

British Columbia (BC) COVID-19 Situation Report
Week 8: February 21 – February 27, 2021

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Epidemic curve and regional incidence	2	There were 3,237 COVID-19 cases in week 8. Provincial incidence has been gradually increasing since week 5.	
Likely sources of infection	3	Regional incidence has varied: <ul style="list-style-type: none"> • Since week 4, Fraser Health incidence increased (70 to 94 per 100K). • Since week 5, Vancouver Coastal incidence increased (52 to 68 per 100K). • Since week 6, Island Health incidence increased (15 to 24 per 100K). • Since week 5, Northern Health incidence decreased (109 to 72 per 100K). • Since week 6, Interior Health incidence remained stable. 	
Test rates and % positive	4	Since week 3, incidence increased in children 10-14 years (from 50 to 77 per 100K). Since week 7, incidence increased in adults 80+ years (from 22 to 30 per 100K) for the first time since week 53; incidence decreased in children <10 years (51 to 43 per 100K) and adults 40-49 years (80 to 72 per 100K).	
Age profile, testing and cases	5	Testing of MSP-funded specimens increased from week 7 to 8 (~44,000 to ~50,500 specimens), while positivity decreased from 8.0% to 7.2%.	
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Age profile, severe outcomes	8	Care facility outbreaks remained stable since week 6 with 3 to 4 outbreaks per week.	
Care facility outbreaks	9	COVID-19 variants of concern have been identified in 546 samples in BC; 502 with the B.1.1.7 variant, 33 with the B.1.351 variant, and 11 with the P.1 variant.	
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BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Episode dates are defined by dates of illness onset, hospital admission, or death. When those dates are unavailable, earliest laboratory date is used (collection or result date); if also unavailable, then public health care report date is used. Episode-based tallies for recent weeks are expected to increase as case data, in particular onset dates, are more complete.
- The weekly tally by surveillance date (result date, if unavailable then report date) includes cases with illness onset date in preceding weeks. Analyses based on episode date (or illness onset date) may better represent the timing of epidemic evolution.
- 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, 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	Core bubble interaction only

A. COVID-19 case counts and epidemic curve

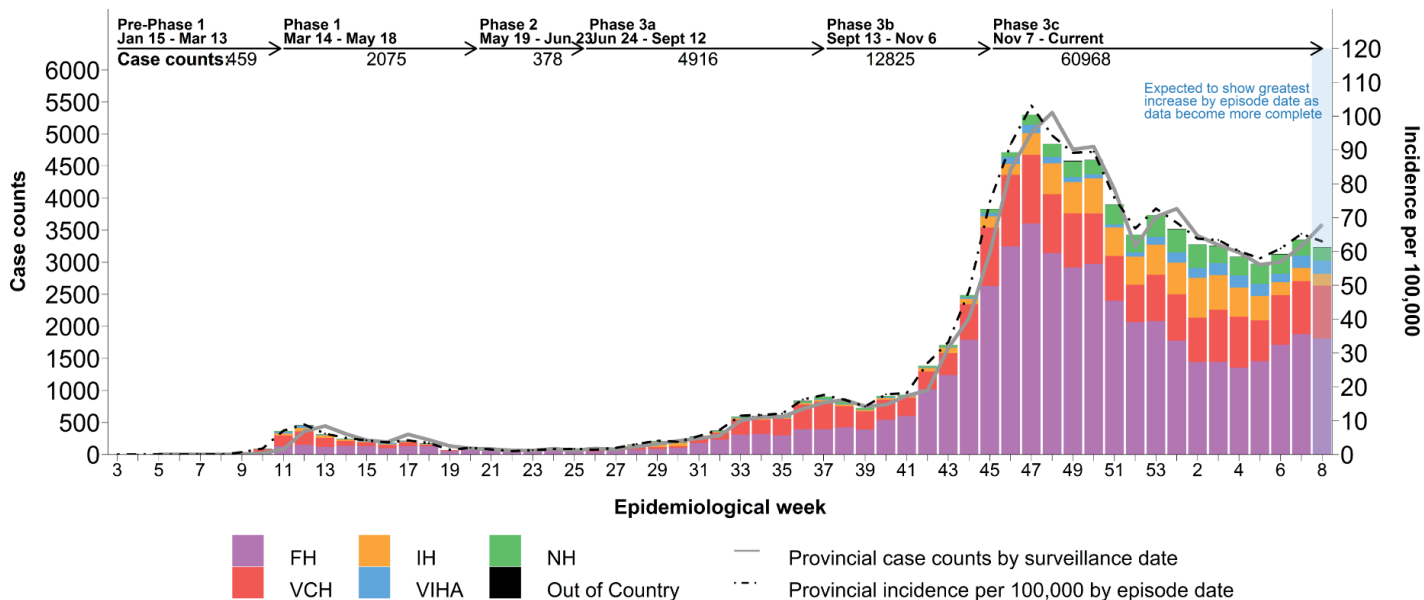
Provincially, from week 3 2020 to week 8 2021, there have been 81,621 cases, corresponding to a cumulative incidence of 1,585 per 100K (Table 1, Figure 1). As shown in Figure 1, incidence has increased gradually from week 5 (2,979; 58 per 100K) to week 7 (3,353; 65 per 100K) and that trend is likely to continue into week 8 as data become more complete.

