

British Columbia (BC) COVID-19 Situation Report
Week 13: March 28 – April 3, 2021

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Provincial COVID-19 incidence increasing rapidly, with concomitant increase in hospital and ICU admissions

There were 6,329 COVID-19 cases (123 per 100K) in week 13, marking the highest weekly incidence since the start of the pandemic.

Regional incidence increased everywhere except in Northern Health (NH):

- Since week 4, Fraser Health incidence increased (from 70 to 163 per 100K).
- Since week 5, Vancouver Coastal incidence increased (53 to 174 per 100K).
- Since week 10, Interior Health incidence increased (from 24 to 49 per 100K).
- Since week 10, Island Health incidence increased (from 19 to 44 per 100K).
- Since week 11, NH incidence decreased (from 122 to 95 per 100K).

From week 10 to 13, the highest age-specific incidences, as well as steepest increase in trends, were among the 15 to 49 year-olds, followed by the 10-14 year-olds and 50-59-year-olds. Weeks 12 and 13 represents the highest age-specific incidence among children <15 years and 20-69-year-olds since the start of the pandemic, peaking at 216 per 100K in the 20-29-year-olds.

Testing of MSP-funded specimens increased from week 11 to week 13, while positivity increased from 8.9% to 12.5%.

Hospital admissions increased since week 10 from 149 to 232 per week. ICU admissions also increased since week 10 from 30 to 66. Deaths were stable since week 7 (average of 23 per week).

Following increasing vaccination rates in the elderly, the weekly number of deaths in 80+ year olds has decreased by 88% between weeks 50 and 13 (from 85 to 10). Similarly, the number of weekly deaths has decreased in 70-79-year olds by 65% between weeks 51 and 13 (from 23 to 8).

By case of earliest onset date, there have been 3 outbreaks reported in care settings in week 13. There has been a large and sustained decline in the number of cases and deaths among residents of long-term care settings 70+ years old.

SARS-CoV-2 variants of concern have been identified in 5,162 cases in BC: 3,588, 64 and 1,510 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

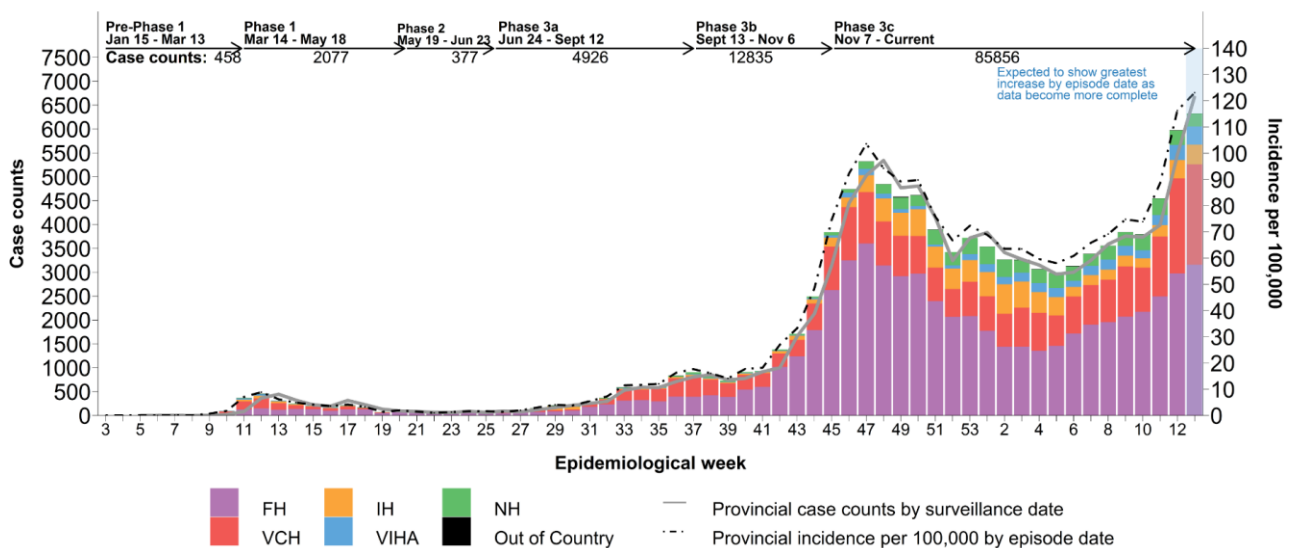
Provincially, from week 3 2020 to week 13 2021, there have been 106,529 cases, corresponding to a cumulative incidence of 2,069 per 100K (Table 1, Figure 1). As shown in Figure 1, after a gradual increase in incidence from week 5 to week 10, incidence increased by >60% in week 13 compared to week 10 (from 74 to 123 per 100K). Week 13 marked the highest incidence since the beginning of the pandemic to date, and is likely to increase further as data become more complete.

Recent provincial incidence trends have been driven by FH and VCH incidence trends. As shown in Figure 2, incidence up to week 13 has been increasing since week 4 in Fraser Health (FH) from 70 to 163 per 100K; since week 5 in Vancouver Coastal Health (VCH) from 53 to 174 per 100K; since week 10 in Interior Health (IH) from 24 to 49 per 100K, and in Island Health (VIHA) from 19 to 44 per 100K. Since week 11, incidence has decreased in Northern Health (NH) from 122 to 95 per 100K. By health service delivery area, incidence increased since week 4 in Fraser South; since week 5 in Richmond and Vancouver; since week 7 in North Shore/Coast Garibaldi; since week 8 in Okanagan and South Vancouver Island; since week 9 in Kootenay Boundary and Northeast; since week 10 in Fraser East, Fraser North, East Kootenay, Thompson Cariboo Shuswap, and Central Vancouver Island.

