

British Columbia (BC) COVID-19 Situation Report
Week 40: October 03- October 09, 2021

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Test rates and % positive	4	Age-specific incidence decreased in all age groups from week 39 to 40, with the exception of the 80+ year-old incidence, which has been increasing since week 38, from 41 to 52 per 100K in week 40. After a steep increase, the incidence rates in children <10 and 10-14 years of age have declined between weeks 38 and 40, from 187 to 100 per 100K and 211 to 105 per 100K, respectively.
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Age profile, severe outcomes	9	The number of hospital and ICU admissions has been relatively stable between weeks 36 and 40, ranging from 263 to 282 hospital admissions, and 58 to 69 ICU admissions per week. Death counts continue to increase, but more slowly since week 35, from 27 to 42 deaths in week 40.
Care facility outbreaks	10	By case of earliest onset date, 2 new outbreaks were reported in healthcare settings in week 40.
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Table of [pandemic phases](#) defined by implementation or relaxation of population-level mitigation measures in BC:

PRE-PHASE 1 Jan 15 (wk 3) - Mar 13 (wk 11) 2020	PHASE 1 Mar 14 (wk 11) - May 18 (wk 21) 2020	PHASE 2 May 19 (wk 21) - Jun 23 (wk 26) 2020	PHASE 3 Jun 24 2020 (wk 26) - Current wk, 2021 (DATES START FROM BEGINNING OF COMPLETE EPIWEEK)
From earliest symptom onset date	Initial restrictions	Re-opening of services	PHASE 3A: Jun 24 (wk 26)-Sept 12 (wk 37) 2020: Broader re-opening 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 Dec 2020 to Feb 2021	VACCINATION PHASE 2 Feb to April 2021	VACCINATION PHASE 3 April to May 2021	VACCINATION PHASE 4 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:

- 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 October 18, 2021, laboratory data on October 18, 2021, PIR vaccine coverage date on October 18, 2021, and PCMS hospitalization data on October 18, 2021.

A. COVID-19 case counts and epidemic curves

Up to week 40, 2021, there have been 195,203 cases for a cumulative incidence of 3,750 per 100K (Table 1, Figure 1). The provincial incidence by episode date was 68 per 100K (3,514 cases) in week 40, lower than the peak in week 38. However, as shown by the higher incidence using surveillance date, incidence by episode date may increase as data become more complete in recent weeks.

As shown in Figure 2, incidence has decreased in every Health Authority (HA) from weeks 39 to 40. Decreases in incidence by episode date were noted in Northern Health (NH) from 292 to 204 per 100K and Interior Health (IH) from 124 to 74 per 100K. Smaller decreases were seen in Fraser Health (FH) from 87 to 76 per 100K, Vancouver Coastal Health (VCH) from 43 to 33 per 100K, and Island Health (VIHA) from 62 to 47 per 100K. These rates may increase as data become more complete. No Health Service Delivery Areas (HSDAs) showed any increase from weeks 39 to 40.

Table 1. Episode-based case tallies by health authority, BC, Jan 15, 2020 – Oct 09, 2021 (week 40) (N= 195,203)

Case tallies by episode date	Health Authority of Residence					Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 40, case counts	1,486	618	413	590	407	0	3,514
Cumulative case counts	100,557	29,075	9,630	13,359	42,286	296	195,203
Week 40, cases per 100K population	76	74	47	204	33	NA	68
Cumulative cases per 100K population	5,111	3,459	1,101	4,616	3,453	NA	3,750

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC, Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N= 195,203)

