British Columbia (BC) COVID-19 Situation Report Week 31: August 01- August 07, 2021

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Increase in provincial COVID-19 incidence, driven by Interior Health Authority accompanied by increases in hospital admissions and recent ICU admissions

From <u>week 26-31</u>, provincial COVID-19 incidence increased almost nine-fold (from 5 to 43 per 100K). There were 2,261 COVID-19 cases recorded in week 31.

From week 26-31, incidence increased in all health authorities, but most notably Interior Health:

- Fraser Health: 5 to 28 per 100K
- Vancouver Coastal: 4 to 29 per 100K
- Interior Health: 12 to 135 per 100K
- Island Health: 2 to 16 per 100K
- Northern Health: 0.3 to 30 per 100K

Incidence has increased in all age groups. In week 31, the highest age-specific incidence (110 per 100K) was in 20-29 year-olds followed by 15-19-year-olds (73 per 100K) and 30-39-year-olds (62 per 100K), both representing a 9 to 10-fold increase over week 26 (12, 7 and 7 per 100K, respectively).

By week 31, the single-dose vaccination coverage in eligible 12+ year-olds exceeded 80% and 70% were fully vaccinated.

Testing of MSP-funded specimens has increased from ~16-17K specimens weekly between weeks 26-28 to ~30K specimens in week 31. Positivity of MSP-funded specimens has also increased from ~2% in week 26-28 to 8.3% in week 31.

The weekly number of hospital admissions has been increasing since week 28, with 16, 25, 36 and 63 hospital admissions in weeks 28-31. The pattern among weekly ICU admissions and deaths warrants further monitoring. ICU admissions have increased in week 31, from 9 admissions in week 30 to 20 admissions in week 31. Deaths have remained low and stable from weeks 26-31.

By case of earliest onset date, 4 new outbreaks were reported in care settings in week 31.

Table of <u>pandemic phases</u> defined by implementation or relaxation of population-level mitigation measures in BC:

Pre-Phase 1	PHASE 1	PHASE 2	Phase 3
Jan 15 (wk 3) -	Mar 14 (wk 11) -	May 19 (wk 21) -	Jun 24 2020 (wk 26) - Current wk, 2021
Mar 13 (wk 11) 2020	May 18 (wk 21) 2020	Jun 23 (wk 26) 2020	(Dates Start from beginning of complete epiweek)
From earliest	Initial restrictions	Re-opening of services	PHASE 3A: Jun 24 (wk 26)-Sept 12 (wk 37) 2020: Broader re-opening
symptom onset date			PHASE 3B: Sept 13 (wk 38)-Nov 7 (wk 45) 2020: Start of 2020-21 school year
			PHASE 3C: Nov 8 (wk 46)-Mar 27 (wk 12) 2021: Core bubble interaction only
			PHASE 3D: Mar 28 (wk 13)-May 22 (wk 20) 2021: Circuit breaker restrictions
			PHASE 3E: May 23 (wk 21)- Current wk, 2021:
			Step 1 BC Restart Plan (wk 21-23);
			Step 2 BC Restart Plan (wk 24-25)
			Step 3 BC Restart Plan (wk 26- current wk, 2021)

Table of vaccination phases defined by vaccine eligibility of target populations in BC:

VACCINATION PHASE 1	VACCINATION PHASE 2	VACCINATION PHASE 3	VACCINATION PHASE 4
Dec 2020 to Feb 2021	Feb to April 2021	April to May 2021	May 2021- 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.	Target populations include people aged 60-79 years, Indigenous peoples aged 18-64 and people aged 16-74 who are clinically extremely vulnerable.	Target populations include everyone 12+ years.

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

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- 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.
- As of June 15, 2021, per capita rates/incidences for year 2020 are based on Population Estimates 2020 (n= 5,139,568 for BC overall) and for year 2021 are based on PEOPLE 2020 estimates (n= 5,197,224 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.
- Data sources include: health authority case line list data, laboratory PLOVER data, PHSA Provincial Immunization Registry (PIR), and hospital data (PHSA Provincial COVID19 Monitoring Solution (PCMS)).
- Case data were extracted on August 16, 2021, laboratory data on August 13, 2021, PIR vaccine coverage date on August 13, 2021, and PCMS hospitalization data on August 16, 2021.