As shown in Figure 2, incidence has decreased since week 5 in Northern Health (NH) from 109 to 72 per 100K and has remained stable in Interior Health (IH) since week 6 from 24 to 22 per 100K in week 8. Incidence has increased since week 4 in Fraser Health (FH) from 70 to 94 per 100K, since week 5 in Vancouver Coastal Health (VCH) from 52 to 68 per 100K, and since week 6 in Island Health (VIHA) from 15 to 24 per 100K. By health service delivery areas (HSDA), incidence increased since week 4 in North Vancouver Island, since week 5 in Vancouver, since week 6 in Central Vancouver Island and Fraser South.

Table 1. Episode-based case tallies by health authority, BC^a
January 15, 2020 (week 3) – February 27, 2021 (week 8) (N= 81,621)

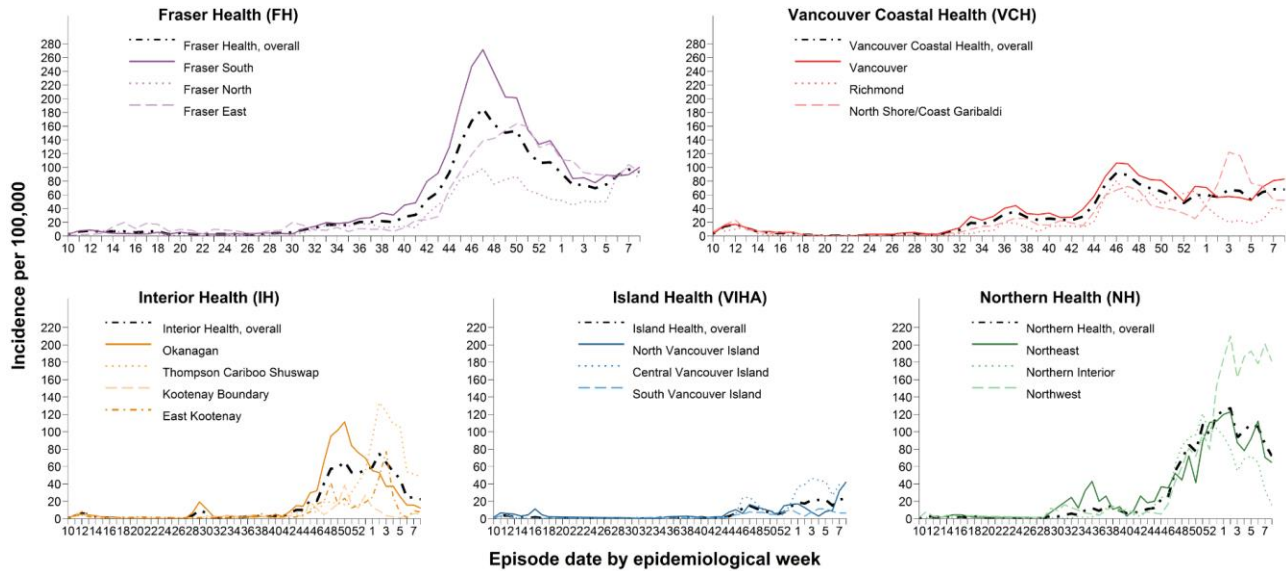
Case tallies by episode date	Health Authority of Residence					Residing Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 8, case counts	1,814	187	203	207	821	5	3,237
Cumulative case counts	47,960	7,457	2,447	4,692	18,910	155	81,621
Week 8, cases per 100K population	9	22	23	72	68	NA	63
Cumulative cases per 100K population	2,473	893	282	1,633	1,562	NA	1,585

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC^a
January 15, 2020 (week 3) – February 27, 2021 (week 8) (N= 81,621)



a. Displayed data extracted on March 8, 2021.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – February 27, 2021 (week 8)



