

## British Columbia (BC) COVID-19 Situation Report

### Week 3: January 17 – January 23, 2021

Table of Contents		Continued provincial decrease in COVID-19 cases, while severe outcomes remain elevated but stable
Epidemic curve and regional incidence	<a href="#">2</a>	Cumulatively, there have been 65,511 COVID-19 cases in BC to end of week 3 (1,272 per 100K population). In weeks 1 to 3, incidence decreased in Northern Health (124 to 78 per 100K) and Fraser Health (92 to 71 per 100K), while remaining stable in other health authorities. Since week 53, there has been a decrease in incidence in all age groups, most notably in the 80+ year olds (95 to 40 per 100K, in week 3).
Likely sources of infection	<a href="#">3</a>	The number of MSP specimens tested was stable from week 1 to 3, while percent positivity decreased slightly from 8.2% to 7.4%. Since week 1, positivity has decreased in NHA and FHA, while remaining stable in IHA and VCHA. VIHA percent positivity has been increasing since week 51. In week 3, percent positivity in all age groups was comparable to, or lower than prior weeks in Phase 3c. Positivity was lowest in the 80+ year olds (4.5%) and highest in the 10-14 year olds at 9.0%.
Test rates and % positive	<a href="#">4</a>	The number of hospital admissions decreased somewhat but remains elevated in weeks 52 to 3 (~200 per week). Cumulatively, there have been 3,626 cases hospitalized in BC to the end of week 3. One new case of Multi-system Inflammatory Syndrome in children and adolescents (MIS-C) was reported since the last report (total of 7).
Age profile, testing and cases	<a href="#">5</a>	The number of deaths per week has increased slightly since week 1. In weeks 1 to 3, 91% of deaths were among 70+ year olds and 67% were associated with care facility outbreaks. Cumulatively, there have been 1,149 deaths in BC.
Severe outcome counts	<a href="#">7</a>	The number of care facility outbreaks has been declining since week 46. Cumulatively, there have been 269 care facility outbreaks.
Age profile, severe outcomes	<a href="#">8</a>	Recently, emerging COVID-19 variants have been reported in BC. To date, 14 cases have been identified with the B.1.1.7 variant and 4 cases with the B.1.351 variant.
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#### BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- The weekly tally by surveillance date (defined as laboratory result date, if unavailable, then report date) includes cases with illness onset date in preceding weeks. Analyses based on illness onset date (or episode date) may better represent the timing of epidemic evolution.
- Episode date is defined by dates of illness onset, hospital admission, or death. When those dates are unavailable, laboratory collection is used. If also unavailable, then surveillance date used. 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) funded (e.g. clinical diagnostic tests) and non-MSP funded (e.g. screening tests) specimens.

#### Table of [pandemic phases](#) defined by implementation or relaxation of population-level mitigation measures in BC:

PRE-PHASE 1	PHASE 1	PHASE 2	PHASE 3A	PHASE 3B	PHASE 3C
Pre-implementation Jan 15 (wk 3) to Mar 13 (wk 11) 2020	Implementation Mar 14 (wk 11) to May 18 (wk 21) 2020	Initial relaxation May 19 (wk 21) to Jun 23 (wk 26) 2020	Further relaxation Jun 24 (wk 26) to Sept 12 (wk 37) 2020	Start of school year Sept 13 (wk 38) to Nov 7 (wk 45) 2020	Re-implementation Nov 8 (wk 46) to Current (wk 3) 2021
From earliest symptom onset date	Initial restrictions	Re-opening of services	Broader re-opening	From first complete epidemiological week of 2020-21 school year	<a href="#">Core bubble</a> interaction only

**A. COVID-19 case counts and epidemic curve**

Provincially, between week 3 (mid-January 2020) and week 3 (mid-January 2021), there have been 65,511 cases, corresponding to a cumulative incidence of 1,272 per 100K (Table 1, Figure 1).

As shown in Figure 1, since the peak in week 47 (103 per 100K), there has been a general decline in cases reaching 3,020 (59 per 100K) in week 3. FHA residents represented 68% of cases in week 47; their contribution has decreased to 46% of cases in week 3. Episode-based rates in recent weeks are subject to change as data (notably onset dates) become more complete.

