

British Columbia (BC) COVID-19 Situation Report
Week 9: February 28 – March 6, 2021

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Epidemic curve and regional incidence	2	There were 3,451 COVID-19 cases in week 9. 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 7, Fraser Health incidence remained stable (~100 per 100K). • Since week 5, Vancouver Coastal incidence increased (53 to 78 per 100K). • Since week 8, Island Health incidence decreased (24 to 20 per 100K). • Since week 8, Northern Health incidence decreased (96 to 82 per 100K). • Since week 8, Interior Health incidence decreased (25 to 22 per 100K). 	
Test rates and % positive	4	Since week 8, incidence increased between ages 15 and 49 years of age, most prominently in the 20-29-year-olds (104 to 113 per 100K), while incidence decreased in the remaining age groups, especially the 10-14-year-olds (84 to 65 per 100K). Whereas incidence increased from week 7 (22 per 100K) to week 8 (32 per 100K) among those 80+ years, in week 9 their incidence was stable or showed slight decline (30 per 100K).	
Age profile, testing and cases	5	Testing of MSP-funded specimens decreased slightly from week 8 to 9 (>50,000 to >49,000 specimens), while positivity increased from 7.3% to 8.0%.	
Severe outcome counts	7	Hospital admissions remained stable since week 4 (average 160 per week). Deaths were also stable since week 7 (24 per week).	
Age profile, severe outcomes	8	There was one new confirmed case of Multi-system Inflammatory Syndrome in children and adolescents (MIS-C) since last report.	
Care facility outbreaks	9	Reported outbreaks in long-term care settings by week of earliest onset have decreased since week 51 (n=11), with two reported in week 9. One of 24 (4%) deaths provincially during week 9 was associated with an outbreak in a long-term care setting. This compares with a peak number of 78 of 112 (70%) deaths provincially associated with a long-term care outbreak in week 51.	
Emerging respiratory pathogens update	9	SARS-CoV-2 variants of concern have been identified in 880 samples in BC: 819, 40 and 21 with the B.1.1.7, B.1.351 and P.1 variant, respectively.	

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

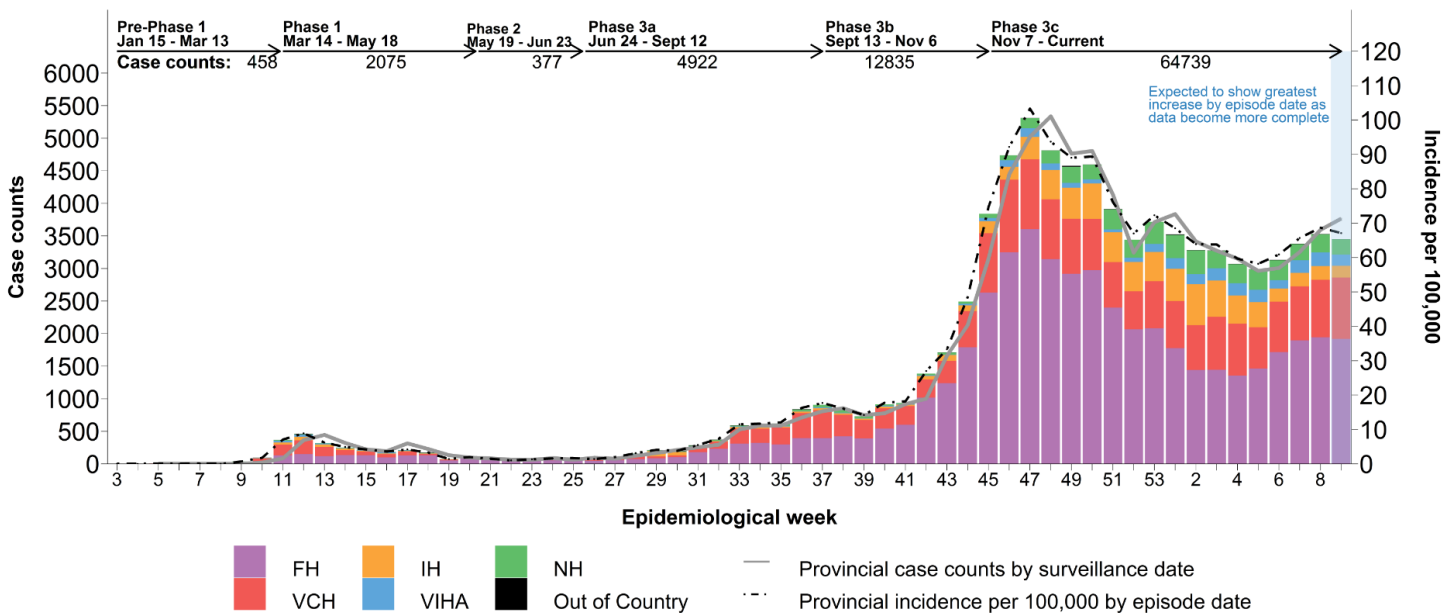
Provincially, from week 3 2020 to week 9 2021, there have been 85,406 cases, corresponding to a cumulative incidence of 1,659 per 100K (Table 1, Figure 1). As shown in Figure 1, after a decrease in incidence from week 47 (5,311; 103 per 100K) to week 5 (2,990; 58 per 100K), incidence gradually increased up to week 8 (3,530; 69 per 100K) and that trend is likely to continue into week 9 as data become more complete.