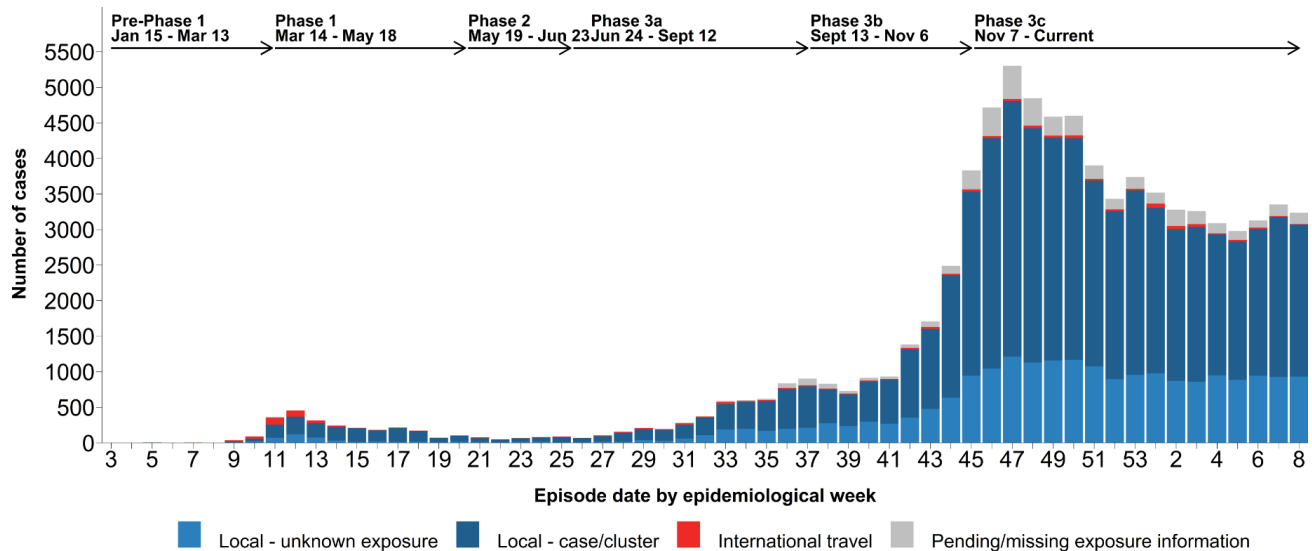
B. Likely sources of infection

As shown in [Table 2](#) and [Figure 3](#), local contact with a known case or cluster has been the most commonly reported source of infection across the pandemic to date.

Table 2. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – February 27, 2021 (week 8)

Likely exposure (row %)	International travel	Local – case/cluster	Local – unknown	Pending/missing
Week 8, Exposures	8 (<1)	2,137 (66)	932 (29)	160 (5)
Cumulative Exposures	1,141 (1)	54,731 (67)	21,232 (26)	4,517 (6)

Figure 3. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – February 27, 2021 (week 8)

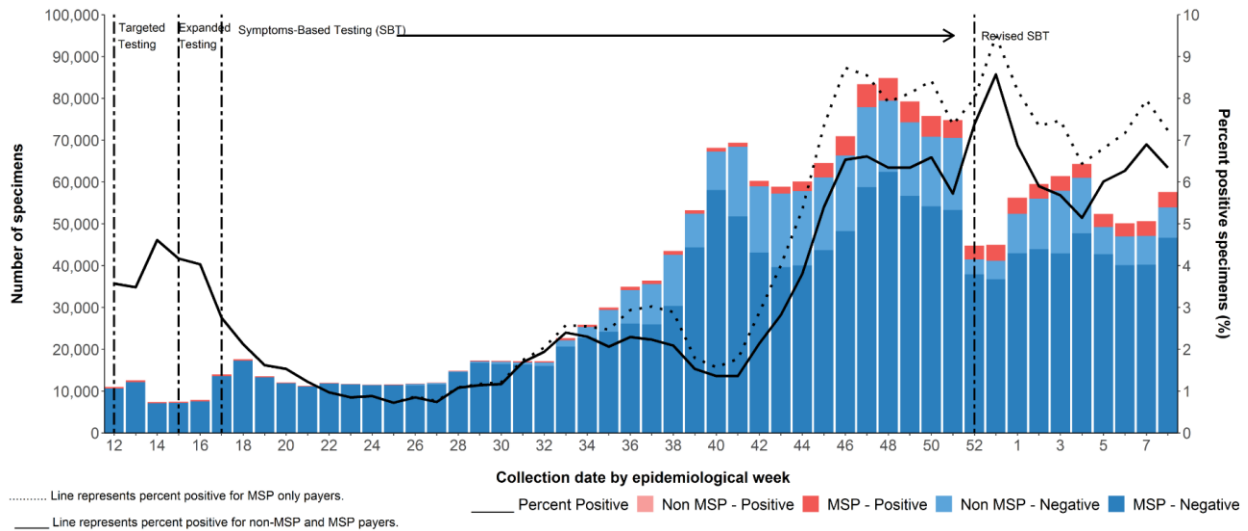


C. Test rates and percent positive

As shown by the darker-colored bars in **Figure 4**, testing increased from week 7 to week 8 (~44,000 to ~50,500 specimens). Concurrently, positivity of MSP-funded specimens decreased from 8.0% in week 7 to 7.2% in week 8.

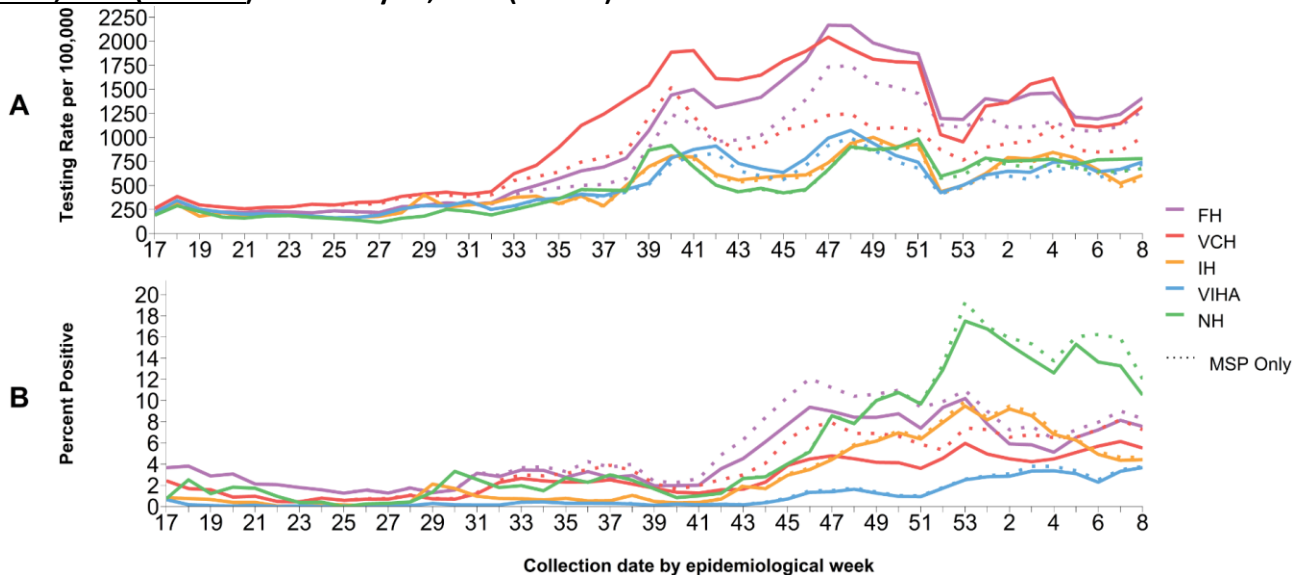
As shown in **Panel A of Figure 5**, the per capita testing rates for MSP-only specimens in week 8 were highest in FH and VCH, and have increased starting in week 6. Testing was lower and stable in NH, while it has been increasing in VIHA since week 6 and in IH since week 7. As shown in **Panel B**, week 8 percent positivity remains highest in NH at 12.0% followed by FH at 8.3%, VCH at 7.3%, IH at 4.6%, and lowest in VIHA at 3.8%. Since week 5, MSP-funded test positivity has decreased in NH (from 16.0%), while positivity has decreased in FH (from 9.0%) and VCH (from 8.2%), remained stable in IH since week 7, and increased in VIHA since week 6 (2.5%).