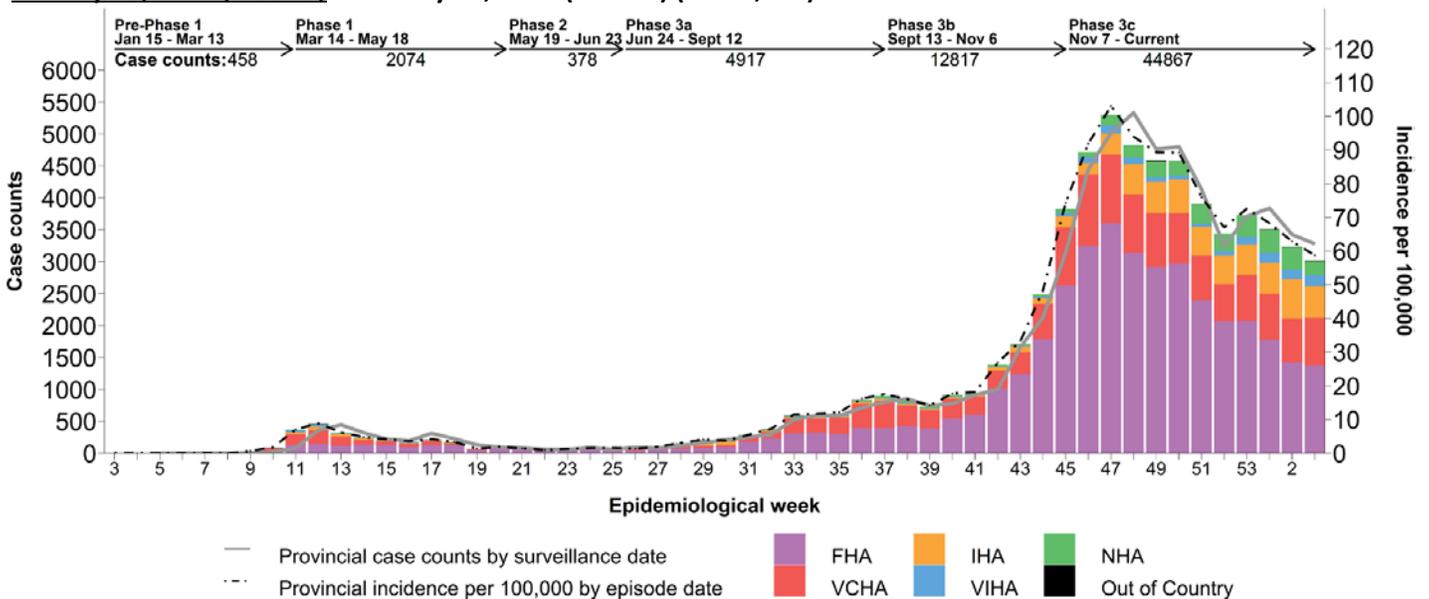
As shown in Figure 2, in recent weeks 1 to 3, incidence in Northern Health (NHA; 124 to 78 per 100K) and Fraser Health (FHA; 92 to 71 per 100K) showed decreasing trends, while incidence in the remaining health authorities (HAs) were stable. The health service delivery areas (HSDAs) experiencing recent increasing incidence rates are: Thompson Cariboo Shuswap, East Kootenay, North Shore/Coast Garibaldi, and Central Vancouver Island.

**Table 1. Episode-based case tallies by health authority, British Columbia<sup>a</sup>  
 January 15, 2020 (week 3) – January 23, 2021 (week 3) (N= 65,511)**

Case tallies by episode date	Health Authority of Residence					Residing Outside Canada	Total
	FHA	IHA	VIHA	NHA	VCHA		
Week 3, case counts	1,376	495	172	224	746	7	3,020
<b>Cumulative case counts</b>	<b>39,642</b>	<b>5,951</b>	<b>1,526</b>	<b>3,279</b>	<b>14,979</b>	<b>134</b>	<b>65,511</b>
Week 3, cases per 100K population	71	59	20	78	62	NA	59
<b>Cumulative cases per 100K population</b>	<b>2,044</b>	<b>713</b>	<b>176</b>	<b>1142</b>	<b>1,237</b>	<b>NA</b>	<b>1,272</b>

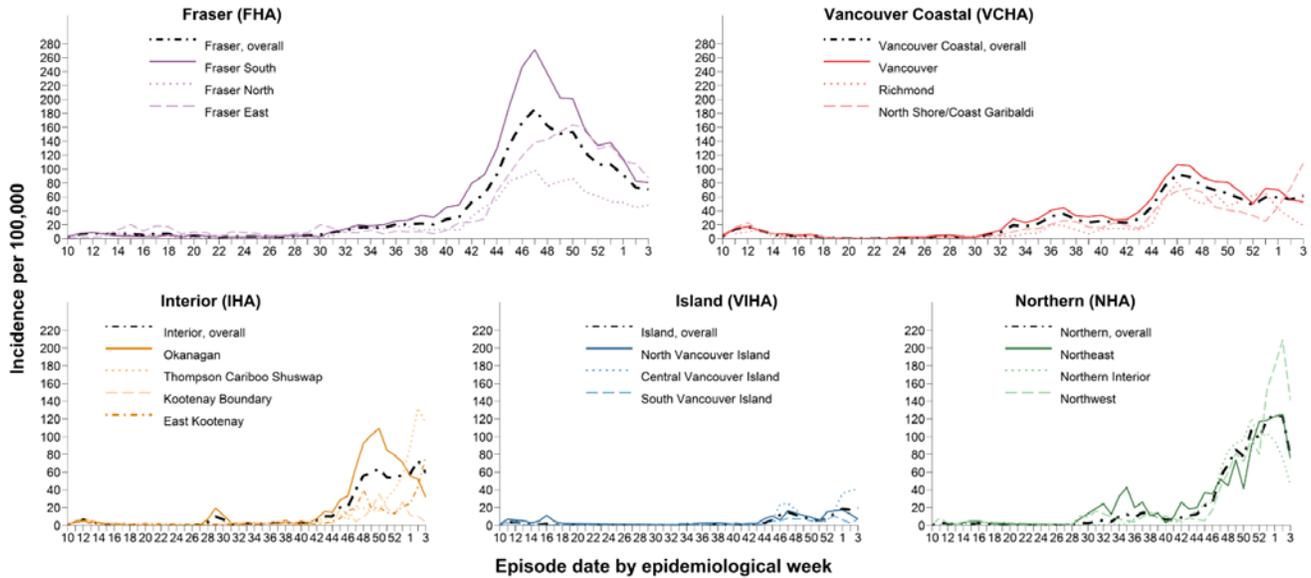
a. Displayed data extracted on February 1, 2021.

**Figure 1. Episode-based epidemic curve (bars)<sup>a</sup>, surveillance date (line) and health authority (HA), BC  
 January 15, 2020 (week 3) – January 23, 2021 (week 3) (N= 65,511)**



a. First onset date of a case in BC was January 15, 2020. Displayed data extracted on February 1, 2021.

**Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – January 23, 2021 (week 3)**



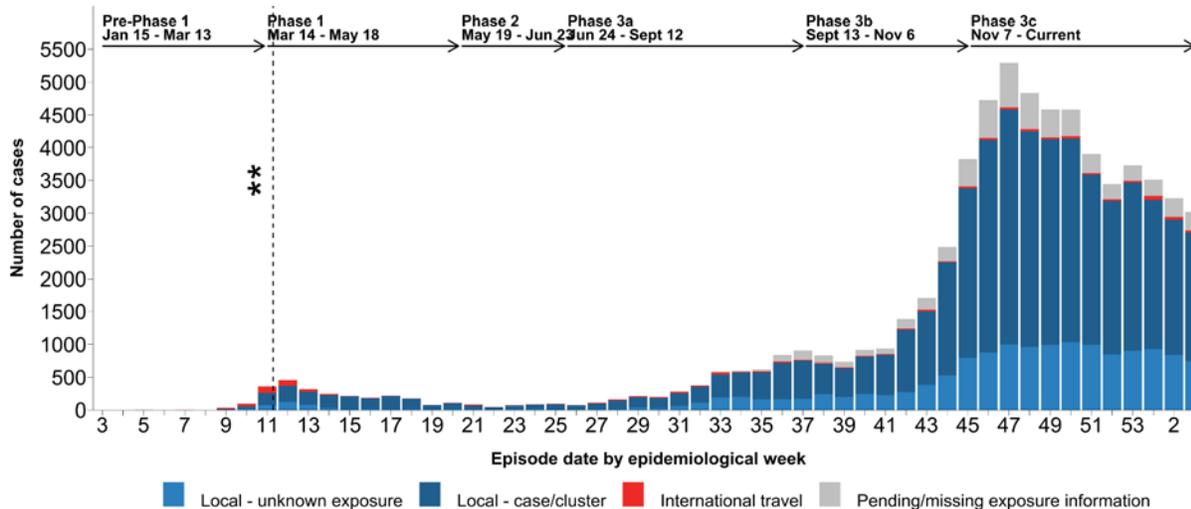
**B. Likely sources of infection**

As shown in [Table 4](#) and [Figure 10](#), local contact with a known case or cluster has been the most commonly reported source of infection across all pandemic phases to date.

**Table 4. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – January 23, 2021 (week 3)**

Likely exposure (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Week 3, Exposures	33 (1)	1,956 (65)	743 (25)	288 (10)
Cumulative Exposures	1,052 (2)	43,911 (67)	14,606 (22)	5,942 (9)

**Figure 10. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – January 23, 2021 (week 3)**



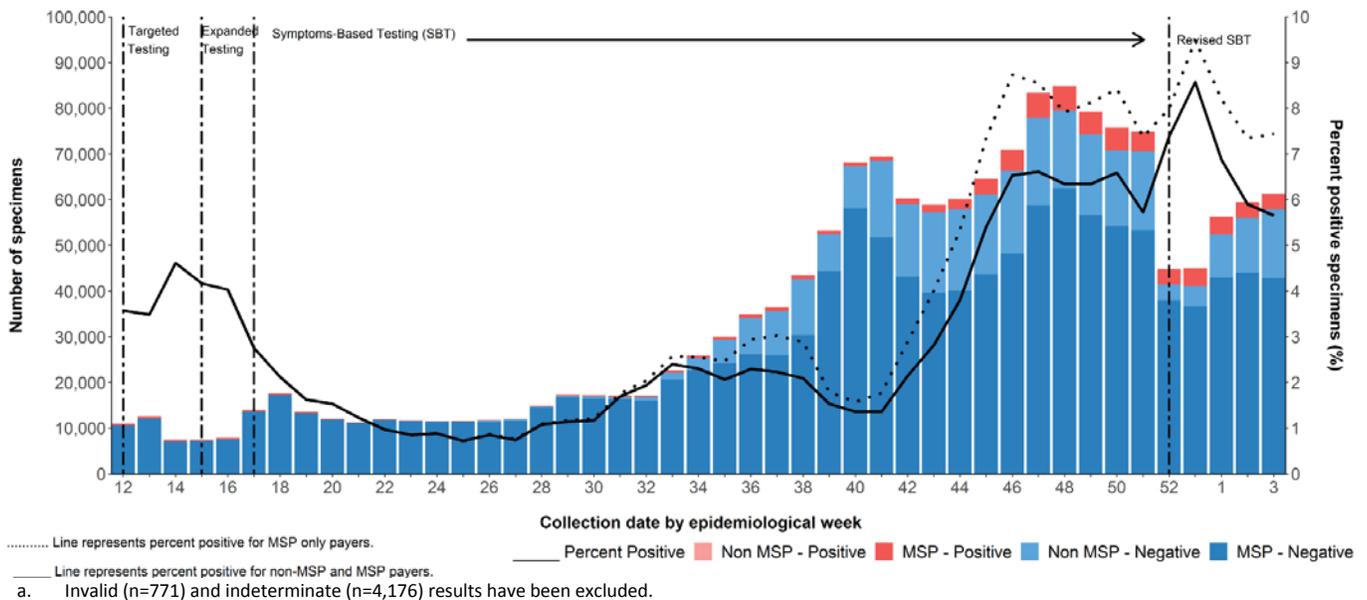
\*\* March 16: Travel related restrictions introduced.