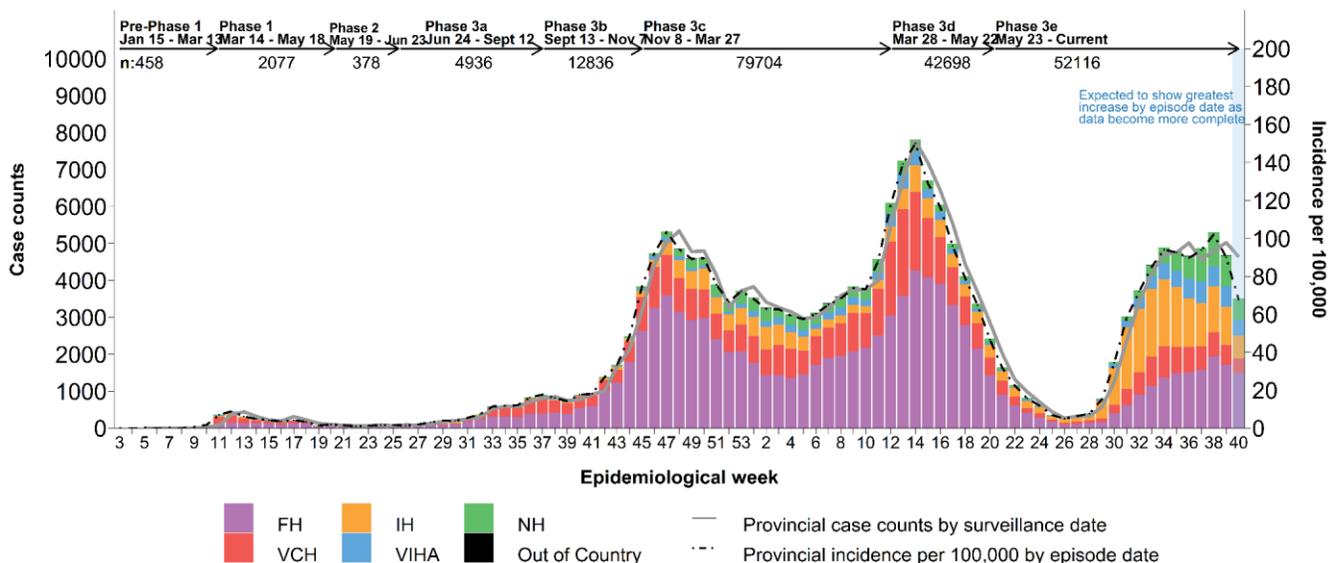
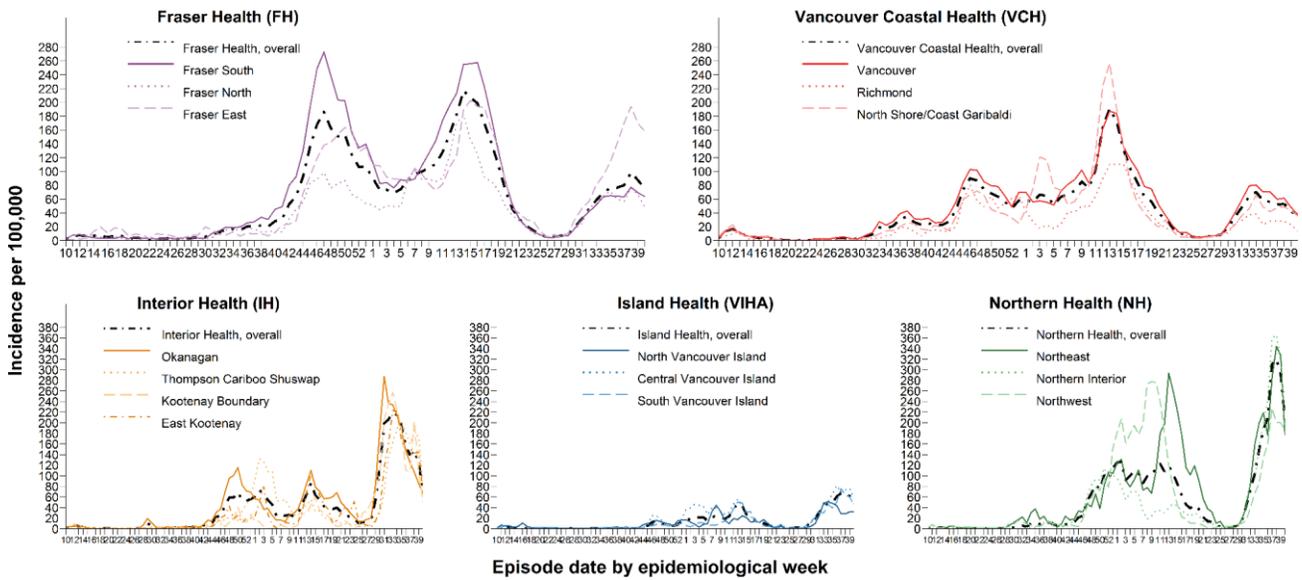


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC, Mar 01, 2020 (week 10) – Oct 09, 2021 (week 40) (N= 195,203)



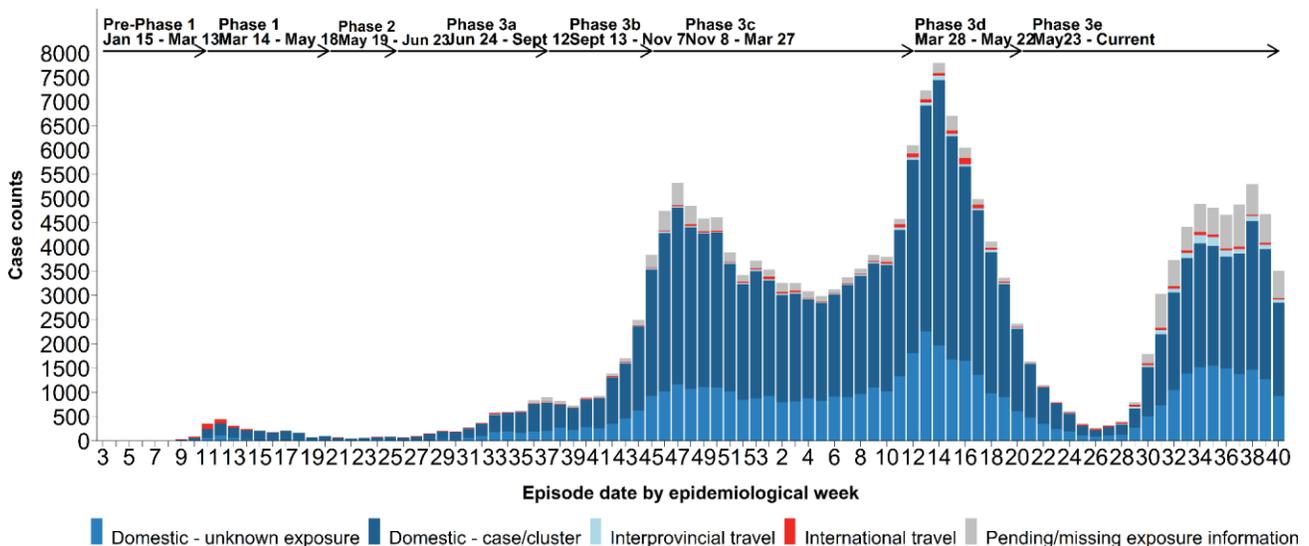
B. Likely sources of infection

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, Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N= 195,203)

