

British Columbia (BC) COVID-19 Situation Report
Week 11: March 14 – March 20, 2021

Table of Contents	
Epidemic curve and regional incidence	2
Likely sources of infection	3
Test rates and % positive	4
Age profile, testing and cases	5
Severe outcomes	7
Age profile, severe outcomes	8
Care facility outbreaks	9
Emerging respiratory pathogens update	10

Increase in provincial COVID-19 incidence with stability in severe outcomes and decrease in care facility outbreaks and associated cases and deaths

There were 3,993 COVID-19 cases (78 per 100K) in week 11. Provincial incidence has been gradually increasing since week 5.

Regional incidence has varied:

- Since week 4, Fraser Health incidence increased (from 70 to 117 per 100K).
- Since week 5, Vancouver Coastal incidence increased (from 53 to 90 per 100K).
- Since week 10, Island Health incidence remained stable (~20 per 100K).
- Since week 10, Northern Health incidence decreased (from 109 to 90 per 100K).
- Since week 10, Interior Health incidence remained stable (~23 per 100K).

Incidence among adults aged 20-69 years old has been increasing since week 5, most prominently in adults 20-29 years olds (from 91 to 139 per 100K) and 30-39 years olds (from 76 to 106 per 100K). Adults 20-39 years had the highest incidence among all age groups since week 8.

Testing of MSP-funded specimens decreased slightly from week 8 to week 11 (~50,500 to ~46,000 specimens), while positivity increased from 7.2% to 8.9%.

Hospital admissions remained stable since week 4 (average 162 per week). Deaths were also stable since week 7 (23 per week).

Following increasing vaccination rates in the elderly, the number of deaths in 80+ year olds has decreased by 87% between weeks 50 and 11 (from 85 to 11). Although to a lesser extent, the number of deaths has also decreased in 70-79-year olds by 57% between weeks 51 and 11 (from 23 to 10).

By case of earliest onset date, there have been no outbreaks reported in long-term care settings in weeks 10 and 11. Following vaccination of residents of those facilities, there has been an important decline in the number of cases and deaths among residents aged 70+ years.

SARS-CoV-2 variants of concern have been identified in 2,224 cases in BC: 1,907, 48 and 269 with the B.1.1.7, B.1.351 and P.1 variants, 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

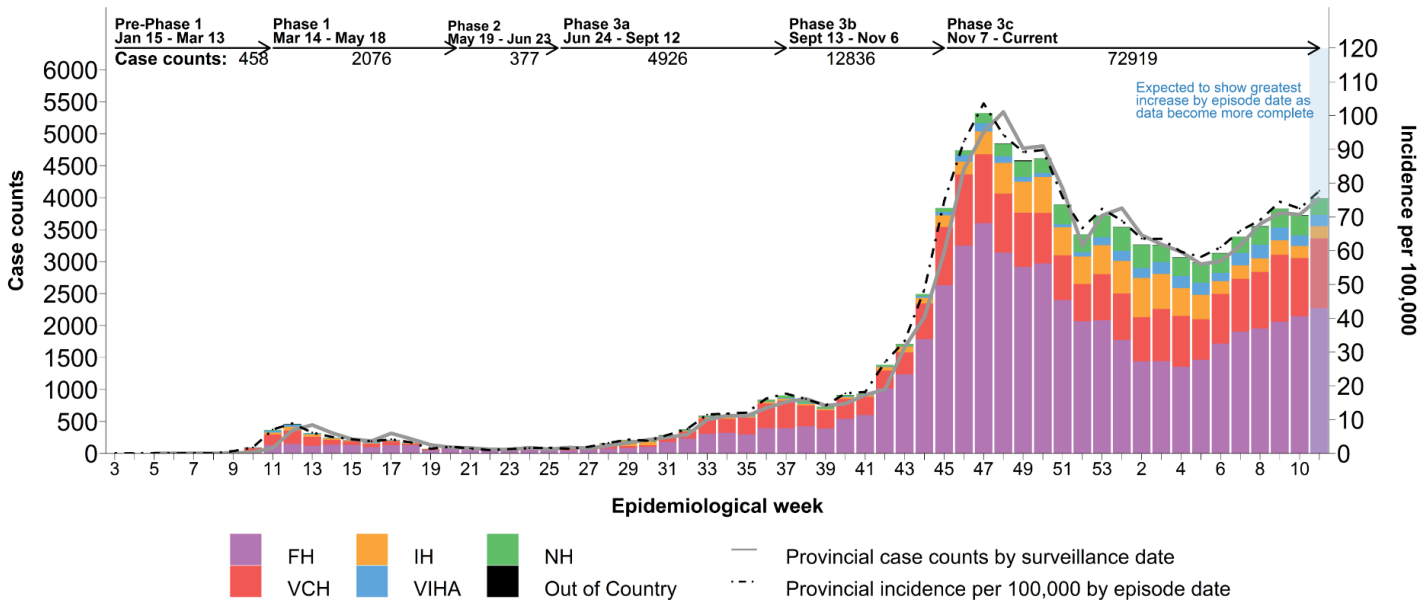
Provincially, from week 3 2020 to week 11 2021, there have been 93,592 cases, corresponding to a cumulative incidence of 1,818 per 100K (Table 1, Figure 1). As shown in Figure 1, incidence gradually increased from week 5 (2,989; 58 per 100K) to week 11 (3,993; 78 per 100K). Week 11 incidence is likely to increase further as data become more complete.

As shown in Figure 2, incidence has been increasing since week 4 in Fraser Health (FH) from 70 to 117 per 100K and since week 5 in Vancouver Coastal Health (VCH) from 53 to 90 per 100K. Incidence decreased in Northern Health (NHA) from 109 to 90 per 100K and remained stable in Interior Health (IH) at 23 per 100K and in Island Health (VIHA) at ~20 per 100K. By health service delivery area, incidence increased since week 4 in Fraser South; since week 7 in North Shore/Coast Garibaldi; since week 9 in Kootenay; and since week 10 in Vancouver, East Kootenay, and South Vancouver Island.