**C. Test rates and percent positive**

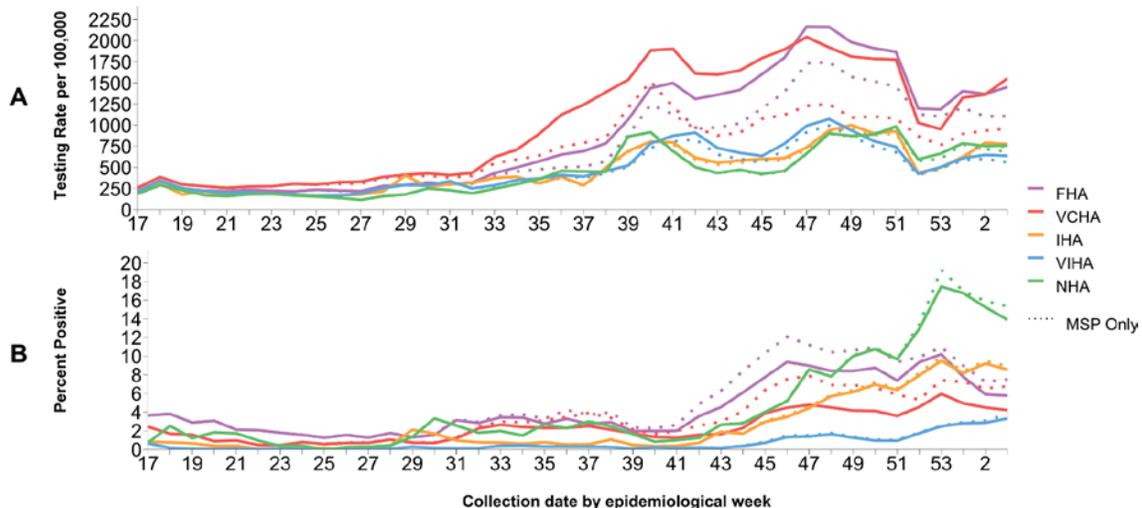
As shown by the bars in **Figure 3**, the weekly number of MSP only specimens tested was stable from week 1 to week 3 of 2021 at ~47,000 tests. Concurrently, positivity for MSP-funded specimens decreased slightly from week 1 to week 3 from 8.2% to 7.4%.

As shown in **Panel A** of **Figure 4**, the per capita testing rate in week 3 remains highest in FHA and VCHA. As shown in **Panel B**, week 3 percent positivity remains highest in NHA at 15.4% followed by IHA at 8.9%, FHA at 7.5% and VCHA at 6.8%, and lowest in VIHA at 3.8%. Since week 1, NHA and FHA positivity in MSP-funded specimens has decreased (from 17.0% and 9.0%, respectively), while remaining relatively stable in IHA (8.4%) and VCHA (7.3%). VIHA percent positivity has been on an upward trend since week 51 when it was at 1.0%.

**Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – January 23, 2021 (week 3)<sup>a,b,c</sup>**



**Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – January 23, 2021 (week 3)<sup>b,c</sup>**



b. PLOVER extract on Friday, January 29, 2021.  
 c. 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>

**D. Age profile – Testing and cases**

Testing rates and percent positivity by age group

As shown by the coloured bars in **Figure 5**, compared to prior weeks of Phase 3c, testing rates in week 3 were lower in all age groups. The highest testing rates in week 3 were among adults 20-39 years of age, similar to weeks 46-2 of phase 3c.

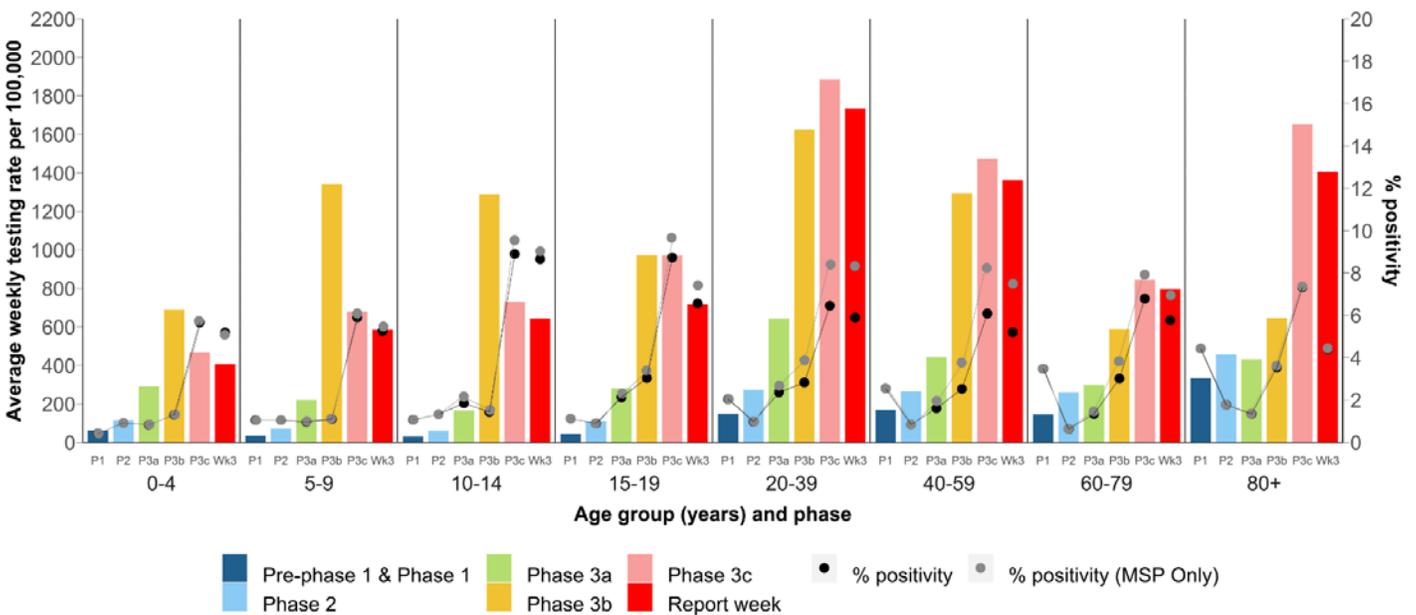
As shown by the grey dots in **Figure 5**, the percent positivity for MSP only specimens in week 3 is comparable or lower in all age groups than prior weeks in Phase 3c. The difference was most notable in the elderly adults ages 80+ where it dropped from 7.4% to 4.5% and in children 15-19 years, from 9.7% to 7.4%. Percent positivity in week 3 was lowest in the elderly 80+ years (4.5%), followed by children 0-4 year olds (5.1%) and 5-9 year olds (5.5%) and reaching 7.0% or higher in the remaining age groups (highest in the 10-14 year olds at 9.0%).

