

British Columbia (BC) COVID-19 Situation Report
Week 15: April 11- April 17, 2021

Table of Contents		Provincial COVID-19 incidence remains high but has decreased slightly; hospital and ICU admissions continue to increase	
Epidemic curve and regional incidence	2	There were 6,098 COVID-19 cases (119 per 100K) in week 15, a slight decrease since the peak in week 14.	
Likely sources of infection	3	Regional incidence is decreasing: <ul style="list-style-type: none"> • Since week 14, Fraser Health incidence decrease slightly (219 to 193 per 100K). • Since week 13, Vancouver Coastal incidence decreased (194 to 120 per 100K). • Since week 14, Interior Health incidence decreased (103 to 55 per 100K). • Since week 13, Island Health incidence decreased (48 to 26 per 100K). • Since week 13, Northern Health incidence decreased (119 to 76 per 100K). 	
Test rates and % positive	4	Most age-specific incidences peaked in week 14 and decreased in week 15. Most notably, 15-19-year-olds, 20-29-year-olds and 40-49-year-olds peaked in week 14 and have seen the sharpest decline in week 15 from 217 to 150 per 100k, 257 to 184 per 100k and from 174 to 147 per 100k, respectively.	
Age profile, testing and cases	5	Testing of MSP-funded specimens increased from week 11 to week 14 (from ~46,000 to ~65,500 specimens), then decreased in week 15 to ~64,000. Concurrently, positivity of MSP-funded specimens decreased from 12.2% in week 14 to 11.1% in week 15.	
Severe outcomes	7	Hospital admissions increased by 2.5 times from 148 in week 10 to 388 in week 15. ICU admissions also increased since week 10 from 29 to 107 per week. Deaths were stable since week 7 (average of 24 per week).	
Age profile, severe outcomes	8	Following increasing vaccination rates in the elderly, the weekly number of deaths in 80+ year-olds has decreased by 82% between weeks 50 and 14. Similarly, the number of weekly deaths has decreased in 70-79-year olds by 74% between weeks 51 and 15 (from 23 to 6 deaths).	
Care facility outbreaks	9	By case of earliest onset date, there were 2 outbreaks reported in care settings in week 15. 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.	
Emerging respiratory pathogens update	10	SARS-CoV-2 variants of concern have been identified in 6,178 cases in BC: 4,039, 76 and 2,063 with the B.1.1.7, B.1.351 and P.1 variants, respectively.	

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
Jan 15 (wk 3) to Mar 13 (wk 11) 2020	Mar 14 (wk 11) to May 18 (wk 21) 2020	May 19 (wk 21) to Jun 23 (wk 26) 2020	Jun 24 (wk 26) to Sept 12 (wk 37) 2020	Sept 13 (wk 38) to Nov 7 (wk 45) 2020	Nov 8 (wk 46) to Current wk, 2021
From earliest symptom onset date	Initial restrictions	Re-opening of services	Broader re-opening	From 1 st epiweek of 2020-21 school year	Core bubble interaction only

Table of [vaccination phases](#) defined by vaccine eligibility of target populations in BC:

VACCINATION PHASE 1 Dec 2020 to Feb 2021	VACCINATION PHASE 2 Feb to April 2021	VACCINATION PHASE 3 April 2021 to Present
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.	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.	Target populations include people aged 60-79 years, Indigenous peoples aged 18-64 and people aged 16-74 who are clinically extremely vulnerable.

BELOW ARE IMPORTANT NOTES relevant to the interpretation of data displayed in this bulletin:

- Episode dates are defined by dates of illness onset. 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. Analyses based on episode date (or illness onset date) may better represent the timing of epidemic evolution. 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. Episode dates for hospital admission, ICU, and death are defined by admission and death dates. When unavailable, surveillance date is used.
- 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.
- Case data were extracted on April 26, 2021, laboratory data on April 23, and variants of concern data on April 23

A. COVID-19 case counts and epidemic curves

Provincially, from week 3 2020 to week 15 2021, there have been 121,382 cases, corresponding to a cumulative incidence of 2,358 per 100K (Table 1, Figure 1). As shown in Figure 1, incidence rapidly increased from week 10 to week 14 (from 74 to 151 per 100K) but has decreased slightly in week 15 (119 per 100K). These rates may increase further as data by episode date become more complete.

As shown in Figure 2, incidence decreased in all health authorities recently. From week 14 to week 15, FH incidence decreased slightly from 219 to 193 per 100K and IH incidence decreased from 103 to 55 per 100K. Incidence decreased in weeks 13 to 15 in Vancouver Coastal Health (VCH), from 194 to 120 per 100K; in Island Health (VIHA), from 48 to 26 per 100K; and in Northern Health (NH), from 119 to 76 per 100K. These rates may increase as data become more complete.

Table 1. Episode-based case tallies by health authority, BC^a
January 15, 2020 (week 3) – April 17, 2021 (week 15) (N= 121,382)

Case tallies by episode date	Health Authority of Residence					Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 15, case counts	3,738	456	228	219	1,454	3	6,098
Cumulative case counts	69,429	10,304	4,374	6,928	30,159	188	121,382
Week 15, cases per 100K population	193	55	26	76	120	0	119
Cumulative cases per 100K population	3,580	1,234	504	2,412	2,491	0	2,358

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC^a
January 15, 2020 (week 3) – April 17, 2021 (week 15) (N= 121,382)