Table 1. Episode-based case tallies by health authority, BC^a
January 15, 2020 (week 3) – April 3, 2021 (week 13) (N= 106,529)

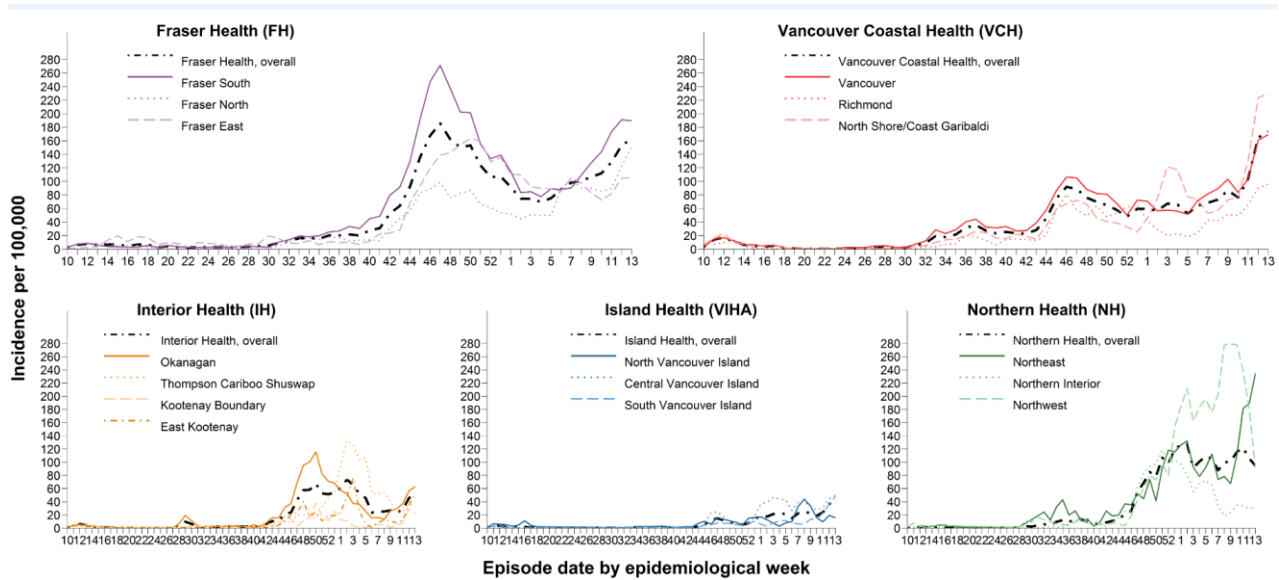
Case tallies by episode date	Health Authority of Residence					Residing Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 13, case counts	3,159	411	381	272	2103	3	6,329
Cumulative case counts	61,005	8,989	3,727	6,331	26,298	179	106,529
Week 13, cases per 100K population	163	49	44	95	174	0	123
Cumulative cases per 100K population	3,146	1,077	429	2,204	2,172	0	2,069

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC^a
January 15, 2020 (week 3) – April 3, 2021 (week 13) (N= 106,529)



Displayed data extracted on April 12, 2021.

Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – April 3, 2021 (week 13)



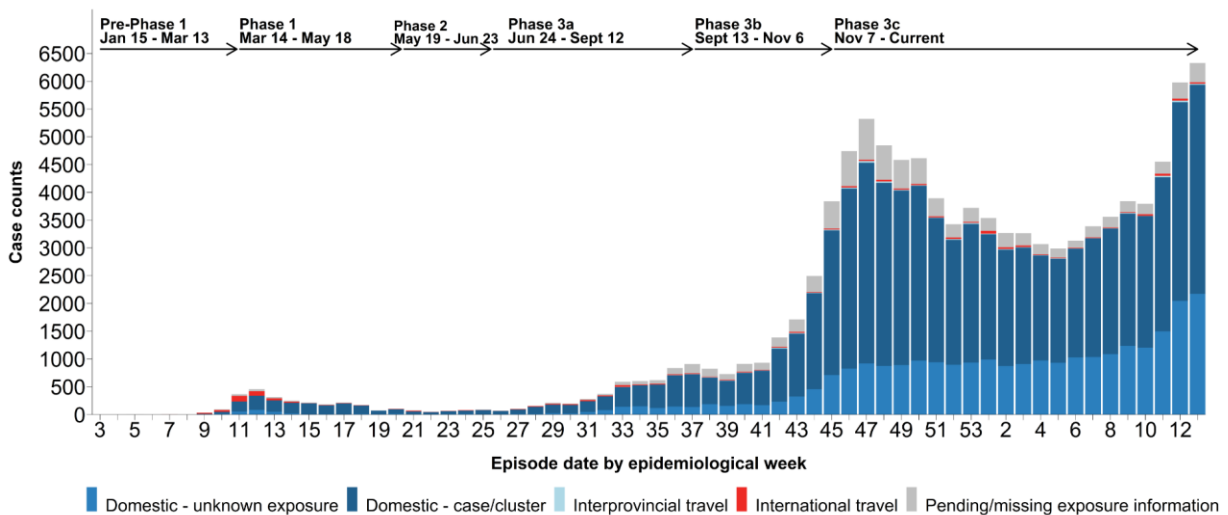
B. Likely sources of infection

As shown in [Table 2](#) and [Figure 3](#), domestic contact with a known case or cluster has been the most commonly reported source of infection across the pandemic to date. The number of cases with domestic-unknown exposure has increased in weeks 11-13, commensurate with increasing case counts. This category may decrease as data becomes more complete.

