

British Columbia (BC) COVID-19 Situation Report

Week 15: April 10- April 16, 2022

Data for week 15 (April 10 - April 16, 2022) may differ from the data published in the BCCDC weekly report. Data was extracted on April 25, 2022 for this situation report compared to April 27, 2022 for the latest weekly report.

Table of Contents	Report Summary
Epidemic curve and regional incidence 3	Due to changes in testing strategies in BC, case counts in this report likely underestimate the true number of COVID-19 cases in BC. This underestimation has increased compared to the period prior to the emergence of the Omicron variant in BC. The provincial incidence by episode date was 39 per 100K (2,032 cases) in week 15.
Test rates and % positive 4	Incidence by Health Authority from week 14 to week 15: <ul style="list-style-type: none"> • Fraser Health incidence increased from 25 to 30 per 100K • Interior Health incidence increased from 64 to 72 per 100K • Vancouver Island Health incidence increased from 36 to 42 per 100K • Northern Health incidence increased from 34 to 49 per 100K • Vancouver Coastal Health incidence remained stable from 25 to 26 per 100K
Age profile, testing and cases 5	Testing of MSP-funded specimens remained stable at ~10,600 in week 14 and week 15. The percent positivity of MSP-funded specimens increased from 18.5% in week 14 to 21.2% in week 15.
Severe outcomes 7	The per capita testing rates for MSP-funded specimens increased from week 14 to week 15 in IH and VIHA, while testing rates decreased or remained stable in other HAs. The percent positivity for MSP-funded specimens increased from week 14 to week 15 in all HAs except VCH, where it remained stable.
Age profile, severe outcomes 8	Age-specific incidence rates remained stable in the <10, 20-29, and 40-49 age groups, while incidence rates increased in the other age groups from week 14 to week 15. Incidence rate increased the most in the 80+ year-olds from 162 per 100K in week 14 to 211 per 100K in week 15.
Care facility outbreaks 9	The number of people in hospital with a positive COVID-19 test decreased from 296 in week 14 to 258 in week 15. In week 15, 60+ year-olds had the highest number of people in hospital with a positive COVID-19 test (200 admissions). The weekly number of deaths from any cause among people testing positive for COVID-19 increased from 40 in week 14 to 46 in week 15. In week 15, 80+ year-olds had the highest number of deaths (33 deaths).
Wastewater surveillance 9	In week 15, 4 new care facility outbreaks were declared, based on earliest case onset date (if unavailable, then outbreak declared date). 1 death was associated with the new care facility outbreaks in week 15.
Additional resources 11	
Appendix 11	

BELOW ARE IMPORTANT NOTES relevant to the interpretation of cases, hospitalizations, and deaths:

- Due to changes in testing strategies in BC, case counts in this report likely underestimate the true number of COVID-19 cases in BC. This underestimation has increased compared to the period prior to the emergence of the Omicron variant in BC.
- Hospital data include admissions for people diagnosed with COVID-19 through hospital SARS-CoV-2 screening practices, and will overestimate the number of people who are hospitalized specifically due to severe symptoms of COVID-19 infection.
- Pre-transition (case line list) deaths include COVID-19 related deaths reported by Health Authorities up to April 1, 2022. As of April 2, 2022, post-transition (automated linkage) deaths include people who died from any cause recorded in Vital Statistics within 30 days of their first positive COVID-19 lab result date. Due to the change in data source for death data, the number of pre-transition (case line list) deaths should not be compared to the number of post-transition

(automated linkage) deaths. Deaths reported after the transition use a broader definition and will overestimate deaths due to COVID, since death registration is captured before the underlying cause of death is determined.

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

- Cases include lab confirmed, lab probable, and epi-linked cases. Case definition can be found at [http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-\(novel-coronavirus\)](http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus)). Cases include those reported in Health Authority case line lists and positive laboratory results in the Provincial Laboratory Information Solution (PLIS) up to April 1, 2022. As of April 2, 2022, only positive laboratory results in the PLIS are included and cases who are residents from outside of BC are not included.
 - Episode date is defined by date of illness onset when available. When illness onset date is unavailable, earliest laboratory date is used (collection or result date); if also unavailable, then public health case report date is used. As of April 2, 2022, episode date reflects earliest laboratory date (collection or result date) only. Analyses based on episode date may better represent the timing of epidemic evolution. Episode-based tallies for recent weeks are expected to increase as case data are more complete.
 - Surveillance date is defined by lab result date, if unavailable, then public health case report date is used. As of April 2, 2022, surveillance date reflects lab result date only. The weekly tally by surveillance date includes cases with illness onset date in preceding weeks.
 - Hospitalizations include those reported by Health Authorities up to April 1, 2022. As of April 2, 2022, hospitalizations are defined as individuals who had any COVID-19 hospitalization recorded in the PHSA Provincial COVID-19 Monitoring Solution (PCMS). Hospitalizations for individuals 0-19 years-old are reported by linked hospitalization episodes from the PCMS since the beginning of the pandemic. Episode date for hospitalization is defined by admission date, if unavailable, surveillance date is used.
 - Critical care admissions (HAU, ICU, and critical care surge beds) include individuals who had any COVID-19 positive critical care admission (regardless of timing) from the PCMS. Episode date for critical care admission is defined by critical care admission date, if unavailable, surveillance date is used. Previously only ICU admissions were presented in this report. Critical care admissions comprises a broader category than ICU admissions and therefore, number of critical care admissions should not be compared to number of ICU admissions from previous weeks.
 - Deaths include COVID-19 related deaths reported by Health Authorities up to April 1, 2022. As of April 2, 2022, deaths are any COVID-19 lab positive cases who died from any cause recorded in Vital Statistics within 30 days of their first positive lab result date. Episode date for death is defined by death date, if unavailable, surveillance date is used.
 - As of April 2, 2022, data on Health Authority outbreaks are compiled from outbreak files provided by the Health Authorities.
 - Laboratory PLOVER data include Medical Service Plan (MSP) funded (e.g. clinical diagnostic tests) and non-MSP funded (e.g. screening tests) specimens.
 - As of June 15, 2021, per capita rates/incidences for year 2020 are based on Population Estimates 2020 (n= 5,147,772 for BC overall) and for year 2021 are based on PEOPLE 2021 estimates (n= 5,194,137 for BC overall).
 - Data sources include Health Authority case line lists, PHSA Provincial COVID-19 Monitoring Solution (PCMS), Vital Statistics, laboratory PLOVER data, and aggregate outbreak files from Health Authorities.
 - Integrated case data (including surveillance variables created using Health Authority case line lists, PCMS, and Vital Statistics) were extracted on April 25, 2022, laboratory PLOVER data on April 21, 2022, and Health Authority outbreak files on April 20, 2022.
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A. COVID-19 case counts and epidemic curves