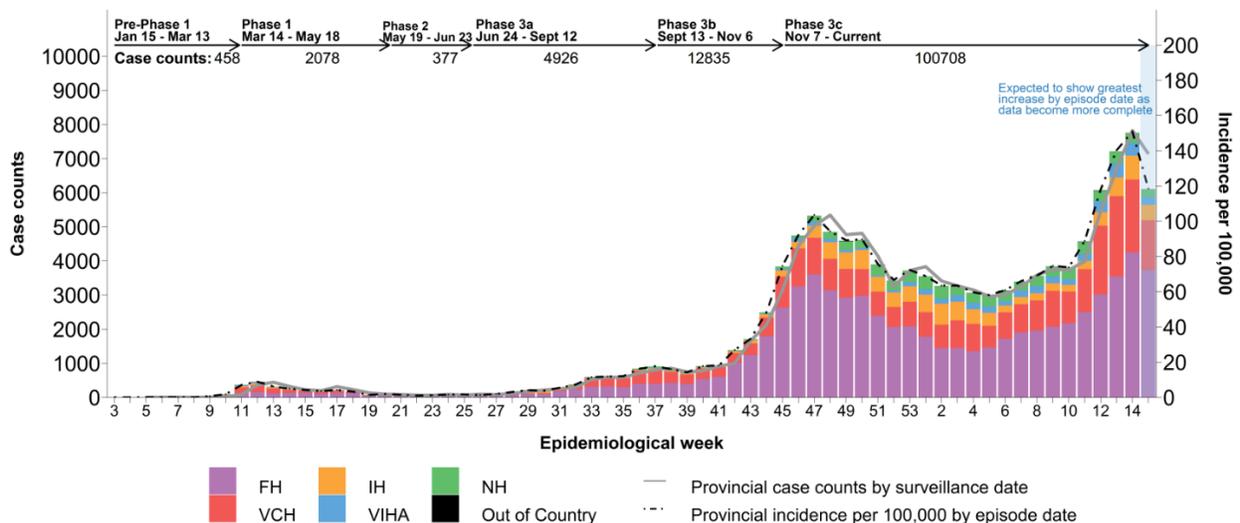
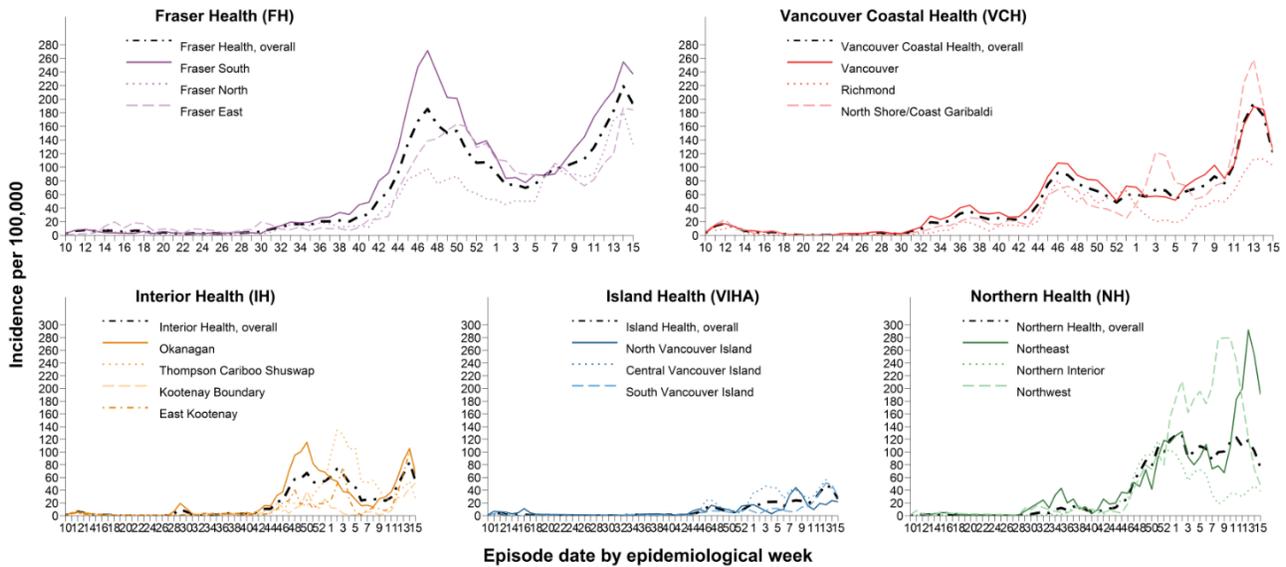


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 1, 2020 (week 10) – April 17, 2021 (week 15) (N= 121,382)