Table 1. Episode-based case tallies by health authority, BC^a
January 15, 2020 (week 3) – March 20, 2021 (week 11) (N= 93,592)

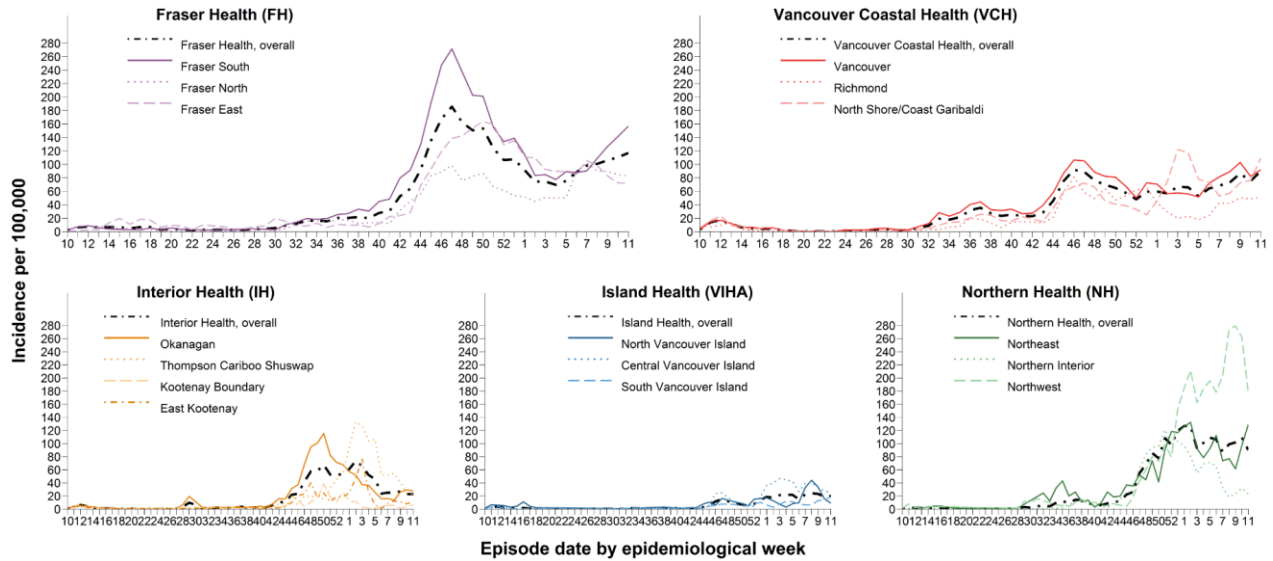
Case tallies by episode date	Health Authority of Residence					Residing Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 11, case counts	2,271	192	174	259	1,092	5	3,993
Cumulative case counts	54,610	8,143	2,998	5,647	22,026	168	93,592
Week 11, cases per 100K population	117	23	20	90	90	NA	78
Cumulative cases per 100K population	2,816	976	346	1,966	1,820	NA	1,818

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC^a
January 15, 2020 (week 3) – March 20, 2021 (week 11) (N= 93,592)



a. Displayed data extracted on March 29, 2021.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – March 20, 2021 (week 11)



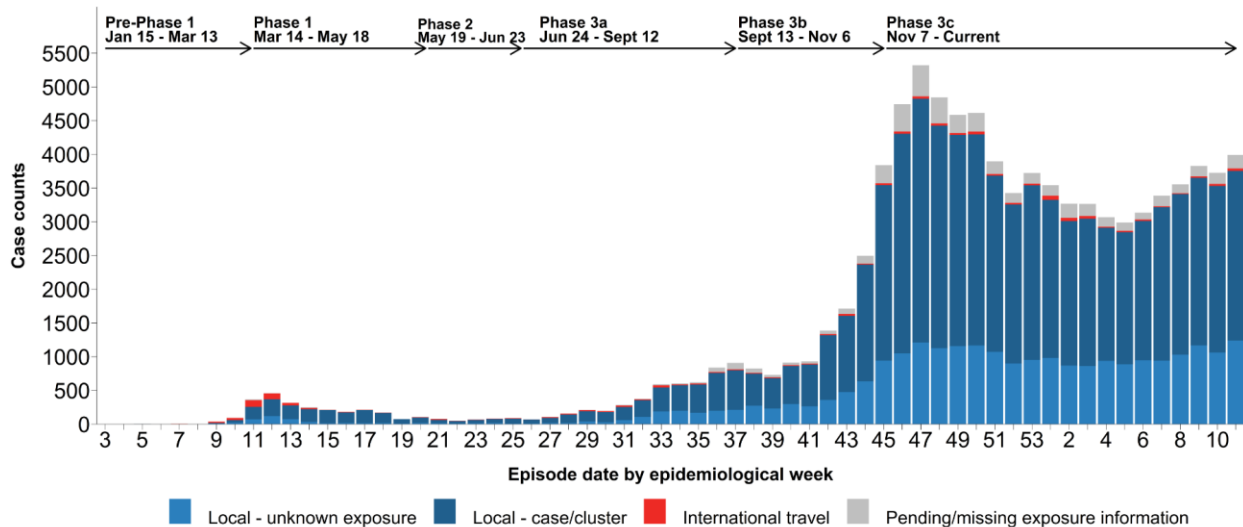
B. Likely sources of infection

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 20, 2021 (week 11)

Likely exposure (row %)	International travel	Local – case/cluster	Local – unknown	Pending/missing
Week 11, Exposures	34 (1)	2,517 (63)	1,239 (31)	203 (5)
Cumulative Exposures	1,230 (1)	62,588 (67)	24,803 (27)	4,971 (5)

Figure 3. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – March 20, 2021 (week 11)

