

British Columbia (BC) COVID-19 Situation Report
Week 41: October 10- October 16, 2021

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Decrease in overall provincial COVID-19 incidence with higher rates of infection and severe outcomes in unvaccinated individuals

The provincial incidence by episode date was 66 per 100K, with 3,448 cases in week 41.

Incidence by episode date has decreased in all regions since their respective wave 4 peaks and up to week 41:

- Since week 38, Fraser Health (from 98 to 74 per 100K).
- Since week 34, Vancouver Coastal (from 70 to 35 per 100K).
- Since week 33, Interior Health (from 220 to 70 per 100K).
- Since week 37, Island Health (from 67 to 40 per 100K).
- Since week 37, Northern Health (from 312 to 218 per 100K).

Age-specific incidence decreased in all age groups from week 40 to 41. Incidence rates in children <10 and 10-14 years of age have declined between weeks 38 and 41, from 188 to 96 per 100K and 213 to 83 per 100K, respectively. Age-specific incidence in unvaccinated people has decreased since about week 38. Among those who are fully vaccinated, the increase in incidence in wave 4 was minimal and age-specific rates have been stable since week 37.

By week 41, the single-dose vaccination coverage in the eligible 12+ year-olds reached 89% and 84% were fully vaccinated.

Testing of MSP-funded specimens remains high but has slightly decreased since the peak in week 39, from ~80,500K to ~66,900k in week 41.

The number of hospital admissions increased slightly between weeks 40 and 41, from 257 to 297. There has been a weekly average of 61 ICU admissions in weeks 35 to 41. Death counts increased slowly from 31 in week 36 to 46 deaths in week 41. The rate of hospital and ICU admissions was higher in unvaccinated as compared to fully vaccinated people in the last year.

By case of earliest onset date, 6 new outbreaks were reported in healthcare settings in week 41.

There have been 2 new confirmed cases of Multi-system Inflammatory Syndrome in children and adolescents (MIS-C) since the last report, for a total of 19 confirmed cases in BC.

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 25, 2021, laboratory data on October 22, 2021, PIR vaccine coverage date on October 22, 2021, and PCMS hospitalization data on October 25, 2021.
- Some figures are displayed by vaccination status. “Unvaccinated” refers to individuals who did not receive a vaccine or <3 weeks have passed since the first dose was administered. “Vaccinated” refers to fully vaccinated individuals with >2 weeks after receipt of 2nd dose.

A. COVID-19 case counts and epidemic curves

Up to week 41, 2021, there have been 199,302 cases for a cumulative incidence of 3,829 per 100K (Table 1, Figure 1). The provincial incidence by episode date was 66 per 100K (3,448 cases) in week 41, which decreased from the peak of 102 per 100K recorded in week 38. 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) since their peak in Wave 4. Interior Health (IH) had the earliest peak in wave 4, with an incidence rate of 220 per 100K in week 33, which decreased to 70 per 100K in week 41. Both Northern Health (NH) and Island Health (VIHA) reached their peaks in week 37, decreasing from 312 per 100K to 218 per 100K in week 41, and from 67 per 100K to 40 per 100K in week 41, respectively. Incidence in Vancouver Coastal Health (VCH) decreased from 70 per 100K in week 34 to 35 per 100K in week 41. Fraser Health (FH) had the most recent incidence peak at 98 per 100K in week 38, which decreased to 74 per 100K in week 41. These rates may increase as data become more complete.

Table 1. Episode-based case tallies by health authority, BC, Jan 15, 2020 (week 3) – Oct 16, 2021 (week 41) (N= 199,302)

| Case tallies by episode date | Health Authority of Residence | | | | | Outside Canada | Total |
|---|-------------------------------|---------------|---------------|---------------|---------------|----------------|----------------|
| | FH | IH | VIHA | NH | VCH | | |
| Week 41, case counts | 1,455 | 591 | 347 | 630 | 425 | 0 | 3,448 |
| Cumulative case counts | 102,187 | 29,773 | 10,049 | 14,218 | 42,778 | 297 | 199,302 |
| Week 41, cases per 100K population | 74 | 70 | 40 | 218 | 35 | NA | 66 |
| Cumulative cases per 100K population | 5,193 | 3,542 | 1,148 | 4,913 | 3,493 | NA | 3,829 |

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and health authority (HA), BC Sept 13, 2020 (week 38) – Oct 16, 2021 (week 41) (N= 191,453)

