tomorrow, Tuesday, we'll be providing a written report with COVID-19 case numbers and other relevant information to the COVID-19 pandemic in BC.

Now, it's my honour to introduce Dr Bonnie Henry.

Bonnie Henry: Thank you very much and good afternoon. So, today we're reporting our weekend numbers. So, the first reporting period, from Friday to Saturday, we had 647 additional COVID-19 cases in BC. From Saturday to Sunday, 726 cases were diagnosed, and from Sunday to today, an additional 647 people were diagnosed with COVID-19. That brings our total for the last three days to 2,020 new cases, IO of whom were epidemiologically-linked, bringing our total in BC to 38,152 people who have been diagnosed with COVID-19.

That inclt1des 304 people in the Vancouver Coastal Health region, 1,362 people in the Fraser Health region, 45 people in the Vancouver Island Health region, 203 people in the Interior Health region, and 106 people in the Northern Health region. We now have 9,380 active cases in the province, in all health authorities. Ofwhom 349 people are in hospital, 77 of whom are in critical care or ICU.

We have 10,747 people under active public health monitoring, again, in all areas of the province, and 27,287 people have recovered from COVID-19.

Over this past three days, we've had 35 people who have died from COVID-19, bringing the total number of people in BC who have died from COVID-19 to 527. This, of course, brings sadness to us all. My condolences go out to the families, to the care providers and communities of these people who have passed away over the last three days. We know how challenging, how hard it is to lose somebody during this time of year, and particularly during this time of COVID.

We have six new health care facility outbreaks in a variety of places around the province, including the Bradley Centre, Chilliwack Lifestyles, Crofton Manor, Lakeshore Care Centre, McKinney Place, and Village by the Station in Interior Health. In addition, outbreaks have been declared over at the Hawthorne Seniors Care Community, Lakeview Care Centre, Sunset Manor, Valleyhaven, and Ridge Meadows Hospital. That leaves us with 57 active outbreaks in long-term care and assisted living, and eight in acute **care units.**

There are now 1,697 active cases in long-term care, 1,073 residents and 605 staff.

Additionally, we've had one new community outbreak at a mink farm in the Fraser Health region. Of course, we are paying very close attention to this outbreak in other parts of the world, particularly, most

recently, in Denmark and prior to that in the Netherlands and, as well, in the US we've seen outbreaks on animal farms such as this, particularly mink farms where there has been transmission from humans to mink and back. And where we've seen some mutations of virus in some parts of the world. It is of great concern for us, and we're working closely with WorkSafe BC to ensure that all of the measures on the farm are done appropriately, and also with the Ministry of Agriculture, our animal health colleagues, to make sure that the animal security and health is maintained as well. This is, of course, an important measure that we need to look at holistically, and we're involved with both the CFIA and the Public Health Agency of Canada to make sure all of the appropriate measures are taken at this fann and the other fanns OC.

That includes very strict controls under the Animal Health Act here in BC, for who and what can come or leave on the fann.

Today, as well, we have some very good news about an upcoming vaccine that we can all take some heart in, as we all do our part now, knowing that the availability of vaccine to protect those people who are most at-risk is actually just days away now. Next week we expect to receive our first delivery here in BC of the Pfizer vaccine, as you've heard announced federally this morning. It will be a start of a program, a very important start but just a small amount to start with, to ensure we get our logistics going. But our ability to start protecting elders and seniors, particularly in our care homes and health care workers who care for them will be an important step forward in our COVID-19 struggle.

Later this week, Dr Ross Brown and myself and the Premier and Minister Dix will be providing a full briefing to everybody on the vaccines themselves, and our approach and our team and how we're going to be managing this very complex and challenging initiative, but to make sure that we have an adaptable and flexible plan so that we can get vaccines as efficiently as possible to everybody who wants them here in BC.

While we can all celebrate this encouraging news about vaccines, we can't lose sight of the fact that we continue to have very high levels of transmission and community spread here in BC.

Hundreds of people, as you know, remain in hospital and as we've seen, this weekend alone, tragically, far too many of these people in BC have died from this virus. And many more are at risk right now. I want to share a couple of slides to provide an update on where we are and how we are progressing.

What this one shows is by health authority region, the cases that we're having, so the number of people diagnosed with COVrD-19 per million population. This is something that helps us understand how we're progressing over time. The rate of increase, as you can see, has been steep across the province. But most pronounced in the Fraser Health and Vancouver Coastal Health region. And, very recently, particularly in the last few days, we have started to see a levelling off. This shows that what we are doing, the measures we have put in place, are starting to have an effect and starting to work. This means that what you are doing, every day, is making a difference. But we are not yet through this storm. We cannot let up now.

All around us, in every community, the virus continues to circulate and we are seeing increasing rates in communities that have not yet had many outbreaks of COVJD-19, or transmission in communities, including in our Interior and in the north in particular. We only need to look, as well, to our adjoining provinces and states to recognize that we are in a very challenging time across Canada and across the world. Particularly in the northern hemisphere, we are seeing that this virus can transmit very easily, and that our risk is very high despite the measures that we have all taken to try and reduce risk.

The other information I'll show you here is our case counts, what we call our seven-day average. That is a measure that helps us smooth things out over time. The green line at the top is our numbers of cases per day in a seven-day rolling average, so we report them every day but it levels out those peaks and valleys that have to do with when tests are completed.

What you'll also see here is that our hospitalizations, although lagging the case numbers, as we know, by several weeks, are now peaking. We need to continue to take the measures that we've been taking to ensure that that also levels off. As we're starting to see, the blue line on the bottom is ICU and critical care, and that, again, is a very important measure. What this tells us is that the hundreds of people that are in hospital across the province right now are receiving the care they need in a safe way, but it is straining our system.

As you know, the orders that we've had in place have been to reduce our in-person social interactions as much as possible because we know that this virus transmits, particularly now at this time of year, and particularly where we're in close contact inside and it transmits to those people we are closest with. As well, we want to limit our social interactions to those essential activities in our lives, like work and school and other essential services.

Non-essential social interactions, so things outside of work and school, where we had some leeway in the summer, when we had lower rates and lower transmission, we now need to pull back from, and ahy of those interactions should be done in a very safe, low-risk manner, such as small numbers and outside. In addition, we've put in targeted measures to deal with specific higher risk activities that we've seen transmission happen and those conditions that lead to transmission, including being inside, being in crowded places, having poor ventilation, et cetera.

Today I'm now issuing the following orders, which are in effect immediately. I'm extending my published gatherings and events order of December 4th, with respect to the controls and restrictions on people visiting other people in their residence, to midnight of January 8, 2021. Of course, we will continue the allowances that we have in place for people who are living alone to have one or two other visitors.

I am also extending my published order of December 4, with respect to prohibiting all gatherings and events as defined in the order, to midnight of January 8, 2021. This means that all those events that we have been talking about for the past few weeks continue to be prohibited, with the exceptions as they are listed in the order. However, one addition I am now accepting from the order - drive-thru and drive-in to drop-off and leave events. We know that in some locations we have either drive-thru to look at lights, where people do not get out of their cars, or to drop off. At this time of the year, we've seen things like toy drives and others.

As well, we are accepting drive-in and stay events to a maximum of 50 cars in which people must stay in their cars. And people attending these events should be only your household, and the exceptions must continue to maintain physical distancing, having entry and exit controls, and ensuring that there's no congregation or congestion and people remain in their cars for the duration of the event.

As a reminder, the other parts of the gatherings and events order that do not expire remain in effect for the foreseeable future, and that is the restrictions on adult team sports, indoor and outdoor, and the group fitness restrictions. Some of these may begin to operate once we've issued the further orders and guidelines about how to do these safely in the new context that we are living in right now.

As we have published last week, child and youth sport can continue with limited activities, with specific restrictions, and, of course, no travel for any teams in the province: As well, WorkSafe safety

requirements that we've outlined in the past weeks must continue, and these include reviewing and updating of COVID-19 safety plans in all workplaces, daily health checks and encourage that whenever feasible, workers work from home.

I mentioned two weeks ago that we are actively working with WorkSafeBC and puling together, particularly in the Lower Mainland, teams to enhance our inspections in these areas and to make sure that appropriate safety measures are put in place. And we are bringing some more leadership to that team, and we'll be talking about that later this week. Just to say that this is an important focus right now, and each business needs to revise and review their COVID safety plans to make sure that all of the measures that are needed now given the context that we are in now.

I understand that for many of us, this will mean celebrating the coming imp01tant holidays in a different and smaller way than what we may be used to. We can, though, still be festive. We can still connect with family and with friends in a safe and virtual way, in many cases, and we have seen so many ways that people have done this in the past months, and we will need to continue to follow this guidance.

As hard as this may be, let's remember that the sacrifices we make now will protect our loved ones and countless others throughout the province, and will keep our strained health care system open and functioning for all of us. We just need to look at the data I presented today to see the evidence that our efforts and our sacrifices are making a difference. We can't let that go now, particularly when we know that things like vaccines are so close, and that we will save lives by taking these measures and by staying small and staying local over the next few weeks, and will help ease the pressure as we go into the year ahead. We cannot afford to have a rebound and have increased numbers of people being sick and ending up in hospital in the next few weeks.

We need to hold the line and continue to bend our curve. I want to thank all of you out there throughout the province who are continuing to do your part because it is making a difference. We need to continue to use all of our COVID safety strategies. Staying small saves lives. Staying close to home saves lives. And these are our families, our friends, our communities, our lives that we are saving. Now, more than ever, we must stick to this, and we must support each other, and be caring to each other, and be kind to each other, be calm and be safe.

Thank you.

Dix: Thank you very much, Dr Henry. 1first of all want to start by expressing my condolences, that of the Premier and everyone in BC to the 35 people who have passed away this weekend from COVID-19 in British Columbia – 17 from Friday to Saturday, IO from Saturday to Sunday and eight from Sunday to Monday. Twenty-three of them lived in Fraser Health, two from Interior Health, one on Vancouver Island and nine in Vancouver Coastal Health. This is, given the orders that we're working under right now, a very difficult time to grieve. We want everyone -- all those families, all their friends, all their caregivers -- that we see their loss and their pain and are with them at this difficult time.

I wanted to note that there are 339 people currently hospitalized with COVID-19 in British Columbia, 77 in critical care. That is across health authorities -- 193 in Fraser Health, 14 in Interior Health, 10 on Vancouver Island, 42 in Northern Health and 89 in Vancouver Coastal health. In tern1s of hospital capacity and occupancy rates at the moment, we consider this with two types of beds; one is our base bed, and we add to that our surge bed capacity. In Fraser Health, hospitals are occupied at 84.5% of base beds and 63. I% of grand total occupancy rate. Interior Health is 89% at base bed and 70% when you add surge beds into the equation. Across Northern Health it's 80.6% of base beds and 57.9% of overall beds. The PHSA is 74.1% base bed capacity and 67.2% of base plus surge capacity. In Vancouver Coastal Health

we're at 93.1% of base bed occupancy and 63.8% when surge beds are put into the equation. And on Vancouver Island it's 81% of base bed occupancy rate and 74.4% of total occupancy at the moment.

In critical care, those numbers are similar. Overall across the province is 78% in critical care. In Fraser Health the base bed occupancy and 43.9% is our grand total occupancy rate when surge beds are added into it; 74.4% in Interior Health or 60.7% of total; 58.5% in Northern Health or 37.5% of total; PSHA it's 66.7% of base bed capacity or 28.6% if we add surge capacity in critical care; Vancouver Coastal Health is 86.1% of base bed critical care capacity and 58.9% total; Vancouver Island is 51.5% of base bed capacity and that is the same for the total.

That gives you a sense of where we are in terms of beds. Of course having 349 people hospitalized puts very significant pressure on our hospitals and on our staff in those hospitals. It's not just an issue of beds, as we've said many times, but an issue of the overall pressure on our hospital system. Nonetheless, everyone is doing an extraordinary job. When we update the numbers this week, another week of close to or over 7,000 surgeries being performed, both urgent and non-urgent, at a time of pandemic, which is an extraordinary achievement in health care.

I want to bring an update for the period of December 3rd, 2020 on our influenza vaccine update. As you know, BC has ordered 2,241,600 doses of influenza vaccine with the final 130,000 doses expected this month. It's a 47% increase in the purchase over last year's campaign and 2,109,170 doses of flu vaccines have been distributed by the BC and regional health authorities. This number is a little behind schedule because it's based in part on billings, which are still to come in. But to date, at least I,277,646 doses have been administered with pharmacists administering 74%ofthose doses to date. All residents in assisted living facilities and almost all, 98%, in long-term care have had their FLUZONE doses administered. Based on national and provincial surveillance, all indicators of influenza activity continue to remain exceptionally low for this time of year.

Every Monday we update you on PPE sourcing. This most recent week, last week, since our November 30th update we had 75,801 N95 or equivalent respirators, 680,500 surgical or procedural masks, 184,656 piece of eye protection, 87,904,000 pairs of gloves and 1,738,000 gowns. BC has had PPE for health care workers when they need it, where they need it throughout the pandemic response. As you know, it was very challenging in the early days. Long-term care and assisted living providers, including private and independent ones, are provided access to BC's supply chain. This ensures safe and adequate supply when traditional PPE vendors are still not entirely meeting needs. Ensured supply for PPE for surgical renewal and increases in health services started in May when the surgical renewal plan was restarted. PPE is now being delivered to GPs, MPs, etc. in three month allocations, direct and free access through the portal to ensure to safe provision of in-person care as required, and we've established ad dramatically increased warehouse space for PPE.

Just to put this in context, we updated people in July as to the cost of PPE to say what the pre-COVID pricing was. For example, for N95 or equivalent respirators, the average unit price pre-COVID was $0.62 -- COVID peak pricing, which was April to June, was $5.00 - $9.24 apiece. In July it was down to $3.19 - $6.80 apiece. The most recent market data has the price from $1.50 - $9.25 apiece. So it was six to ten times the original price in British Columbia at that time for surgical or procedural masks. We went from $0.15 -- the average pre-COVID unit price -- to peak pricing between $0.46 - $1.25 apiece. By July 2020 that was $0.20 - $0.65 apiece and now it's approximately the same. In 2019-20 BC spent approximately $62.5m on PPE. For 2020-21 -- that year will end next March -- we are forecasting spending over $400m on PPE for the health system and stockpile.

Finally just to make one further note connected to the ongoing work Dr Henry, the Premier, 1and many other people have done with faith communities. We want to announce that we've retained Robert Dom (sp) a well-known and deeply respected Jewish scholar and facilitator to conduct a series of discussions with faith leaders. I'll participate as available to assist in this very challenging period for faith communities and for them to inform us iri our efforts. We very much appreciate Mr Dom's participation and we look forward to people across faiths and across denominations taking part in this effort. As Dr Henry has said, the orders with respect to events and gatherings are being significantly extended well into January to the 8th at midnight, both in home and in the community, and that is going to make this a very different December and early January, a very different holiday period. We have to acknowledge for a moment the loss that is for a lot of people -- many, many people have both a sense of faith with Hanukkah, Christmas and other holidays, and a sense of ritual around the season of the year, of celebration and coming together with peoples. This year that will not be possible in the same way, but that doesn't mean that we won't be able to celebrate. We just have to create new and special memories and perhaps build some new traditions.

The orders are going to test, they need our attention and require our action, but they'll allow us to make the very best of the season to show our love, to show our caring ways, our generosity to others and our abiding faith -- religious or otherwise. And they'll keep us safe too. This year over the holidays, using the skills we've been taught to stop the spread and pulling back from following the guidance we've been given to save lives will create a COVID debt in December and a daily case number bill that will come due in January at a cost we simply cannot afford. This year we must spread good cheer without spreading COVID-19. This year home for the holidays means staying home for the holidays to stop the spread and keep everyone safe. This year no matter how we celebrate the holidays, the most precious gift to give is safety and good health so all of us can see in the new year with hope and anticipation, our foundations are secured and our spirits renewed.

Q&A

Reporter: Looking at the orders that you put out, if you could explain -- with all the exposure numbers that we've had across BC at schools -- what was the reasoning behind not deciding to close schools early for winter break?

Henry: As you know, we have a lot of exposures and have been following closely what is going on in schools. Those exposures still reflect and continue to reflect transmission in our communities, but we are not having large numbers of transmission events in schools. Those are very small, very few. We have had few outbreaks in schools, but they have been limited in numbers.

So, schools really are a safe place and an important place for our educators and for our students. We did have discussions, and I talked about that earlier on, whether there was a rationale for closing schools early, extending breaks, and we discussed this with many stakeholders and we have decided and made the decision that the downsides of it would be far greater than the safety and the protection of the education and interaction that is needed in the schools.

Reporter: It is actually involving something else for Health Minister Adrian Dix that one of my colleagues was hoping to ask you about. It's regarding an application that was sent to your office today seeking regulation of counsellors and therapists from FACTBC, the Federation of Association for Counselling and Therapists. They want the reform to fall in line that you have ordered over the summer, they want that to fall in line with other regulatory reforms.

What are your thoughts on implementing this and hopes of expediting this process?

Dix: As you know, in the past year we have been involved in a major reform of health professional colleges in BC. One of the outcomes of that reform is a reduction in the number of colleges -- a significant reduction of that number – and the raising in the standard of regulation.

Those reforms which were, as you recall, developed by myself on a committee and unanimous report with then Liberal health critic Norm Letnick and then Green Party health critic Sonia Furstenau, will do just that. They will also make it easier over time for new professions to potentially become regulated, should they meet the standard.

And so I understand. I understand that this is a day of advocacy for people who support the efforts of FACTBC and they have been advocating for some time. There are other professions in those circumstances and we will be working with those professions as well. It is our expectation working together with all parties in the Legislature that the very significant reforms – I think the most significant reforms ever done of health professional colleges in Canada – will be put in place in the spring and the positive effects for the public in terms of transparency, raising of the standards and a reduction in the overall number of colleges will have a very positive effect, including for professions who are seeking right now professional recognition.

Reporter: Just confirming, you are saying no Christmas dinner with anyone outside of your household. No eating at restaurants with anyone outside of your household until January 8th. No travel anywhere outside your community all through the holiday season.

Is that realistic? Do you think British Columbians will be on board with basically being locked down for Christmas?

Henry: This is not a lockdown, clearly. But yes, these are the restrictions that we have had in place and it is making a difference. This is what we need to do for each other, for our families, for our system here in BC, for the health system.

This is a challenging time, I know that, and we have some provisions in there for other services that are provided, but what we are talking about is social gatherings.

So yes, if you are used to having multiple family members come and go over Christmas and getting together and having those large dinners together, now you need to do it remotely. This Christmas and these holidays are going to be different and they need to be difference, but we have to recognize we are not alone in this. These are things that we need to take to protect our communities and we across the globe people are dealing with this pandemic in ways that are best . . . You know, we are learning the best ways that we can, but we know that it is these social interaction, even small ones.

So, you know, I think maybe it's okay I have ten people over to my house, but it is not just my ten people. It is ten by ten by ten with thousands of families around this province, and so all of us have to do our bit right now because we know that that's where this virus is transmitted, and particularly over this holiday period. We don't want to be exposing our loved ones to the virus.

Reporter: I have a followup on behalf of a colleague about that vaccine news that is good news today. How many doses of vaccine are you expecting initially and how will those initial vaccines be prioritized and distributed, including to the rural parts of the province?

Henry: We have been working on this for quite some time. I don't have the exact numbers today. I have a good idea of what we are looking at. We have been working on exactly where they will go. Understand,

thought, the first vaccine that we will be receiving is the Pfizer vaccine, which means it has to be kept at -80. So there are limited places that we have the equipment and the ability to do that.

So, we will be receiving small amounts to start with across the country and we will be focusing on those most at risk. For us in British Columbia, that is people, particularly health care workers who are working in long-term care and on the front lines in our health system, in emergency departments, ICU, medical departments. But we will be providing more detail and more detail about what we see rolling out, not just next week, but in the coming weeks and months and where people may find themselves in the rollout of vaccine,

So, this is the beginning, we're putting all the details together, and later this week with the Premier and Dr Ross Brown (sp) will be having a more detailed briefing for everybody, for the public and for you, and we'll have a lot more details by then. I will tell you as well that we're participating this week, starting ... Part of it has started already, but starting tomorrow, as well as in trial run of receiving the really specialized containers that come from Pfizer. They won't have vaccine in them at this point, but they will have the dry ice and we'll be going through all of the procedures that are needed to safely handle these **very fragile vaccines.**

So, it's exciting. We're expecting that Health Canada will hopefully come out with what we call a notice of compliance in Canada, which is a licence for the vaccine to be used, and we'll be ready to put immunization into people's arms as soon as we can. We are not going to have enough in the first few months that it's going to make a difference in community transmission, so that's why we all have to be continuing to_ follow our COVID safety plans, but we will be able to protect those people who are more likely to end up in hospital, who are more likely to die from this virus, and also to protect our health care system by ensuring that people who are at risk in our health care system are protected, too.

So, that will be the focus to start with and that's why it's such a challenge for us now, but that light at the end of the tunnel is there and we need to do our piece to keep our rates low so that we prevent people from dying until we have this protection for them here in our communities and across the province.

Reporter: I know BC is working on starting a pilot this week in long-term care homes with the rapid tests. I'm wondering how quickly you think you'll be able to make a decision on whether this would be more widely adopted?

Henry: We've always said that we are looking for where the rapid tests can play a role. It certainly will not be daily testing. That's not feasible or practical with the tests that we have. And as we know, they are not licensed for use for asymptomatic testing. So what we need to do is understand one, if it's feasible because one of the challenges we have in care homes is human resources and the stretched human resources, but also how does it fit into the screening that we do of people, of health care workers every time they come to work and where does it play a role in helping us in that setting? We have, as I've reported on before, been using the rapid tests in other settings where we know it can be a benefit, particularly remote communities and in some of our shelters and our advanced surveillance in, for example, the downtown eastside in Vancouver, and there's been challenges with the tests themselves. They don't actually work that well in the environment, in the cold.

So, we're learning about where they might fight in and yes, there's a number of long-term care homes in the Lower Mainland where we'll be starting to look at feasibility and whether they're of value in that setting.

Reporter: You said earlier today there were almost 1,700 active cases in long-term care homes. I'm not sure. Maybe you can clarify how many long-term care homes have new outbreaks. You said six facilities, but I'm not sure if those are all long-term care. But my question is what does that say about what is wrong with the current screening protocols because clearly they are not enough?

Henry: This is the question. We can't intuit where this virus is and the screening, we are stepping up, of course, as everybody is, but we also have close to 60,000 people who work in long-term care and everybody goes to work every day with the intent of doing their best to take care of people and nobody intends to bring the virus in with them.

It is so challenging this time of year when the virus is spreading so rapidly and we are seeing that around the world and around the country.

So yes, screening is a huge part of its. Making sure that people are able to stay away if they are not feeling well. Making sure we are able to test people rapidly and we have a good response to that now, but despite our best efforts, yes, the virus doesn't get in and that's where we need to make sure that we are trying to detect it as quickly as possible and it's becoming more and more challenging.

This time of year, you know, we have seen this not just in care homes but in other communal living settings: in farms, in workplaces, in the measures that we have put in place for gyms and settings where we could do things even a few weeks or months ago. The virus is transmitting very easily and sometimes we don't recognize it, so we are looking at everything that we can do to try and protect care homes, and this is where vaccine is going to be so helpful because we are able to protect those people who are working in care homes to start with and residents themselves, and that is the focus of the first few months and weeks of the vaccine program.

Reporter: Dr Henry, I am sure you have seen again over the weekend _churches were open in some areas and seemingly they are saying they are willing to keep accepting the fines to continue to operate.

Has there been any consideration, given to work with the Public Safety minister, to increase fines for repeat offenders or to increase those fines, and can you explain . . . Have you provided any guidance, like about fines, for these anti-mask gatherings that are sort of disguising as protests but could potentially lead to spread of the virus?

Henry: The short answer around to do I provide guidance on the fines? No. That is within the purview of the Public Safety ministry and they look at other factors as well.

It is a challenge. I know there are many faith groups. There are a few faith groups that are continuing to meet and that concerns me. It concerns me because it is a misunderstanding of why we are trying to put these restrictions in place. These restrictions are about recognizing there are situations where this virus is spreading rapidly, and we have seen when we come together and congregate indoors, in particular, those are settings where the virus is transmitted, despite our best efforts, despite the measures that we have had in place for several months that were working for many months. We are now seeing that those are not enough right now.

But I want to turn it around and talk about the vast majority of churches, synagogues, gurdwaras, temples, who have taken this to heart and are doing everything they can to protect their congregants to make sure that people have access to the supports they need. It is going to be more and more important as we go through these important holiday periods to supports people to be able to safely practice their faith, and we see more and more of that.

We have had the privilege of meeting with faith leaders around the province, talking to them about this and we look at global leaders around the world who have been giving the same message. This is a global pandemic. It means that we have to do whatever we need to do to keep the members of our congregation safe, members of our community safe, and right now we are at a very challenging and risky time and this is the time where we all have to take a step back and look at how we can support each other in a way that doesn't put people at risk.

The masked demonstrators, there are small numbers of people and yes, it does increase one's outrage factor, especially when I know there are people who are working day and night in our health care system caring for people with COVID-19, making sure that people are still getting their surgeries. It really in some ways is a slap in the face and we also need, however, as I've said all along, to recognize that people have a right to peacefol demonstration as long as it is outside and they are not putting others at risk. The risk of transmission of the virus is less, but as we know, this time of year it is more dangerous than it was before.

So, I don't condone them and I think the other thing we are seeing is that most people are, again, doing the right thing and recognizing that my wearing a mask protects the workers in the shop that I'm going to and you're wearing a mask protects everybody as well.

Reporter: This is for a colleague in our sports department. He mentioned the BC Hockey League has been holding practices, they haven't seen an ou_tbreak or a transmitted case of a virus. He's wondering if you can provide the rationale behind basically shutting down the league because a majority of the players -- 48% of the players are 19 and 20-year-olds. So they no longer can participate in sports. Can you explain is it an unintended consequence of the measures around adult sports and can you explain why you made that decision that could have impacts on these sorts of leagues.

Henry: [twas not unintended, it was recognized risk. We talked with V[ASport, we talked with the leagues and really, it is about the fact these leagues travel, that we are seeing transmission and we are seeing transmission in the US and other sports teams as well.

We have been seeing transmission events happening and right now, it is just too risky. We don't want people travelling inter-provincially. We don't want people travelling to different communities.

Yes, the intent was to reduce that risk right now and to have an extended break for the teams. I know in many cases I have heard in discussions with the league as well, it is about young people returning to their home communities and having a time with their families during this period.

We know that around the country and around the globe the competitive leagues have had a challenge this year. Everybody is having these challenges. It is an unfortunate thing in some ways, but it is also the most important thing we can do right now to make sure we are protecting youth for the future.

Reporter: Can you elaborate upon why you decided to extend the orders all the way until January 8th rather than going ahead with a two week chunk? Were you, perhaps, concerned about people that would make (inaudible) and maybe people that were hoping the restrictions would be lifted?

[fyou can comment on that and explain your rationale behind that timeline.

Henry: Sure. Yes, it was partly that. I've had a lot of discussions over the last ten days, but particularly over the last few days with the number of my colleagues in particular in public health but across a number of different sectors.

Really, looking at where we have been with our curve, what is happening, where we are seeing transmission still. Where we are seeing transmission still on the upswing and understanding where the transmission events are happening. We recognize we are seeing an impact of the orders, but it's not yet at a point where we can let off on some of the restrictions that we have in place.

Very much, the next incubation period would take us to just a few days before the Christmas holiday. Hanukkah starts this week, so there are important events that are happening and we wanted people to recognize this is something we're going to need to stick with until into the new year.

So yes, it was to signal that this is not the time to plan large family gatherings, whether it is for Christmas or New Years or other holidays through this next period of time. We are looking, as well, at when the vaccine is coming. When we would hope to see a decrease in cases and we cannot, cannot afford when we are this close to being able to protect people, to have a surge of cases early in the new year that would again test and strain our health care system and put people at risk and people getting sick and dying from this virus.

This is what we need to do now to get us through this most critical period. This will save lives. That's what we need to focus on for the next few weeks.

Reporter: As a follow-up question, some people are already doing it – gathering even if it is banned. How concerned are you that the public health orders to be enforced during Christmas is making it awkward to show up and say, hey, you are not allowed to gather?

Henry: The intent of the order, as we talked about for the last few weeks, is to reduce the social gatherings because we know that is where the virus has been transmitted. The vast majority of people understand that. It makes it very clear.

It means that I can say, without qualms, no, I'm sorry. I can't come. There are some people that don't understand it. I think about people in my life who maybe don't quite get it.

It is partly about making it okay to not have people over this year, to say let's try something different, let's try to suppo11 each other in a way that doesn't have those expectations of us coming together in a way that could put people at risk.

So yes, you can say no to the party this year. You must say no to the party. You can say no to travelling. Say no to having gatherings with people outside your household.

And that is really impo1tant, and yes, we have lwd people fined who have had parties and disobeyed this but that is a deterrent that is only there to make sure that when people are being egregious, we have a way to address it.

I think the vast majority of people in British Columbia who I hear from, who I talked to, understand that this is the most challenging year that we have ever experienced. At least in my lifetime and hopefully will ·ever be in my lifetime. And that we have to adapt. We have to be resilient and we have to support each other with compassion, especially now.

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 9, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person; the distribution of food or other supplies to people in need; health or social services provided to people in need, such as warming centres; individual attendance at a place of worship for the purpose of prayer or quiet reflection; an episodic market at which only food for human consumption is sold; health care related events such as immunization clinics, COVID-19 testing centres and blood donation clinics; court sittings wherever they occur; workers at a workplace when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412, the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School, or a post-secondary educational institution when engaged in educational activities; public pools and public skating rinks when not associated with an event; customers in a mall or retail or service business when engaged in shopping activities or seeking services; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; or the use of any place for local government, provincial or federal election purposes.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

(i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

(ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

(iii) coordinated action is needed to protect the public from the transmission of COVID-19

(iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF DECEMBER 4, 2020 WITH RESPECT TO GATHERINGS AND EVENTS

RE-CONFIRMS MY ORAL ORDER OF NOVEMBER 19, 2020 WITH RESPECT TO WORKPLACE SAFETY AND PROHIBITING TRAVEL RELATED TO TEAM SPORT;

Definitions in this Order:

"adult team sport" means an organized and structured activity involving a number of participants, including basketball, cheerleading, combat sports, floor hockey, floor ringette, road hockey, ice hockey, ringette, netball, skating, soccer, curling, volleyball, indoor bowling, lawn bowling, lacrosse, hockey, ultimate, rugby, football, baseball, softball;

"affected area" means British Columbia:

"banquet hall" means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

"children or youth" refers to persons under nineteen years of age;

"critical service" means critical to preserving, life, health, public safety and basic societal functioning and includes health services, social services, police services, fire services, ambulance services, first responders, emergency responders and critical infrastructure service providers;

"event" refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and

drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service; ceremony or celebration; , a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; adult team sport; indoor group high intensity exercise; indoor group low intensity exercise; exhibition; market or fair, including a trade fair, agricultural fair, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event, but does not include a gathering or event which is permitted under, and in compliance with, another Order;

"group high intensity exercise" means a group exercise for adults which causes a sustained and accelerated rate of breathing and/or involves close contact including hot yoga, spin, aerobics, bootcamp, dance classes, dance fitness, circuit training, and high-intensity interval training;

"group low intensity exercise" means a group exercise for adults which does not cause a sustained and accelerated rate of breathing or involve close contact with another person, including yoga, Pilates, stretching, Tai-Chi, light weightlifting, stretching or strengthening;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, a officiant at a wedding, baptism or funeral, volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, dance recreational, exercise, or social activity supervised by an adult and provided for children or youth, but does not include a performance, recital or demonstration by children or youth;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
   a. an occupant's work,
   b. being provided with care by an occupant,
   c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
   d. providing assistance, care or services, including care to a child who is an occupant or an adult who is an occupant who requires care, health care, personal care or grooming services,
   e. providing educational programming or tutoring to an occupant,
   f. providing music lessons to an occupant,
   g. providing legal or financial services to an occupant,
   h. emergency services,
   i. housekeeping and window washing,
   j. gardening and landscape services,
   k. maintenance,
   l. repairs,
   m. renovations,
   n. moving services,
   o. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 5 regularly interact with one another, as well as with the occupant, they may be present for social purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

B. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this order.

4. No person may be present at an event except as provided for in this Order.

5. For certainty, this Part applies to and prohibits indoor group high intensity exercise, and adult team sport in any place.

C. SUPPORT GROUP MEETINGS, CRITICAL SERVICE MEETINGS, MEALS PROVIDED FOR PEOPLE IN NEED, WEDDINGS, BAPTISMS AND FUNERALS, PROGRAMS FOR CHILDREN AND YOUTH. OCCUPATIONAL TRAINING

1. Subject to the provisions of this Part, a person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host:

   a. a support group meeting,

   b. a critical service meeting which cannot be held at the workplace or provided virtually;

   c. a meal provided without charge to people in need,

   d. a wedding, baptism or funeral,

   e. a program for children or youth,

   f. occupational training which cannot be provided virtually.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, an critical service meeting, a meal provided without charge

to people in need, a program for children or youth or occupational training, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting, a critical service meeting, a program for children or youth or occupational training at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. In this and the following sections up to and including section 15

"event" means a support group meeting, a critical service meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral a program for children or youth or occupational training;

An event may only proceed if the following conditions are met:

a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated sit at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized.

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. there are no spectators at a program for children or youth unless the presence of a spectator is necessary in order to provide care to a child or youth.

5. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

6. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

7. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be present in the place under the COVID - 19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

8. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

a. patrons attending an event do not have contact with patrons attending an event\ in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

b. there is a separate entrance to each of the premises in which an event is being held; and

c. there are separate washrooms for each of the premises.

9. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

10. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

11. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

12. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

13. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer;

    c. and destroy the information after thirty days.

14. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

15. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending,

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11 and

    c. a request to provide the information required in section 13.

16. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

17. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

D. SPORT FOR CHILDREN OR YOUTH

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, sport for children or youth, if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. there are no spectators, unless the presence of a spectator is necessary in order to provide care to a child or youth.

E. GROUP LOW INTENSITY EXERCISE

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, indoor group low intensity exercise, if the following conditions are met:

    a. I have posted guidelines for indoor group low intensity fitness activities on my website;

    b. the person who provides or hosts the indoor group low intensity exercise has developed an updated COVID-19 safety plan in accordance with my guidelines; and

    c. the COVID-19 safety plan has been posted in a place easily visible to participants.

2. No person may participate in indoor group low intensity exercise unless the conditions in section 1 have been met.

F. DRIVE-IN AND DRIVE-THROUGH EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-through event to view a seasonal light display or

similar display or drop off items such as food, toys or books, if the following conditions are met:

a. traffic moves in one direction;

b. the entrance and exit are clearly marked and controlled;

c. patrons stay in their vehicles except to drop of items and return to their vehicles without delay;

d. patrons, staff and volunteers maintain a two metre distance from one another or physical barriers are in place;

e. patrons do not congregate together in one spot;

f. the organizer monitors the actions of patrons to ensure that

i. they only leave their vehicles to drop off items;

ii. they return to their vehicles immediately after dropping off items; and

iii. they comply with the physical distancing requirement when out of their vehicles.

2. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-in event, if the following conditions are met:

a. traffic moves in one direction;

b. the entrance and exit are clearly marked and controlled;

c. patrons only attend in a vehicle and remain in their vehicles except to use washroom facilities, and when outside their vehicles for this purpose they maintain a distance of two metres from other patrons;

d. no food or drink is sold;

e. the organizer monitors the actions of patrons to ensure that

i. they remain in their vehicles except to use washroom facilities; and

ii. comply with the physical distancing requirement if outside their vehicle;

f. the organizer

i. collects the first and last name and telephone number or email address of every driver of a vehicle who attends an event;

ii. retains this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

iii. destroys the information after thirty days.

3. A person must not permit a place to be used, or provide, a drive-through or drive -in event unless the conditions in this Part are met.

4. A person must not attend a drive-through or drive-in event unless the conditions in this Part are met.

G. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

a. for a purpose other than

i. maintenance, fueling or a related purpose; or

ii. transport; or

b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely

H. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19 **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, B and C expire at midnight on January 8, 2021 unless extended by me; Parts D, E, F, G and H do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would
   (a) meet the objective of the order, and
   (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

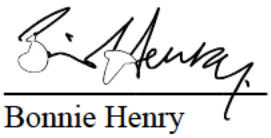
Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 9th day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 15, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person; the distribution of food or other supplies to people in need; health or social services provided to people in need, such as warming centres; individual attendance at a place of worship for the purpose of prayer or quiet reflection; an episodic market at which only food for human consumption is sold; health care related events such as immunization clinics, COVID-19 testing centres and blood donation clinics; court sittings wherever they occur; workers at a workplace when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412, the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School, or a post-secondary educational institution when engaged in educational activities; public pools and public skating rinks when not associated with an event; customers in a mall or retail or service business when engaged in shopping activities or seeking services; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; or the use of any place for local government, provincial or federal election purposes.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

(i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

(ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

(iii) coordinated action is needed to protect the public from the transmission of COVID-19

(iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF DECEMBER 9, 2020 WITH RESPECT TO GATHERINGS AND EVENTS;

RE-CONFIRMS MY ORAL ORDER OF NOVEMBER 19, 2020 WITH RESPECT TO WORKPLACE SAFETY AND PROHIBITING TRAVEL RELATED TO TEAM SPORT;

AND

AMENDS MY ORDER OF MAY 28, 2020 WITH RESPECT TO VENDING MARKETS BY LIMITING ITS APPLICATION TO VENDING MARKETS WHICH ONLY SELL FOOD OR DRINK FOR HUMAN CONSUMPTION

Definitions in this Order:

"adult team sport" means an organized and structured activity involving a number of participants, including basketball, cheerleading, combat sports, floor hockey, floor ringette, road hockey, ice hockey, ringette, netball, skating, soccer, curling, volleyball, indoor bowling, lawn bowling, lacrosse, hockey, ultimate, rugby, football, baseball, softball;

"affected area" means British Columbia:

"banquet hall" means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

"children or youth" refers to persons under nineteen years of age;

"critical service" means critical to preserving, life, health, public safety and basic societal functioning and includes health services, social services, police services, fire services, ambulance services, first responders, emergency responders and critical infrastructure service providers;

"event" refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service, ceremony or celebration; , a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; adult team sport; indoor group high intensity exercise; indoor group low intensity exercise; exhibition; market or fair, including a trade fair, agricultural fair, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event.

"group high intensity exercise" means a group exercise for adults which causes a sustained and accelerated rate of breathing and/or involves close contact including hot yoga, spin, aerobics, bootcamp, dance classes, dance fitness, circuit training, and high-intensity interval training;

"group low intensity exercise" means a group exercise for adults which does not cause a sustained and accelerated rate of breathing or involve close contact with another person, including yoga, Pilates, stretching, Tai-Chi, light weightlifting, stretching or strengthening;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, a officiant at a wedding, baptism or funeral,

volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who organizes or hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, dance, recreational, exercise, or social activity supervised by an adult and provided for children or youth, but does not include a performance, recital or demonstration by children or youth;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

"vehicle" means a motorized fully enclosed means of transportation designed to hold a driver and passengers and meant to be driven on the highway.

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
    a. an occupant's work,
    b. being provided with care by an occupant,
    c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
    d. providing assistance, care or services, including care to a child who is an occupant or an adult who is an occupant who requires care, health care, personal care or grooming services,
    e. providing educational programming or tutoring to an occupant,
    f. providing music lessons to an occupant,
    g. providing religious services to an occupant
    h. providing legal or financial services to an occupant,
    i. emergency services,
    j. housekeeping and window washing,
    k. gardening and landscape services,
    l. maintenance,
    m. repairs,
    n. renovations,
    o. moving services,
    p. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 5 regularly interact with one another, as well as with the occupant, they may be present for social purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

B. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this order.

4. No person may be present at an event except as provided for in this Order.

5. For certainty, this Part applies to and prohibits indoor group high intensity exercise, and adult team sport in any place.

C. SUPPORT GROUP MEETINGS, CRITICAL SERVICE MEETINGS, MEALS PROVIDED FOR PEOPLE IN NEED, WEDDINGS, BAPTISMS AND FUNERALS, PROGRAMS FOR CHILDREN AND YOUTH, OCCUPATIONAL TRAINING

1. Subject to the provisions of this Part, a person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host:

    a. a support group meeting,

    b. a critical service meeting which cannot be held at the workplace or provided virtually;

    c. a meal provided without charge to people in need,

    d. a wedding, baptism or funeral,

    e. a program for children or youth,

f. occupational training which cannot be provided virtually.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, a critical service meeting, a meal provided without charge to people in need, a program for children or youth or occupational training, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting, a critical service meeting, a program for children or youth or occupational training at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. In this and the following sections up to and including section 15

"event" means a support group meeting, a critical service meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral, a program for children or youth or occupational training;

An event may only proceed if the following conditions are met:

a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs

of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized;

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. there are no spectators at a program for children or youth, unless the presence of a spectator is necessary in order to provide care to a child or youth.

5. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

6. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

7. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be present in the place under the COVID - 19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

8. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

    a. patrons attending an event do not have contact with patrons attending an event in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

    b. there is a separate entrance to each of the premises in which an event is being held; and

    c. there are separate washrooms for each of the premises.

9. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

10. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

11. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

12. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

13. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    c. destroy the information after thirty days.

14. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

15. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending;

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11; and

    c. a request to provide the information required in section 13.

16. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

17. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

D. SPORT FOR CHILDREN OR YOUTH

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, sport for children or youth, if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. there are no spectators, unless the presence of a spectator is necessary in order to provide care to a child or youth.

E. GROUP LOW INTENSITY EXERCISE

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, indoor group low intensity exercise, if the following conditions are met:

    a. I have posted guidelines for indoor group low intensity exerciseon my website;

b. the person who provides or hosts the indoor group low intensity exercise has developed an updated COVID-19 safety plan in accordance with my guidelines; and

c. the COVID-19 safety plan has been posted in a place easily visible to participants.

2. No person may participate in indoor group low intensity exercise unless the conditions in section 1 have been met.

F. DRIVE-THROUGH AND DRIVE-IN EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-through event to view a seasonal light or similar display or to drop off items such as food, toys or books, if the following conditions are met:

    a. traffic moves in one direction;

    b. the entrance and exit are clearly marked and controlled;

    c. patrons stay in their vehicles except to drop of items and return to their vehicles without delay;

    d. patrons, staff and volunteers maintain a two metre distance from one another or physical barriers are in place;

    e. patrons do not congregate together in one spot;

    f. the organizer monitors the actions of patrons to ensure that

        i. they only leave their vehicles to drop off items;

        ii. they return to their vehicles immediately after dropping off items; and

        iii. they comply with the physical distancing requirement when out of their vehicles.

2. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-in event, if the following conditions are met:

a. patrons only attend in a vehicle;

b. no more than fifty vehicles are present at the drive in;

c. patrons remain in their vehicles except to use washroom facilities, and when outside their vehicles for this purpose they maintain a distance of two metres from other patrons and staff;

d. the entrance and exit to the drive-in are clearly marked and controlled and traffic moves in only one direction;

e. no food or drink is sold;

f. the organizer monitors the actions of patrons to ensure that

    i. they remain in their vehicles except to use washroom facilities; and

    ii. comply with the physical distancing requirement if outside their vehicle;

g. the organizer

    i. collects the first and last name and telephone number or email address of every driver of a vehicle who attends an event;

    ii. retains this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    iii. destroys the information after thirty days.

3. A person must not permit a place to be used, or provide, a drive-through or drive -in event unless the conditions in this Part are met.

4. A person must not attend a drive-through or drive-in event unless the conditions in this Part are met.

G. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than

        i. maintenance, fueling or a related purpose; or

        ii. transport; or

    b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely

H. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19, **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, B and C expire at midnight on January 8, 2021 unless extended by me; Parts D, E, F, G and H do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would

    (a) meet the objective of the order, and

    (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 15th day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

BRITISH COLUMBIA

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 24, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person; the distribution of food or other supplies to people in need; health or social services provided to people in need, such as warming centres; individual attendance at a place of worship for the purpose of prayer or quiet reflection; health care related events such as immunization clinics, COVID-19 testing centres and blood donation clinics; court sittings wherever they occur; workers at a workplace when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412, the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School, or a post-secondary educational institution when engaged in educational activities; public pools and public skating rinks when not associated with an event; customers in a service business; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; the use of any place for local government, provincial or federal election purpose; or a rehabilitation or an exercise therapy program.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

    (i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

    (ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

    (iii) coordinated action is needed to protect the public from the transmission of COVID-19

    (iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF DECEMBER 15, 2020 WITH RESPECT TO GATHERINGS AND EVENTS

AND

REPEALS AND REPLACES MY ORDER OF MAY 28, 2020 WITH RESPECT TO VENDING MARKETS

TABLE OF CONTENTS

DEFINITIONS:

“affected area” means British Columbia:

“banquet hall” means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

“critical service” means critical to preserving, life, health, public safety and basic societal functioning and includes health services, social services, police services, fire services, ambulance services, first responders, emergency responders and critical infrastructure service providers;

“episodic market” includes farmers’ markets and community markets;

“event” refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service, ceremony or celebration; a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; group sport; indoor group high intensity exercise; indoor group low intensity exercise; exhibition; market or fair, including a trade fair, agricultural fair, episodic market selling food for human consumption, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event;

"face covering" means either of the following that covers the nose and mouth of a person:

(a) a medical or non-medical mask;

(b) a tightly woven fabric;

“group high intensity exercise” means two or more individuals from different residences exercising together in a communal space at an intensity that results in significantly increased respiration rates following a set exercise routine, often with an instructor or facilitator, including

hot yoga, spin, cardio classes, high intensity interval training, bootcamp, dance classes and dance fitness;

"group low intensity exercise" means two or more individuals from different residences exercising together in a communal space at an intensity that does not result in significantly increased respiration rates following a set exercise routine, often with an instructor or facilitator, including low intensity Barre classes, stretching, Tai-Chi, Pilates and, yoga;

"group sport" means a sporting activity involving more than one person and includes training and practice for an individual or a team sport, but does not include sport for children or youth, varsity sport or high-performance athlete sport;

"high- performance athlete" means a person who is identified by the Canadian Sport Institute Pacific as a high-performance athlete affiliated with an accredited provincial or national sports organization;

"home club" means the sport organization, club or facility with, or at which, a person is registered for ongoing sport programming;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, an officiant at a wedding, baptism or funeral, customers of a retail business, members of the public present at a market, participants in sport or exercise, spectators at programs for children and youth, spectators at sport or exercise, volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who organizes or hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, dance, recreational, exercise, or social activity supervised by an adult and provided for persons under 21 years of age but does not include a performance, recital or demonstration;

"post-secondary institution" includes an entity that provides any of the following programs:

(a) an educational or training program provided under

(i) the *College and Institute Act*,
(ii) the *Royal Roads University Act*,
(iii) the *Thompson Rivers University Act*,
(iv) the *University Act*, or
(v) the *Private Training Act*;

(b) a program provided in accordance with a consent given under the *Degree Authorization Act*;

(c) a theological education or training program provided under an Act;

"retail business" means a business that sells retail goods, including a grocery store, clothing store, sporting good store or liquor or cannabis store and includes a department store and the common areas in a mall;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization and may include participants who under 22 years of age, but does not include varsity sports;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"unencumbered space" means an area without items in it such as display units, tables, cabinets, shelves, counters, fridges or freezers;

"unencumbered and usable space" means an area suitable for exercising in without anything in it other than exercise equipment, exercise mats or other exercise related objects;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

"varsity sport" means a sport for which the eligibility requirements for participation are established by a national association for the regulation of intercollegiate athletics, or which is designated as a varsity sport program by a post-secondary institution, and includes fitness training, sport training, practice and competition;

"vehicle" means a motorized fully enclosed means of transportation designed to hold a driver and passengers and meant to be driven on the highway;

"vendor" means a person who sells a product or service at an episodic market and includes the staff of a vendor.