As shown in Figure 2, incidence has decreased since week 8 in Northern Health (NH) from 96 to 82 per 100K in week 9, in Interior Health (IH) from 25 to 22 per 100K, and in Island Health (VIHA) from 24 to 20 per 100K. Incidence has remained stable since week 7 in Fraser Health (FH) at ~100 per 100K per week and has increased since week 5 in Vancouver Coastal Health (VCH) from 53 to 78 per 100K. By health service delivery areas (HSDA), incidence increased since week 6 among all VCH HSDAs and in Fraser South, and since week 8 in Okanagan and South Vancouver Island.

Table 1. Episode-based case tallies by health authority, BC^a
January 15, 2020 (week 3) – March 6, 2021 (week 9) (N= 85,406)

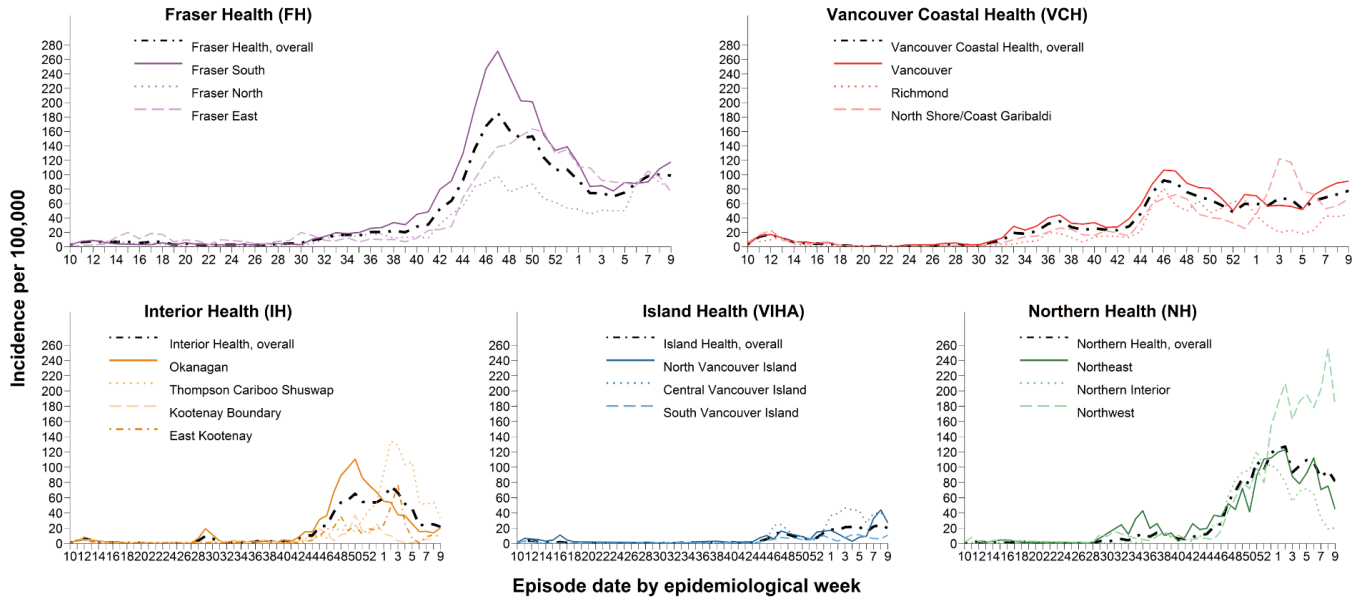
Case tallies by episode date	Health Authority of Residence					Residing Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 9, case counts	1,919	182	172	234	941	3	3,451
Cumulative case counts	50,033	7,670	2,629	4,998	19,917	159	85,406
Week 9, cases per 100K population	99	22	20	82	78	NA	67
Cumulative cases per 100K population	2,580	919	303	1,740	1,645	NA	1,659

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC^a
January 15, 2020 (week 3) – March 6, 2021 (week 9) (N= 85,406)



a. Displayed data extracted on March 15, 2021.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – March 6, 2021 (week 9)