Likely exposure (row %)	International travel	Interprovincial travel	Domestic – case/cluster	Domestic – unknown	Pending/missing
Week 40 , Exposures	31 (1)	56 (2)	1,932 (55)	925 (26)	570 (16)
Cumulative Exposures	2,403 (1)	2,263 (1)	125,291 (64)	52,432 (27)	12,814 (7)

Figure 3. Likely source of COVID-19 infection by episode date, BC, Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N= 195,203)



C. Test rates and percent positive

As shown by the darker-colored bars in **Figure 4**, testing of MSP-funded specimens are elevated but have slightly decreased since the peak in week 39, from ~80,500K to ~78,500k in week 40. The positivity of MSP-funded specimens has been decreasing since week 36, from 9.7% to 6.0% in week 40.

As shown in **Figure 5**, the per capita testing rates (Panel A) have stabilized or slightly declined since week 39 in all HAs. Testing rates in VCH stabilized at ~1,200 per 100K while all other HAs experienced a slight decrease. Testing rates in FHA decreased slightly but remained highest at 1,739 per 100K followed by NHA at 1,616 per 100K. Percent positivity (Panel B) for MSP-only specimens remains highest in NHA at 18.4%, a slight increase from week 38 to 39. Percent positivity for FHA has been stable from weeks 39 to 40 (~ 5.3%) and has been declining in VCH since week 36 from 7.2% to 3.5% in week 40.

Figure 4. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC March 15, 2020 (week 12) – October 09, 2021 (week 40)

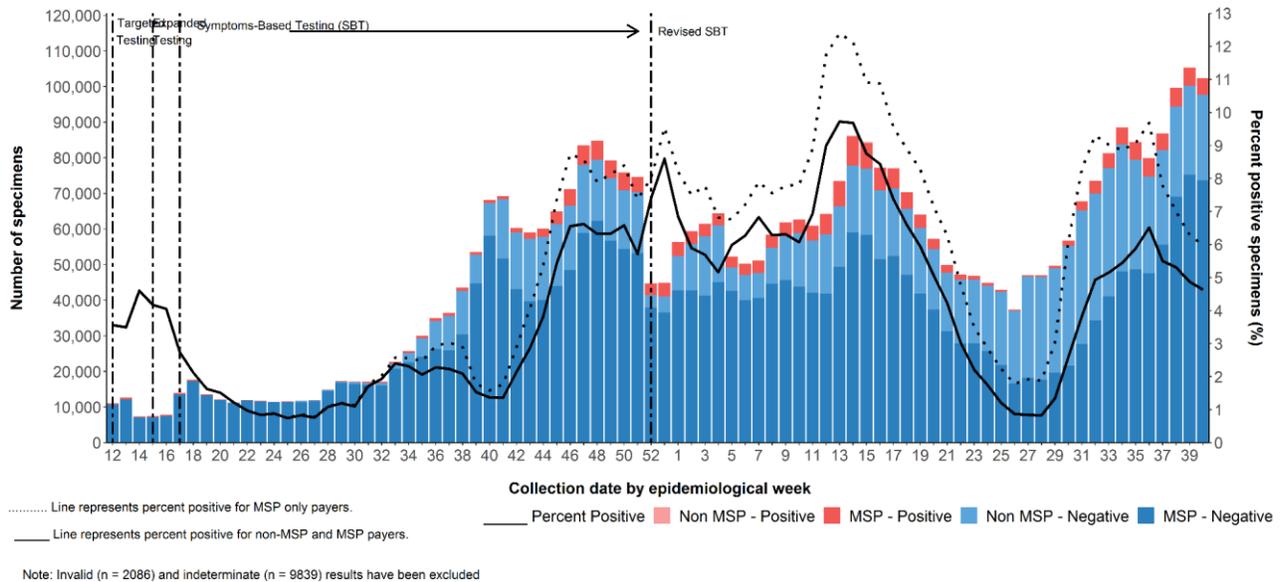
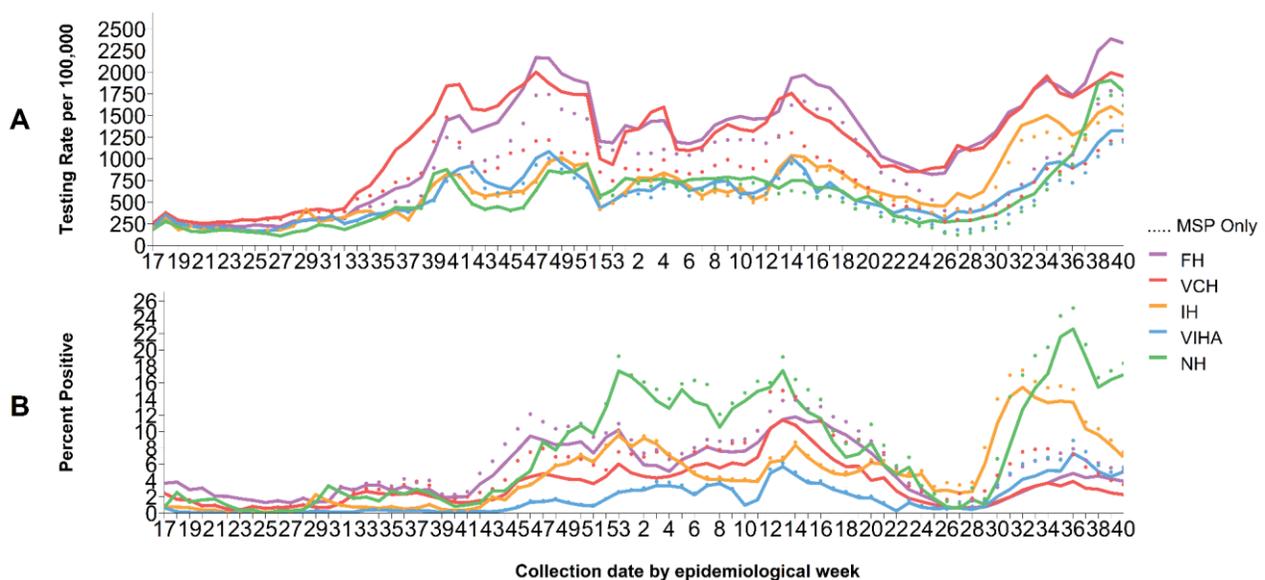