Due to changes in testing strategies in BC, case counts in this report likely underestimate the true number of COVID-19 cases in BC. This underestimation has increased compared to the period prior to the emergence of the Omicron variant in BC. Up to week 15, there have been 361,164 cases for a cumulative incidence of 6,861 per 100K (Table 1, Figure 1). The provincial incidence by episode date was 39 per 100K (2,032 cases) in week 15, which increased from 34 per 100K (1,773 cases) in week 14. Incidence by episode date may increase as data become more complete in recent weeks.

As shown in Figure 2, incidence rates increased from week 14 to week 15 in all health authorities except Vancouver Coastal Health (VCH), where incidence rate remained stable. In week 15, the highest incidence rate was in Interior Health (IH) at 72 per 100K.

Table 1. Episode-based case tallies by Health Authority, BC, Jan 15, 2020 (week 3) – Apr 16, 2022 (week 15) (N= 361,164)

Case tallies by episode date	Health Authority of Residence					Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 15, case counts	590	596	374	150	322	0	2,032
Cumulative case counts	160,084	63,927	34,145	29,700	72,917	391	361,164
Week 15, cases per 100K population	30	72	42	49	26	NA	39
Cumulative cases per 100K population	8,056	7,717	3,879	9,703	5,779	NA	6,861

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and Health Authority (HA), BC Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15) (N= 353,317)

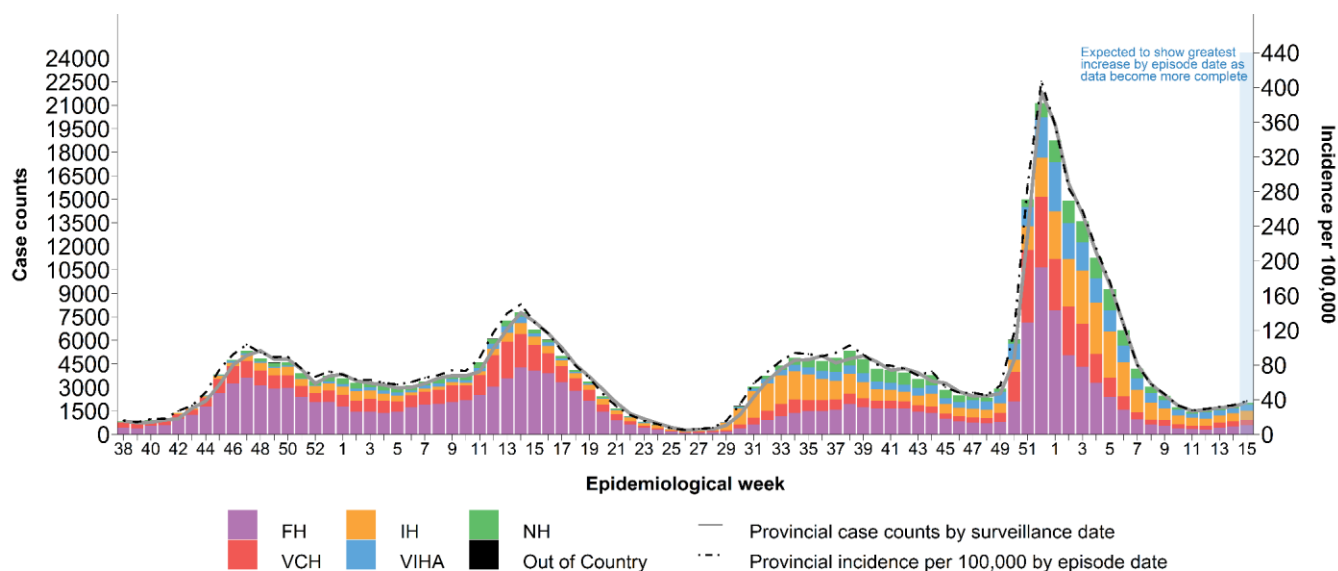
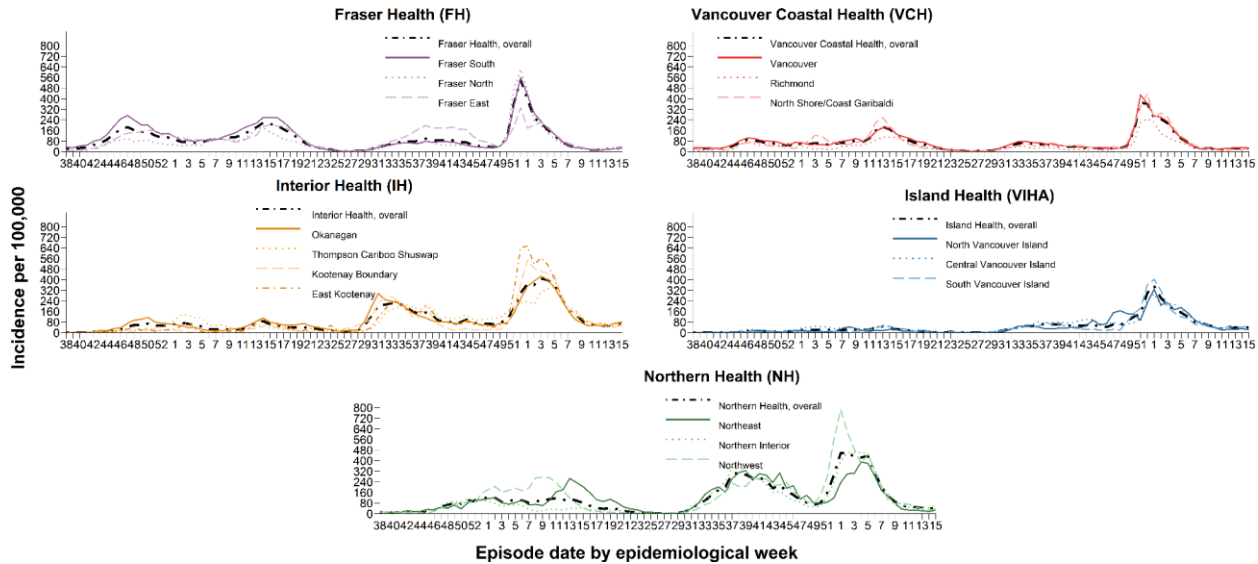