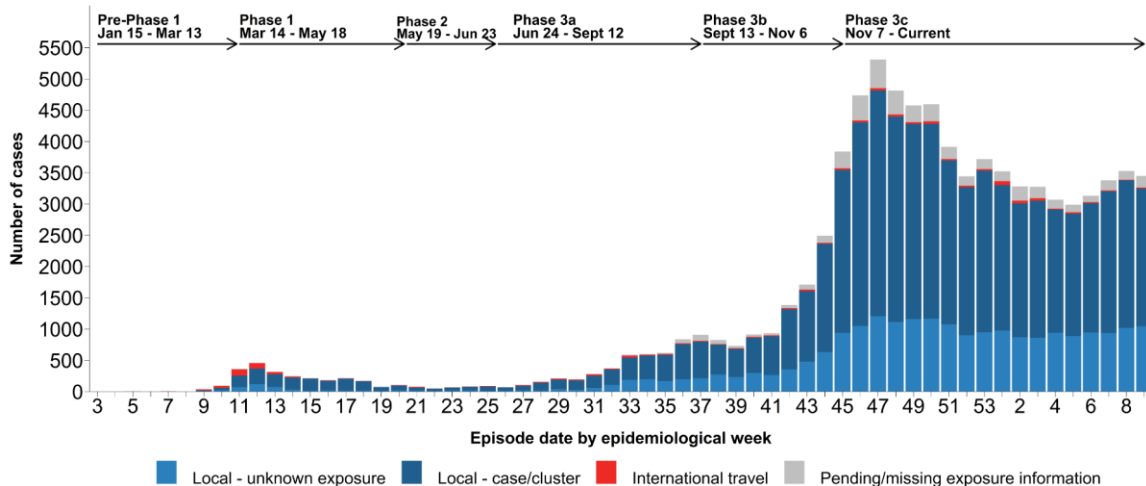
B. Likely sources of infection

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) – March 6, 2021 (week 9)

Likely exposure (row %)	International travel	Local – case/cluster	Local – unknown	Pending/missing
Week 9, Exposures	18 (1)	2,203 (64)	1,044 (30)	186 (5)
Cumulative Exposures	1,163 (1)	57,226 (67)	22,351 (26)	4,666 (5)

Figure 3. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – March 6, 2021 (week 9)



C. Test rates and percent positive

As shown by the darker-colored bars in **Figure 4**, testing decreased slightly from week 8 to week 9 (>50,000 to >49,000 specimens). Concurrently, positivity of MSP-funded specimens increased from 7.3% in week 8 to 8.0% in week 9.

As shown in **Panel A** of **Figure 5**, the per capita testing rates for MSP-only specimens in week 9 were highest in FH and VCH, and have increased starting in week 6. Testing was lower but increasing in NH since week 7, while decreasing in VIHA and IH since week 8. As shown in **Panel B**, week 9 percent positivity remains highest in NH at 13.5% followed by FH at 8.7%, VCH at 8.5%, IH at 4.4%, and lowest in VIHA at 3.0%. Since week 8, MSP-funded test positivity has increased in NH (from 12.1%), VCH (from 7.3%), and slightly in FH (from 8.3%), while positivity has decreased in IH (from 4.6%) and VIHA (3.8%).

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – March 6, 2021 (week 9) ^{a,b,c}

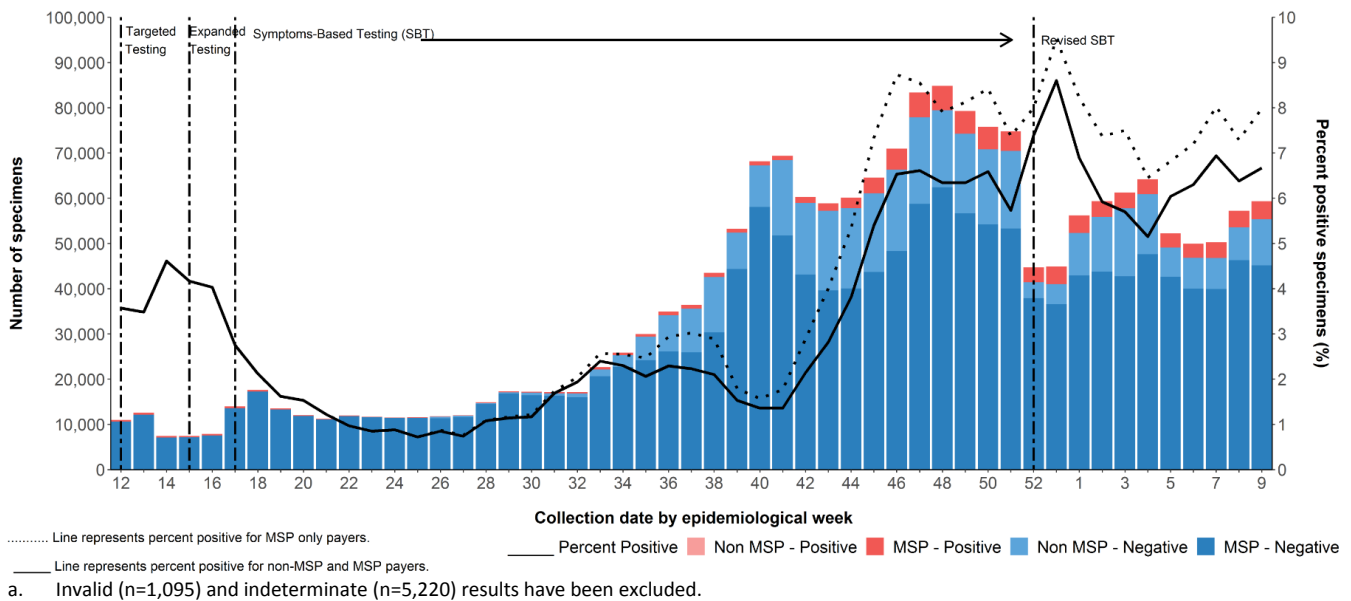
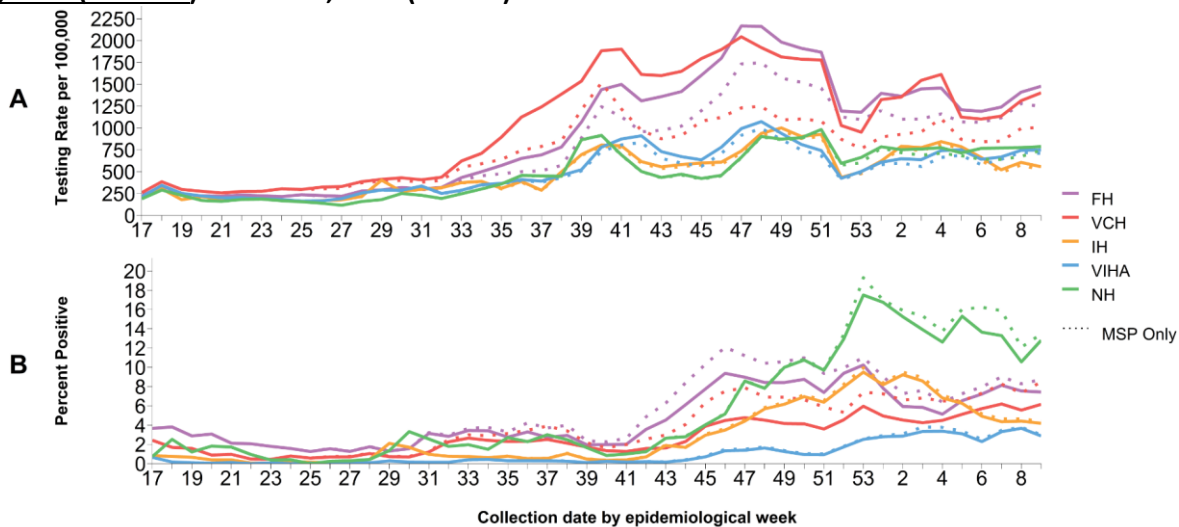