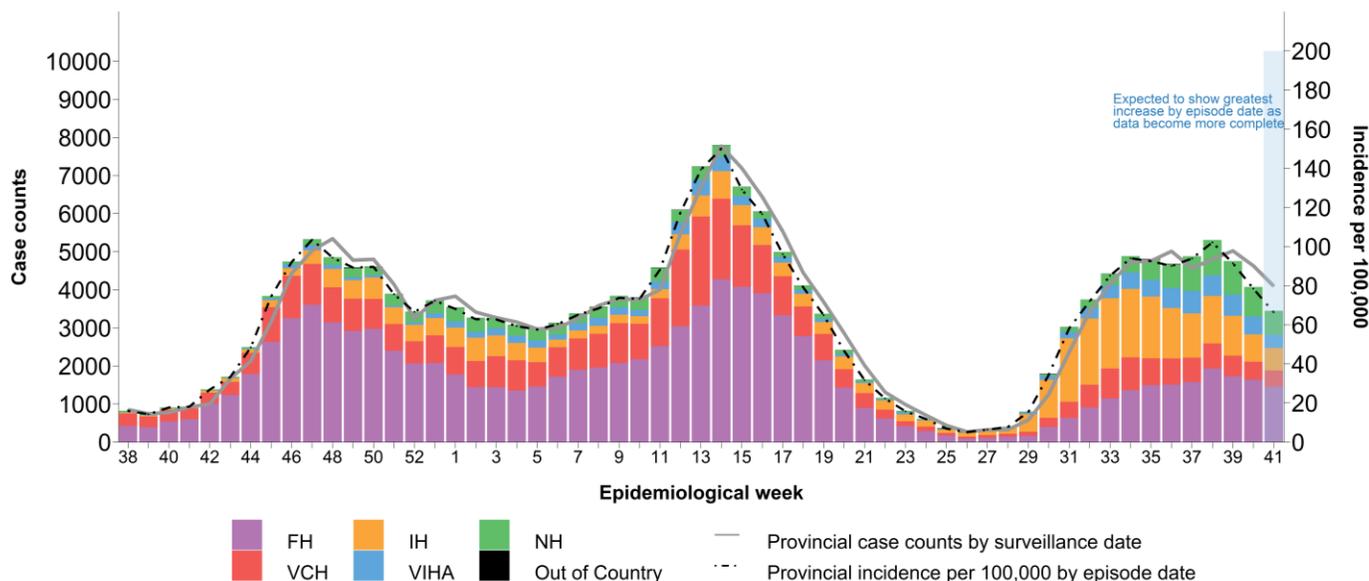
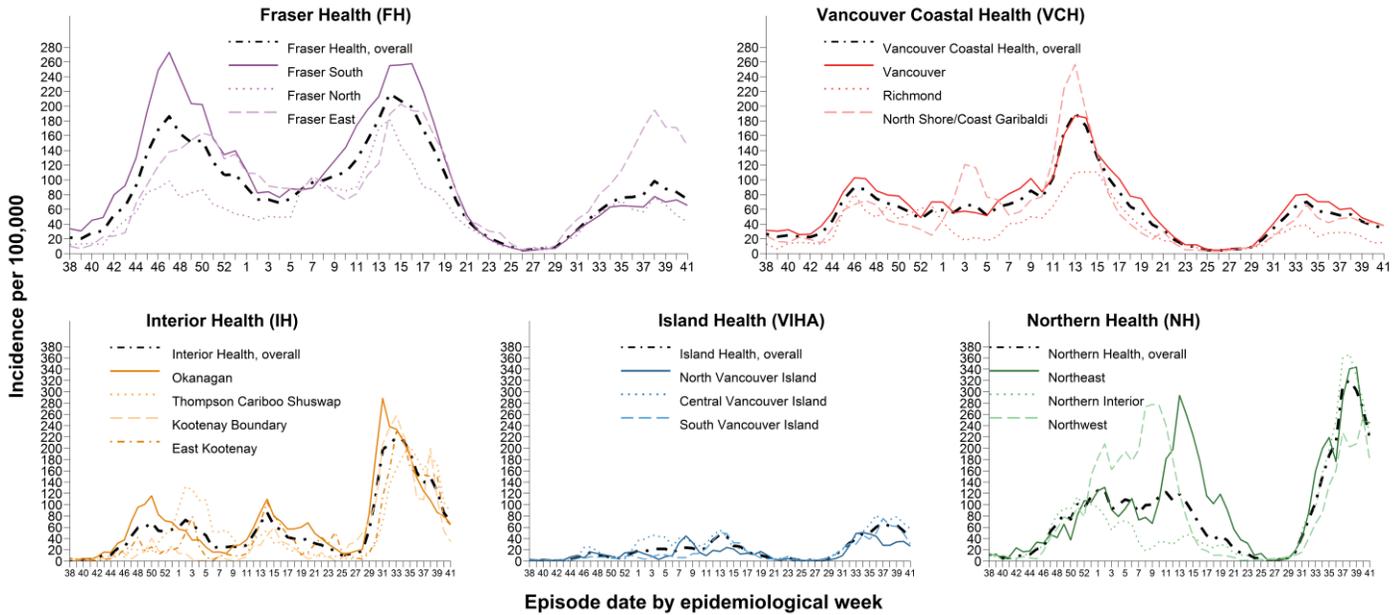


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC Sept 13, 2020 (week 38) – Oct 16, 2021 (week 41) (N= 191,453)



B. Test rates and percent positive

As shown by the darker-colored bars in [Figure 3](#), testing of MSP-funded specimens are elevated but have continued to decrease since the peak in week 39, from ~80,500k to ~66,900k in week 41. The positivity of MSP-funded specimens has been decreasing since week 36, from 9.7% to 6.0% in week 41.