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – February 27, 2021 (week 8) ^{a,b,c}



a. Invalid (n=1,020) and indeterminate (n=5,047) results have been excluded.

Figure 5. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – February 27, 2021 (week 8) ^{b,c}



b. PLOVER extract on March 5, 2021.

c. Laboratory testing guidelines were updated on Dec 17 (week 51): <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 6](#), compared to prior weeks of Phase 3c, testing rates in week 8 were lower in all age groups except in children <20 years. The highest testing rates in week 8 were among adults 20-39 years of age, similar to weeks 46-7 of phase 3c.

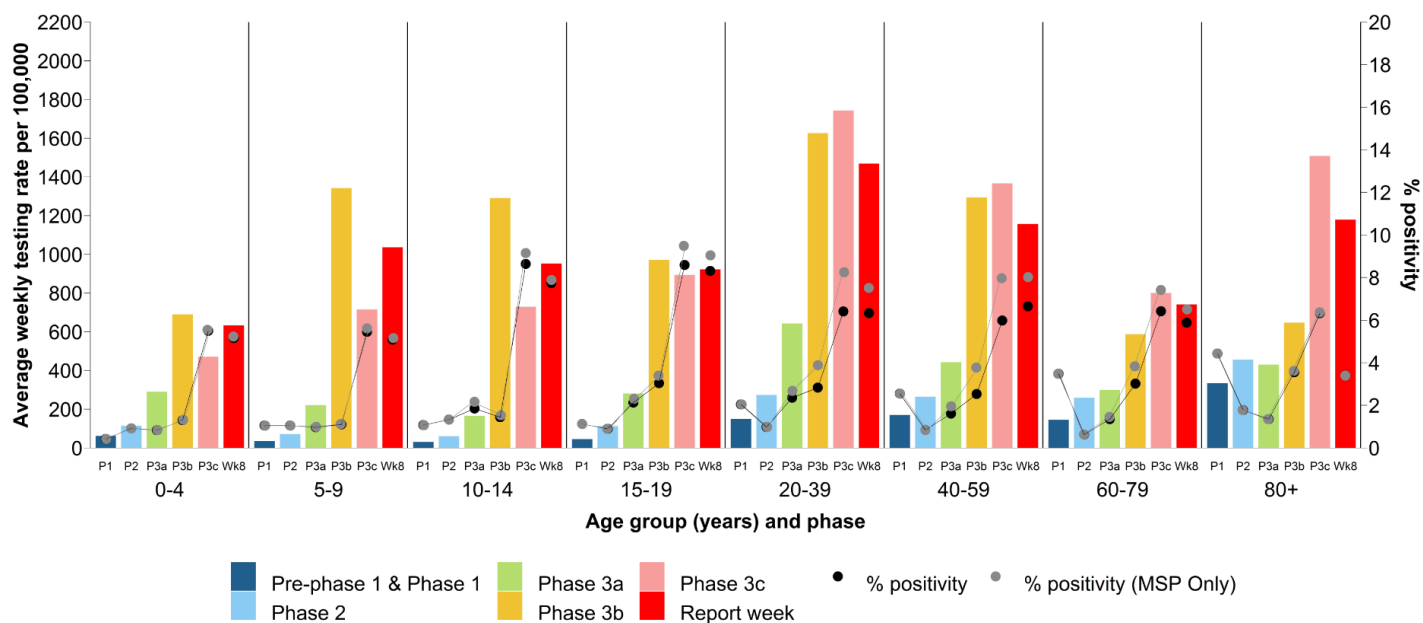
As shown by the grey dots in [Figure 6](#), with the exception of the 40-59-year-olds, the percent positivity for MSP-only specimens in week 8 was lower in all age groups relative to prior weeks of Phase 3c. This was most notable in the 80+ where it dropped from 6.4% to 3.4%, and continues to be the age group with lowest percent positivity in week 8. The highest percent positivity for week 8 was in ages 15-19 years (9.0%), 10-14 and 40-59 years (8.0%), and 20-39 years (7.5%).

