

British Columbia (BC) COVID-19 Situation Report

Week 2: January 10 – January 16, 2021

Table of Contents		Provincial COVID-19 cases and severe outcomes remain elevated but stable
Pandemic phase definitions	2	There were 3,436 new cases reported in week 2 (67 per 100K), slightly lower than what was reported in weeks 53 and 1 at 3,718 (72 per 100K) and 3,845 (75 per 100K), respectively. Week 2 represents a 36% decrease from the peak in week 48 (5,331; 104 per 100K). Cumulatively by episode date, there have been 61,866 COVID-19 cases in BC to end of week 2 (1,201 per 100K population).
Epidemic curve	2	Incidence by episode date in week 2 exceeded 85 per 100K in Northern (NHA) and 60 per 100K in Fraser (FHA) and Interior (IHA) Health Authorities. Vancouver Coastal (VCHA) had 47 cases per 100K, and Island Health (VIHA) 14 per 100K. In recent weeks, incidence increased in NHA, VIHA and IHA, stabilized in VCHA, and decreased in FHA. Provincially, in recent weeks, incidence decreased in all age groups, being highest in adults 20-29 year (94 per 100K) and lowest in 70-79 year (24 per 100K).
Regional incidence	2	The number of tested specimens increased to ~60,000 in weeks 2, while percent positivity decreased to 7.3%. Positivity in week 2 exceeded 15% in NHA; 9% in IHA; 6% in FHA and VCHA; and 3% in VIHA. Since week 53, NHA and FHA positivity has decreased, while remaining relatively stable in the other HAs. In week 2, positivity was lowest in the elderly ages 80+ years (4.5%) and highest in children 15-19 years (9.7%) and 10-14 (8.9%).
Test rates and % positive	4	Cumulatively, there have been 3,464 cases hospitalized in BC to the end of week 2. The weekly number of hospital admissions decreased somewhat but remains elevated in weeks 52 to 2 (~200 per week). There have been 6 confirmed cases reported with Multi-system Inflammatory Syndrome in children and adolescents (MIS-C) since January 1, 2020.
Age profile, testing and cases	5	Cumulatively, there have been 1,075 deaths in BC to end of week 2. The number of deaths per week has decreased since the peak in week 50 (115 deaths) to 61 deaths in week 2. In week 2, 234 (9%) cases, 81 (40%) hospitalizations, 20 (42%) ICU admissions and 55 (90%) deaths were in 70+ year olds.
Severe outcome counts	8	Cumulatively, there have been 262 care facility outbreaks to end of week 2. The number of care facility outbreaks has been declining since week 46. In week 2, 39 (64%) deaths were associated with a care facility outbreak and of those, 36 (92%) were adults 70+ years.
Age profile, severe outcomes	9	Recently, emerging COVID-19 variants have been reported globally. To date, 6 BC cases have been identified with the B.1.1.7 variant, and 3 BC cases with the 501Y.V2 variant.
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BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Outbreaks in long-term care settings now include long-term care facilities and assisted living facilities only.
- 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 testing) as well as non-MSP funded (e.g. screening testing) specimens.

*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 2) 2021
From earliest symptom 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	Core bubble interaction only ○ Lower mainland restrictions (Nov 7) ○ Province-wide restrictions (Nov 19)

A. COVID-19 case counts and epidemic curve

Reported cases and incidence: provincially

As shown by the gray line in [Figure 1](#), there were 3,436 (67 per 100K) new COVID-19 cases reported in week 2 of 2021, which is slightly lower than was reported in recent weeks 53 and 1 at 3,718 (72 per 100K) and 3,845 (75 per 100K), respectively. This also represents a 36% decrease from the peak in week 48 (5,331; 104 per 100K).

Episode-based incidence: provincially and by HA and health service district area (HSDA)

Provincially, between week 3 (mid-January 2020) and week 1 (early January 2021), there have been 61,866 cases, corresponding to a cumulative incidence of 1,201 per 100K. FHA is driving the provincial incidence trends ([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 3,453 (67 per 100K) and 2,712 (53 per 100K) cases in weeks 1 and 2 of 2021, respectively. Episode-based rates in recent weeks are subject to change as data (notably onset dates) become more complete.

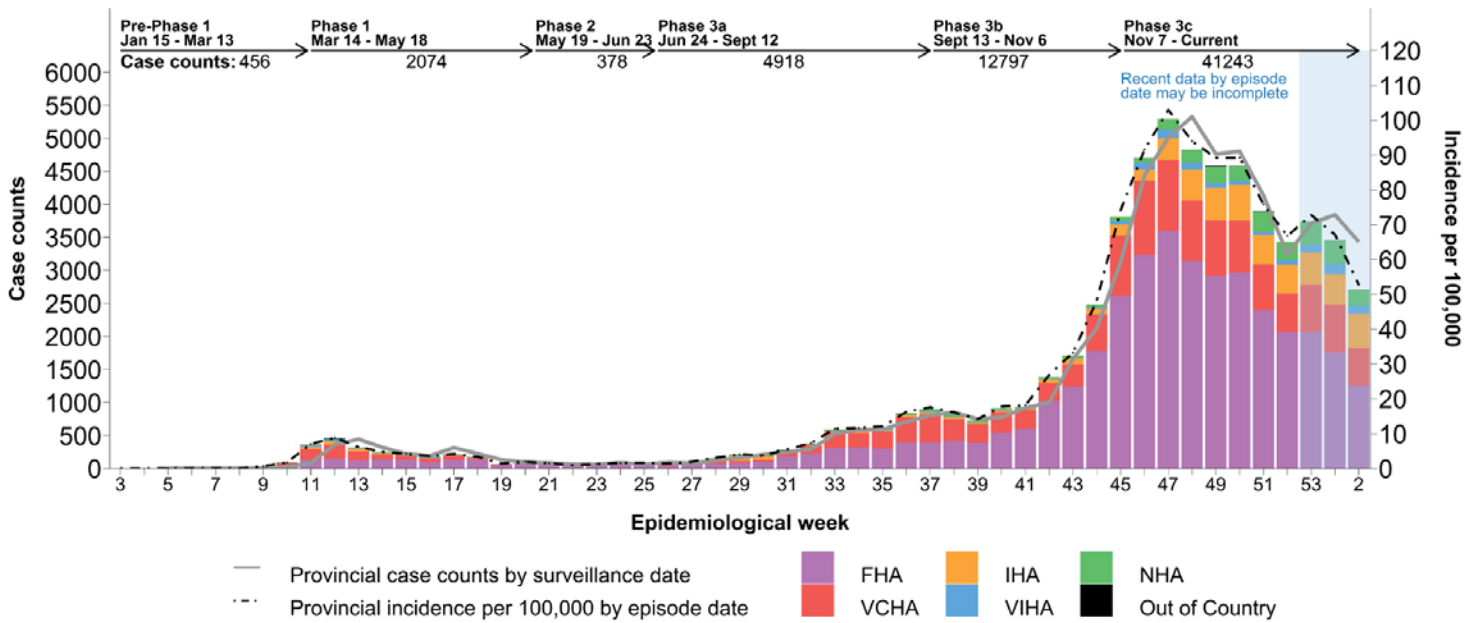
As shown in [Figure 2](#), in recent weeks 51 to 1, NHA (107 to 120 per 100K), and VIHA (5 to 18 per 100K) showed increasing trends; VCHA (58 to 60 per 100K) was stable; FHA experienced a decrease (124 to 91 per 100K). Including week 2, IHA is experiencing a slow increase (53 to 62 per 100K). These trends were driven by increases in Thompson Cariboo Shuswap, Northwest, and Central Vancouver Island health service delivery areas (HSDAs), and decreases in the Okanagan and all HSDAs in FHA.