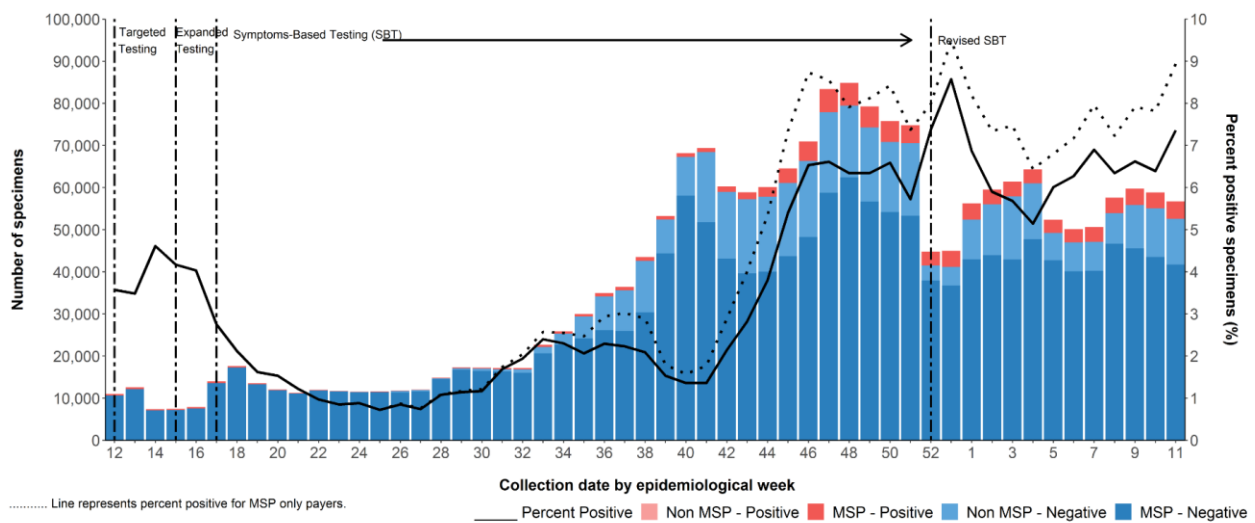


C. Test rates and percent positive

As shown by the darker-colored bars in **Figure 4**, testing of MSP-funded specimens decreased slightly from week 8 to week 11 (~50,500 to ~46,000 specimens). Concurrently, positivity of MSP-funded specimens increased from 7.2% in week 8 to 8.9% in week 11.

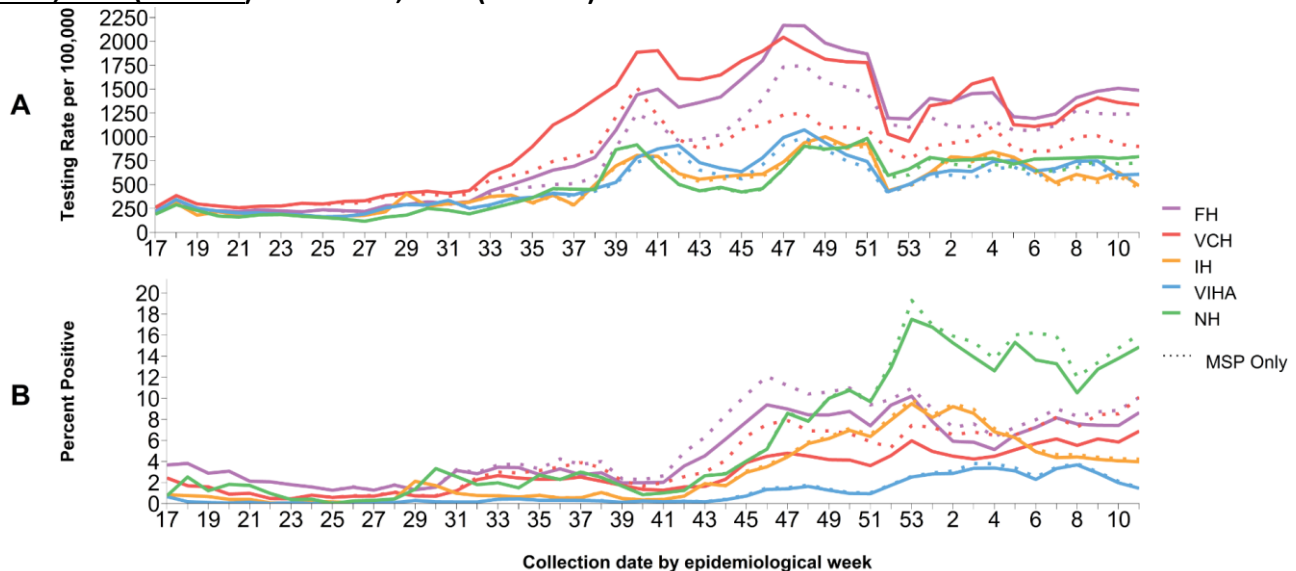
As shown in **Panel A** of **Figure 5**, the per capita testing rates for MSP-only specimens in week 11 continue to be highest in FH and VCH; the testing rate has remained stable in FH, but decreased slightly in VCH since week 9. Testing was lower but stable in NH and VIHA, while decreasing in IHA since week 10. As shown in **Panel B**, week 11 MSP-funded test percent positivity remains highest in NH at 16.1% followed by FH and VCH at 10.1%, IH at 4.2%, and lowest in VIHA at 1.5%. Since week 8, positivity has increased in NH (from 12.0%), VCH (from 7.3%), and FH (from 8.3%), while positivity has decreased in IH (from 4.6%) and VIHA (from 3.8%).

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – March 20, 2021 (week 11) ^{a,b,c}



a. Invalid (n=1,143) and indeterminate (n=5,491) 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) – March 20, 2021 (week 11) ^{b,c}



b. PLOVER extract on March 26, 2021.

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 11 were lower in all age groups except in children <10 years. The highest testing rate in week 10 was among adults 20-39 years of age, similar to weeks 46-10 of phase 3c.

