

British Columbia (BC) COVID-19 Situation Report

Week 14: April 03- April 09, 2022

Data for week 14 (April 3 - April 9, 2022) may differ from the data published in the BCCDC weekly report. Data was extracted on April 18, 2022 for this situation report compared to April 20, 2022 for the latest weekly report.

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Test rates and % positive	4	Incidence by Health Authority from week 13 to week 14: <ul style="list-style-type: none"> Fraser Health incidence increased from 22 to 25 per 100K Interior Health incidence increased from 53 to 64 per 100K Vancouver Island Health incidence decreased from 39 to 36 per 100K Northern Health incidence decreased from 43 to 34 per 100K Vancouver Coastal Health incidence decreased from 26 to 25 per 100K 	
Age profile, testing and cases	5	Testing of MSP-funded specimens remained stable at ~10,600 in week 13 and week 14. The percent positivity of MSP-funded specimens increased from 17.3% in week 13 to 18.5% in week 14.	
Severe outcomes	7	The per capita testing rates for MSP-funded specimens increased from week 13 to week 14 in FH and IH, while they decreased in other HAs. The percent positivity for MSP-funded specimens increased from week 13 to week 14 in all HAs except VCH and VIHA, where it remained stable.	
Age profile, severe outcomes	8	Age-specific incidence rates decreased or stabilized in those between 0 and 39 years old, while incidence rates increased in the 40+ age groups from week 13 to week 14. Incidence rate increased the most in the 80+ year-olds from 137 per 100K in week 13 to 162 per 100K in week 14.	
Care facility outbreaks	8	The number of people in hospital with a positive COVID-19 test increased from 233 in week 13 to 245 in week 14. In week 14, 60+ year-olds had the highest number of people in hospital with a positive COVID-19 test (178 admissions). The weekly number of deaths from any cause among people testing positive for COVID-19 increased from 20 in week 13 to 34 in week 14. In week 14, 80+ year-olds had the highest number of deaths (23 deaths).	
Wastewater surveillance	9	In week 14, 2 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 14.	
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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 18, 2022, laboratory PLOVER data on April 19, 2022, and Health Authority outbreak files on April 13, 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 14, there have been 359,135 cases for a cumulative incidence of 6,823 per 100K (Table 1, Figure 1). The provincial incidence by episode date was 34 per 100K (1,773 cases) in week 14, which remained stable from 32 per 100K (1,676 cases) in week 13. Incidence by episode date may increase as data become more complete in recent weeks.

As shown in Figure 2, incidence rates increased from week 13 to week 14 in Fraser Health (FH) and Interior Health (IH) from 22 per 100K to 25 per 100K and from 53 per 100K to 64 per 100K, respectively. From week 13 to week 14, incidence rates decreased in Vancouver Island Health (VIHA) and Northern Health (NH), and remained stable in Vancouver Coastal Health (VCH). In week 14, the highest incidence rate was in IH at 64 per 100K.

Table 1. Episode-based case tallies by Health Authority, BC, Jan 15, 2020 (week 3) – Apr 09, 2022 (week 14) (N= 359,135)

Case tallies by episode date	Health Authority of Residence					Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 14, case counts	503	527	320	105	318	0	1,773
Cumulative case counts	159,495	63,334	33,770	29,550	72,595	391	359,135
Week 14, cases per 100K population	25	64	36	34	25	NA	34
Cumulative cases per 100K population	8,026	7,645	3,837	9,654	5,753	NA	6,823

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and Health Authority (HA), BC Sept 13, 2020 (week 38) – Apr 09, 2022 (week 14) (N= 351,288)