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15) (N= 353,317)



B. Test rates and percent positive

[COVID-19 testing guidelines](#) recommend testing for people who have COVID-19 symptoms, and are at risk of more severe disease or live/work in high-risk settings. As shown by the darker-colored bars in [Figure 3](#), the number of MSP-funded specimens remained stable at ~10,600 while the percent positivity of MSP-funded specimens increased from 18.5% to 21.2% between week 14 and week 15.

As shown by the dotted lines in [Figure 4](#), the per capita testing rates for MSP-funded specimens (Panel A) increased from week 14 to week 15 in IH and VIHA from 222 per 100K to 232 per 100K and from 146 per 100K to 153 per 100K, respectively. The testing rates for MSP-funded specimens decreased in NH or remained stable in FH and VCH. In week 15, NH had the highest testing rate at 284 per 100K.

The percent positivity (Panel B) for MSP-funded specimens increased from week 14 to week 15 in all HAs except VCH, where it remained stable at 22%. Percent positivity increased the most in NH from 14.6% in week 14 to 20.1% in week 15. In week 15, percent positivity ranged from 16.2% in FH to 32.4% in IH.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15)

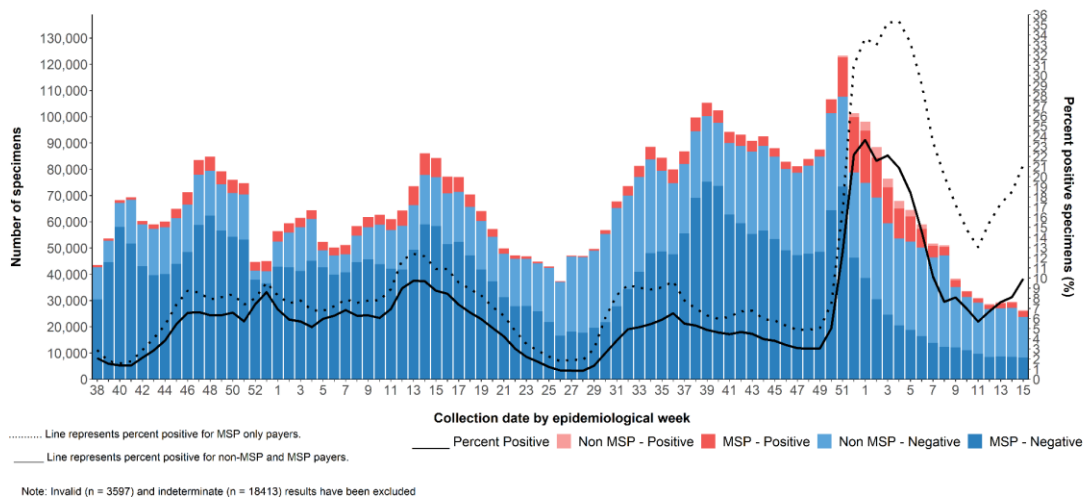
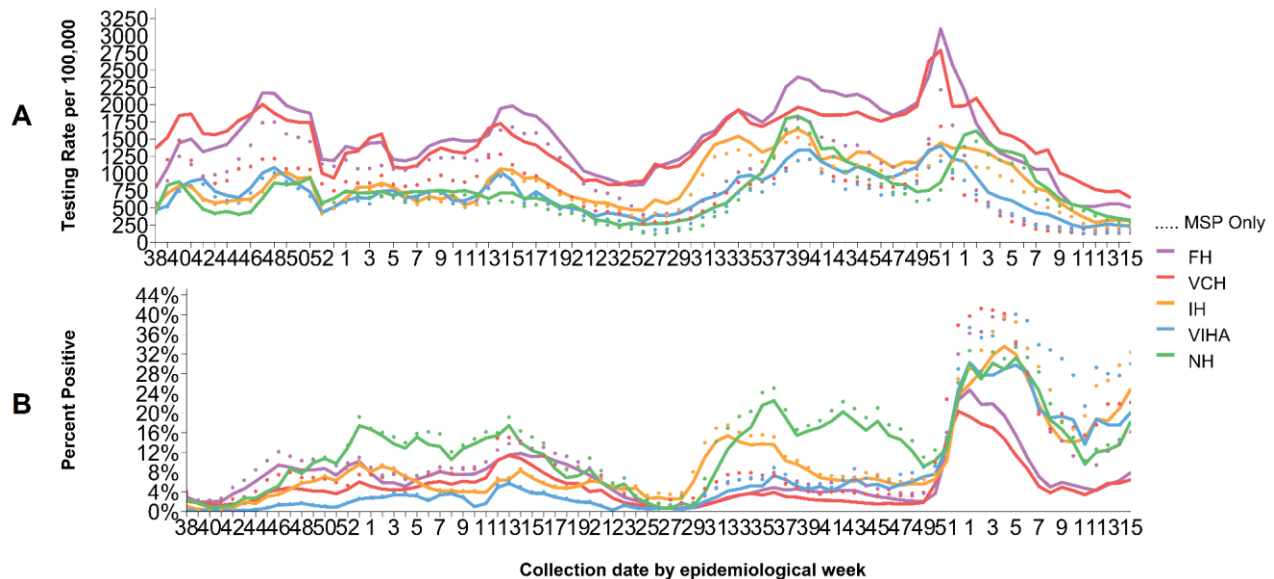