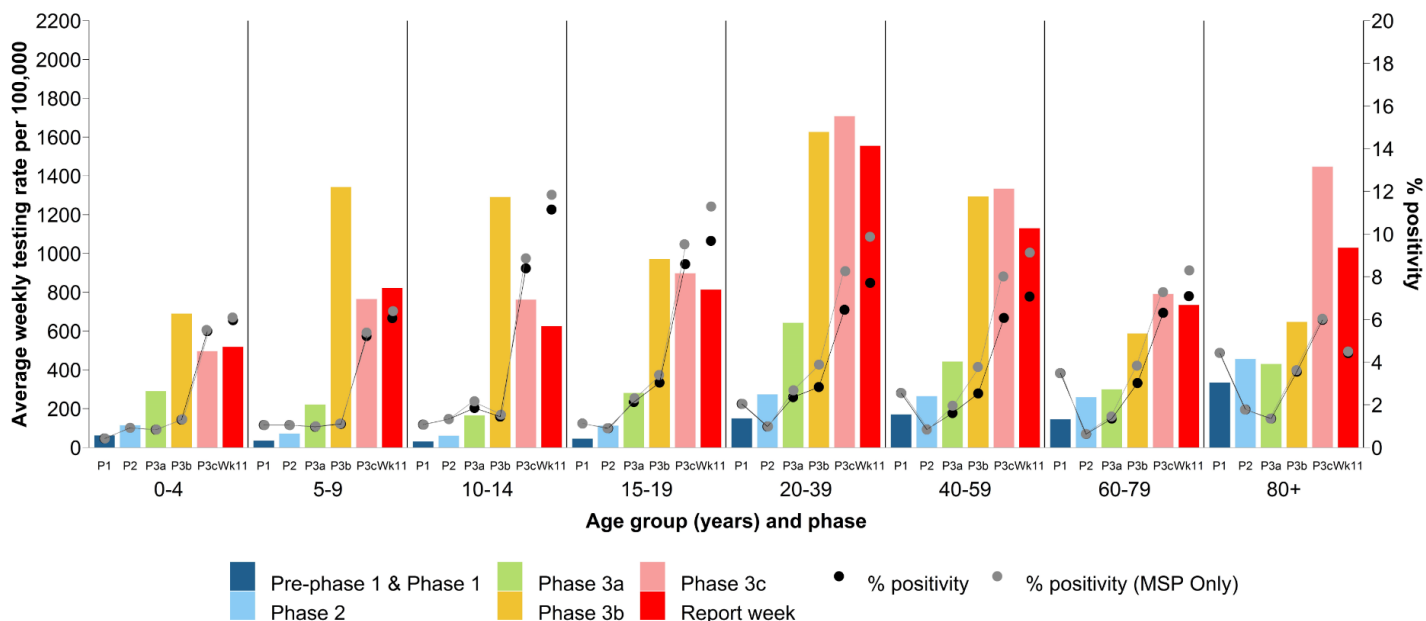
As shown by the grey dots in [Figure 6](#), the percent positivity for MSP-only specimens in week 11 was lower, compared to prior weeks of Phase 3c, in the 80+ year-olds only (from 6.0% to 4.5%). Conversely, positivity increased in the remaining age groups, being highest in the 10-14 year-olds (11.8%).

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 10 to week 11 by 1.7%, met mainly by a decrease in the 40-49-year-olds by 1.3% and the 70-79-year-olds by 0.9%. The remaining age groups' contributions remained stable.

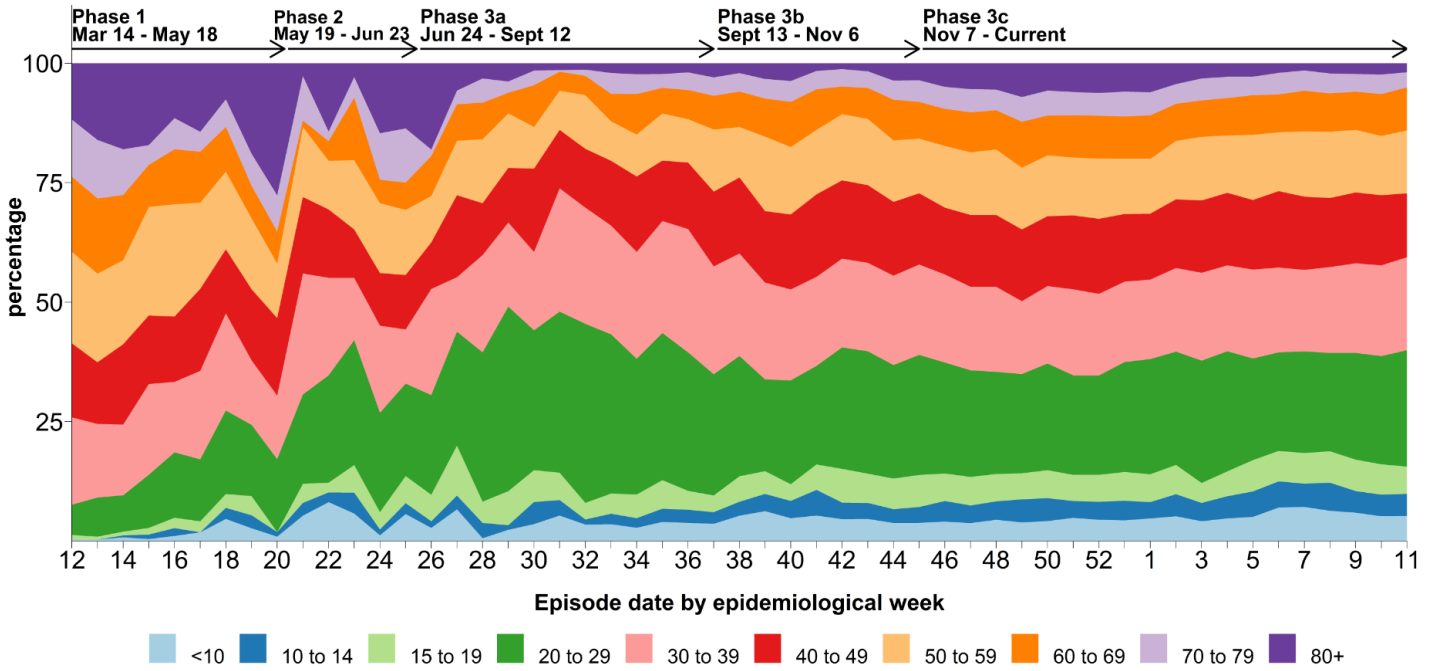
As shown in [Figure 8](#), incidence among adults 20-69-year-olds has been increasing since week 5: 20-29-year-olds from 91 to 139 per 100K, 30-39-year-olds from 76 to 106 per 100K, 40-49-year-olds from 67 to 83 per 100K, 50-59-year-olds from 57 to 73 per 100K, and 60-69-year-olds from 37 to 53 per 100K. Adults 20-39 years had the highest incidences among all age groups since week 8. Recent increases since week 10 were seen in children, but to a lesser extent. Also since week 5, incidence has been stable in the elderly groups: 70-79-year-olds from 28 to 29 per 100K and 80-89-year-olds from 35 to 32 per 100K. On the other hand, incidence has decreased since week 9 in children 15-19 years of age (from 86 to 84 per 100K). However, this may change in future reports as data become more complete.