A. COVID-19 case counts and epidemic curves

As shown in <u>Figure 1</u>, provincial incidence has been increasing since week 26 from 5 to 43 per 100K in week 31. Up to week 31, 2021, there have been 153,366 cases for a cumulative incidence of 2,947 per 100K (<u>Table 1, Figure 1</u>). Rates may increase as data by episode date become more complete.

Increased incidence is evident in all health authorities (HA) with the greatest upswing observed in Interior Health (IH). As shown in <u>Figure 2</u>, incidence increased from week 26 to week 31 in IH (12 to 135 per 100K) and has been driven mainly by a surge in the Okanagan health service delivery area from week 26 to week 30 (HSDA) (14 to 166 per 100K); with a recent drop in week 31 (110 per 100K). Between week 26-31 increased incidences have also been observed in Vancouver Coastal Health (VCH: 4 to 29 per 100K), Fraser Health (FH: 5 to 28), Northern Health (NHA: 0.3 to 30 per 100K), and Island Health (VIHA: 2 to 16 per 100K).

Table 1. Episode-based case tallies by health authority, BC, Jan 15, 2020 – August 07, 2021 (week 31) (N= 153,366)

Cose tallies by spisode date	Health Authority of Residence					Outside	Total	
Case tallies by episode date	FH	IH	VIHA	NH	VCH	Canada	iotai	
Week 31, case counts	550	1,134	137	87	352	1	2,261	
Cumulative case counts	87,309	15,996	5,489	7,964	36,379	229	153,366	
Week 31, cases per 100K population	28	135	16	30	29	NA	43	
Cumulative cases per 100K population	4,437	1,903	627	2,752	2,971	NA	2,947	

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC January 15, 2020 (week 3) – August 07, 2021 (week 31) (N= 153,366)

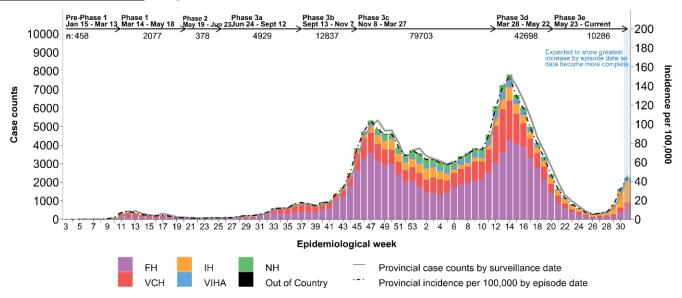
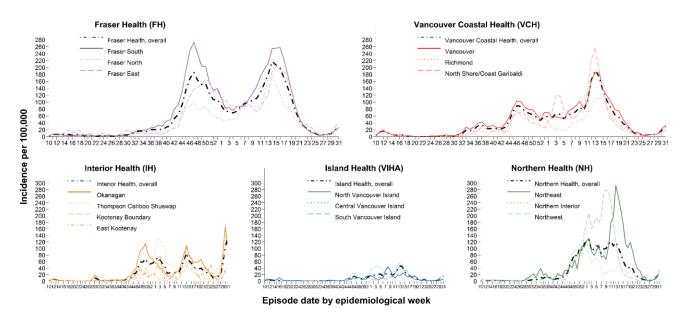


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC March 01, 2020 (week 10) – August 07, 2021 (week 31) (N= 153,366)



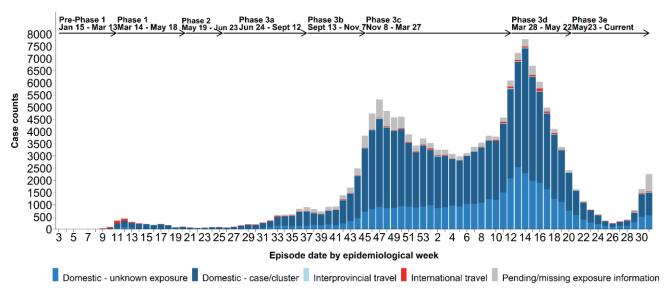
B. Likely sources of infection

As shown in <u>Table 2</u> and <u>Figure 3</u>, 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) – August 07, 2021 (week 31) (N= 153,366)