Figure 4. Testing rates and percent SARS-CoV-2 positive by Health Authority and collection week, BC Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15)



Data source: Laboratory PLOVER data

C. Age profile – Testing and cases

Testing rates and percent positivity by age group

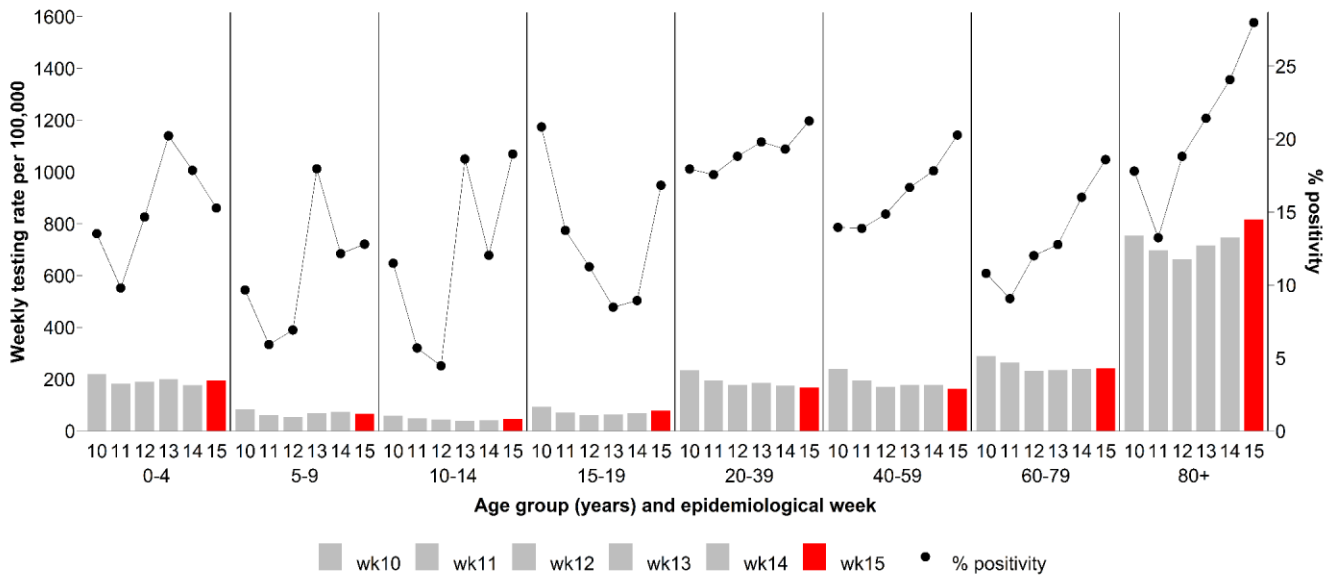
As shown by the bars in [Figure 5](#), testing rates increased in the 80+ age groups, while testing rates decreased or stabilized in the other age groups between week 14 and week 15. In week 15, testing rate was highest in those aged 80+ at 817 per 100K, which likely reflected the age group prioritized for testing.

As shown by the black dots in [Figure 5](#), the percent positivity between week 14 and week 15 increased in all age groups except for those aged 0-4 and 5-9, where percent positivity decreased and remained stable, respectively. Percent positivity increased the most in 15-19 year-olds from 8.9% in week 14 to 16.8% in week 15. In week 15, 80+ year-olds had the highest percent positivity at 28%.