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 20, 2021 (week 11)^b

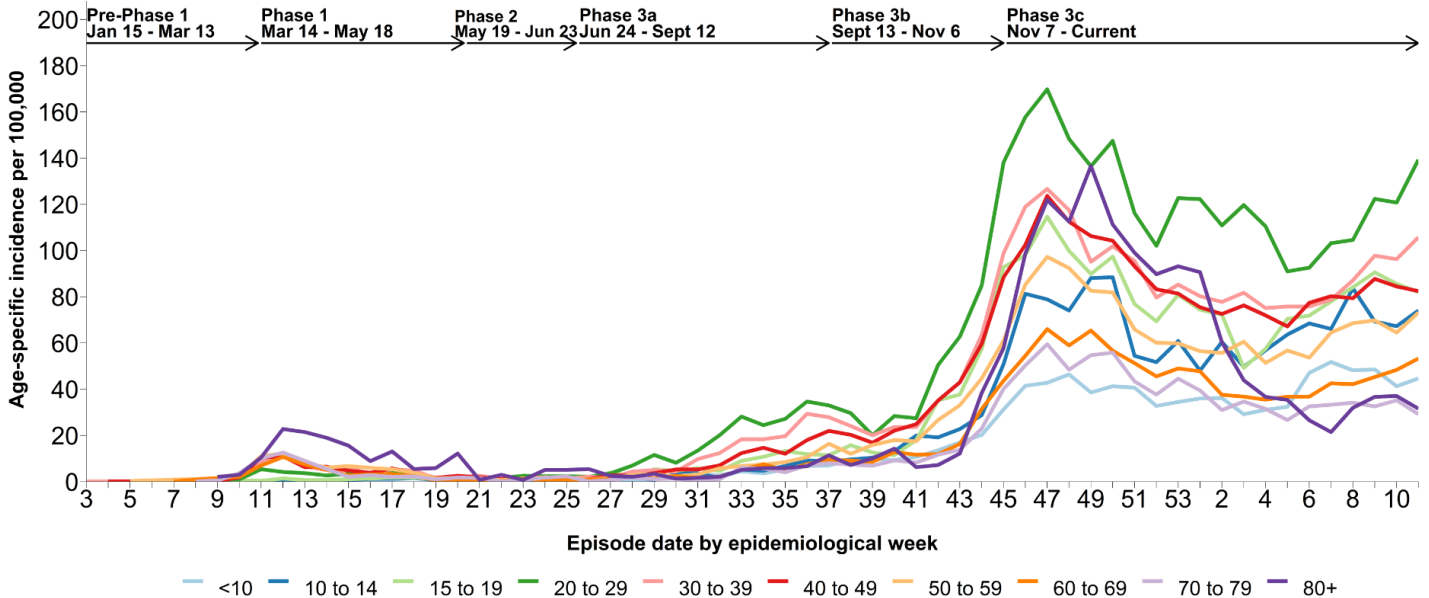


- a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 18 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 26, 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 20, 2021 (week 11) (N= 93,056)**



**Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC
January 15, 2020 (week 3) – March 20, 2021 (week 11) (N= 93,569)**



E. Severe outcome counts and epi-curve

The number of hospital admissions has remained relatively stable from week 4 to 11 at an average of 162 hospitalizations per week. The number of deaths has been also stable from week 7 to 11 with an average of 23 deaths per week ([Table 3, Figure 9](#)). These numbers may increase in future reports as more data become available.