Table 1. Case tallies by health authority based on episode date, British Columbia^a

Case tallies by episode date	Health Authority of Residence					Residing Outside Canada	Total
	FHA	IHA	VIHA	NHA	VCHA		
Week 2, case counts	1,259	519	117	248	565	4	2,712
Week 2, cases per 100K population	65	62	14	86	47	NA	53
Cumulative case counts	38,036	5,345	1,308	2,937	14,114	126	61,866
Cumulative cases per 100K population	1,961	640	151	1,023	1,166	NA	1,201

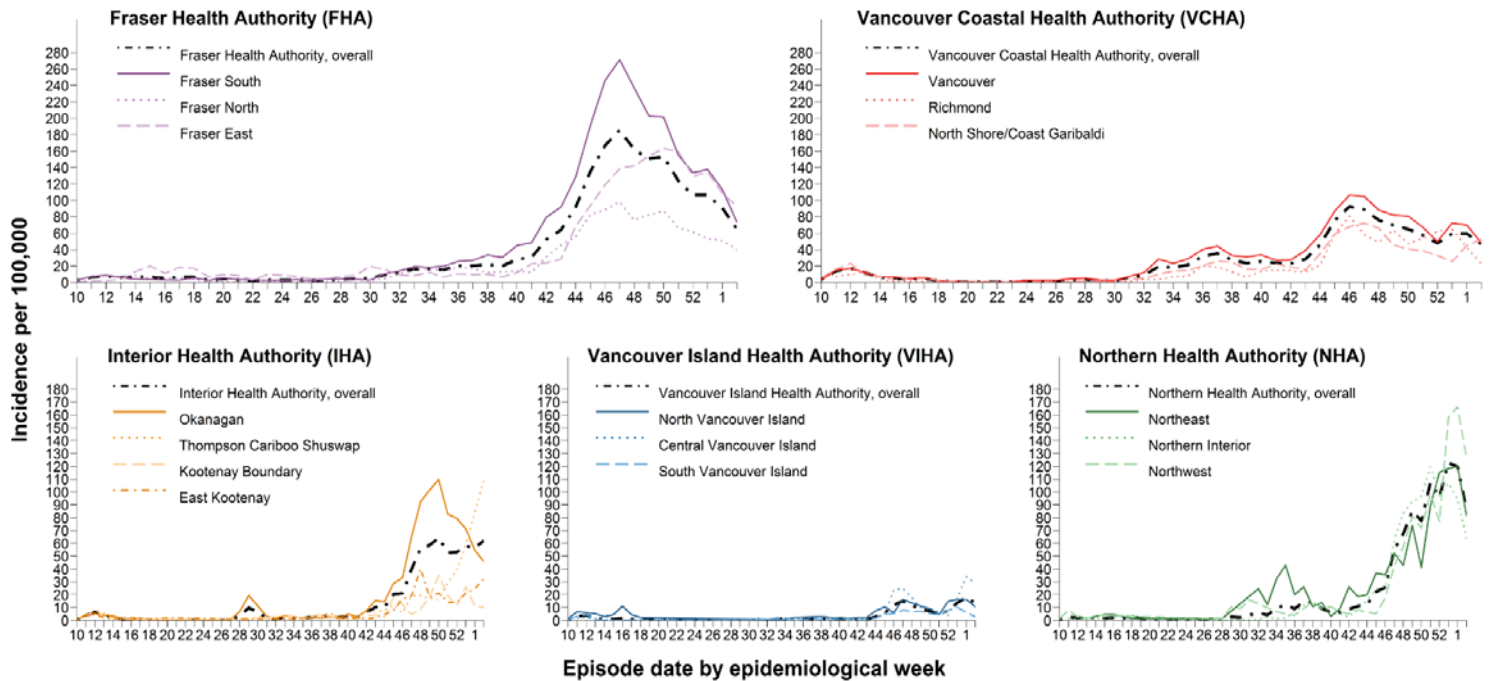
a. Displayed data extracted after noon on Thursday, January 21, 2021.

Figure 1. Episode-based epidemic curve (bars)^a, surveillance date (line) and health authority (HA), BC January 15, 2020 (week 3) – January 16, 2021 (week 2) (N= 61,866)



a. First onset date of a case in BC was January 15, 2020. Displayed data extracted after noon on Thursday, January 21, 2021.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – January 16, 2021 (week 2)



B. Test rates and percent positive

As shown by the bars in **Figure 3**, the weekly number of specimens tested, MSP and non-MSP funded combined, increased from ~45,000 in week 52 and 53 to ~60,000 in week 2 of 2021, but remains well below the peak in weeks 47-51. The lower rates of testing from weeks 52 to 2 are likely related to the revised testing guidelines as well as decreased testing during the holiday period. Concurrently, positivity for all specimens started to decrease after the peak in week 53 (9.5%), reaching 7.3% in week 2.

As shown in **Panel A** of **Figure 4**, the per capita testing rate in week 2 remains highest in FHA and VCHA. As shown in **Panel B**, percent positivity remains highest in NHA at 15.9% followed by IHA at 9.4%, FHA at 7.3% and VCHA at 6.6%, and lowest in VIHA at 3.1%. Since week 53, NHA and FHA positivity in MSP-funded specimens has decreased (from 19.3% and 11.0%), while remaining relatively stable in the other health authorities.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – January 16, 2021 (week 2)^{a,b,c}