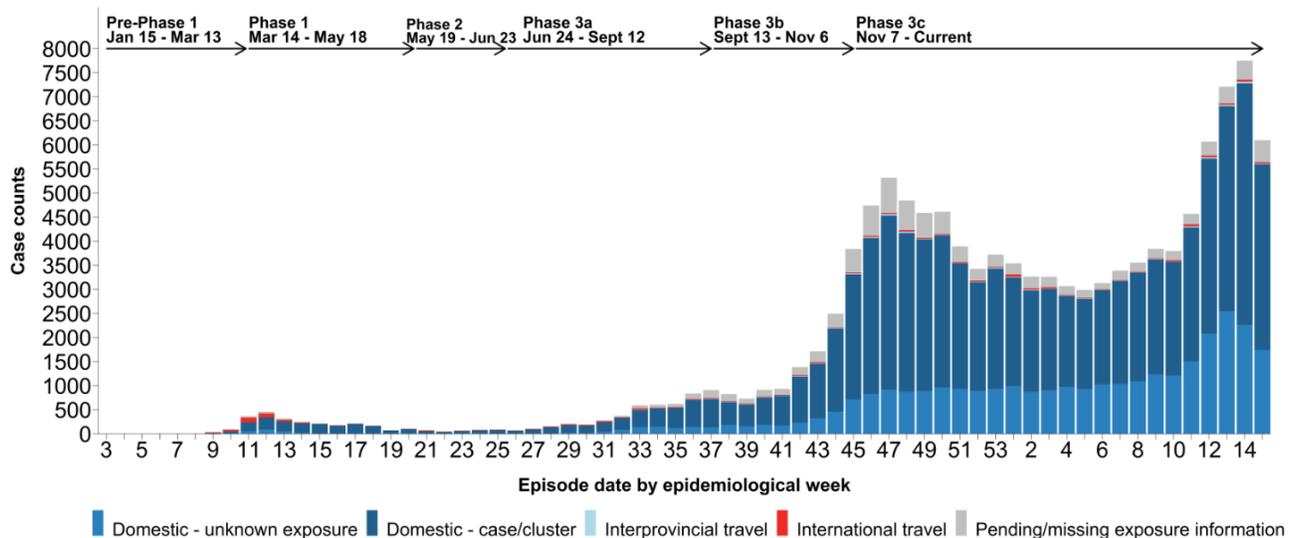
B. Likely sources of infection

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.

Table 2. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – April 17, 2021 (week 15) (N= 121,382)

Likely exposure (row %)	International travel	Interprovincial travel	Domestic – case/cluster	Domestic – unknown	Pending/missing
Week 14, Exposures	29 (<1)	14 (<1)	3,858 (63)	1,742 (29)	455 (7)
Cumulative Exposures	1,220 (1)	456 (<1)	78,482 (65)	31,352 (26)	9,872 (8)

Figure 3. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – April 17, 2021 (week 15) (N= 121,382)

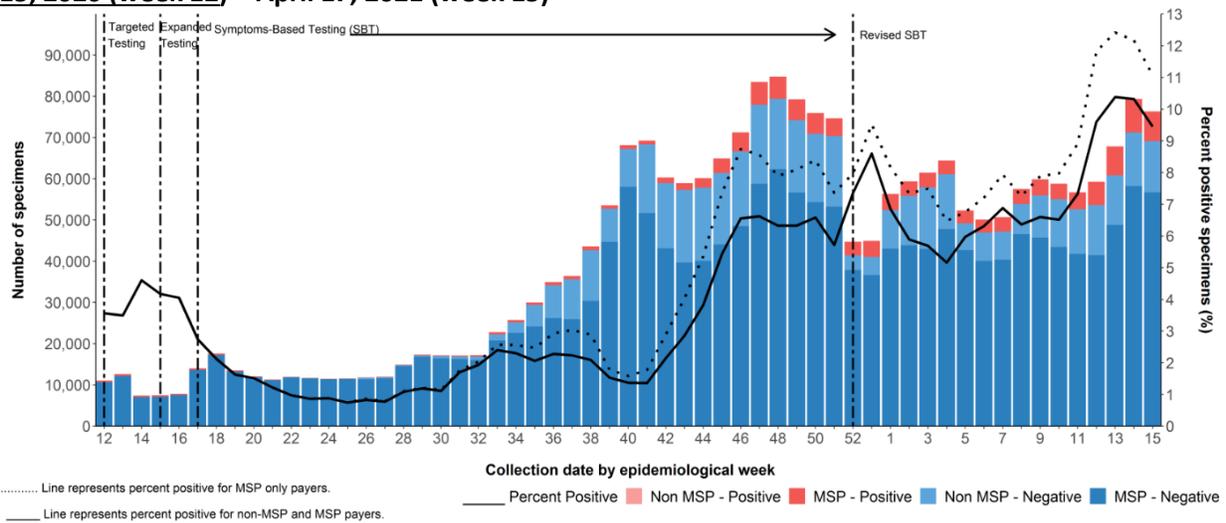


C. Test rates and percent positive

As shown by the darker-colored bars in [Figure 4](#), testing of MSP-funded specimens increased from week 11 to week 14 (from ~46,000 to ~65,500 specimens), then decreased in week 15 to ~64,000. Concurrently, positivity of MSP-funded specimens decreased from 12.2% in week 14 to 11.1% in week 15.

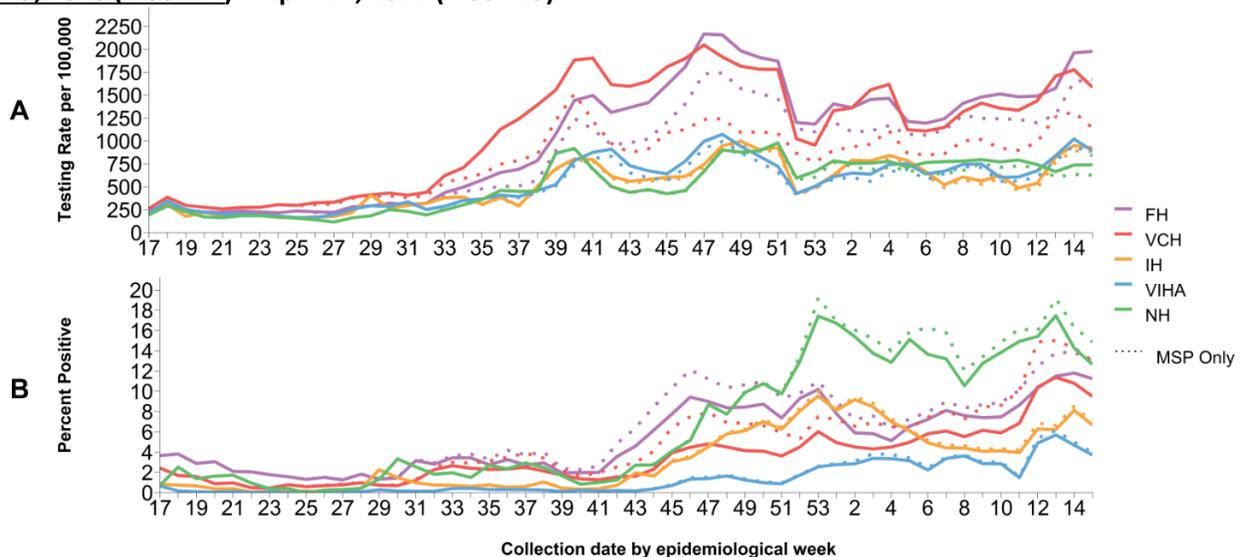
As shown in [Panel A of Figure 5](#), the per capita testing rates for MSP-only specimens in week 14 continue to be highest in FH and VCH; the testing rate has remained stable in FH but decreased in VCH since week 14. The testing rate has remained stable in NHA since week 13, whereas it has been increasing in IHA since week 11 and in VIHA since week 10. As shown in [Panel B](#), percent positivity for week 15 MSP-funded tests remains highest in NH at 14.9% followed by VCH at 13.0%, FHA at 12.9%, IH at 6.9%, and lowest in VIHA at 3.9%. Percent positivity has remained stable or decreased in all HAs since weeks 12-13.