Case distribution and weekly incidence by age group

As shown in [Figure 7](#), the percentage contribution of different age groups has been stable from week 7 to week 8 with a slight increase in the 10-14 and 30-39-year-olds (1% in each age group) offset by a slight decrease in the <10 and 40-49-year-olds.

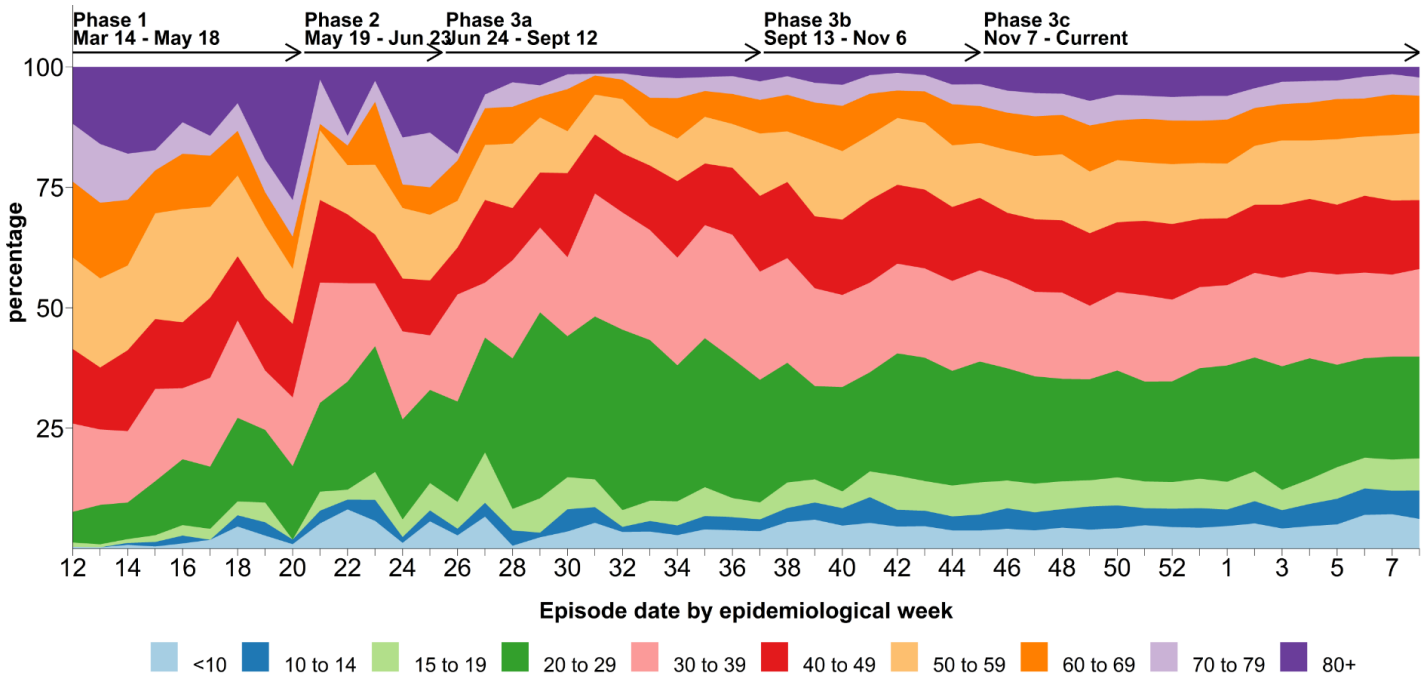
As shown in [Figure 8](#), since week 3, incidence has increased in children 10-14 years (from 50 to 77 per 100K). Since week 7, incidence increased in adults 80+ years (from 22 to 30 per 100K), and to a lesser extent adults 30-39 years (from 78 to 80 per 100K). This is the first week with an increase in incidence in the 80+ year-olds since week 53. Conversely, incidence has decreased primarily in children <10 years (from 51 to 43 per 100K) and adults 40-49 years (from 80 to 72 per 100K), followed by adults 20-29 years (from 102 to 98 per 100K), 60-69 years (from 42 to 37 per 100K), and 70-79 years (from 32 to 28 per 100K). Incidence in the remaining age groups has remained stable since week 7.

Figure 6. Average weekly SARS-CoV-2 testing rates and percent positive by known age group and phase^a, BC January 20, 2020 (week 4) – February 27, 2021 (week 8)^b