As shown in [Figure 4](#), the per capita testing rates (Panel A) have declined in week 41 in all HAs. MSP testing rates in FHA remained highest at 1,519 per 100K followed by NHA at 1,225 per 100K. Percent positivity (Panel B) for MSP-only specimens remains highest in NHA at 20.9%, increasing since week 38. Percent positivity for FHA increased slightly from weeks 40 to 41, from 5.2% to 5.9%, and in VCH from 3.5% in week 40 to 4.0% in week 41.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC Mar 15, 2020 (week 12) – Oct 16, 2021 (week 41)

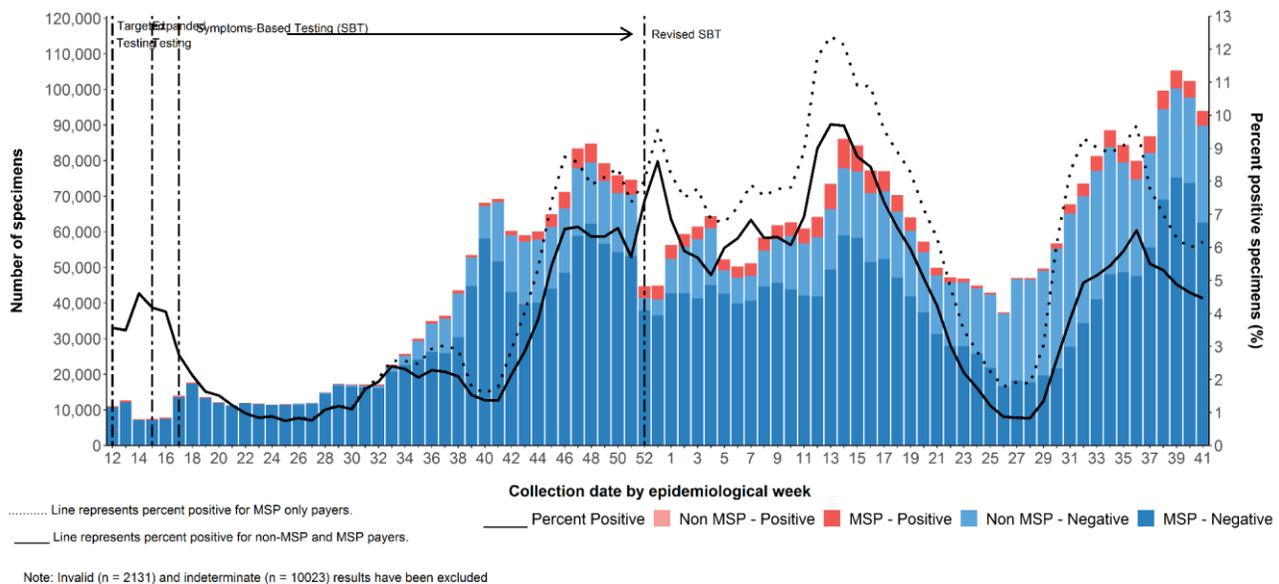
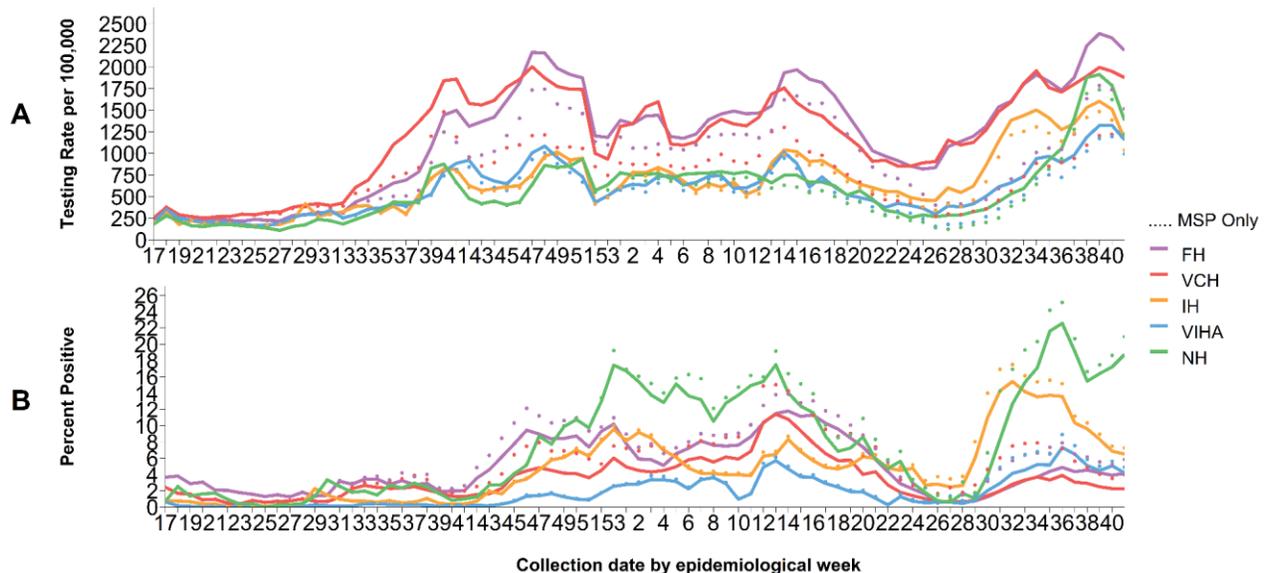


Figure 4. Testing rates and percent SARS-CoV-2 positive by health authority and collection week, BC Mar 15, 2020 (week 12) – Oct 16, 2021 (week 41)



Data source: laboratory PLOVER data

C. Age profile – Testing and cases

Testing rates and percent positivity by age group

As shown by the bars in [Figure 5](#), the testing rates have stabilized or decreased in all age groups in week 41. 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 2,153 per 100K in week 41. A smaller decrease was observed in 10-14 year olds, from 2,902 per 100K to 1,863 per 100K.