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
    a. an occupant's work,
    b. being provided with care by an occupant,
    c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
    d. providing assistance, care or services, including care to a child who is an occupant or an adult who is an occupant who requires care, health care, personal care or grooming services,
    e. providing educational programming or tutoring to an occupant,

f. providing music lessons to an occupant,
g. providing religious services to an occupant
h. providing legal or financial services to an occupant,
i. emergency services,
j. housekeeping and window washing,
k. gardening and landscape services,
l. maintenance,
m. repairs,
n. renovations,
o. moving services,
p. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 5 regularly interact with one another, as well as with the occupant, they may be present for social purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

B. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this Order.

4. No person may be present at an event except as provided for in this Order.

C. SUPPORT GROUP MEETINGS, CRITICAL SERVICE MEETINGS, MEALS PROVIDED FOR PEOPLE IN NEED, WEDDINGS, BAPTISMS AND FUNERALS, PROGRAMS FOR CHILDREN AND YOUTH, OCCUPATIONAL TRAINING

1. Subject to the provisions of this Part, a person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host:
    a. a support group meeting,

    b. a critical service meeting which cannot be held at the workplace or provided virtually;

    c. a meal provided without charge to people in need,

    d. a wedding, baptism or funeral,

    e. a program for children or youth,

    f. occupational training which cannot be provided virtually.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, a critical service meeting, a meal provided without charge to people in need, a program for children or youth or occupational training, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting, a critical service meeting, a program for children or youth or occupational training at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. **In this and the following sections up to and including section 15**

"event" means a support group meeting, a critical service meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral, a program for children or youth or occupational training;

An event may only proceed if the following conditions are met:

    a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

    i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

    ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

    iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized;

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. no person is present as a spectator at a program for children or youth, unless the presence of the person is necessary in order to provide care to a child or youth who is a participant in the program for children or youth.

5. No person may be present as a spectator at a program for children or youth, unless the presence of the person is necessary in order to provide care to a child or youth who is a participant in the program for children or youth.

6. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

7. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

8. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be present in the place under the COVID-19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

9. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

    a. patrons attending an event do not have contact with patrons attending an event in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

    b. there is a separate entrance to each of the premises in which an event is being held; and

    c. there are separate washrooms for each of the premises.

10. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

11. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and

patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

12. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

13. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

14. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    c. destroy the information after thirty days.

15. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

16. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending;

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11; and

    c. a request to provide the information required in section 13.

17. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

18. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

D. SPORT FOR CHILDREN OR YOUTH

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, or may participate in sport for children or youth, if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. no person is present as a spectator, unless the presence of the person is necessary in order to provide care to a child or youth who is a participant.

2. No person may permit a place to be used for, may provide, or may participate in sport for children or youth, unless the conditions in section 1 are met.

3. No person may be present as a spectator at sport for children or youth, unless the presence of the person is necessary in order to provide care to a participant.

E. VARSITY SPORT

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, or may participate in varsity sport, if the following conditions are met:

    a. the participants are members of a varsity sport team;

    b. participants maintain a physical distance of three metres from one another when engaged in sport and do not engage in handshaking, high fives, hugging or similar behaviour;

    c. the focus is on activities that have a low risk of COVID-19 virus transmission;

    d. no person is present as a spectator, unless the presence of the person is necessary in order to provide care to a participant;

    e. a participant only trains or practices with

        i. the post-secondary institution with which the participant is enrolled, or

ii. with respect to which the participant is a confirmed recruit, as permitted by and in accordance with the requirements of the body which governs the varsity sport.

2. No person may permit a place be used for, or may provide, or may participate in varsity sport, unless the conditions in section 1 are met.

3. No person may be present as a spectator at varsity sport, unless the presence of the person is necessary in order to provide care to a participant.

F. GROUP SPORT

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, or may participate in group sport, if the following conditions are met:

    a. if the group sport is indoors, only two persons participate;

    b. if the group sport is outdoors, only four persons participate;

    c. the participants maintain a distance of three metres from one another while engaged in the group sport, unless the participants reside in the same private residence;

    d. there are no spectators, unless the presence of a spectator is necessary in order to provide care to a participant

2. No person may permit a place be used for, or may provide, or may participate in group sport, unless the conditions in section 2 are met.

3. No person may be present as a spectator at group sport, unless the presence of the person is necessary in order to provide care to a participant.

G. TRAVEL FOR SPORT

1. No person may travel for children and youth sport or group sport, including for training, practice, games or tournaments.

2. Section 1 does not apply to travel by a person to the person's home club sports facility at which the person regularly trains or practices.

H. HIGH- PERFORMANCE ATHLETES

1. Parts D, E, F and G do not apply to high- performance athletes.

2. A person who is a high-performance athlete who is already training in British Columbia may train, practice, compete and travel for that purpose if the person follows the COVID-19 safety protocols of the provincial or national sports organization with which the person is affiliated.

I. EXERCISE

1. No person may permit a place to be used for, or may provide, or participate in indoor group high intensity exercise.

2. No person may participate in indoor group high intensity exercise in any place.

3. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, or may participate in indoor group low intensity exercise, if the following conditions are met:

    a. the provider has developed a COVID-19 safety plan in accordance with the guidelines for group low intensity exercise at https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/covid-19/covid-19-public-health-guidelines-low-intensity-exercise.pdf

    b. the COVID-19 safety plan has been posted in a place easily visible to participants;

    c. the owner of the place in which the indoor group low intensity exercise is to take place, or the provider of the indoor group low intensity exercise, has determined how many participants may be accommodated safely in the space where the indoor low intensity exercise is to be provided, based on 7 square metres of unencumbered usable floor space being available for each participant and staff person who will be present, and this number has been recorded in the COVID-19 safety plan;

    d. despite subsection c., no more than 25 participants and staff members are present in any exercise class or room where indoor group low intensity exercise is provided;

    e. a participant must register to participate in advance;

    f. a provider must not permit participants who have not registered in advance to participate;

g. a participant must maintain a distance of 2.5 metres from every other participant when exercising;

h. a participant must maintain a distance of 2 metres from every other participant and staff member while not exercising;

i. the provider must ensure that there are at least 10 minutes between indoor group low intensity exercise sessions when there are no participants in the place;

j. a participant must leave the facility as soon as the participant has finished exercising;

k. participants must not congregate inside or outside the place;

l. the provider, or the provider's staff, supervises participants to ensure that the participants
   i. comply with distancing requirements;

   ii. do not congregate inside or outside the place; and

   iii. leave as soon as they have finished exercising;

m. no person is present as a spectator, unless the presence of the person is necessary in order to provide care to a participant

4. No person may permit a place to be used for, or may provide or participate in indoor group low intensity exercise, unless the conditions in section 3 are met.

5. No person may be present as a spectator at indoor group low intensity exercise, unless the presence of the person is necessary in order to provide care to a participant.

6. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, or may participate in outdoor group exercise, if the following conditions are met:

   a. the participants maintain a distance of 2 metres from other participants when exercising, and

   b. the participants do not congregate with other participants either before or after exercising.

c. no person is present as a spectator, unless the presence of the person is necessary in order to provide care to a participant.

7. A person who participates in outdoor group exercise must

   a. maintain a distance of 2 metres from other participants, and

   b. not congregate with other participants before or after exercising.

8. No person may permit a place to be used for, may provide or may participate in outdoor group exercise, unless the conditions in sections 7 or 8 are met.

9. No person may be present as a spectator at outdoor group exercise, unless the presence of the person is necessary in order to provide care to a participant.

J. DRIVE-THROUGH AND DRIVE-IN EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-through event to view a seasonal light or similar display or to drop off items such as food, toys or books, if the following conditions are met:

   a. traffic moves in one direction;

   b. the entrance and exit are clearly marked and controlled;

   c. patrons stay in their vehicles except to drop of items and return to their vehicles without delay;

   d. patrons, staff and volunteers maintain a two metre distance from one another or physical barriers are in place;

   e. patrons do not congregate together in one spot;

   f. the organizer monitors the actions of patrons to ensure that

      i. they only leave their vehicles to drop off items;

      ii. they return to their vehicles immediately after dropping off items; and

iii. they comply with the physical distancing requirement when out of their vehicles.

2. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-in event, if the following conditions are met:

a. patrons only attend in a vehicle;

b. no more than fifty vehicles are present at the drive in;

c. patrons remain in their vehicles except to use washroom facilities, and when outside their vehicles for this purpose they maintain a distance of two metres from other patrons and staff;

d. the entrance and exit to the drive-in are clearly marked and controlled and traffic moves in only one direction;

e. no food or drink is sold;

f. the organizer monitors the actions of patrons to ensure that

i. they remain in their vehicles except to use washroom facilities; and

ii. comply with the physical distancing requirement if outside their vehicle;

g. the organizer

i. collects the first and last name and telephone number or email address of every driver of a vehicle who attends an event;

ii. retains this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

iii. destroys the information after thirty days.

3. No person may permit a place to be used for, or provide, or be a patron at a drive-through or drive -in event unless the conditions in this Part are met.

K. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than

        i. maintenance, fueling or a related purpose; or

        ii. transport; or

    b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely.

L. RETAIL BUSINESSES

1. A person may permit a place other than a residence or vacation accommodation to be used for a retail business to which the public has access, and a person may be present in a retail business if the following conditions are met:

    a. The owner must calculate the maximum number of patrons who can be accommodated safely in the part of the place to which the public has access, based on allowing five square metres of unencumbered space for each person, including

patrons and staff members, and must document this number in the COVID-19 safety plan;

b. The owner must ensure that the number of patrons present does not exceed the maximum number who can be accommodated safely in the part of the place to which the public has access, as documented in the COVID-19 safety plan;

c. A person must not enter a retail business if advised by the owner or a staff member that the person cannot be safely accommodated;

d. A patron must leave a retail business if requested to do so by the owner or a staff member, on the basis that the person cannot be safely accommodated;

e. An owner must take measures, where practical, such as the placement of two metre distance indicators and the posting or erection of signs, to guide patrons who are waiting to enter a retail business, or waiting for any other purpose inside a retail business, in maintaining a two metre distance from other patrons in order to prevent the congregation of patrons in one spot;

f. Where practical, an owner must clearly mark entrances and exits and use one- way signage or arrows on the floor to guide patrons in moving in one direction;

g. Where practical, an owner must post or erect signs advising patrons to move in one direction, keep moving, maintain a distance of two metres from other patrons, avoid congregation, and avoid congestion at the end of aisles; and

h. An owner must make hand sanitation options readily available for patrons.

2. A person must not permit a place to be used, or use a place for, a retail business unless the conditions in this Part are met.

3. No person may be present as a patron in a retail business, unless the conditions in this Part are met.

M. EPISODIC MARKETS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may manage, an episodic market, subject to the conditions in this part.

2. The owner of a place at which an indoor episodic market is to be held must calculate the maximum number of patrons who can be accommodated safely, based upon allowing five square metres of unencumbered space for each patron and vendor, and must document this number in the COVID-19 safety plan.

3. A person must not enter an episodic market if advised by the owner, manager or a staff member that the person cannot be safely accommodated.

4. A person must leave an episodic market if advised by the owner, manager or a staff member that the person cannot be safely accommodated.

5. A manager must

    a. monitor the number of patrons present at an episodic market and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan;

    b. take measures, such as the placement of two metre distance indicators and the posting or erection of signs, or the use of arrows or markers on the floor, to guide patrons who are waiting to enter an episodic market in maintaining a two metre distance from other patrons, in order to prevent the congregation of patrons in one spot;

    c. arrange the placement of vendors at an episodic market in such a way as to facilitate the movement of patrons in one direction;

    d. post or erect signs advising patrons to move in one direction, keep moving, maintain a distance of two metres from other patrons and not congregate in one spot;

    e. either ensure that there is a distance of two metres between vendors and patrons or install physical barriers between vendors and patrons which block the transmission of droplets, or, if neither of the foregoing is practical, require vendors to wear a face covering;

    f. take measures, such as the placement of two metre distance indicators or the posting or erection of signs, or the use of arrows or markers on the floor, to guide patrons in maintaining a two metre distance from other patrons in places where line-ups may occur, such as washrooms.

    g. place hand sanitation supplies in spots that are readily available to patrons and post or erect signs reminding patrons to regularly wash their hands or use hand sanitizer;

    h. provide washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies;

i. if there are picnic tables, or tables with chairs, arrange the picnic tables, or the tables and chairs, so that there are two metres between the patrons seated at one table and the patrons seated at another table;

j. post or erect signs advising that there must be no more than six patrons seated at a table;

k. ensure that each day a vendor participates in an episodic market the vendor has carried out a health check and confirmed with the manager that the vendor has passed the health check;

l. if a manager is not satisfied that a vendor has carried out and passed the daily health check, the manager must not permit the vendor to be present at the episodic market;

m. not permit a product other than food for human consumption to be sold at an episodic market;

n. not permit a service to be sold at an episodic market.

6. If the manager is not the owner of the place at which an episodic market is held, the owner must be satisfied that the manager is aware of the requirements in the COVID-19 safety plan and section 5 and has the capacity to fulfill them.

7. A vendor must not sell a product that is not food for human consumption.

8. A vendor must not sell a service.

9. A vendor must do a health check before being present at an episodic market and must confirm with the manager that the vendor has passed the daily health check.

10. A vendor who has not done a health check, or not confirmed with the manager that the vendor has passed a health check, or who has not passed a health check, must not be present at an episodic market.

11. A vendor must either ensure that there is a distance of two metres between the vendor and patrons or that there is a physical barrier between the vendor and patrons which blocks the transmission of droplets or, if this is not practical, wear a face covering.

12. A vendor who sells food for human consumption must comply with the following requirements:

a. not provide samples of food for tasting; and

b. only sell food prepared at an episodic market in single-use, closed, take-out containers.

13. A vendor who is a manufacturer of liquor with an on-site retail endorsement on their liquor licence, must comply with the following requirements:

    a. not provide samples of products for tasting; and

    b. only sell products in sealed retail containers, such as bottles, cartons, boxes and cans.

14. Despite section 5 (e) and section 12, a vendor is not required to wear a face covering if any of the following applies:

    a. the vendor is unable to put on or remove a face covering without the assistance of another person;

    b. the vendor is unable to wear a face covering because of

        i. a psychological, behavioural or health condition, or

        ii. a physical, cognitive or mental impairment;

    c. the face covering is removed temporarily for the purpose of identifying the vendor;

    d. the face covering is removed temporarily to communicate with a person who is hearing impaired.

15. A patron must not sit at a table with more than 5 other patrons.

16. No person may permit a place to be used for, or use a place for, or be a patron at, an episodic market unless the conditions in this Part are met.

N. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19, **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, B and C expire at midnight on January 8, 2021 unless extended by me; Parts D to N do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would

    (a) meet the objective of the order, and

    (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

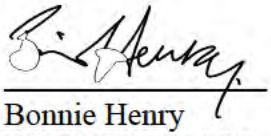
Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 24th day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

British Columbia (BC)
COVID-19 Situation Report

BC Centre for Disease Control
Provincial Health Services Authority

British Columbia (BC) COVID-19 Situation Report
Week 1: January 3 – January 9, 2021

Table of Contents

Provincial COVID-19 cases decreased since peak in November, Incidence remains elevated but stable

There were 3,845 new cases reported in week 1 (75 per 100K), very similar to reports in week 53 (3,719; 72 per 100K) and a 28% decrease from the peak in week 48 (5,330; 104 per 100K). Cumulatively, there have been 58,677 COVID-19 cases in BC to end of week 1 (1,140 per 100K population). Incidence by episode date in week 1 was 60 per 100K, subject to change as data, notably onset dates, become more complete.

Incidence in week 1 exceeded 100 per 100K in Northern (NHA) and 80 per 100K in Fraser (FHA). Vancouver Coastal (VCHA) and Interior (IHA) health authorities reported ~50 cases per 100K. Incidence in Vancouver Island (VIHA) was more than 15 per 100K. In weeks 51-53, incidence increased in NHA and VIHA, stabilized in VCHA and IHA and decreased in FHA. Incidence decreased in recent weeks in all age groups, although it was still elevated for the highest risk group of adults 80+ years at 84 per 100K.

Whereas testing rates and percent positivity were stable between weeks 46-51, recent weeks show a decrease in testing and fluctuations in percent positivity, likely owing to changes in testing criteria and decreased testing during the holiday. Positivity in week 1 exceeded 16% in NHA; 7% in FHA, VCHA, and IHA; and 2% in VIHA. Since week 44, positivity was stable in the Lower Mainland, but increased elsewhere in BC. In week 1, positivity was lowest in the elderly ages 80+ years (6%) and highest in children 10-14 (12%) and 15-19 years (11%).

Cumulatively, there have been 3,261 cases hospitalized in BC to the end of week 1. Whereas the weekly tally of admissions increased steadily from weeks 41-51 (from 68 to 257), it remained elevated but irregular in weeks 52 to 1 (~200).

Cumulatively, there have been 1,012 deaths in BC to end of week 1. The number of deaths per week increased substantially from weeks 42-50 (from 3 to 115 per week) and has since decreased to 55 deaths in week 1. In week 1, 35/55 (64%) deaths were associated with a care facility outbreak and 52 (95%) were 70+ years.

Cumulatively, there have been 271 care facility outbreaks to end of week 1, with 4 reported in week 1 (2 FHA, 1 NHA, and 1 VIHA). The number of care facility outbreaks has been declining since week 46 (29).

Recently, emerging COVID-19 variants have been reported globally. To date, 4 BC cases have been identified with the United Kingdom variant, and 1 BC case with the South African variant.

NEW in this week's report:

- Pandemic Phase 3c has been added reflecting re-implementation of public health measures. This phase starts on November 8, so part of Phase 3b in previous reports is now included in Phase 3c.
- Laboratory testing guidelines were updated on Dec 17 (week 51) to include new evidence of COVID-19 symptoms: https://www.healthlinkbc.ca/covid-19/testing
- The main data sources for this report include health authority line lists and Provincial Laboratory Information Solution data.
- Report date used previously is now replaced with surveillance date (laboratory result date, if unavailable then report date).
- Episode date is now defined as dates of illness onset, hospital admission, or death. When those dates are unavailable, earliest laboratory date (collection date or result date) is used, and if unavailable surveillance date used.
- A new section I has been added reflecting new emerging respiratory variants.

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, are more complete.
- Per capita rates/incidences are based on PEOPLE2020 population estimates (n=5,139,568 for BC overall).
- Laboratory data include Medical Service Plan (MSP) (e.g. clinical diagnostic) as well as non-MSP (e.g. screening) specimens. The percent of specimens testing positive is presented here for all specimens tested as well as separately for MSP-funded specimens only. Given the systematically lower likelihood of test positivity among screening vs diagnostic specimens, summary analyses are foremost based on MSP-funded diagnostic specimens unless otherwise specified.

***Table of pandemic phases defined by implementation or relaxation of population-level mitigation measures in BC:**

PRE-PHASE 1 Pre-implementation Jan 15 (wk 3) to Mar 13 (wk 11) 2020	PHASE 1 Implementation Mar 14 (wk 11) to May 18 (wk 21) 2020	PHASE 2 Initial relaxation May 19 (wk 21) to Jun 23 (wk 26) 2020	PHASE 3a Further relaxation Jun 24 (wk 26) to Sept 12 (wk 37) 2020	PHASE 3b Start of school year Sept 13 (wk 38) to Nov 7 (wk 45) 2020	PHASE 3C Re-implementation Nov 8 (wk 46) to Current (wk 1) 2021
From earliest symptom onset date	**From start of March break** Additionally: o Mass gatherings >50 banned (Mar 16) o Traveller self-isolation required (Mar 17) o Service restrictions (Mar 18) o US/Canada border closure (Mar 20)	**Re-opening of services** Additionally: o Gradual/part-time return to school of K-12 students for 2019-20 school year (Jun 1)	**Broader re-opening** Additionally: o Re-opening non-essential travel in BC, hotels, TV/film o Return to in-class learning for 2020-21 school year, partial week (Thurs, Sept 10)	**From first complete epidemiological week of 2020-21 school year**	**Core bubble interaction only** o Lower mainland restrictions (Nov 7) o Province-wide restrictions (Nov 19)

A. COVID-19 case counts and epidemic curve

Report tallies by week

As shown by the gray line in **Figure 1**, there were 3,845 (75 per 100K) new COVID-19 cases reported in week 1 of 2021, which represents a 3% increase from reports in week 53 (3,719; 72 per 100K) and a 28% decrease from week 48 (5,330; 104 per 100K). Note that the weekly tally by surveillance date includes cases with illness onset date in preceding weeks. Analyses instead based on episode date may better represent the timing of epidemic evolution. The bars in **Figure 1** display the epidemic curve based on episode date, coloured by health authority. Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, become more complete (**Figure 1**).

Episode-based cumulative incidence: provincially and by health authority (HA) (not shown)

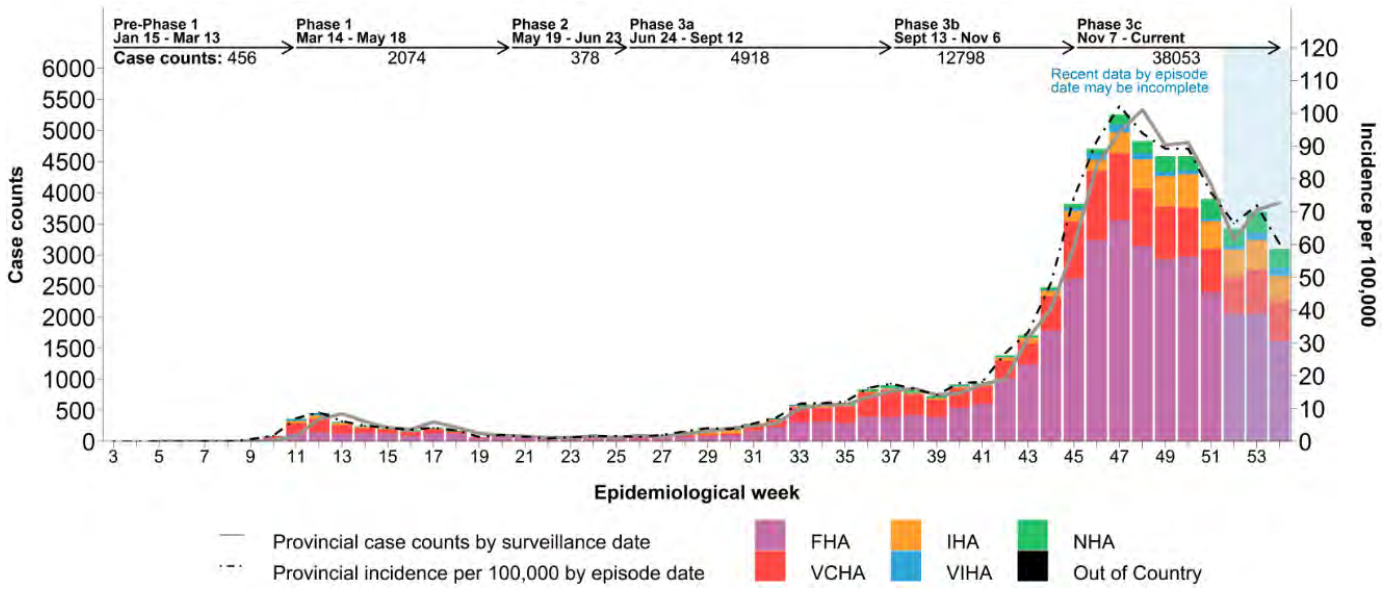
Provincially, between week 3 (mid-January 2020) and week 1 (early January 2021), there have been 58,677 cases in total in BC, corresponding to a cumulative incidence of 1,140 per 100K. By HA, this cumulative tally (and incidence) includes: 36,591 cases in Fraser Health Authority (FHA: 1,887 per 100K); 13,447 cases in Vancouver Coastal Health Authority (VCHA: 1,111 per 100K); 4,742 cases in Interior Health Authority (IHA: 568 per 100K); 2,618 cases in Northern Health Authority (NHA: 911 per 100K); and 1,170 cases in Vancouver Island Health Authority (VIHA: 135 per 100K).

Episode-based weekly incidence: provincially and by HA and health service district area (HSDA)

As shown in **Figure 1**, COVID-19 incidence showed steady increase from week 41 of Phase 3b (18 per 100K) to week 47 of Phase 3c (102 per 100K) which experienced the highest number of cases by episode date to date. This was followed by a decline in cases until the end of week 52 (67 per 100K). As of data extraction for the current bulletin, there were 3,694 and 3,092 cases with episode date in weeks 53 and 1, respectively, corresponding to incidences of 72 and 60 per 100K. Episode-based rates in recent weeks are subject to change as data (notably onset dates) become more complete.

As shown in **Figure 2**, week 1 incidence was highest in NHA at 101 per 100K, followed by FHA at 83 per 100K. Rates in IHA and VCHA were comparable at 49 and 53 per 100K, respectively. Incidence was the lowest in VIHA at 16 per 100K. In recent weeks 51 to 53, NHA (107 to 119 per 100K), and VIHA (5 to 13 per 100K) showed increasing trends; VCHA (58 to 59 per 100K) and IHA (53 to 57 per 100K) were stable; and FHA experienced a decrease (124 to 106 per 100K). Rates in these HAs were driven by: Fraser South and Fraser East; Vancouver and Richmond; Okanagan and Thompson Cariboo Shuswap; Central and North Vancouver Island health service district areas (HSDAs), and all HSDAs in NHA.

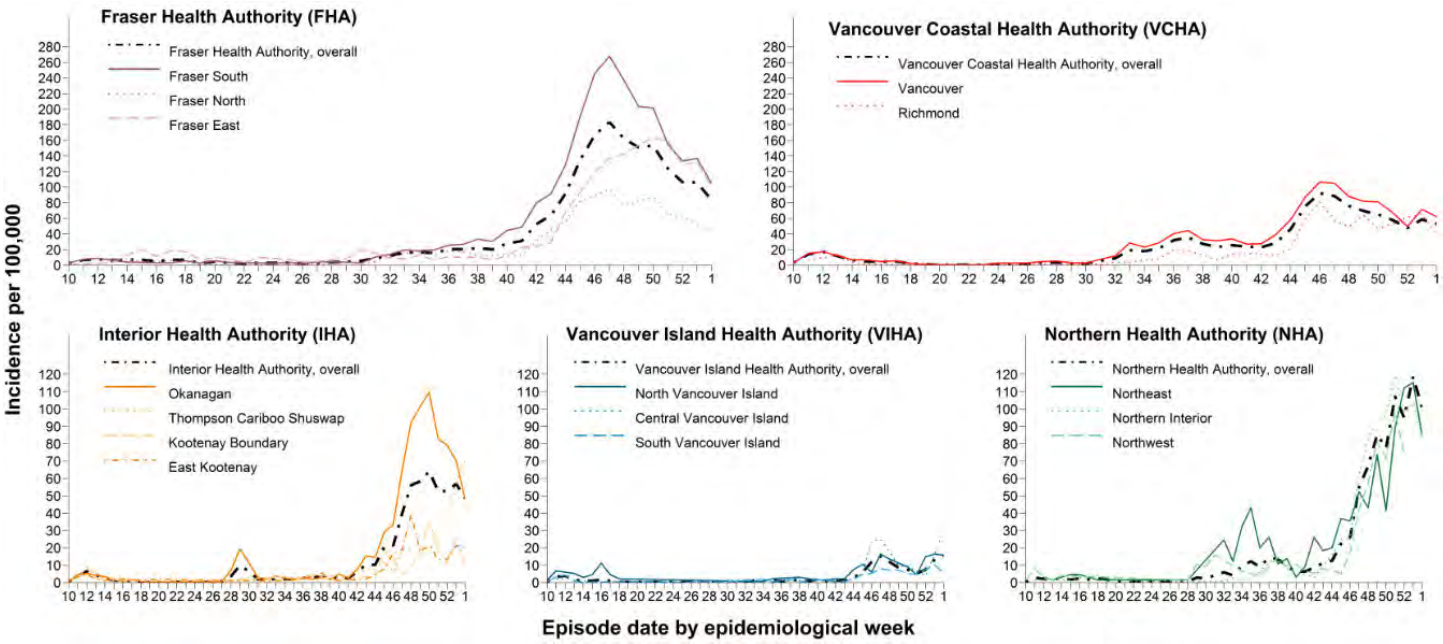
Figure 1. Episode-based epidemic curve (bars)[a], surveillance date (line) and health authority (HA), BC January 15, 2020 (week 3) – January 9, 2021 (week 1) (N= 58,677)



The average weekly rate by phase in Figure 1 is derived as the incidence divided by the number of weeks for: Pre-Phase 1 (8 weeks), Phase 1 (9 weeks), Phase 2 (5 weeks), Phase 3a (11.5 weeks), Phase 3b (8 weeks), and Phase 3c (8 weeks).

a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Friday, January 15, 2021.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – January 9, 2021 (week 1)



B. Test rates and percent positive

In BC, laboratory-based surveillance captures mostly symptom-based diagnostic testing conducted under the Medical Service Plan (MSP) funding scheme, as well as any non-MSP funded screening tests. As shown by the bars in **Figure 3**, there was a large decrease in the total weekly number of specimens tested, both MSP and non-MSP funded, from >75,000 in week 51 to ~45,000 in each of weeks 52 and 53 (Dec 20 and Dec 27), respectively. This is likely owing to changes in testing criteria implemented in week 52 (Dec 20) as well as decreased testing during the holiday period. The weekly number of tests increased to approximately 56,500 in week 1 of 2021, remaining substantially lower than weeks 46-50 (Nov 8-Dec 6).

As shown in **Figure 3**, from week 46 to 51 (Nov 8-Dec 13) percent positivity plateaued for all specimens and started to decrease in MSP-funded specimens only. In week 52 (Dec 20) and 53 (Dec 27), percent positivity increased; this may be associated with a decrease in the number of tests conducted during this period, targeting people more likely to be positive. Positivity decreased in week 1 (Jan 3), concurrent with an increase in testing. As shown in **Panel A** of **Figure 4**, the per capita testing rate in week 1 was highest in FHA and VCHA. As shown in **Panel B**, percent positivity for MSP-funded specimens was highest in NHA at 16.7% followed by FHA at 9.0%, IHA at 8.3% and VCHA at 7.2%, and lowest in VIHA at 2.9%. In NHA, IHA, and VIHA, positivity in MSP-funded specimens increased since week 44 (from 2.8%, 1.7%, and 0.4% respectively), but was relatively stable in the Lower Mainland.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – January 9, 2021 (week 1)[a]

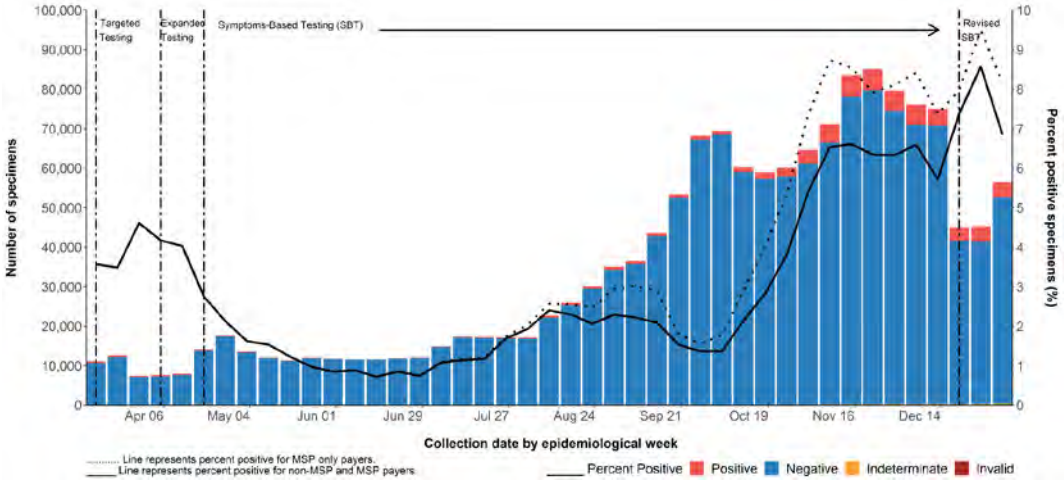
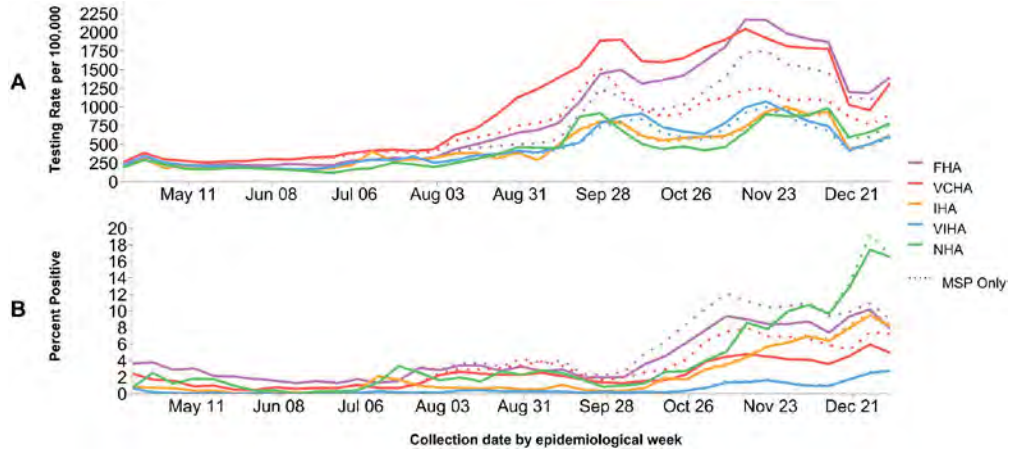


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – January 9, 2021 (week 1) [a]



a. PLOVER extract on Thursday, January 14, 2021.

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in **Figure 5**, testing rates in week 1 compared to prior weeks 46-53 of Phase 3c were lower in all age groups except in adults 60+. The highest testing rates in week 1 were among older adults 80+ years, a change from weeks 46-53 of phase 3c where adults ages 20-39 had the highest testing rates.

Percent positivity by age group

As shown by the dots in **Figure 5**, the percent positivity in week 1 remains elevated and was substantially higher in children ages 0-19 than prior weeks 46-53 of Phase 3c whether based on all specimens (black dots) or restricted to MSP specimens only (grey dots). Percent positivity remained stable for adults ages 20-79 in week 1 as compared to the rest of Phase 3c; and percent positivity decreased from 7.9% to 6.2% in elderly adults ages 80+ in week 1 as compared to the rest of phase 3c. With restriction to MSP specimens only, percent positivity in week 1 was lowest in the elderly ages 80+ years (6.2%), but otherwise exceeded 7% in all other age groups, highest in children 10-14 (12%) and 15-19 years (11%).

Case distribution by age group

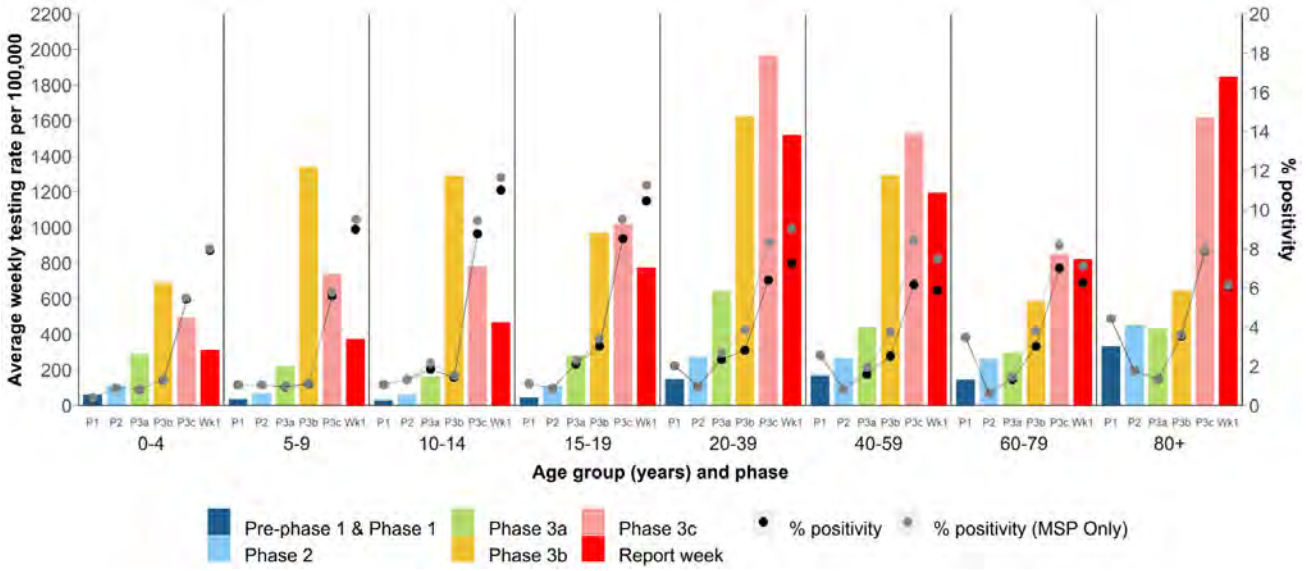
As shown in **Figure 6** and **Figure 7**, the percentage contribution of most age groups has been relatively stable in week 1 compared to weeks 46-53 of Phase 3c, with a slight increase over the last 2 weeks in ages 20-39 years. Whereas in Phase 3a adults 20-39 years comprised more than half of all cases (53%), they contributed less in subsequent phases and in current report week 1 (42%). From week 42 to week 1, the contribution of adults 80+ has increased from 1.2% to 6.4% of cases.

Weekly incidence by age group

As shown in **Figure 8,** incidence in week 1 showed signs of decrease in all age groups compared to prior weeks. As compared to prior bulletins, the difference in incidence between current week 1 and all prior weeks of Phase 3c shown in **Figure 9** is decreasing for most years of age, with the exception of the very old (82 and 88 year olds). In week 1, incidence was highest in adults 20-29 years (109 per 100K), but this is ~30% lower than the peak in week 46 (157 per 100K). Elderly adults 80+ years still have the second highest incidence in week 1 (84 per 100K).

Median age of cases across the pandemic is 37 years: 52 years in Pre-/Phase 1; 39 years in Phase 2; 33 years in Phase 3a; 36 years in Phase 3b; 38 years for prior weeks 46-53 of Phase 3c (excluding week 1) and 36 years in week 1 (not shown).

Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase[a], BC January 20, 2020 (week 4) – January 9, 2021 (week 1) [b]



a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 8 weeks). The current report week, although part of Phase 3c, is excluded from Phase 3c as displayed here to enable comparison.

b. Laboratory extract from PLOVER on January 14, 2021. Testing rates displayed are based on all specimens (MSP and non-MSP).

Figure 6. COVID-19 case distribution by known age group (years) and episode date, BC
March 15, 2020 (week 12) – January 9, 2021 (week 1) (N= 58,144)[a]

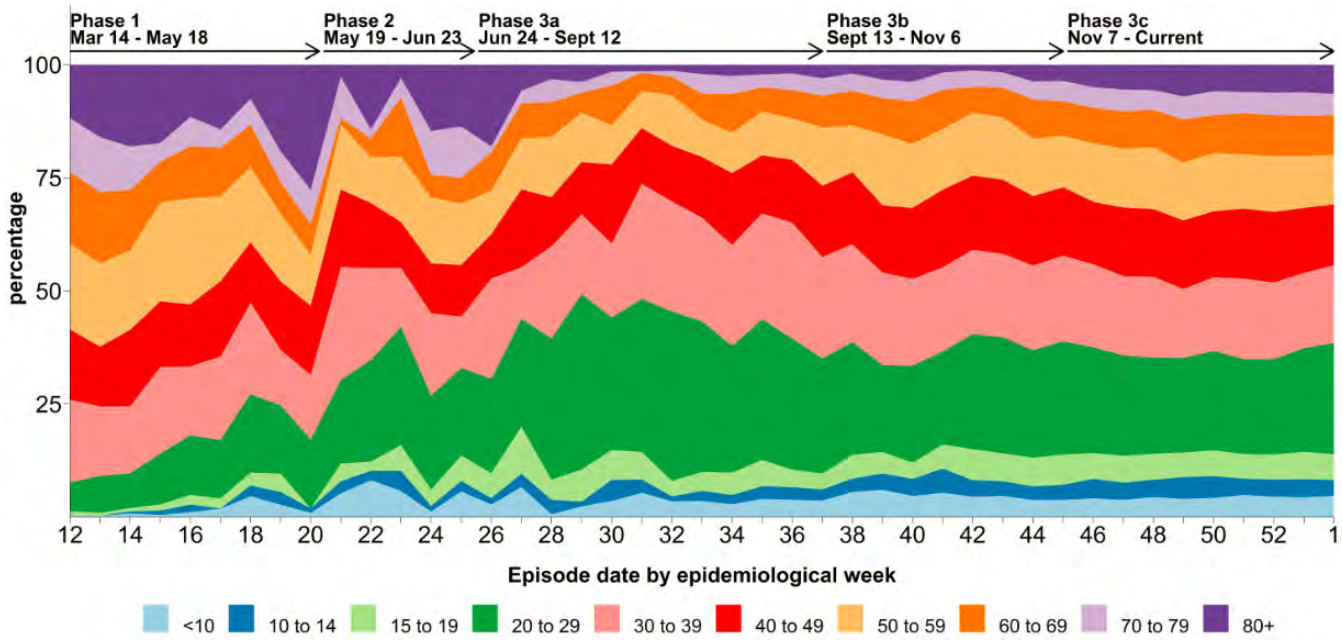
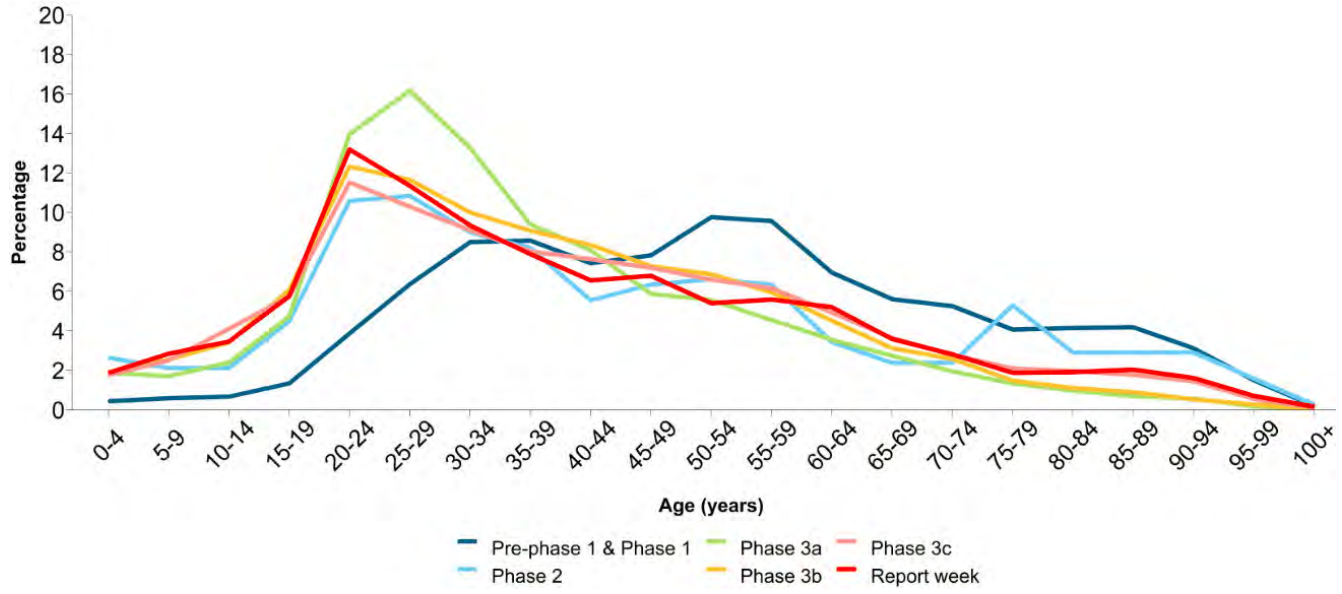


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week[b], BC
January 15, 2020 (week 3) – January 9, 2021 (week 1) (N= 58,655)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3c, is excluded from derivations across prior weeks of Phase 3c to enable comparison, as displayed.