Figure 5. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – March 6, 2021 (week 9) ^{b,c}



b. PLOVER extract on March 12, 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 9 were lower in all age groups except in children <20 years. The highest testing rates in week 9 were among adults 20-39 years of age, similar to weeks 46-8 of phase 3c.

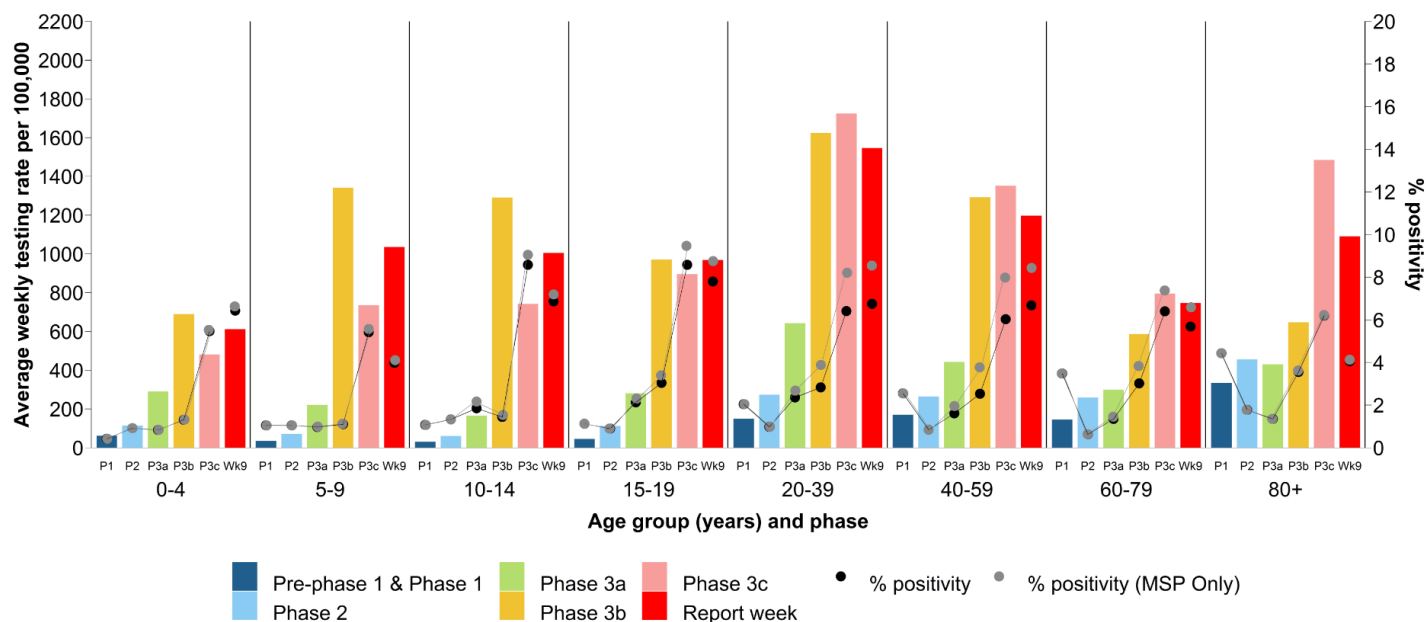
As shown by the grey dots in [Figure 6](#), the percent positivity for MSP-only specimens in week 9 was prominently lower, compared to prior weeks of Phase 3c, in the 80+ year-olds (from 6.2% to 4.1%), the 5-9-year-olds (from 5.6% to 4.1%), and the 10-14-year-olds (from 9.1% to 7.2%). Conversely, positivity increased in young children 0-4-years old from 5.5% to 6.6%. The test-positivity in week 9 in the remaining age groups was comparable to prior weeks of Phase 3c with differences of <1%.