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – April 17, 2021 (week 15) ^{a,b,c}



a. Invalid (n=1,252) and indeterminate (n=6,361) 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 17, 2021 (week 15) ^{b,c}



b. PLOVER extract on April 16, 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 15 were higher in all age groups except in elderly adults >80 years of age. The highest testing rate in week 15 was among adults 20-39 years of age, surpassing weeks 46-14 of phase 3c.

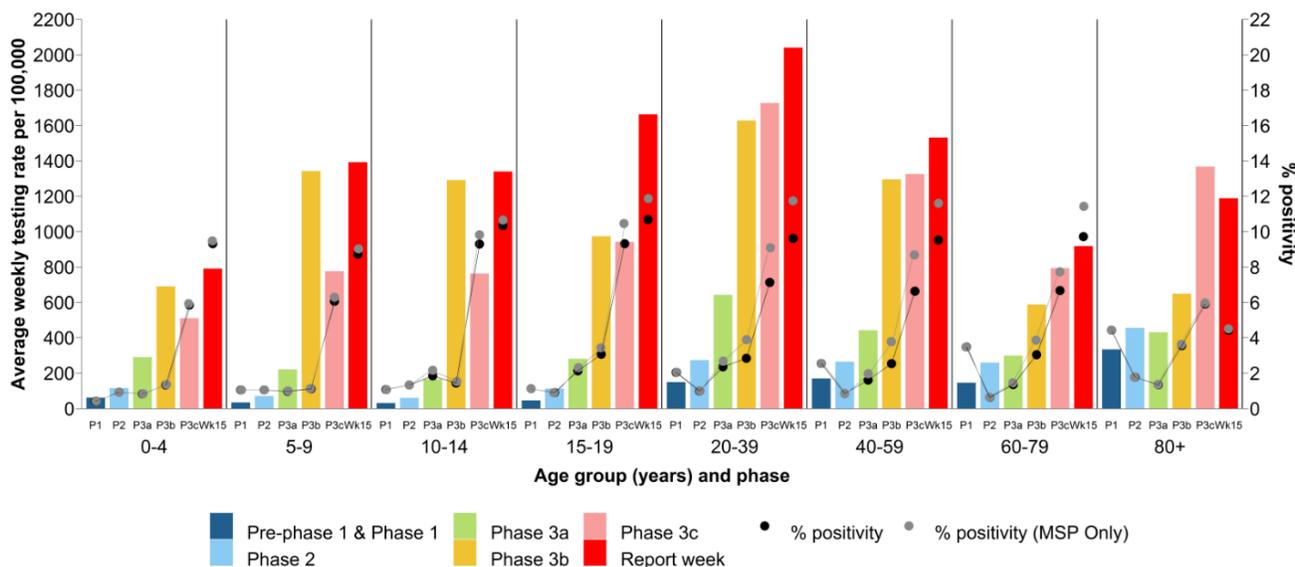
As shown by the grey dots in [Figure 6](#), the percent positivity for MSP-only specimens in week 15 was higher in all age groups (except 80+ year-olds) compared to prior weeks of Phase 3c, most prominently in the 60-79-year-olds (from 7.7% to 11.4%), 0-4-year-olds (from 5.9% to 9.5%), 40-59-year-olds (from 8.7% to 11.6%) and 5-9-year-olds (from 6.3% to 9.0%). On the other hand, in the 10-14 year-olds, positivity was comparable at ~10% and the 80+ year-old positivity decreased (from 6.0% to 4.5%).

Case distribution and weekly incidence by age group

As shown in [Figure 7](#), the percentage contribution of age groups <10 years and 10 to 14 years increased from week 13 to week 15 by 2.7% and 1.4%, respectively, and was met mainly by a decrease in the 20-29 and 30-39-year-olds, by 2% for both. The remaining age groups' contributions remained relatively stable.