Figure 8. Weekly age-specific incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – January 9, 2021 (week 1) (N= 58,655)[a]

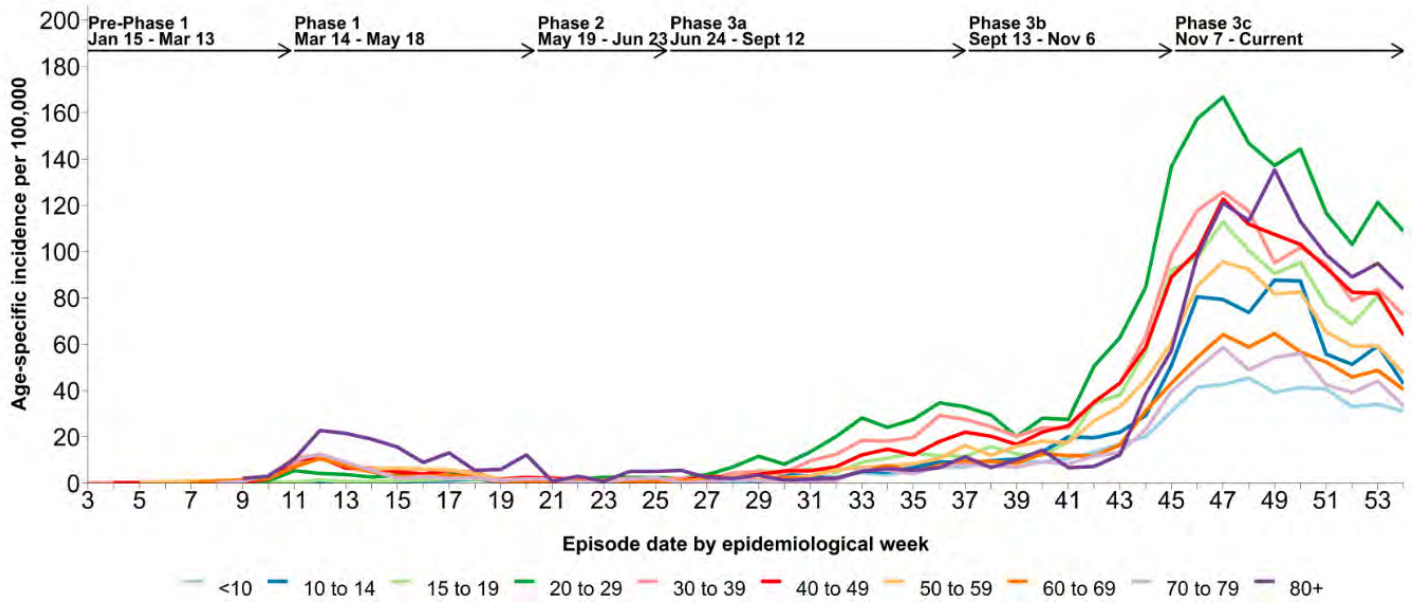
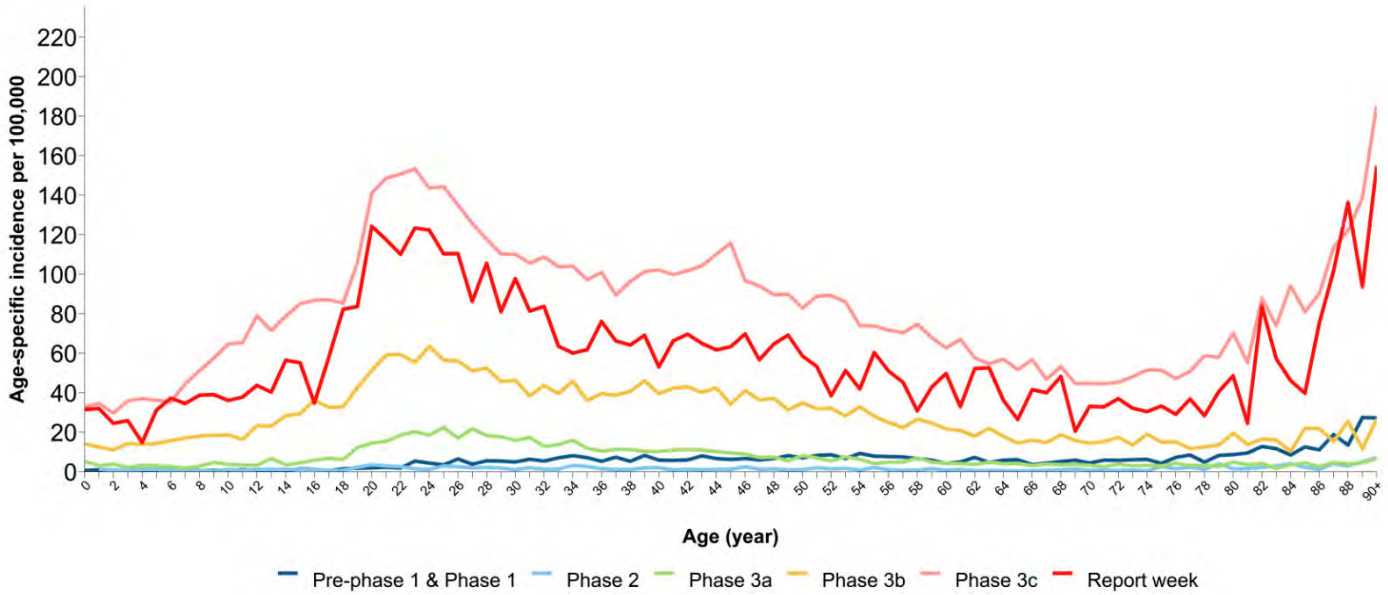


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a, 3b, 3c and current report week[b], BC
January 15, 2020 (week 3) – January 9, 2021 (week 1) (N= 58,655)[a]



a. Among those with available age information only.
b. The current report week, although part of Phase 3c, is excluded from derivations across prior weeks of Phase 3c to enable comparison, as displayed.

D. Severe outcome counts and epi-curve

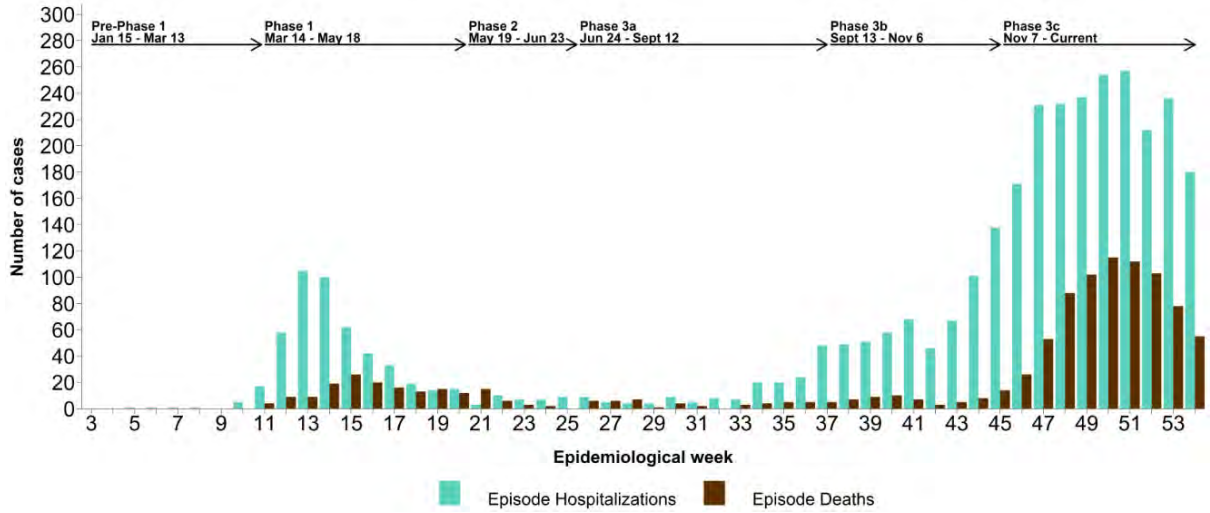
The tally of severe COVID-19 outcomes by pandemic phase is shown in **Table 1** and by week in **Figure 10**. Whereas hospital admissions increased steadily from weeks 41-51 (from 68 to 257 per week), the number of admissions remained elevated and irregular in weeks 52 to 1 (~200), which is about double the first wave peak of 105 admissions in week 13. The number of deaths per week also increased substantially from weeks 42-50 (from 3 to 115 per week), and has since decreased steadily to 55 deaths in week 1. While severe outcome dates will become more complete with more incoming data, thus far most recent week 1 death count is double the first wave peak of 26 deaths in week 15. In week 1, 52/55 (95%) deaths were in 70+ year olds. Of the 1,012 total deaths in BC to date, 739 (73%) were associated with a care facility outbreak and 710 (96%) of these care facility deaths were 70+ years old (data not shown). Overall, males comprise 29,520/58,398 (51%) cases, 1,821/3,239 (56%) hospitalizations, 481/772 (62%) ICU admissions, and 548/1,011 (54%) deaths to date (not shown).

Table 1. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC
January 15, 2020 (week 3) – January 9, 2021 (week 1)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	**1,898**	**242**	**60**	**246**	**806**	**9**	**3,261/58,677 (6)**
Pre-Phase 1 & Phase 1 (17 weeks)	244	31	24	13	161	2	475/3,261 (15)
Phase 2 (5 weeks)	26	1	0	5	6	1	39/3,261 (1)
Phase 3a (11.5 weeks)	104	7	0	7	39	2	159/3,261 (5)
Phase 3b (8 weeks)	324	16	2	30	205	1	578/3,261 (18)
Phase 3c (8 weeks, excluding week 1)	1,109	160	29	166	363	3	1,830/3,261 (56)
Week 1	91	27	5	25	32	0	180/3,261 (6)
Ever ICU	**382**	**71**	**15**	**72**	**234**	**2**	**776/58,677 (1)**
Pre-Phase 1 & Phase 1 (17 weeks)	75	15	8	7	71	1	177/776 (23)
Phase 2 (5 weeks)	6	0	0	3	4	0	13/776 (2)
Phase 3a (11.5 weeks)	26	3	0	4	14	1	48/776 (6)
Phase 3b (8 weeks)	61	4	0	14	59	0	138/776 (18)
Phase 3c (8 weeks, excluding week 1)	197	43	6	37	79	0	362/776 (47)
Week 1	17	6	1	7	7	0	38/776 (5)
Deaths	**571**	**43**	**13**	**39**	**346**	**0**	**1,012/58,677 (2)**
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	84	0	146/1,012 (14)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/1,012 (3)
Phase 3a (11.5 weeks)	20	0	0	1	23	0	44/1,012 (4)
Phase 3b (8 weeks)	31	1	1	2	28	0	63/1,012 (6)
Phase 3c (8 weeks, excluding week 1)	408	31	6	30	202	0	677/1,012 (67)
Week 1	35	9	1	6	4	0	55/1,012 (5)

a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).

Figure 10. COVID-19 hospitalization admissions (n= 3,261) and deaths (n= 1,012) by episode date[a], BC
January 15, 2020 (week 3) – January 9, 2021 (week 1)



a. Data are displayed by episode date (i.e. date of hospital admission or date of death, and if those dates are missing, then surveillance date).

E. Age profile, severe outcomes

As shown in **Table 2** and **Figure 11**, adults 70+ years comprise 10% of COVID-19 cases, commensurate with their share of the general population of BC (13%), but are greatly over-represented among hospitalizations (44%) and deaths (90%).

Older adults 60-69 years comprise 8% of COVID-19 cases, and a greater proportion of hospitalizations (18%) but a lower proportion of deaths (7%) relative to their share of the BC population (13%).

Adults 40-59 years comprise 28% of COVID-19 cases and 23% of hospitalizations, which is commensurate with their share of the BC population (27%), but they are under-represented among COVID-19 deaths (3%).

Adults 20-39 years comprise a greater share of COVID-19 cases (41%) than their share of the BC population (28%), but are under-represented among COVID-19 hospitalizations (13%) and deaths (<1%).

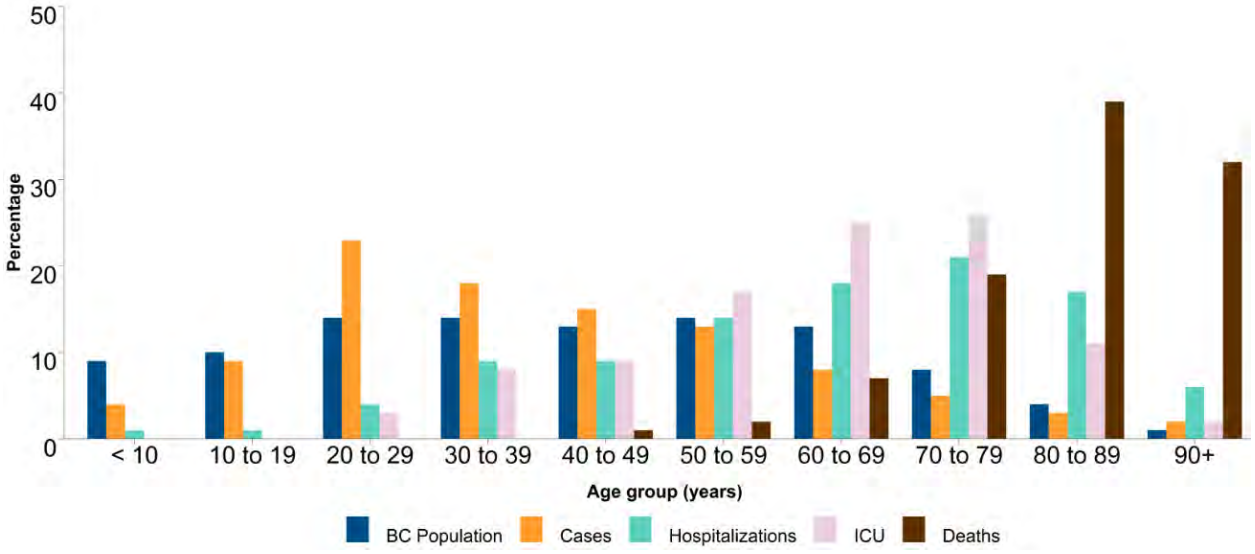
Children <20 years are under-represented overall among COVID-19 cases (13%) as well as severe outcomes (2% or less), relative to their share of the BC general population (19%).

Median age after vs. before Phase 3a is similar for both hospitalizations (66 vs. 68 years) and deaths (86 vs. 85 years).

Table 2. Age distribution[a]: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – January 9, 2021 (week 1)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	2,424 (4)	36 (1)	2 (<1)	0 (0)	469,351 (9)
10-19	5,374 (9)	31 (1)	3 (<1)	0 (0)	527,805 (10)
20-29	13,279 (23)	142 (4)	21 (3)	0 (0)	697,691 (14)
30-39	10,578 (18)	285 (9)	62 (8)	4 (<1)	735,052 (14)
40-49	8,717 (15)	304 (9)	66 (9)	9 (1)	646,035 (13)
50-59	7,478 (13)	449 (14)	130 (17)	24 (2)	718,272 (14)
60-69	4,899 (8)	573 (18)	194 (25)	69 (7)	673,131 (13)
70-79	2,802 (5)	685 (21)	200 (26)	188 (19)	435,062 (8)
80-89	2,004 (3)	549 (17)	85 (11)	391 (39)	187,443 (4)
90+	1,100 (2)	207 (6)	13 (2)	327 (32)	49,726 (1)
Total	**58,655**	**3,261**	**776**	**1,012**	**5,139,568**
Median age	**37**	**66**	**65**	**86**	**41**

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, and BC population January 15, 2020 (week 3) – January 9, 2021 (week 1) (N=58,655)[a]



a. Among those with available age information only.

F. Likely sources of infection

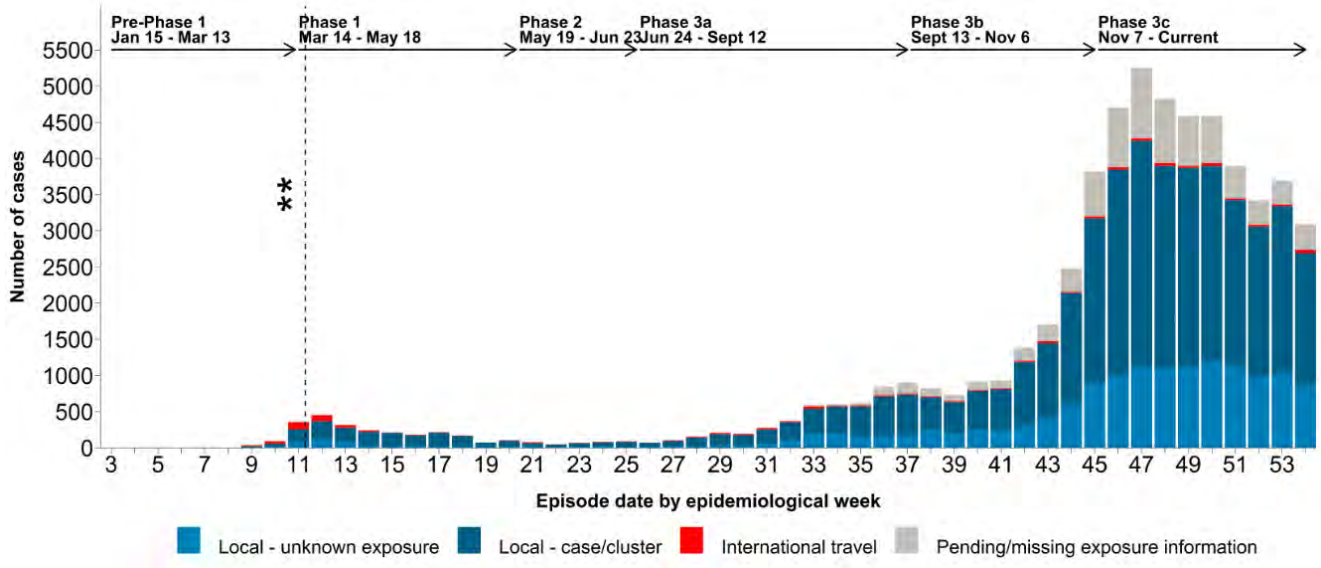
As shown in **Table 3** and **Figure 12**, local contact with a known case or cluster has most often been considered the source of infection across all pandemic phases to date.

Since around mid-Phase 3a more cases have cited unknown local exposure or that information remained pending or missing. International travel has been cited less often since Phase 3b and these patterns have been generally maintained through week 1 during which international travel was cited by 2% of cases.

Table 3. Likely source of COVID-19 infection by pandemic phase of episode date, BC
January 15, 2020 (week 3) – January 9, 2021 (week 1)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	209 (46)	96 (21)	16 (4)
Phase 1	188 (9)	1,501 (72)	346 (17)	39 (2)
Phase 2	30 (8)	263 (70)	83 (22)	2 (1)
Phase 3a	180 (4)	3,169 (64)	1,194 (24)	375 (8)
Phase 3b	139 (1)	7,670 (60)	3,198 (25)	1,791 (14)
Phase 3c (excluding Week 1)	238 (1)	20,799 (59)	8,774 (25)	5,150 (15)
Week 1	49 (2)	1,813 (59)	877 (28)	353 (11)
Total	**959 (2)**	**35,424 (60)**	**14,568 (25)**	**7,726 (13)**

Figure 12. Likely source of COVID-19 infection by episode date, BC
January 15, 2020 (week 3) – January 9, 2021 (week 1)



** March 16: Travel related restrictions introduced.

G. Care facility outbreaks

As shown in **Table 4** and **Figure 13**, 271 care facility outbreaks were reported in total in BC to the end of week 1. There were 4 new care facility outbreaks reported in week 1 (2 of which were reported by FHA, 1 by VIHA and 1 by NHA). Facility outbreak tallies by earliest onset date are highest thus far in week 46 (29 outbreaks).

Thirty-five of the 55 deaths in total (64%) reported in week 1 in BC involved adults in a care facility setting in FHA (22 deaths), IHA (8 deaths), VCHA (4 deaths), and NHA (1 deaths). Of the 35 deaths, 34 were elderly adults 70+ years.

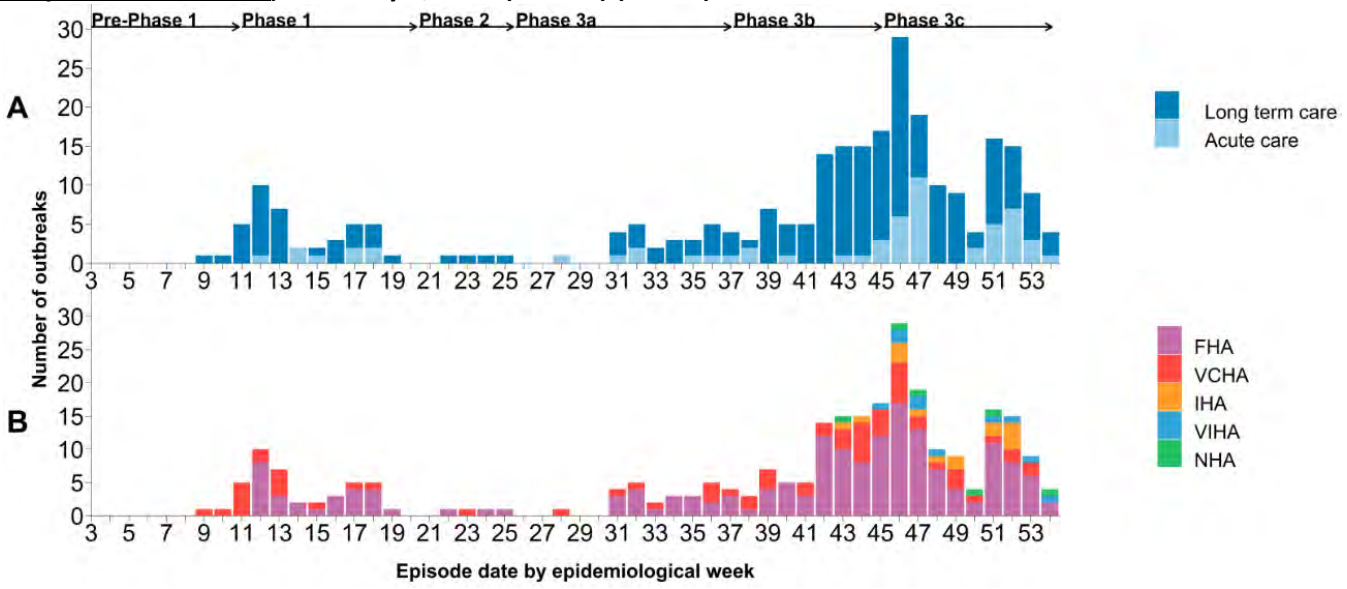
Of 38,053 cases overall in BC with episode date in Phase 3c, 3,456 (9%) were associated with a care facility outbreak, a proportion more than double Phase 3a and 3b combined (728/17,716; 4%), but lower than before Phase 3a (609/2,908; 21%).

Almost three-quarters of all COVID-19 deaths in BC have been associated with care facility outbreaks (739/1,012; 73%). Of those 739 facility outbreak-associated deaths, more than three-quarters have occurred since the week 38 start of Phase 3b (580; 78%).

Table 4. COVID-19 care facility outbreaks[a] and associated cases and deaths by phase of episode date, BC January 15, 2020 (week 3) – January 9, 2021 (week 1) (N=271)

	Outbreaks	Cases				Deaths			
		Residents	Staff/ other	Unknown	Total	Residents	Staff/ other	Unknown	Total
Total	**271**	**2,917**	**1,872**	**7**	**4,796**	**739**	**0**	**0**	**739**
Pre-/Phase One (17 weeks)	44	330	213	0	543	97	0	0	97
Phase 2 (5 weeks)	4	51	18	0	69	24	0	0	24
Phase 3a (11.5 weeks)	27	92	93	0	185	38	0	0	38
Phase 3b (8 weeks)	81	276	266	1	543	31	0	0	31
Phase 3c (8 weeks, excluding week 1)	111	1,960	1198	5	3,163	514	0	0	514
Week 1	4	208	84	1	293	35	0	0	35
Active outbreaks[b]	66	-	-	-	-	-	-		-
Outbreaks declared over[b]	205	-	-	-	-	-	-		-

Figure 13. COVID-19 care facility outbreaks[a] by earliest case onset[c], facility type (A) and health authority (B), BC January 15, 2020 (week 3) – January 9, 2021 (week 1) (N=269)[d]



a. Long term care facilities include: group homes (community living), independent living, assisted living, and other residential facilities. Care facility (acute/long-term care/independent living) outbreaks have at least one lab-confirmed COVID-19 staff or resident.
b. As of January 9, 2021.
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
d. Difference of 2 outbreaks as compared to table 4 due to missing information in source data.

H. Clinical indicators

HealthLinkBC calls (**Figure 14**) related to COVID-19 peaked in week 47 at ~15,000 calls per week and decreased in later weeks, reaching just over 7,000 calls in weeks 52 and 53. Calls have increased again to ~8,800 calls in week 1.

BC Medical Services Plan (MSP) general practitioner claims (**Figure 15**) related to COVID-19 (including telehealth billings) mirror HealthLinkBC calls. Claims peaked in week 48 and decreased thereafter to around 3,300 visits in weeks 52-53, coinciding with the holidays. Visits increased again reaching >5,000 visits in week 1.

Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – January 9, 2021 (week 1)

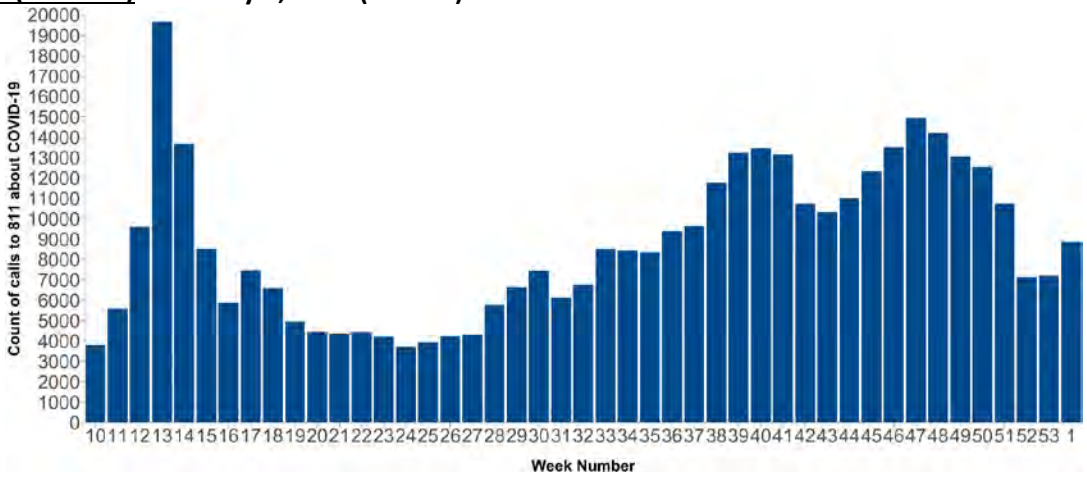
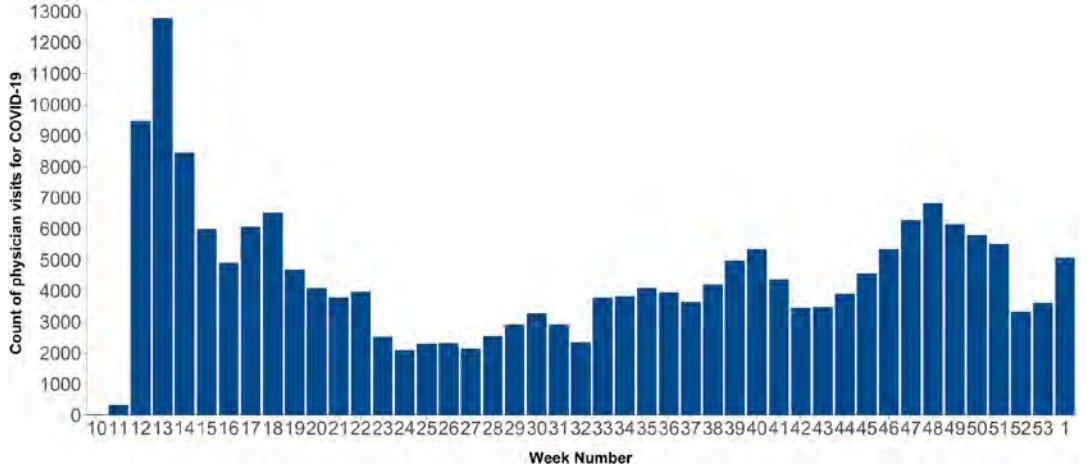


Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – January 9, 2021 (week 1)



I. Emerging Respiratory Pathogens Update

Recent emerging COVID-19 variants of concern have been identified globally, including the United Kingdom (UK), South Africa, Nigeria, Malaysia, Argentina/Brazil, and most recently the United States variants. More than 50 countries have reported confirmed cases with the UK variant (B.1.17) and more than 15 countries reported cases with the South African variant (501Y.V2), both appearing to have a potential for increased transmissibility.

BC has identified four confirmed cases with the UK variant, two of which reported travel outside of Canada, while the remaining two cases were associated close contacts. BC has identified one case with the South African variant. The case reported no travel outside Canada or contact with anyone who travelled.

COVID-19 IN BC

This is **EXHIBIT "** **"** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

COVID-19: Monthly Update

November 12, 2020

Stay Informed Via These Resources:
gov.bc.ca/Covid-19 | **bccdc.ca** | **1-888-COVID19**

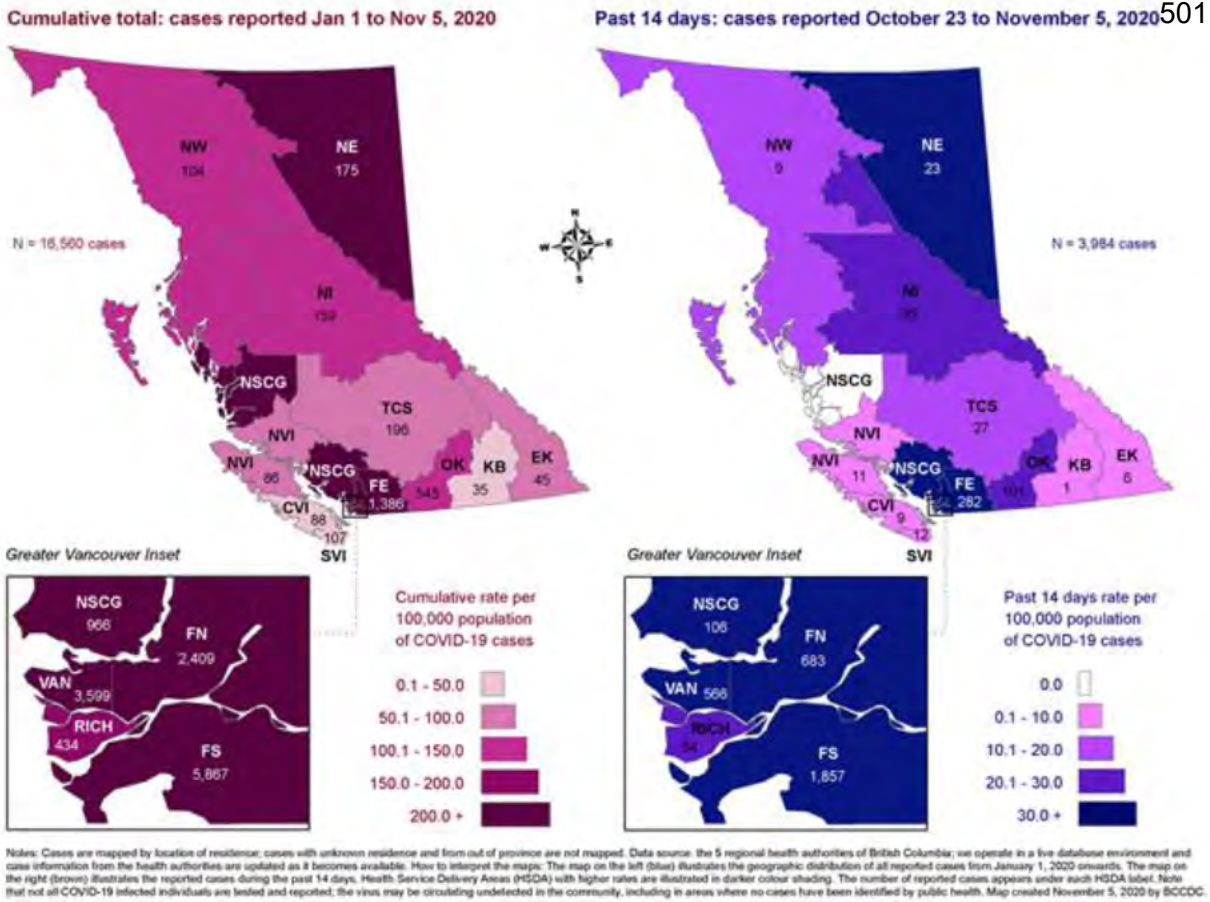
Symptom Self-Assessment:
covid19.thrive.health

BRITISH COLUMBIA

Epidemiology

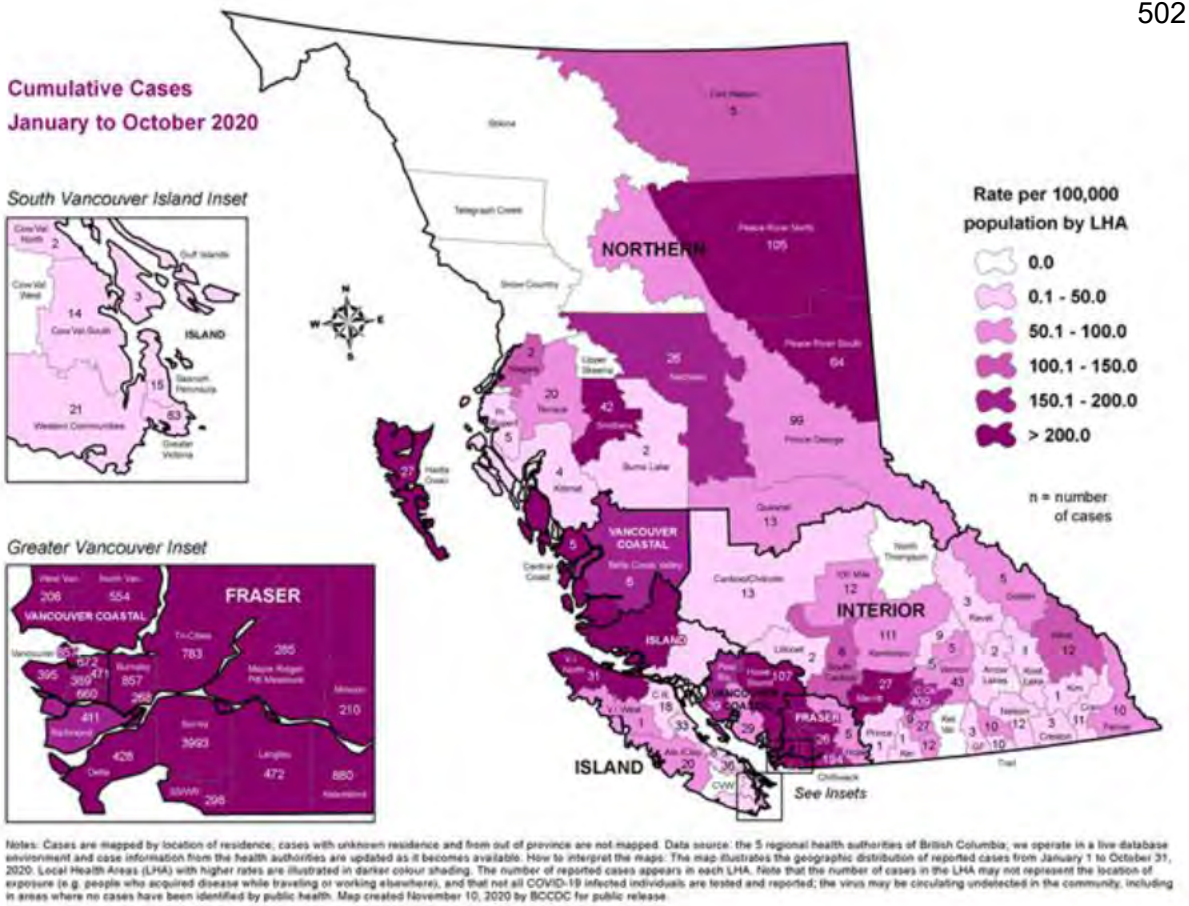
How and Where the Virus Has Affected People in BC

Geographic Distribution of COVID-19 by Health Service Delivery Area of Case Residence



Notes: Cases are mapped by location of residence; cases with unknown residence and from out of province are not mapped. Data source: the 5 regional health authorities of British Columbia; we operate in a live database environment and case information from the health authorities are updated as it becomes available. How to interpret the maps: The map on the left (blue) illustrates the geographic distribution of all reported cases from January 1, 2020 onwards. The map on the right (brown) illustrates the reported cases during the past 14 days. Health Service Delivery Areas (HSDA) with higher rates are illustrated in darker colour shading. The number of reported cases appears under each HSDA label. Note that not all COVID-19 infected individuals are tested and reported; the virus may be circulating undetected in the community, including in areas where no cases have been identified by public health. Map created November 5, 2020 by BCCDC.

Geographic Distribution of Cumulative COVID-19 by Local Health Area of Case Residence



Notes: Cases are mapped by location of residence; cases with unknown residence and from out of province are not mapped. Data source: the 5 regional health authorities of British Columbia; we operate in a live database environment and case information from the health authorities are updated as it becomes available. How to interpret the maps: The map illustrates the geographic distribution of reported cases from January 1 to October 31, 2020. Local Health Areas (LHA) with higher rates are illustrated in darker colour shading. The number of reported cases appears in each LHA. Note that the number of cases in the LHA may not represent the location of exposure (e.g. people who acquired disease while traveling or working elsewhere), and that not all COVID-19 infected individuals are tested and reported; the virus may be circulating undetected in the community, including in areas where no cases have been identified by public health. Map created November 10, 2020 by BCCDC for public release.

Weekly Profile of COVID-19 Cases

18,246	total cases
3,121	new this week

49	% female sex
37	median age

1,151	ever hospitalized
116	new this week

6	% cases hospitalized
64	median age

284	deaths
7	new this week

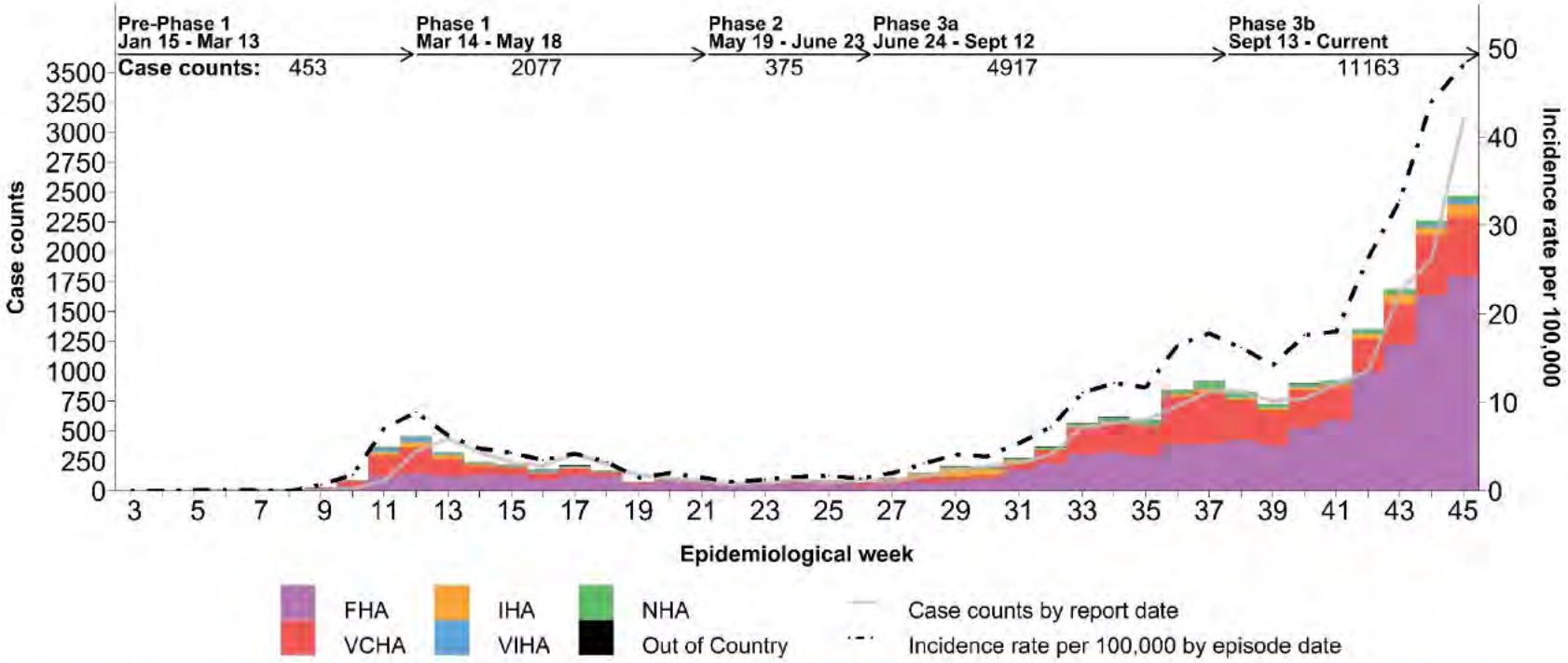
2	% cases died
85	median age

13,688	removed from isolation
374	new this week

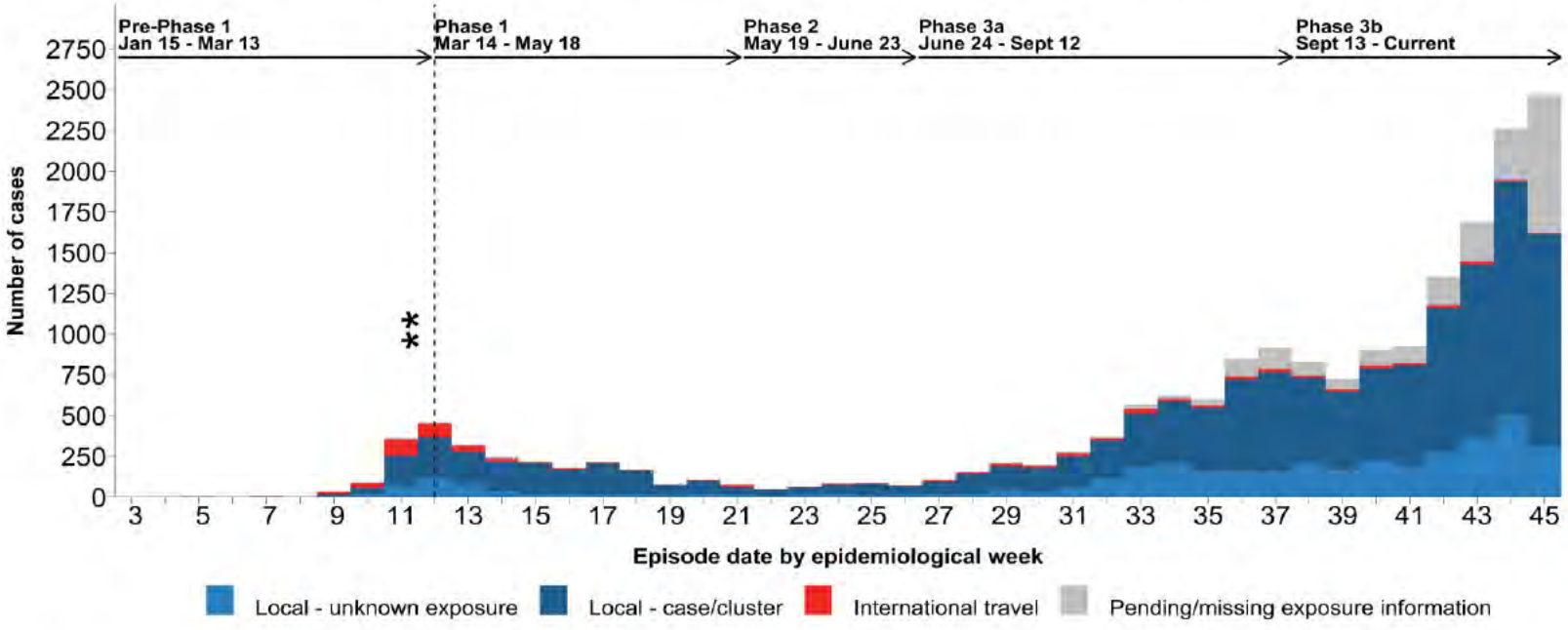
72	% cases removed
4,891	active cases

Note: Weekly comparison represents provincial data from November 1 - Nov 7 compared to October 25 - October 31, 2020.