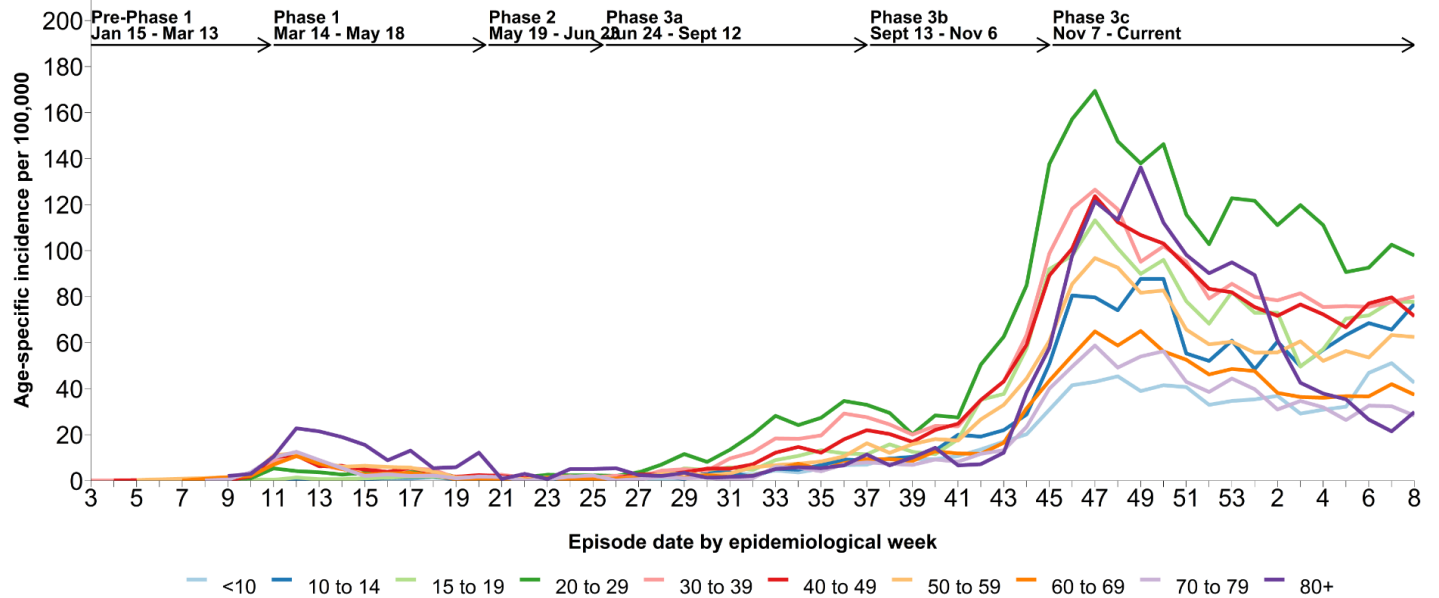


- a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 15 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 March 5, 2021. Testing rates displayed are based on all specimens (MSP and non-MSP).

**Figure 7. COVID-19 case distribution by known age group (years) and episode date, BC
March 15, 2020 (week 12) – February 27, 2021 (week 8) (N= 81,084)**



**Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – February 27, 2021 (week 8) (N= 81,598)**



E. Severe outcome counts and epi-curve

The number of hospital admissions has remained stable since week 6 at an average of 148 hospitalizations per week. The number of deaths has also stabilized in weeks 7 and 8 (25 and 23 deaths, respectively) ([Table 3, Figure 9](#)).

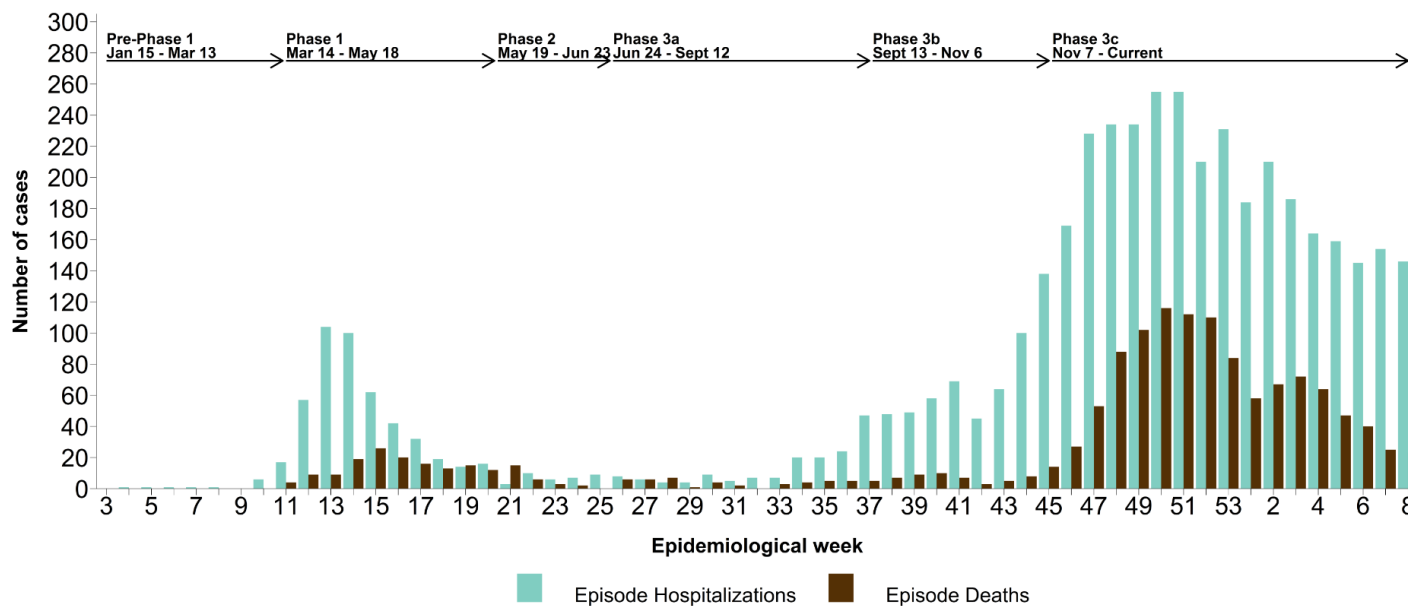
Cumulatively, there have been nine confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020. The median age of these cases is 9 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – February 27, 2021 (week 8)