Table 2. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – April 3, 2021 (week 13)

Likely exposure (row %)	International travel	Interprovincial travel	Domestic – case/cluster	Domestic – unknown	Pending/missing
Week 13, Exposures	25 (<1)	19 (<1)	3,765 (59)	2,173 (34)	347 (5)
Cumulative Exposures	1,147 (1)	399 (<1)	69,004 (65)	26,942 (25)	9,037 (8)

Figure 3. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – April 3, 2021 (week 13)

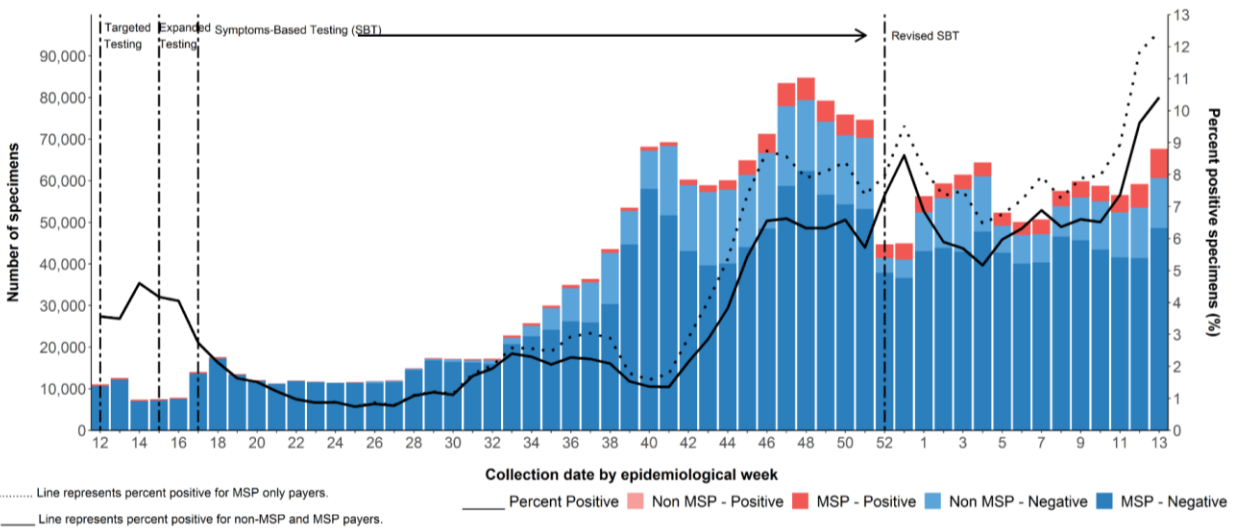


C. Test rates and percent positive

As shown by the darker-colored bars in [Figure 4](#), testing of MSP-funded specimens has increased since week 11 (from ~45,800 to ~55,700 specimens). Concurrently, positivity of MSP-funded specimens increased from 8.9% in week 11 to 12.5% in week 13. This is the highest percent positivity since the start of the pandemic in BC.

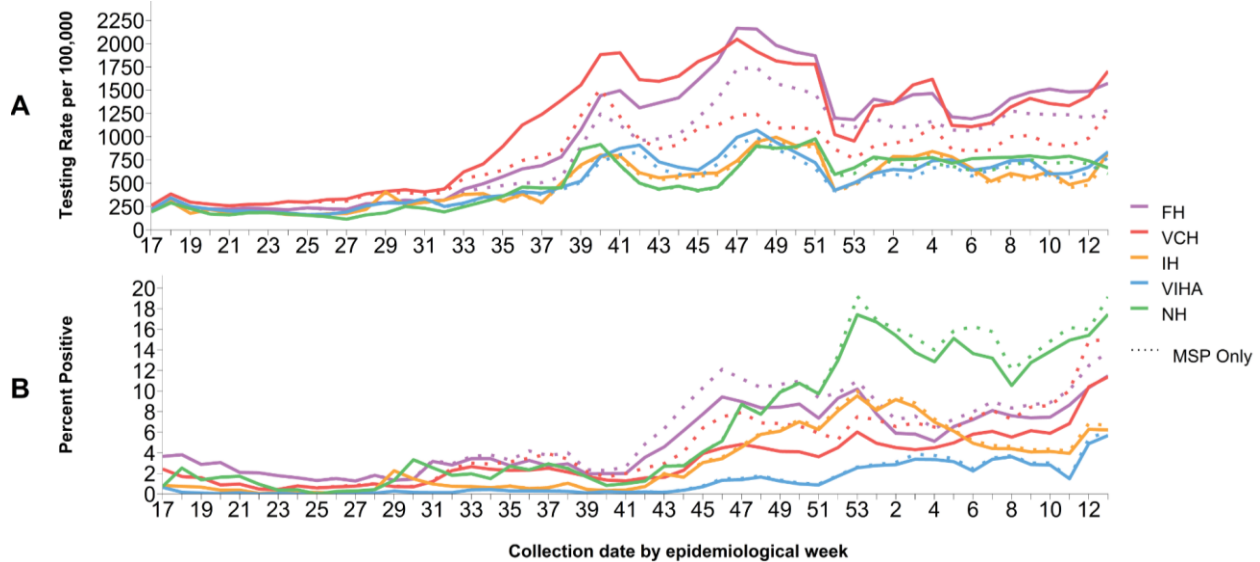
As shown in [Panel A of Figure 5](#), the per capita testing rates for MSP-only specimens in week 13 continue to be highest in FH and VCH; the testing rate has remained stable in FH, but increased in VCH since week 11. Testing was lower but decreasing in NHA, while increasing in IHA and VIHA since week 11. As shown in [Panel B](#), percent positivity for week 13 MSP-funded tests remains highest in NH at 19.1% followed by VCH at 15.0%, FH at 13.8%, IH at 6.6%, and lowest in VIHA at 6.1%. Percent positivity has increased in all HAs since prior weeks: since week 8, positivity has increased in NH (from 12.1%), in FH (from 8.4%), and in VCH (from 7.3%), where the positivity more than doubled; and since week 11 in IH (from 4.2%) and VIHA (from 1.6%).