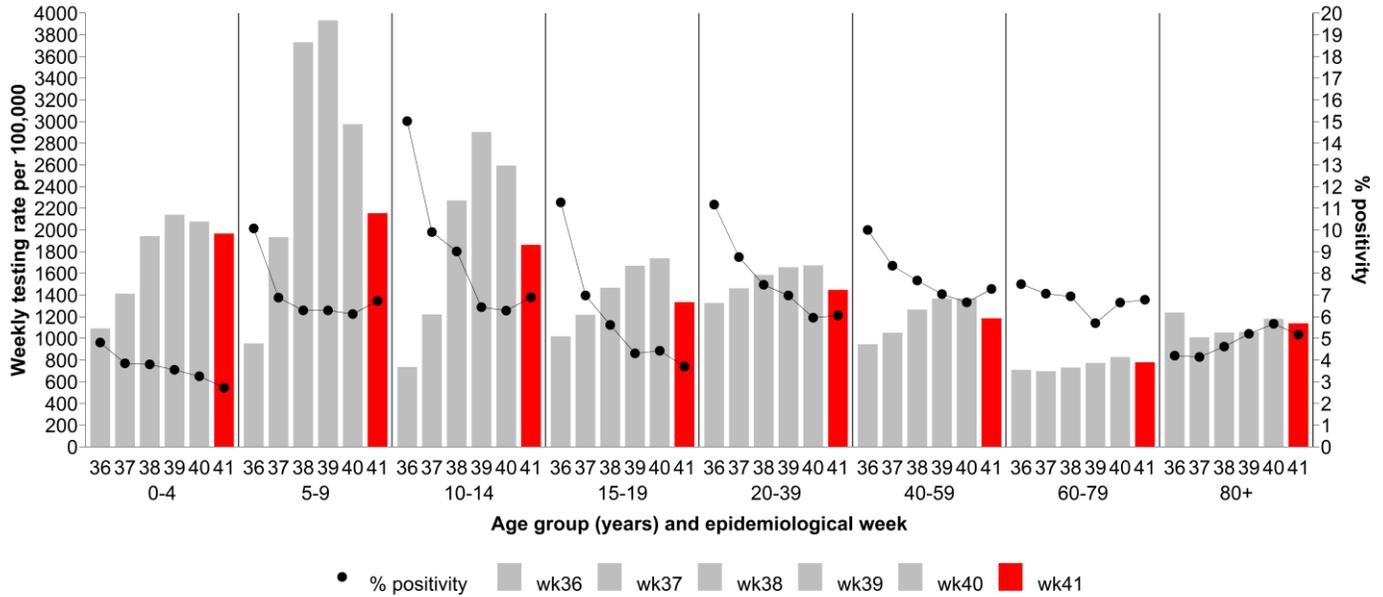
As shown by the black dots in [Figure 5](#), the percent positivity has decreased or stabilized in all age groups in the last few weeks. The percent positivity in week 41 is highest in the 40-59 age group at 7.3%, followed by the 10-14 year age group, at 6.9%.

Case distribution and weekly incidence by age group

As shown in [Figure 6](#), age-specific incidences decreased in all age groups from week 40 to 41. After a steep increase, the incidence rates in children <10 and 10-14 years of age have continued to decline between weeks 38 and 41, from 188 per 100K to 96 per 100K and 213 per 100K to 83 per 100K, respectively. Age-specific incidences may increase as data become more complete.

As seen in [Figure 7](#), incidence is much higher in unvaccinated than in fully vaccinated people in all age groups across time. The highest incidence rate among the unvaccinated in weeks 33 to 41 has been in people aged 80+ years, with an incidence of 698 per 100K in week 41. This is 17 times higher than in fully vaccinated 80+ year-olds. All other age-specific incidences in unvaccinated people decreased since about week 38. Among those who are fully vaccinated, the increase in incidence in wave 4 was minimal and age-specific rates have been stable since week 37. The highest incidence rate among fully vaccinated people was among those aged 40-49 years, at 48.5 per 100,000 in week 41, which is 7 times lower than in unvaccinated people of the same age.

Figure 5. Average weekly SARS-CoV-2 MSP testing rates and MSP percent positive by known age group, BC Sep 11, 2021 (week 36) – Oct 16, 2021 (week 41)



Data source: laboratory PLOVER data

Figure 6. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC Sep 13, 2020 (week 38) – Oct 16, 2021 (week 41) (N= 191,441)