Epidemic Curve, COVID-19 Cases in BC by Reported Date
January 15 – November 7, 2020

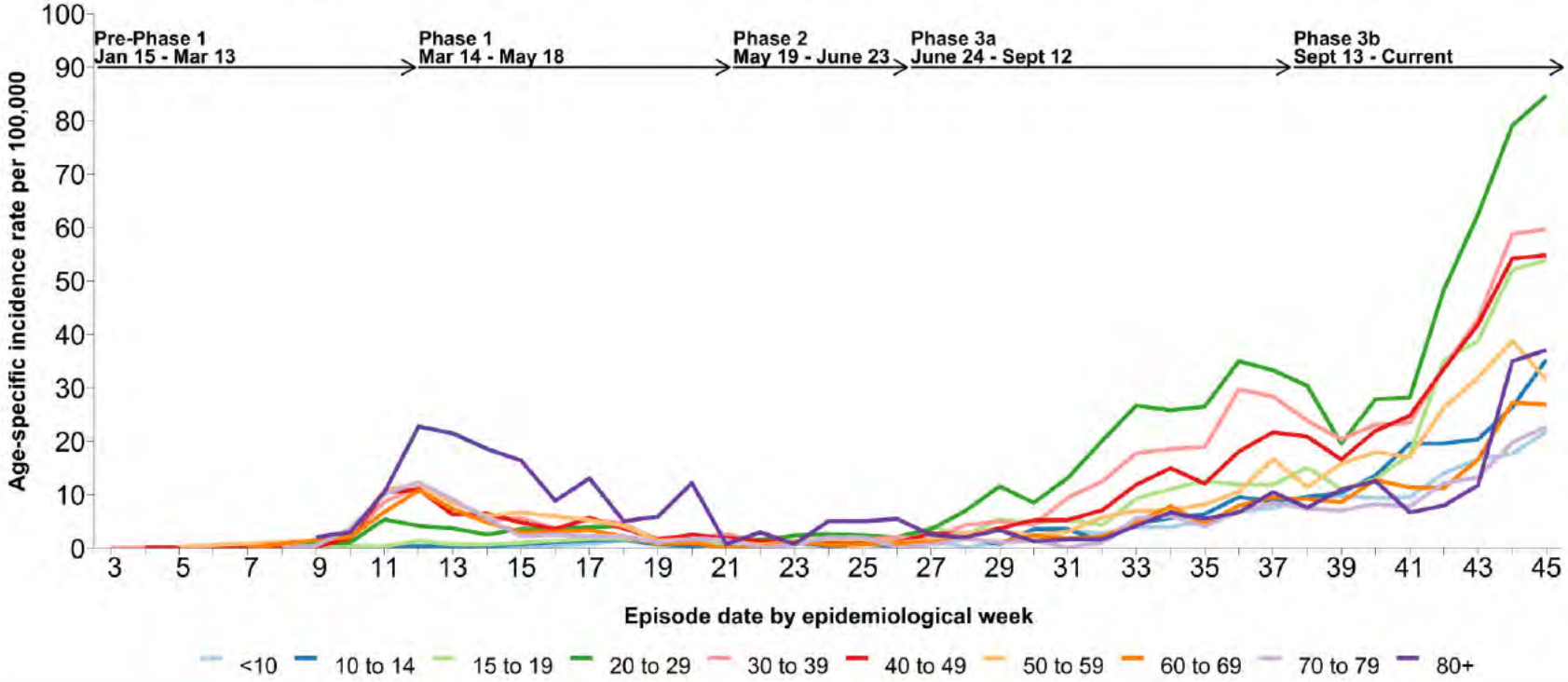


Likely Source of Infection for Cases by Episode Date, January 15 – November 7, 2020

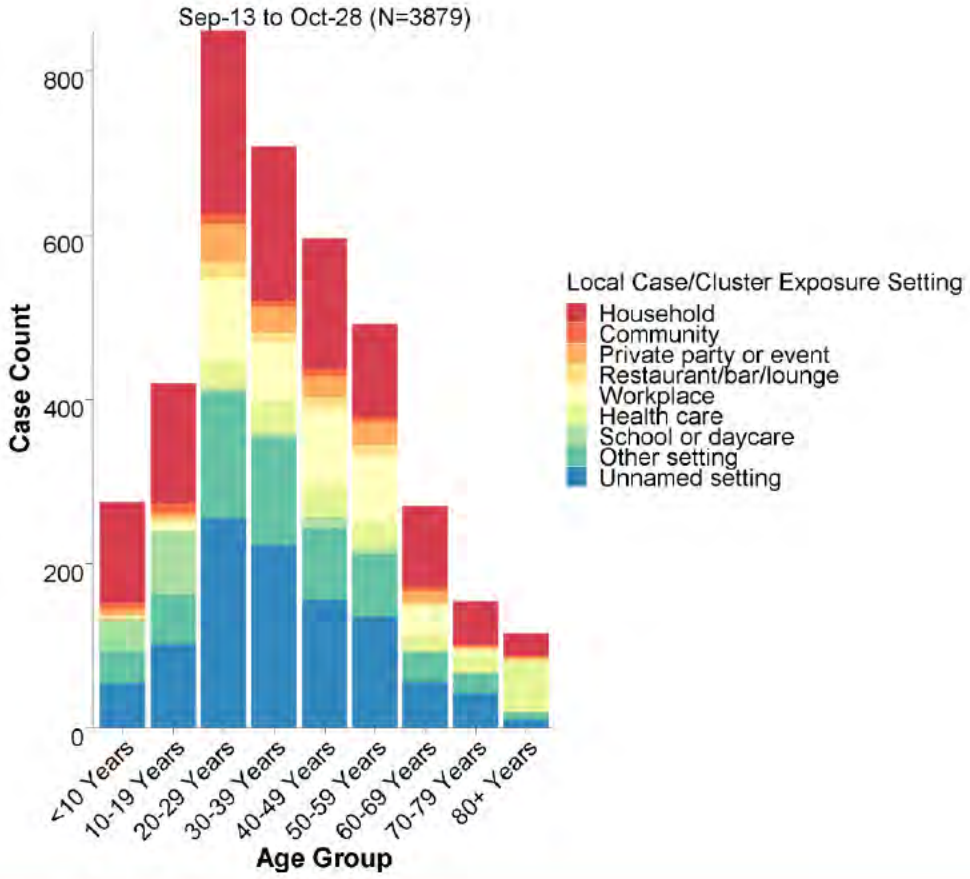


** March 16: Entry of foreign nationals banned; symptomatic individuals banned from flights to Canada; international flights restricted to four national airports.*
*** March 20: US/Canada border closed to non-essential travel.*

Age-Specific Incidence Rates Per 100,000 Population
January 15 (Week 3) – November 7, 2020 (Week 45)



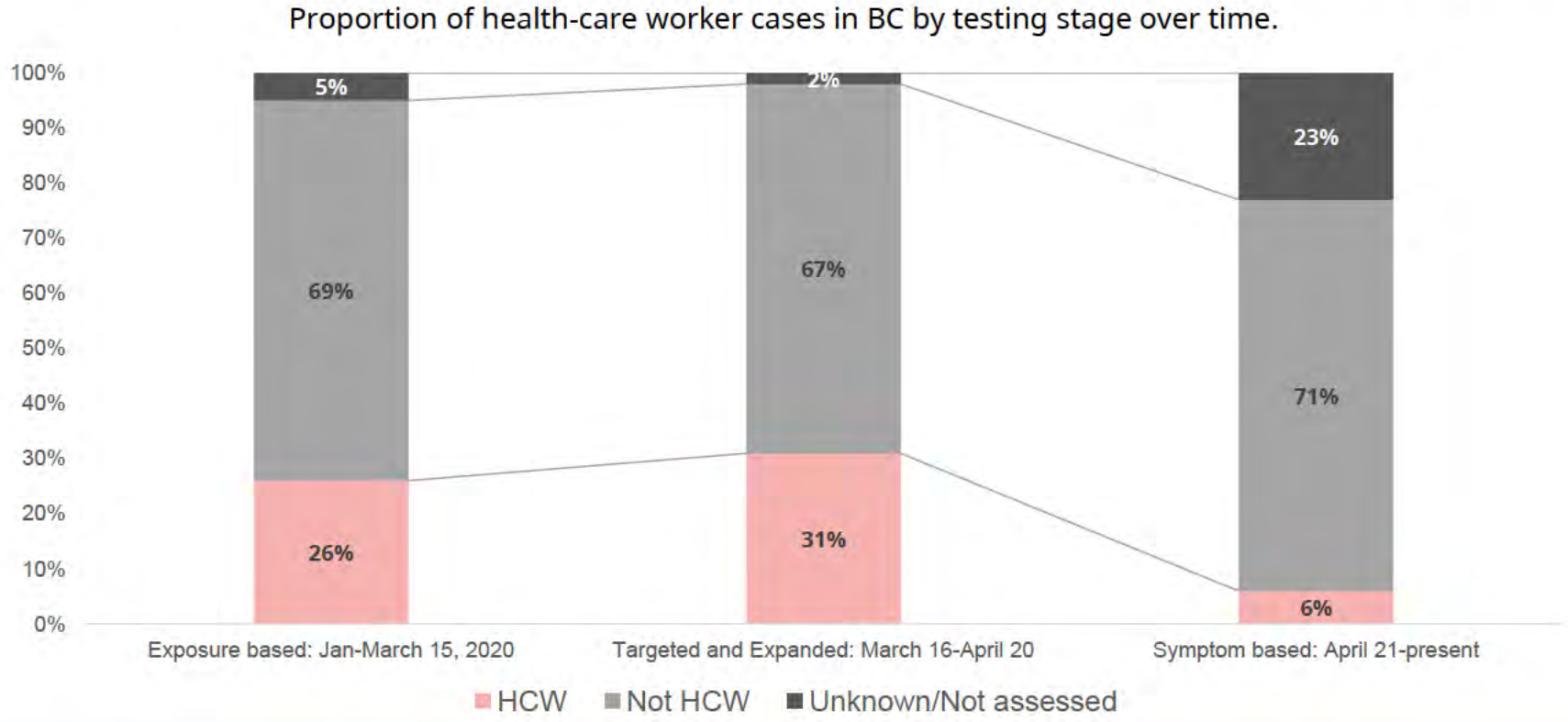
Exposure Settings By Age Group in Phase 3b (September 13 - October 28)



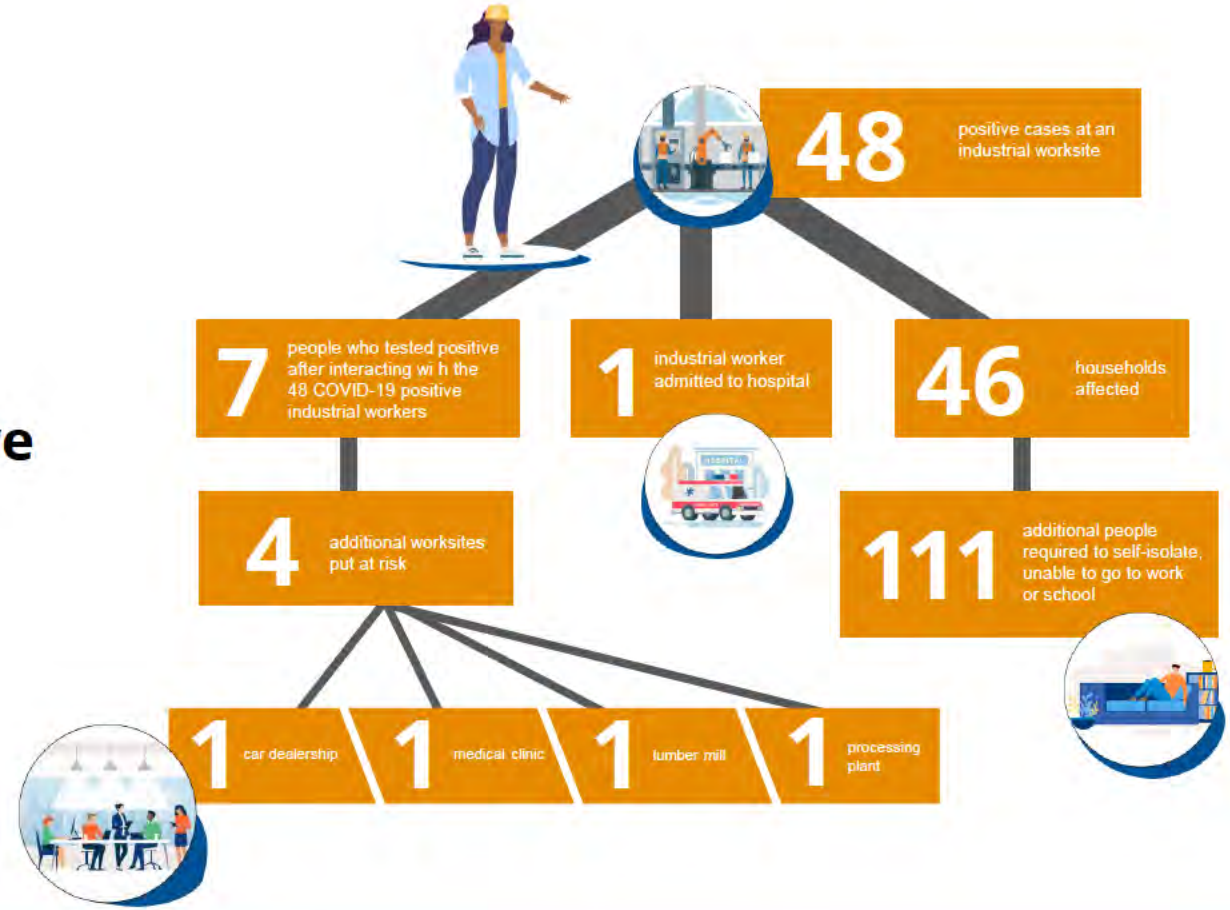
1 in 10 Individuals Who Had COVID-19 Identified as Health-Care Workers (HCW)

Health-care worker role	Number (n)	Proportion (%)
Nurse	215	18.3
Care aide	201	17.1
Dental professional	83	7.1
Administrative	65	5.5
Licensed practical nurse (LPN)	55	4.7
Physician	50	4.3
Housekeeping	30	2.6
Kitchen staff	23	2
Laboratory technician	17	1.4
Student	17	1.4
Emergency medical personnel	14	1.2
Lab technician	1	0.1
Student (medical, dental, nursing, lab)	1	0.1
Volunteer	1	0.1
Other	308	26.3
Unknown	92	7.8
Total	1173	100

The Proportion of Health-Care Worker Cases Has Declined Over Time



From Just One COVID-19 Positive Employee...

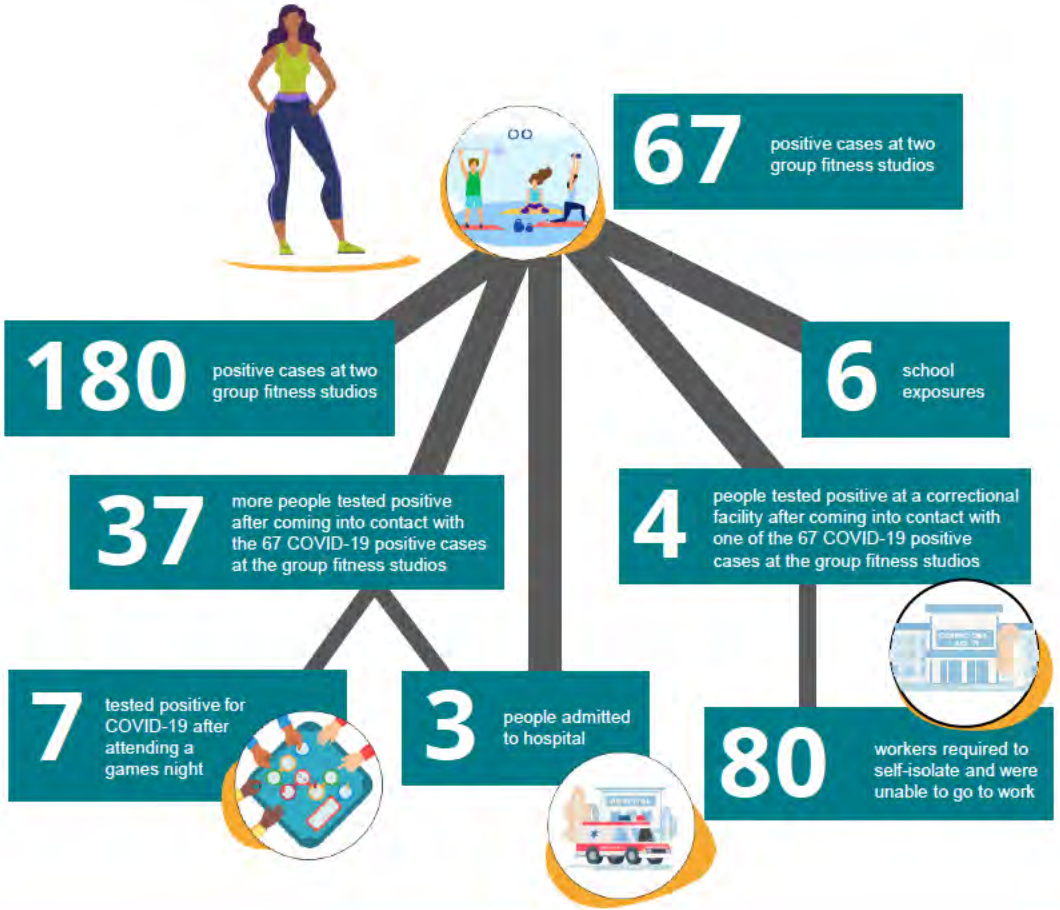


Based on actual case data.

From Just One COVID-19 Positive Wedding Guest...

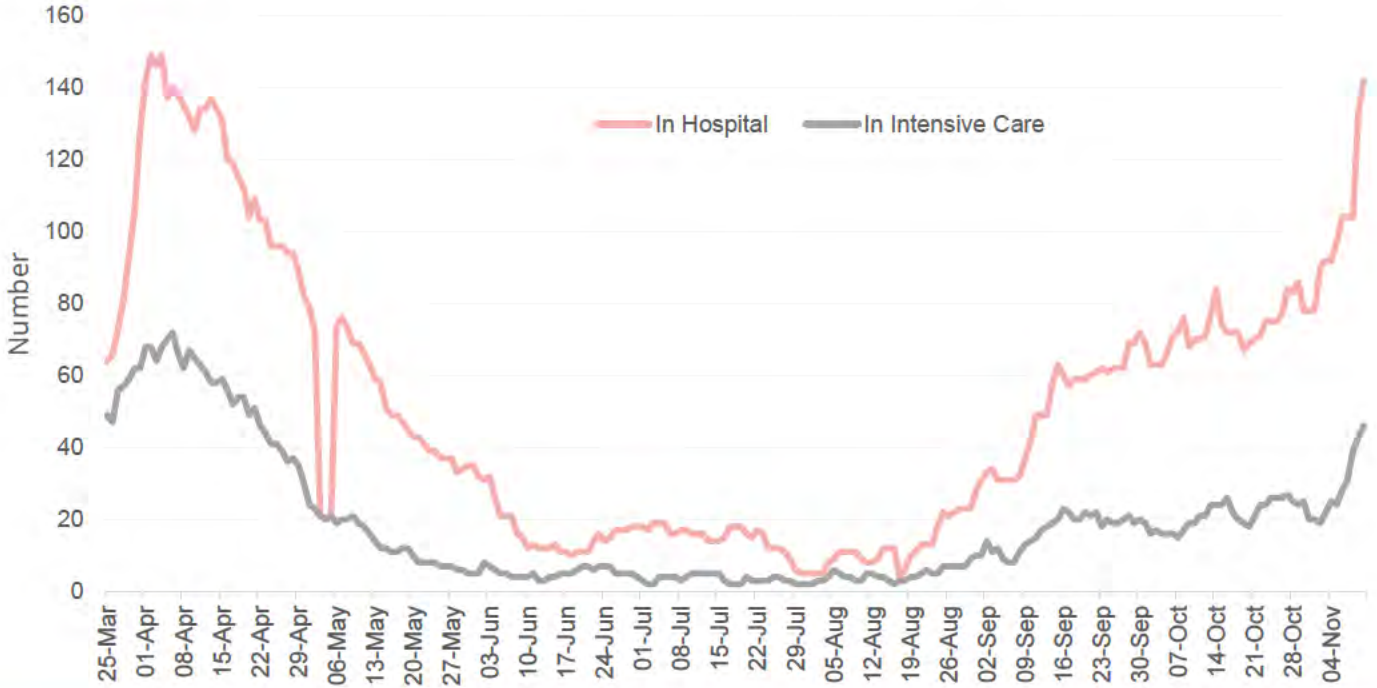
Based on actual case data.

From Just One COVID-19 Positive Person at a Fitness Class...

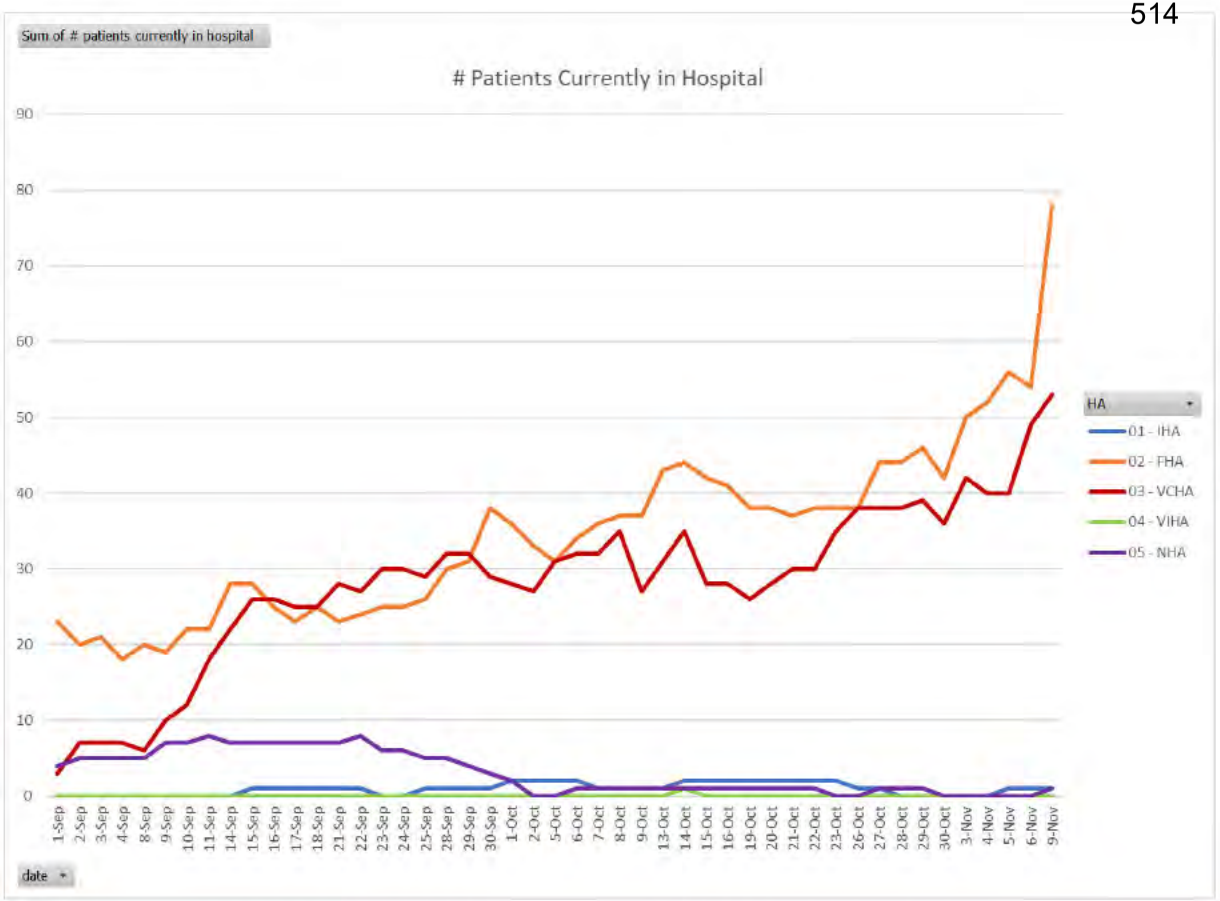


Based on actual case data.

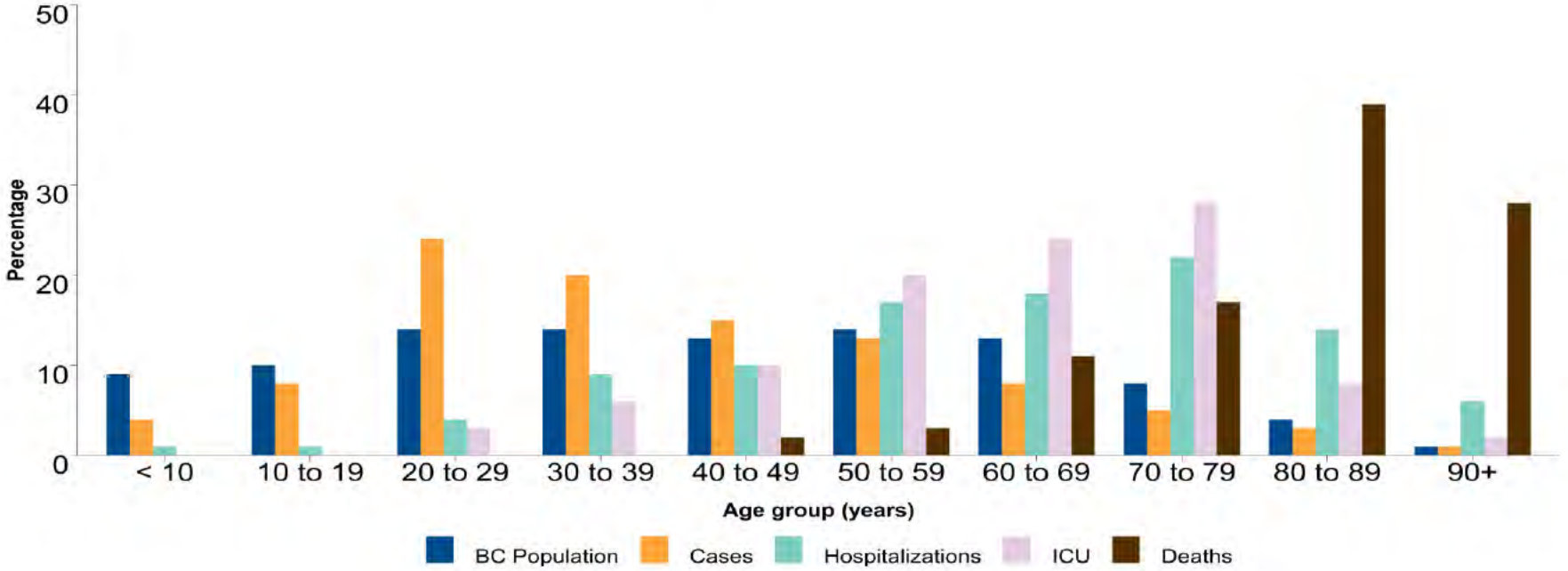
COVID-19 Hospitalizations and Intensive Care Admissions in BC
March 25 - November 10, 2020



Hospitalizations by Health Authority



Percentage Distribution of COVID-19 Cases, Hospitalizations, ICU Admissions and Deaths by Age, Compared to BC Population



School Update

COVID-19 Testing and Cases Among School-aged Children

Most School-aged Children (5-18 Years) With Symptoms Do Not Have COVID-19

COVID cases and schools

1. 700,000+ students and educators are back to school
2. Some students, educators and staff have tested COVID +
3. Like earlier in the pandemic, school-aged children still <10% of cases

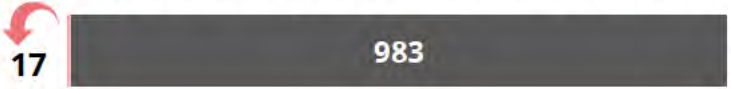
COVID testing in children and youth

1. Testing rates have increased:

2.5x From August To October

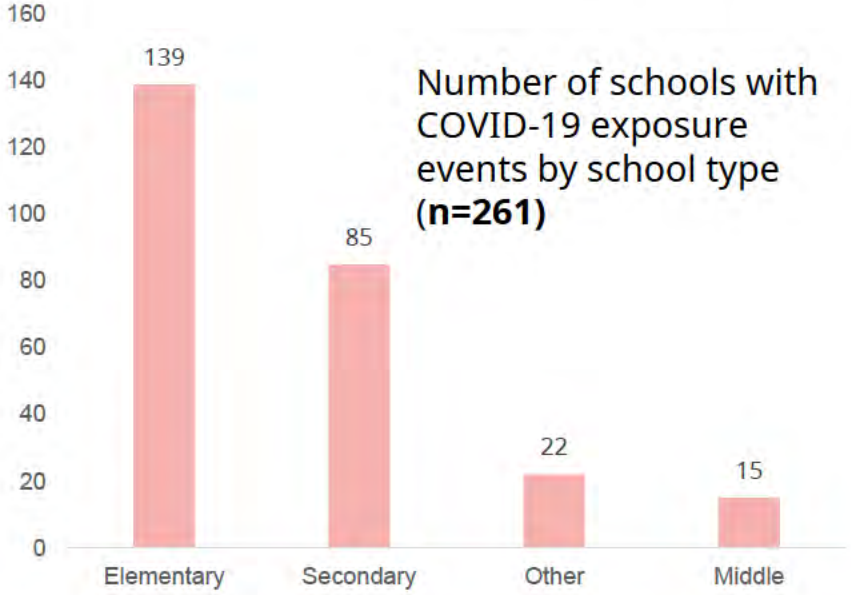
2. 6.4 in 10 tests now spit and gargle

3. Only 17 in 1000 tests are COVID +

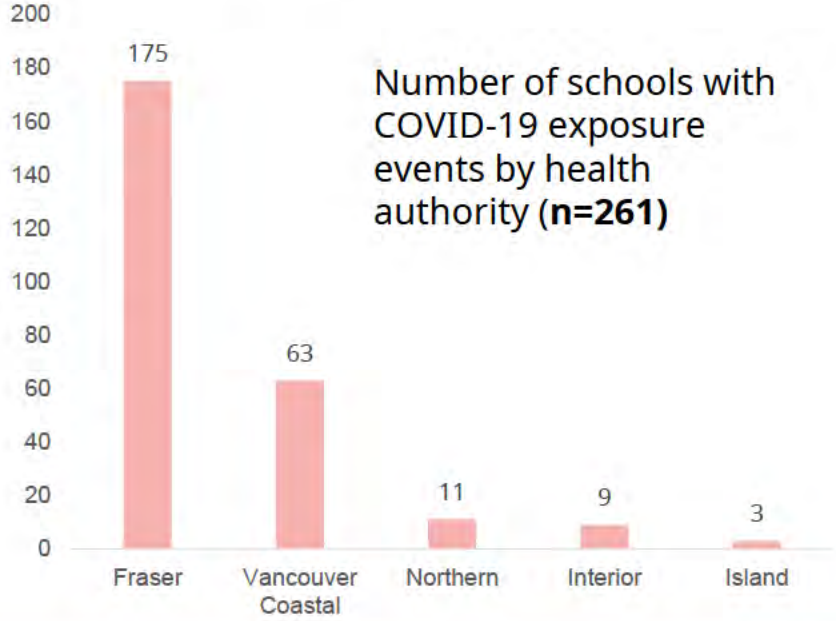


COVID-19 Exposures in a School Setting

As of Nov. 5, there have been 261 school exposures in BC's 1,942 schools. More than three quarter of BC schools are elementary schools. That means around 9 in 10 schools have not had a school exposure. The exposures represent both students and adults in the school community.

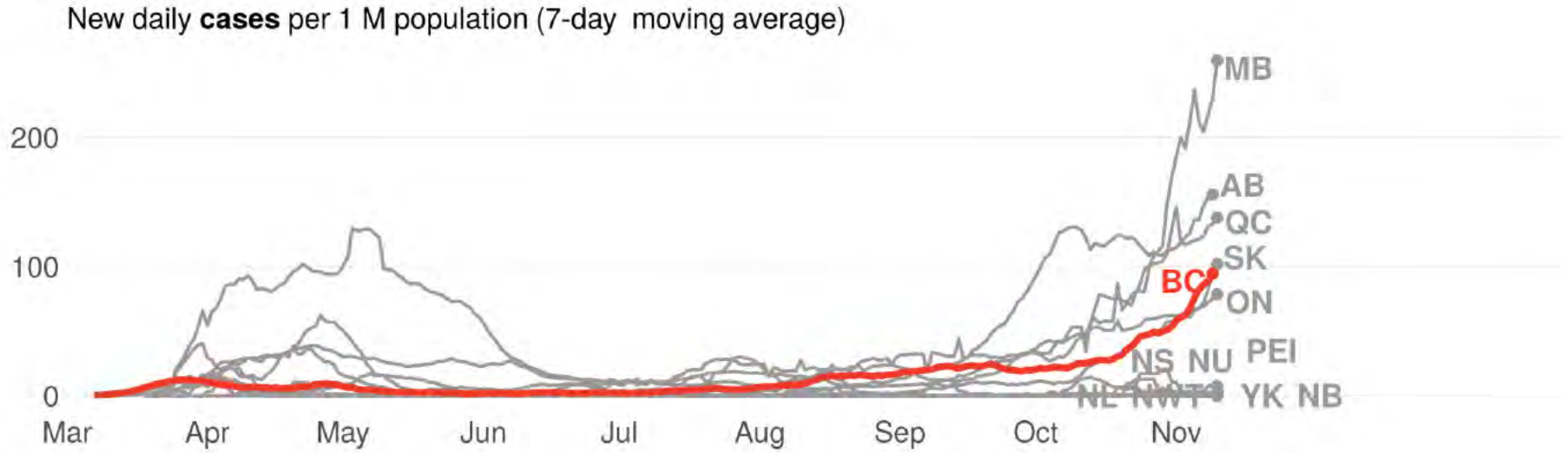


Number of schools with COVID-19 exposure events by school type **(n=261)**

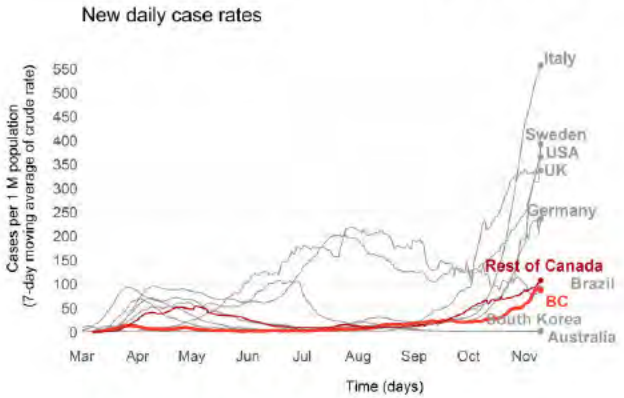


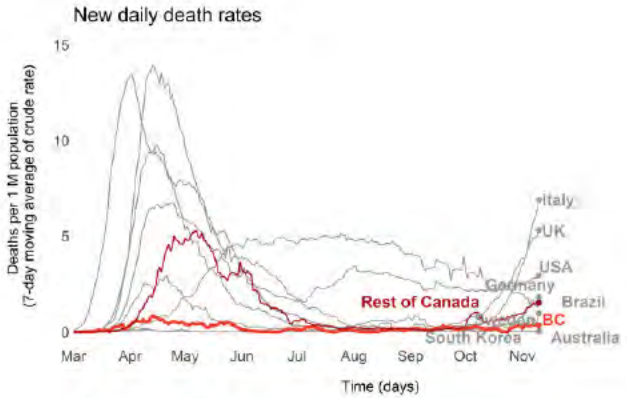
Number of schools with COVID-19 exposure events by health authority **(n=261)**

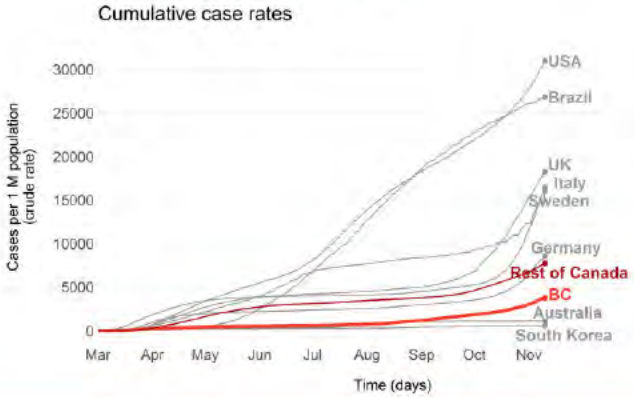
Daily Case Rates Across Canada

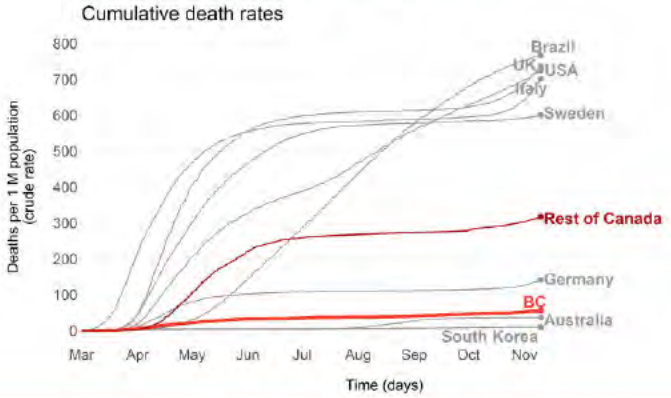


International Cases

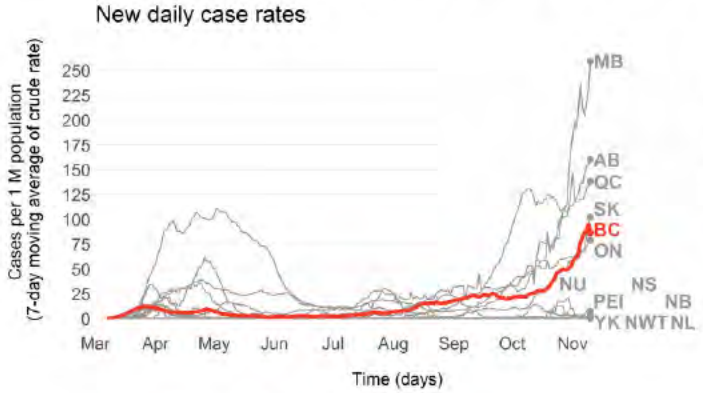


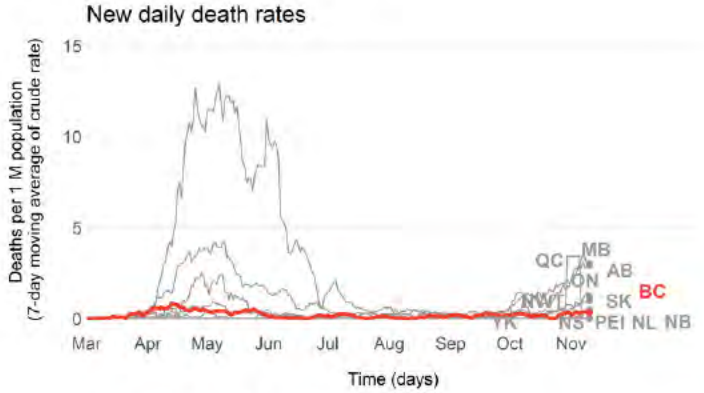


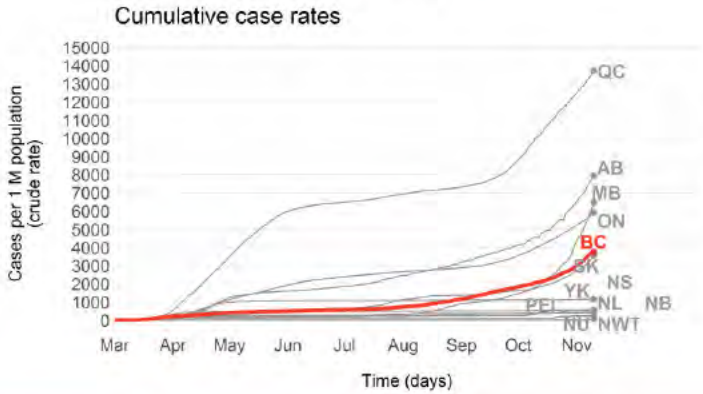


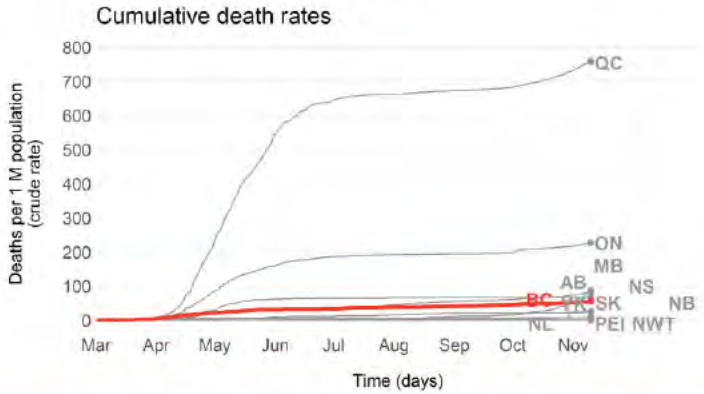


Cases and Deaths in Canada









Weekly Summary of COVID-19 Lab Testing

917,030	total specimens tested
64,439	new this epi week

⬆ 7% from last week

20,963	total positive specimens
3,476	new positive this epi week

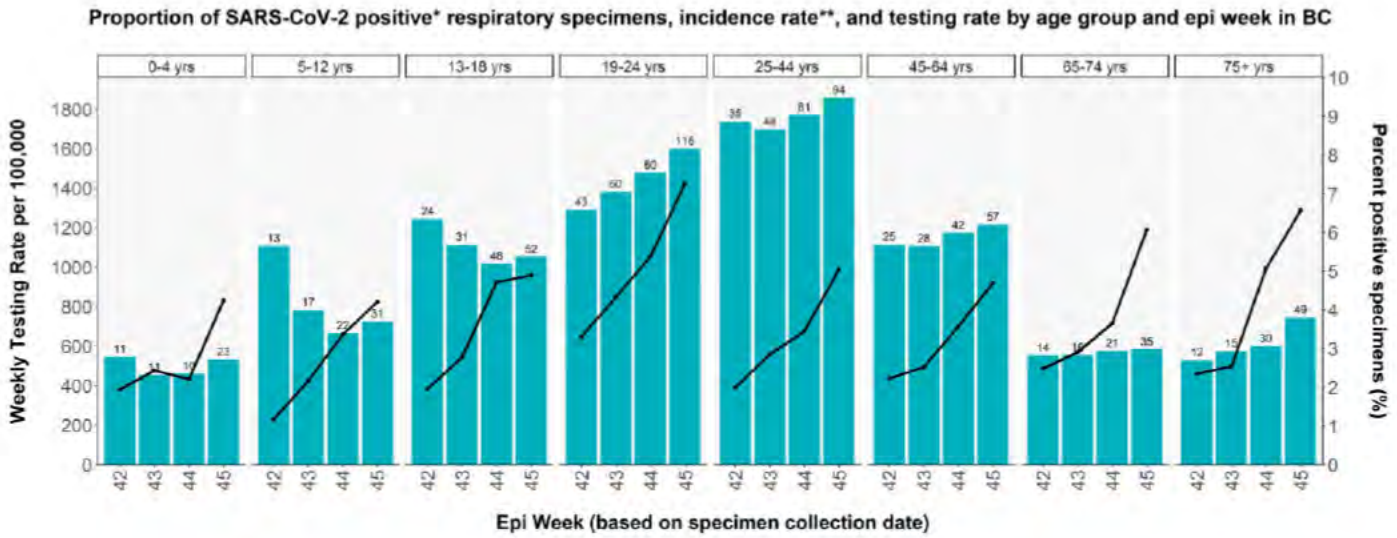
5.4% positivity
⬆ 42% from last week

26 hr	mean turnaround time (TAT)
24 [19-31]	Median [Q1 – Q3] TAT

⬆ 1% TAT from last week

Data source: PLOVER extract at 10:30am on Nov 12, 2020. Integrated Lab Data extract at 10:30am on Nov 12, 2020. Epi week 45 (Nov 1-7)

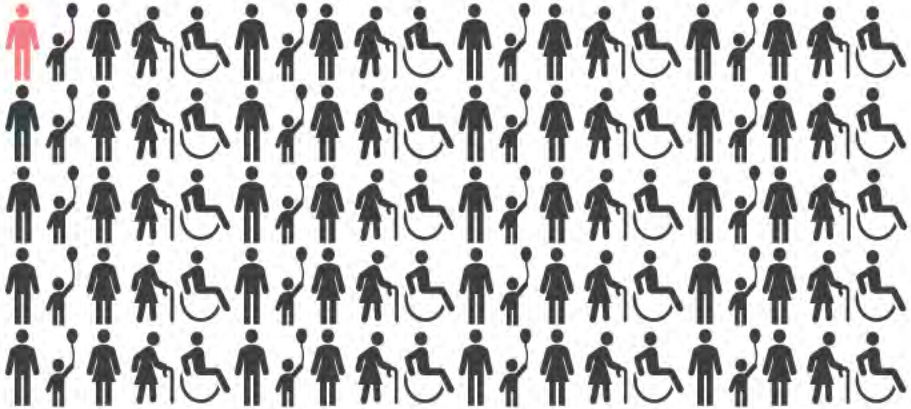
Proportion of SARS-CoV-2 Positive* Respiratory Specimens and Testing Rate by Age Group And Epi Week in BC



By September, COVID-19 Sero-Prevalence Still Low in BC, at About 1%

About **1 in 100** residents tested antibody positive in September

After June re-opening, BC successfully controlled community transmission this summer



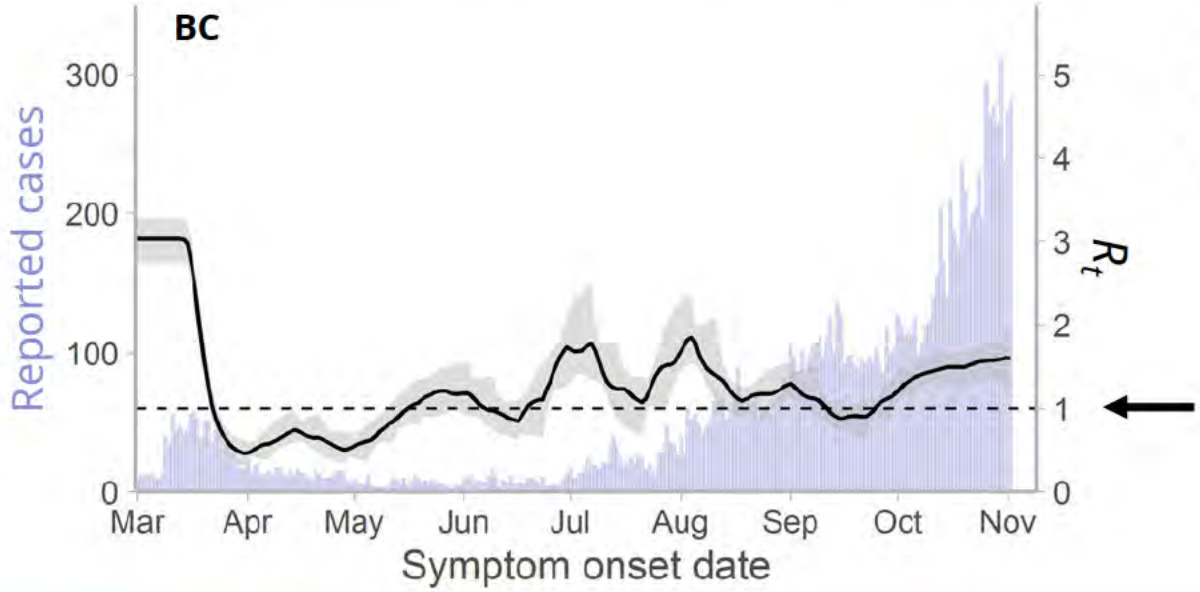
2000 anonymized residual samples from Lower Mainland residents of all ages were tested for antibodies in September

19 of 2000 (1%) overall tested positive
8 of 400 (2%) aged 20-39 years positive

Antibody screening study led by Drs. Danuta Skowronski and Mel Krajden of the BC Centre for Disease Control (BCCDC) and BCCDC Public Health Laboratory (PHL), in partnership with LifeLabs. Funded by the Michael Smith Foundation for Health Research and the Public Health Agency of Canada (PHAC). Views expressed herein do not necessarily represent the views of PHAC.