Case distribution and weekly incidence by age group

As shown in [Figure 7](#), the percentage contribution of the 20-29-year-olds increased from week 8 to week 9 by 2.2%, met mainly by a decrease in the 10-14-year-olds by 1.3% and the 50-59-year-olds by 0.9%. The remaining age groups' contributions were more stable.

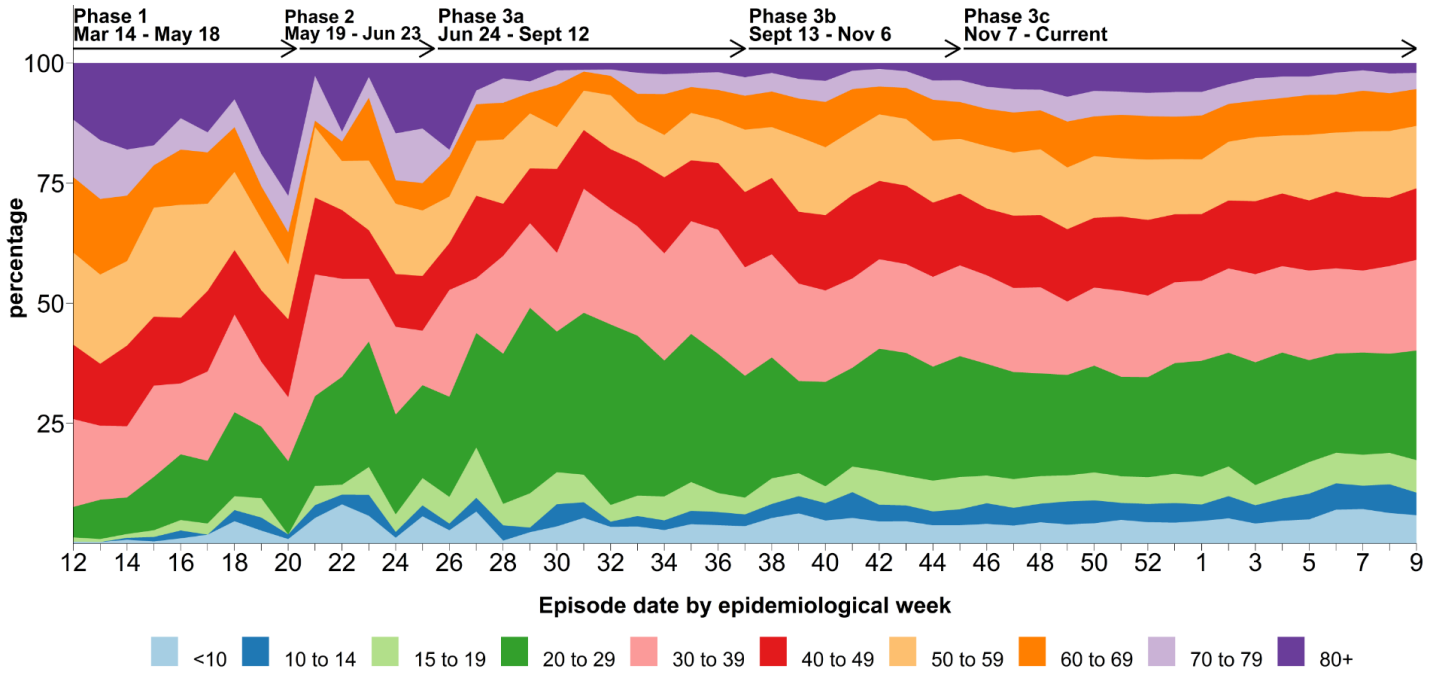
As shown in [Figure 8](#), since week 8, incidence has increased between ages 15 and 49 years of age, most prominently in the 20-29-year-olds (from 104 to 113 per 100K), while incidence has decreased in the remaining age groups, especially the 10-14-year-olds (from 84 to 65 per 100K). Whereas incidence increased from week 7 (22 per 100K) to week 8 (32 per 100K) among those 80+ years, in week 9 their incidence was stable or showed slight decline (30 per 100K).