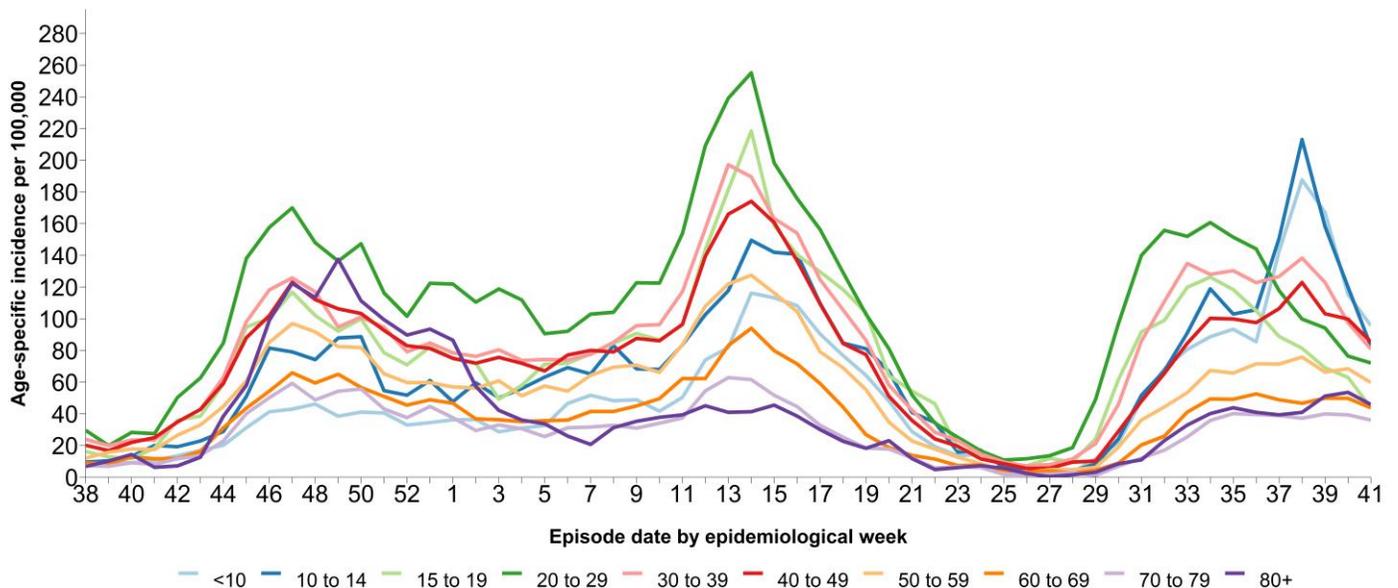
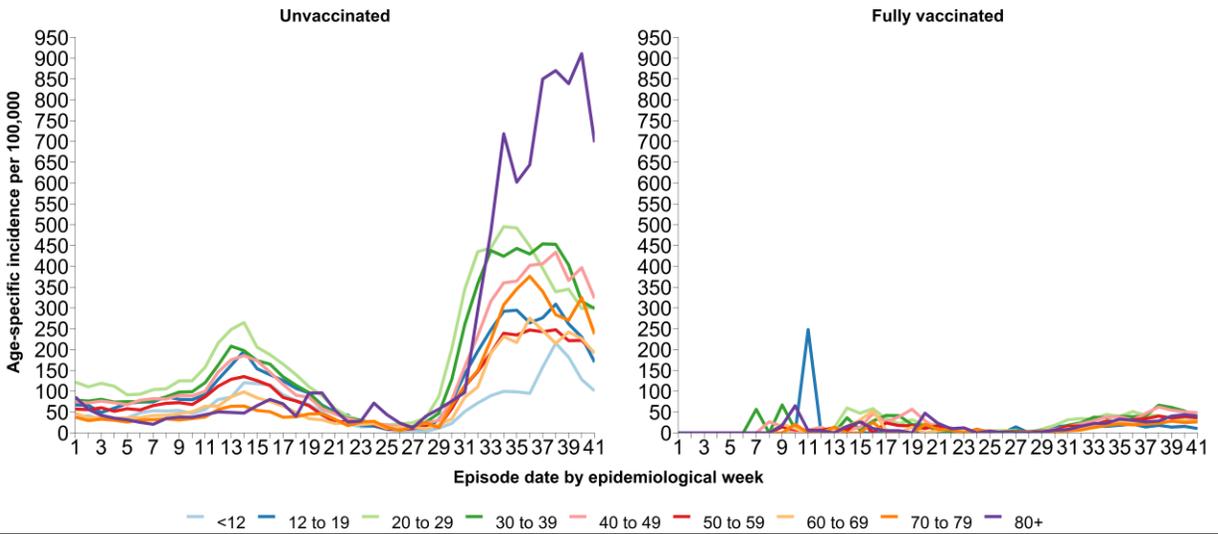


Figure 7. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC Jan 3, 2021 (week 1) – Oct 16, 2021 (week 41) (N= 191,441)^a



^a The peak in week 11 among 12 to 19-year-olds was caused by one case among a small number of vaccinated individuals