Likely exposure (row %)	International travel	Interprovincial travel	Domestic – case/cluster	Domestic – unknown	Pending/ missing
Week 31, Exposures	20 (1)	36 (2)	921 (41)	570 (25)	714 (32)
Cumulative Exposures	1,754 (1)	704 (<1)	97,788 (64)	41,600 (27)	11,520 (8)

Figure 3. Likely source of COVID-19 infection by episode date, BC January 15, 2020 (week 3) – August 07, 2021 (week 31) (N= 153,366)



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C. Test rates and percent positive

As shown by the darker-colored bars in <u>Figure 4</u>, testing of MSP-funded specimens has increased from ~16-17K specimens weekly between weeks 26-28 to ~30K specimens in week 31. Positivity of MSP-funded specimens has also increased from ~2% in week 26-28 to 8% in week 31.

As shown in <u>Figure 5</u>, the per capita testing rates (Panel A) and percent positivity (Panel B) for MSP-only specimens have both increased since week 26 in all HAs. Most notably, percent positivity in IH increased from 4% in week 28 to 17% in week 31. NHA also experienced a sharp increase in percent positivity from 2% in week 29 to 14% in week 31.

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – August 07, 2021 (week 31)

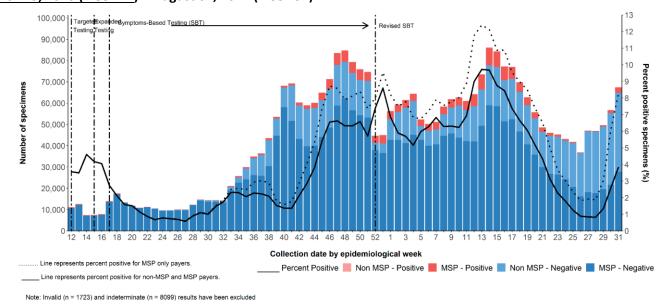
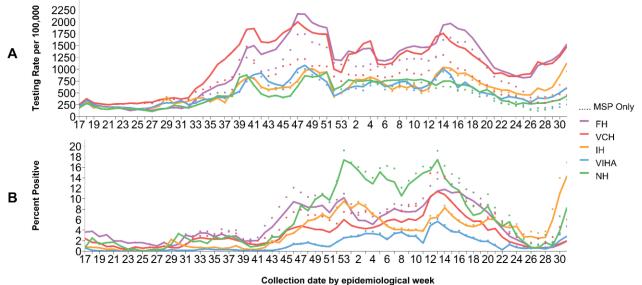


Figure 5. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – August 07, 2021 (week 31)



Data source: laboratory PLOVER data

D. Age profile – Testing and cases

Testing rates and percent positivity by age group

As shown by the bars in <u>Figure 6</u>, testing rates in all age groups increased since week 30. In week 31, 20-39 year-olds surpassed the 80+ year-olds for the highest testing rate of 826 per 100K.

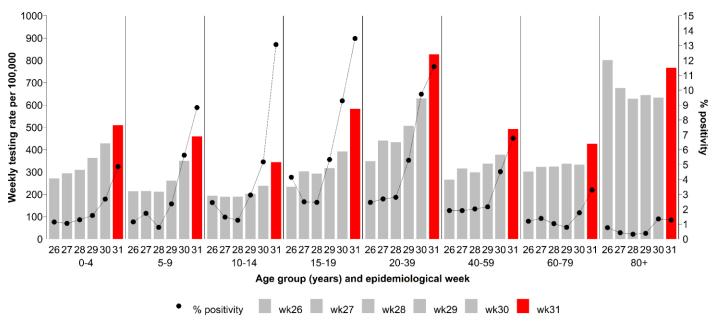
As shown by the black dots in <u>Figure 6</u>, the percent positivity has increased since week 28 in all age groups, except the 80+ year-olds where it has stabilized as of week 30. Most notable increases from week 28 to week 31 were in the 10-14, 15-19 and the 20-39 year-olds where percent positivity jumped from 1% to 13%, 2.5% to 13.5% (highest percent positivity), and from 3% to 11.5% respectively.