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – April 3, 2021 (week 13)^{a,b,c}



a. Invalid (n=1,235) and indeterminate (n=5,895) 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) – April 3, 2021 (week 13)^{b,c}



b. PLOVER extract on April 9, 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 13 were higher in all age groups except in elderly adults >80 years of age. The highest testing rate in week 13 was among adults 20-39 years of age, similar to weeks 46-11 of phase 3c.

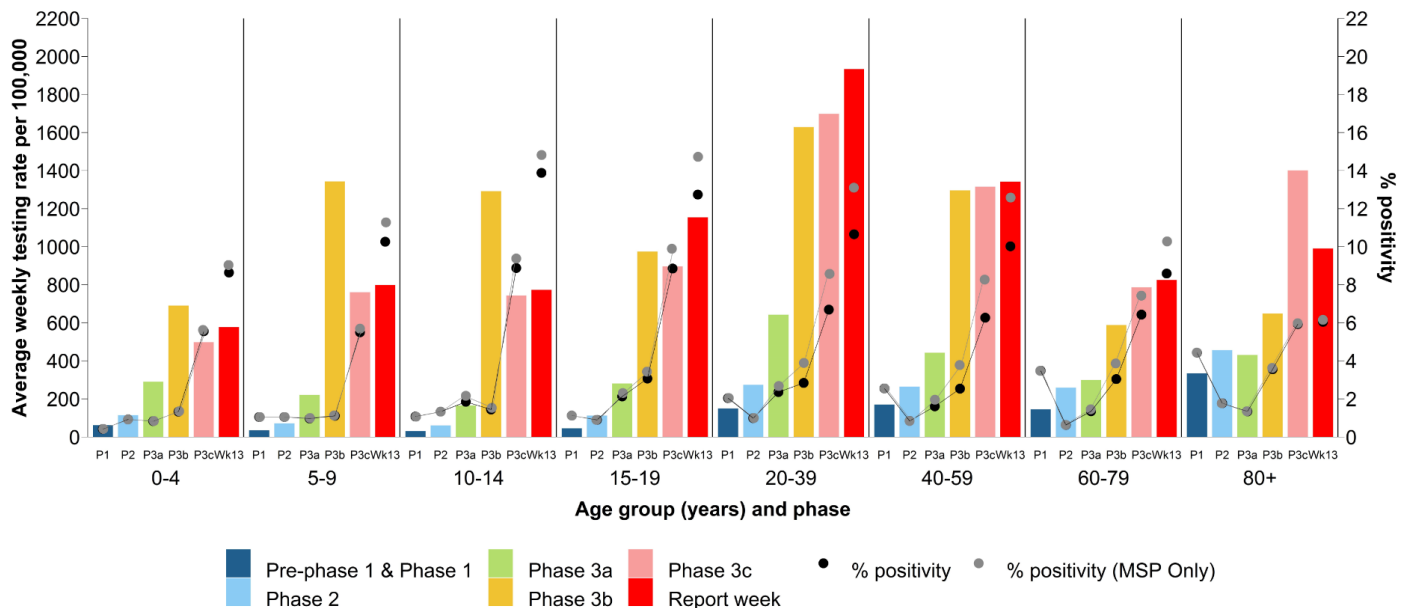
As shown by the grey dots in [Figure 6](#), the percent positivity for MSP-only specimens in week 13 was clearly higher in all age groups, most prominently in the 10-14-year-olds (from 9.4% to 14.8%) and 15-19-year-olds (from 9.9% to 14.7%), compared to prior weeks of Phase 3c, except in the 80+ year-olds where positivity was the same.

Case distribution and weekly incidence by age group

As shown in [Figure 7](#), the percentage contribution of ages groups 15 to 19 and 30 to 49 years of age increased from week 11 to week 13 by 4.0%, met mainly by a decrease in the 50-59-year-olds by 1.4%, the 60-69-year-olds by 2.2% and the 80+-year-olds by 0.7%. The remaining age groups' contributions remained relatively stable.