Figure 5. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC March 15, 2020 (week 12) – October 09, 2021 (week 40)



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 [Figure 6](#), the testing rates have stabilized or decreased in all age groups in week 40. After reaching the highest weekly testing rate of any age group since the start of the pandemic, testing rates in the 5-9 year olds decreased from 3,933 per 100K in week 39 to 2,975 per 100K in week 40, a smaller decrease in 10-14 year olds, from 2,902 per 100K to 2,595 per 100K.

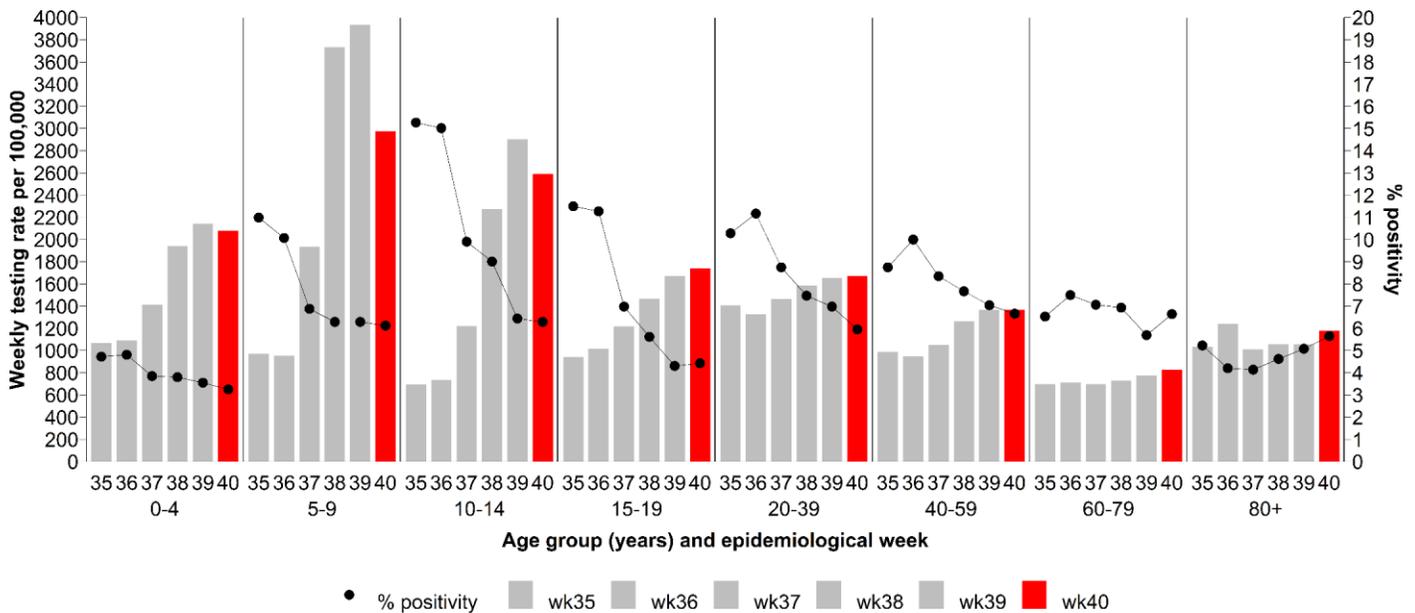
As shown by the black dots in [Figure 6](#), the percent positivity has decreased or stabilized in all age groups since week 39, except in the 80+ year age group, which increased slightly since week 37. The percent positivity in week 40 is highest in the 40-59 and 60-79 year age groups at ~6.5%, followed by the 10-14 year age group, at 6.3%.

Case distribution and weekly incidence by age group

As shown in [Figure 7](#), the contribution of <10 year olds decreased by 3.1% and of 10-14 years olds decreased by 2.5% from week 38 to week 40. The contribution of those aged 30-39 years decreased by 1.6%. The 60-69 year-olds and 80+ year-olds both increased by ~1.7%. The remaining age groups' contributions remained relatively stable.