Case distribution and weekly incidence by age group

As shown in **Figure 6**, the percentage contribution decreased in the 80+ year olds from 6% in week 1 to 3% of all cases in week 3. This decrease was met with an increase in the proportion of the 20-49 year-old group, which represent 60% of all cases for report week 3.

As shown in **Figure 7**, since week 53, there has been a decrease in incidence in all age groups. The most substantial decrease in incidence was in the 80+ year olds, where incidence plummeted from 95 per 100K to 40 per 100K, in week 3. Children 15-19 years old have also shown a noticeable decrease in incidence from 82 per 100K to 44 per 100K. Incidence remained highest in the 20-29 year old group at 113 per 100K.

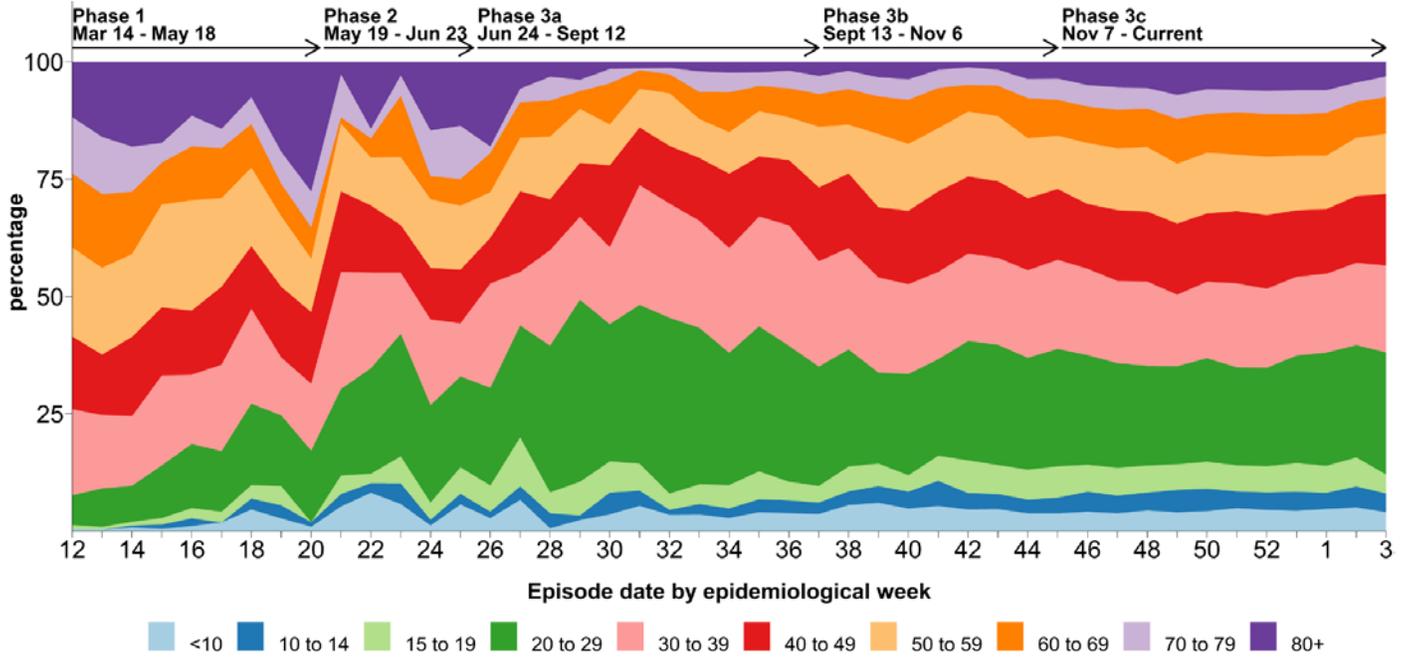
**Figure 5. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase<sup>a</sup>, BC January 20, 2020 (week 4) – January 23, 2021 (week 3)<sup>b</sup>**