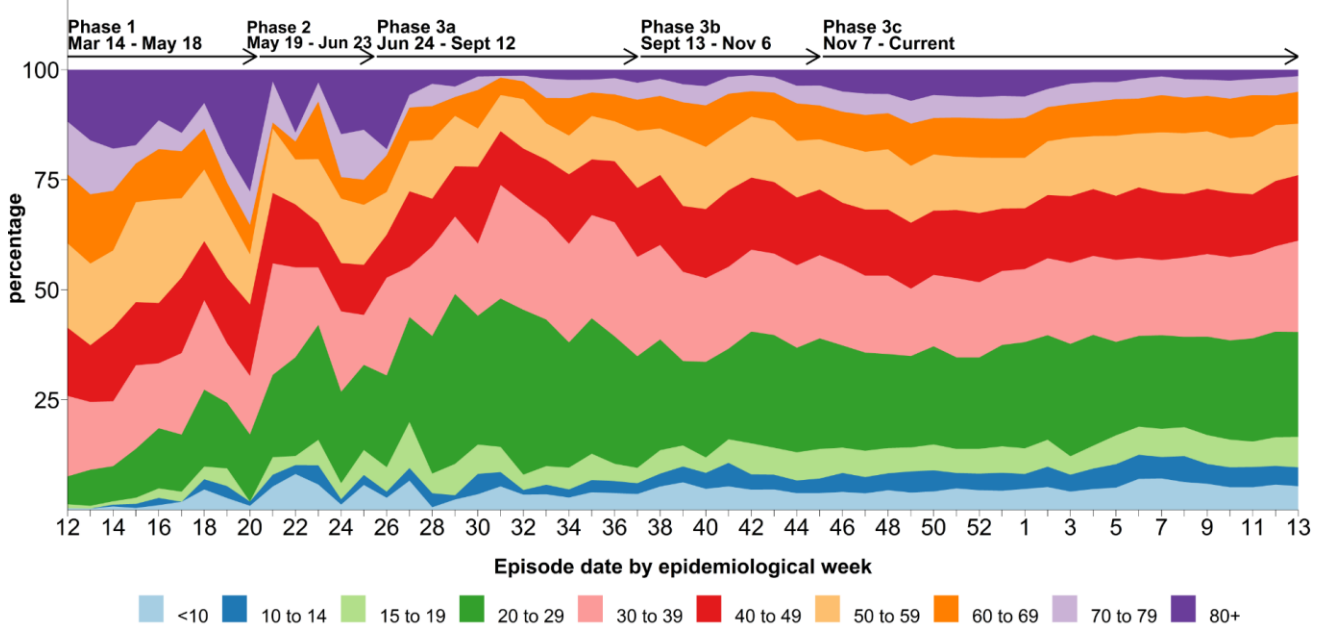
As shown in [Figure 8](#), from week 10 to 13, the highest age-specific incidences, as well as steepest increase in trends, were among the 15 to 49-year-olds. Specifically, increases in the 15-19-year-olds were from 86 to 158 per 100K, the 20-29-year-olds were from 123 to 216 per 100K, the 30-39-year-olds were from 98 to 179 per 100K, and the 40-49-year-olds were from 86 to 146 per 100K. Also experiencing increases since week 10 were the <10-year-olds (from 42 to 73 per 100K), 10-14-year-olds (from 69 to 108 per 100K), and 60-69-year-olds (from 50 to 68 per 100K). Weeks 12 and 13 represent the highest age-specific incidence among children <15 years and 20-69-year-olds since the start of the pandemic. However, between weeks 10 and 13, incidence in elderly adults 80+ remained stable at ~41 per 100K. Week 13 age-specific incidences are likely to increase 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) – April 3, 2021 (week 13)^b

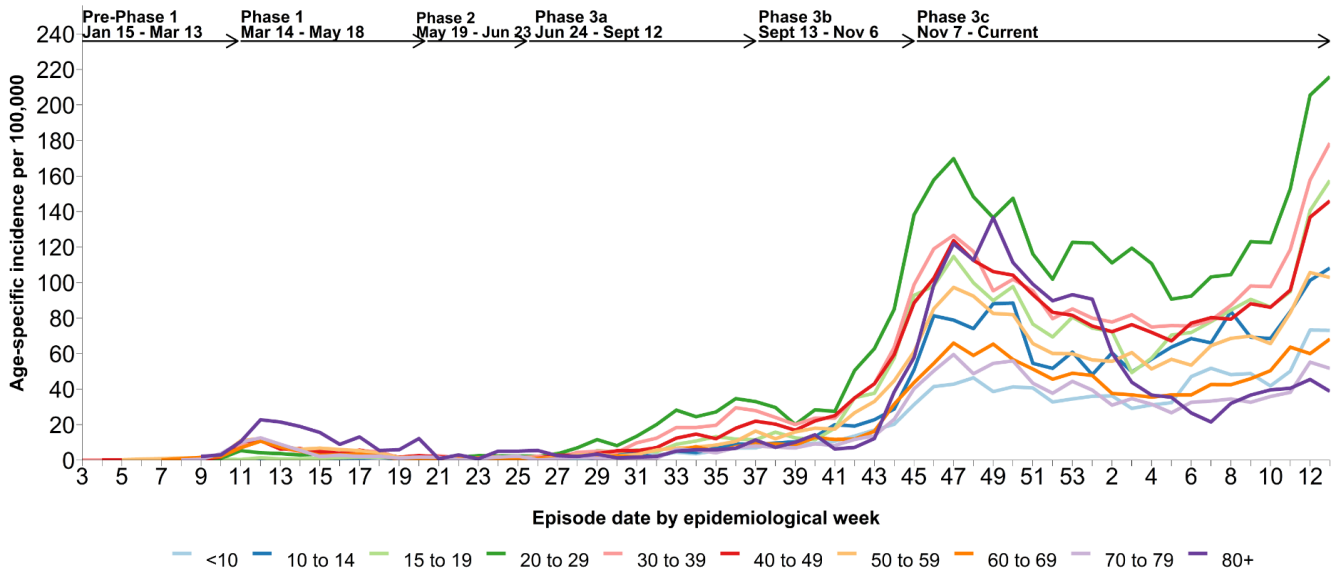


- a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 20 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 April 9, 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) – April 3, 2021 (week 13) (105,993)**



**Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC
 January 15, 2020 (week 3) – April 3, 2021 (week 13) (106,506)**



E. Severe outcome counts and epi-curve

The number of hospital admissions has increased since week 10 from 149 to 232 hospitalizations in week 13. The number of intensive care unit (ICU) admissions has more than doubled since week 10 from 30 to 66 admissions in week 13. The number of deaths has been stable from week 7 to 13 with an average of 23 deaths per week ([Table 3, Figure 9](#)). These numbers may increase in future reports as more data become available.