As shown in [Figure 8](#), age-specific incidences decreased in all age groups from week 39 to 40, with the exception of the 80+ year-old incidence which have has been increasing since week 38, from 41 to 52 per 100K in week 40. After a steep increase, the incidence rates in children <10 and 10-14 years of age have declined between weeks 38 and 40, from 187 per 100K to 100 per 100K and 211 per 100K to 105 per 100K, respectively. Age-specific incidences may increase as data become more complete.

Figure 6. Average weekly SARS-CoV-2 MSP testing rates and MSP percent positive by known age group, BC Jan 20, 2020 (week 4) – Oct 09, 2021 (week 40)



Data source: laboratory PLOVER data

Figure 7. COVID-19 case distribution by known age group (years) and episode date, BC Mar 15, 2020 (week 12) – Oct 09, 2021 (week 40) (N= 194,660)

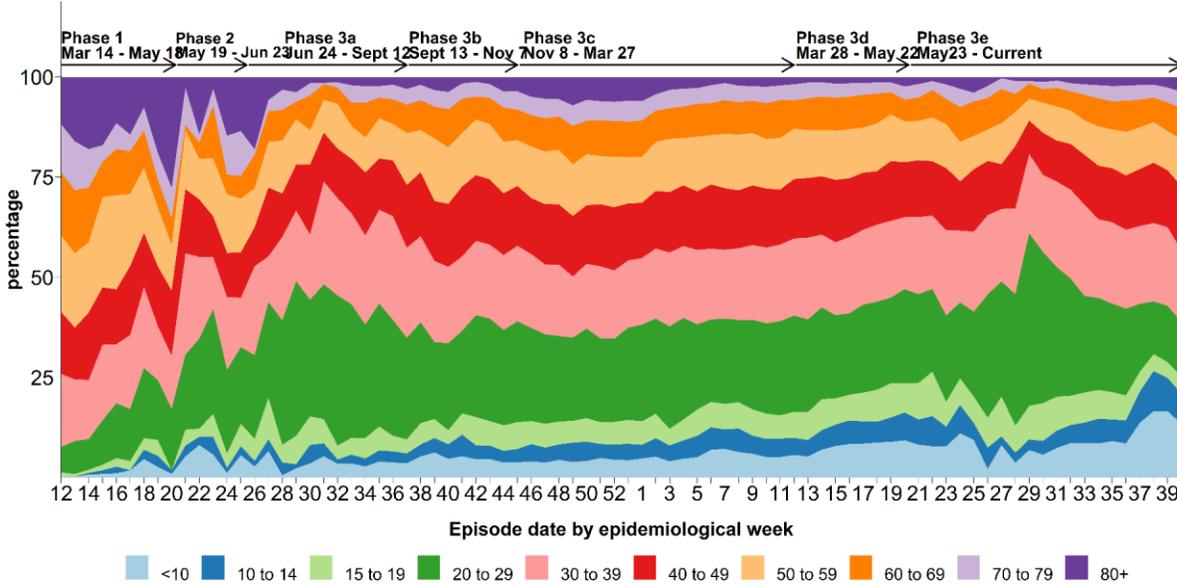
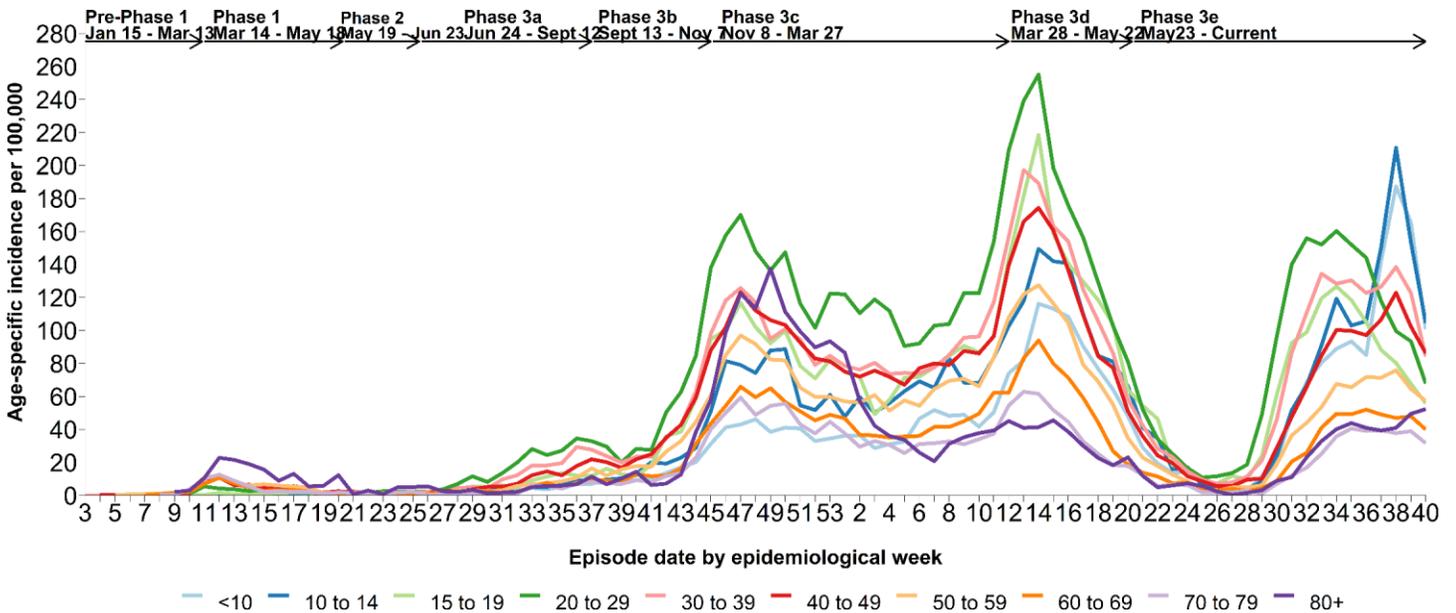