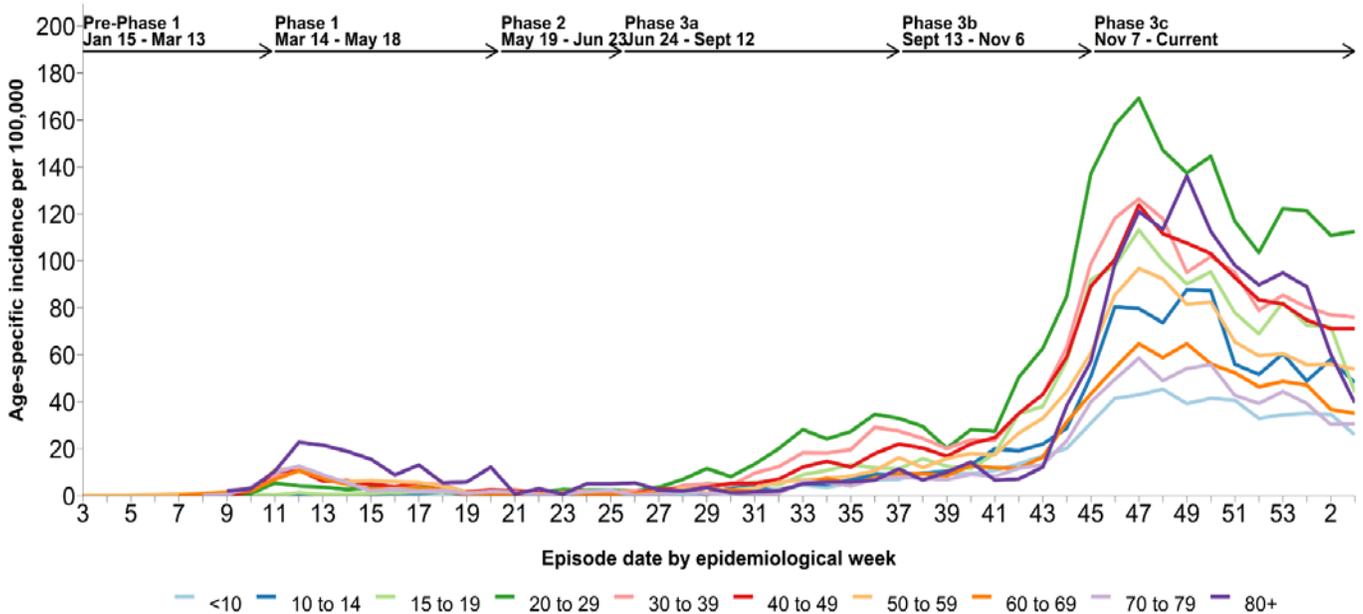
a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 10 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 29, 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 23, 2021 (week 3) (N= 64,976)**



**Figure 7. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC January 15, 2020 (week 3) – January 23, 2021 (week 3) (N= 65,489)**



## E. Severe outcome counts and epi-curve

The number of admissions has decreased somewhat but remained elevated and fluctuating in weeks 52 to 3, with an average of 203 hospitalizations per week. The number of deaths per week has increased slightly with an average of 63 deaths reported per week in weeks 1 to 3 ([Table 2, Figure 8](#)). Since week 1, 91% of deaths were among 70+ year olds, and 67% were associated with care facility outbreaks.

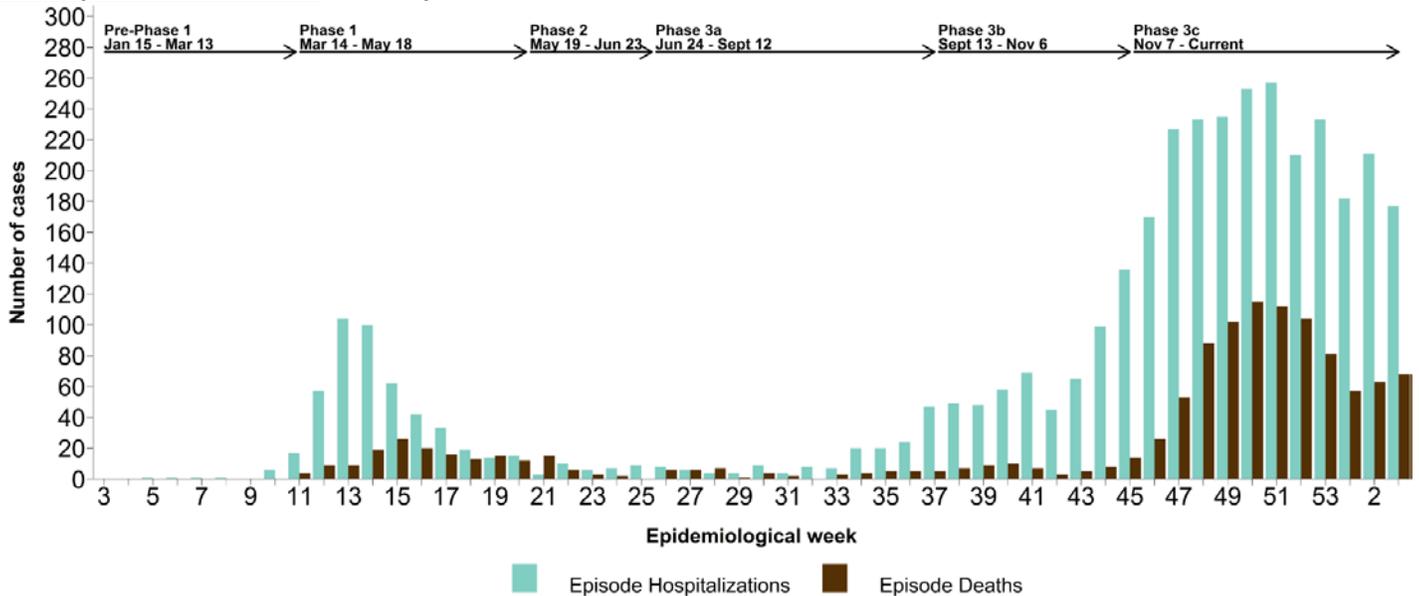
Cumulatively, there have been seven confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020, with one new case reported since the last report. The median age of these cases is 10 (range 1-15) years.