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) – March 6, 2021 (week 9)^b

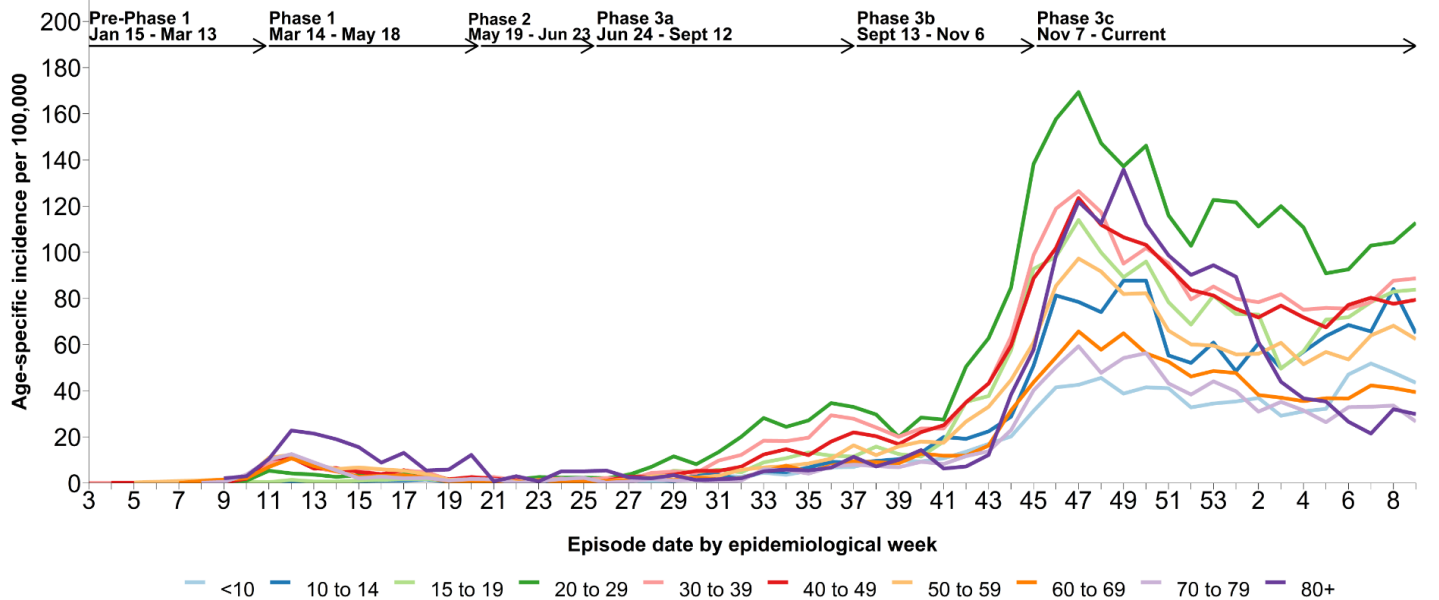


- a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 16 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) – March 6, 2021 (week 9) (N= 84,870)**



**Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – March 6, 2021 (week 9) (N= 85,383)**



E. Severe outcome counts and epi-curve

The number of hospital admissions has remained stable since week 4 at an average of 160 hospitalizations per week. The number of deaths has also stabilized since week 7 with an average of 24 deaths per week ([Table 3, Figure 9](#)).

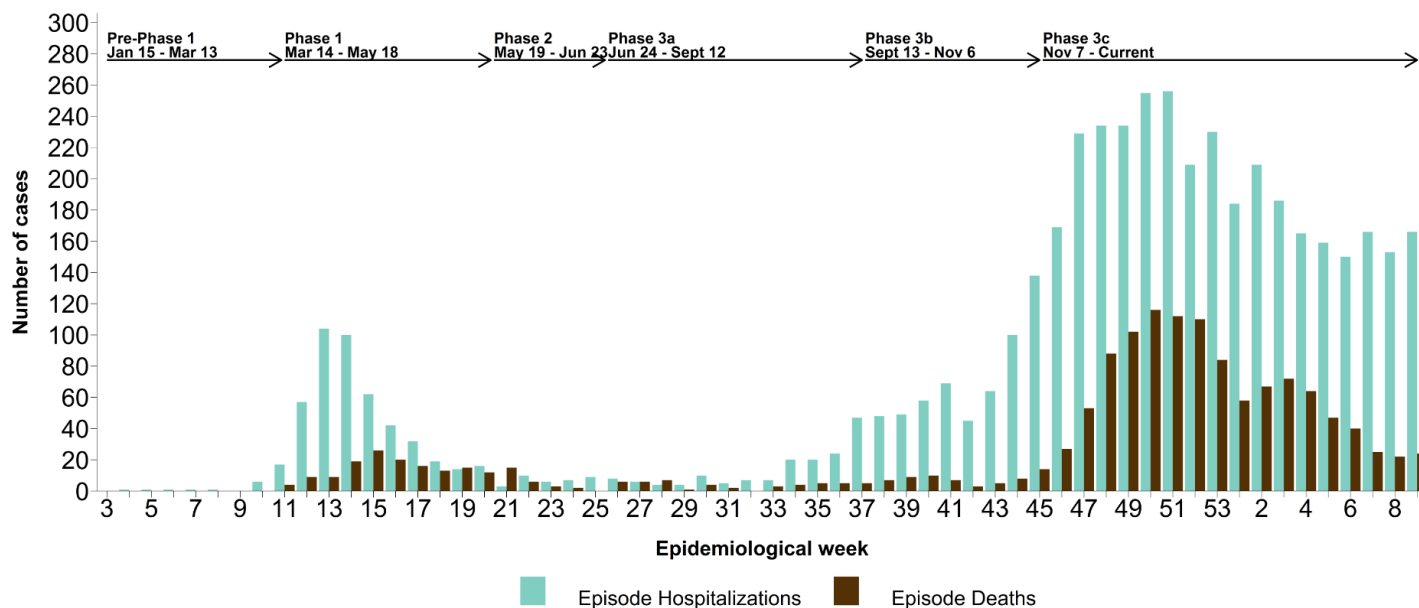
Cumulatively, there have been 10 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020 (one new confirmed case since last report). The median age of these cases is 7.5 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – March 6, 2021 (week 9)