Figure 8. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N= 195,173)



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](#)).

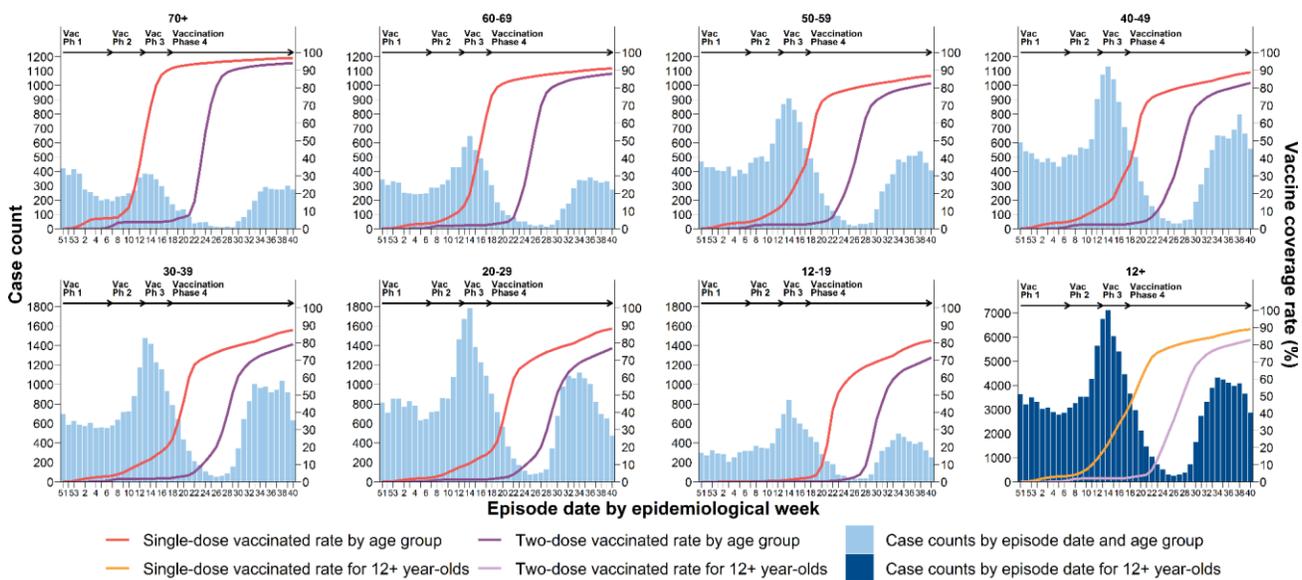
By week 40, 89% of eligible 12+ year-olds had received a single dose of vaccine and 83% were fully vaccinated.

The single-dose coverage for age groups 50+ years ranged from 87-97%, and two-dose coverage ranged from 82-94%, with 956 cases reported for those age groups combined.

In week 40, single-dose coverage in the 20-49 year-olds was between 87-89% and two-dose coverage ranged between 76-83%, with 1,664 cases reported for those age groups combined.

Single-dose coverage in the 12-19 year-olds was 82% and 71% were fully vaccinated, with 252 cases reported for that age group in week 40.

Figure 9. Weekly age-specific single-dose COVID-19 vaccine coverage and case counts by epidemiological week, BC December 13, 2020 (week 51) – October 09, 2021 (week 40)



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

E. Severe outcome counts and epi-curve

Between weeks 36 and 40, the weekly number of hospital and ICU admissions have been relatively stable ranging between 263 to 282 hospital admissions, and 58 to 69 ICU admissions per week (Table 3, Figure 10). Death counts continue to increase, but more slowly since week 35, from 27 to 42 deaths in week 40.