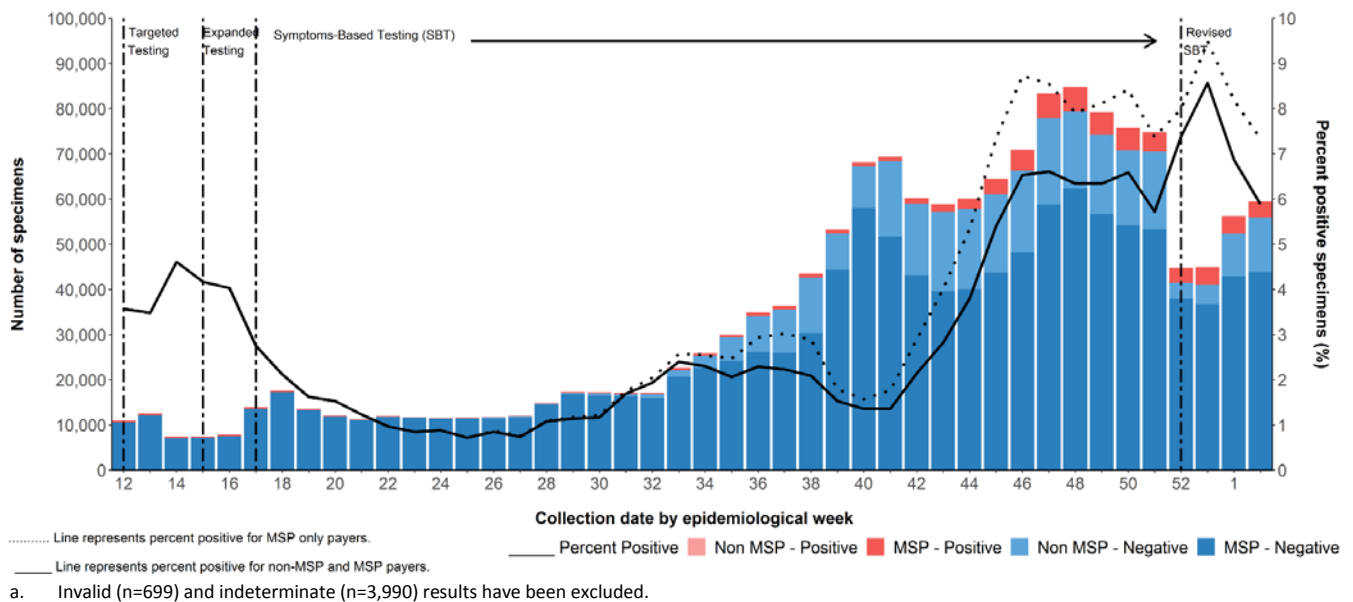
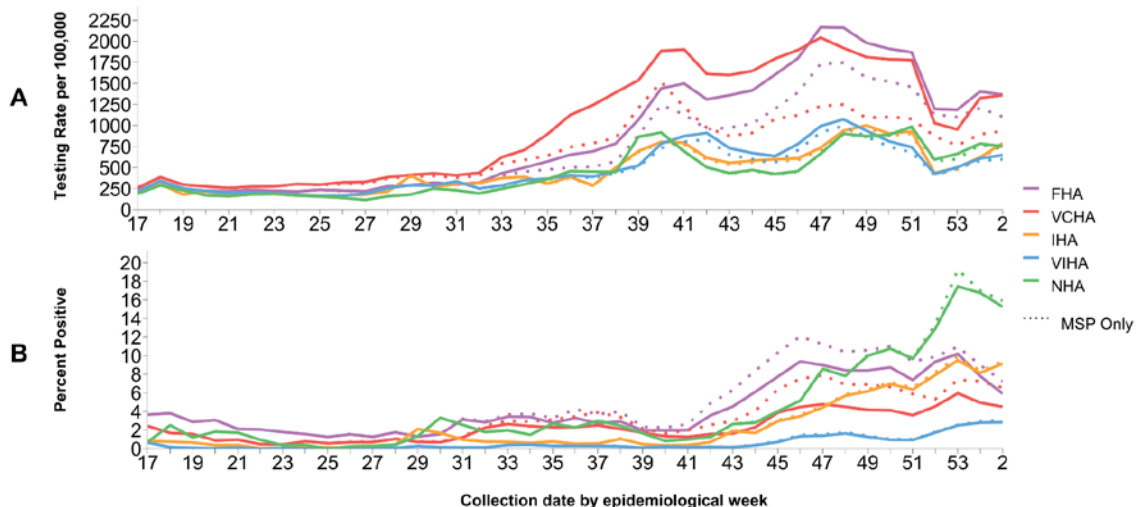


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – January 16, 2021 (week 2)^{b,c}



b. PLOVER extract on Thursday, January 21, 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>

C. Age profile – Testing and cases

Testing rates by age group

As shown by the coloured bars in [Figure 5](#), testing rates in week 2, compared to prior weeks of Phase 3c, were lower in all age groups except in adults 80+. The highest testing rates in week 2 were among older adults 80+ years, a change from weeks 46-1 of phase 3c where adults ages 20-39 had the highest testing rates. The decrease in testing rates in younger age groups may be related to the implementation of revised testing guidelines in week 52.

Percent positivity by age group

As shown by the dots in [Figure 5](#), the percent positivity in week 2 remains elevated and higher in children aged <10 than in prior weeks in Phase 3c. Percent positivity in the remaining age groups was similar or lower in week 2 as compared to the rest of Phase 3c. With restriction to MSP specimens only, percent positivity decreased from 7.7% to 4.5% in elderly adults ages 80+ in week 2 as compared to the rest of phase 3c. Percent positivity in week 2 was lowest in the elderly ages 80+ years (4.5%), but otherwise exceeded 6.4% in all other age groups, highest in children 15-19 years (9.7%) and 10-14 (8.9%).