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 9, hospitalizations	90	7	7	21	40	1	166
Cumulative hospitalizations	2,523	419	142	443	1,059	10	4,596/85,406 (5)
Week 9, ICU admissions	21	2	1	9	10	0	43
Cumulative ICU admissions	481	117	40	111	299	2	1,050/85,406 (1)
Week 9, deaths	14	2	2	2	4	0	24
Cumulative deaths	752	108	28	109	394	0	1,391/85,406 (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) – March 6, 2021 (week 9)



F. Age profile, severe outcomes

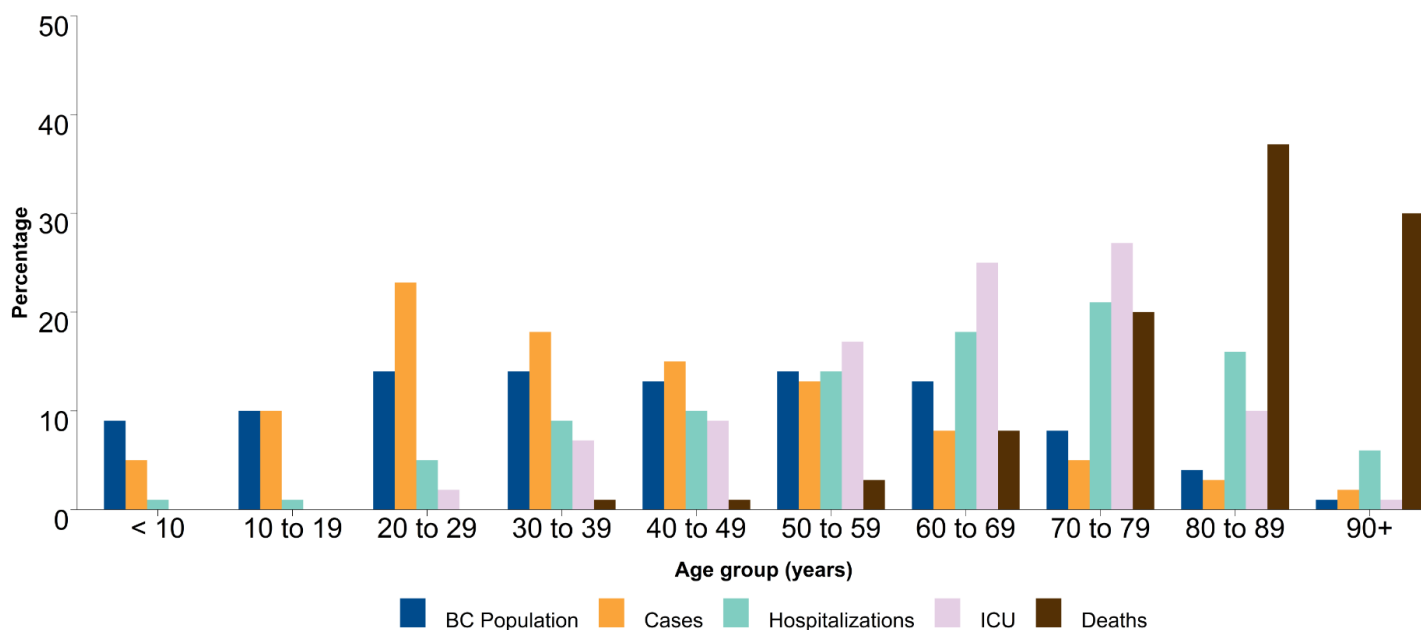
Table 4 and **Figure 10** display the distribution of cases and severe outcomes as well as the BC population for each age group. In week 9, median age of hospitalization was 64 years, while median age of death was 76 years.