Vaccine coverage and weekly cases by age group

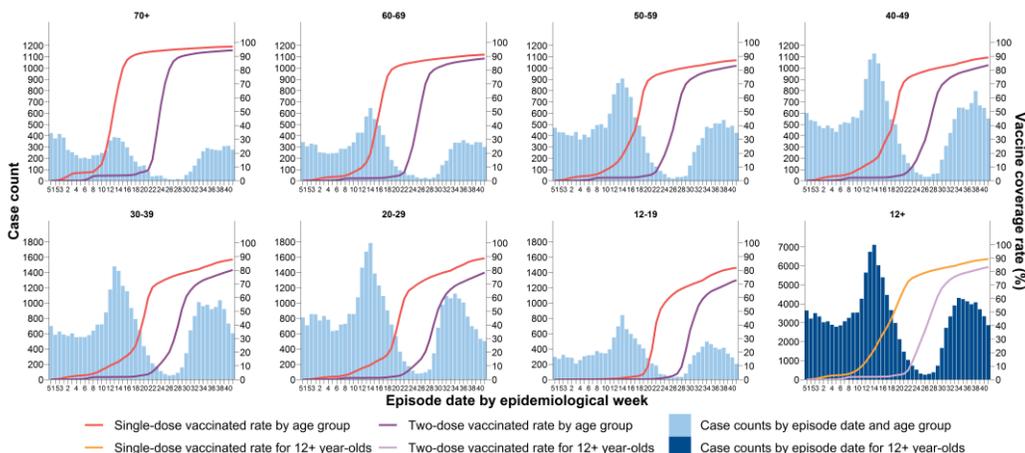
Vaccine roll-out in the community (i.e. individuals not residing in healthcare facilities, not healthcare workers and not clinically extremely vulnerable) was phased by age groups. The 70+ year-olds were eligible between weeks 10 and 14, the 40 to 69 year-olds started in weeks 15-19, the 20 to 39 year-olds 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 8](#)).

By week 41, 89% of eligible 12+ year-olds had received a single dose of vaccine and 84% were fully vaccinated.

The single-dose coverage for age groups 50+ years ranged from 87-97%, and two-dose coverage ranged from 83-94%, with 1,004 cases reported for those age groups combined.

In week 41, single-dose coverage in the 20-49 year-olds was between 88-89% and two-dose coverage ranged between 78-83%, with 1,663 cases reported for those age groups combined. Single-dose coverage in the 12-19 year-olds was 82% and 73% were fully vaccinated, with 206 cases reported for that age group in week 41.

Figure 8. Weekly age-specific single-dose COVID-19 vaccine coverage and case counts by epidemiological week, BC Dec 13, 2020 (week 51) – Oct 16, 2021 (week 41)



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

D. Severe outcome counts and epi-curve

The number of hospital admissions increased slightly from 257 in week 35 to 297 in week 41. ICU admissions have been relatively stable since week 36, with an average of 61 ICU admissions per week (Table 2, Figure 9). Death counts have been slowly increasing since week 36, from 31 deaths in week 36 to 46 deaths in both week 40 and week 41.

As shown in Figure 10, the rate of hospital and ICU admission was higher in unvaccinated as compared to fully vaccinated people throughout the last year. In week 41, the hospitalization admission rate was 19 per 100K among those who are unvaccinated as compared to 2 per 100K among those who are fully vaccinated. The ICU admission rate among unvaccinated people was 4 per 100K, as compared to 0 per 100K among the fully vaccinated.

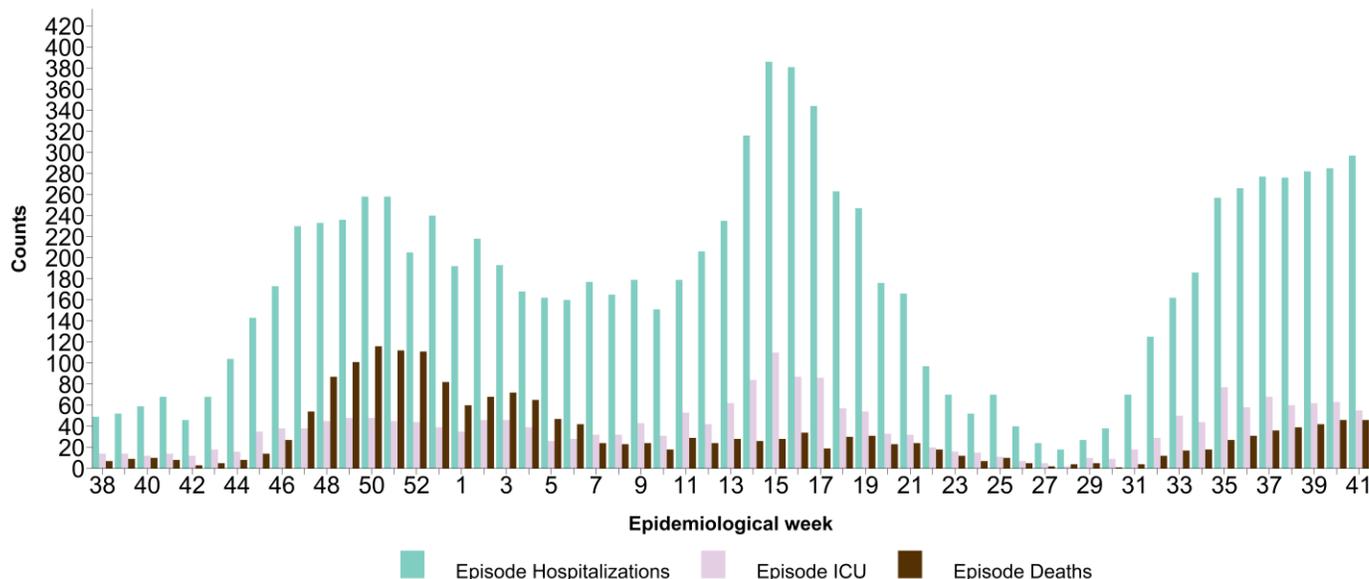
Cumulatively, there have been 19 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020. There have been 2 new confirmed cases of MIS-C since the last report. The median age of all cases is 9 (range 1-15) years.