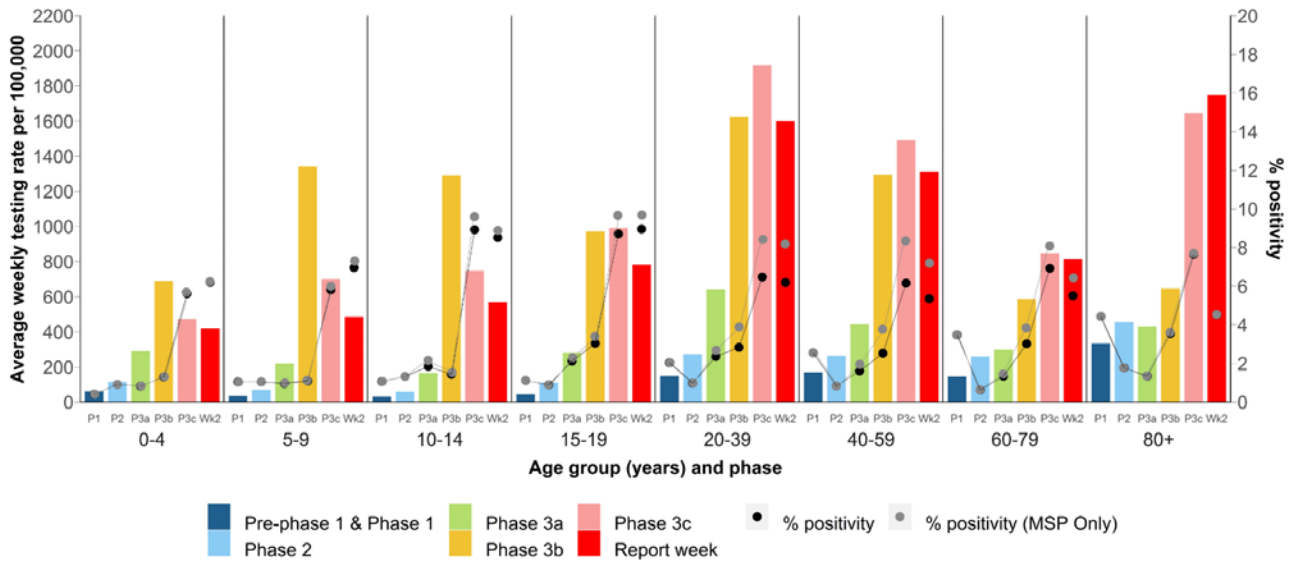
Case distribution by age group

As shown in [Figure 6](#) and [Figure 7](#), the percentage contribution of most age groups has been relatively stable in week 2 compared to weeks 46-1 of Phase 3c, with a slight increase in ages 20-29 years. For the current report week 2, the majority of cases are among adults 20-69 years of age at 68%.

Weekly incidence by age group

As shown in [Figure 8](#), since week 47, there has been a decrease in incidence in most age groups compared to prior weeks ([Figure 8](#), [Figure 9](#)). During week 2, incidence remained highest at the 20-29 year-old group at 94 per 100K followed by adults 30-39 years old at 65 per 100K, and lowest in the 70-79 year olds at 24 per 100K.

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 16, 2021 (week 2)^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: 9 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 21, 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 16, 2021 (week 2) (N= 61,333)^a

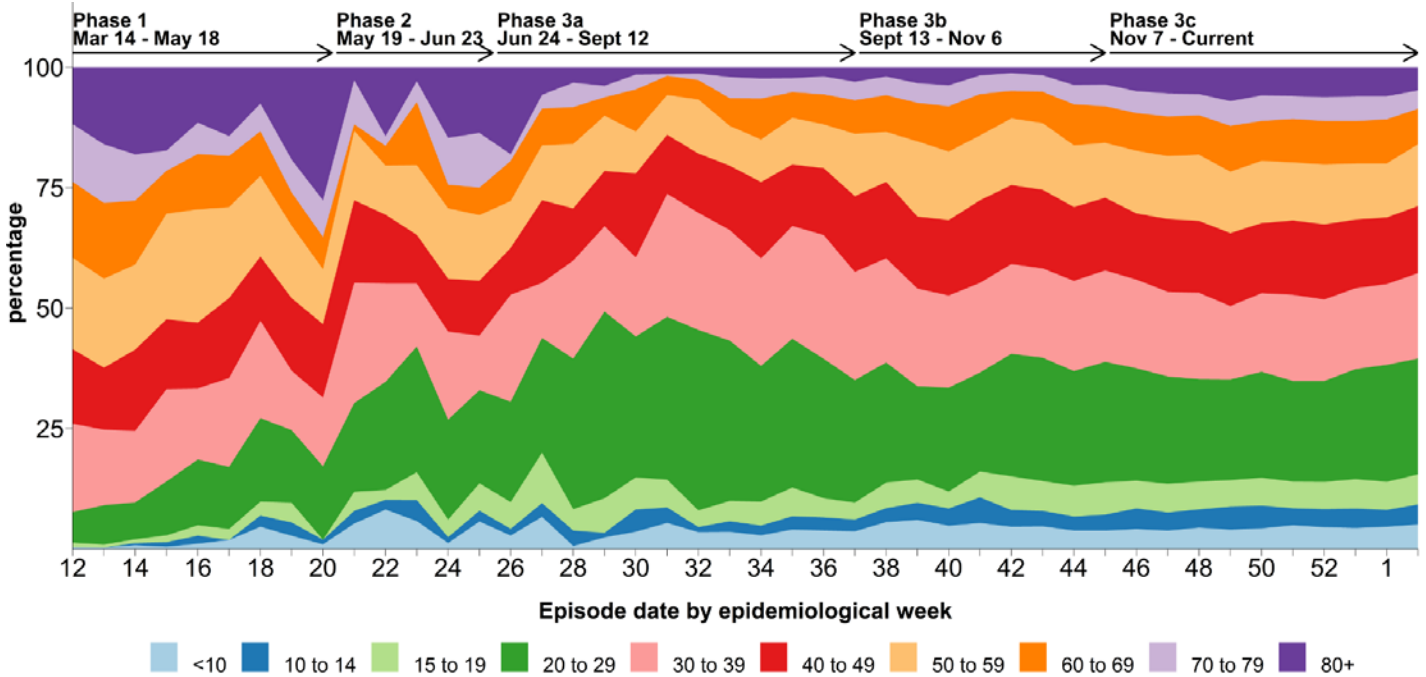
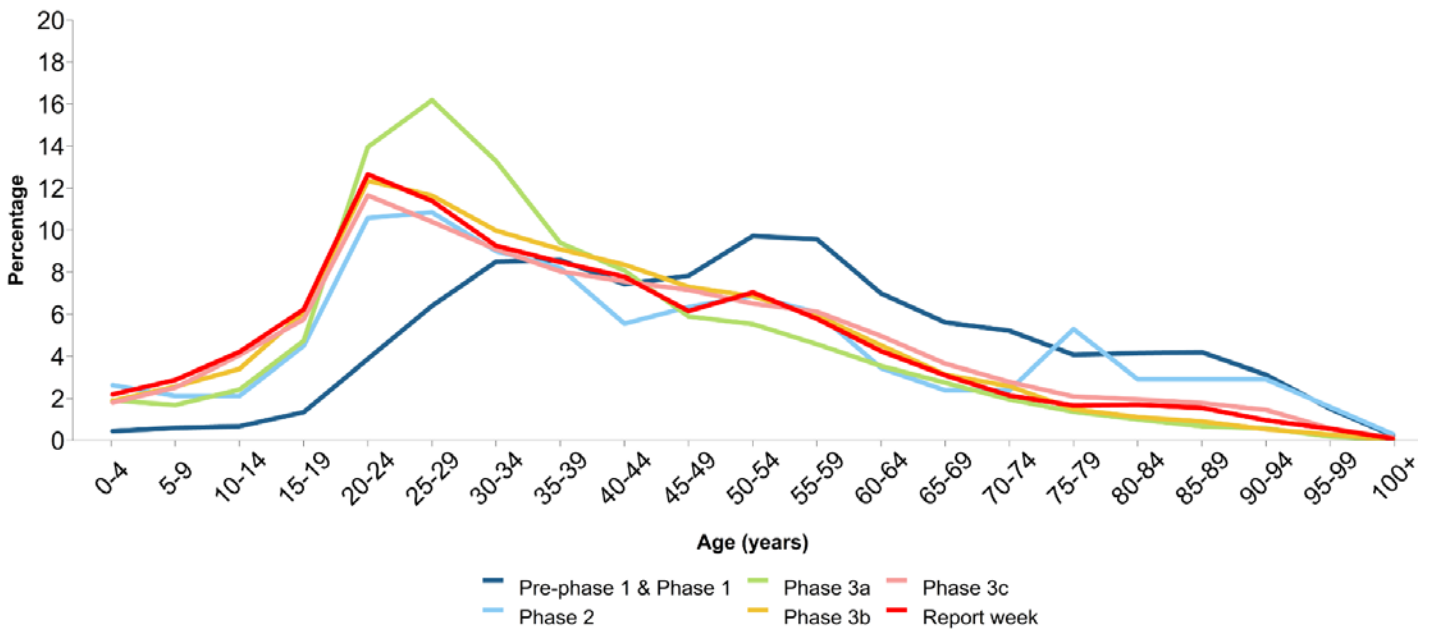