**Table 2. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – January 23, 2021 (week 3)**

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N (%)
	FHA	IHA	VIHA	NHA	VCHA		
Week 3, hospitalizations	82	25	11	37	22	0	177
<b>Cumulative hospitalizations</b>	<b>2,062</b>	<b>298</b>	<b>88</b>	<b>301</b>	<b>868</b>	<b>9</b>	<b>3,626/65,511 (6)</b>
Week 3, ICU admissions	16	8	5	10	9	0	48
<b>Cumulative ICU admissions</b>	<b>402</b>	<b>87</b>	<b>25</b>	<b>87</b>	<b>261</b>	<b>2</b>	<b>864/65,511 (1)</b>
Week 3, deaths	39	8	1	9	11	0	68
<b>Cumulative deaths</b>	<b>645</b>	<b>60</b>	<b>18</b>	<b>61</b>	<b>365</b>	<b>0</b>	<b>1,149/65,511 (2)</b>

a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).

**Figure 8. COVID-19 hospital admissions and deaths by episode date<sup>a</sup>, BC January 15, 2020 (week 3) – January 23, 2021 (week 3)**



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).

## F. Age profile, severe outcomes

**Table 3** and **Figure 9** display the distribution of cases and severe outcomes as well as the BC population for each age group. The distribution has not changed substantially over time. In week 3, median age of hospitalization was 64 years, while median age of death was 87 years.

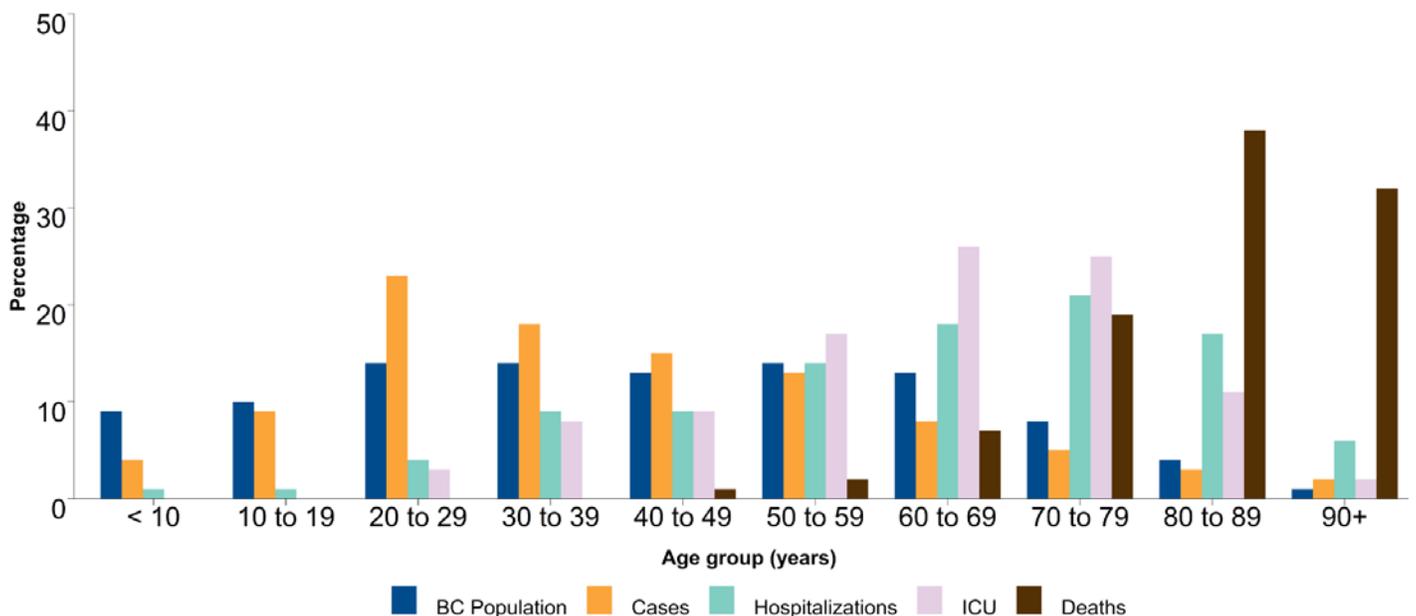
In week 3, 227/3,020 (8%) cases, 74/177 (42%) hospitalizations, 17/48 (35%) ICU admissions, and 61/68 (90%) deaths were in 70+ year olds (data not shown).

Overall, while males comprise 33,082/65,373 (51%) cases, they comprise 2,023/3,619 (56%) hospitalizations, 544/861 (63%) ICU admissions, and 616/1,149 (54%) deaths to date (data not shown).