**Table 2. COVID-19 severe outcomes by episode date, health authority of residence, BC
 Jan 15, 2020 (week 3) – Oct 16, 2021 (week 41)**

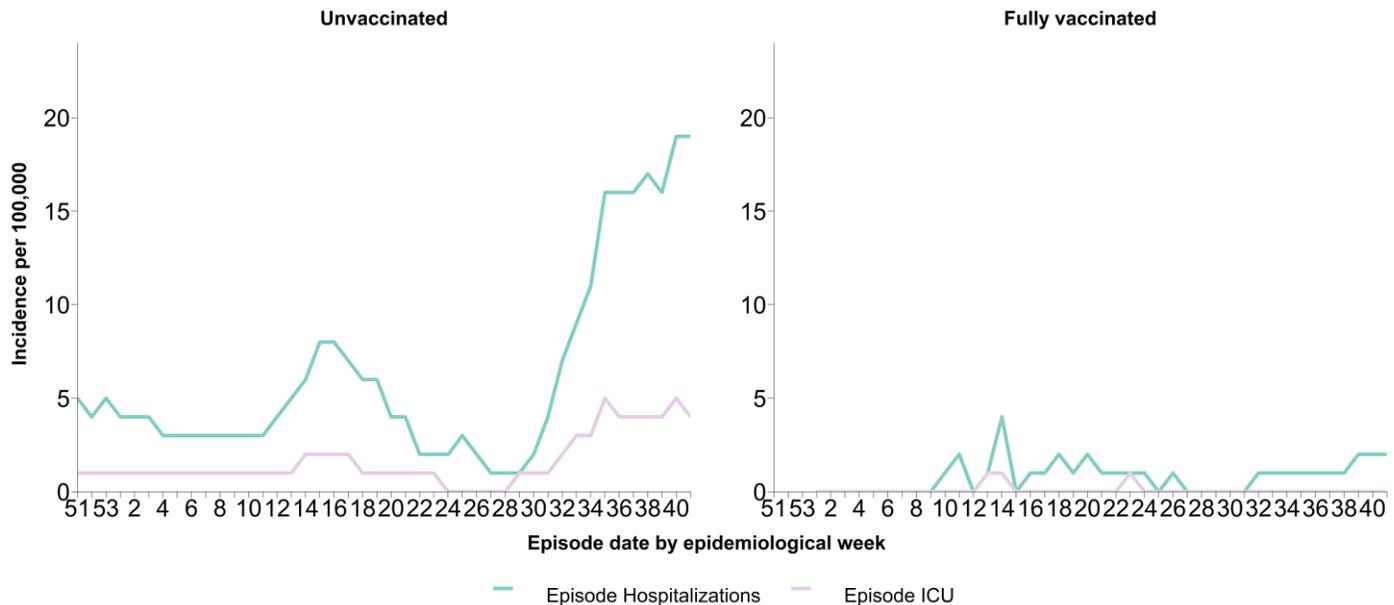
| Severe outcomes by episode date | Health authority of residence | | | | | Residing outside of Canada | Total n/N ^a (%) |
|--|-------------------------------|--------------|------------|--------------|--------------|----------------------------|----------------------------|
| | FH | IH | VIHA | NH | VCH | | |
| Week 41, hospitalizations | 128 | 46 | 30 | 57 | 36 | 0 | 297/10,677 (3) |
| Cumulative hospitalizations^b | 5,309 | 1,511 | 482 | 1,100 | 2,261 | 14 | 10,677/199,302 (5) |
| Week 41, ICU admissions | 22 | 8 | 8 | 9 | 8 | 0 | 55/2451 (2) |
| Cumulative ICU admissions^b | 1,074 | 372 | 140 | 263 | 600 | 2 | 2,451/199,302 (1) |
| Week 41, deaths | 17 | 11 | 6 | 9 | 3 | 0 | 46/2092 (2) |
| Cumulative deaths | 1,020 | 260 | 83 | 194 | 535 | 0 | 2,092/199,302 (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 9. COVID-19 hospital admissions and deaths by episode date, BC
 Dec 13, 2020 (week 51) – Oct 16, 2021 (week 41)**



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

**Figure 10. COVID-19 hospital admissions and deaths by episode date, BC
Dec 13, 2020 (week 51) – Oct 02, 2021 (week 39)**

E. Age profile, severe outcomes

Table 3 displays the distribution of cases and severe outcomes. In week 39, median age of hospital admissions, ICU admissions and deaths was 61 years, 62 years and 83 years, respectively, based on health authority case line lists only (data not shown).

Since week 37, there was a weekly average of 1 death in age groups <50 years of age, 6 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 20 deaths in the 80+ year-olds. The number of deaths may increase over time as data becomes more complete.