Figure 7. COVID-19 case distribution by known age group (years) for pandemic phases and current report week^b, BC January 15, 2020 (week 3) – January 16, 2021 (week 2) (N= 61,844)^a



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 16, 2021 (week 2) (N= 61,844)^a

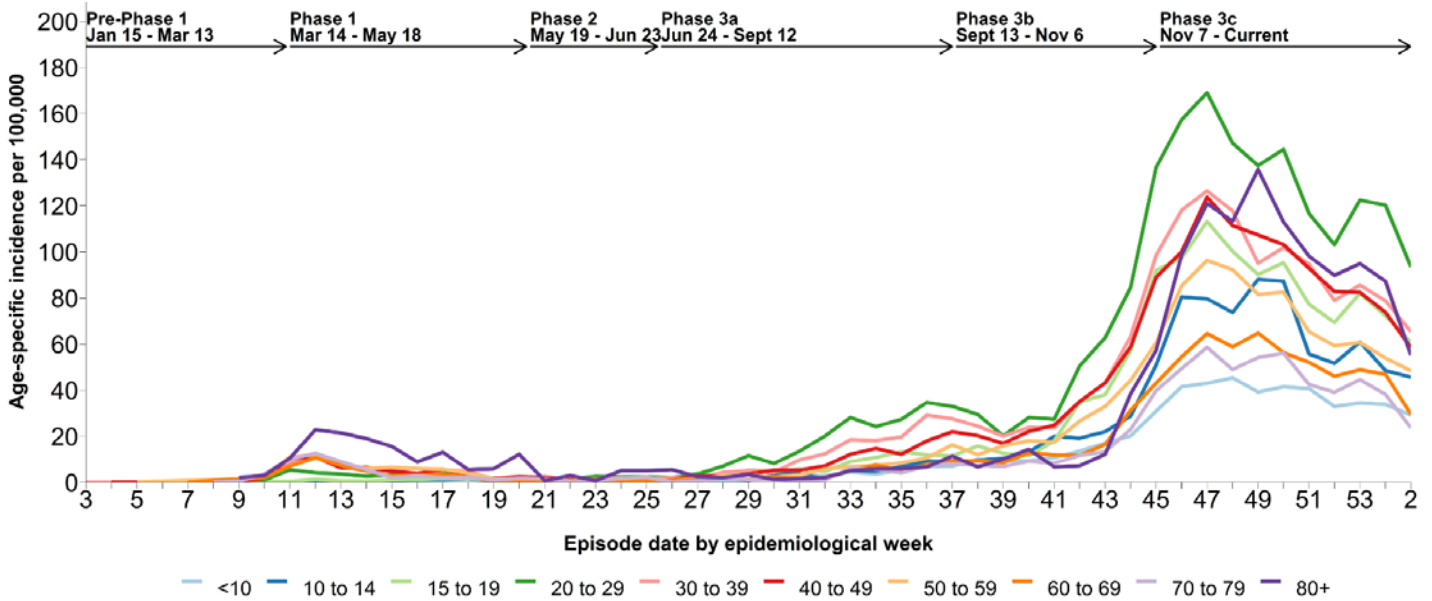
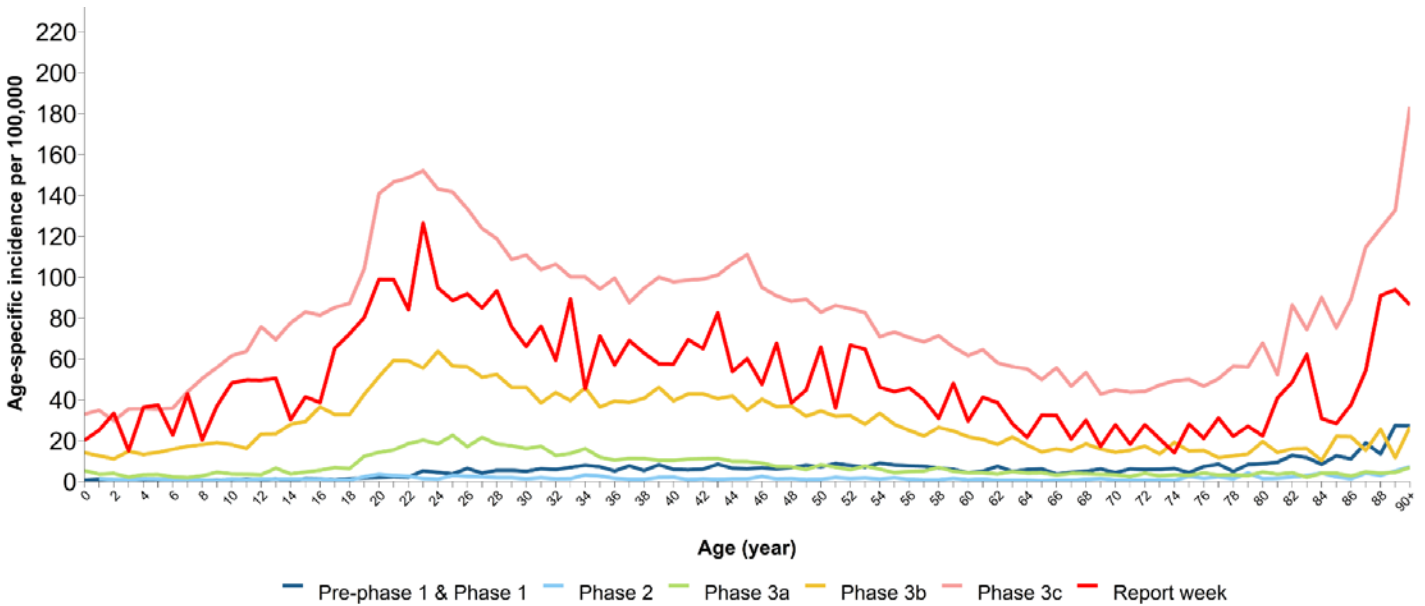


Figure 9. Average weekly incidence per 100K population by single year of age for pandemic phases 3a, 3b, 3c and current report week^b, BC January 15, 2020 (week 3) – January 16, 2021 (week 2) (N= 61,844)^a



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

Whereas hospital admissions increased steadily from weeks 42-51 (from 46 to 259 per week), the number of admissions has decreased somewhat but remained elevated and fluctuating in weeks 52 to 2, with an average of 208 hospitalizations per week. The number of deaths per week also increased substantially from weeks 42-50 (from 3 to 115 per week), and has since decreased to 61 deaths in week 2 (Table 2, Figure 10). For recent weeks, severe outcome events may increase as data become more complete.