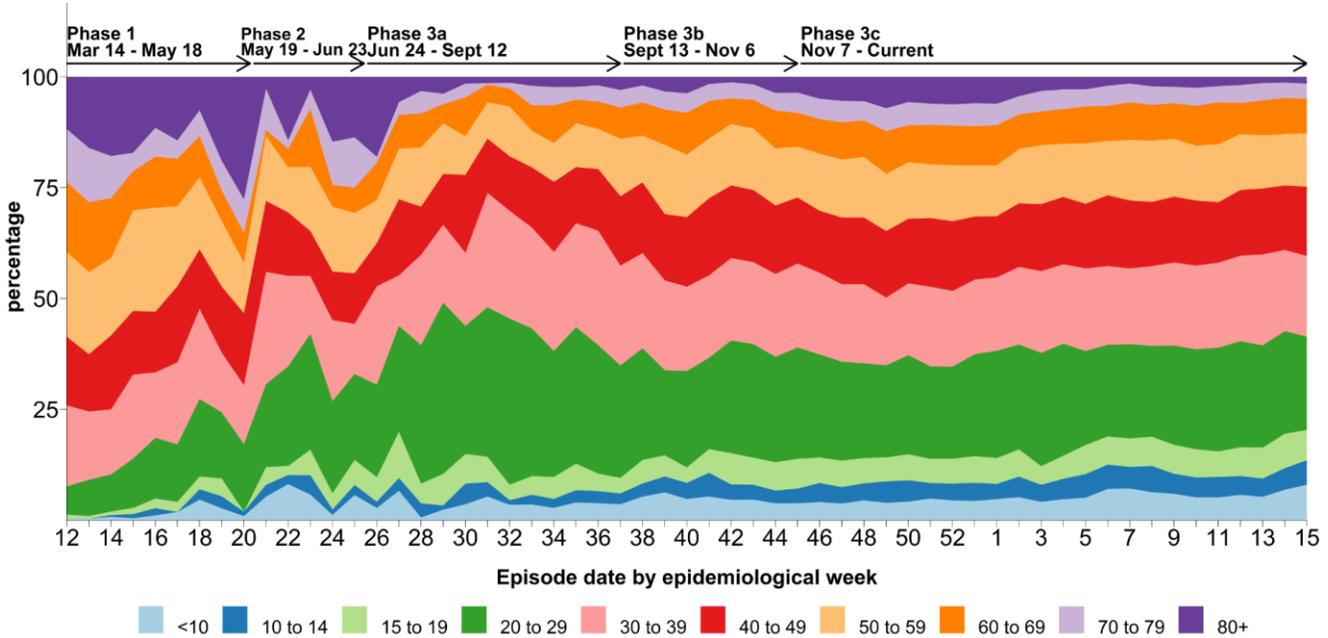
As shown in [Figure 8](#), in week 13-15, most age specific incidences peaked in week 14 and decreased in week 15. Most notably, 15-19-year-olds, 20-29-year-olds and 40-49-year-olds peaked in week 14 and have seen the sharpest decline in week 15 from 217 to 150 per 100k, 257 to 184 per 100k and from 174 to 147 per 100k, respectively. Since week 13, 30-39-year-olds decreased from 201 to 151 per 100k and 70-79-year-olds, from 66 to 78 per 100k. Since week 12, 80+ year olds decreased from 47 to 39 per 100k. Week 15 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 17, 2021 (week 15)^b

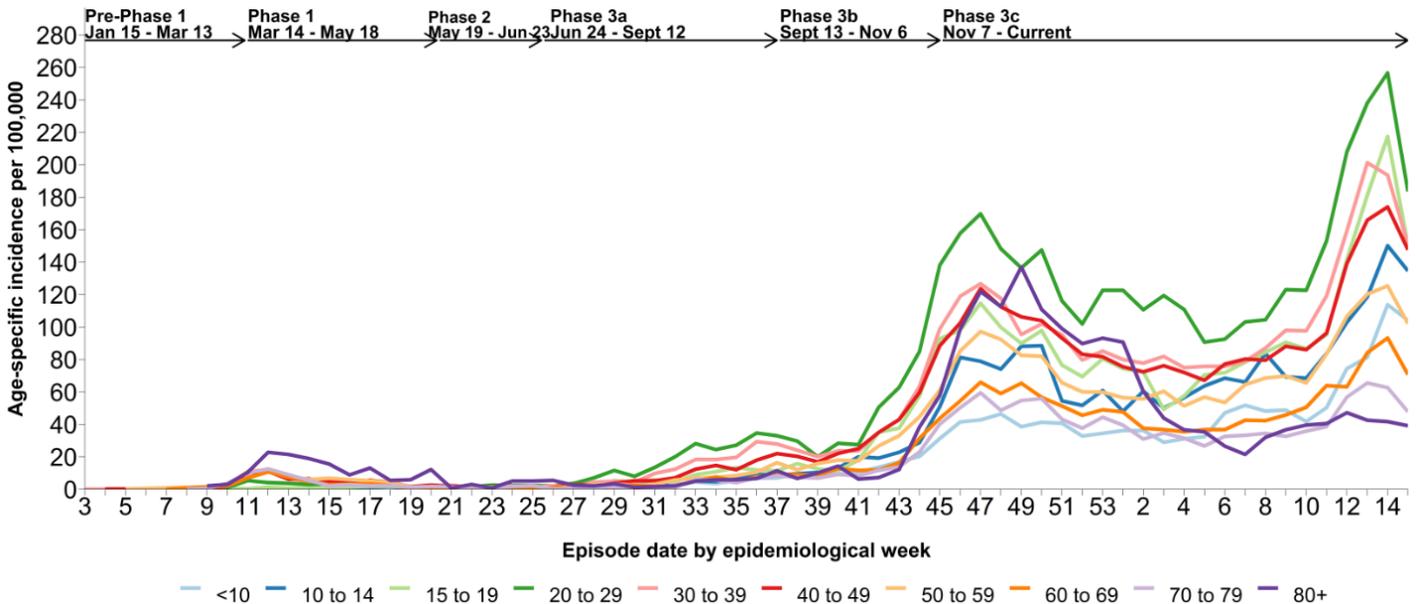


- a. Phase based on specimen collection date, of which January 20 was the earliest. The average weekly rate by phase is derived as the phase-specific per capita test rate divided by the number of weeks for Pre-Phase 1 + Phase 1 (P1: 17 weeks), Phase 2 (P2: 5 weeks), Phase 3a (P3a: 11.5 weeks), Phase 3b (P3b: 8 weeks), and Phase 3c, excluding the current report week (P3c: 21 weeks). The current report week, although part of Phase 3c, is excluded from Phase 3c as displayed here to enable comparison.
- b. 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 17, 2021 (week 15) (N= 120,846)**



**Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC
 January 15, 2020 (week 3) – April 17, 2021 (week 15) (121,359)**



E. Severe outcome counts and epi-curve

The number of weekly hospital admissions has increased more than 2.5 times since week 10, from 148 to 388 hospitalizations in week 15. The number of intensive care unit (ICU) admissions has more than tripled since week 10, from 29 to 107 admissions in week 15. The number of deaths has been stable from week 7 to 15 with an average of 24 deaths per week ([Table 3, Figure 9](#)). These numbers may increase in future reports as more data become available.