Case distribution and weekly incidence by age group

As shown in Figure 7, adults between 20 and 49 years of age generally comprise half of the cases.

As shown in <u>Figure 8</u>, incidence has increased in all age groups. In week 31, the highest age-specific incidence (110 per 100K) was in 20-29 year-olds followed by 15-19-year-olds (73 per 100K) and 30-39-year-olds (62 per 100K), both representing a 9 to 10-fold increase over week 26 (12, 7 and 7 per 100K, respectively). The incidence in 10-14-year-olds has almost doubled in the most recent week from 21 per 100K in week 30 to 39 per 100K in week 31. The 40-49, and 50-59 have increased since week 26 to week 31 from 5 to 26, and 3 to 26 per 100K, respectively. Rates in age groups 60+ have also increased in recent weeks with rates ranging between 7 to 15 per 100K in week 31.

Figure 6. Average weekly SARS-CoV-2 MSP testing rates and MSP percent positive by known age group, BC January 20, 2020 (week 4) – August 07, 2021 (week 31)



Data source: laboratory PLOVER data

Figure 7. COVID-19 case distribution by known age group (years) and episode date, BC March 15, 2020 (week 12) – August 07, 2021 (week 31) (N= 152,830)

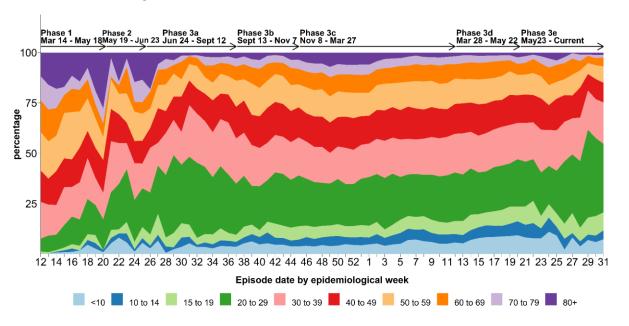
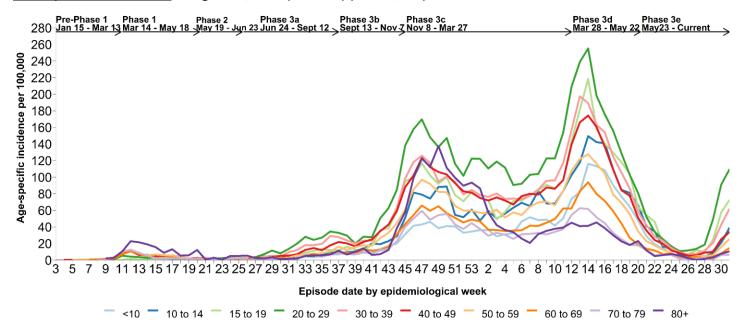


Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC January 15, 2020 (week 3) – August 07, 2021 (week 31) (N= 153,343)



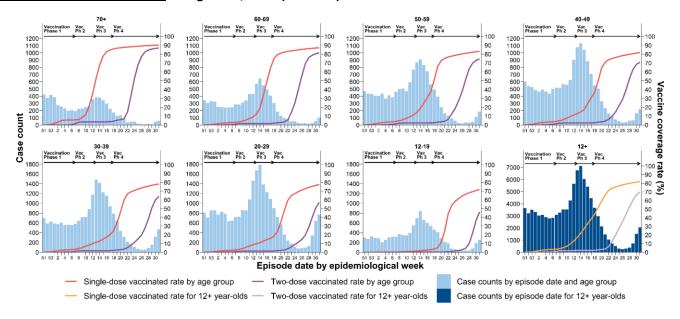
Vaccine coverage and weekly cases by age group

Vaccine roll-out in the community (i.e. individuals not residing in healthcare facilities, not healthcare workers and not clinically extremely vulnerable) was phased by age groups. The 70+ year-olds were eligible between weeks 10 and 14, the 40 to 69 year-olds started in weeks 15-19, the 20 to 39 year-olds started in weeks 19-20, and children 12-19 years of age started in week 20. As vaccination coverage increases, an impact on case counts is expected a few weeks later (Figure 9).