In week 9, 187/3,451 (5%) cases, 66/166 (40%) hospitalizations, 16/43 (37%) ICU admissions, and 16/24 (67%) 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) – March 6, 2021 (week 9) (N= 85,383)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	3,952 (5)	47 (1)	4 (<1)	0 (0)	469,351 (9)
10-19	8,293 (10)	37 (1)	3 (<1)	0 (0)	527,805 (10)
20-29	19,323 (23)	215 (5)	25 (2)	0 (0)	697,691 (14)
30-39	15,382 (18)	409 (9)	76 (7)	11 (1)	735,052 (14)
40-49	12,712 (15)	448 (10)	93 (9)	16 (1)	646,035 (13)
50-59	10,969 (13)	651 (14)	179 (17)	43 (3)	718,272 (14)
60-69	7,026 (8)	829 (18)	267 (25)	107 (8)	673,131 (13)
70-79	3,926 (5)	957 (21)	279 (27)	273 (20)	435,062 (8)
80-89	2,514 (3)	737 (16)	110 (10)	517 (37)	187,443 (4)
90+	1,286 (2)	266 (6)	14 (1)	424 (30)	49,726 (1)
Total	85,383	4,596	1,050	1,391	5,139,568
Median age	37	66	65	85	41

Figure 10. COVID-19 cases, hospitalizations, ICU admissions and deaths by age group, and BC population January 15, 2020 (week 3) – March 6, 2021 (week 9) (N= 85,383)^a



a. Among those with available age information only.

G. Care facility outbreaks

As shown in [Table 5](#) and [Figure 11](#), 297 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 9. Reported outbreaks in long-term care settings (i.e. long-term care or assisted living facilities) by week of earliest onset have decreased since week 51 (11 outbreaks), with two reported outbreaks having earliest onset in week 9 (in IH and FH).

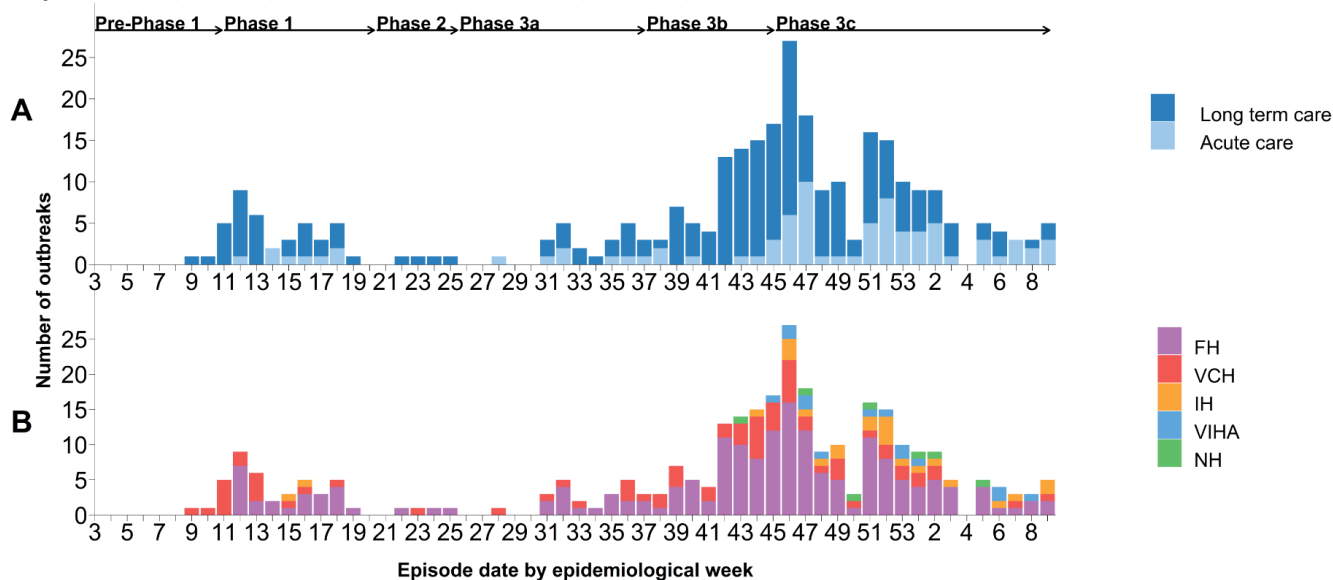
More than half of all COVID-19 deaths in BC have been associated with outbreaks in long-term care settings (777/1,391; 56%). Of these deaths, 759 (98%) were 70+ years old. One of 24 (4%) deaths provincially during week 9 was associated with an outbreak in a long-term care setting. This compares with a peak number of 78 of 112 (70%) deaths provincially associated with a long-term care outbreak in week 51.

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) – March 6, 2021 (week 9) (N=297)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 9, Care Facility Outbreaks	5	35	11	0	46	4	0	0	4
Cumulative, Care Facility Outbreaks	297	3,270	2,187	6	5,463	953	0	0	953

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) – March 6, 2021 (week 9) (N=297)



- 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 880 cases infected with variants of concern. Of those, 819 (94%) were infected with variant B.1.1.7, of which 27 (2%) reported travel outside of Canada; 40 (5%) were infected with variant B.1.351, of which 5 (13%) reported travel outside of Canada; and 21 (2%) were infected with variant P.1, none of which reported travel outside Canada. Episode dates range from week 51 to week 9. Between weeks 51 and 9, adults 20-49 years of age comprised 55% of all SARS-CoV-2 cases in BC, and also comprised 439/819 (54%) B.1.1.7, 15/40 (38%) B.1.351 and 7/21 (33%) P.1 variants that were detected.