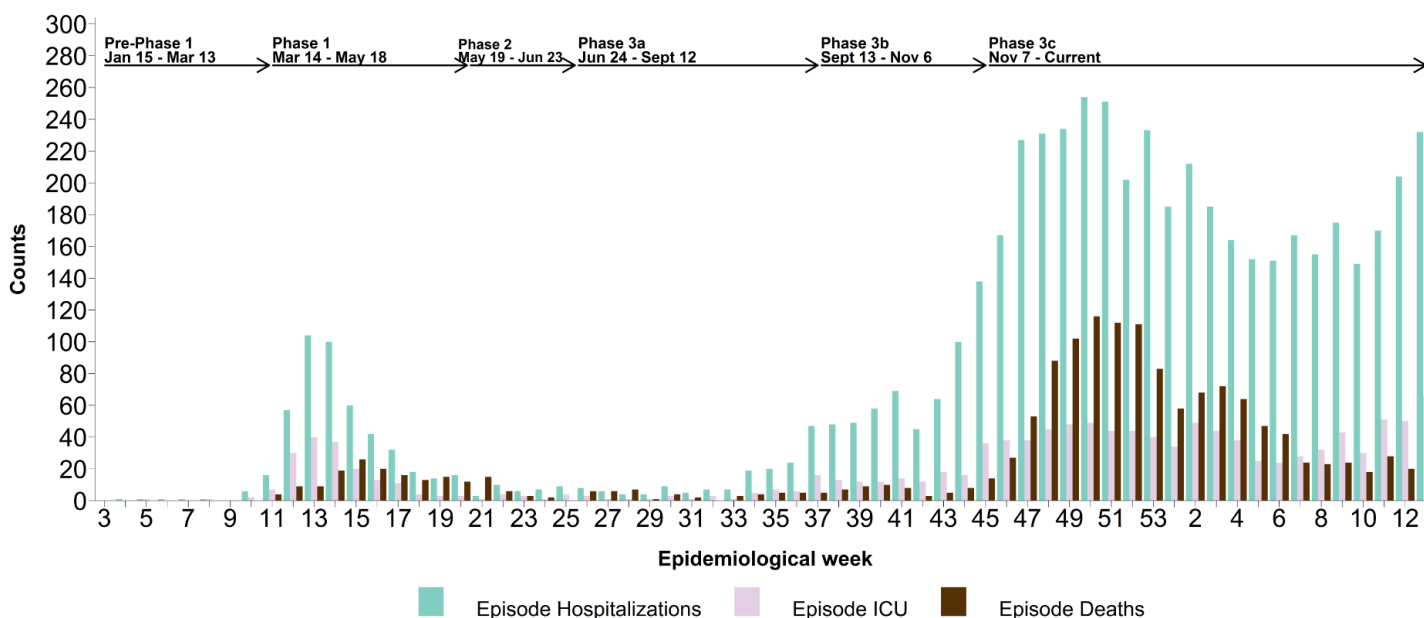
Cumulatively, there have been 10 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020 (no new confirmed cases since last report). The median age of these cases is 7.5 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – April 3, 2021 (week 13) (N= 106,529)

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 13, hospitalizations	124	15	12	24	57	0	232
Cumulative hospitalizations	2,937	430	175	552	1,230	12	5,336/106,529 (5)
Week 13, ICU admissions	37	5	3	5	16	0	66
Cumulative ICU admissions	577	117	46	134	350	2	1,226/106,529 (1)
Week 13, deaths	9	2	1	4	11	0	27
Cumulative deaths	796	118	30	128	416	0	1,488/106,529 (1)

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 27, 2021 (week 13)



F. Age profile, severe outcomes

Table 4 displays the distribution of cases and severe outcomes as well as the BC population for each age group. In week 13, median age of hospitalization was 61 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 88% between weeks 50 and 13 (from 85 to 10 deaths). Similarly, the number of weekly deaths has also decreased in 70-79-year olds by 65% between weeks 51 and 13 (from 23 to 8 deaths).