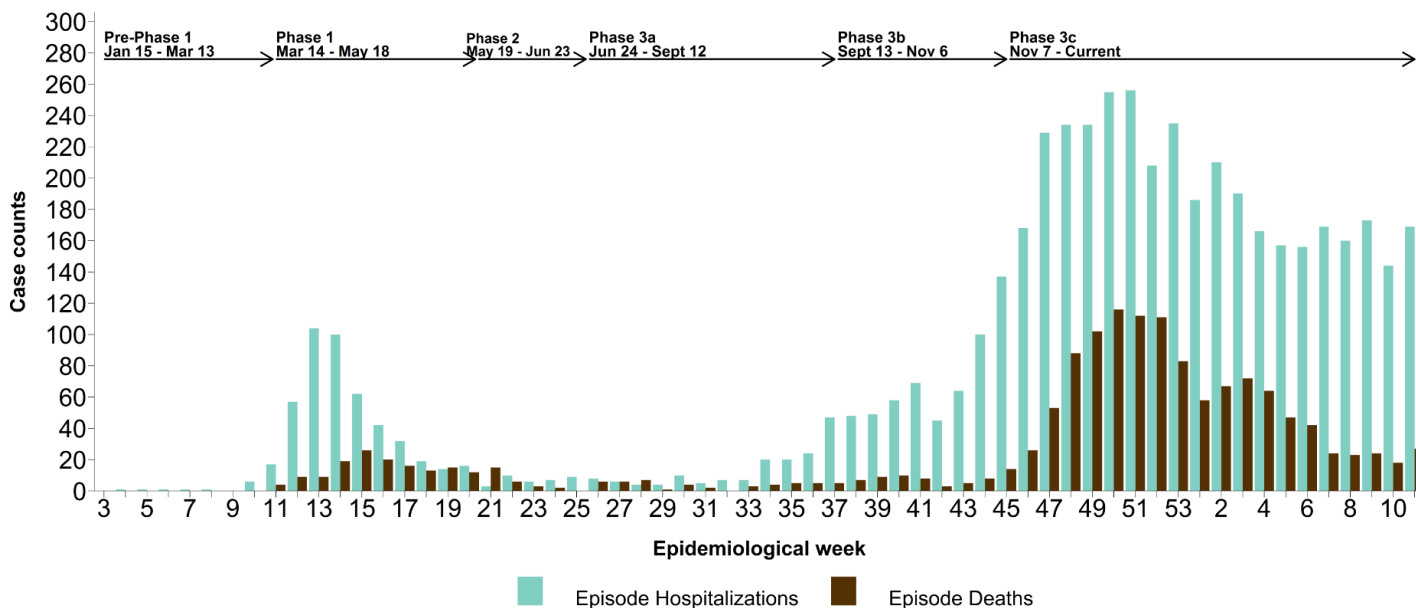
Cumulatively, there have been 10 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020 (no new confirmed cases since last report). The median age of these cases is 7.5 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – March 20, 2021 (week 11)

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 11, hospitalizations	79	15	6	32	36	1	169
Cumulative hospitalizations	2,701	441	156	496	1,134	12	4,940/93,592 (5)
Week 11, ICU admissions	24	7	0	14	10	0	55
Cumulative ICU admissions	517	128	40	127	324	2	1,138/93,592 (1)
Week 11, deaths	16	3	0	6	2	0	27
Cumulative deaths	776	114	28	119	401	0	1,438/93,592 (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 20, 2021 (week 11)



F. Age profile, severe outcomes

Table 4 display the distribution of cases and severe outcomes as well as the BC population for each age group. In week 11, median age of hospitalization was 64 years, while median age of death was 76 years (data not shown).

As shown in **Figure 10**, following increasing vaccination rates in the elderly, the weekly number of deaths in 80+ year olds has decreased by 87% between weeks 50 and 11 (from 85 to 11). Although to a lesser extent, the number of weekly deaths has also decreased in 70-79-year olds by 57% between weeks 51 and 11 (from 23 to 10).

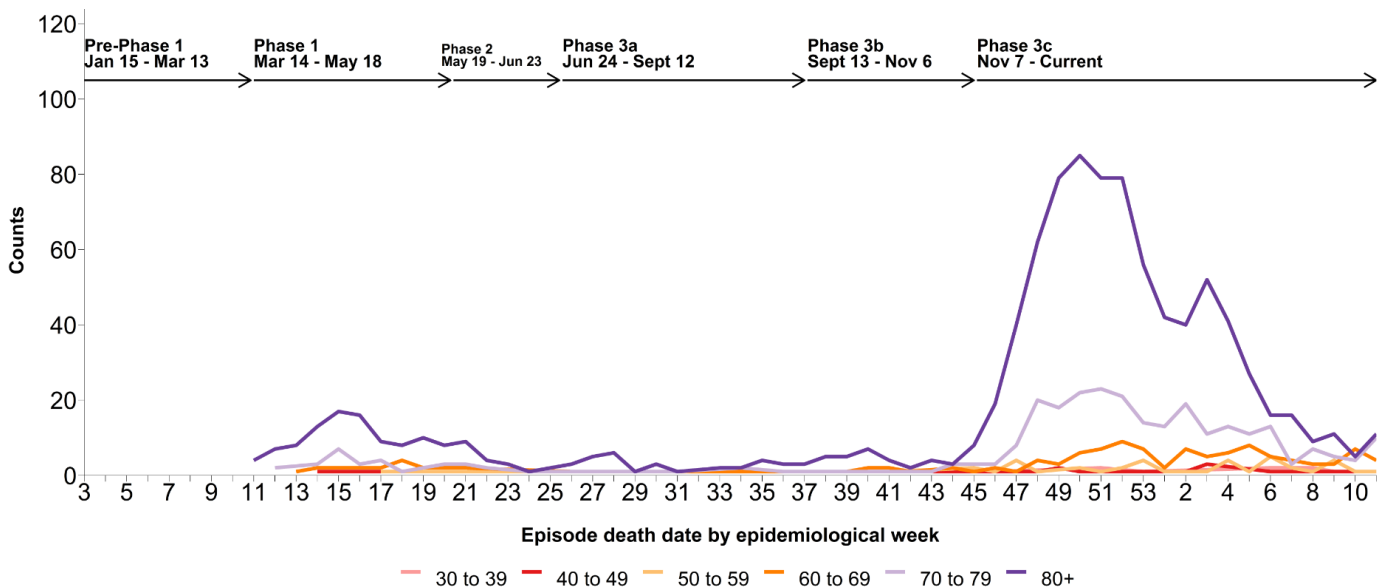
In week 11, 202/3,993 (5%) cases, 70/169 (41%) hospitalizations, 24/55 (44%) ICU admissions, and 21/27 (78%) deaths were in 70+ year-olds (data not shown).