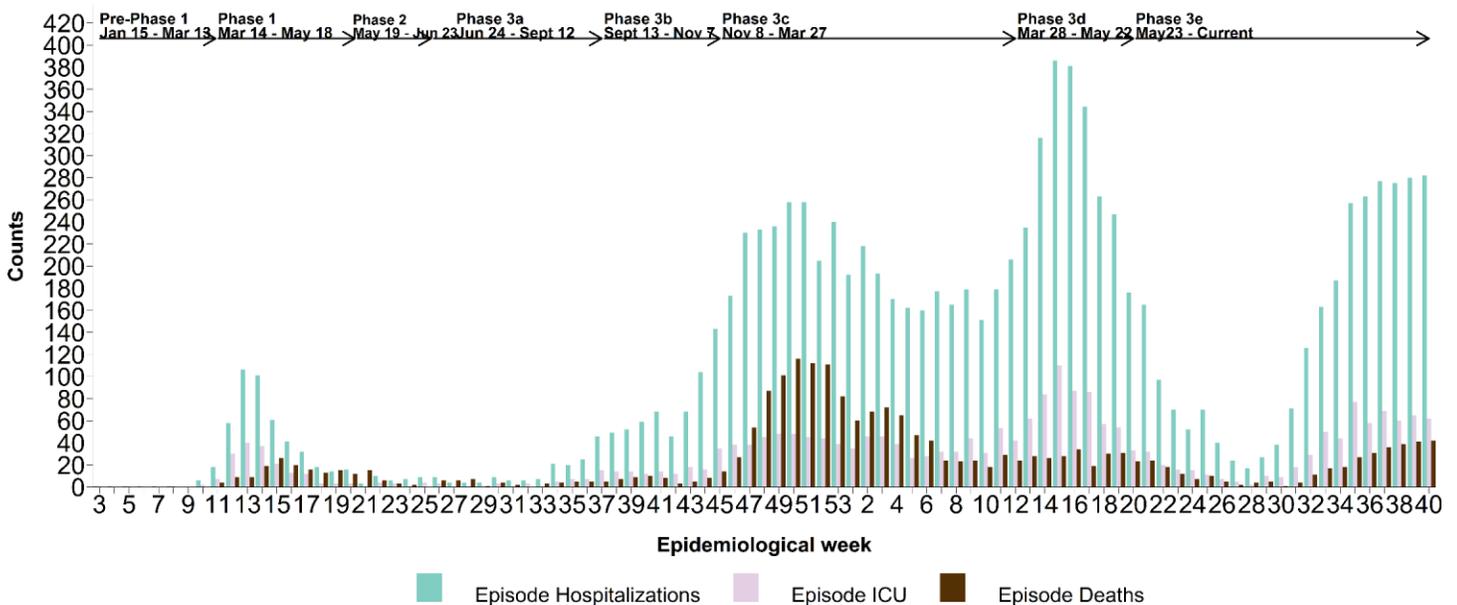
Cumulatively, there have been 17 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC from January 1, 2020 to week 40 in 2021, with no new cases reported since the last report. The median age of these cases is 8 (range 1-15) years.

Table 3. COVID-19 severe outcomes by episode date, health authority of residence, BC, Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40)

Severe outcomes by episode date	Health authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 40, hospitalizations	87	56	34	71	34	0	282
Cumulative hospitalizations^b	5,181	1,465	452	1,040	2,224	14	10,376/195,203 (5)
Week 40, ICU admissions	21	8	13	13	7	0	62
Cumulative ICU admissions^b	1,055	362	133	256	592	2	2,400/195,203 (1)
Week 40, deaths	18	5	7	8	4	0	42
Cumulative deaths	1,002	246	77	185	530	0	2,040/195,203 (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, Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40)



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

F. Age profile, severe outcomes

Table 4 displays the distribution of cases and severe outcomes. In week 39, median age of hospital admissions, ICU admissions and deaths was 57 years, 62 years and 76 years, respectively, based on health authority case line lists only (data not shown).

As shown in **Figure 11**, death counts in the 80+ year age group have been stable since week 35, ranging between 14 to 20 deaths per week. In the 70-79 year age group, death counts have stabilized at 8-10 deaths since week 37. Death counts in the 60-69 year olds have fluctuated since week 35, from 2 to 9 deaths per week.

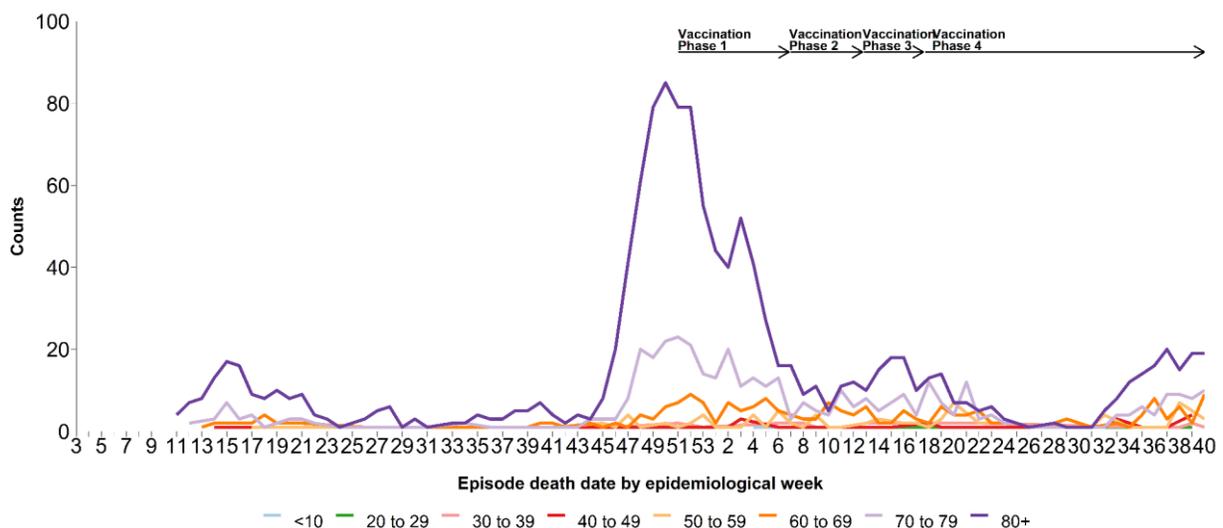
Since week 37, there was a weekly average of 1 death in age groups <50 years of age, 4 in age groups 50-79 years of age, 5 deaths in the 60-69 year old age group, 9 deaths in the 70-79 year-olds, and 17 deaths in the 80+ year-olds. The number of deaths may increase over time as data becomes more complete.