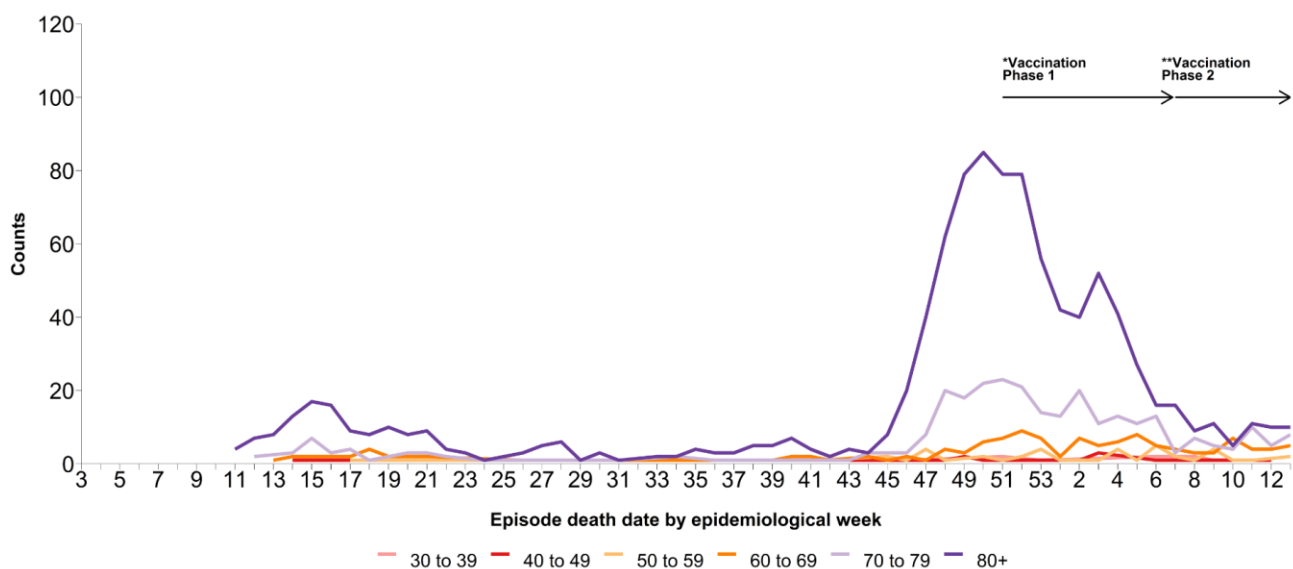
In week 13, 317/6,329 (5%) cases, 81/232 (35%) hospitalizations, 22/66 (33%) ICU admissions, and 18/27 (67%) deaths were in 70+ year-olds (data not shown).

Table 4: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group January 15, 2020 (week 3) – April 3, 2021 (week 13) (N= 106,506)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	5,098 (5)	52 (1)	4 (<1)	0 (0)	469,351 (9)
10-19	10,566 (10)	40 (1)	5 (<1)	0 (0)	527,805 (10)
20-29	24,268 (23)	251 (5)	29 (2)	0 (0)	697,691 (14)
30-39	19,521 (18)	471 (9)	87 (7)	14 (1)	735,052 (14)
40-49	15,789 (15)	521 (10)	106 (9)	19 (1)	646,035 (13)
50-59	13,601 (13)	771 (14)	216 (18)	47 (3)	718,272 (14)
60-69	8,714 (8)	963 (18)	303 (25)	128 (9)	673,131 (13)
70-79	4,744 (4)	1,113 (21)	321 (26)	302 (20)	435,062 (8)
80-89	2,839 (3)	852 (16)	139 (11)	539 (36)	187,443 (4)
90+	1,366 (1)	302 (6)	16 (1)	439 (30)	49,726 (1)
Total	106,506	5,336	1,226	1,488	106,506
Median age	36	65	66	85	36

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) – April 3, 2021 (week 13) (N= 1,488)^a



G. Care facility outbreaks

As shown in [Table 5](#) and [Figure 11](#), 307 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 13, with 3 new outbreaks in week 13. 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 has been less pronounced. Since week 5, there have been 11 long-term care setting outbreaks (average 1 outbreak per week), whereas there have been 19 acute care facility outbreaks (average 2 outbreaks per week).

[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, while other 70+ years of age cases have been increasing since week 7.

Five (19.2%) of the 26 deaths reported provincially during week 13 were associated with an outbreak in a long-term care setting. This compares with a peak of 78 of 112 (69.6%) deaths associated with a long-term care outbreak in week 51.

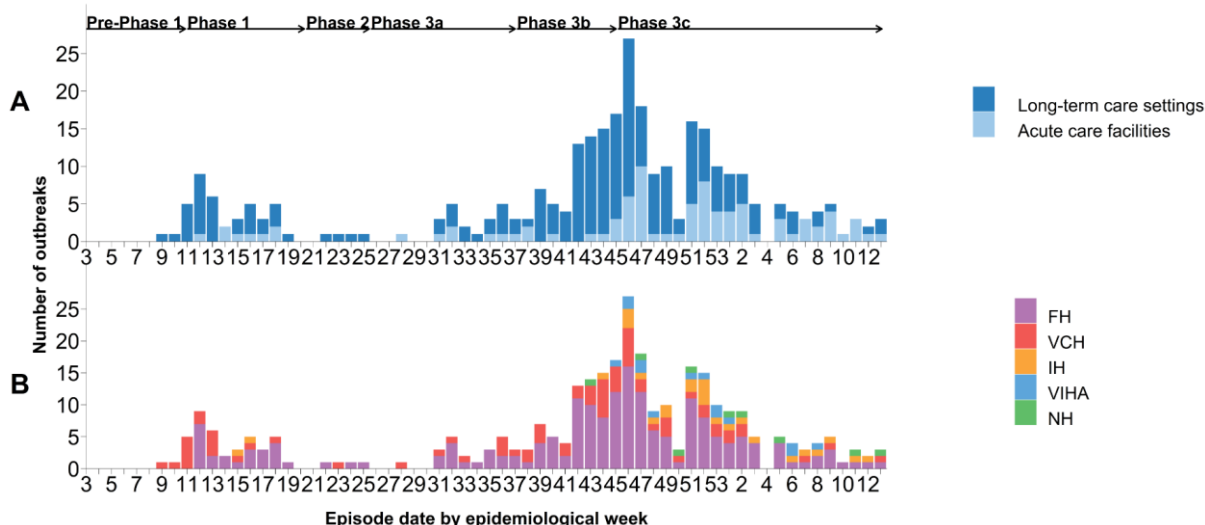
[Figure 13](#) shows a larger decrease in long-term care setting resident deaths 70+ years of age as compared to deaths in the same age group outside of these settings following the start of the vaccination of the LTCF population in week 51. Since week 6, there has been an average of two deaths per week within long-term care these settings, while there has been an average of 16 deaths per week in 70+ years outside 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) – April 3, 2021 (week 13) (N=307)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 13, Care Facility Outbreaks	3	15	5	0	20	5	0	0	5
Cumulative, Care Facility Outbreaks	307	3,385	2,227	7	5,619	979	0	0	979