Case distribution and weekly incidence by age group

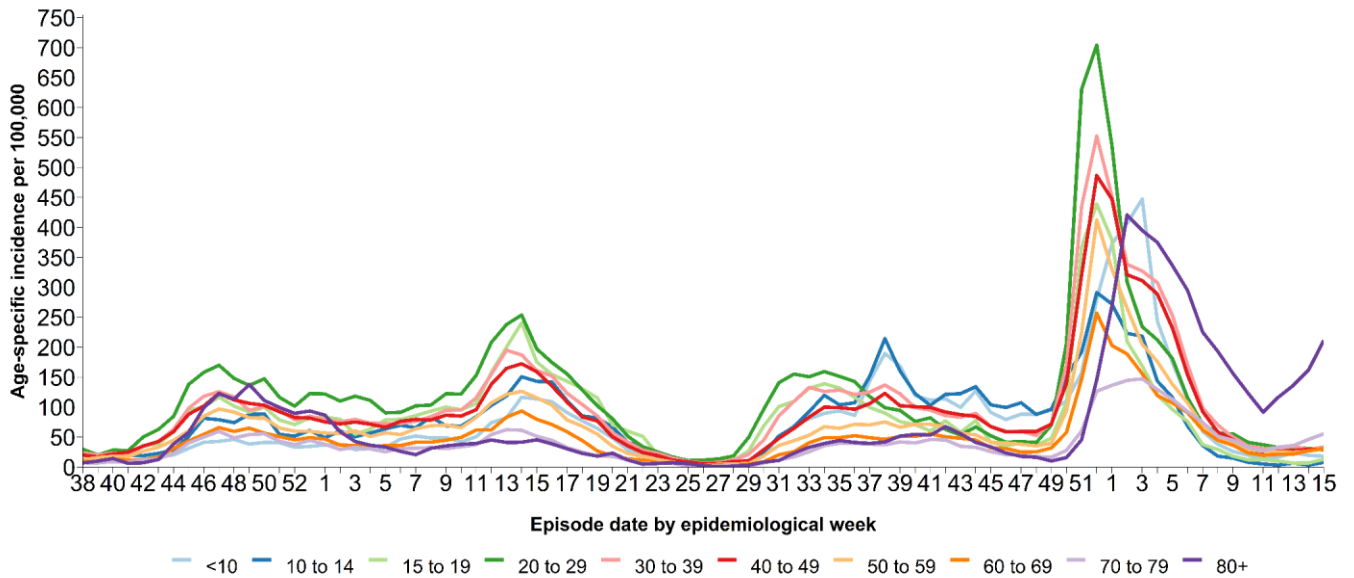
As shown in [Figure 6](#), age-specific incidence rates remained stable in the <10, 20-29, and 40-49 age groups, while incidence rates increased in the other age groups from week 14 to week 15. Incidence rate increased the most in the 80+ year-olds from 162 per 100K in week 14 to 211 per 100K in week 15. Age-specific incidences may increase as data become more complete. Detailed information about age-specific incidence by vaccination status can be accessed at [BCCDC COVID-19 Regional Surveillance Dashboard](#).

Figure 5. Average weekly SARS-CoV-2 MSP testing rates and MSP percent positive by known age group, BC Mar 12, 2022 (week 10) – Apr 16, 2022 (week 15)



Data source: Laboratory PLOVER data

Figure 6. Weekly age-specific COVID-19 incidence per 100K population by epidemiological week, BC Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15) (N= 353,223)



D. Severe outcome counts and epi-curve

Hospital data include admissions for people diagnosed with COVID-19 through hospital SARS-CoV-2 screening practices, and will overestimate the number of people who are hospitalized specifically due to severe symptoms of COVID-19 infection. The number of people in hospital with a positive COVID-19 test decreased from 296 in week 14 to 258 in week 15. In week 15, 60+ year-olds had the highest number of people in hospital with a positive COVID-19 test, with 83 hospitalizations in 60-79 year-olds and 117 hospitalizations in 80+ year-olds.

As of April 2, 2022, death data include people testing positive for COVID-19 and died from any cause (COVID-19 or non-COVID-19) within 30 days of their first positive lab result date. The weekly number of deaths from any cause among people testing positive for COVID-19 increased from 40 in week 14 to 46 in week 15. In week 15, 80+ year-olds had the highest number of deaths from any cause among people testing positive for COVID-19 (33 deaths) ([Table 2, Figure 8](#)). Detailed information about outcomes by vaccination status can be accessed at [BCCDC COVID-19 Regional Surveillance Dashboard](#).

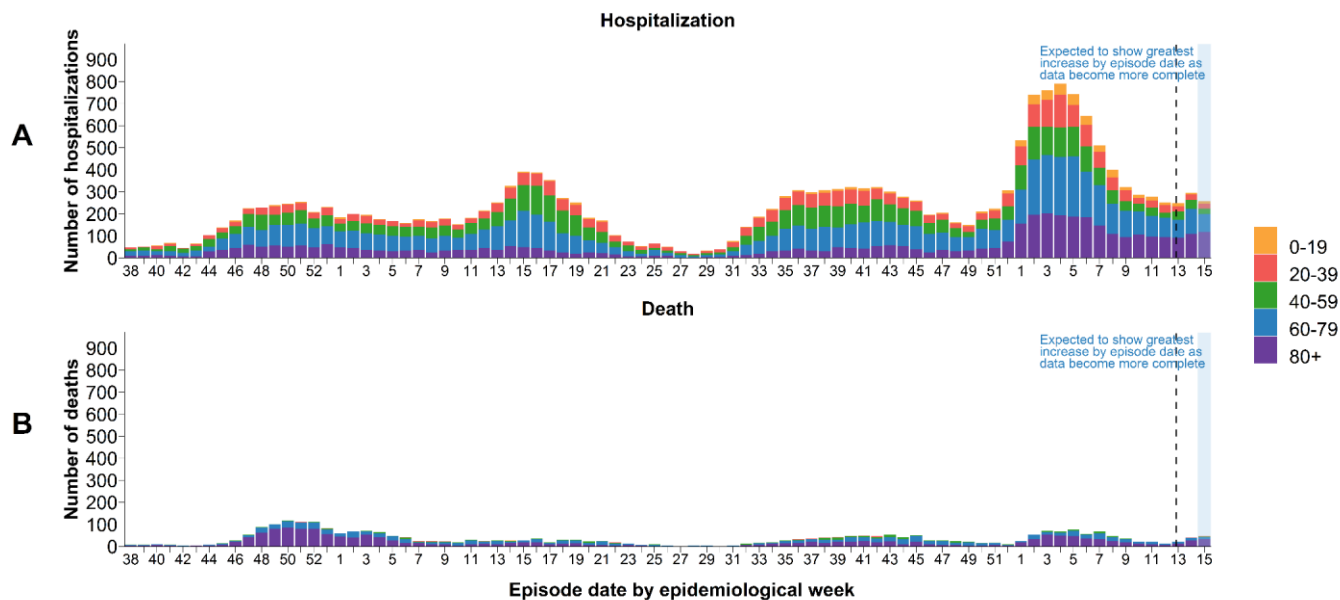
Cumulatively, there have been 31 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020. There have been 2 new confirmed cases of MIS-C since the last report. The median age of all cases is 9 years old (range from 4 months old to 16 years old).