Table 4: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N= 195,173)^a

Age group (years)	Cases n (%)	Hospitalizations n (%) ^b	ICU n (%)	Deaths n (%)	General BC population n (%)
<10	13,631 (7)	139 (1)	13 (<1)	2 (<1)	470,017 (9)
10-19	21,895 (11)	103 (1)	20 (1)	0 (<1)	529,387 (10)
20-29	43,442 (22)	610 (6)	75 (3)	5 (<1)	699,476 (13)
30-39	36,806 (19)	1,121 (11)	212 (9)	23 (1)	750,054 (14)
40-49	28,060 (14)	1,204 (12)	272 (11)	38 (2)	648,377 (12)
50-59	22,984 (12)	1,655 (16)	485 (20)	96 (5)	711,930 (14)
60-69	14,925 (8)	1,927 (19)	592 (25)	211 (10)	686,889 (13)
70-79	7,622 (4)	1,864 (18)	525 (22)	432 (21)	454,855 (9)
80-89	4,023 (2)	1,329 (13)	196 (8)	699 (34)	193,351 (4)
90+	1,785 (1)	447 (4)	18 (1)	534 (26)	52,885 (1)
Total	195,173	10,399	2,408	2,040	5,197,221
Median age^c	34	61	62	83	41

- a. Among those with available age information only.
- b. 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.
- c. Median ages calculated are based on health authority case line lists only.

Figure 11. Weekly age-specific COVID-19 deaths by episode date, BC, Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N= 2,040)^a



Care facility outbreaks

As shown in [Table 5](#) and [Figure 12](#), 383 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 40. In week 40, two new outbreaks were declared based on earliest case onset date. Since week 35, 16 (76%) outbreaks were reported in long-term care settings and 10 (48%) were declared by FH.

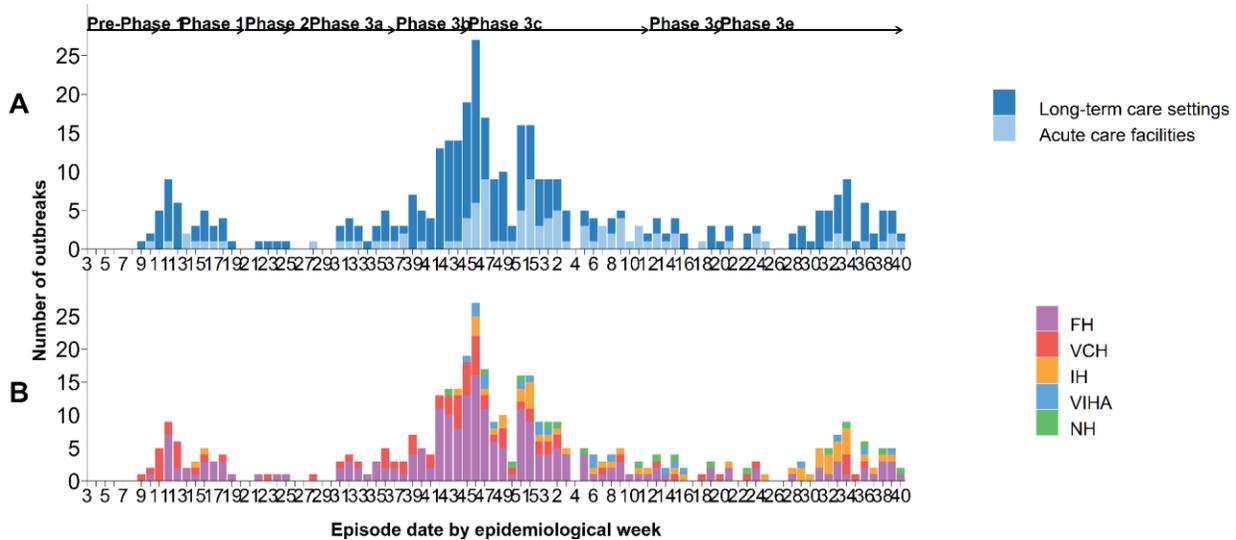
Thirteen (31%) out of the 42 deaths reported in week 40 were associated with an outbreak in a care facility setting.

Table 5. COVID-19 care facility^{a,b} outbreaks by earliest case onset^{a,c}, associated cases and deaths by episode date, BC,^d Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N=383)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/other	Unknown	Total	Residents	Staff/other	Unknown	Total
Week 40, Care Facility Outbreaks	2	87	24	1	112	13	0	0	13
Cumulative, Care Facility Outbreaks	383	4,143	2,525	7	6,675	1,126	0	0	1,126

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 Jan 15, 2020 (week 3) – Oct 09, 2021 (week 40) (N=383)



- 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.

G. 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/