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) – April 3, 2021 (week 13) (N=307)



- 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=2,086) vs other cases (n=5,933) ≥70 years of age, by episode date, BC September 13, 2021 (week 38) – April 3, 2021 (week 13)

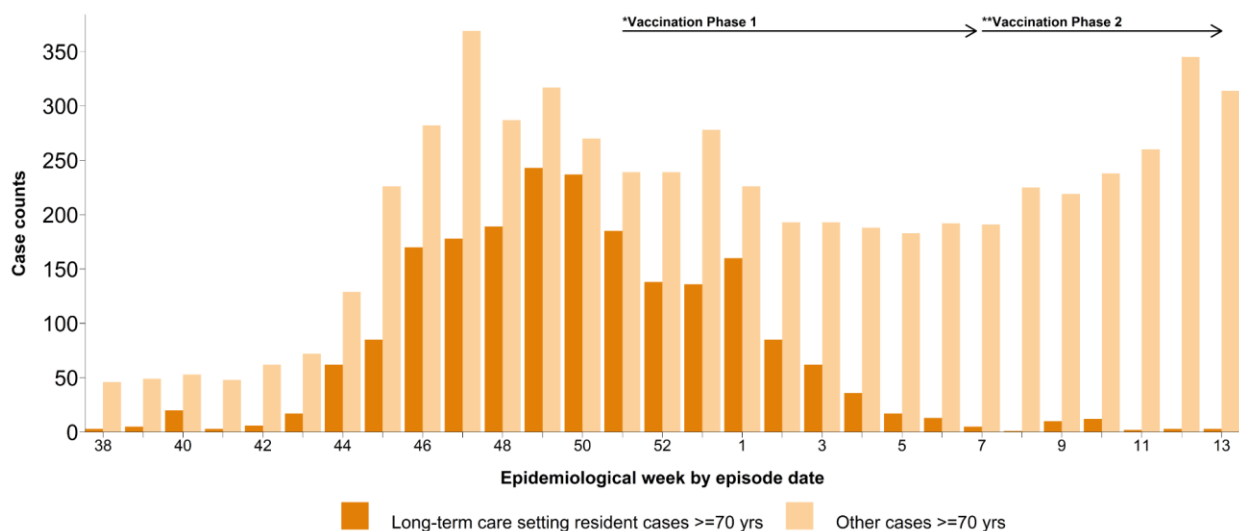
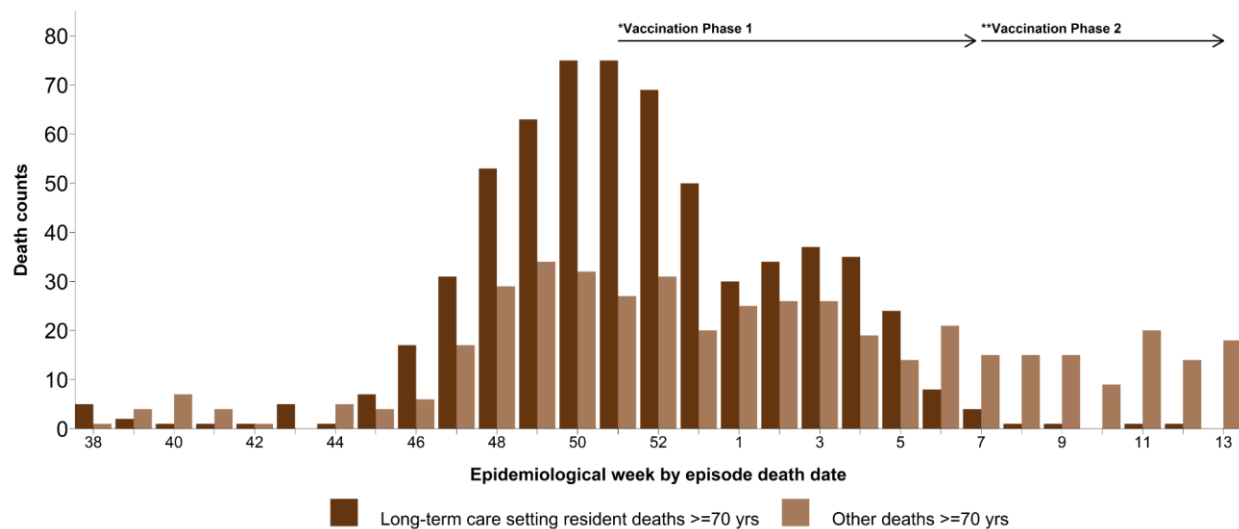


Figure 13. COVID-19 long-term care setting resident^a deaths (n=632) vs other deaths (n=442) ≥70 years of age, by episode death date, BC September 13, 2021 (week 38) – April 3, 2021 (week 13)



*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 April 13, there were 5,162 cases infected with variants of concern (VOC) (confirmed by sequencing) with onset up to week 13 in BC. Of those, 3,588 (70%) were infected with variant B.1.1.7; 1,510 (29%) were infected with variant P.1; and 64 (1%) were infected with variant B.1.351. Episode dates range from week 51 to week 13. Adults 20-49 years of age comprised 61% of all SARS-CoV-2 VOC cases in BC, and also comprised 2,041 (57%) of the B.1.1.7; 1,053 (70%) of the P.1 variants and 32 (50%) of the B.1.351 that were detected.