Dynamic Compartmental Modelling: Recent Trends

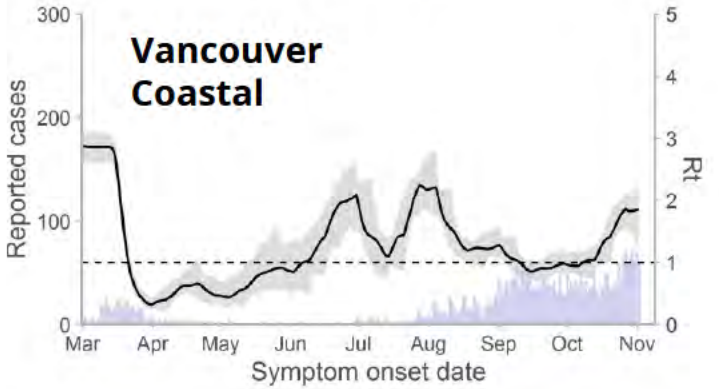
Provincially, our model-based estimate of R_t (average daily number of new infections generated per case) remains above 1.

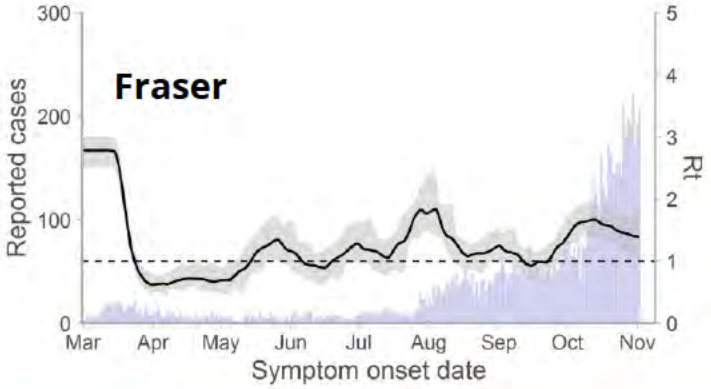


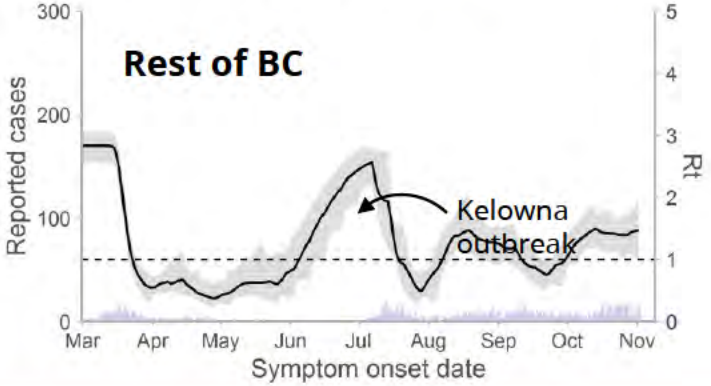
Solid black line: median R_t based on data up to Nov 9, 2020; Grey band: 5%-95% credible interval; Purple bars: reported cases, excluding reportable outbreaks.

Dynamic Compartmental Modelling: Recent Trends

Our model suggests that R_t is now close to or above 1 in several regions of BC.

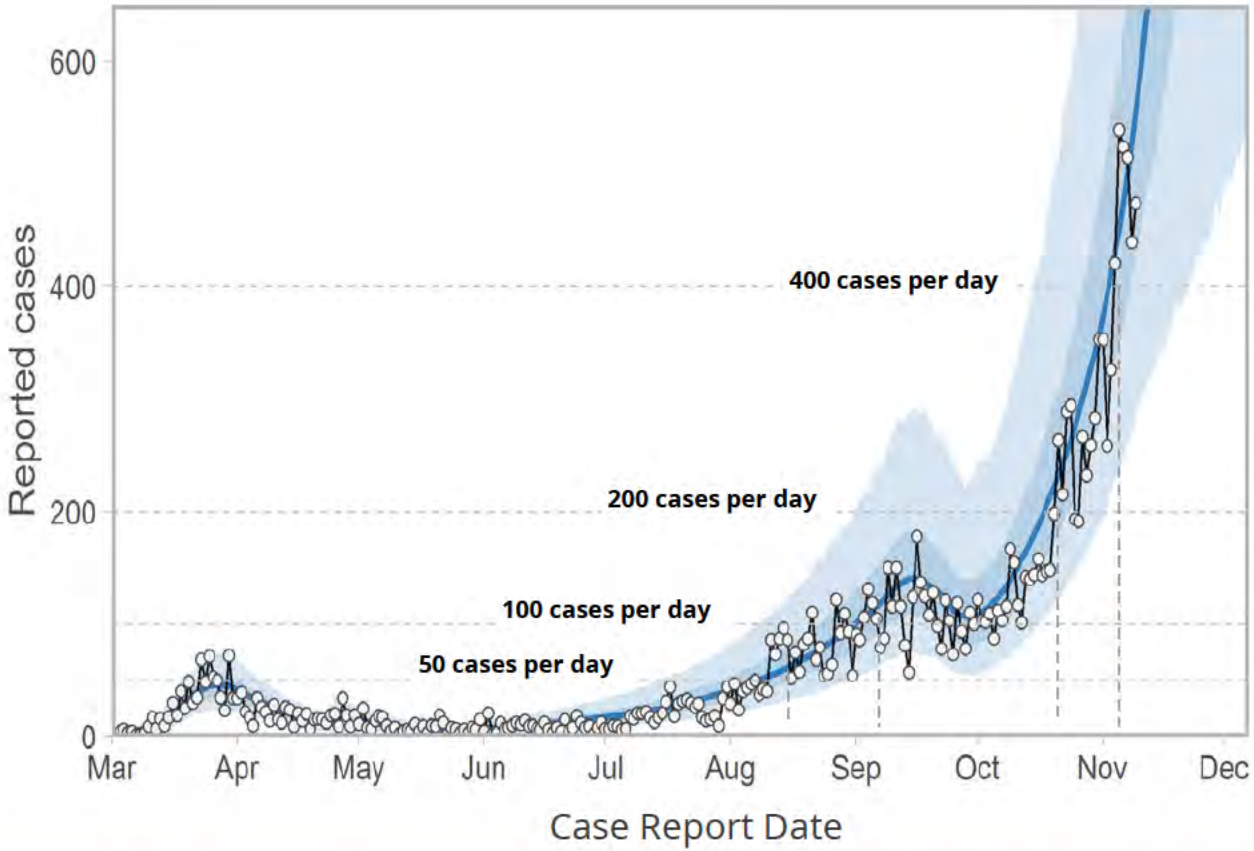






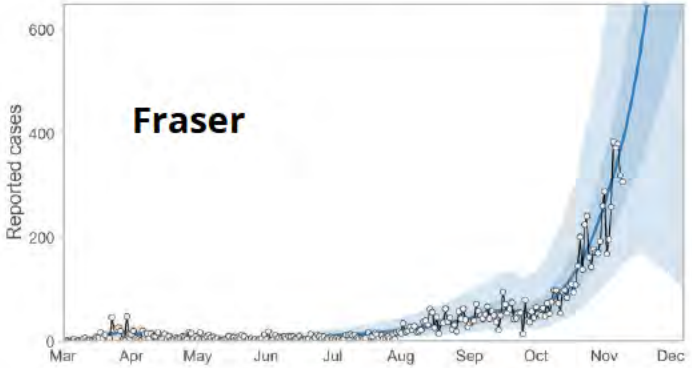
Dynamic Compartmental Modelling: Recent Trends

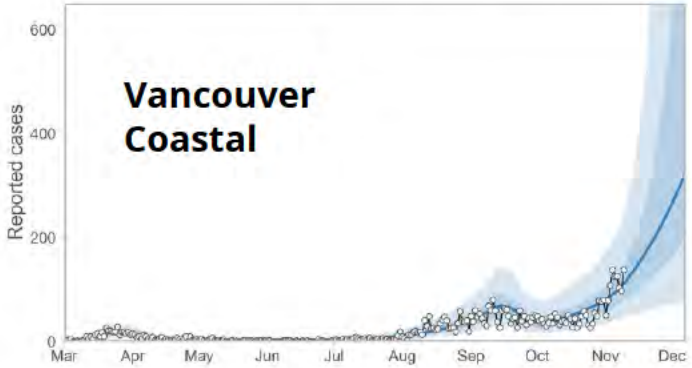
Current estimated doubling time:
13 days

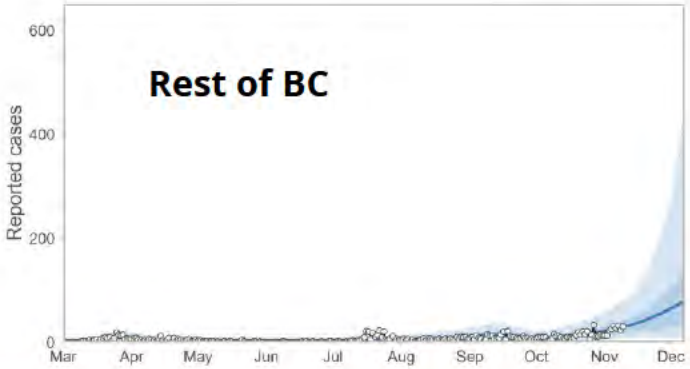


Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, excluding reportable outbreaks, March 1 – Nov 9, 2020.

Dynamic Compartmental Modelling: Recent Trends







Health Human Resources

Health Human Resources – Contact Tracing

- Significant progress made to hire contact tracers across the province, in particular in the Lower Mainland. This week alone an additional **56 roles** were filled.
- To date, **636** individuals have been hired – more than the 500 initially announced in August, and 608 announced in September.
- In addition, government has recently approved increases to several health authorities, bringing the total number to be hired to over 800.
- Contact tracers can be deployed to regions most in need.

Health Authority	Hired to Date	In interview/ offer stage
Fraser Health	237	86
Interior Health	24	15
Northern Health	22	0
Vancouver Coastal Health	181	71
Vancouver Island Health	47	0
Provincial Health Services Authority	125	0
Total	636	172

Health Human Resources Supporting Seniors

Visitation and Infection Prevention Control: 2000 FTEs

- Funding has been provided to operators and recruitment is ongoing
- As of Nov. 9, approximately **826 FTEs** have been hired across all health authorities

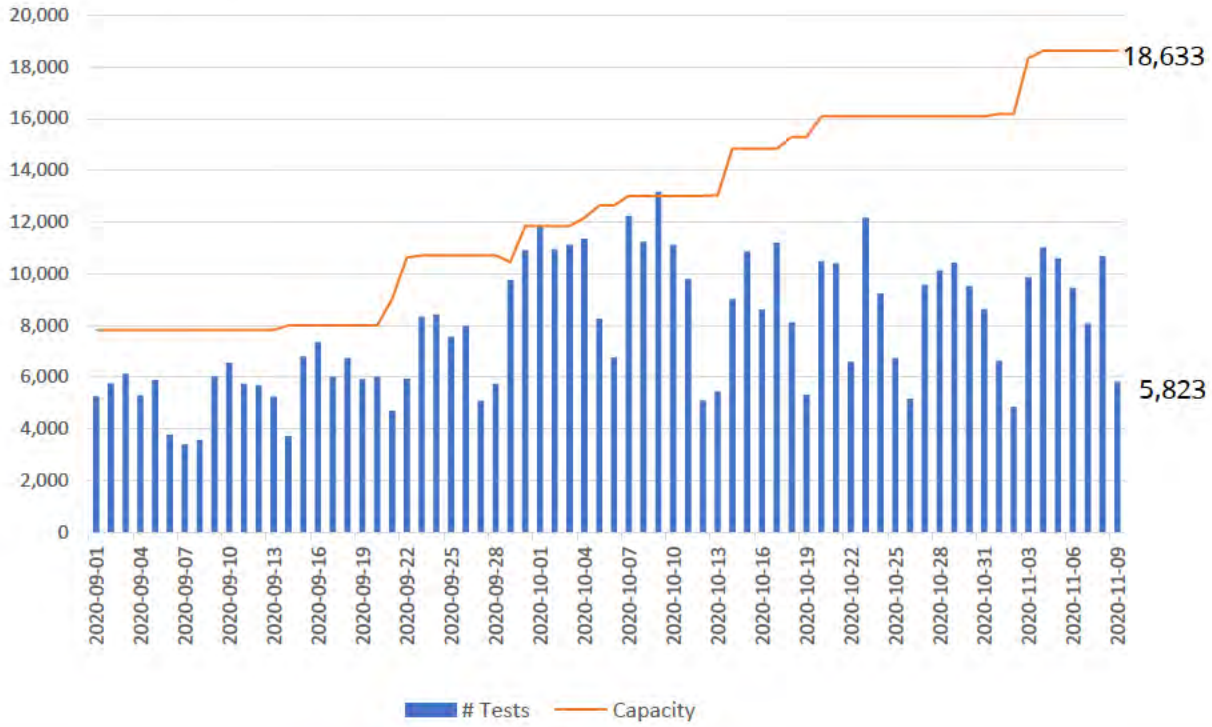
Health Career Access Program (HCAP):

- **8,949** participants have expressed interest in the program and nearly **5,000** have undergone a preliminary interview/screening process.
- **So far, 360 sites out of 564** have expressed interest in becoming HCAP employers. Regional allocation plans are now being finalized. Ministry officials continue to work with remaining operators to support their participation in HCAP.
- **101 health-care support worker positions** have already been allocated across BC through early adopter cohorts. Training is being done in collaboration with 5 post-secondary institutions: Selkirk College, College of New Caledonia, Langara College, Vancouver Community College and North Island College.

Lab Services Capacity

Province Testing and Capacity

Testing capacity has steadily increased and can easily accommodate an increase in testing if required.



Hospital Capacity

Hospital Occupancy Rates as of Nov.9, 2020

HA	Current Occupancy Rate (Base Beds)	Vacant Base Beds	Base Beds	Surge Occupancy Rate	Vacant Surge Beds	Surge Beds	Grand Total Occupancy Rate (Base+Surge)	Grand Total Vacant Beds (Base+Surge)	Grand Total Beds (Base+Surge)
FHA	93.4%	89	1339	0.0%	431	431	70.6%	520	1770
IHA	93.5%	77	1192	0.0%	278	278	75.9%	355	1470
NHA	93.0%	25	359	0.0%	133	133	67.9%	158	492
PHSA	67.3%	52	159	0.0%	50	50	51.2%	102	209
VCH	98.1%	32	1654	0.0%	843	843	65.0%	875	2497
VIHA	90.9%	116	1277	0.0%	59	59	86.9%	175	1336

Critical Care

Includes ICU,HAU, CSICU, CCU, PICU

Excludes NICU

HA	Current Occupancy Rate (Base Beds)	Surge Occupancy Rate	Vacant Surge Beds	Surge Beds	Grand Total Occupancy Rate (Base+Surge)	Grand Total Vacant Beds (Base+Surge)	Grand Total Beds (Base+Surge)
FHA	80.1%	0.0%	115	115	43.4%	142	251
IHA	82.1%	0.0%	23	23	64.5%	38	107
NHA	68.3%	0.0%	23	23	43.8%	36	64
PHSA	58.3%	0.0%	16	16	25.0%	21	28
VCH	88.4%	0.0%	82	82	55.5%	98	220
VIHA	58.8%		0	0	58.8%	40	97
Grand Total	**77.2%**	**0.0%**	**259**	**259**	**51.1%**	**375**	**767**

Surgical Renewal Commitment

Surgical Update

- On May 7, health authorities began calling all patients waiting for surgery to confirm that they were ready, willing, and able to proceed with their surgery in a COVID-19 environment.
- To date **107,789** patients have been contacted about their surgery with five of six health authorities having completed calls to all patients on the waitlist prior to May 7. Island Health expects to complete this work in the coming weeks.
- Health authorities resumed non-urgent surgeries on May 18 and have completed a combined total of **159,634** surgeries as of **Nov. 8, 2020,** of which **124,078** were urgent and non-urgent scheduled surgeries, and **35,556** were unscheduled or emergency surgeries.

Health Authority	Surgeries Completed Since May 18
Fraser Health	43,794
Interior Health	29,204
Northern Health	9,277
Vancouver Coastal Health	37,573
Vancouver Island Health	33,312
Provincial Health Services Authority	6,474

Weekly Surgical Updates

All HA Completed Cases:			
Week Inclusive of:	Scheduled	Unscheduled	Total
March 16-March 22	2,178	1,312	3,490
March 23-March 29	1,157	1,096	2,253
March 30-April 5	1,142	1,036	2,178
April 6-April 12	972	1,105	2,077
April 13 - April 19	991	1,238	2,229
April 20-April 26	1,277	1,268	2,545
April 27-May 3	1,432	1,300	2,732
May 4-May 10	1,508	1,301	2,809
May 11-May 17	1,766	1,457	3,223
May 18-May 24	2,603	1,382	3,985
May 25-May 31	4,004	1,380	5,384
June 1-June 7	4,780	1,430	6,210
June 8-June 14	5,154	1,385	6,539
June 15-June 21	5,312	1,364	6,676
June 22-June 28	5,577	1,432	7,009
June 29-July 5	4,060	1,437	5,497
July 6-July 12	5,178	1,435	6,613
July 13 - July 19	5,279	1,577	6,856
July 20-July 26	5,207	1,475	6,682
July 27-August 2	4,455	1,503	5,958
August 3-August 9	3,570	1,416	4,986
August 10-August 16	4,907	1,529	6,436
August 17-August 23	4,912	1,546	6,458
August 24-August 30	4,949	1,472	6,421
August 31-Sept 6	4,790	1,412	6,202
Sept 7-Sept 13	4,452	1,423	5,875
Sept 14-Sept 20	5,648	1,387	7,035
Sept 21-Sept 27	5,800	1,445	7,245
Sept 28-Oct 4	5,660	1,486	7,146
Oct 5-Oct 11	5,674	1,432	7,106
Oct 12-Oct 18	4,587	1,348	5,935
Oct 19-Oct 25	5,856	1,367	7,223
Oct 26-Nov 1	5,853	1,326	7,179
Nov 2-Nov 8	5,811	1,167	6,978
Cumulative total inclusive of March 16-May 17 (wrap up)	12,423	11,113	23,536
Cumulative total inclusive of May 18-November 8	124,078	35,556	159,634

Influenza Vaccine Update

BC has ordered 1,970,000 doses of influenza vaccine so far and is in the process of purchasing 271,600 additional doses.

This will provide a total of 2,241,600 doses of influenza vaccine, a 47% increase over last year.

HA	Total Doses Distributed as of Nov 1, 2019	Total Doses Distributed as of Nov 1, 2020
FHA	326,400	612,045
IHA	165,340	318,040
NHA	46,330	75,425
VCHA	332,840	529,100
VIHA	193,410	316,520
Total	1,064,320	1,851,130

COVID-19 IN BC

COVID-19: Monthly Update

November 12, 2020

COVID-19 IN BC

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

COVID-19:
Year to Date Summary

December 23, 2020

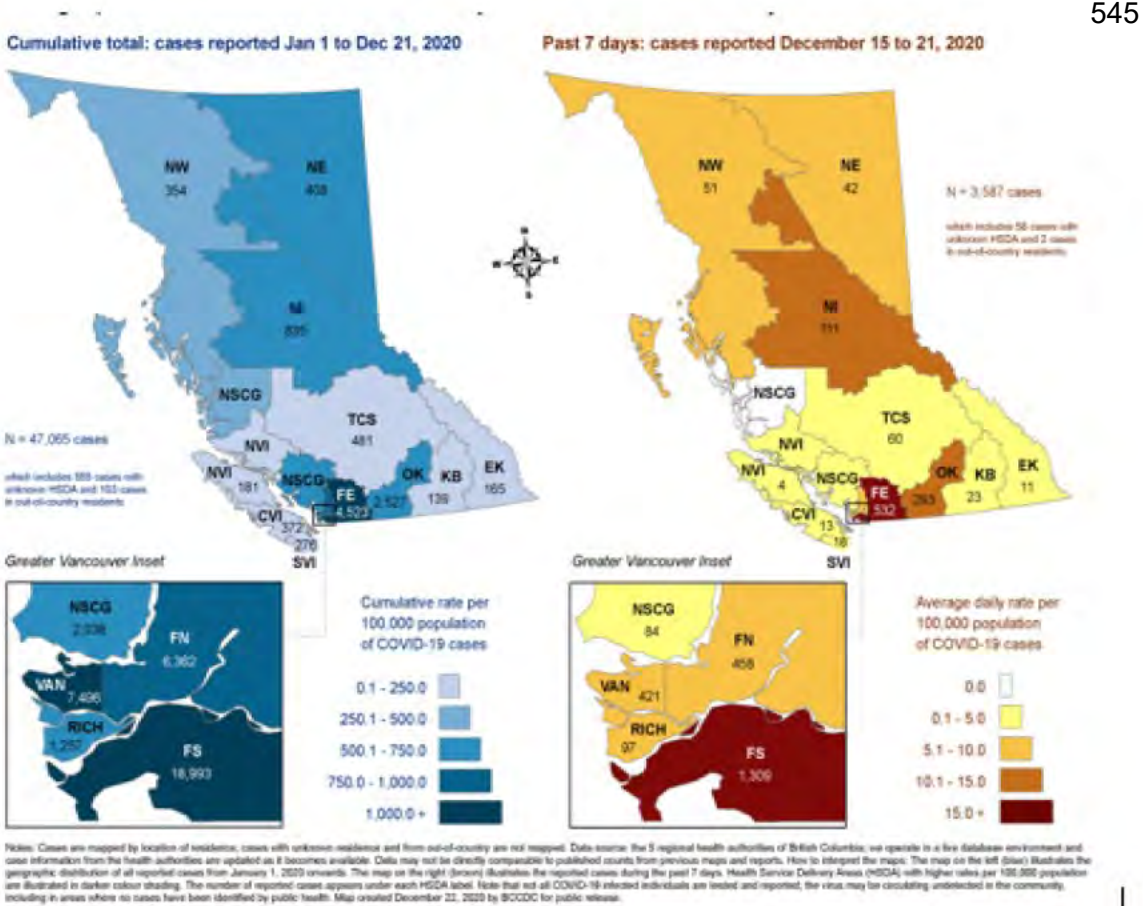
COVID-19 IN BC

BRITISH COLUMBIA

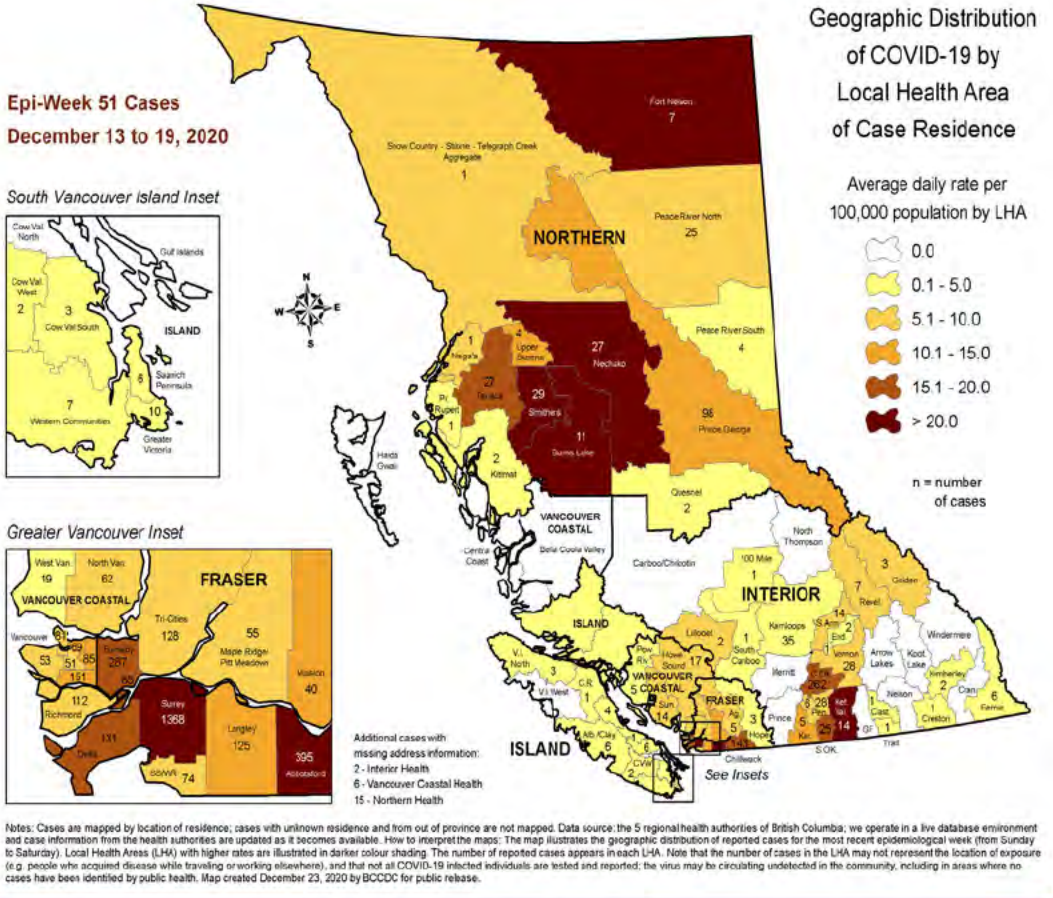
Epidemiology

How and Where the Virus has Affected People in BC

Geographic Distribution of COVID-19 by Health Service Delivery Area of Case Residence

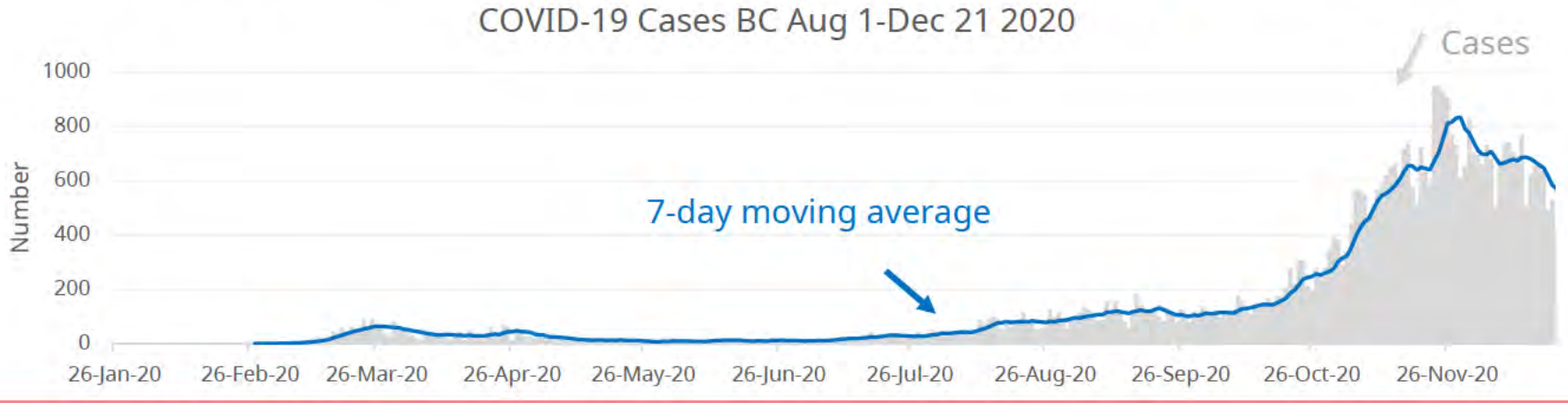


Geographic Distribution of Cumulative COVID-19 by Local Health Area of Case Residence

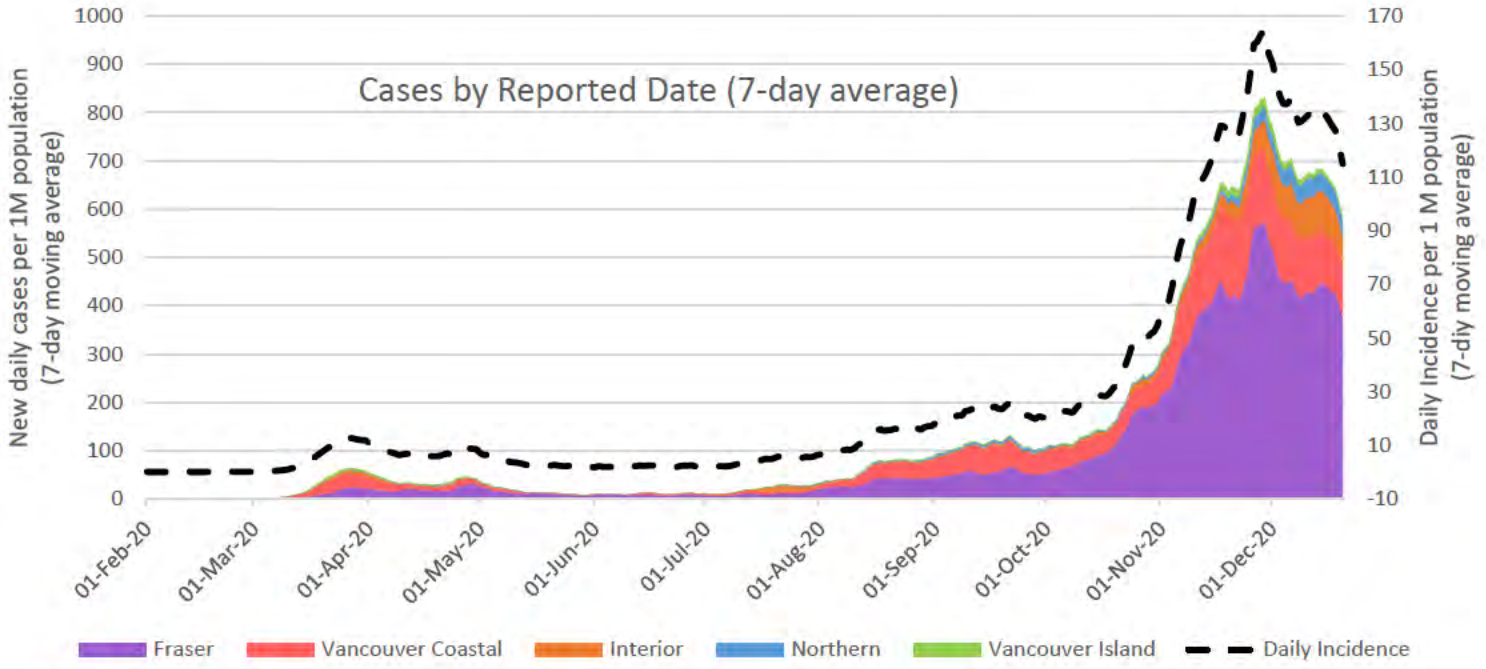


Dec 15 to 21: Profile of COVID-19 Cases

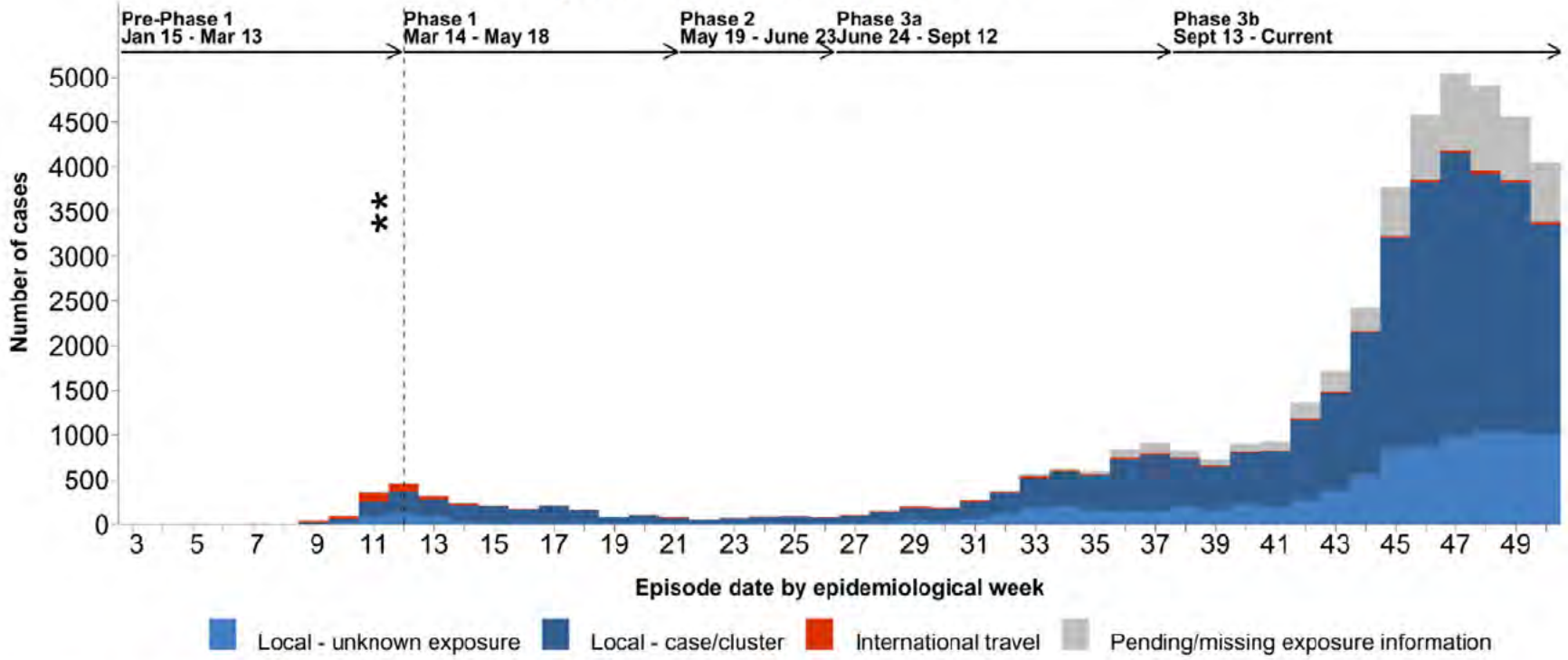
47,488	total cases
4,025	new this week
777	deaths
109	new this week
2,585	ever hospitalized
241	new this week
36,094	removed from isolation
4,228	new this week



Epidemic curve, COVID-19 cases in BC by reported date
January 15 – December 21, 2020 (N=47,488)

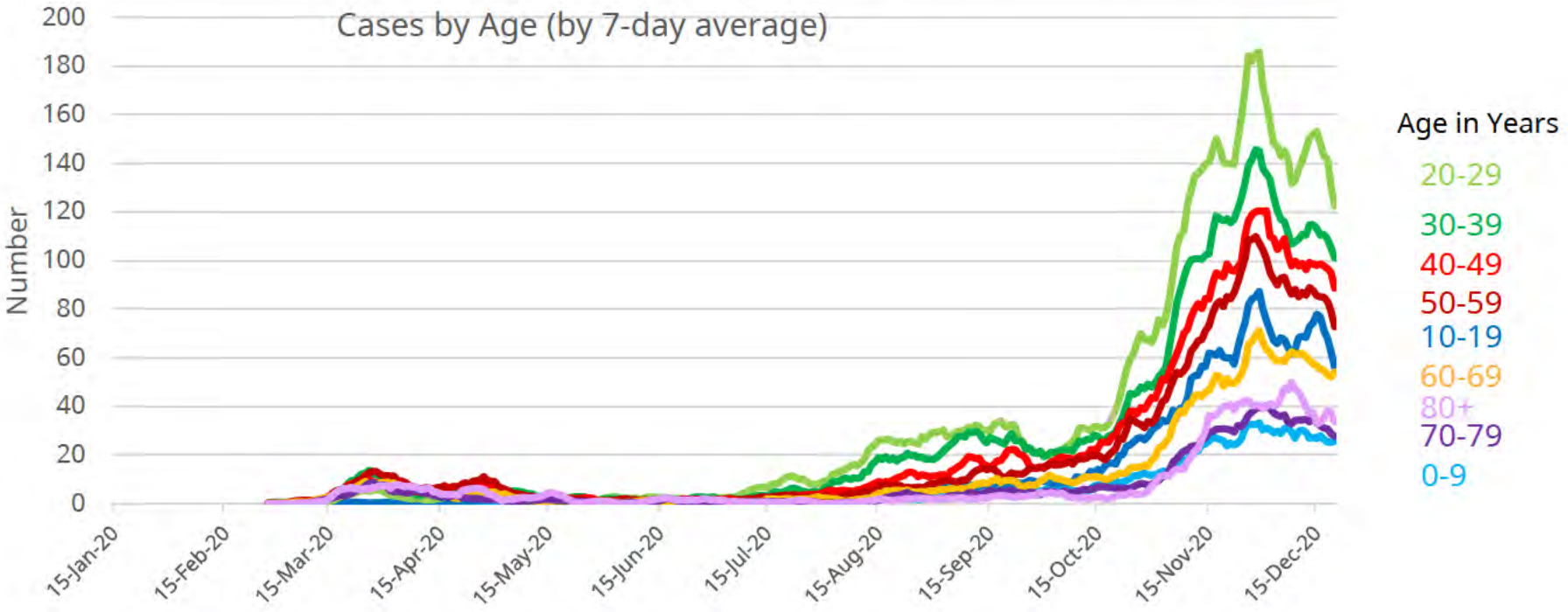


Likely source of COVID-19 infection by episode date, BC
Jan. 15 – Dec. 12, 2020

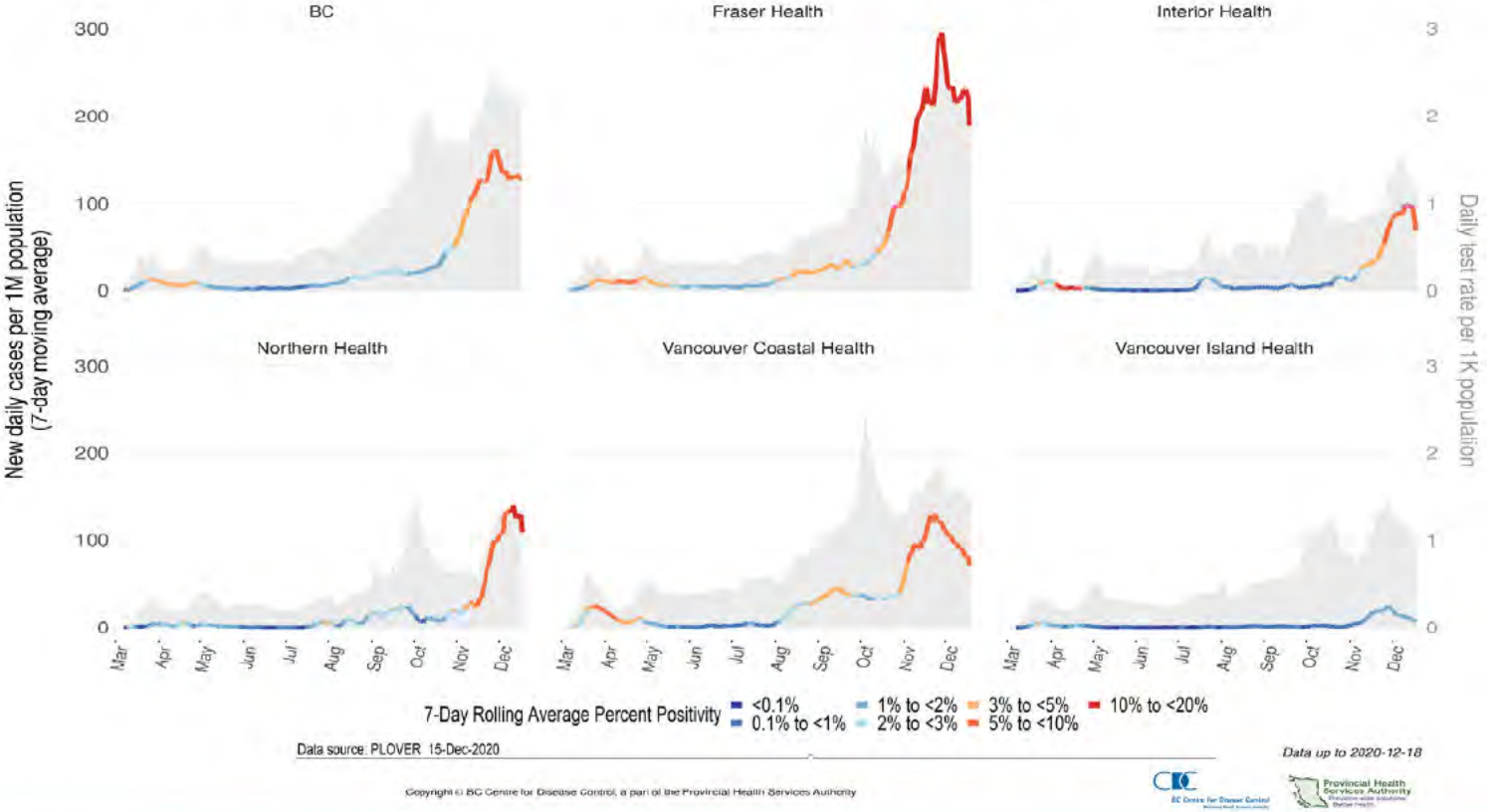


** March 16: Travel related restrictions introduced.

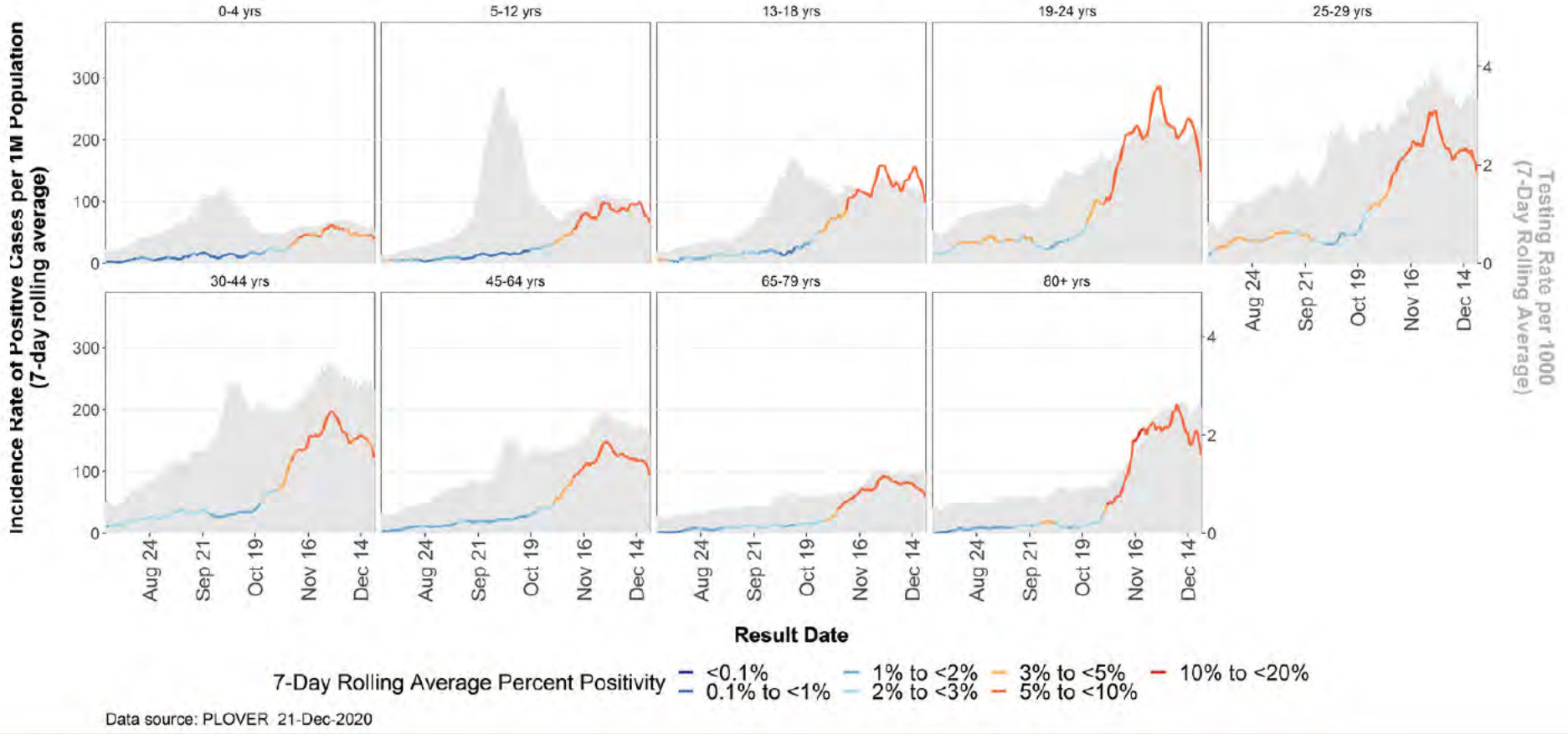
Daily case counts by age in years



Daily case rate, testing rate and percent positivity March 1- Dec. 21, 2020

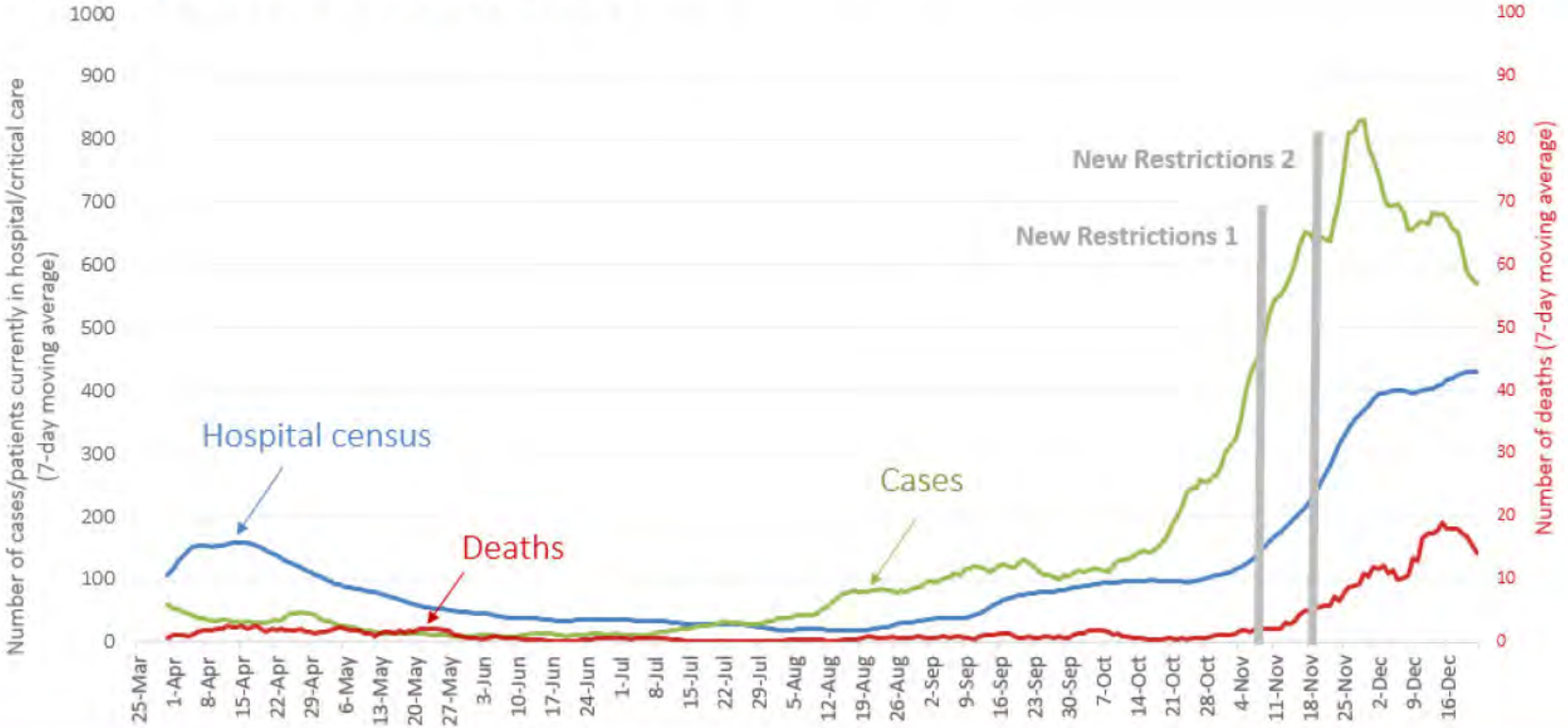


Case incidence rate, test percent positivity, and testing rate by age. Aug 1 - Dec 21, 2020.