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 8, hospitalizations	67	19	10	23	27	0	146
Cumulative hospitalizations	2,414	410	136	422	1,014	9	4,405/81,621 (5)
Week 8, ICU admissions	16	2	4	4	8	0	34
Cumulative ICU admissions	463	115	39	105	289	2	1,013/81,621 (1)
Week 8, deaths	10	3	2	1	7	0	23
Cumulative deaths	739	106	26	107	390	0	1,368/81,621 (2)

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

Figure 9. COVID-19 hospital admissions and deaths by episode date, BC January 15, 2020 (week 3) – February 27, 2021 (week 8)



F. Age profile, severe outcomes

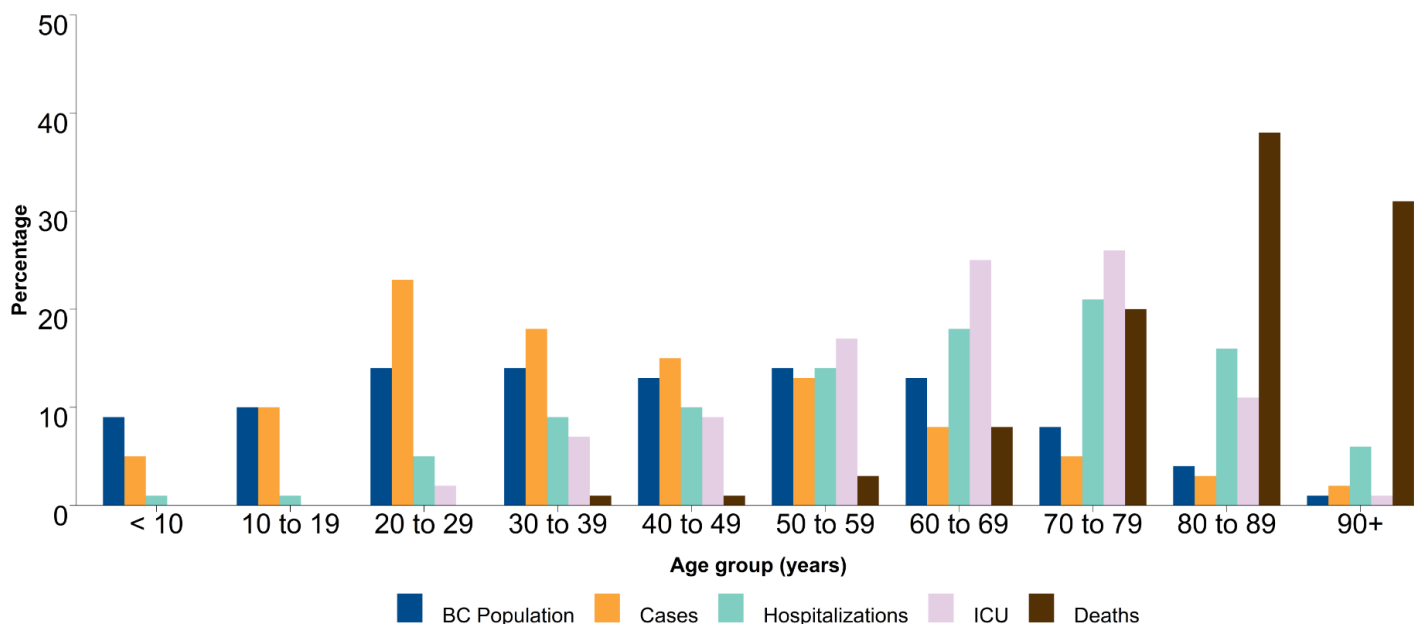
Table 4 and **Figure 10** display the distribution of cases and severe outcomes as well as the BC population for each age group. In week 8, median age of hospitalization was 56 years, while median age of death was 78 years. The younger median age of hospitalization in week 8 reflects a decrease in the number of hospital admissions among the elderly in recent weeks.

In week 8, 194/3,237 (6%) cases, 46/146 (32%) hospitalizations, 8/34 (24%) ICU admissions, and 16/23 (70%) deaths were in 70+-year-olds (data not shown).

Table 4: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group January 15, 2020 (week 3) – February 27, 2021 (week 8) (N= 81,598)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	3,718 (5)	46 (1)	4 (<1)	0 (0)	469,351 (9)
10-19	7,861 (10)	35 (1)	3 (<1)	0 (0)	527,805 (10)
20-29	18,488 (23)	206 (5)	25 (2)	0 (0)	697,691 (14)
30-39	14,672 (18)	387 (9)	73 (7)	10 (1)	735,052 (14)
40-49	12,149 (15)	432 (10)	90 (9)	16 (1)	646,035 (13)
50-59	10,467 (13)	617 (14)	171 (17)	39 (3)	718,272 (14)
60-69	6,736 (8)	803 (18)	257 (25)	104 (8)	673,131 (13)
70-79	3,783 (5)	910 (21)	266 (26)	268 (20)	435,062 (8)
80-89	2,454 (3)	712 (16)	110 (11)	513 (38)	187,443 (4)
90+	1,270 (2)	257 (6)	14 (1)	418 (31)	49,726 (1)
Total	81,598	4,405	1,013	1,368	5,139,568
Median age	37	66	66	85	41

Figure 10. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, and BC population January 15, 2020 (week 3) – February 27, 2021 (week 8) (N= 81,598)^a



a. Among those with available age information only.