**Table 2. COVID-19 severe outcomes by episode date, Health Authority of residence, BC
Jan 15, 2020 (week 3) – Apr 16, 2022 (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	111	45	39	17	46	0	258
Cumulative hospitalizations	9,522	3,608	1,675	1,886	4,007	17	20,715/361,164 (6)
Week 15, critical care admissions ^b	17	8	2	5	7	0	39
Cumulative critical care admissions^b	2,104	880	343	738	979	4	5,048/361,164 (1)
Week 15, deaths	7	11	12	3	13	0	46
Cumulative deaths, pre-transition (case line list)^c	1,348	367	241	330	716	0	3,002/356,783 (1)
Cumulative deaths, post-transition (automated linkage)^c	21	26	25	4	21	0	97/4,381 (2)

- Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).
- Due to the change in data source for hospitalization data, ICU admissions are no longer available. Critical care admissions are now being provided, which comprises a broader category than ICU admissions (please see Important Notes on Page 2 for more information). The number of critical care admissions should not be compared to the number of ICU admissions from previous weeks.
- Pre-transition (case line list) deaths include COVID-19 related deaths reported by Health Authorities up to April 1, 2022. As of April 2, 2022, post-transition (automated linkage) deaths are any COVID-19 lab positive cases who died from any cause recorded in Vital Statistics within 30 days of their first positive lab result date. Due to the change in data source for death data, the number of pre-transition (case line list) deaths should not be compared to the number of post-transition (automated linkage) deaths. Deaths reported after the transition use a broader definition and will overestimate deaths due to COVID, since death registration is captured before the underlying cause of death is determined.

Figure 8. Weekly COVID-19 hospital admissions (A) and deaths (B) by age groups, BC, Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15)^a



a. Among those with available age information only.

E. Age profile, severe outcomes

Table 3 displays the distribution of cases and severe outcomes. In week 15, median age of hospital admissions, critical care admissions and deaths was 64 years, 62 years and 82 years, respectively.

In the past two weeks (week 14 and week 15), there has been a weekly average of 2 deaths in those <50 years of age, 2 deaths in 50-59 year-olds, 4 deaths in 60-69 year-olds, 5 deaths in 70-79 year-olds and 31 deaths in the 80+ year-olds (data not shown). The number of deaths may increase over time as data becomes more complete.

Table 3: COVID-19 cases, hospitalizations, critical care admissions, and deaths by age group, BC, Jan 15, 2020 (week 3) – Apr 16, 2022 (week 15) (N= 361,049)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	Critical care admissions ^b n (%)	Deaths ^c n (%)
<10	29,803	427 (1)	53 (<1)	2 (<1)
10-19	35,471	306 (1)	42 (<1)	0 (<1)
20-29	71,863	1,214 (2)	171 (<1)	6 (<1)
30-39	68,398	2,091 (3)	387 (1)	34 (<1)
40-49	52,904	2,049 (4)	541 (1)	65 (<1)
50-59	42,463	2,776 (7)	953 (2)	169 (<1)
60-69	28,677	3,623 (13)	1,273 (4)	362 (1)
70-79	15,404	3,803 (25)	1,115 (7)	667 (4)
80-89	10,561	3,169 (30)	449 (4)	1,019 (10)
90+	5,505	1,247 (23)	63 (1)	774 (14)
Total	361,049	20,705	5,047	3,098
Median age	36	64	62	82

- Among those with available age information only.
- Due to the change in data source for hospitalization data, ICU admissions are no longer available. Critical care admissions are now being provided, which comprises a broader category than ICU admissions (please see Important Notes on Page 2 for more information). Number of critical care admissions should not be compared to number of ICU admissions from previous weeks.
- Pre-transition (case line list) deaths include COVID-19 related deaths reported by Health Authorities up to April 1, 2022. As of April 2, 2022, post-transition (automated linkage) deaths are any COVID-19 lab positive cases who died from any cause recorded in Vital Statistics within 30 days of their first positive lab result date. Due to the change in data source for death data, the number of pre-transition (case line list) deaths should not be compared to the number of post-transition (automated linkage) deaths. Deaths reported after the transition use a broader definition and will overestimate deaths due to COVID, since death registration is captured before the underlying cause of death is determined.