Table 4: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group January 15, 2020 (week 3) – March 20, 2021 (week 11) (N= 93,569)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	4,383 (5)	50 (1)	4 (<1)	0 (0)	469,351 (9)
10-19	9,150 (10)	40 (1)	4 (<1)	0 (0)	527,805 (10)
20-29	21,221 (23)	232 (5)	26 (2)	0 (0)	697,691 (14)
30-39	16,945 (18)	435 (9)	82 (7)	11 (1)	735,052 (14)
40-49	13,867 (15)	488 (10)	98 (9)	18 (1)	646,035 (13)
50-59	12,025 (13)	700 (14)	195 (17)	45 (3)	718,272 (14)
60-69	7,763 (8)	891 (18)	281 (25)	119 (8)	673,131 (13)
70-79	4,237 (5)	1,033 (21)	309 (27)	288 (20)	435,062 (8)
80-89	2,658 (3)	791 (16)	125 (11)	526 (37)	187,443 (4)
90+	1,320 (1)	280 (6)	14 (1)	431 (30)	49,726 (1)
Total	93,569	4,940	1,138	1,438	5,139,568
Median age	36	66	66	85	41

a. Among those with available age information only.

Figure 10. Weekly age-specific COVID-19 deaths by episode date, BC January 15, 2020 (week 3) – March 20, 2021 (week 11) (N= 1,438)^a



G. Care facility outbreaks

As shown in [Table 5](#) and [Figure 11](#), 300 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 11. Reported outbreaks in long-term care settings (i.e. long-term care or assisted living facilities) have decreased since week 51. The decline in acute care facility outbreaks have been less pronounced. Since week 5, there have been 8 long-term care setting outbreaks, whereas there have been 15 acute care facility outbreaks.

[Figure 12](#) displays a decrease in long-term care setting resident cases 70+ years of age as opposed to other cases of the same age group following the start of the vaccination of the LTCF population in week 51. Since week 5, the weekly number of long-term care setting resident cases 70+ years of age has been below 20.

Five of the 27 (20%) deaths reported provincially during week 11 were associated with an outbreak in a long-term care setting. This compares with a peak number of 78 of 112 (70%) deaths associated with a long-term care outbreak in week 51.

[Figure 13](#) shows a larger decrease in long-term care setting resident deaths 70+ years of age as compared to deaths in the same age group outside of these settings following the start of the vaccination of the LTCF population in week 51. Since week 6, there have been <10 deaths per week within these settings.

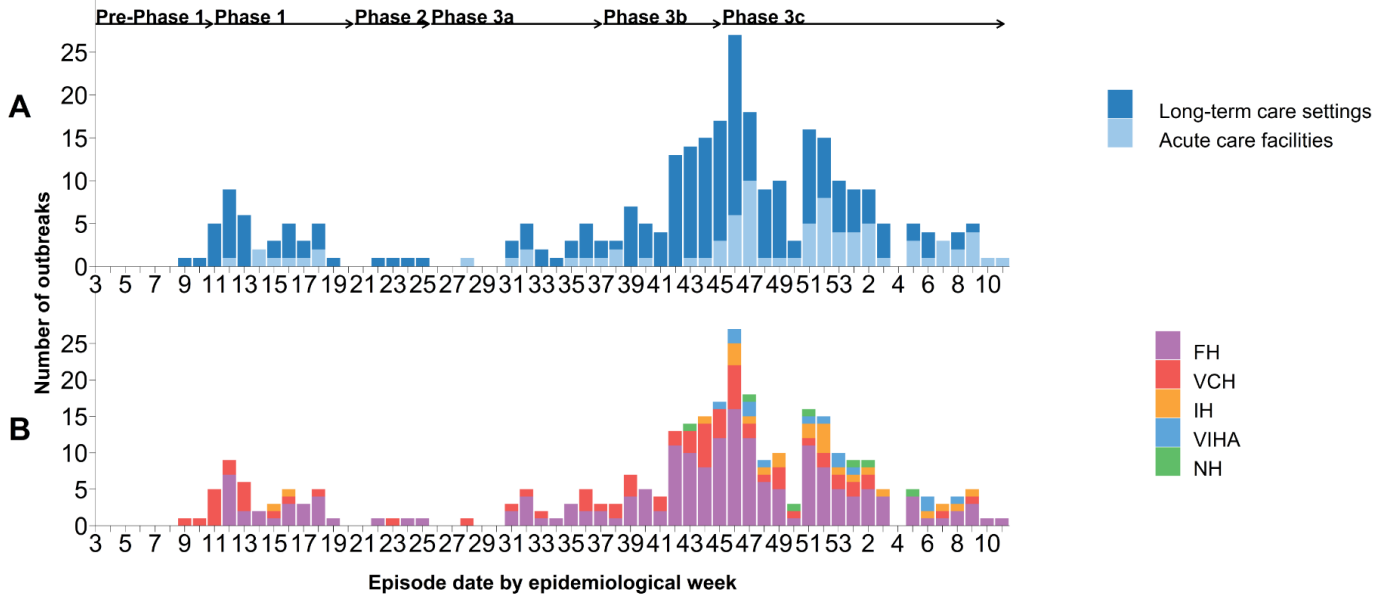
Table 5. COVID-19 care facility^{a,b} outbreaks by earliest case onset^{a,c}, associated cases and deaths by episode date, BC^d

January 15, 2020 (week 3) – March 20, 2021 (week 11) (N=300)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 11, Care Facility Outbreaks	1	13	5	0	18	5	0	0	5
Cumulative, Care Facility Outbreaks	300	3,345	2,210	7	5,562	966	0	0	966

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 20, 2021 (week 11) (N=300)