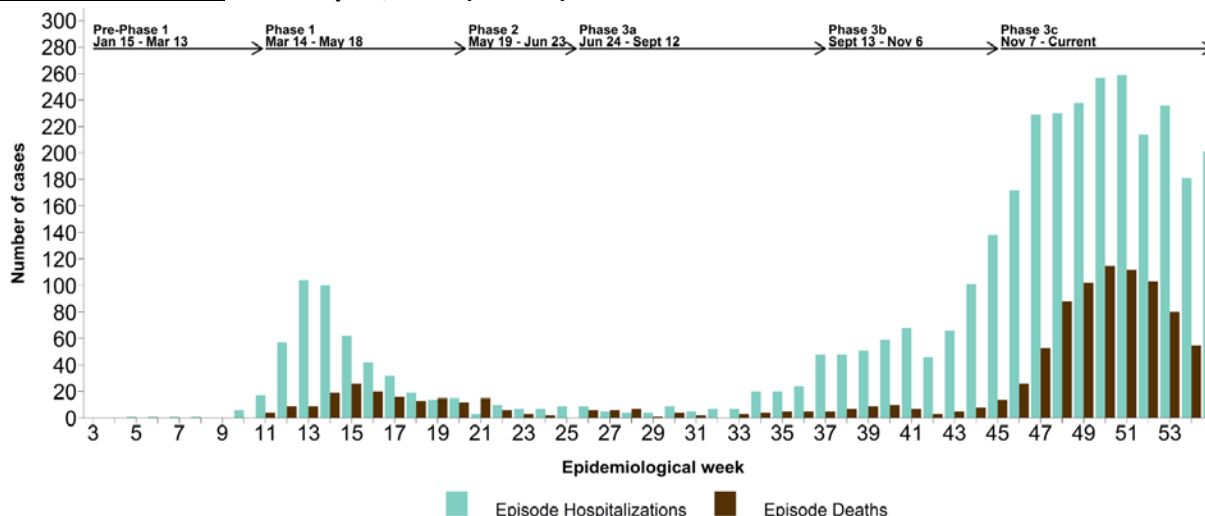
There have been six confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020. The median age of these cases is 10 (range 1-15) years. All cases either have recovered or are recovering.

Table 2. COVID-19 severe outcomes by episode date, health authority of residence, and phase, BC January 15, 2020 (week 3) – January 16, 2021 (week 2)

Health authority of residence:	FHA	IHA	VIHA	NHA	VCHA	Outside Canada	Total n/N (%)
Ever Hospitalized	1,994	269	75	279	838	9	3,464/61,866 (6)
Pre-Phase 1 & Phase 1 (17 weeks)	245	29	24	12	161	2	473/3,464 (14)
Phase 2 (5 weeks)	26	1	0	5	6	1	39/3,464 (1)
Phase 3a (11.5 weeks)	104	6	0	7	39	2	158/3,464 (5)
Phase 3b (8 weeks)	324	15	2	30	205	1	577/3,464 (17)
Phase 3c (9 weeks, excluding week 2)	1,201	191	33	191	397	3	2,016/3,464 (58)
Week 2	94	27	16	34	30	0	201/3,464 (6)
Ever ICU	390	74	19	79	249	2	813/61,866 (1)
Pre-Phase 1 & Phase 1 (17 weeks)	76	13	8	6	71	1	175/813 (22)
Phase 2 (5 weeks)	6	0	0	3	4	0	13/813 (2)
Phase 3a (11.5 weeks)	26	2	0	4	14	1	47/813 (6)
Phase 3b (8 weeks)	61	2	0	14	59	0	136/813 (17)
Phase 3c (9 weeks, excluding week 2)	209	49	6	42	88	0	394/813 (48)
Week 2	12	8	5	10	13	0	48/813 (6)
Deaths	602	51	17	52	353	0	1,075/61,866 (2)
Pre-Phase 1 & Phase 1 (17 weeks)	55	2	5	0	84	0	146/1,075 (14)
Phase 2 (5 weeks)	22	0	0	0	5	0	27/1,075 (3)
Phase 3a (11.5 weeks)	20	0	0	1	23	0	44/1,075 (4)
Phase 3b (8 weeks)	31	1	1	2	28	0	63/1,075 (6)
Phase 3c (9 weeks, excluding week 2)	445	40	7	36	206	0	734/1,075 (68)
Week 2	29	8	4	13	7	0	61/1,075 (6)

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= 3,464) and deaths (n= 1,075) by episode date^a, BC January 15, 2020 (week 3) – January 16, 2021 (week 2)



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 3](#) 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%).

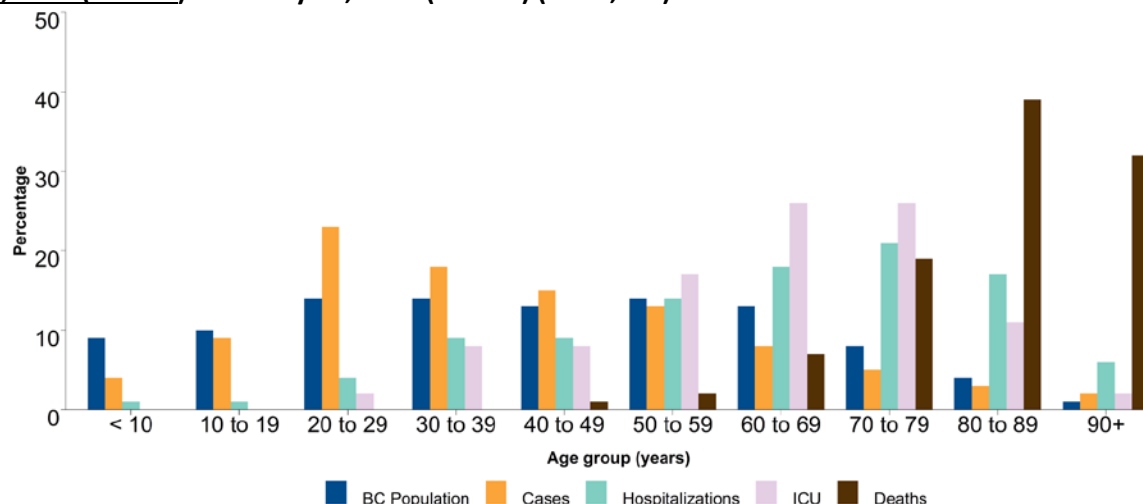
In week 2, 234/2,712 (9%) cases, 81/201 (40%) hospitalizations, 20/48 (42%) ICU admissions, and 55/61 (90%) deaths were in 70+ year olds (data not shown).