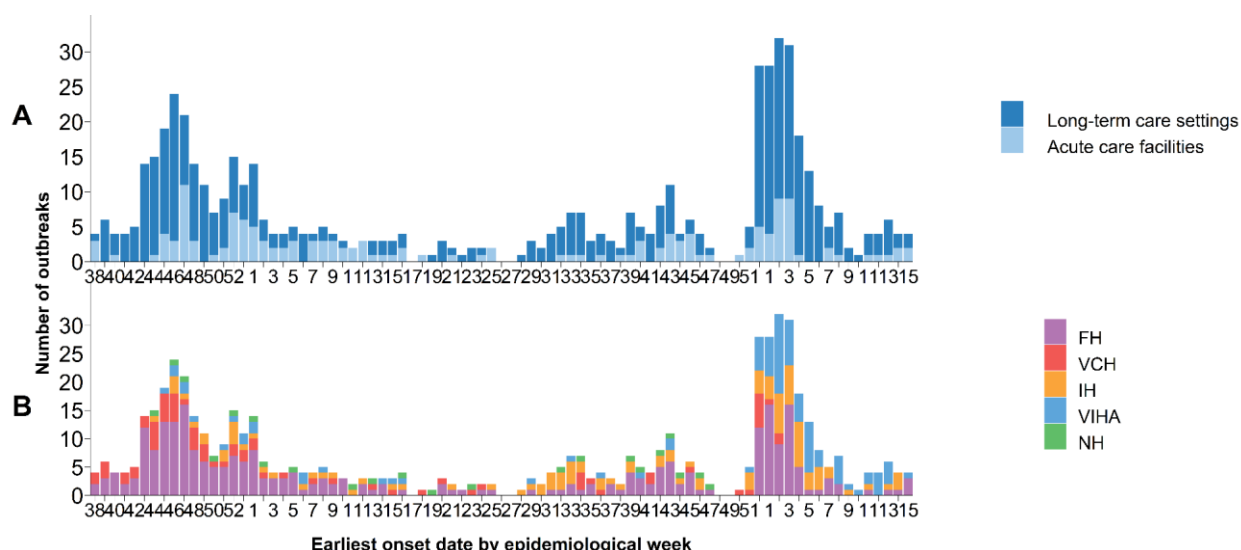
F. Care facility outbreaks

As shown in [Table 4](#) and [Figure 9](#), 629 care facility (acute care and long-term care settings) outbreaks were reported in total in BC to the end of week 15. In week 15, based on earliest case onset date (if unavailable, then outbreak declared date), 4 new outbreaks were declared; 2 in acute care setting and 2 in long-term care settings. Care facility outbreaks increased from week 10 and has remained stable for the past five weeks (weekly average of 4 care facility outbreaks). 1 death was associated with the new care facility outbreaks in week 15.

Table 4. COVID-19 care facility^a outbreaks by earliest case onset^{b,c}, associated cases and deaths by episode date, BC Jan 15, 2020 (week 3) – Apr 16, 2022 (week 15) (N=629)^{d,e}

Care facility outbreaks and cases by episode date	Outbreaks	Cases			Deaths		
		Residents	Staff/other	Total	Residents	Staff/other	Total
Week 15, Care Facility Outbreaks	4	59	0	59	1	0	1
Cumulative, Care Facility Outbreaks	629	8,381	3,716	12,097	1,406	0	1,406

Figure 9. COVID-19 care facility^a, outbreaks by earliest case onset^{b,c}, facility type (A) and Health Authority (B), BC Sept 13, 2020 (week 38) – Apr 16, 2022 (week 15) (N=561)^{d,e}



- Case and death counts include PCR positive cases only for outbreaks in NHA and VIHA. Vancouver Coastal Health, Fraser Health Authority, and Interior Health Authority outbreaks may also include those diagnosed by rapid antigen tests or considered as suspect reinfection.
- Earliest dates of onset of outbreak cases are subject to change as investigations and data are updated. If unavailable, outbreak declared date is used.
- New outbreaks reported since the last report with an earliest case onset date (if unavailable, outbreak declared date is used) prior to the current reporting week will be included in the cumulative care facility outbreak total.
- Cases with unknown role are included in the case count for Staff/other.
- Data might be incomplete or vary from what was reported previously due to updates by Health Authorities.

G. Wastewater surveillance

The BCCDC and Metro Vancouver have been testing for SARS-CoV-2 in wastewater at five wastewater treatment plants (representing 50% of BC's population) since May 2020, in order to assess whether COVID-19 virus is present and how it might be changing over time. For each sample collected, Metro Vancouver measures the daily wastewater flow (i.e. volume coming into the wastewater treatment plants). Wastewater flows can change with rainfall and snowmelt. To account for possible effects of wastewater volume, SARS-CoV-2 concentrations have been normalized by daily wastewater flow and referred to as viral load to wastewater treatment plant (copies/day). All COVID-19 positive cases are mapped to each sewage catchment. As shown in [Figure 10](#) and [Figure 11](#), SARS-CoV-2 wastewater results are compared to the incidence of community COVID-19 cases.

Key messages with results through to April 23, 2022: Levels of SARS-CoV-2 in wastewater continue to increase at a higher rate than reported cases of COVID-19. This suggests increasing unreported cases of COVID-19 in the context of reduced community diagnostic testing.

Results for Fraser Health:

- SARS-CoV-2 viral loads show an increasing trend in Annacis Island wastewater over the past 6 weeks.
- SARS-CoV-2 viral loads show an increasing trend in Northwest Langley wastewater over the past 5 weeks.

Results for Vancouver Coastal Health:

- SARS-CoV-2 viral loads show an increasing trend in Iona Island and Lulu Island wastewater over the past 6 weeks.
- SARS-CoV-2 viral loads remain elevated in Lions Gate wastewater but viral loads continue to be variable over recent weeks and do not show a clear trend.