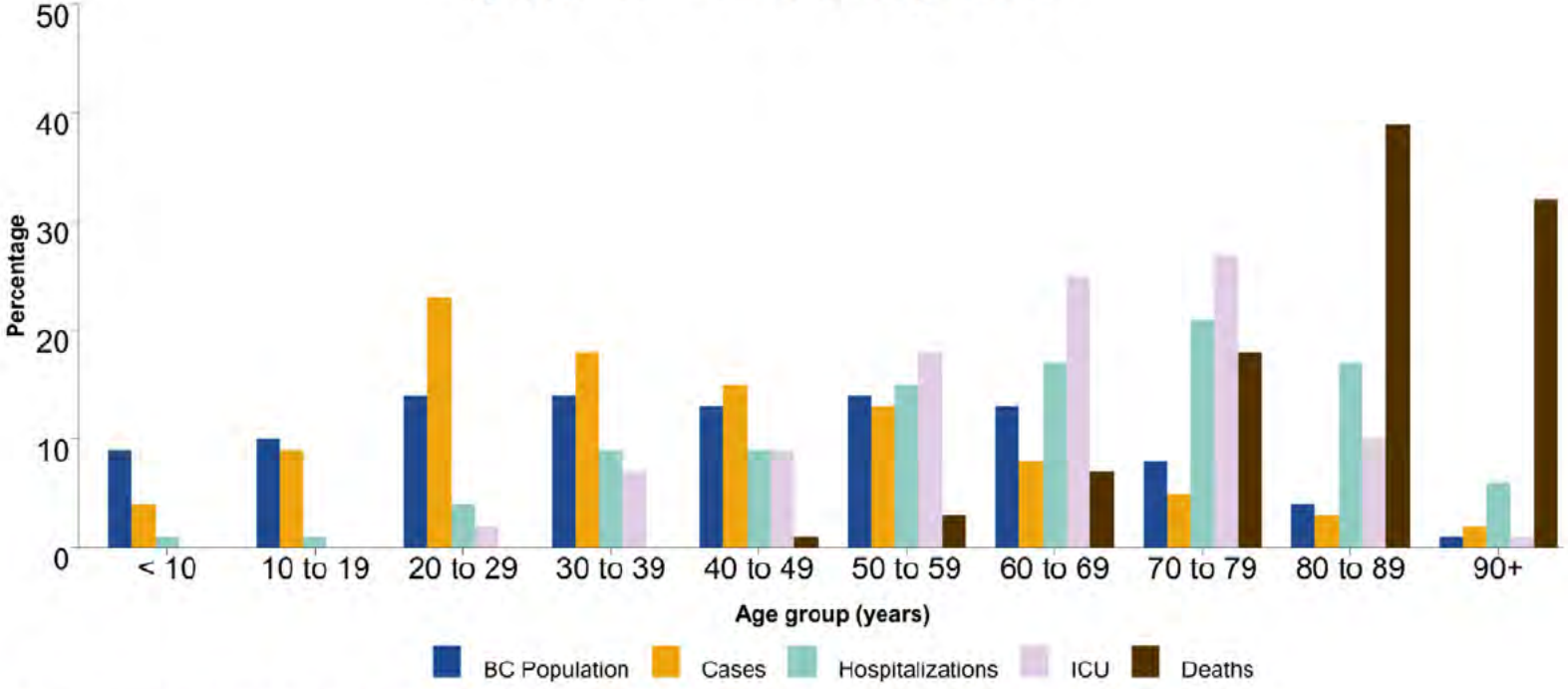


Data source: PLOVER 21-Dec-2020

Daily cases, hospital census, and deaths
March 25 to Dec 21, 2020



Percentage distribution of COVID-19 cases, hospitalizations, ICU admissions and deaths by age, British Columbia, Jan. 15 – Dec. 12, 2020



a. Among those with available age information only.

School Update

COVID-19 Testing and Cases Among School-aged Children

Most school-aged children (5-18 years) with symptoms do not have COVID-19

COVID-19 cases among school-aged children

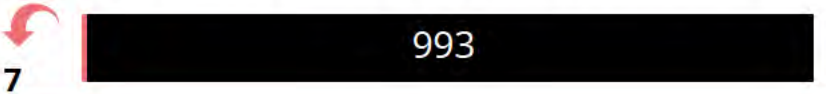
1. More than 650,000 students and 95,000 staff back in schools.
2. Exposures noted at schools and at extracurricular activities
3. School-aged children represent 12% of cases
4. 4 outbreaks declared since Sept.

COVID-19 testing in children and youth

1. 1 in 100 school-aged children tested

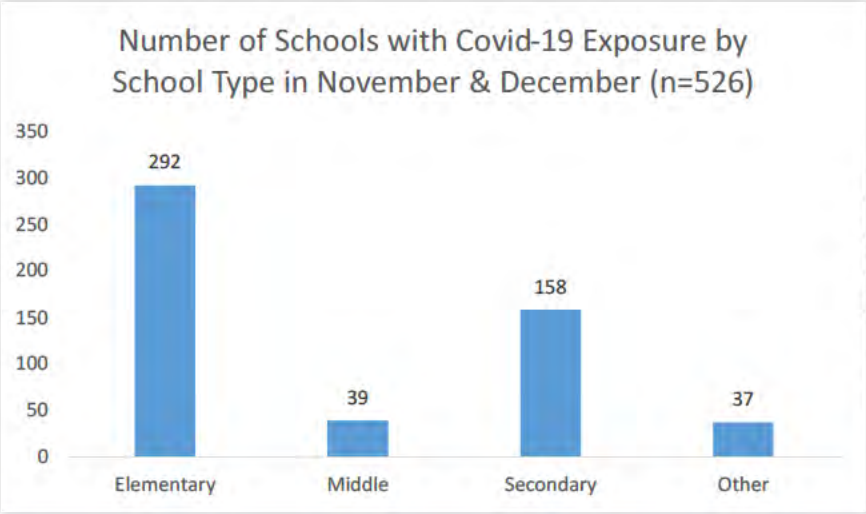
2. 7 in 100 tests are COVID-19 +

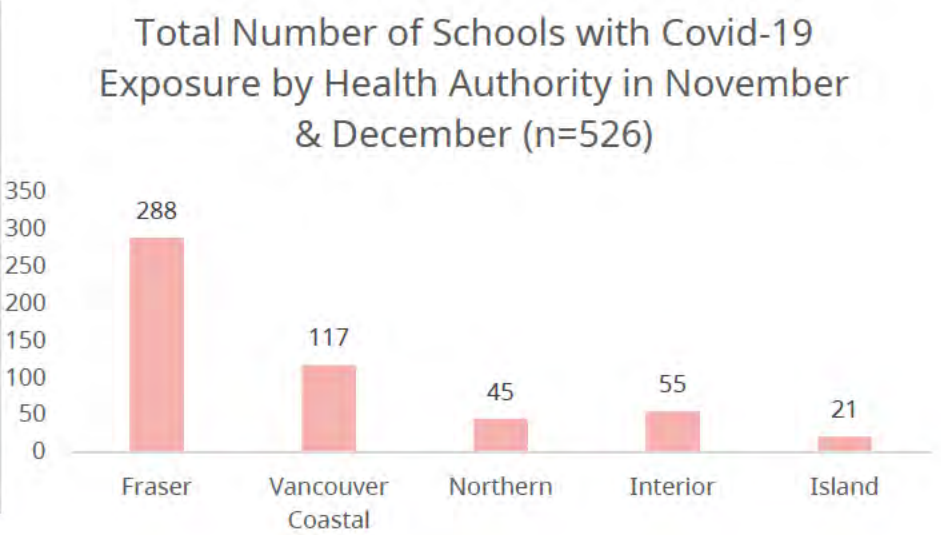
3. Fewer than 7 in 1000 students COVID-19 +



COVID-19 exposures in a school setting

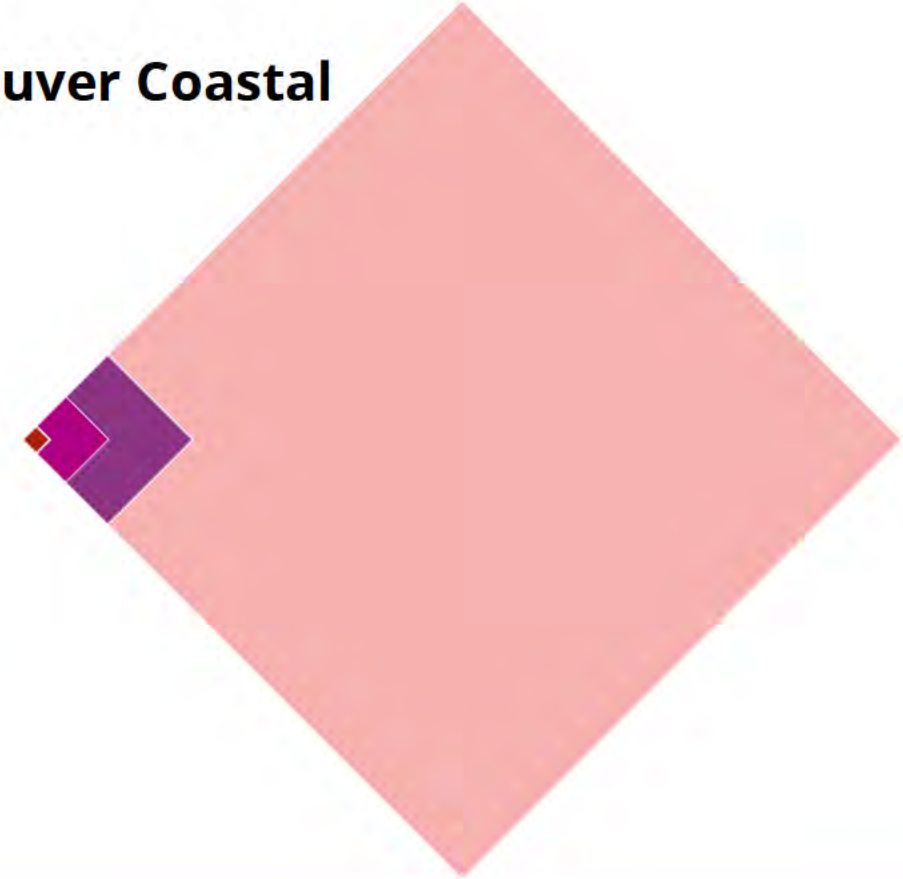
From Nov. 1 to Dec. 18, there were 526 schools exposures in BC's 1,942 schools.
More than three quarter of BC schools are elementary schools.
That means more than 7 in 10 schools have **not** had a school exposure. The exposures represent both students and adults in the school community.





Exposures in schools in Vancouver Coastal (updated Dec. 12)

- 120,000 school-aged children and staff in VCH region
- >600 school-aged children or school staff diagnosed with COVID-19 resulting in <200 school exposures
- School-based transmission resulting from < 20 exposures
- 0 outbreaks



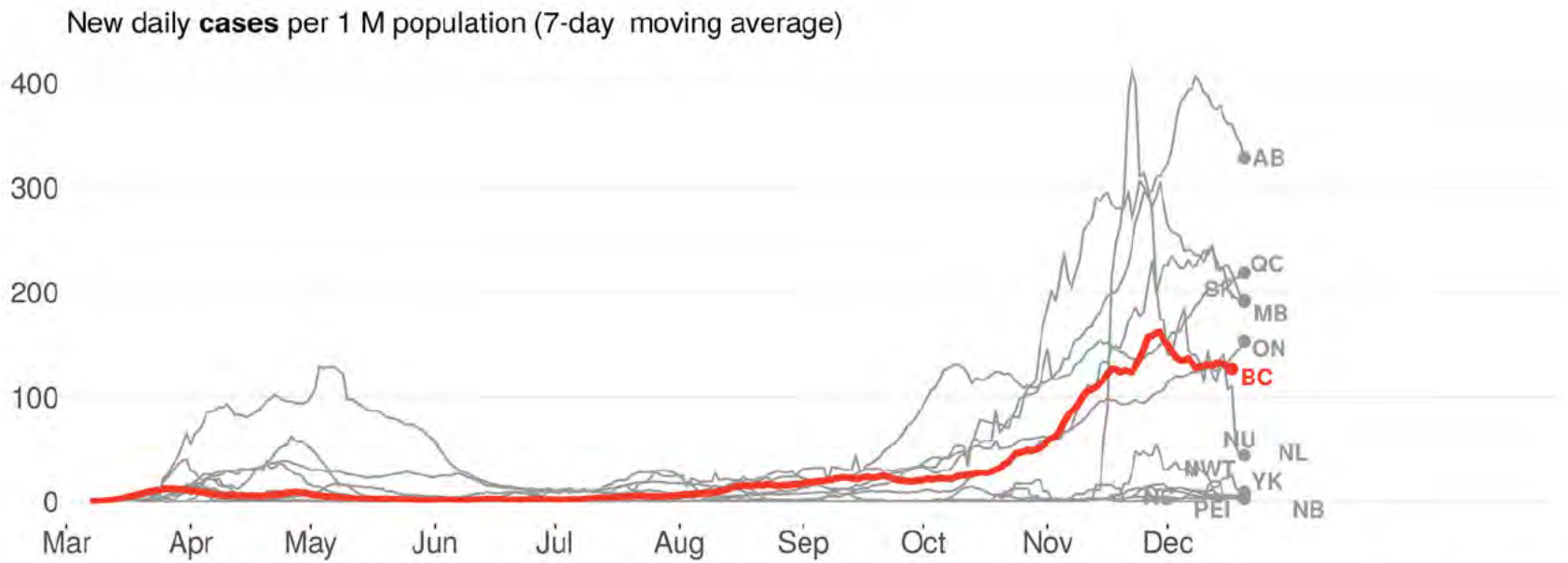
COVID-19 in schools in Vancouver Coastal

- 89% of cases acquired infection from confirmed case/cluster, generally from a household contact
- Of cases in schools, 76% students, 24% staff
- No school transmission in >90% of cases
- Recently, most transmission involved a staff member

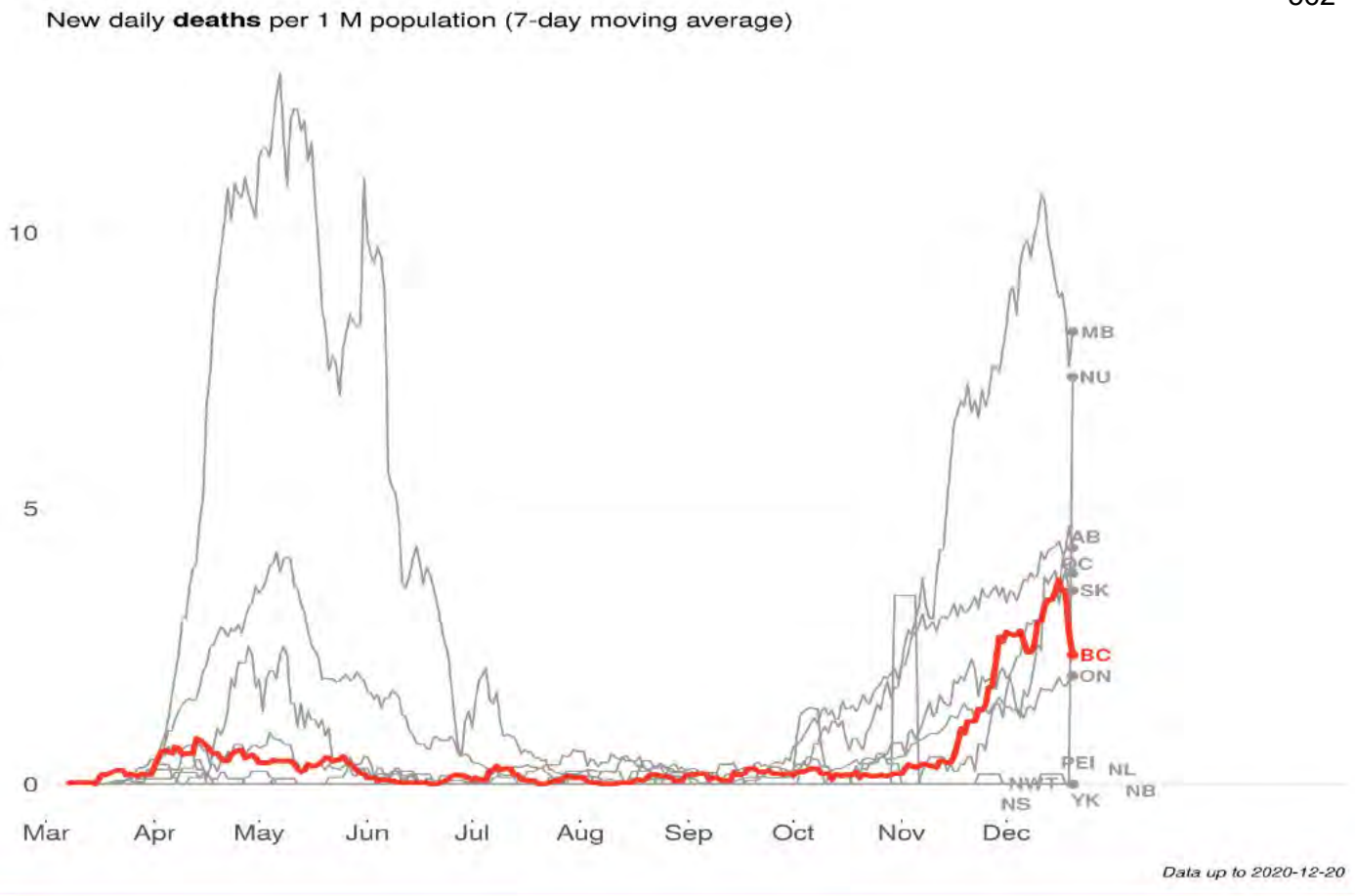
COVID-19 in schools in Fraser Health

- Exposure events have occurred in 384 schools, among which 133 (34.6%) were in Surrey school district (including both public and independent schools).
- Out of these 384 schools, 49 (12.8%) had potential in-school transmission events.
- Among the 49 schools, 23 (46.9%) schools were in Surrey school district .
- Among these 23 schools, 11 (47.8%) were secondary schools or include secondary school grades in the school.

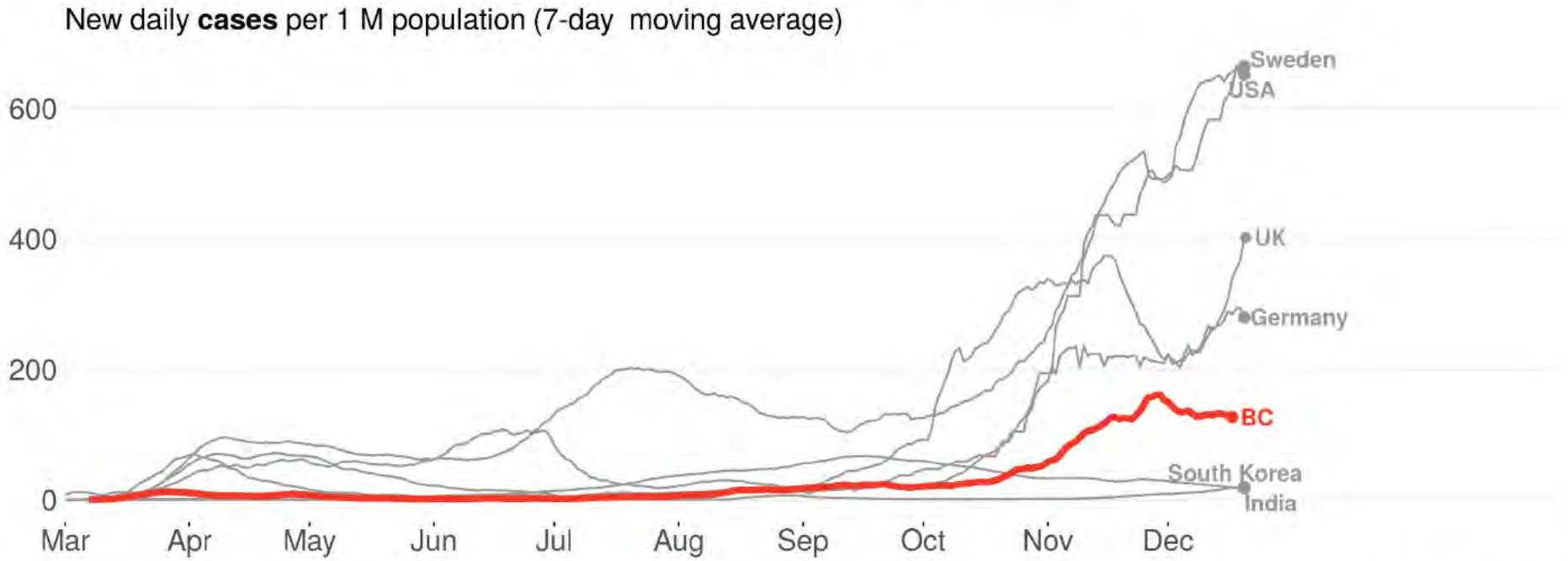
Daily case rates across Canada



Daily death rates across Canada

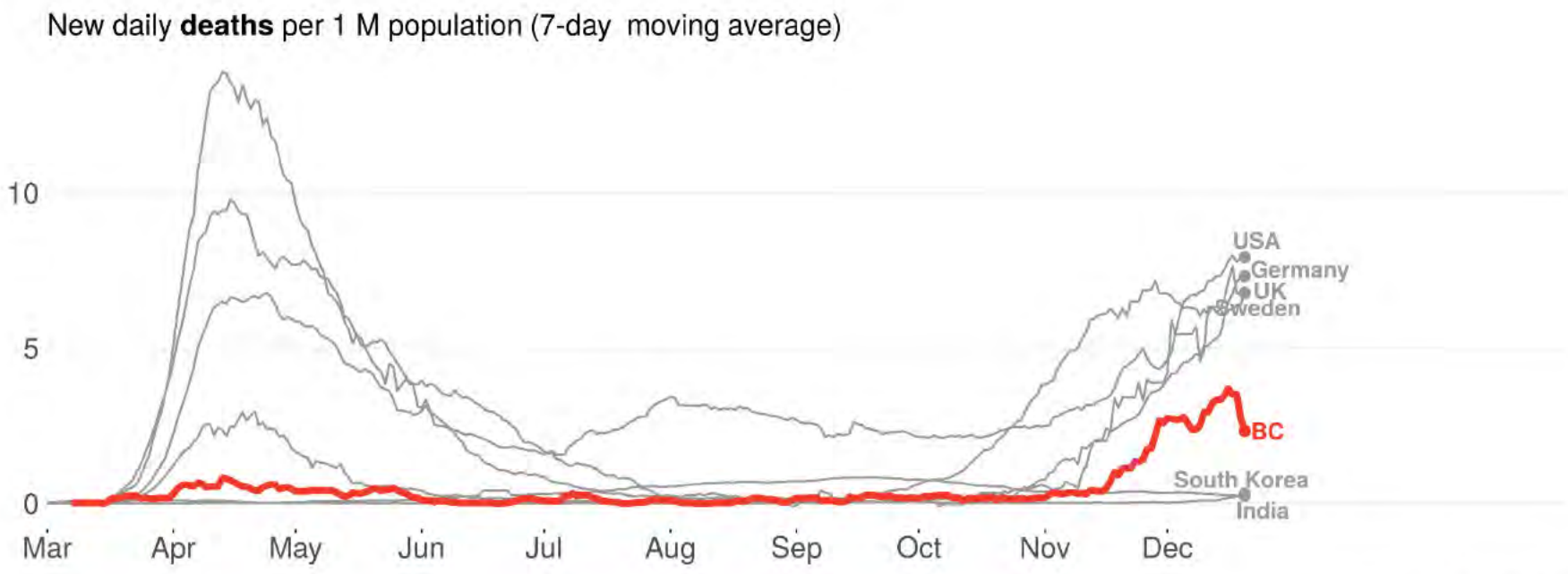


Daily case rates-International



Data up to 2020-12-21

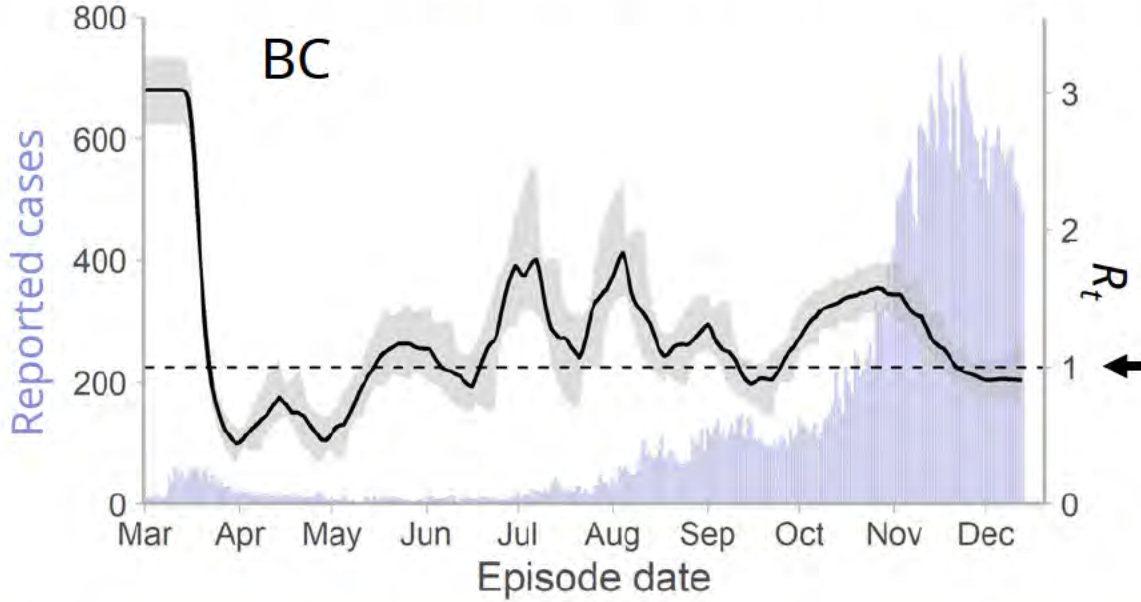
Daily death rates-International



Data up to 2020-12-21

Dynamic compartmental modeling: recent trends

Provincially, our model-based estimate of R_t (average daily number of new infections generated per case) now hovers around 1

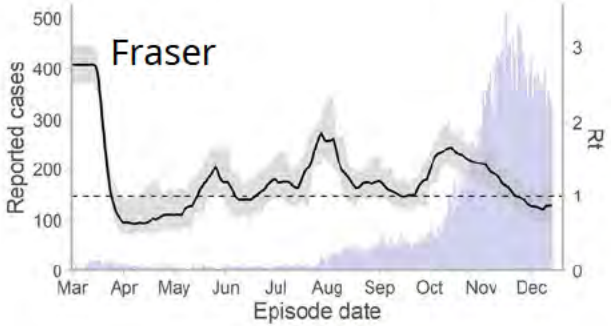


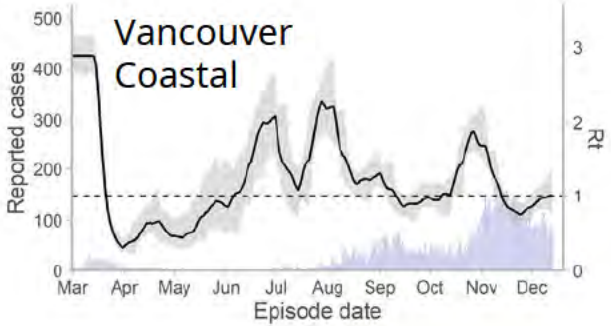
Whenever R_t is > 1, there is a risk that the number of new cases will grow rapidly

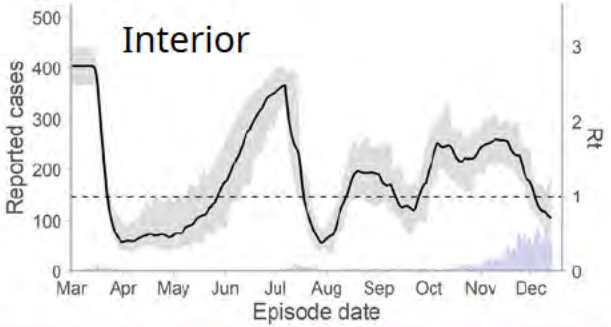
Solid black line: median R_t based on data up to Dec 20, 2020; Grey band: 5%-95% credible interval; Purple bars: reported cases, excluding reportable outbreaks. Due to a lag from symptom onset to reporting, the most recent cases are not shown.

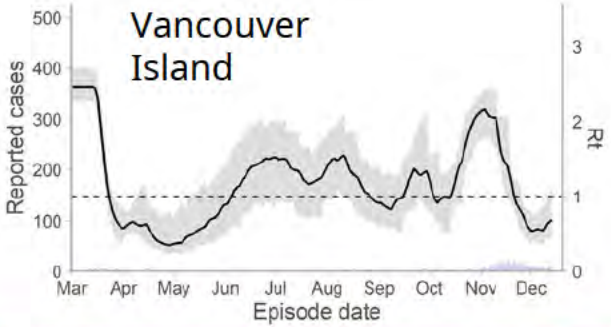
Dynamic compartmental modeling: recent trends

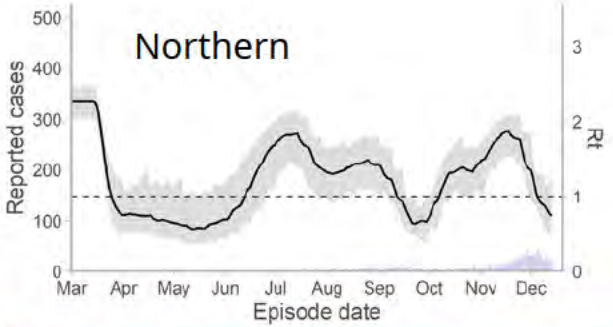
Our model shows that R_t has dropped since November and is now near 1 in most regions of BC





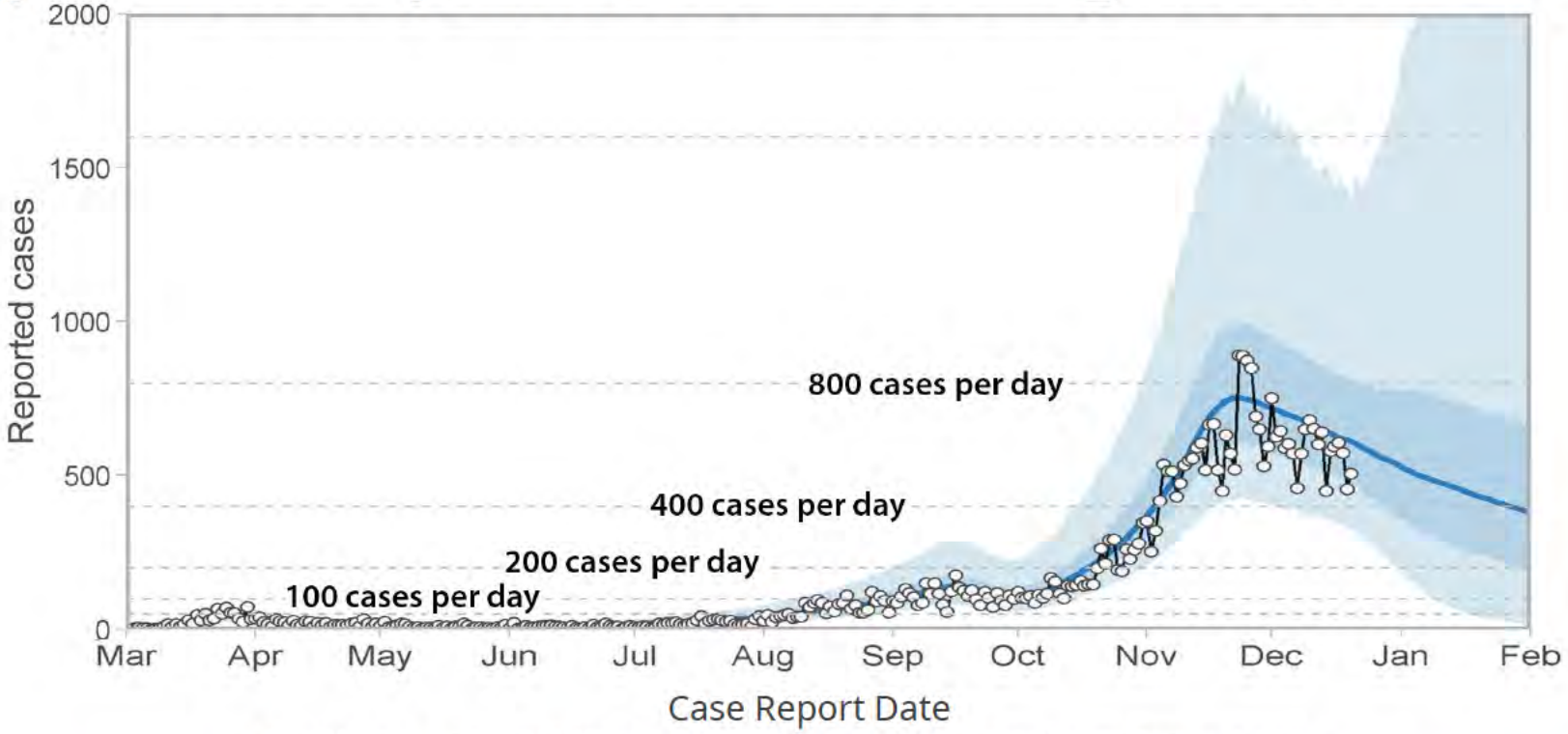






Solid black line: median R_t based on data up to Dec 20, 2020; Grey band: 5%-95% credible interval; Purple bars: reported cases, excluding reportable outbreaks. Due to a lag from symptom onset to reporting, the most recent cases are not shown.

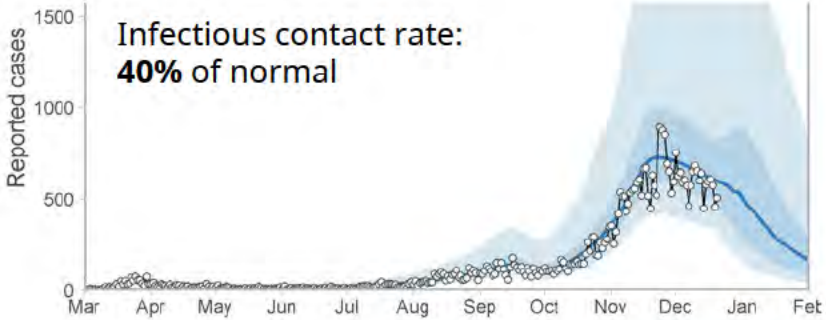
Dynamic compartmental modeling: recent trends

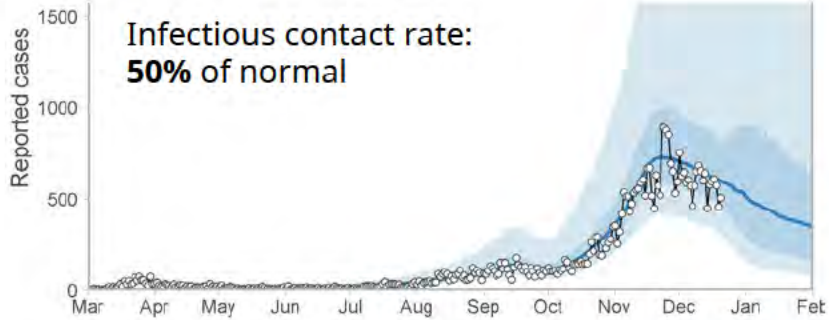


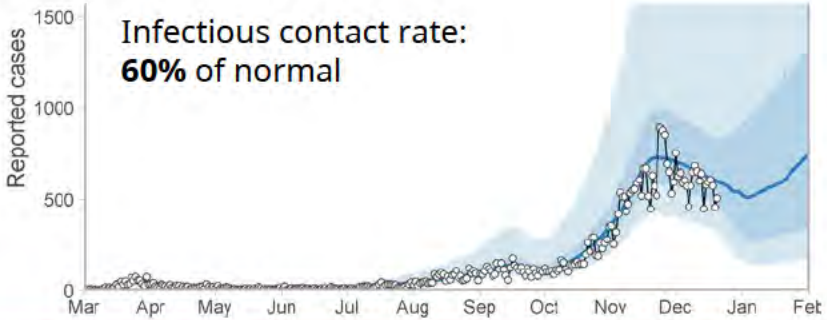
Solid blue line: median model fit; shaded bands: 50% and 90% credible intervals; Open circles: all reported cases, excluding reportable outbreaks, March 1 – Dec 20, 2020.

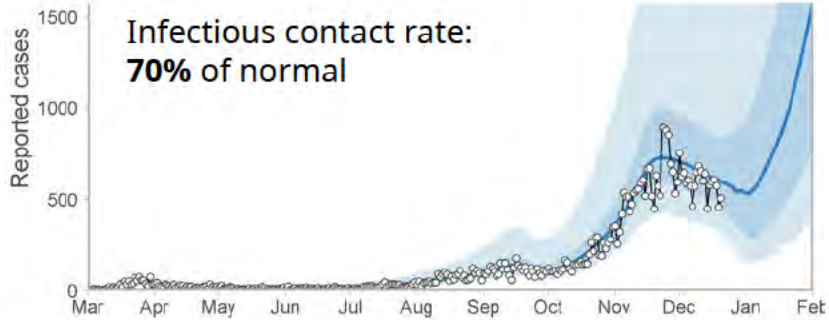
Dynamic compartmental modeling: scenarios

Projection scenarios from our model illustrate the importance of maintaining low rates of contact.









COVID-19 Vaccination Update

Vaccination Plan Q1 2020 and Going Forward

- All Pfizer and Moderna vaccine received in BC will be administered to priority populations as their first dose until the end of January 2021.
- Their second dose will be administered approximately 35 days later to maximize the number of priority populations to receive the first dose.
- The scheduling of the priority groups may be modified throughout Q1 as transmission is monitored.

Vaccination Plan

Estimated number of doses December – March

- Approximately 792,000 (dose 1: 549,000; dose 2: 243,000)

    - Pfizer – approximately 542,000 doses (dose 1: 351,000; dose 2: 191,000)
    - Moderna – approximately 250,000 doses (dose 1: 198,000; dose 2: 52,000)

Priority Populations for December- February

December – February: Approximately 150,000 individuals

- Residents and staff of Long Term Care (LTC) – approximately 70,000 individuals
- Residents and staff of Assisted Living residences – approximately 13,000 individuals
- Individuals in hospital or community assessed and awaiting a long term care placement – approximately 2,000 individuals
- Essential visitors in LTC and Assisted Living – approximately 8,000 individuals
- Health care workers providing hospital front line care in ICUs, medical/surgical units, EDs, paramedics – approximately 30,000 individuals
- Remote/isolated First Nation communities – 25,000 individuals

Priority Populations for February - March

February - March: Approximately 400,000 individuals for dose 1

- Community-based seniors 80+ (65+ Indigenous seniors and elders) – approximately 260,000 individuals
- People experiencing homelessness and/or using shelters; provincial correctional facilities, group homes (adults); mental health residential care (adults) – up to approximately 40,000 of individuals
- Long term home support recipients and staff – approximately 60,000 individuals
- Hospital staff, community GPs and medical specialists – approximately 20,000 individuals
- First Nation Communities – approximately 25,000

COVID-19 IN BC

COVID-19: Year to Date Summary

December 23, 2020

Government of Canada / Gouvernement du Canada

COVID-19: Letter to faith community leaders from Canada's Chief Public Health Officer, October 15, 2020

This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

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(PDF format, 744 KB, 1 page)

Please select a language:

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Organization:

Public Health Agency of Canada

Published: October 15, 2020

Dear Faith Community Leaders,

Thank you for your continued efforts in helping Canada reduce the spread of COVID-19 in our communities. Your work is important to our communities, and I would like to offer my sincere thanks for your promotion of public health measures to your membership during this time.

Now, when there is an upward trend in COVID-19 cases in Canada, the rise in case numbers in several regions is cause for concern. Faith leaders play a critical role in guiding their communities during this time. As I am encouraging

all Canadians to adapt their settings and activities to limit the spread of COVID-19 in the months ahead, I want to reach out to you to ask for your help.

I reach out to you today because a number of reported outbreaks have been linked to gatherings such as weddings, funerals, and other religious and community gatherings. Additionally, the weather, annual holidays, and other activities that bring people indoors this time of year can increase the risk of the virus spreading further.

I would like to remind you about the Public Health Agency of Canada's risk mitigation tool for gatherings and events , which I shared in July to assist individuals, groups, and organizations in considering risks related to planning, organizing and hosting gatherings or events during the COVID-19 pandemic. The tool also provides examples of measures that can mitigate potential risks of the spread of COVID-19. I will also add that although provincial, territorial and local public health authorities set maximum allowances for number of people at gatherings, you should consider setting lower allowances depending on the level of transmission in your community, the type of gathering and specific setting.

Colder weather and more time spent indoors can also cause feelings of sadness, stress, confusion and worry. You and your organizations will continue to be critical in providing the mental health support your communities need. The website Canada.ca/coronavirus also has a wide range of immediate mental health resources and supports for Canadians, including the Wellness Together Canada portal.

Thank you again on your efforts to date in helping Canada reduce the spread of COVID-19 in our communities. For additional information on Canada's response to COVID-19, including awareness resources and guidance documents, please visit Canada.ca/coronavirus.