**Table 3: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group January 15, 2020 (week 3) – January 23, 2021 (week 3) (N=65,489)<sup>a</sup>**

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	2,736 (4)	38 (1)	2 (<1)	0 (0)	469,351 (9)
10-19	6,016 (9)	30 (1)	3 (<1)	0 (0)	527,805 (10)
20-29	14,973 (23)	162 (4)	22 (3)	0 (0)	697,691 (14)
30-39	11,790 (18)	324 (9)	68 (8)	4 (<1)	735,052 (14)
40-49	9,728 (15)	337 (9)	75 (9)	11 (1)	646,035 (13)
50-59	8,352 (13)	506 (14)	144 (17)	25 (2)	718,272 (14)
60-69	5,439 (8)	649 (18)	221 (26)	80 (7)	673,131 (13)
70-79	3,099 (5)	755 (21)	220 (25)	219 (19)	435,062 (8)
80-89	2,175 (3)	606 (17)	95 (11)	441 (38)	187,443 (4)
90+	1,181 (2)	219 (6)	14 (2)	369 (32)	49,726 (1)
<b>Total</b>	<b>65,489</b>	<b>3,626</b>	<b>864</b>	<b>1,149</b>	<b>65,489</b>
<b>Median age</b>	<b>37</b>	<b>66</b>	<b>65</b>	<b>86</b>	<b>41</b>

**Figure 9. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, and BC population January 15, 2020 (week 3) – January 23, 2021 (week 3) (N=65,489)<sup>a</sup>**



a. Among those with available age information only.

## G. Care facility outbreaks

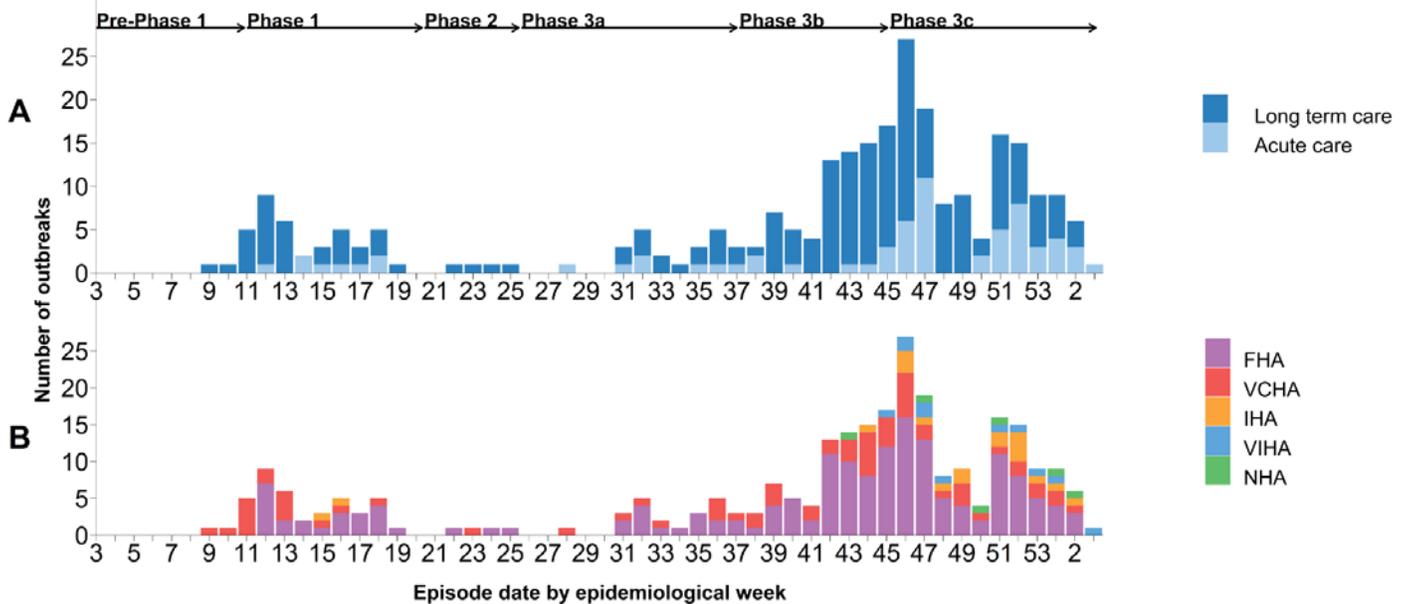
As shown in [Table 5](#) and [Figure 11](#), 269 care facility outbreaks were reported in total in BC to the end of week 3. There has been a decreasing trend in care facility outbreaks since week 46, most notably in long-term care facility outbreaks and outbreaks in FHA. This may in part be associated with a decrease in reported care facility outbreaks with single cases.

Almost three-quarters of all COVID-19 deaths in BC have been associated with care facility outbreaks (826/1,149; 72%) of these care facility deaths 791 (96%) were 70+ years old. Of the 68 deaths in week 3, 48 (71%) were associated with care facility settings, and of those 48 deaths, 45 (94%) were elderly adults 70+ years (data not shown).

**Table 5. COVID-19 care facility<sup>a</sup> outbreaks by earliest case onset<sup>b</sup> and associated cases and death by episode date, BC January 15, 2020 (week 3) – January 23, 2021 (week 3) (N=269)**

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 3, Care Facility Outbreaks	1	105	86	1	192	48	0	0	48
Cumulative, Care Facility Outbreaks	269	3,035	2,038	6	5,079	826	0	0	826

**Figure 11. COVID-19 care facility<sup>a</sup> outbreaks by earliest case onset<sup>b</sup>, facility type (A) and health authority (B), BC January 15, 2020 (week 3) – January 23, 2021 (week 3) (N=269)**



- a. Care facility settings include acute care or long-term care settings (defined as long-term care facility or assisted living).
- b. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.

## H. Emerging respiratory pathogens update

BC has identified 18 cases infected with variants of concern. Of those, 14 were infected with variant B.1.1.7, 11 (79%) of whom reported travel outside of Canada and two (14%) who reported contact with travelers. Four cases were infected with variant B.1.351, none of whom reported travel outside of Canada. The range of episode dates is from week 51 to week 2.