Table 3: Age distribution: COVID-19 cases, hospitalizations, ICU admissions, deaths, and BC population by age group

Jan 15, 2020 (week 3) – Oct 16, 2021 (week 41) (N= 199,271)^{a,d}

| Age group (years) | Cases n (%) | Hospitalizations n (%) ^b | ICU n (%) | Deaths n (%) |
|-------------------------------|----------------|-------------------------------------|--------------|--------------|
| <10 | 14,161 | 146 (1) | 14 (<1) | 2 (<1) |
| 10-19 | 22,312 | 107 (<1) | 20 (<1) | 0 (<1) |
| 20-29 | 44,014 | 628 (1) | 76 (<1) | 5 (<1) |
| 30-39 | 37,516 | 1,164 (3) | 218 (1) | 24 (<1) |
| 40-49 | 28,709 | 1,237 (4) | 280 (1) | 40 (<1) |
| 50-59 | 23,501 | 1,692 (7) | 500 (2) | 100 (<1) |
| 60-69 | 15,306 | 1,993 (13) | 604 (4) | 219 (1) |
| 70-79 | 7,825 | 1,916 (24) | 533 (7) | 442 (6) |
| 80-89 | 4,108 | 1,359 (33) | 196 (5) | 717 (17) |
| 90+ | 1,819 | 457 (25) | 18 (1) | 543 (30) |
| Total | 199,271 | 10,699 | 2,451 | 2,092 |
| Median age^c | 34 | 61 | 62 | 83 |

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.

d. Percentages are calculated as the proportion of hospitalizations, ICU admissions, and deaths among all cases in each age group.

F. Care facility outbreaks

As shown in [Table 4](#) and [Figure 11](#), 390 care facility (acute and long-term care setting) outbreaks were reported in total in BC to the end of week 41. In week 41, six new outbreaks were declared based on earliest case onset date. Since week 35, 16 (78%) outbreaks were reported in long-term care settings and 14 (50%) were declared by FH.

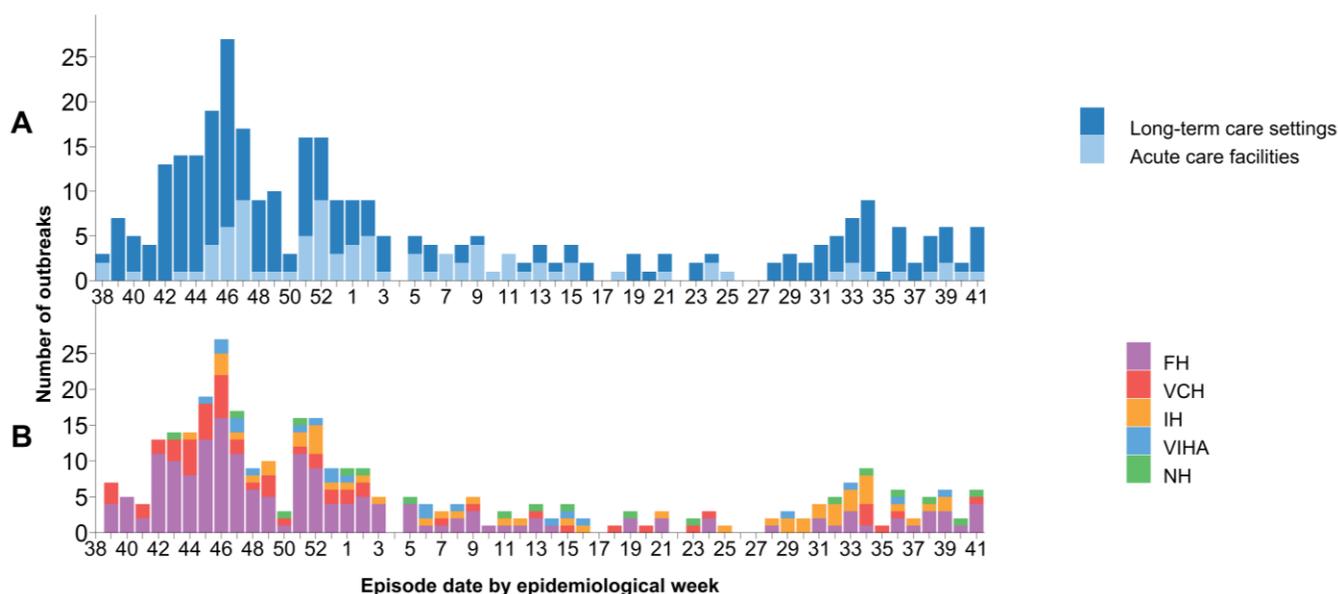
Seventeen (37%) out of the 46 deaths reported in week 41 were associated with an outbreak in a care facility setting.

Table 4. COVID-19 care facility^{a,b} outbreaks by earliest case onset^{a,c}, associated cases and deaths by episode date, BC^d Sept 13, 2020 (week 38) – Oct 16, 2021 (week 41) (N=390)

| Care facility outbreaks and cases by episode date | Outbreaks | Cases | | | | Deaths | | | |
|---|------------|--------------|--------------|----------|--------------|--------------|-------------|----------|--------------|
| | | Residents | Staff/other | Unknown | Total | Residents | Staff/other | Unknown | Total |
| Week 41, Care Facility Outbreaks | 6 | 62 | 26 | 1 | 89 | 17 | 0 | 0 | 17 |
| Cumulative, Care Facility Outbreaks | 390 | 4,208 | 2,552 | 8 | 6,768 | 1,145 | 0 | 0 | 1,145 |

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 Sept 13, 2020 (week 38) – Oct 16, 2021 (week 41) (N=375)



- 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/