Regards,

Dr. Theresa Tam, Chief Public Health Officer of Canada

Date modified:

2020 10 15

AGENDA

Interfaith Conference Call - COVID 19

March 11, 2020 - Location: GCPE Boardroom

Attending:

.Premier John Horgan
Minister Dix
Dr. Bonnie Henry
Jen Holmwood
Naveen Girn
(faith leaders list Attached)

1:00 PM	**Opening Remarks** (Media will be present for this portion)	Premier John Horgan
1:05 PM	**Overview of COVID 19 response**	Minister Dix/ Dr. Bonnie Henry
1:30 PM	**Resources for Community and Faith-Based Leaders**	Minister Dix/ Dr. Bonnie Henry
1:40 PM	**Moderated Q&A for participants**	Moderated by Jen Holmwood
1:55 PM	**Closing Remarks**	Premier John Horgan

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

AGENDA

Interfaith Conference Call - COVID 19

April 7th, 2020 - Location: Premiers Office/Con Call

Attending:

Premier John Horgan
Minister Dix
Dr. Bonnie Henry
Naveen Girn
(faith leaders list Attached)

1:00 PM	**Opening Remarks** (Media will be present for this portion)	Premier John Horgan
1:05 PM	**Remarks**	Dr. Bonnie Henry
1:10 PM	**Remarks**	Minister Adrian Dix
1:15 PM	**Moderated Q&A for participants**	Moderated by Premier Horgan
1:55 PM	**Closing Remarks**	Premier John Horgan

AGENDA

Interfaith Conference Call – COVID 19

May 26th, 2020 – Location: GCPE Boardroom /Con Call

Attending:
Premier John Horgan
Minister Dix
Dr. Bonnie Henry
Naveen Girn
Jen Holmwood
(faith leaders list Attached)

12:00 PM	**Opening Remarks**	Premier John Horgan
12:05 PM	**Remarks**	Dr. Bonnie Henry
12:10 PM	**Remarks**	Minister Adrian Dix
12:15 PM	**Moderated Q&A for participants**	Moderated by Premier Horgan
12:55 PM	**Closing Remarks**	Premier John Horgan

AGENDA

Interfaith Conference Call – COVID 19

July 29th, 2020 – Location: Premiers Office/Con Call

Attending:

Premier John Horgan
Minister Dix
Dr. Bonnie Henry
Naveen Girn
(faith leaders list to be attached)

3:45 PM	**Opening Remarks**	Premier John Horgan
3:50 PM	**Remarks**	Dr. Bonnie Henry
3:55 PM	**Remarks**	Minister Adrian Dix
4:00 PM	**Moderated Q&A for participants**	Moderated by Premier Horgan
4:40 PM	**Closing Remarks**	Premier John Horgan

AGENDA

Interfaith Conference Call – COVID 19

November 18th, 2020 – Location: Premiers Office/Con Call

Attending:

Premier John Horgan
Minister Dix
Dr. Bonnie Henry
Naveen Girn
(faith leaders list to be attached)

12:45 PM	**Opening Remarks**	Premier John Horgan
12:50 PM	**Remarks**	Dr. Bonnie Henry
12:55 PM	**Remarks**	Minister Adrian Dix
1:00 PM	**Moderated Q&A for participants**	Moderated by Premier Horgan
1:50 PM	**Closing Remarks**	Premier John Horgan

AGENDA

Interfaith Conference Call - COVID 19

Dec 14th, 2020 - Location: Con Call

Attending:

Premier John Horgan
Minister Dix
Dr. Bonnie Henry
Robert Daum
Naveen Girn
(faith leaders list to be attached)

10:30 AM	**Opening Remarks**	Premier John Horgan
10:33 AM	**Remarks**	Dr. Bonnie Henry
10:36 AM	**Remarks**	Minister Adrian Dix
10:39 AM	**Remarks**	Robert Daum
10:41 AM	**Moderated Q&A for participants**	Moderated by Premier Horgan
11:25 AM	**Closing Remarks**	Premier John Horgan

From: Emerson, Brian P HLTH:EX
Sent: Friday, November 27, 2020 7:09 AM
To: 'Rabbi Meir Kaplan'
Cc: Henry, Bonnie HLTH:EX; richard.stanwick@viha.ca; 'Fyfe, Murray W. (Dr)'; Diplock, Cole; Luttrell, Gethsemane; Bruce, Alan
Subject: RE: Request for exemption for this Saturday
Attachments: IMG_7608.jpg

Dear Rabbi Meir Kaplan.

Thank you for your request below to Dr. Bonnie Henry for reconsideration of the provincial health officer *Gatherings and Events* order as applied to the Saturday Sabbath services on November 28 and the following Saturday, December 5. Your request has been forwarded to me for response. Thank you for the time and effort spent to prepare this request.

We have reviewed your request and taken into consideration that the event will be held outside, only attract up to 25 people, physical distancing and mask wearing will be in place, and the building will be locked. In addition we have consulted with Island Health public health officials.

We also recognize that having services in person is the only way your congregation can conduct religious services as traditional Jewish law prohibits the usage of electronic devices, including computers on Sabbath (Saturday morning).

Based on our review of the safety plan and you circumstances it is our opinion that this will be a low risk event as long as the safety plan is implemented as described, and you follow the other applicable requirements of the *Gatherings and Events* order posted on my website at https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/current-health-topics/covid-19-novel-coronavirus.

Therefore this is to inform you that, pursuant to section 43 (3) (c) of the *Public Health Act* (excerpt below), Dr. Henry is varying the order with respect to this event to allow you to have up to 25 people attend the event. The other conditions of the order, as applicable, continue to be in force.

If you have any questions or concerns about this decision please let me know.

Sincerely,
Brian Emerson

Dr. Brian P. Emerson, Deputy Provincial Health Officer (acting)
BC Ministry of Health, PO Box 9648 Stn Prov Govt, Victoria, BC V8W 9P1
T 250.952.1701 C 250.514.2219 F. 250.952. 1713 brian.emerson@gov.bc.ca

***Public Health Act* excerpt**

Reconsideration of orders

This is **EXHIBIT "** **"** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

43 (3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

From: Rabbi Meir Kaplan <kaplanvictoria@gmail.com>
Sent: November 26, 2020 6:16 PM
To: Emerson, Brian P HLTH:EX <Brian.Emerson@gov.bc.ca>
Subject: Fwd: Request for exemption for this Saturday

---------- Forwarded message ---------
From: **Rabbi Meir Kaplan** <kaplanvictoria@gmail.com>
Date: Wed, Nov 25, 2020 at 9:09 PM
Subject: Request for exemption for this Saturday
To: <provhlthoffice@gov.bc.ca>
CC: Fleming.MLA, Rob <rob.fleming.MLA@leg.bc.ca>, Szabo, Maria HLTH:EX <Maria.Szabo@gov.bc.ca>

Office of the Provincial Health Officer,

I am writing to request an exemption for an outdoor gathering for this Saturday, November 28 and the following Saturday, December 5.

1. I am the Rabbi of the Chabad Centre in Victoria. The Centre has a synagogue that follows traditional Jewish law.
2. Our regular services are on Sabbath (Saturday morning), a day which traditional Jewish law prohibits the usage of electronic devices, including computers. Having services in person is the only way we can conduct religious services.
3. At the phone conference with religious leaders on Wednesday, November 18, I asked Dr Henry if we would be able to have services outdoors with face masks and 6 ft. distancing. I was told that this would be acceptable.
4. Following the government order, I called the Provincial Health Officer on Friday, November 20 to follow up and confirm that we would be able to hold Services in that fashion. I was put on hold and eventually, it was confirmed to me again that this would be allowed.
5. I was in touch also with MLA Rob Fleming who confirmed the same info with the Provincial Health Officer and told me that it should be in writing after the weekend.
6. I announced to the community about the outdoor service and rented an open tent for that purpose. We conducted Services outdoors while everyone wore a mask and kept 6 ft distance the entire time. Please see the attached photo (from before the Sabbath of course).
7. Yesterday, I received an email from Maria Szabo, assistant of the Minister of Health that this outdoor gathering is not allowed.
8. I believe that having these services during this time is an essential need for people participating and I can confirm that we are doing it in a way that presents almost no risk of transmission.
9. I would like to ask for an exemption for Saturday, November 28 and Saturday, December 5.
10. I am committed to the following: 1. The entire Service will take place in an open tent, the building will be locked. 2. There will be no more than 25 people. 3. Every participant will be wearing a face mask the entire time. 3. No

participant will be within 6 ft of another (unless they are in the same family). 4. The services will last one hour, from 10:30-11:30am.

11. Since the Sabbath begins Friday at sunset (4:15pm), I would be most thankful if the exemption could be granted today (Thursday) so we can notify the community.

With many thanks,

Rabbi Meir Kaplan
~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Chabad of Vancouver Island
2955 Glasgow Street Victoria, BC V8T 4H1
Cell: 250-858-6770 | kaplanvictoria@gmail.com | www.ChabadVI.org
--
Rabbi Meir Kaplan
~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Chabad of Vancouver Island
2955 Glasgow Street Victoria, BC V8T 4H1
Cell: 250-858-6770 | kaplanvictoria@gmail.com | www.ChabadVI.org

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

From: Emerson, Brian P HLTH:EX
Sent: Thursday, December 17, 2020 9:46 AM
To: 'Rabbi Meir Kaplan'
Cc: Henry, Bonnie HLTH:EX; Bruce, Alan ; rabbi wineberg; Rabbi Bentzi; Yechiel Baitelman; Rabbi Shmuly Hecht; Rabbi B. Bitton; Rabbi Feigelstock; Rabbi Shmulik; dovid rosenfeld; Centre for Judaism - Chabad; Rabbi Mendy; Rabbi Varnai
Subject: Request for exemption to PHO order re events prohibition for Sabbath services

Dear Rabbi Meir Kaplan.

Thank you for your email and subsequent phone call with regards to your request to Dr. Bonnie Henry for reconsideration of the Provincial Health Officer *Gatherings and Events* order as applied to the Saturday Sabbath services for your synagogue. Thank you also for copying Rabbis from other synagogues who have a similar interest to yours.

I discussed your request with Dr. Henry. As you are aware we are very concerned about religious gatherings as they are events at which transmission of virus can easily happen, and those attendees can subsequently transmit the virus to their families.

However, we recognize that having services in person is necessary for your synagogue to conduct religious services as traditional Jewish law prohibits the usage of electronic devices, including computers on Sabbath (Saturday morning).

To accommodate your religious beliefs we have considered whether to grant a variance to the order so that you can hold services. Based on our review and your circumstances it is our opinion that in-person services will be a low risk events if the following conditions can be met:

- services are limited to 25 people
- services are held outside
- people maintain a physical distance of 2 metres from each other
- attendees wear masks
- high levels of hygiene are maintained
- there will be no social gatherings or social interaction before or after the services, indoors or outdoors
- the other applicable requirements of the *Gatherings and Events* order posted on my website at https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/current-health-topics/covid-19-novel-coronavirus continue to be followed.

Therefore this is to inform you that, pursuant to section 43 (3) (c) of the *Public Health Act* (excerpt below), Dr. Henry is varying the order with respect to your Sabbath religious services, with the conditions above. This variance remains in place for the duration of the Provincial Health Officer prohibition on events. The other conditions of the order, as applicable, continue to be in force.

In addition, pursuant to section 43 (7) (a) of the Act, this is a class variance which applies to the other synagogues represented by the Rabbis copied with this email. In other words, the other synagogues may hold services if they adhere to the conditions mentioned above.

If you have any questions or concerns about this decision please let me know.

Sincerely,

Brian Emerson

Dr. Brian P. Emerson, Deputy Provincial Health Officer (acting)
BC Ministry of Health, PO Box 9648 Stn Prov Govt, Victoria, BC V8W 9P1
T 250.952.1701 C 250.514.2219 F. 250.952. 1713 brian.emerson@gov.bc.ca

***Public Health Act* excerpt**

Reconsideration of orders

43 (3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class,

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From: Rabbi Meir Kaplan <kaplanvictoria@gmail.com>
Sent: December 15, 2020 11:04 AM
To: Emerson, Brian P HLTH:EX <Brian.Emerson@gov.bc.ca>
Cc: Henry, Bonnie HLTH:EX <Bonnie.Henry@gov.bc.ca>; XT:HLTH Stanwick, Richard <richard.stanwick@viha.ca>; XT:HLTH Fyfe, Murray <murray.fyfe@viha.ca>; Diplock, Cole <Cole.Diplock@viha.ca>; Luttrell, Gethsemane <Gethsemane.Luttrell@viha.ca>; Bruce, Alan HLTH:EX <Alan.Bruce@gov.bc.ca>; rabbi wineberg <rabbi.wineberg@gmail.com>; Rabbi Bentzi <rabbibentzi@gmail.com>; Yechiel Baitelman <rabbi@chabadrichmond.com>; Rabbi Shmuly Hecht <rabbi@jewishokanagan.com>; Rabbi B. Bitton <rabbi@chabadcitycentre.com>; Rabbi Feigelstock <rabbifeigelstock@gmail.com>; Rabbi Shmulik <rabbi@thekollel.com>; dovid rosenfeld <dovidrosenfeld@gmail.com>; Centre for Judaism - Chabad <c4j@c4j.ca>;

Rabbi Mendy <mendy@koshercheck.org>; Rabbi Varnai <rabbi@thebayit.ca>
Subject: Re: Request for exemption for this Saturday

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1. Limit to 25 people and 20% sanctuary capacity.
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I appreciate your consideration and I look forward to hearing from you.

Best regards,

Rabbi Meir Kaplan
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Chabad of Vancouver Island
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the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

From: Emerson, Brian P HLTH:EX
Sent: Thursday, December 17, 2020 9:56 AM
To: Andrew Gray (andrew.gray@northernhealth.ca); Daly, Patty [VCH]; De Villiers, Albert; Elizabeth Brodkin (elizabeth.brodkin@fraserhealth.ca); Jong Kim (Jong.Kim@northernhealth.ca); Mark Lysyshyn ; Murray Fyfe (murray.fyfe@viha.ca); richard.stanwick@viha.ca; Silvina Mema; Tyler, Ingrid; Diplock, Cole; Luttrell, Gethsemane; Taki, Richard; Kerwin, Oona; Wheeler, Jennifer; Zimmerman, Courtney
Cc: Henry, Bonnie ; Andrew Larder; Behn Smith, Daniele ; XT:McDonald, Shannon HLTH:IN; Reka Gustafson
Subject: FW: Request for exemption to PHO order re events prohibition for Sabbath services

Dear Chief MHOs and Regional Directors, Health Protection.

For your information, please see that class variance we have issued below for traditional Jewish synagogues who cannot meet in person to allow them to meet on the Sabbath, with conditions.

I am not sure where all these places are so sending to all regions in case this comes up in your region.

Thanks.

Brian

Dr. Brian P. Emerson, Deputy Provincial Health Officer (acting)
BC Ministry of Health, PO Box 9648 Stn Prov Govt, Victoria, BC V8W 9P1
T 250.952.1701 C 250.514.2219 F. 250.952. 1713 brian.emerson@gov.bc.ca

From: Emerson, Brian P HLTH:EX
Sent: December 17, 2020 9:46 AM
To: 'Rabbi Meir Kaplan' <kaplanvictoria@gmail.com>
Cc: Henry, Bonnie HLTH:EX <Bonnie.Henry@gov.bc.ca>; Bruce, Alan <Alan.Bruce@gov.bc.ca>; rabbi wineberg <rabbi.wineberg@gmail.com>; Rabbi Bentzi <rabbibentzi@gmail.com>; Yechiel Baitelman <rabbi@chabadrichmond.com>; Rabbi Shmuly Hecht <rabbi@jewishokanagan.com>; Rabbi B. Bitton <rabbi@chabadcitycentre.com>; Rabbi Feigelstock <rabbifeigelstock@gmail.com>; Rabbi Shmulik <rabbi@thekollel.com>; dovid rosenfeld <dovidrosenfeld@gmail.com>; Centre for Judaism - Chabad <c4j@c4j.ca>; Rabbi Mendy <mendy@kosher check.org>; Rabbi Varnai <rabbi@thebayit.ca>
Subject: Request for exemption to PHO order re events prohibition for Sabbath services

Dear Rabbi Meir Kaplan.

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I discussed your request with Dr. Henry. As you are aware we are very concerned about religious gatherings as they are events at which transmission of virus can easily happen, and those attendees can subsequently transmit the virus to their families.

However, we recognize that having services in person is necessary for your synagogue to conduct religious services as traditional Jewish law prohibits the usage of electronic devices, including computers on Sabbath (Saturday morning).

To accommodate your religious beliefs we have considered whether to grant a variance to the order so that you can hold services. Based on our review and your circumstances it is our opinion that in-person services will be a low risk events if the following conditions can be met:

- services are limited to 25 people
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Sincerely,

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My suggestion (for synagogue who are not able to hold virtual services due to religious practice):
1. Limit to 25 people and 20% sanctuary capacity.
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I appreciate your consideration and I look forward to hearing from you.

Best regards,

Rabbi Meir Kaplan
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This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

From: Emerson, Brian P HLTH:EX
Sent: Saturday, December 26, 2020 8:59 AM
To: Rabbi Federgrun
Cc: Rabbi Shlomo Gabay
Subject: Re: request for exemption to PHO order re events prohibition for Sabbath services

Dear Rabbi Federgun:

Thank you for your email and apologies for not getting to it sooner.

I can confirm that the variance of the Provincial Health Officer order does, with the conditions mentioned, apply to all the Orthodox Synagogues, so would include Congregations Schara Tzedeck and Beth Hamidrash.

Hope this is helpful and thank you for your query.

Brian Emerson

Dr. Brian P. Emerson, Deputy Provincial Health Officer (acting)
BC Ministry of Health, PO Box 9648 Stn Prov Govt, Victoria, BC V8W 9P1
T 250.952.1701 C 250.514.2219 F. 250.952. 1713 brian.emerson@gov.bc.ca

On Dec 23, 2020, at 9:47 PM, Rabbi Federgrun <rabbifedergrun@scharatzedeck.com> wrote:

[EXTERNAL] This email came from an external source. Only open attachments or links that you are expecting from a known sender.

Dear Dr. Emerson,

Thank you for your reply to Rabbi Meir Kaplan and for your understanding of the difficult situation that Orthodox Jews are facing given the fact that they cannot hold services online during the Sabbath. My understanding from your email is that Dr. Henry was varying the order with respect to Sabbath religious services provided the following conditions are met:

- services are limited to 25 people
- services are held outside
- people maintain a physical distance of 2 metres from each other
- attendees wear masks
- high levels of hygiene are maintained
- there will be no social gatherings or social interaction before or after the services, indoors or outdoors
- the other applicable requirements of the *Gatherings and Events* order posted on my website at https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-

health-officer/current-health-topics/covid-19-novel-coronavirus continue to be followed

In your email to Rabbi Kaplan, you mentioned that the other Orthodox synagogues on the email exchange can also have outdoor services. There are two other Orthodox synagogues in British Columbia, Congregation Schara Tzedeck and Beth Hamidrash. We would like to know if this variance would also apply to these two other synagogues.

I appreciate your consideration and look forward to hearing from you,

Rabbi Ari Federgrun Associate Rabbi, Congregation Schara Tzedeck

Rabbi Shlomo Gabay, Rabbi, Beth Hamidrash

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the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

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A Commissioner for taking affidavits in British Columbia

From: Emerson, Brian P HLTH:EX
Sent: Friday, January 8, 2021 12:40 PM
To: 'Rabbi Meir Kaplan'; 'rabbi wineberg'; 'Rabbi Bentzi'; 'Yechiel Baitelman'; 'Rabbi Shmuly Hecht'; 'Rabbi B. Bitton'; 'Rabbi Feigelstock'; 'Rabbi Shmulik'; 'dovid rosenfeld'; 'Centre for Judaism - Chabad'; 'Rabbi Mendy'; 'Rabbi Varnai'; 'Rabbi Federgrun'
Cc: Henry, Bonnie HLTH:EX; Bruce, Alan
Subject: RE: Request for exemption to PHO order re events prohibition for Sabbath services

Dear Rabbis.

Further to the announcement by Dr. Henry yesterday extending the Provincial Health Officer *Gatherings and Events* order to February 5, and the fact that the Sabbath is very soon, I anticipate you would want an extension of the variance for in-person services provided on December 17, described below.

This is to confirm that to accommodate your religious beliefs the variance that was provided on December 17, 2020 described below, is now extended to February 5, 2021.

If you have any questions or concerns about this decision please let me know.

Sincerely,

Brian Emerson

Dr. Brian P. Emerson, Deputy Provincial Health Officer (acting)
BC Ministry of Health, PO Box 9648 Stn Prov Govt, Victoria, BC V8W 9P1
T 250.952.1701 C 250.514.2219 F. 250.952. 1713 brian.emerson@gov.bc.ca

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~~~~~~~~~~~~~~~~~~~~~~~~~~~~

From: Clerk - Abbotsford URC <clerk@abbotsfordurc.org>
Sent: Thursday, December 3, 2020 3:27 PM
To: Henry, Bonnie HLTH:EX
Subject: Public Worship Services Suspended
Attachments: ICRC Letter to Elected Officials.pdf

Good afternoon Dr. Bonnie Henry,

Thank you for all your efforts over the last 10 months or so and the desire that you have shown in protecting the people of BC.

Attached is a letter from the council of Immanuel Convent Reformed Church regarding the order that our government has handed down as it relates to in person religious services.

Blessings,
Scott Storteboom
Correspondence Clerk
Immanuel Covenant Reformed Church (URCNA)
35063 Page Rd, Abbotsford, BC V3G 1N8
(604) 826-8854
clerk@abbotsfordurc.org
http://www.abbotsfordurc.org/

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the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

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A Commissioner for taking affidavits in British Columbia

IMMANUEL
COVENANT REFORMED CHURCH OF ABBOTSFORD

United Reformed Churches in North America
35063 Page Road, Abbotsford, British Columbia
www.abbotsfordurc.org

November 28, 2020

Dear Premier Horgan, Health Minister Dix, and Provincial Health Officer Henry,

On Thursday, November 19th, the Provincial Health Office announced that all social gatherings were to be suspended for two weeks, until at least Monday, December 7th. This *Provincial Health Officer Order on Social Gatherings and Events* specifically included religious services, aside from a limited provision for baptisms, weddings, and funerals. It was also suggested that the suspension of in-person worship services may be extended for a longer period of time.

We are writing to you today to request that you rescind this order. We also feel compelled to express the practical reasons and Biblical foundations for our actions and to inform you of our intentions if this order is not rescinded [or if extended].

Our Practical Reasons for Concern
We have three practical concerns with this public health order.

First, the Canadian *Charter of Rights and Freedoms*, as a part of Canada's constitution, guarantees the freedom of conscience and religion, the freedom of thought, belief, opinion and expression, and the freedom of peaceful assembly for all Canadians. We stress that the *Charter* does not ultimately grant these freedoms to us. Rather, the Constitution recognizes freedoms and constrains the civil government from violating these freedoms. By forbidding corporate worship services, this public health order infringes on the constitutional rights of Christians and of churches in a manner that we do not believe is "reasonable in a free and democratic society."

Second, worship services are arbitrarily limited to a greater degree compared to other activities. Up to 50 people may still attend formal meetings. Virtually all for-profit businesses – grocery stores, retail stores, airlines – may continue to operate, provided that they have a safe plan of operation, while worship services, irrespective of the precautions taken, are prohibited. Throughout the pandemic, while larger businesses have been allowed proportionally greater numbers of people in their facilities at one time, larger churches have been treated with the same limits as smaller churches. This has disproportionately disadvantaged even greater numbers of citizens from attending their places of worship.

Further, although worship services have been regulated and considered to be the same as mass gatherings, events, or social gatherings, the purpose and nature of worship services is distinct from all other activities. Worship services are fundamentally different than birthday parties, social outings with friends, concerts, or sporting events and they are guaranteed by the Canadian

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Charter. The current public health order, and every previous health order save for perhaps the regional orders enacted earlier in November, fails to acknowledge these differences.

Third, instances of COVID transmission at worship services in British Columbia have been infrequent. Local churches could give greater consideration to the government's order to temporarily halt worship services if the government could demonstrate with data that Christian worship services were major spreaders of COVID-19 over the past 8 months. To date, there is scant evidence – only one or two instances to the best of our knowledge – where COVID has spread at worship services. Without evidence that worship services are significant contributors to the rise in COVID cases province-wide, the current health order is far too broad.

Our Biblical Foundations for Concern

The default position of the Christian church concerning civil government is to submit to its lawful authority in all civil matters. Throughout Scripture, but most directly in Romans 13:1-7 and 1 Peter 2:13-17, God commands Christians to be subject to the civil government as the civil government is appointed by God and exists for the good of all. We are called to submit to civil authority in all civil matters regardless of whether we personally agree or disagree with their directives or judgements.

From March 16th to November 19th, the provincial government ordered that churches take certain precautions to limit the spread of COVID-19, notably by limiting worship service attendance to 50 people. Local churches abided by this order because they considered these restrictions to be reasonable given the novelty of the virus, the uncertainty about the nature and transmission of the virus, and the Christians' high respect for our civil authorities. The vast majority of churches complied with the order ***but did so as an exercise of their own authority over worship, not because they believed the government should unilaterally mandate such restrictions***. Local churches now, as throughout the pandemic, retain the prerogative over worship services.

We firmly believe that this public health order violates God's Word for <u>two</u> biblical reasons.

First, the Lord Jesus Christ is head over the church.

Government authority is limited concerning the church. All authority belongs to God, and He delegates authority to the civil government, the family, and the church (1 Timothy 6:15; Revelation 17:14; 19:16; Colossians 1:18). Even the preamble of the *Charter* recognizes this reality using the words "Canada is founded upon principles that recognize the supremacy of God." He has set Christ as head over the church and He is our highest authority (Ephesians 1:22).

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Although we recognize that the civil government has a role to play in maintaining the health and order of society, God has given local church governments specific authority over worship (1 Corinthians 12:28; Ephesians 4:11-12), under the headship of Christ (Ephesians 1:22, 5:23).

This duty to obey our civil authorities ends when they command that we engage in behavior contrary to God's Word or when they prohibit what God commands us to do. Ultimately, we must obey God rather than men (Acts 5:29). We cannot and will not relinquish that role of church authority to the civil government.

Second, all Christians are called to assemble, in-person, for regular corporate worship services. Christians not only gather together for in-person worship out of love toward God, but also because it is *essential* to our spiritual health and because we are *commanded* to do so (Psalm 65:4; Psalm 84:1, 2; Psalm 95:1, 2; Psalm 111:1; Psalm 122:1; Acts 2:46; Ephesians 5:19; Colossians 3:16; 1 Timothy 4:13; Hebrews 10:23-25). We are called to worship God in the way that He has commanded in Scripture including, though not limited to, hearing the preaching of the Word, partaking of the sacraments of baptism and communion, singing His praises, praying together, confessing His name, exercising church discipline, and fellowshipping with other Christians. Although some of these aspects of worship can be performed online, many of them cannot.

Many churches and congregational members do not have the means to use technology, inhibiting them and isolating them all the more during this crisis. It is unwarranted to assume that every church and/or church member has the same access to or ability to utilize technology for the spiritual care they need and are rightly afforded by their citizenship.

We are thankful that this government's intentions involve the protection of human life. The protection of life is an essential Christian virtue in every domain of life and society. The vulnerable in our society are hit extremely hard in times of crisis. But one of the many aspects of churches gathering is the intentional identification of needs within vulnerable populations of our churches and community. Churches are instrumental in providing basic spiritual, physical, mental, and emotional care as they are made aware of needs. ***In-person gatherings foster and facilitate the great comfort and help that our society needs, especially in times of crisis.***

Our Request and Intentions

In light of these theological and practical concerns, we, as local church leadership and a local church government, are writing to inform you of seven items. We sincerely believe that this

IMMANUEL
COVENANT REFORMED CHURCH OF ABBOTSFORD
United Reformed Churches in North America
35063 Page Road, Abbotsford, British Columbia
www.abbotsfordurc.org

approach demonstrates our respect for the civil government, our concerns about the transmission of COVID-19, and our duty to continue to worship.

1. **We request that the government immediately rescind this restriction on worship services**. It is our sincere desire to obey the provincial government in all things lawful. We have no desire to contravene the health orders or engage in civil disobedience if it can be avoided.
2. In order to give the provincial government, the opportunity to reconsider and repeal the current health order and to deliberate our response, **we complied with this health order on November 22**.
3. Regardless of whether this order is rescinded or extended, **we hereby announce our intentions to resume in-person worship services on November 29** for the reasons stated above.
4. **We will continue to take numerous reasonable precautions to limit the likelihood of COVID-19 transmission.** We will strongly encourage those who are feeling unwell not to attend, maintain social distancing, provide hand sanitizer at the entrance of the building, require masks to be worn at all times except while seated, and require all attendees to leave immediately after the service.
5. **If there is an outbreak of COVID at our local church, we will immediately suspend in-person worship services** at our church until we are confident that we can resume services in a safe manner. We will assist the local health authority in every respect to contact trace exposed members.
6. **If the worship restriction is not lifted by December 7, 2020, in accordance with Canada's Charter of Rights and Freedoms, Article 24:1, we will seek the enforcement of our rights and freedoms, the freedom of conscience and religion; freedom of expression; freedom of peaceful assembly; and freedom of association, with the proper means to obtain a remedy.** We expect multiple churches to file a legal challenge against the Province of BC to ensure that the government maintains their proper focus and domain.
7. **We will continue to pray for you in your various roles and decisions.** It has been our practice, besides respect and obedience in all things lawful, to pray for you. We know that it is often a thankless position with much weightiness in all decisions and for this we know it is a hard burden to bear. So as individual members and as a church body during worship, we request God's blessing upon your lives.

We hope this letter clarifies our position and intention. We wish to express our thankfulness for the many months of restraint in restrictions on corporate worship which allowed us to worship together in a limited way. We hope this respect for religious freedom can be restored, and

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respectful dialogue maintained between our institutions. May God continue to bless you and grant you wisdom as you continue to lead our province through these extraordinary times.

Respectfully submitted,
Council of the Immanuel Covenant Reformed Church

Correspondence Clerk
Immanuel Covenant Reformed Church
Abbotsford, BC.
clerk@abbotsfordurc.org

From: Thompson, Laurel HLTH:EX on behalf of Henry, Bonnie HLTH:EX
Sent: Friday, December 18, 2020 5:06 PM
To: 'brentsmith@calvarychapel.com'
Cc: Emerson, Brian P HLTH:EX
Subject: Letter to Brent Smith Riverside Calvary Chapel
Attachments: 1184539 Letter to Brent Smith Riverside Calvary Chapel.pdf; 1184539 Enclosure_PHO-Class Order Gatherings and Events (COVID-19) Dec 15.pdf

Dear Brent Smith,

Please see the attached letter and let me know at your earliest opportunity that you have received this letter.

Sincerely,

Dr Bonnie Henry
Provincial Health Officer
Office of the PHO
Ministry of Health
4th floor, 1515 Blanshard St
Mailing address: PO Box 9648, STN PROV GOVT Victoria, BC V8W 9P4 Bonnie.henry@gov.bc.ca

Phone: 250 952-1330

I gratefully acknowledge that I live and work on the traditional unceded terriory of the Lekwungen Peoples, specifically the Songhees and Esquimalt First Nations. Hay'sxw'qu Si'em

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

1184539

December 18, 2020

Riverside Calvary Chapel
#8-20178 96th Ave
Langley, BC V1M 0B2

Sent via email: brentsmith@calvarychapel.com

Dear Brent Smith and Riverside Calvary Chapel:

I am writing to request your cooperation in ensuring compliance with my recent orders prohibiting in-person gatherings and events, including worship services. It is necessary for me to make these orders since the gather of people in person, is resulting in significant community transmission of COVID-19 in BC.

The enclosed written order confirms my oral order of November 19, 2020 which generally prohibits attendance at services at a church, synagogue, mosque, gurdwara, temple, or other places of worship due to the high risk of transmission of COVID-19 in these settings. This and related orders are also published at https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/current-health-topics/covid-19-novel-coronavirus.

In recent weeks the number of COVID-19 cases in the province has escalated precipitously. The epidemiological data in BC demonstrates that a number of cases of transmission of the virus have occurred from religious gatherings including temples, churches and other religious settings.

I recognize the importance of religious freedom, and in particular the need for individuals to access the support within faith-based communities during this difficult time. I have had many discussions with religious leaders across the province about the current situation we face in BC and I am appreciative of the support I have received from most religious leaders for helping to achieve compliance with public health measures to reduce the spread of COVID-19 in our communities.

…\2

Ministry of Health

Office of the
Provincial Health Officer

4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT
Victoria BC V8W 9P4
Tel: (250) 952-1330
Fax: (250) 952-1570
http://www.health.gov.bc.ca/pho/

In making the most recent orders, I have weighed the needs of persons to attend in-person religious services with the need to protect the health of the public. The limitations on in-person attendance at worship services in the Orders is precautionary and is based on current and projected epidemiological evidence. It is my opinion that prohibiting in-person gatherings and worship services is necessary to protect people from transmission of the virus in these settings.

You will see from the written order that religious services can continue by using remote or virtual attendance options (such as Zoom or Skype), outside drive-in services and that individuals may still visit a place of worship for individual contemplation or personal prayer.

I am aware that some people do not agree with my decision to prohibit in-person religious services, since other types of activities such as people visiting restaurants or other commercial establishments are permitted with restrictions. In my view, unlike attending a restaurant or other commercial or retail operation, (all of which are subject to WorkSafe COVID-19 Safety Plans) experience has shown it is particularly difficult to achieve compliance with infection-control measures when members of a close community come together indoors at places of worship.

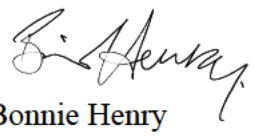
Unlike dining with one's household members in a restaurant, or visiting an establishment for short-term commercial purposes, it is extremely difficult to ensure that attendees keep appropriate physical distance from each other in the intimate setting of gatherings for religious purposes attended by persons outside of each attendee's own household. Additionally, singing, chanting and speaking loudly are proven to increase the risk of infection when indoors.

You will see that the Order includes an excerpt of section 43 of the *Public Health Act*, S.B.C. 2008 c. 28. which permits a person affected by an order under the Act, to request that I reconsider the order. I have considered and approved case-specific requests in the past and am open to a request from your church. If you believe that your church can conduct its activities in a manner that meets the objectives of the Orders you may submit a written proposal to me in accordance with section 43 (1) of the Act. Upon receipt of your request, I will evaluate your proposal and consider whether, in my view, your proposal satisfactorily minimizes the risk of transmission of COVID-19.

Again, I would like to encourage your church and all faith-based organizations to accept the importance of compliance with this Order and the need to respect the difficult decisions of public health officials.

Please let me know at your earliest opportunity that you have received this letter.

Sincerely,



Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

Enclosure

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 15, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person; the distribution of food or other supplies to people in need; health or social services provided to people in need, such as warming centres; individual attendance at a place of worship for the purpose of prayer or quiet reflection; an episodic market at which only food for human consumption is sold; health care related events such as immunization clinics, COVID-19 testing centres and blood donation clinics; court sittings wherever they occur; workers at a workplace when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412, the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School, or a post-secondary educational institution when engaged in educational activities; public pools and public skating rinks when not associated with an event; customers in a mall or retail or service business when engaged in shopping activities or seeking services; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; or the use of any place for local government, provincial or federal election purposes.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

(i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

(ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

(iii) coordinated action is needed to protect the public from the transmission of COVID-19

(iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF DECEMBER 9, 2020 WITH RESPECT TO GATHERINGS AND EVENTS;

RE-CONFIRMS MY ORAL ORDER OF NOVEMBER 19, 2020 WITH RESPECT TO WORKPLACE SAFETY AND PROHIBITING TRAVEL RELATED TO TEAM SPORT;

AND

AMENDS MY ORDER OF MAY 28, 2020 WITH RESPECT TO VENDING MARKETS BY LIMITING ITS APPLICATION TO VENDING MARKETS WHICH ONLY SELL FOOD OR DRINK FOR HUMAN CONSUMPTION

Definitions in this Order:

"adult team sport" means an organized and structured activity involving a number of participants, including basketball, cheerleading, combat sports, floor hockey, floor ringette, road hockey, ice hockey, ringette, netball, skating, soccer, curling, volleyball, indoor bowling, lawn bowling, lacrosse, hockey, ultimate, rugby, football, baseball, softball;

"affected area" means British Columbia:

"banquet hall" means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

"children or youth" refers to persons under nineteen years of age;

"critical service" means critical to preserving, life, health, public safety and basic societal functioning and includes health services, social services, police services, fire services, ambulance services, first responders, emergency responders and critical infrastructure service providers;

"event" refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service, ceremony or celebration; , a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; adult team sport; indoor group high intensity exercise; indoor group low intensity exercise; exhibition; market or fair, including a trade fair, agricultural fair, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event.

"group high intensity exercise" means a group exercise for adults which causes a sustained and accelerated rate of breathing and/or involves close contact including hot yoga, spin, aerobics, bootcamp, dance classes, dance fitness, circuit training, and high-intensity interval training;

"group low intensity exercise" means a group exercise for adults which does not cause a sustained and accelerated rate of breathing or involve close contact with another person, including yoga, Pilates, stretching, Tai-Chi, light weightlifting, stretching or strengthening;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, a officiant at a wedding, baptism or funeral,

volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who organizes or hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, dance, recreational, exercise, or social activity supervised by an adult and provided for children or youth, but does not include a performance, recital or demonstration by children or youth;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

"vehicle" means a motorized fully enclosed means of transportation designed to hold a driver and passengers and meant to be driven on the highway.

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
    a. an occupant's work,
    b. being provided with care by an occupant,
    c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
    d. providing assistance, care or services, including care to a child who is an occupant or an adult who is an occupant who requires care, health care, personal care or grooming services,
    e. providing educational programming or tutoring to an occupant,
    f. providing music lessons to an occupant,
    g. providing religious services to an occupant
    h. providing legal or financial services to an occupant,
    i. emergency services,
    j. housekeeping and window washing,
    k. gardening and landscape services,
    l. maintenance,
    m. repairs,
    n. renovations,
    o. moving services,
    p. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 5 regularly interact with one another, as well as with the occupant, they may be present for social purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

B. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this order.

4. No person may be present at an event except as provided for in this Order.

5. For certainty, this Part applies to and prohibits indoor group high intensity exercise, and adult team sport in any place.

C. SUPPORT GROUP MEETINGS, CRITICAL SERVICE MEETINGS, MEALS PROVIDED FOR PEOPLE IN NEED, WEDDINGS, BAPTISMS AND FUNERALS, PROGRAMS FOR CHILDREN AND YOUTH, OCCUPATIONAL TRAINING

1. Subject to the provisions of this Part, a person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host:

    a. a support group meeting,

    b. a critical service meeting which cannot be held at the workplace or provided virtually;

    c. a meal provided without charge to people in need,

    d. a wedding, baptism or funeral,

    e. a program for children or youth,

f. occupational training which cannot be provided virtually.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, a critical service meeting, a meal provided without charge to people in need, a program for children or youth or occupational training, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting, a critical service meeting, a program for children or youth or occupational training at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. In this and the following sections up to and including section 15

"event" means a support group meeting, a critical service meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral, a program for children or youth or occupational training;

An event may only proceed if the following conditions are met:

a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs

of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized;

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. there are no spectators at a program for children or youth, unless the presence of a spectator is necessary in order to provide care to a child or youth.

5. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

6. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

7. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be present in the place under the COVID - 19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

8. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

    a. patrons attending an event do not have contact with patrons attending an event in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

    b. there is a separate entrance to each of the premises in which an event is being held; and

    c. there are separate washrooms for each of the premises.

9. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

10. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

11. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

12. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

13. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    c. destroy the information after thirty days.

14. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

15. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending;

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11; and

    c. a request to provide the information required in section 13.

16. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

17. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

D. SPORT FOR CHILDREN OR YOUTH

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, sport for children or youth, if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. there are no spectators, unless the presence of a spectator is necessary in order to provide care to a child or youth.

E. GROUP LOW INTENSITY EXERCISE

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, indoor group low intensity exercise, if the following conditions are met:

    a. I have posted guidelines for indoor group low intensity exerciseon my website;

b. the person who provides or hosts the indoor group low intensity exercise has developed an updated COVID-19 safety plan in accordance with my guidelines; and

c. the COVID-19 safety plan has been posted in a place easily visible to participants.

2. No person may participate in indoor group low intensity exercise unless the conditions in section 1 have been met.

F. DRIVE-THROUGH AND DRIVE-IN EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-through event to view a seasonal light or similar display or to drop off items such as food, toys or books, if the following conditions are met:

    a. traffic moves in one direction;

    b. the entrance and exit are clearly marked and controlled;

    c. patrons stay in their vehicles except to drop of items and return to their vehicles without delay;

    d. patrons, staff and volunteers maintain a two metre distance from one another or physical barriers are in place;

    e. patrons do not congregate together in one spot;

    f. the organizer monitors the actions of patrons to ensure that

        i. they only leave their vehicles to drop off items;

        ii. they return to their vehicles immediately after dropping off items; and

        iii. they comply with the physical distancing requirement when out of their vehicles.

2. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-in event, if the following conditions are met:

a. patrons only attend in a vehicle;

b. no more than fifty vehicles are present at the drive in;

c. patrons remain in their vehicles except to use washroom facilities, and when outside their vehicles for this purpose they maintain a distance of two metres from other patrons and staff;

d. the entrance and exit to the drive-in are clearly marked and controlled and traffic moves in only one direction;

e. no food or drink is sold;

f. the organizer monitors the actions of patrons to ensure that

    i. they remain in their vehicles except to use washroom facilities; and

    ii. comply with the physical distancing requirement if outside their vehicle;

g. the organizer

    i. collects the first and last name and telephone number or email address of every driver of a vehicle who attends an event;

    ii. retains this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    iii. destroys the information after thirty days.

3. A person must not permit a place to be used, or provide, a drive-through or drive -in event unless the conditions in this Part are met.

4. A person must not attend a drive-through or drive-in event unless the conditions in this Part are met.

G. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than

        i. maintenance, fueling or a related purpose; or

        ii. transport; or

    b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely

H. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19, **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, B and C expire at midnight on January 8, 2021 unless extended by me; Parts D, E, F, G and H do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would

    (a) meet the objective of the order, and

    (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 15th day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

From: Thompson, Laurel HLTH:EX on behalf of Henry, Bonnie HLTH:EX
Sent: Friday, December 18, 2020 5:05 PM
To: 'koopman@frcna.org'
Cc: Emerson, Brian P HLTH:EX
Subject: Letter to John Koopman Chilliwack Free Reformed Church
Attachments: 1184539 Letter to John Koopman Chilliwack Free Reformed Church.pdf; 1184539 Enclosure_PHO-Class Order Gatherings and Events (COVID-19) Dec 15.pdf

Dear John Koopman,

Please see the attached letter and let me know at your earliest opportunity that you have received this letter.

Sincerely,

Dr Bonnie Henry
Provincial Health Officer
Office of the PHO
Ministry of Health
4th floor, 1515 Blanshard St
Mailing address: PO Box 9648, STN PROV GOVT Victoria, BC V8W 9P4 Bonnie.henry@gov.bc.ca

Phone: 250 952-1330

I gratefully acknowledge that I live and work on the traditional unceded terriory of the Lekwungen Peoples, specifically the Songhees and Esquimalt First Nations. Hay'sxw'qu Si'em

This is **EXHIBIT " "** referred to in
the affidavit of DR. BRIAN EMERSON
affirmed before me at Victoria,
in the Province of British Columbia
this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

1184539

December 18, 2020

Chilliwack Free Reformed Church
45471 Yale Rd W
Chilliwack, BC V2R 3Z8

Sent via email: koopman@frcna.org

Dear Pastor John Koopman and the Chilliwack Free Reformed Church:

I am writing to request your cooperation in ensuring compliance with my recent orders prohibiting in-person gatherings and events, including worship services. It is necessary for me to make these orders since the gather of people in person, is resulting in significant community transmission of COVID-19 in BC.

The enclosed written order confirms my oral order of November 19, 2020 which generally prohibits attendance at services at a church, synagogue, mosque, gurdwara, temple, or other places of worship due to the high risk of transmission of COVID-19 in these settings. This and related orders are also published at https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/current-health-topics/covid-19-novel-coronavirus.

In recent weeks the number of COVID-19 cases in the province has escalated precipitously. The epidemiological data in BC demonstrates that a number of cases of transmission of the virus have occurred from religious gatherings including temples, churches and other religious settings.

I recognize the importance of religious freedom, and in particular the need for individuals to access the support within faith-based communities during this difficult time. I have had many discussions with religious leaders across the province about the current situation we face in BC and I am appreciative of the support I have received from most religious leaders for helping to achieve compliance with public health measures to reduce the spread of COVID-19 in our communities.

…\2

Ministry of Health

Office of the
Provincial Health Officer

4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT
Victoria BC V8W 9P4
Tel: (250) 952-1330
Fax: (250) 952-1570
http://www.health.gov.bc.ca/pho/

In making the most recent orders, I have weighed the needs of persons to attend in-person religious services with the need to protect the health of the public. The limitations on in-person attendance at worship services in the Orders is precautionary and is based on current and projected epidemiological evidence. It is my opinion that prohibiting in-person gatherings and worship services is necessary to protect people from transmission of the virus in these settings. You will see from the written order that religious services can continue by using remote or virtual attendance options (such as Zoom or Skype), outside drive-in services and that individuals may still visit a place of worship for individual contemplation or personal prayer.

I am aware that some people do not agree with my decision to prohibit in-person religious services, since other types of activities such as people visiting restaurants or other commercial establishments are permitted with restrictions. In my view, unlike attending a restaurant or other commercial or retail operation, (all of which are subject to WorkSafe COVID-19 Safety Plans) experience has shown it is particularly difficult to achieve compliance with infection-control measures when members of a close community come together indoors at places of worship.

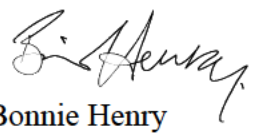
Unlike dining with one's household members in a restaurant, or visiting an establishment for short-term commercial purposes, it is extremely difficult to ensure that attendees keep appropriate physical distance from each other in the intimate setting of gatherings for religious purposes attended by persons outside of each attendee's own household. Additionally, singing, chanting and speaking loudly are proven to increase the risk of infection when indoors.