Overall, while males comprise 31,223/61,756 (51%) cases, they comprise 1,933/3,459 (56%) hospitalizations, 506/810 (62%) ICU admissions, and 581/1,075 (54%) deaths to date (data not shown).

Table 3. Age distribution^a: COVID-19 cases, hospitalizations, ICU admissions, deaths and BC population January 15, 2020 (week 3) – January 16, 2021 (week 2)

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	2582 (4)	36 (1)	2 (<1)	0 (0)	469,351 (9)
10-19	5706 (9)	30 (1)	2 (<1) ^b	0 (0)	527,805 (10)
20-29	14045 (23)	150 (4)	20 (2)	0 (0)	697,691 (14)
30-39	11131 (18)	307 (9)	62 (8)	4 (<1)	735,052 (14)
40-49	9173 (15)	322 (9)	68 (8)	9 (1)	646,035 (13)
50-59	7887 (13)	478 (14)	136 (17)	24 (2)	718,272 (14)
60-69	5146 (8)	618 (18)	208 (26)	75 (7)	673,131 (13)
70-79	2928 (5)	718 (21)	209 (26)	206 (19)	435,062 (8)
80-89	2098 (3)	587 (17)	92 (11)	414 (39)	187,443 (4)
90+	1148 (2)	218 (6)	14 (2)	343 (32)	49,726 (1)
Total	61,844	3464	813	1075	5,139,568
Median age	37	66	66	86	41

Figure 11. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, and BC population January 15, 2020 (week 3) – January 16, 2021 (week 2) (N=61,844)^a



a. Among those with available age information only.

b. Decrease of 1 from last report due to data correction.

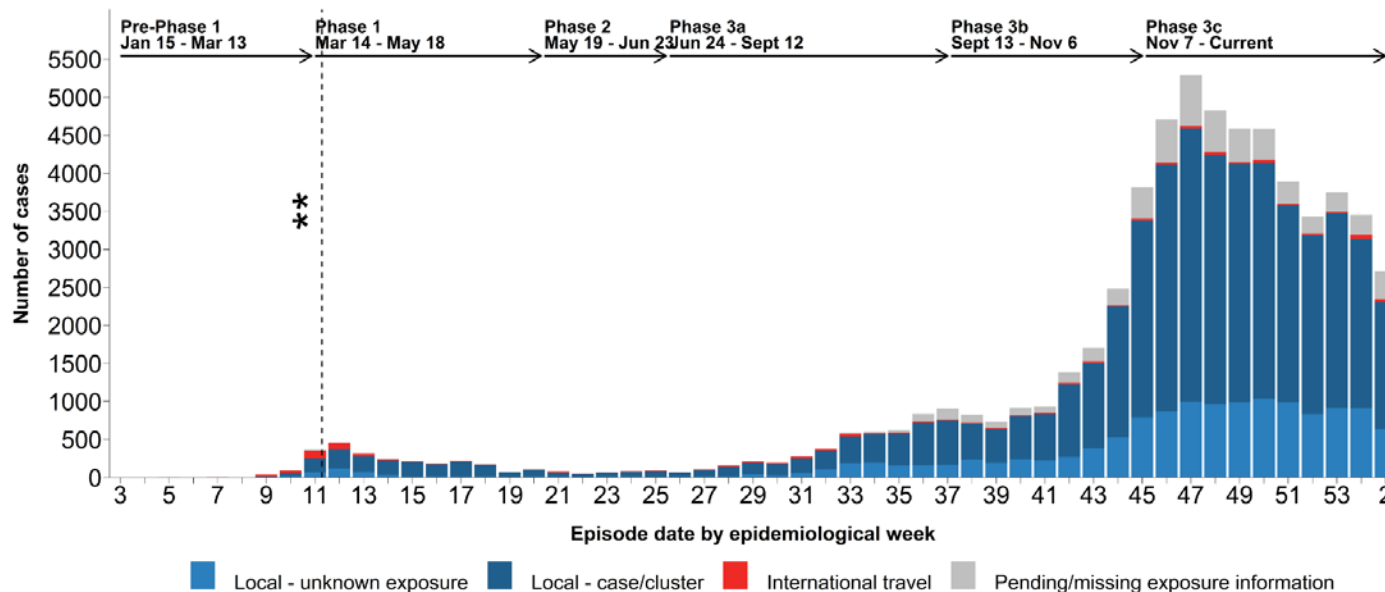
F. Likely sources of infection

As shown in [Table 4](#) and [Figure 12](#), 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 pandemic phase of episode date, BC January 15, 2020 (week 3) – January 16, 2021 (week 2)

Phase n (row %)	International travel	Local – case/cluster	Local - unknown	Pending/missing
Pre-Phase 1	135 (30)	213 (47)	94 (21)	14 (3)
Phase 1	188 (9)	1,516 (73)	338 (16)	32 (2)
Phase 2	30 (8)	275 (73)	73 (19)	0 (0)
Phase 3a	180 (4)	3,265 (66)	1,143 (23)	330 (7)
Phase 3b	139 (1)	8,480 (66)	2,866 (22)	1,312 (10)
Phase 3c (excluding Week 2)	300 (1)	26,056 (68)	8,508 (22)	3,667 (10)
Week 2	39 (1)	1,674 (62)	636 (23)	363 (13)
Total	1011 (2)	41,479 (67)	13,658 (22)	5,718 (9)

Figure 12. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – January 16, 2021 (week 2)