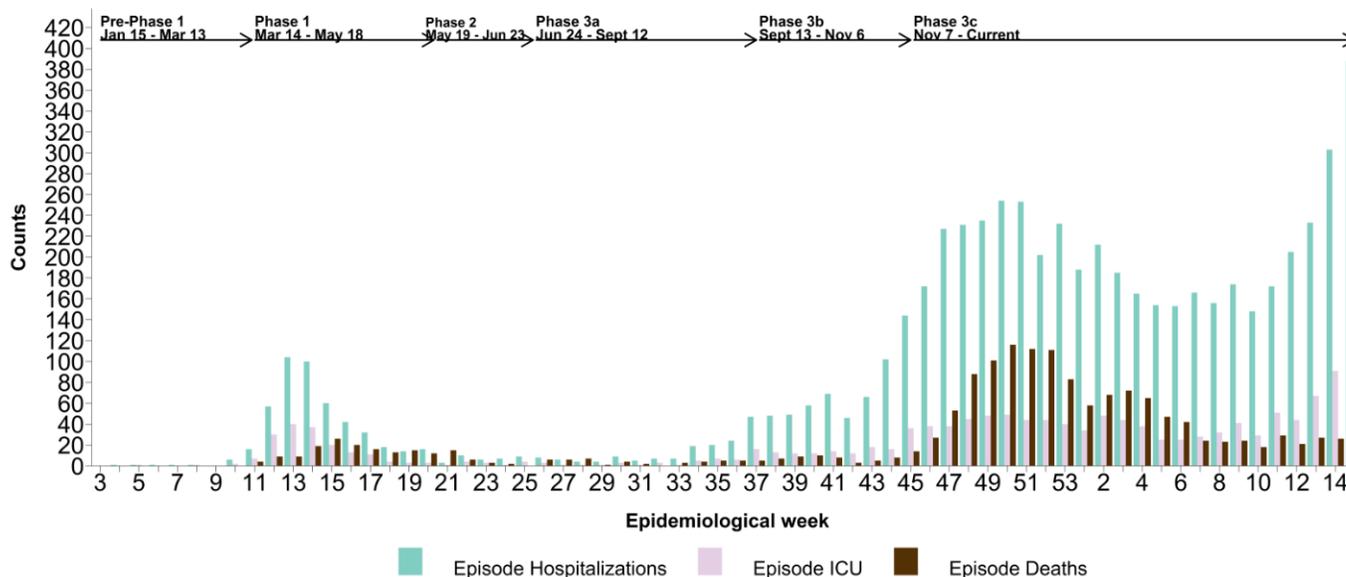
Cumulatively, there have been 10 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020 (no new confirmed cases since last report). The median age of these cases is 7.5 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – April 17, 2021 (week 15)

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 15, hospitalizations	218	29	19	18	104	0	388
Cumulative hospitalizations	3318	483	206	587	1448	13	6,055/121,382 (5)
Week 15, ICU admissions	53	11	5	7	31	0	107
Cumulative ICU admissions	675	138	53	142	406	2	1,416/121,382 (1)
Week 15, deaths	14	3	0	5	4	0	26
Cumulative deaths	821	124	33	136	428	0	1,542/121,382 (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) – April 17, 2021 (week 15)



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 15, median age of hospital admissions, ICU admissions and deaths was 61 years, 61 years and 86 years, respectively (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 82% between weeks 50 and 14 (from 85 to 15 deaths), with a slight increase in week 15 (18 deaths). Similarly, the number of weekly deaths has decreased in 70-79-year olds by 74% between weeks 51 and 15 (from 23 to 6 deaths).

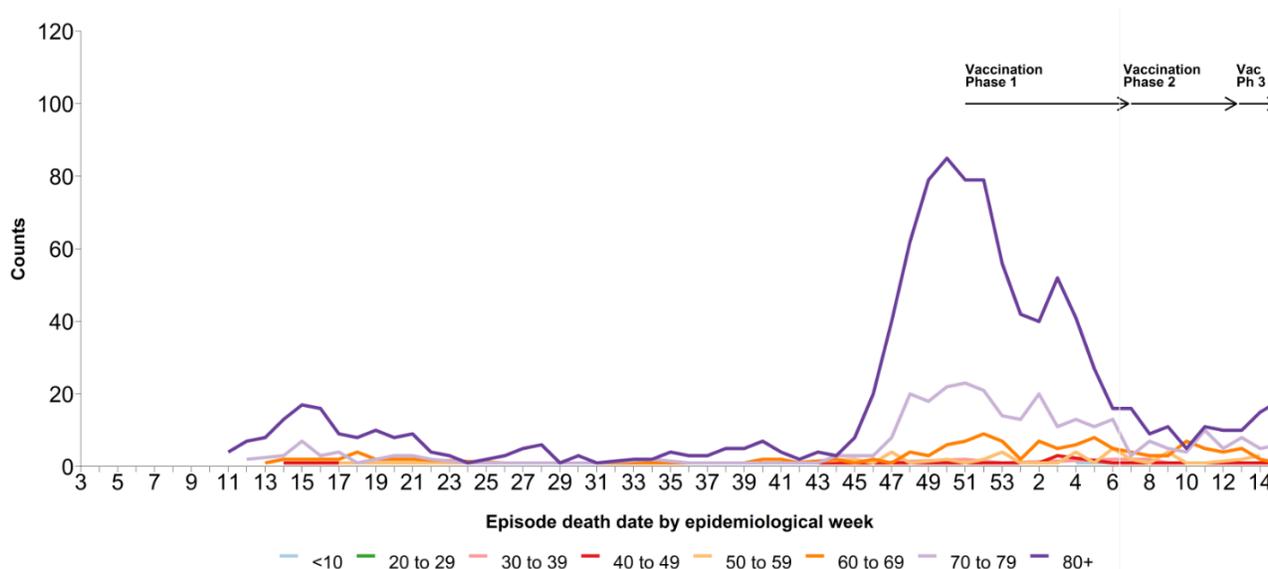
In week 15, 301/6,098 (5%) cases, 120/388 (31%) hospitalizations, 26/107(24%) ICU admissions, and 24/26 (92%) deaths were in 70+ year-olds (data not shown).