G. Care facility outbreaks

As shown in [Table 5](#) and [Figure 11](#), 292 care facility outbreaks were reported in total in BC to the end of week 8. Trends have been stable since week 6 with 3 to 4 outbreaks per week. From week 6 to week 8, 4/10 (40%) of care facility outbreaks were in long-term care or assisted living settings, and 4/10 (40%) were in FH.

Almost three-quarters of all COVID-19 deaths in BC have been associated with care facility outbreaks (950/1,368; 70%). Of these deaths, 904 (95%) were 70+ years old. In week 8, 8/23 (35%) deaths were associated with care facility outbreaks.

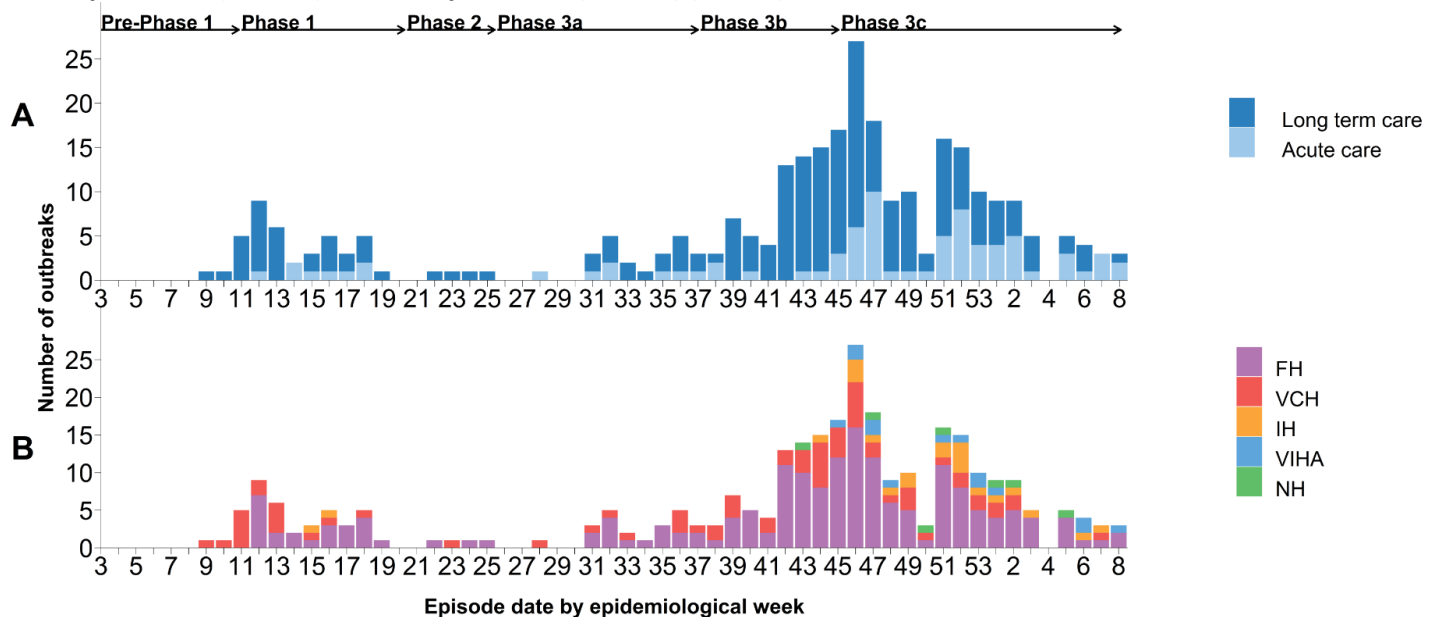
Table 5. COVID-19 care facility^{a,b} outbreaks by earliest case onset^{a,c}, associated cases and deaths by episode date, BC^d

January 15, 2020 (week 3) – February 27, 2021 (week 8) (N=292)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 8, Care Facility Outbreaks	3	28	12	2	42	10	0	0	10
Cumulative, Care Facility Outbreaks	292	3,231	2,170	6	5,407	950	0	0	950

a. New outbreaks reported since the last report with an earliest case onset date prior to the current reporting week will be included in the cumulative care facility outbreak total.

Figure 11. COVID-19 care facility^b outbreaks by earliest case onset^c, facility type (A) and health authority (B), BC^d January 15, 2020 (week 3) – February 27, 2021 (week 8) (N=292)



- b. Care facility settings include acute care or long-term care settings (defined as long-term care facility or assisted living).
- c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.
- d. As of week 46, VCH and FH no longer declare outbreaks with single staff cases unless there is evidence of transmission within the facility.

H. Emerging respiratory pathogens update

BC has identified 546 cases infected with variants of concern. Of those, 502 (92%) were infected with variant B.1.1.7, of which 20 (4%) reported travel outside of Canada; 33 (6%) were infected with variant B.1.351, of which 5 (15%) reported travel outside of Canada; and 11 (2%) were infected with variant P.1, none of which reported travel outside Canada. This is the first report to include cases infected with variant P.1. Episode dates range from week 51 to week 8.