** March 16: Travel related restrictions introduced.

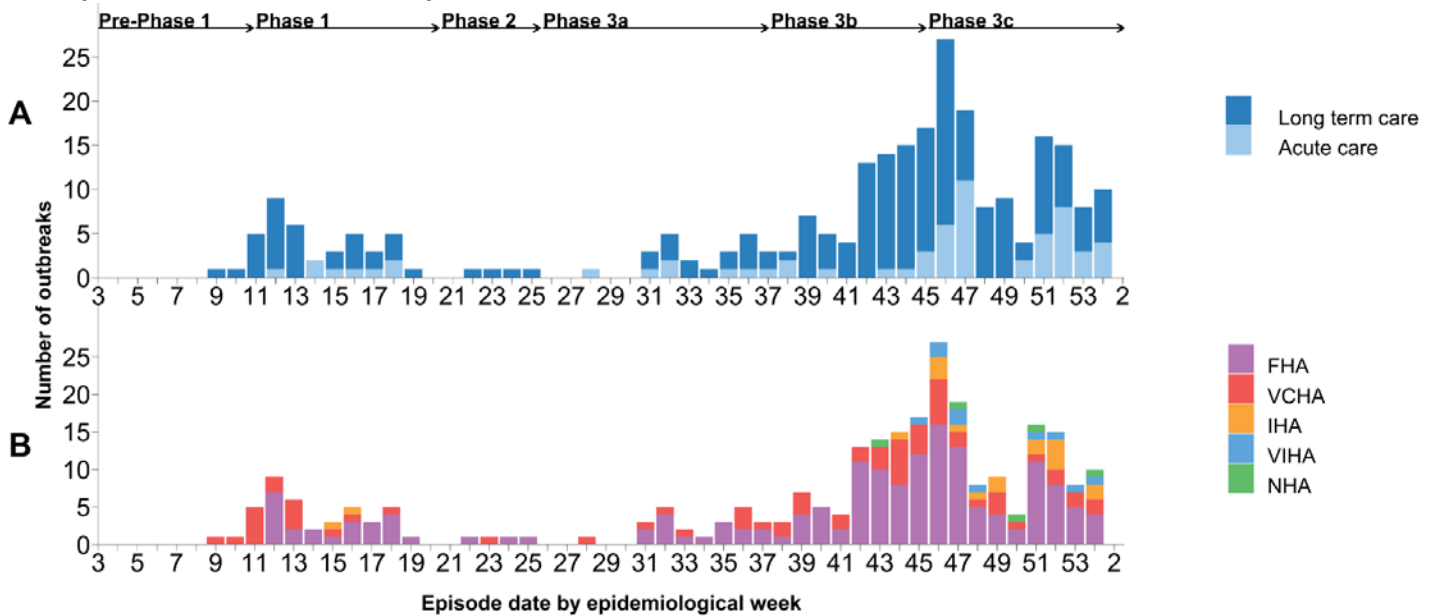
G. Care facility outbreaks

As shown in [Table 5](#) and [Figure 13](#), 262 care facility outbreaks were reported in total in BC to the end of week 2. Of 41,243 cases with episode date in Phase 3c, 3,567 (9%) were associated with a care facility outbreak. Care facility outbreak tallies by earliest onset date are highest thus far in week 46 (27 outbreaks). Almost three-quarters of all COVID-19 deaths in BC have been associated with care facility outbreaks (773/1,075; 72%) of these care facility deaths 742 (96%) were 70+ years old. Of the 61 deaths in week 2, 39 (64%) were associated with care facility settings, and of those 39 deaths, 36 (92%) were elderly adults 70+ years (data not shown).

**Table 5. COVID-19 care facility^a outbreaks by earliest case onset^b and associated cases and deaths by phase of episode date, BC
January 15, 2020 (week 3) – January 16, 2021 (week 2) (N=262)**

	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Total	262	2,916	1,932	8	4,856	773	0	0	773
Pre-/Phase One (17 weeks)	41	323	205	0	528	95	0	0	95
Phase 2 (5 weeks)	4	51	18	0	69	24	0	0	24
Phase 3a (11.5 weeks)	23	86	80	0	166	38	0	0	38
Phase 3b (8 weeks)	78	268	257	1	526	31	0	0	31
Phase 3c (9 weeks, excluding week 2)	116	2,084	1,278	7	3,369	546	0	0	546
Week 2	0	104	94	0	198	39	0	0	39

**Figure 13. COVID-19 care facility^a outbreaks by earliest case onset^b, facility type (A) and health authority (B), BC
January 15, 2020 (week 3) – January 16, 2021 (week 2) (N=262)**



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

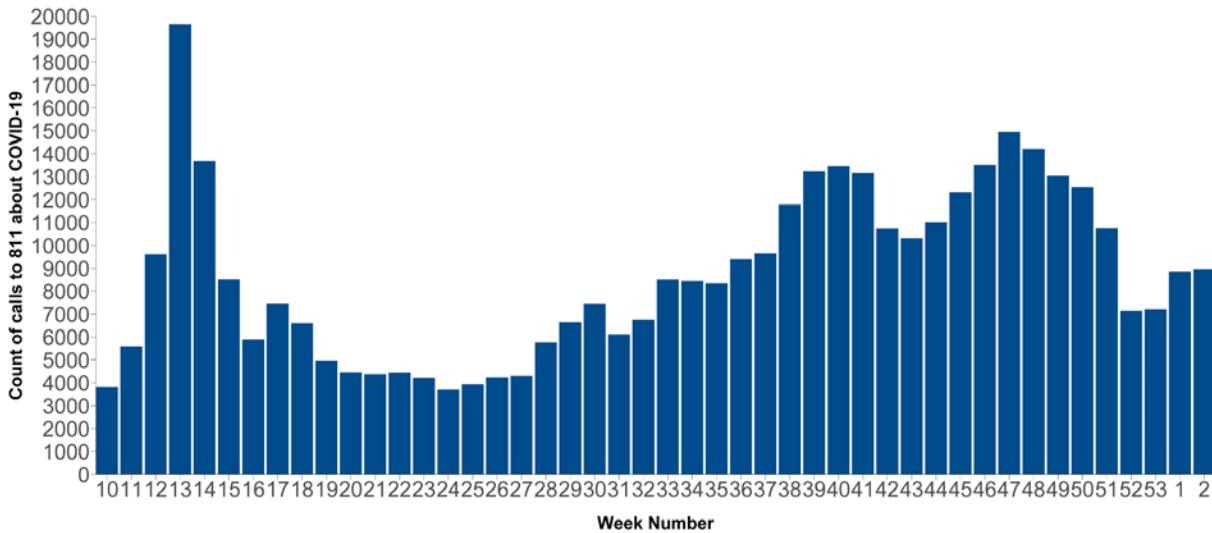
Recent emerging COVID-19 variants of concern have been reported globally. BC has identified six confirmed cases with variant B.1.1.7, four of which reported travel outside of Canada, while the remaining two cases were associated close contacts. BC has identified three cases with the 501Y.V2 variant. The cases reported no travel outside Canada or unknown travel status. Range of episode dates are from week 51 up to week 2.

I. 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, coinciding with the holidays. Calls have increased again to ~9,000 calls in week 2.

BC Medical Services Plan (MSP) general practitioner claims ([Figure 15](#)) related to COVID-19 (including telehealth billings) also decreased to ~3,500 visits in weeks 52-53. Visits increased in week 1 reaching ~6,000 to decrease once more to ~4,500 visits in week 2.

**Figure 14. HealthLink BC calls related to COVID-19, BC
March 1, 2020 (week 10) – January 16, 2021 (week 2)**



**Figure 15. Medical Service Plan (MSP) claims (including telehealth billings) for COVID-19, BC
March 1, 2020 (week 10) – January 16, 2021 (week 2)**