Table 4: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group January 15, 2020 (week 3) – April 17, 2021 (week 15) (N= 121,359)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	6,166 (5)	58 (1)	5 (<1)	2 (<1)	469,351 (9)
10-19	12,403 (10)	47 (1)	8 (1)	0 (<1)	527,805 (10)
20-29	27,518 (23)	280 (5)	30 (2)	1 (<1)	697,691 (14)
30-39	22,235 (18)	538 (9)	110 (8)	14 (1)	735,052 (14)
40-49	18,017 (15)	617 (10)	138 (10)	19 (1)	646,035 (13)
50-59	15,369 (13)	894 (15)	254 (18)	50 (3)	718,272 (14)
60-69	9,947 (8)	1,102 (18)	345 (24)	132 (9)	673,131 (13)
70-79	5,295 (4)	1,249 (21)	366 (26)	313 (20)	435,062 (8)
80-89	3,009 (2)	941 (16)	144 (10)	562 (36)	187,443 (4)
90+	1,400 (1)	329 (5)	16 (1)	449 (29)	49,726 (1)
Total	121,359	6,055	1,416	1,542	5,139,568
Median age	36	65	65	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) – April 17, 2021 (week 15) (N= 1,542)^a



G. Care facility outbreaks

As shown in [Table 5](#) and [Figure 11](#), 312 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 15, with two new outbreaks in week 15. Outbreaks in long-term care settings (i.e. long-term care or assisted living facilities) have decreased since week 51 and outbreaks in acute care facilities have decreased since week 9.

[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 from week 7 to 13, with a recent decrease in weeks 14-15.

Two (7.7%) of the 26 deaths reported provincially during week 14 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.

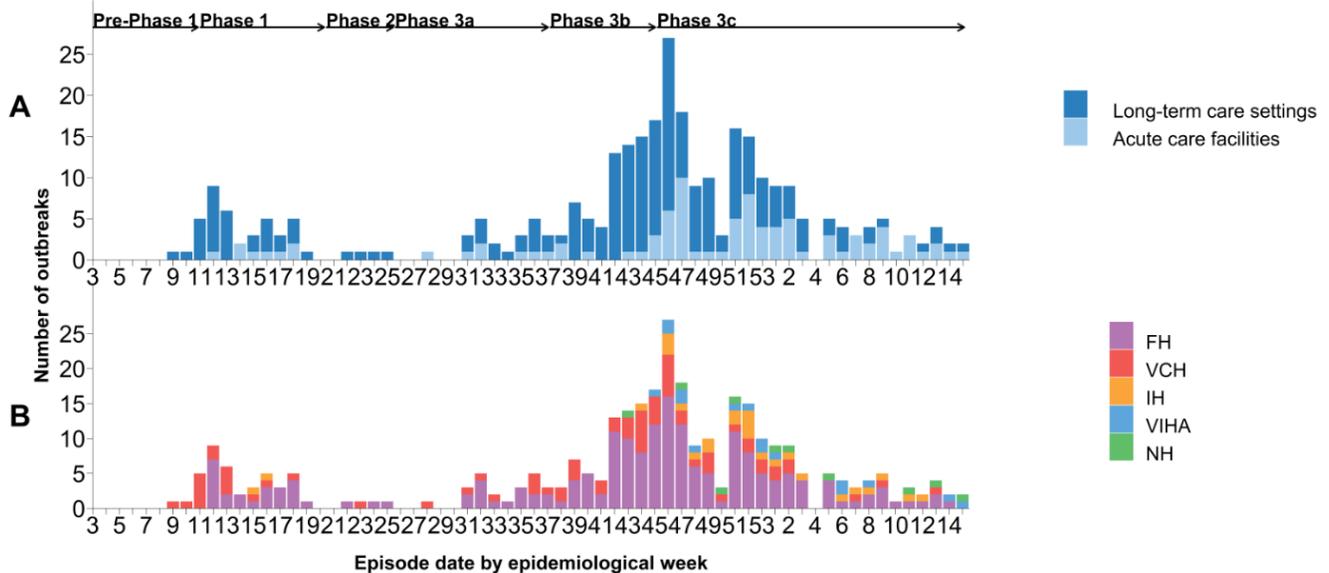
[Figure 13](#) shows a larger decrease in long-term care setting resident deaths 70+ years of age as compared to deaths in the same age group outside of these settings following the start of the vaccination of the LTCF population in week 51. Since week 6, there has been an average of two deaths per week within long-term care these settings, while there has been an average of 17 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 17, 2021 (week 15) (N=312)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 14, Care Facility Outbreaks	2	22	1	0	23	2	0	0	2
Cumulative, Care Facility Outbreaks	312	3,427	2,236	7	5,670	984	0	0	984

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 17, 2021 (week 15) (N=312)