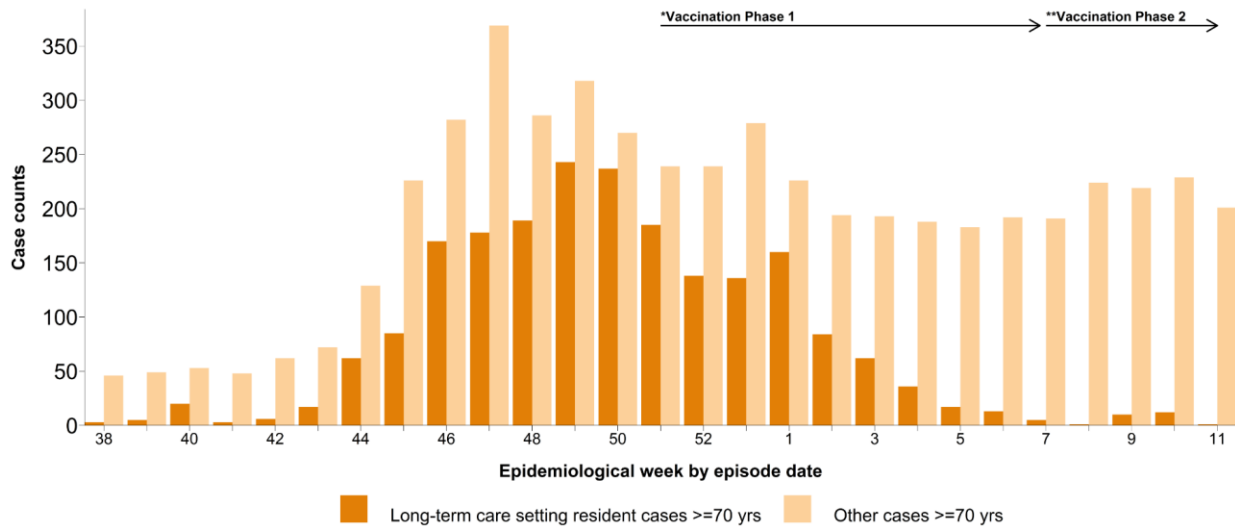


b. Care facility settings include acute care or long-term care settings (defined as long-term care facility or assisted living).

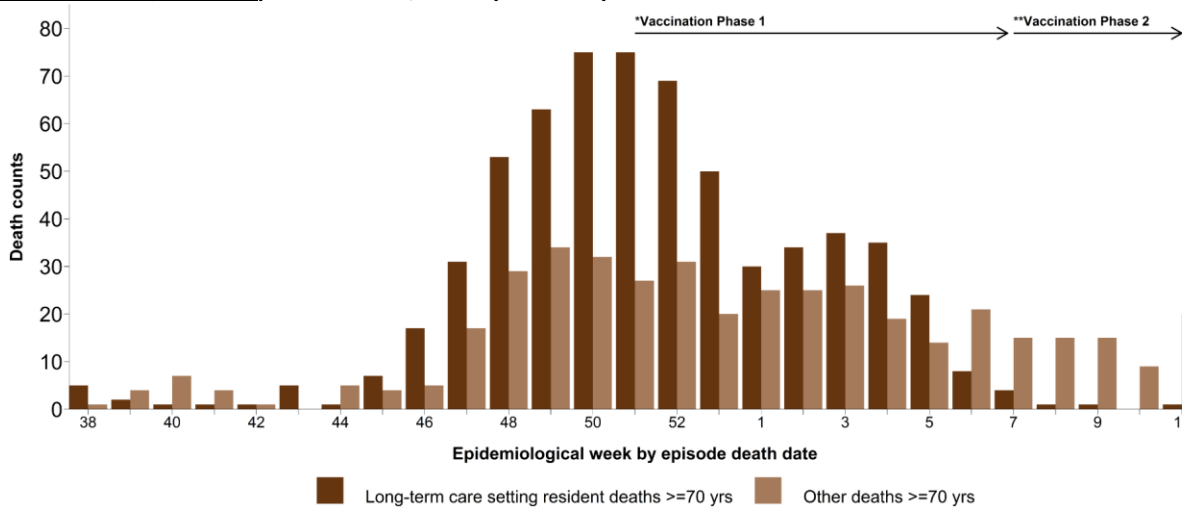
c. Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated.

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.

**Figure 12. COVID-19 long-term care setting resident^a cases (n=2,078) vs other cases (n=5,207) ≥70 years of age, by episode date, BC
 September 13, 2021 (week 38) – March 20, 2021 (week 11)**



**Figure 13. COVID-19 long-term care setting resident^a deaths (n=631) vs other deaths (n=425) ≥70 years of age, by episode death date, BC
 September 13, 2021 (week 38) – March 20, 2021 (week 11)**



*Vaccination Phase 1 (Dec 2020-Feb 2021). Target populations include residents, staff and essential visitors to long-term care settings; individuals assessed and awaiting a long-term care placement; health care workers providing care for COVID-19 patients; and remote and isolated Indigenous communities.

**Vaccination Phase 2 (Feb 2021-present). Target populations include seniors, age ≥80; Indigenous peoples age ≥65 and Indigenous Elders; Indigenous communities; hospital staff, community general practitioners and medical specialists; vulnerable populations in select congregate settings; and staff in community home support and nursing services for seniors. Vaccinations of populations within each phase is staggered depending on vaccine availability and health region.

a. Long-term care setting residents are cases within long-term care or assisted living facilities who were part of reportable outbreaks only; these represent the majority of long-term care setting resident cases.

H. Emerging respiratory pathogens update

As of March 29, 2021, there were 2,224 cases infected with variants of concern (VOC) (as identified by sequencing) with onset up to week 11 in BC. Of those, 1,907 (86%) were infected with variant B.1.1.7; 48 (2%) were infected with variant B.1.351; and 269 (12%) were infected with variant P.1. Episode dates range from week 51 to week 11. Adults 20-49 years of age comprised 58% of all SARS-CoV-2 VOC cases in BC, and also comprised 1,066 (56%) of the B.1.1.7, 20 (42%) of the B.1.351 and 211 (78%) of the P.1 variants that were detected.