By week 31, the overall single-dose vaccination coverage in the eligible 12+ year-olds reached 82%, and 70% were fully vaccinated. The single-dose coverage for age groups 50+ years of age ranged from 83-90%, and two-dose coverage ranged from 74-87%, with 340 cases reported for those age groups combined.

For younger adults, single-dose coverage in the 20-49 year-olds was between 77-82%, and two-dose coverage ranged between 57-71%, with 1,453 cases reported for those age groups combined.

<u>Figure 9.</u> Weekly age-specific single-dose COVID-19 vaccine coverage and case counts by epidemiological week, BC December 13, 2020 (week 51) – August 07, 2021 (week 31)



Data sources: health authority case line list data and PHSA Provincial Immunization Registry

E. Severe outcome counts and epi-curve

The weekly number of hospital admissions has been increasing since week 28, with 16, 25, 36 and 63 hospital admissions in weeks 28-31. (Table 3, Figure 9). The pattern among weekly ICU admissions and deaths warrants further monitoring. ICU admissions have increased in week 31, from 9 admissions in week 30 to 20 admissions in week 31. Deaths have remained low and stable from weeks 26-31. Severe outcomes may increase with delay relative to cases and as data become more complete.

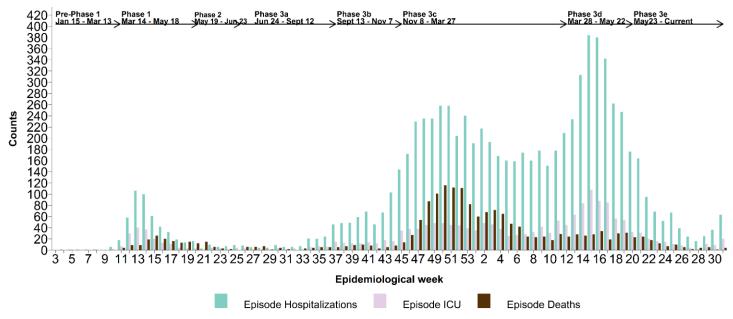
Cumulatively, there have been 17 confirmed cases of <u>Multi-system Inflammatory Syndrome in children and adolescents (MIS-C)</u> in BC from January 1, 2020 to week 31, with no new cases reported since the last report. The median age of these cases is 8 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC January 15, 2020 (week 3) – August 07, 2021 (week 31)

Severe outcomes by episode date	ŀ	lealth a	uthority	of reside	nce	Residing	I (b)3 (c/)
	FH	IH	VIHA	NH	VCH	outside of Canada	Total n/N ^a (%)
Week 31, hospitalizations	16	40	1	2	4	0	63
Cumulative hospitalizations ^b	4,517	821	258	671	1,934	14	8,215/153,366 (5)
Week 31, ICU admissions	1	15	1	2	1	0	20
Cumulative ICU admissions ^b	881	218	72	183	522	2	1,878/153,366 (1)
Week 31, deaths	0	3	0	1	0	0	4
Cumulative deaths	925	166	41	159	487	0	1,778/153,366 (1)

- a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).
- b. Data source: health authority case line lists only. Data may be incomplete and subject to change

Figure 10. COVID-19 hospital admissions and deaths by episode date, BC <u>January 15, 2020 (week 3)</u> – August 07, 2021 (week 31)



Data sources: health authority case line list data and PHSA Provincial Immunization Registry

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F. Age profile, severe outcomes

Table 4 displays the distribution of cases and severe outcomes. In week 31, median age of hospital admissions, ICU admissions and deaths was 52 years, 54 years and 67.5 years, respectively, based on health authority case line lists only (data not shown).

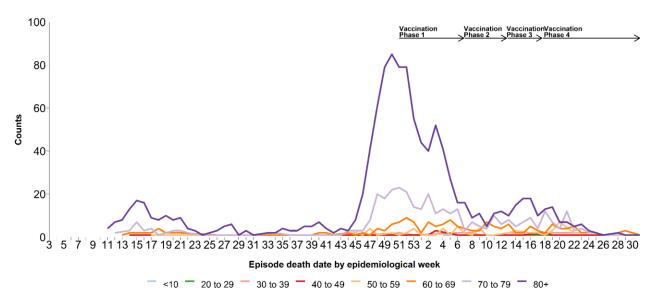
As shown in Figure 11, since week 23, death counts have been low and stable in elderly adults with an average of 2 deaths per week in each of the 80+ year-olds and the 60-69-year-olds, and 1 in each of the 70-79-year-olds and the 50-59-year-olds.