- 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=2,105) vs other cases (n=6,668) ≥70 years of age, by episode date, BC September 13, 2021 (week 38) – April 17, 2021 (week 15)

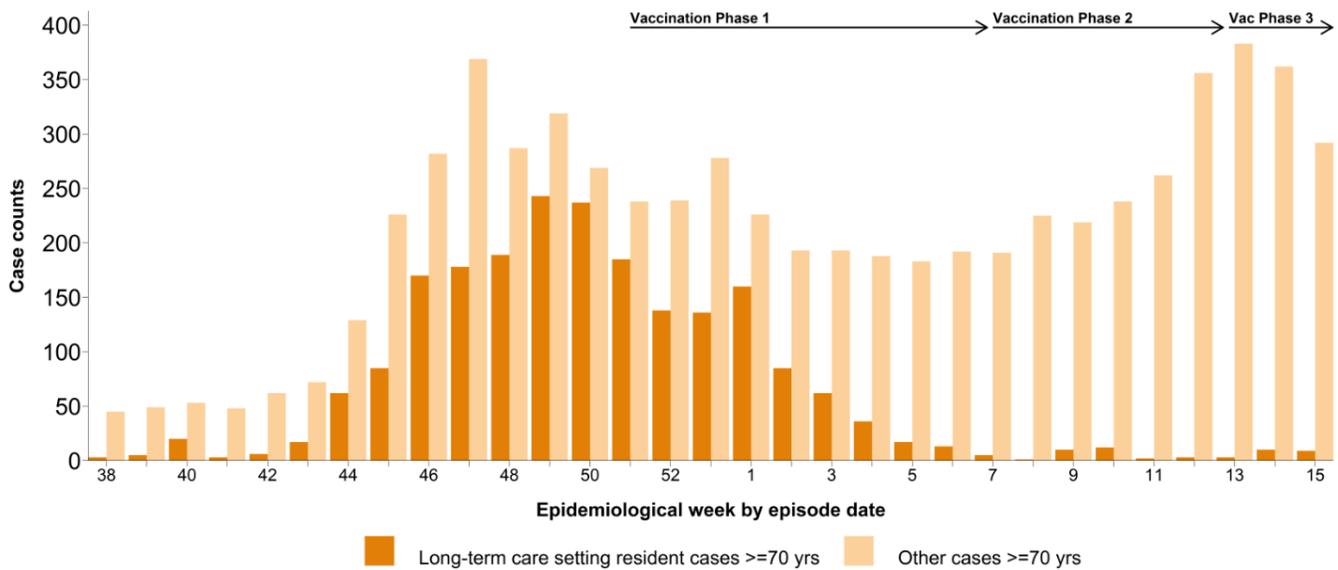
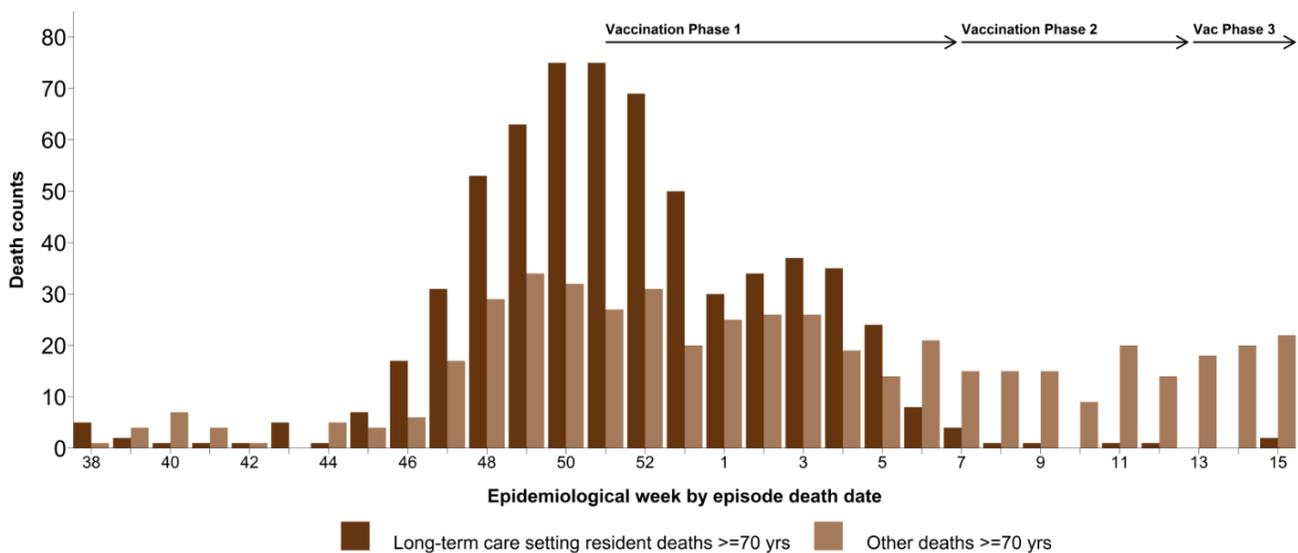


Figure 13. COVID-19 long-term care setting resident^a deaths (n=634) vs other deaths (n=501) ≥70 years of age, by episode death date, BC September 13, 2021 (week 38) – April 17, 2021 (week 15)



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 23, there were 6,178 cases infected with variants of concern (VOC) (confirmed by sequencing) with onset up to week 15 in BC. Of those, 4,039 (65%) were infected with variant B.1.1.7; 2,063 (33%) were infected with variant P.1; and 76 (1%) were infected with variant B.1.351. Episode dates range from week 51 to week 15. Adults 20-49 years of age comprised 61% of all SARS-CoV-2 VOC cases in BC, and also comprised 2,310 (57%) of the B.1.1.7; 1,399 (68%) of the P.1 variants and 40 (53%) of the B.1.351 that were detected.