Figure 10. Wastewater surveillance, FH

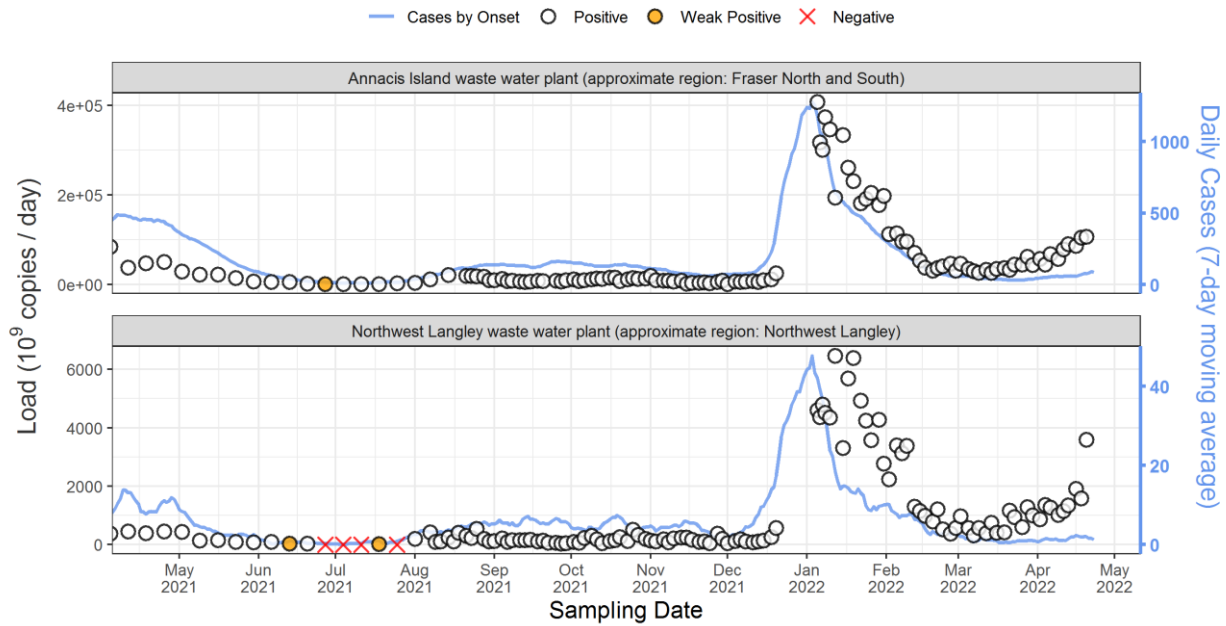
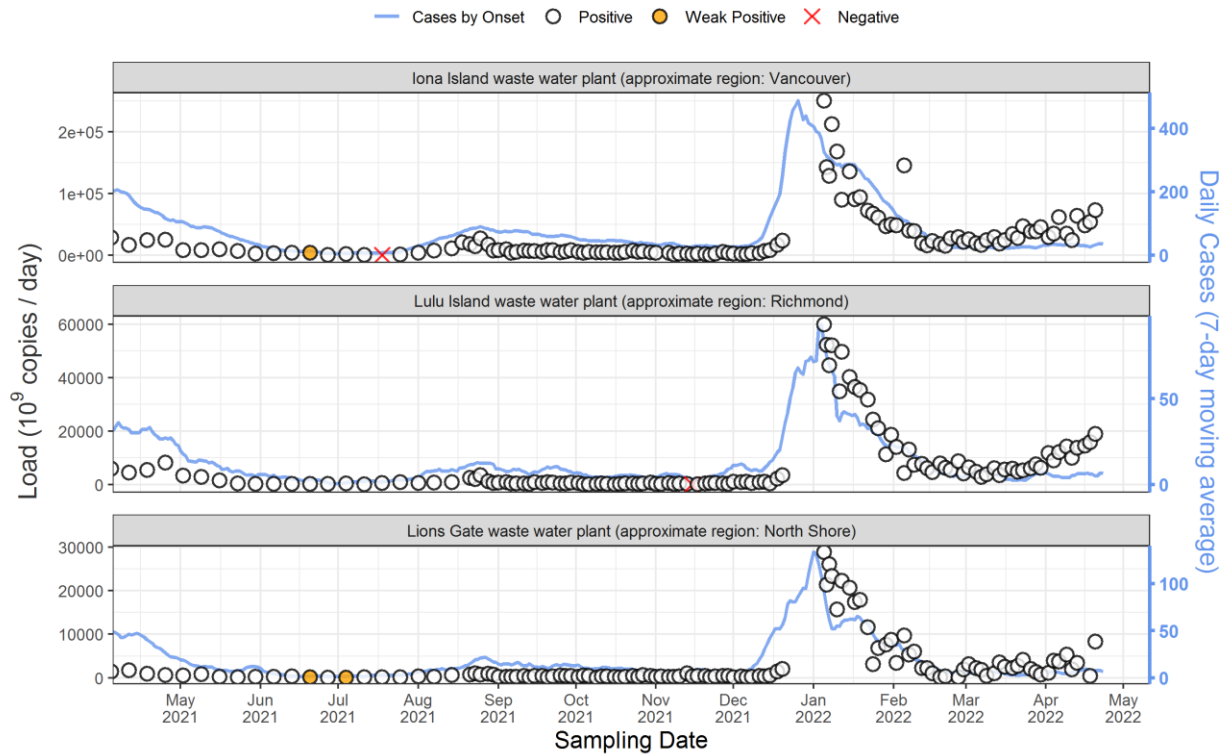


Figure 11. Wastewater surveillance, VCH



H. Additional resources

For maps and geographical distribution of cases and vaccinations, visit the BCCDC COVID-19 Regional Surveillance Dashboard here: <http://www.bccdc.ca/health-professionals/data-reports/covid-19-surveillance-dashboard>

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

For local, national, and global comparisons of BC to other jurisdictions on key epidemiological metrics, visit the BCCDC COVID-19 Epidemiology App here: https://bccdc.shinyapps.io/covid19_global_epi_app/

I. Appendix

[Vaccination phases](#) defined by vaccine eligibility of target populations in BC

Vaccination Phase 1 (December 2020 – February 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 (February 2021 – April 2021)

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.

Vaccination Phase 3 (April 2021 – May 2021)

Target populations include people aged 60-79 years, Indigenous peoples aged 18-64 and people aged 16-74 who are clinically extremely vulnerable.

Vaccination Phase 4 (May 2021 – November 2021)

Target populations include everyone 12+ years. In September, third dose is available for people who are clinically extremely vulnerable.

Vaccination Phase 5 (November 2021 – February 2022)

Target populations include everyone 5+. Children aged 5-11 are eligible at the end of November. Everyone 18 and older will be invited to get a booster dose within 6-8 months of their second dose.

Vaccination Phase 6 (February 2022 – April 2022)

Target populations include everyone 5+. Everyone 12 and older will be invited to get a booster dose within 6-8 months of their second dose.

Vaccination Phase 7 (April 2022 – Present)

Target populations include everyone 5+. Everyone 12 and older will be invited to get a booster dose within 6-8 months of their second dose. People in long-term care, assisted living, seniors and Indigenous people can get a second booster 6 months after the date of the first booster.