Table 4: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group January 15, 2020 (week 3) - August 07, 2021 (week 31) (N= 153,343)^a

Age group (years)	Cases n (%)	Hospitalizations n (%) ^b	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	8,809 (6)	97 (1)	8 (<1)	2 (<1)	470,017 (9)
10-19	16,619 (11)	71 (1)	15 (1)	0 (<1)	529,387 (10)
20-29	35,189 (23)	432 (5)	47 (3)	2 (<1)	699,476 (13)
30-39	28,356 (18)	833 (10)	159 (8)	16 (1)	750,054 (14)
40-49	22,328 (15)	918 (11)	198 (11)	27 (2)	648,377 (12)
50-59	18,816 (12)	1,273 (15)	361 (19)	73 (4)	711,930 (14)
60-69	12,115 (8)	1,547 (19)	469 (25)	176 (10)	686,889 (13)
70-79	6,203 (4)	1,539 (19)	445 (24)	377 (21)	454,855 (9)
80-89	3,382 (2)	1,123 (14)	165 (9)	625 (35)	193,351 (4)
90+	1,526 (1)	396 (5)	17 (1)	480 (27)	52,885 (1)
Total	153,343	8,229	1,884	1,778	5,197,221
Median age ^c	35	63	63	84	41

- Among those with available age information only.
- Data sources: health authority case line lists and a subset of PHSA Provincial COVID19 Monitoring Solution (PCMS) data for children <20 years of age. PCMS data were included as of June 8 2021. Due to this change in data source, additional admissions that occurred since the start of the pandemic are now included in age groups 0-9 and 10-19 years.
- Median ages calculated are based on health authority case line lists only.

Figure 11. Weekly age-specific COVID-19 deaths by episode date, BC January 15, 2020 (week 3) - August 07, 2021 (week 31) (N= 1,778)^a



G. Care facility outbreaks

As shown in <u>Table 5</u> and <u>Figure 12</u>, 341 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 31. After a period of no new outbreaks declared in weeks 26 and 27, 2-3 outbreaks have been reported each week in weeks 28 and 30. In week 31, 4 outbreaks were declared in long-term care settings.

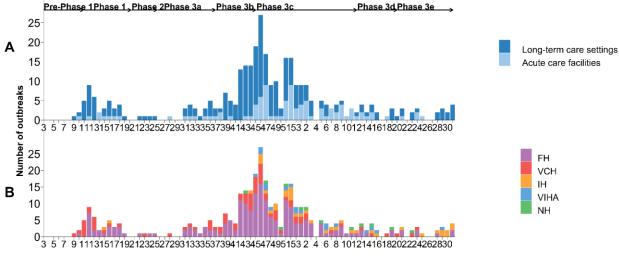
One out of the 4 deaths reported in week 31 was associated with an outbreak in a care facility setting.

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) – August 07, 2021 (week 31) (N=341)

Care facility outbreaks and cases		Cases				Deaths			
by episode date	Outbreaks	Residents	Staff/ other	Unknown	Total	Residents	Staff/ other	Unknown	Total
Week 31, Care Facility Outbreaks	4	13	25	0	38	1	0	0	1
Cumulative, Care Facility Outbreaks	341	3,624	2,316	6	5,946	1,036	0	0	1,036

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 12. 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) – August 07, 2021 (week 31) (N=341)



Episode date by epidemiological week

- 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. Additional resources

Variant of concern (VOC) findings are available weekly here: http://www.bccdc.ca/health-info/diseases-conditions/covid-19/data#variants.

For maps and geographical distribution of cases and vaccinations, visit the BCCDC COVID-19 Surveillance Dashboard here: https://public.tableau.com/app/profile/bccdc/viz/BCCDCCOVID-19SurveillanceDashboard/Introduction

For global comparisons and additional epidemiological summaries on cases, severity and testing, visit the BCCDC COVID-19 Epidemiology App here: https://bccdc.shinyapps.io/covid19 global epi app/