You will see that the Order includes an excerpt of section 43 of the *Public Health Act*, S.B.C. 2008 c. 28. which permits a person affected by an order under the Act, to request that I reconsider the order. I have considered and approved case-specific requests in the past and am open to a request from your church. If you believe that your church can conduct its activities in a manner that meets the objectives of the Orders you may submit a written proposal to me in accordance with section 43 (1) of the Act. Upon receipt of your request, I will evaluate your proposal and consider whether, in my view, your proposal satisfactorily minimizes the risk of transmission of COVID-19.

Again, I would like to encourage your church and all faith-based organizations to accept the importance of compliance with this Order and the need to respect the difficult decisions of public health officials.

Please let me know at your earliest opportunity that you have received this letter.

Sincerely,



Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

Enclosure

ORDER OF THE PROVINCIAL HEALTH OFFICER

(Pursuant to Sections 30, 31, 32 and 39 (3) *Public Health Act*, S.B.C. 2008)

GATHERINGS AND EVENTS – December 15, 2020

The *Public Health Act* is at:
http://www.bclaws.ca/civix/content/complete/statreg/08028/?xsl=/templates/browse.xsl
(excerpts enclosed)

TO: RESIDENTS OF BRITISH COLUMBIA

TO: OPERATORS AND OCCUPANTS OF VACATION ACCOMMODATION

TO: OWNERS AND OCCUPANTS OF PRIVATE RESIDENCES

TO: OWNERS AND OPERATORS OF PLACES

TO: PERSONS WHO ORGANIZE EVENTS

TO: PERSONS WHO ATTEND EVENTS

TO: PERSONS WHO OWN, OPERATE OR ARE PASSENGERS IN PERIMETER SEATING VEHICLES OR PERIMETER SEATING BUSES

TO: MEDICAL HEALTH OFFICERS

WHEREAS:

1. On March 17, 2020 I provided notice under section 52 (2) of the *Public Health Act* that the transmission of the infectious agent SARS-CoV-2, which has caused cases and outbreaks of a serious communicable disease known as COVID-19 among the population of the Province of British Columbia, constitutes a regional event as defined in section 51 of the *Public Health Act*;

2. The SARS-CoV-2 virus, an infectious agent, can cause outbreaks of COVID-19;

3. A person infected with SARS-CoV-2 can infect other people with whom the infected person is in direct contact through droplets in the air, or from fluid containing SARS-CoV-2 left on surfaces;

4. Social interactions and close contact between people are associated with significant increases in the transmission of SARS-CoV-2, and increases in the number of people who develop COVID-19 and become seriously ill;

5. Social interactions and close contact resulting from the gathering of people and events promotes the transmission of SARS-CoV-2 and increases the number of people who develop COVID-19 and become seriously ill;

6. With schools and post-secondary institutions operating and the change of seasons bringing cooler weather, people are interacting more and spending more time indoors which increases the risk of the transmission of SARS-CoV-2 in the population and the number of people who develop COVID-19 and become seriously ill;

7. Seasonal and other celebrations and social gatherings in private residences and other places have resulted in the transmission of SARS-CoV-2 and increases in the number of people who develop COVID-19 and become seriously ill;

8. There has been a rapid increase in COVID-19 cases throughout the province which has resulted in increasing and accelerating numbers of people being hospitalized and admitted to critical care, outbreaks in health-care facilities and deaths;

9. For certainty, this Order does not apply to the Executive Council, the Legislative Assembly; a council, board, or trust committee of a local authority as defined under the *Community Charter*, when holding a meeting or public hearing without members of the public attending in person; the distribution of food or other supplies to people in need; health or social services provided to people in need, such as warming centres; individual attendance at a place of worship for the purpose of prayer or quiet reflection; an episodic market at which only food for human consumption is sold; health care related events such as immunization clinics, COVID-19 testing centres and blood donation clinics; court sittings wherever they occur; workers at a workplace when engaged in their work activities; workers living at a work camp; students, teachers or instructors at a school operating under the *School Act* [RSBC 1996] Ch. 412, the *Independent School Act* [RSBC 1996] Ch. 216 or a First Nations School, or a post-secondary educational institution when engaged in educational activities; public pools and public skating rinks when not associated with an event; customers in a mall or retail or service business when engaged in shopping activities or seeking services; a volunteer work party engaged in gardening, vegetation removal, trail building or a similar outside activity; or the use of any place for local government, provincial or federal election purposes.

10. For further certainty, this Order applies to private residences, vacation accommodation and private clubs and organizations;

11. I have reason to believe and do believe that

(i) the risk of an outbreak of COVID-19 among the public constitutes a health hazard under the *Public Health Act*;

(ii) there is an immediate and urgent need for focused action to reduce the rate of the transmission of COVID-19 which extends beyond the authority of one or more medical health officers;

(iii) coordinated action is needed to protect the public from the transmission of COVID-19

(iv) and that it is in the public interest for me to exercise the powers in sections 30, 31, 32 and 39 (3) of the *Public Health Act* **TO ORDER** as follows:

THIS ORDER

REPEALS AND REPLACES MY ORDER OF DECEMBER 9, 2020 WITH RESPECT TO GATHERINGS AND EVENTS;

RE-CONFIRMS MY ORAL ORDER OF NOVEMBER 19, 2020 WITH RESPECT TO WORKPLACE SAFETY AND PROHIBITING TRAVEL RELATED TO TEAM SPORT;

AND

AMENDS MY ORDER OF MAY 28, 2020 WITH RESPECT TO VENDING MARKETS BY LIMITING ITS APPLICATION TO VENDING MARKETS WHICH ONLY SELL FOOD OR DRINK FOR HUMAN CONSUMPTION

Definitions in this Order:

"adult team sport" means an organized and structured activity involving a number of participants, including basketball, cheerleading, combat sports, floor hockey, floor ringette, road hockey, ice hockey, ringette, netball, skating, soccer, curling, volleyball, indoor bowling, lawn bowling, lacrosse, hockey, ultimate, rugby, football, baseball, softball;

"affected area" means British Columbia:

"banquet hall" means a stand-alone premises built for the purpose of holding large social events, including banquets, generally involving many hundreds of people. It does not include the premises associated with a private club, hotel, house of worship, recreation centre, sports organization or other non- profit organization with a community, educational, historical, sports or similar purpose, or owned or operated or otherwise controlled by a government;

"children or youth" refers to persons under nineteen years of age;

"critical service" means critical to preserving, life, health, public safety and basic societal functioning and includes health services, social services, police services, fire services, ambulance services, first responders, emergency responders and critical infrastructure service providers;

"event" refers to an in-person gathering of people in any place whether private or public, inside or outside, organized or not, on a one-time, regular or irregular basis, including drive-ins and drive-throughs, such as to see a display or to drop off items; events; meetings and conferences; a gathering in vacation accommodation, a private residence, banquet hall or other place; a gathering of passengers; a party; a worship or other religious service, ceremony or celebration; , a ceremony; a reception; a wedding; a baptism; a funeral; a celebration of life; a musical, theatrical or dance entertainment or performance; a live solo or band musical performance; a disc jockey performance; strip dancing; comedic act; art show; magic show; puppet show; fashion show; book signing; reading; recitation; display, including a seasonal light display; a movie; film; lecture; talk; educational presentation (except in a school or post-secondary educational institution); auction; fund raising benefit; contest; competition; quiz; game; rally; festival; presentation; demonstration; adult team sport; indoor group high intensity exercise; indoor group low intensity exercise; exhibition; market or fair, including a trade fair, agricultural fair, seasonal fair or episodic indoor event that has as its primary purpose the sale of merchandise or services such as Christmas craft market, home show antique fair and similar activities; and, for certainty, includes a gathering preceding or following another event.

"group high intensity exercise" means a group exercise for adults which causes a sustained and accelerated rate of breathing and/or involves close contact including hot yoga, spin, aerobics, bootcamp, dance classes, dance fitness, circuit training, and high-intensity interval training;

"group low intensity exercise" means a group exercise for adults which does not cause a sustained and accelerated rate of breathing or involve close contact with another person, including yoga, Pilates, stretching, Tai-Chi, light weightlifting, stretching or strengthening;

"occupant" means an individual who occupies vacation accommodation or resides in a private residence;

"organizer" means the person responsible for organizing an event and the person who acts as host at an event;

"owner" includes an occupier, operator or person otherwise responsible for a place;

"passenger" means a person in a perimeter seating vehicle or a perimeter seating bus, other than the driver or a mechanic;

"patron" means a person who attends or is a participant in an event, including a passenger, an occupant, a person other than an occupant who is present in a private residence or vacation accommodation, a leader or presenter at a meeting, a officiant at a wedding, baptism or funeral,

volunteers at an event, vendors, exhibitors, performers and presenters, but does not include a person who organizes or hosts a gathering, event staff or staff in a place subject to the *Food and Liquor Serving Premises* order;

"perimeter seating" and **"perimeter seating bus"** have the same meaning as in the Passenger Transportation Regulation made under the *Passenger Transportation Act* [SBC2004] Ch. 39;

"physical barrier" means a barrier which is designed, installed and maintained in accordance with WorkSafeBC guidelines at https://www.worksafebc.com/en/resources/health-safety/information-sheets/covid-19-health-safety-designing-effective-barriers?lang=en;

"a place" includes areas both inside and outside, an area open to the public and an area not open to the public, a banquet hall, private residence, vacation accommodation, a perimeter seating vehicle or a perimeter seating bus;

"private residence" includes areas both inside and outside;

"program for children or youth" means a structured educational, music, art, drama, dance, recreational, exercise, or social activity supervised by an adult and provided for children or youth, but does not include a performance, recital or demonstration by children or youth;

"sport for children or youth" means an activity which is delivered by a provincial sport organization or a local sport organization;

"support group" means a group of people who provide support to one another with respect to grief, disability, substance use, addiction or another psychological, mental or physical health condition;

"transport" means for the purpose of conveying a passenger, but does not include conveying a passenger:

a. to and from an event, except conveying a worker for the purpose of working at an event;

b. for the purpose of social interaction or another type of event in a perimeter seating vehicle or a perimeter seating bus; or

c. from a place which is subject to the *Food and Liquor Serving Premises Order*;

"vacation accommodation" means a house, townhouse, cottage, cabin, apartment, condominium, mobile home, recreational vehicle, hotel suite, tent, yurt, houseboat or any other type of living accommodation, and any associated deck, garden or yard, that is not the occupant's primary residence;

"vehicle" means a motorized fully enclosed means of transportation designed to hold a driver and passengers and meant to be driven on the highway.

A. PRIVATE RESIDENCES AND VACATION ACCOMMODATION

1. No person may host an event at a private residence or vacation accommodation where there is a person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

2. A person who is not an occupant may be present at a private residence or vacation accommodation for the purpose of
    a. an occupant's work,
    b. being provided with care by an occupant,
    c. a visit by a minor child of an occupant with whom the minor child does not reside on a regular basis,
    d. providing assistance, care or services, including care to a child who is an occupant or an adult who is an occupant who requires care, health care, personal care or grooming services,
    e. providing educational programming or tutoring to an occupant,
    f. providing music lessons to an occupant,
    g. providing religious services to an occupant
    h. providing legal or financial services to an occupant,
    i. emergency services,
    j. housekeeping and window washing,
    k. gardening and landscape services,
    l. maintenance,
    m. repairs,
    n. renovations,
    o. moving services,
    p. or another purpose that is not social in nature.

3. No person who is not an occupant may be present at a private residence or vacation accommodation, except as provided for in sections 2, 5, 6 and 7.

4. No occupant may be present at an event in a private residence or vacation accommodation if there is any person present who is not an occupant, except as provided for in sections 2, 5, 6 and 7.

5. Despite sections 1, 3, and 4 an occupant who lives on their own may have up to two other persons who are not occupants present at the occupant's private residence or vacation accommodation for a social purpose, if the other persons are individuals with whom the occupant regularly interacts.

6. Despite sections 1, 3 and 4, if the two persons referred to in section 5 regularly interact with one another, as well as with the occupant, they may be present for social purposes at the same time in the private residence or vacation accommodation of the occupant.

7. Despite sections 1, 3 and 4, a person who lives on their own may be present for social purposes at one private residence or vacation accommodation with more than one occupant, if the person regularly interacts with the occupants of the private residence or vacation accommodation.

B. EVENTS

1. No person may permit a place to be used for an event except as provided for in this Order.

2. For certainty, no person may permit a place that is subject to the *Food and Liquor Serving Premises Order* to be used for an event, including private events, except as provided for in this Order.

3. No person may organize or host an event except as provided for in this order.

4. No person may be present at an event except as provided for in this Order.

5. For certainty, this Part applies to and prohibits indoor group high intensity exercise, and adult team sport in any place.

C. SUPPORT GROUP MEETINGS, CRITICAL SERVICE MEETINGS, MEALS PROVIDED FOR PEOPLE IN NEED, WEDDINGS, BAPTISMS AND FUNERALS, PROGRAMS FOR CHILDREN AND YOUTH, OCCUPATIONAL TRAINING

1. Subject to the provisions of this Part, a person may permit a place, other than a private residence or vacation accommodation, to be used for, or may organize or host:

    a. a support group meeting,

    b. a critical service meeting which cannot be held at the workplace or provided virtually;

    c. a meal provided without charge to people in need,

    d. a wedding, baptism or funeral,

    e. a program for children or youth,

f. occupational training which cannot be provided virtually.

2. An owner or organizer must not permit more than fifty patrons to be present at a support group meeting, a critical service meeting, a meal provided without charge to people in need, a program for children or youth or occupational training, or more than ten patrons to be present at a wedding, baptism or funeral.

3. A patron must not be present at a support group meeting, a critical service meeting, a program for children or youth or occupational training at which there are more than fifty patrons, or at a wedding, baptism or funeral at which there are more than ten patrons.

4. In this and the following sections up to and including section 15

"event" means a support group meeting, a critical service meeting, a meal provided without charge to people in need, a wedding, a baptism, a funeral, a program for children or youth or occupational training;

An event may only proceed if the following conditions are met:

a. there is a COVID-19 safety plan;

b. there is an organizer;

c. access to the event is controlled;

d. there is sufficient space available to permit the patrons to maintain a distance of two metres from one another;

e. the patrons maintain a distance of two metres from one another when standing or sitting, unless they reside together;

f. measures are put in place to prevent the congregation of patrons outside the place,

g. the place is assessed for areas where patrons may congregate, and measures are put in place to avoid congregation;

h. physical devices, markers or other methods are used to guide and assist patrons in maintaining a distance of two metres from other patrons, if they are not seated;

i. if there are tables provided for the use of patrons, no more than six patrons are seated at a table, even if they reside together, and there are at least two metres between the backs of the chairs at one table and the backs

of the chairs at another table, unless the chairs are separated by a physical barrier;

j. if there is a leader, presenter, officiant, reader or musician, there is a physical barrier between them and other patrons which blocks the transmission of droplets, or there is at least a three metre separation between them and the patrons;

k. if there is a self-serve food or drink station,

i. hand washing facilities or alcohol-based sanitizers are within easy reach of the station;

ii. signs reminding patrons to wash or sanitize their hands before touching self-serve food, drink or other items, and to maintain a two metre distance from other patrons, are posted at the self-serve station; and

iii. high touch surfaces at the station, and utensils that are used for self- serve, are frequently cleaned and sanitized;

l. hand sanitation supplies are readily available to patrons;

m. washroom facilities with running water, soap and paper towels for hand washing and drying purposes, or hand sanitation supplies, are available;

n. there are no spectators at a program for children or youth, unless the presence of a spectator is necessary in order to provide care to a child or youth.

5. Subject to the maximum numbers in section 2, the owner of a place in which an event is to be held must calculate the maximum number of patrons who can be accommodated safely during the event taking into consideration the requirements of this Part, and must document this number in the COVID-19 safety plan.

6. The organizer must monitor the number of patrons present and ensure that the number of patrons present does not exceed the maximum number documented in the COVID-19 safety plan.

7. If an event is in a part of a place which is completely separated from the rest of the place, and which has its own entrance and washrooms, there may be additional patrons present in other parts of the place who are not attending the event, if the total number of patrons present in the place does not exceed the maximum number of patrons permitted to be present in the place under the COVID - 19 safety plan. Patrons attending an event in part of a place must not have contact with patrons in another part of the place who are not attending the event.

8. If there are one or more separate premises in a place, there may be an event in each of the premises, as long as

    a. patrons attending an event do not have contact with patrons attending an event in other premises in the place, or with individuals who are in the place but not in the premises in which the event is being held;

    b. there is a separate entrance to each of the premises in which an event is being held; and

    c. there are separate washrooms for each of the premises.

9. During an event, a patron who leaves the place in which an event is being held must not be replaced by another patron.

10. Following an event, and during an appropriate interval of time before another event commences, an owner must ensure that:

    a. the place is cleaned, sanitized and ventilated while there are no patrons present;

    b. there is a sufficient period of time between events to permit a place to be cleaned, sanitized and ventilated without any patrons being present, and patrons leaving one event, do not have contact with patrons arriving for a subsequent event.

11. Patrons must disperse immediately after an event and must not congregate with patrons who are leaving the event or arriving for a subsequent event.

12. The organizer must ensure that the COVID-19 safety plan is complied with and that the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 13, 15 and 16 are met.

13. The organizer must

    a. collect the first and last names and telephone number, or email address, of every patron who attends an event;

    b. retain this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    c. destroy the information after thirty days.

14. If the organizer is not the owner of the place in which the event is held, the owner must be satisfied that the organizer is aware of the conditions and requirements in sections 2, 4, 6, 7, 8, 9, 11, 12, 13 and 15 and 16 and has the capacity to fulfill them.

15. Patrons must not congregate and must comply with

    a. the limitation on the number of patrons permitted in a place at the event which they are attending;

    b. the distancing and other requirements in sections 4 (e) and (i), and section 11; and

    c. a request to provide the information required in section 13.

16. For certainty, no person may permit a place to be used for, or organize or host, a reception or gathering, before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

17. For certainty, no person may attend a reception or informal gathering at any place, either before or after a wedding, baptism or funeral, unless the people present all reside in the same private residence.

D. SPORT FOR CHILDREN OR YOUTH

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, sport for children or youth, if the following conditions are met:

    a. participants maintain a physical distance of three metres from one another and do not engage in handshaking, high fives, hugging or similar behaviour;

    b. the focus is on activities that have a low risk of COVID-19 virus transmission;

    c. there are no spectators, unless the presence of a spectator is necessary in order to provide care to a child or youth.

E. GROUP LOW INTENSITY EXERCISE

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, indoor group low intensity exercise, if the following conditions are met:

    a. I have posted guidelines for indoor group low intensity exerciseon my website;

b. the person who provides or hosts the indoor group low intensity exercise has developed an updated COVID-19 safety plan in accordance with my guidelines; and

c. the COVID-19 safety plan has been posted in a place easily visible to participants.

2. No person may participate in indoor group low intensity exercise unless the conditions in section 1 have been met.

F. DRIVE-THROUGH AND DRIVE-IN EVENTS

1. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-through event to view a seasonal light or similar display or to drop off items such as food, toys or books, if the following conditions are met:

    a. traffic moves in one direction;

    b. the entrance and exit are clearly marked and controlled;

    c. patrons stay in their vehicles except to drop of items and return to their vehicles without delay;

    d. patrons, staff and volunteers maintain a two metre distance from one another or physical barriers are in place;

    e. patrons do not congregate together in one spot;

    f. the organizer monitors the actions of patrons to ensure that

        i. they only leave their vehicles to drop off items;

        ii. they return to their vehicles immediately after dropping off items; and

        iii. they comply with the physical distancing requirement when out of their vehicles.

2. A person may permit a place, other than a private residence or vacation accommodation, to be used for, or may provide, a drive-in event, if the following conditions are met:

a. patrons only attend in a vehicle;

b. no more than fifty vehicles are present at the drive in;

c. patrons remain in their vehicles except to use washroom facilities, and when outside their vehicles for this purpose they maintain a distance of two metres from other patrons and staff;

d. the entrance and exit to the drive-in are clearly marked and controlled and traffic moves in only one direction;

e. no food or drink is sold;

f. the organizer monitors the actions of patrons to ensure that

    i. they remain in their vehicles except to use washroom facilities; and

    ii. comply with the physical distancing requirement if outside their vehicle;

g. the organizer

    i. collects the first and last name and telephone number or email address of every driver of a vehicle who attends an event;

    ii. retains this information for thirty days, in case there is a need for contact tracing on the part of the medical health officer, in which case the information must be provided to the medical health officer; and

    iii. destroys the information after thirty days.

3. A person must not permit a place to be used, or provide, a drive-through or drive -in event unless the conditions in this Part are met.

4. A person must not attend a drive-through or drive-in event unless the conditions in this Part are met.

G. PERIMETER SEATING VEHICLES AND PERIMETER SEATING BUSES

In this Part

"accommodated safely" means that each passenger is seated at least two metres away from every other passenger, except another passenger with whom the passenger resides in the same private residence.

1. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 11:00 PM and 6:00 AM, except for the purpose of maintenance, fueling or a related purpose

2. No person may operate, or permit to be operated, a perimeter seating vehicle or a perimeter seating bus in the affected area between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than

        i. maintenance, fueling or a related purpose; or

        ii. transport; or

    b. with more passengers than can be accommodated safely

3. No person may be a passenger between the hours of 11:00 PM and 6:00 AM.

4. No person may be a passenger between the hours of 6:00 AM and 11:00 PM

    a. for a purpose other than transport; or

    b. if there are more passengers than can be accommodated safely

H. RELATED MEDICAL HEALTH OFFICERS ORDERS

Recognizing that the risk differs in different regions of the province and that medical health officers are in the best position to assess local circumstances and to determine whether additional or more restrictive steps need to be taken to reduce the risk of the transmission of COVID-19, **I FURTHER ORDER**:

1. A medical health officer may issue an order further to this Order for the purpose of having the provisions of the order incorporated into this Order. Such an order may add further prohibitions, or impose more restrictive limitations or conditions in the whole or part of the geographic area of the province for which the medical health officer is designated and, subject to section 2, the provisions of the order are incorporated into this Order when posted on my website. For certainty, a contravention of an order of a medical health officer issued further to this Order and posted on my website is a contravention of this Order.

2. While it is in force, a provision in an order made by a medical health officer further to this Order and posted on my website, which adds further prohibitions or imposes more restrictive limitations or requirements than this Order, applies in the whole or part of the geographic area of the province for which the medical health officer is designated, despite the provisions of this Order.

Parts A, B and C expire at midnight on January 8, 2021 unless extended by me; Parts D, E, F, G and H do not have an expiration date.

You are required under section 42 of the *Public Health Act* to comply with this Order. Failure to comply with this Order is an offence under section 99 (1) (k) of the *Public Health Act*.

Under section 43 of the *Public Health Act,* you may request me to reconsider this Order if you:

1. Have additional relevant information that was not reasonably available to me when this Order was issued,

2. Have a proposal that was not presented to me when this Order was issued but, if implemented, would

    (a) meet the objective of the order, and

    (b) be suitable as the basis of a written agreement under section 38 [may make written agreements]

3. Require more time to comply with the order.

Under section 43 (6) an Order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

If you fail to comply with this Order, I have the authority to take enforcement action against you under Part 4, Division 6 of the *Public Health Act.*

You may contact me at:

Dr. Bonnie Henry, Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT, Victoria BC V8W 9P4
Fax: (250) 952-1570
Email: ProvHlthOffice@gov.bc.ca

DATED THIS: 15th day of December 2020

SIGNED: 

Bonnie Henry
MD, MPH, FRCPC
Provincial Health Officer

DELIVERY BY: Posting to the BC Government the BC Centre for Disease Control websites.

Enclosure: Excerpts of the *Public Health Act*.

ENCLOSURE

Excerpts of the *Public Health Act* [SBC 2008] c. 28

Definitions

1 In this Act:

"health hazard" means

(a) a condition, a thing or an activity that

(i) endangers, or is likely to endanger, public health, or

(ii) interferes, or is likely to interfere, with the suppression of infectious agents or hazardous agents, or

(b) a prescribed condition, thing or activity, including a prescribed condition, thing or activity that

(i) is associated with injury or illness, or

(ii) fails to meet a prescribed standard in relation to health, injury or illness;

When orders respecting health hazards and contraventions may be made

30 (1) A health officer may issue an order under this Division only if the health officer reasonably believes that

(a) a health hazard exists,

(b) a condition, a thing or an activity presents a significant risk of causing a health hazard,

(c) a person has contravened a provision of the Act or a regulation made under it, or

(d) a person has contravened a term or condition of a licence or permit held by the person under this Act.

(2) For greater certainty, subsection (1) (a) to (c) applies even if the person subject to the order is complying with all terms and conditions of a licence, a permit, an approval or another authorization issued under this or any other enactment.

General powers respecting health hazards and contraventions

31 (1) If the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, a health officer may order a person to do anything that the health officer reasonably believes is necessary for any of the following purposes:

(a) to determine whether a health hazard exists;

(b) to prevent or stop a health hazard, or mitigate the harm or prevent further harm from a health hazard;

(c) to bring the person into compliance with the Act or a regulation made under it;

(d) to bring the person into compliance with a term or condition of a licence or permit held by that person under this Act.

(2) A health officer may issue an order under subsection (1) to any of the following persons:

(a) a person whose action or omission

(i) is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(b) a person who has custody or control of a thing, or control of a condition, that

(i) is a health hazard or is causing or has caused a health hazard, or

(ii) is not in compliance with the Act or a regulation made under it, or a term or condition of the person's licence or permit;

(c) the owner or occupier of a place where

(i) a health hazard is located, or

(ii) an activity is occurring that is not in compliance with the Act or a regulation made under it, or a term or condition of the licence or permit of the person doing the activity.

Specific powers respecting health hazards and contraventions

32 (1) An order may be made under this section only

(a) if the circumstances described in section 30 *[when orders respecting health hazards and contraventions may be made]* apply, and

(b) for the purposes set out in section 31 (1) *[general powers respecting health hazards and contraventions]*.

(2) Without limiting section 31, a health officer may order a person to do one or more of the following:

(a) have a thing examined, disinfected, decontaminated, altered or destroyed, including

(i) by a specified person, or under the supervision or instructions of a specified person,

(ii) moving the thing to a specified place, and

(iii) taking samples of the thing, or permitting samples of the thing to be taken;

(b) in respect of a place,

(i) leave the place,

(ii) not enter the place,

(iii) do specific work, including removing or altering things found in the place, and altering or locking the place to restrict or prevent entry to the place,

(iv) neither deal with a thing in or on the place nor dispose of a thing from the place, or deal with or dispose of the thing only in accordance with a specified procedure, and

(v) if the person has control of the place, assist in evacuating the place or examining persons found in the place, or taking preventive measures in respect of the place or persons found in the place;

(c) stop operating, or not operate, a thing;

(d) keep a thing in a specified place or in accordance with a specified procedure;

(e) prevent persons from accessing a thing;

(f) not dispose of, alter or destroy a thing, or dispose of, alter or destroy a thing only in accordance with a specified procedure;

(g) provide to the health officer or a specified person information, records, samples or other matters relevant to a thing's possible infection with an infectious agent or contamination with a hazardous agent, including information respecting persons who may have been exposed to an infectious agent or hazardous agent by the thing;

(h) wear a type of clothing or personal protective equipment, or change, remove or alter clothing or personal protective equipment, to protect the health and safety of persons;

(i) use a type of equipment or implement a process, or remove equipment or alter equipment or processes, to protect the health and safety of persons;

(j) provide evidence of complying with the order, including

(i) getting a certificate of compliance from a medical practitioner, nurse practitioner or specified person, and

(ii) providing to a health officer any relevant record;

(k) take a prescribed action.

(3) If a health officer orders a thing to be destroyed, the health officer must give the person having custody or control of the thing reasonable time to request reconsideration and review of the order under sections 43 and 44 unless

(a) the person consents in writing to the destruction of the thing, or

(b) Part 5 *[Emergency Powers]* applies.

May make written agreements

38 (1) If the health officer reasonably believes that it would be sufficient for the protection of public health and, if applicable, would bring a person into compliance with this Act or the regulations made under it, or a term or condition of a licence or permit held by the person under this Act, a health officer may do one or both of the following:

(a) instead of making an order under Division 1, 3 or 4, enter into a written agreement with a person, under which the person agrees to do one or more things;

(b) order a person to do one or more things that a person has agreed under paragraph (a) to do, regardless of whether those things could otherwise have been the subject of an order under Division 1, 3 or 4.

(2) If, under the terms of an agreement under subsection (1), a health officer conducts one or more inspections, the health officer may use information resulting from the inspection as the basis of an order under this Act, but must not use the information as the basis on which to

(a) levy an administrative penalty under this Act, or

(b) charge a person with an offence under this Act.

Contents of orders

39 (3) An order may be made in respect of a class of persons.

Duty to comply with orders

42 (1) A person named or described in an order made under this Part must comply with the order.

(2) Subsection (1) applies regardless of whether the person leaves the geographic area for which the health officer who made the order is designated.

Reconsideration of orders

43 (1) A person affected by an order, or the variance of an order, may request the health officer who issued the order or made the variance to reconsider the order or variance if the person

(a) has additional relevant information that was not reasonably available to the health officer when the order was issued or varied,

(b) has a proposal that was not presented to the health officer when the order was issued or varied but, if implemented, would

(i) meet the objective of the order, and

(ii) be suitable as the basis of a written agreement under section 38 *[may make written agreements]*, or

(c) requires more time to comply with the order.

(2) A request for reconsideration must be made in the form required by the health officer.

(3) After considering a request for reconsideration, a health officer may do one or more of the following:

(a) reject the request on the basis that the information submitted in support of the request

(i) is not relevant, or

(ii) was reasonably available at the time the order was issued;

(b) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(c) confirm, rescind or vary the order.

(4) A health officer must provide written reasons for a decision to reject the request under subsection (3) (a) or to confirm or vary the order under subsection (3) (c).

(5) Following a decision made under subsection (3) (a) or (c), no further request for reconsideration may be made.

(6) An order is not suspended during the period of reconsideration unless the health officer agrees, in writing, to suspend it.

(7) For the purposes of this section,

(a) if an order is made that affects a class of persons, a request for reconsideration may be made by one person on behalf of the class, and

(b) if multiple orders are made that affect a class of persons, or address related matters or issues, a health officer may reconsider the orders separately or together.

(8) If a health officer is unable or unavailable to reconsider an order he or she made, a similarly designated health officer may act under this section in respect of the order as if the similarly designated health officer were reconsidering an order that he or she made.

Review of orders

44 (1) A person affected by an order may request a review of the order under this section only after a reconsideration has been made under section 43 *[reconsideration of orders]*.

(2) A request for a review may be made,

(a) in the case of an order made by a medical health officer, to the provincial health officer, or

(b) in the case of an order made by an environmental health officer, to a medical health officer having authority in the geographic area for which the environmental health officer is designated.

(3) If a review is requested, the review is to be based on the record.

(4) If a review is requested, the reviewer may do one or more of the following:

(a) delay the date the order is to take effect or suspend the order, if satisfied that doing so would not be detrimental to public health;

(b) confirm, vary or rescind the order;

(c) refer the matter back to the person who made the order, with or without directions.

(5) A reviewer must provide written reasons for an action taken under subsection (4) (b) or (c), and a person may not request further review of an order.

Offences

99 (1) A person who contravenes any of the following provisions commits an offence:

…

(k) section 42 *[failure to comply with an order of a health officer]*, except in respect of an order made under section 29 (2) (e) to (g) *[orders respecting examinations, diagnostic examinations or preventive measures]*;

This is **EXHIBIT " "** referred to in the affidavit of DR. BRIAN EMERSON affirmed before me at Victoria, in the Province of British Columbia this ___ day of _____, 2021.

_____
A Commissioner for taking affidavits in British Columbia

From: John Koopman <koopman@frcna.org>
Sent: Tuesday, December 22, 2020 9:32 PM
To: Henry, Bonnie HLTH:EX; Thompson, Laurel HLTH:EX
Cc: Emerson, Brian P HLTH:EX
Subject: Re: Letter to John Koopman Chilliwack Free Reformed Church
Attachments: Response to Dr Bonnie Henry Dec 22 2020.pdf; CCC Appeal.pdf; CCLA & BCCLA_ Open Letter on Religious Associations.pdf

Dear Dr. Henry,

Please find enclosed a letter sent on behalf of the Free Reformed Church of Chilliwack responding to your December 18, 2020 letter.

Sincerely,

Pastor John Koopman
604-798-1836
On Dec 18, 2020, 5:04 PM -0800, Henry, Bonnie HLTH:EX , wrote:

> Dear John Koopman,
>
> Please see the attached letter and let me know at your earliest opportunity that you have received this letter.
>
> Sincerely,
>
> Dr Bonnie Henry
>
> Provincial Health Officer
>
> Office of the PHO
>
> Ministry of Health
>
> 4th floor, 1515 Blanshard St
>
> Mailing address: PO Box 9648, STN PROV GOVT Victoria, BC V8W 9P4 Bonnie.henry@gov.bc.ca
>
> Phone: 250 952-1330
>
> I gratefully acknowledge that I live and work on the traditional unceded terriory of the Lekwungen Peoples, specifically the Songhees and Esquimalt First Nations. Hay'sxw'qu Si'em

December 22, 2020.

Sent via email to Laurel.Thompson@gov.bc.ca

Dr. Bonnie Henry
Office of the Provincial Health Officer
4th Floor, 1515 Blanshard Street
PO Box 9648 STN PROV GOVT
Victoria BC V8W 9P4

Dear Dr. Henry:

I am in receipt of your letter, dated December 18, 2020, which has been reviewed by the Church Council.

With respect, your Order is a direct and substantial interference with the religious beliefs and practices of our Church. We are in legal jeopardy for practicing our faith because of your Order.

Our Church has taken every reasonable precaution to minimize any risk of COVID-19 at our services, and our members have carefully observed these measures. There has been no transmission of COVID-19 at any of our numerous worship services this year.

We are aware that many requests have been made for you to reconsider your Order prohibiting all in-person worship services. For example, on December 17, the British Columbia Civil Liberties Association and the Canadian Civil Liberties Association wrote the enclosed open letter in which they "strongly encourage[d] you to reconsider the current order and allow in-person worship to take place in accordance with appropriate safeguards."

Further, I am aware that other churches have specifically requested that you reconsider your Order pursuant to section 43 of the P*ublic Health Act*. I have spoken with Pastor Garry Vanderveen of Christ Covenant Church in Langley, who submitted one such request to you on December 7, 2020 (see enclosed). To date, they have not received a response to their request.

Your offer to consider a request from our church to reconsider your Order sadly rings hollow. Any such decision by you would be discretionary and revokable at any time. Further, this offer fundamentally fails to address the central issue, which is the discriminatory and overbroad nature of your Order which directly prohibits an essential practice of our faith.

As many others have done, we urge you to allow in-person worship services.

Respectfully,

John Koopman

Enclosures

CHRIST COVENANT CHURCH

December 7, 2020

Dear Premier Horgan, Attorney General Eby, Health Minister Dix, Provincial Health Officer Henry, Fraser Health Officers, Langley Township Mayor and Councillors, MP Van Popta, MLA Dykeman, Langley RCMP Superintendent Power and others,

We would like to thank you for your diligent labours. You have an immense responsibility, and we want you to know that we uphold you in our daily prayers.

As you know, faith communities are a tremendous blessing in British Columbia and continue to be a vital part of the community fabric in our province. **Faith communities are at the centre of life for people of all ages, every demographic, and every racial and ethnic group in this province, and offer vital services to their own members and to their neighbours.** Whether it be spiritual nourishment, feeding the hungry, comforting the sick, walking beside those with mental health struggles, offering hospitality to new Canadians, or providing community and love – faith communities are essential to the health and well-being of this province.

While we understand the need to protect and promote the well-being of our neighbours, especially the most vulnerable among us, we are disappointed that the latest restrictions have effectively banned our congregation's Sunday morning worship service.

We submit our concerns to you with our commitment to seek the welfare, not merely of the church, but of our neighbours. We believe God has called us to diligently pray for and seek the peace and prosperity of this province, and this work cannot be separated from our worship. We are, therefore, committed to adopting and enforcing COVID-19 protocols (see our proposed written proposal) and believe that our worship services are among the safest public places in our community.

www.langleychurch.org

Mail: 21670 Maxwell Crescent | Langley, BC V2Y 2P9 | 604-309-3116 | grvdveen@gmail.com

Our Religious Beliefs
We believe that God requires us to gather in person at least once a week to celebrate the Eucharist, and our governing documents prevent us from celebrating the Eucharist virtually.

We believe that human beings are, above all, spiritual beings. For us, the celebration of the Eucharist at least weekly is essential for human flourishing. Without it, our health and well-being suffer.

We believe that the church exists to serve and care for our neighbours, including the vulnerable, struggling, sick and dying. While we are able to serve the broader community virtually in some ways (just as doctors can have phone consultations, we can Zoom for some spiritual support) there are important aspects of care that demand physical presence (just as doctors need to be present for surgery, we need to be present to comfort the dying). Additionally, virtual attendance discriminates against those who, for no fault of their own, lack the ability or means to use this technology.

The Effect of the Provincial Order
As you know, the Provincial Health Order affects religious bodies in different ways, depending upon their beliefs and governing documents. For Roman Catholics, as Archbishop Miller observed, the order does not forbid daily Mass *per se*, but restricts it to the priest and those who are assisting the production of the virtual service. For Presbyterian churches like ours, however, the order effectively bans our weekly Sunday morning service. Our governing documents do not recognize a virtual service as a valid mode of celebrating the Eucharist.

In short, we grieve that the Provincial Health Order has placed us in a difficult position. **If we obey the present order, we act contrary to our religious beliefs as regulated by our governing documents. On the other hand, if we obey our religious beliefs as regulated by our governing documents, we act contrary to the law of our province.**

Our Appeal
We humbly request that Premier Horgan, Health Minister Dix and Public Health Officer Henry publicly acknowledge that the latest Provincial Health Order affects faith communities differently, depending upon their religious beliefs and governing documents. As noted, given our religious beliefs and governing documents, this order limits our freedoms of religion and peaceful assembly.

We humbly request that Dr. Henry consult with more faith communities, such as ours, to promote greater understanding of how orders affect those communities differently, depending upon their specific religious beliefs and governing documents. Our hope is that public health orders will reflect the delicate balance between protecting life and respecting the fundamental freedoms of religion and peaceful assembly.

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We humbly request that, in keeping with the *BC Public Health Act* (38 and/or 43), Dr. Henry approve the following attached agreement (*PHA* (38)) and/or request for reconsideration (*PHA* (43)), effective immediately until a less restrictive Public Health Order is issued. Our proposal accomplishes the following:

1. Allows us to worship on Sunday mornings in keeping with our religious beliefs and governing documents.
2. Meets or exceeds the objective of the latest Provincial Health Order.
3. Achieves the delicate balance of protecting life and respecting the fundamental freedoms of religion and peaceful assembly.

Respectfully submitted on behalf of Christ Covenant Church,

Rev. Garry Vanderveen

www.langleychurch.org

Mail: 21670 Maxwell Crescent | Langley, BC V2Y 2P9 | 604-309-3116 | grvdveen@gmail.com

CCC's COVID-19 Protocol

The following are to be read, understood, and observed by all who worship at Christ Covenant Church
Effective Immediately

Definitions

- **household**: group of persons living under one roof sharing the same kitchen every day
- **mask**: proper cloth non-medical face covering that fits snugly and completely covers the nose and mouth.
  - (for mask guidelines, see: https://www.canada.ca/content/dam/hc-sc/documents/services/publications/diseases-and-conditions/covid-19-safely-use-non-medical-mask-face-covering/covid-19-safely-use-non-medical-mask-face-covering-en.pdf)

Basic Information

- The following are suspended:
  - childcare
  - Sunday School
  - refreshments
  - fellowship meals
  - use of kitchen and drinking fountains
- Persons in the following categories are not permitted to attend:
  - anyone who is sick or feels sick, even only slightly..
  - anyone told by Public Health to self-isolate or quarantine
- Persons in the following categories are advised not to attend, because they are at higher risk of complications from COVID-19:
  - anyone over the age of 65
  - anyone with underlying health conditions (e.g., high blood pressure, chronic lung disease, diabetes, obesity, asthma, and compromised immune system)

Facilities

- Our two rooms — the Sanctuary (capacity 49) and the Fellowship Hall (or Parkside Room, capacity 49) — are separated by a transparent acrylic wall. These rooms have separate entrances and exits, separate washrooms, separate ushers, and separate sections of the parking lot and grounds. There is no movement between these rooms (and their extensions into the parking lots and grounds).
- Circulation fans will run continuously.
- Chairs are grouped into **household** boxes [see definition of **household** above] separated by more than two metres from one another.
- Washrooms may be used, but hands are to be sanitized beforehand, and afterwards washed with soap and water for 20.
- Drinking fountains and the kitchen are not used.
- We will not use communion trays or collection bags.

Signing Up For In-Person Services

- We hold two separate identical morning services on Sundays (9am and 11am). These services last 90 minutes.
- We also hold a different evening service on Sundays at 5pm. This service lasts 60 minutes.
- Up to 49 persons can sign up to attend a given service in the Sanctuary
- Up to 49 persons can sign up to attend a given service in the Fellowship Hall (Parkside Room).
- The 11am and 5pm services are livestreamed for the benefit of those who do not attend in person.
- Visitors wishing to attend must inquire with cccorganizers@gmail.com .

Arriving, Attending, Leaving

- **Masks** [see above definition] are required at all times everywhere on the church property, except within assigned boxes.
    - Face shields may **also** be worn, but **only if** the person is also wearing a mask
- The Eucharist will be celebrated at each morning service, but each household brings its own bread and wine.
- Use the sanitizer pump in your vehicle or at the entrance and exit door.
- Do not touch doors, handles, walls or anything in the building, except for your chair, kneeler, hymnal, and worship bulletin.

- Households will enter together and proceed promptly to their seating box.
- A 2-metre / 6-foot distance is maintained at all times between persons of different households, as much as possible. (This of course means no contact of any kind.) This includes music and worship leaders and audio/visual technicians.
- Everyone is encouraged to use online banking for tithes and offerings. Otherwise, offerings may be dropped in the appropriate baskets at the exit.
    - Exit through the exit doors and proceed directly to your vehicle. Those nearest the exit depart first, and no one moves toward the exit doors until there is plenty of space.

BRITISH COLUMBIA CIVIL LIBERTIES

JOINT RELEASE

FOR IMMEDIATE RELEASE

OPEN LETTER ON RELIGIOUS ASSOCIATIONS

December 17, 2020

Dr. Bonnie Henry
Provincial Health Officer
Ministry of Health
PO Box 9648, STN PROV GOVT
1515 Blanshard St.,
Victoria, BC V8W 9P4

Honourable Adrian Dix
Minister of Health
Room 337 Parliament Buildings
Victoria, BC V8V 1X4

Delivered by email: bonnie.henry@gov.bc.ca; HLTH.Minister@gov.bc.ca

Dear Dr. Henry and Minister Dix,

We are writing on behalf of the British Columbia Civil Liberties Association (BCCLA) and the Canadian Civil Liberties Association (CCLA) with respect to the orders respecting religious services that are currently in place in British Columbia. Before addressing those concerns, we wish to note that, in general, we have appreciated the approach that B.C. has taken as compared to some other provincial jurisdictions that have chosen to take a punitive approach to the pandemic, stressing stringent enforcement and ticketing measures. By contrast, B.C. has consistently prioritized education and aimed for clear and consistent

that restrictions have on constitutionally protected rights and the disproportionate impact of enforcement measures on marginalized communities. As a result, we were concerned to see the most recent provincial order which, in our view, deviates from this approach by imposing a restriction on religious freedom that is both disproportionate and unnecessary.

As you know, the current Provincial Health Officer order imposes restrictions across the province on certain “social gatherings and events”. Religious in-person gatherings and worship services have been suspended under the order and only drive-in, virtual or remote religious services are permitted. This stands in contrast to the rules that are in place for a variety of other venues, including schools and workplaces, restaurants, pubs and bars, and retail establishments. While it appears that perhaps the orders attempt to distinguish between social activities and commercial activities (limiting the former more significantly than the latter), in our view a religious service does not fit easily into either of these categories. Moreover, an attempt to define which venues are “essential” necessarily involves highly subjective value judgments.

In any event, we are writing about an activity that is constitutionally protected. Individuals engage in in-person worship services for a variety of reasons, but to compare these services to a night at the movies or theatre does a disservice to this constitutional right. For many, worshipping as part of a community is essential to their mental and spiritual health and well-being. Although some may be able to achieve the same sense of community from a virtual service, this may not be feasible from some individuals, particularly the elderly, those who are low-income, recent immigrants and refugees, or those who may have limited access to the internet. Importantly, the provincial order recognizes that certain in-person gatherings may continue, including meetings of Alcoholics and Narcotics Anonymous. This presumably reflects the fact that these gatherings perform a vital function for those in attendance. We would argue this rationale applies equally to in-person worship, particularly during times of the year with heightened religious significance, and when other restrictions in place mean that many will not be able to rely on time with friends and family for support.

While restrictions across the country vary (and change regularly), many provinces continue to allow some in-person religious services to take place, including Alberta, Saskatchewan and Ontario. Moreover, freedom of religion is

justified. On its face, the current B.C. order does not appear to meet these criteria. We strongly encourage you to reconsider the current order and allow in-person worship to take place in accordance with appropriate safeguards. Alternatively, we would welcome a response from your offices explaining the rationale for the restrictions.

Sincerely,

Harsha Walia
Executive Director
BC Civil Liberties Association

Michael Bryant
Executive Director & General Counsel
Canadian Civil Liberties Association

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About the Canadian Civil Liberties Association
The CCLA is an independent, non-profit organization with supporters from British Columbia and across the country. Founded in 1964, the CCLA is a national human rights organization committed to defending the rights, dignity, safety, and freedoms of all people in Canada.

About the British Columbia Civil Liberties Association
The BCCLA has been actively advancing human rights and civil liberties through litigation, law reform, community-based legal advocacy, and public engagement and education since 1962.

The BCCLA and CCLA are separate organizations

Contact the CCLA: media@ccla.org
Alex Nanoff, 613-709-6318

Contact the BCCLA: meghan@bccla.org
Meghan McDermott, Senior Staff Counsel and Interim Policy Director 778-679-8906