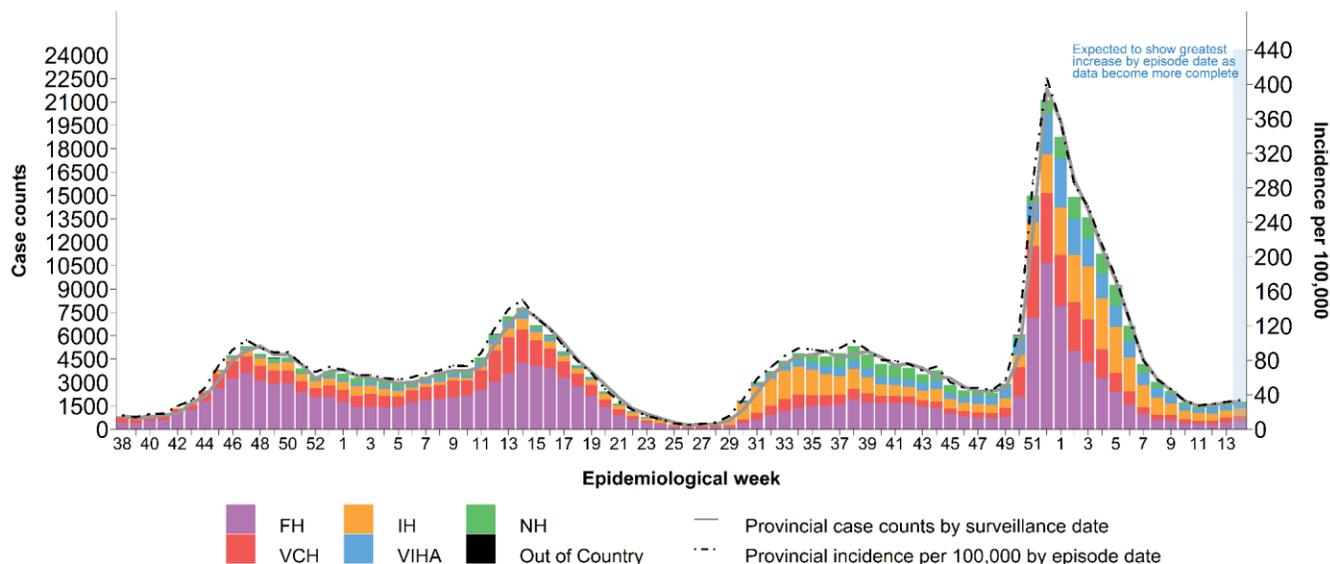
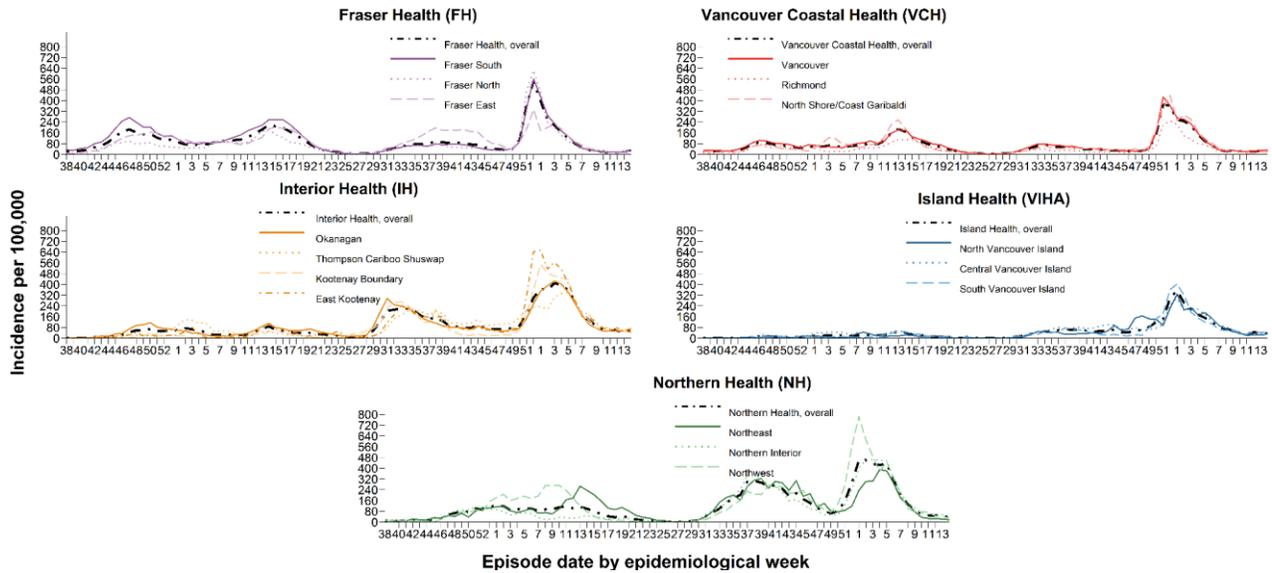


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC Sept 13, 2020 (week 38) – Apr 09, 2022 (week 14) (N= 351,288)



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 17.3% to 18.5% between week 13 and week 14.

As shown by the dotted lines in [Figure 4](#), the per capita testing rates for MSP-funded specimens (Panel A) increased from week 13 to week 14 in FH and IH from 192 per 100K to 202 per 100K and from 210 per 100K to 222 per 100K, respectively. The testing rates for MSP-funded specimens decreased in other HAs. In week 14, NH had the highest testing rate at 298 per 100K.

The percent positivity (Panel B) for MSP-funded specimens increased from week 13 to week 14 in all HAs except VCH and VIHA, where it remained stable around 22% and 28%, respectively. Percent positivity increased the most in IH from 26.6% in week 13 to 28.7% in week 14. In week 14, percent positivity ranged from 13.8% in FH to 29.7% in IH.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC Sept 13, 2020 (week 38) – Apr 09, 2022 (week 14)

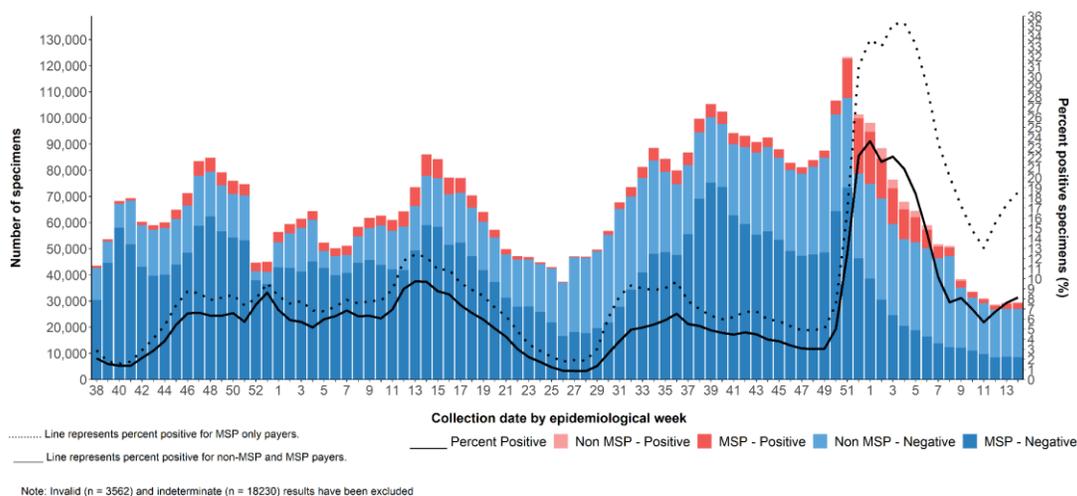
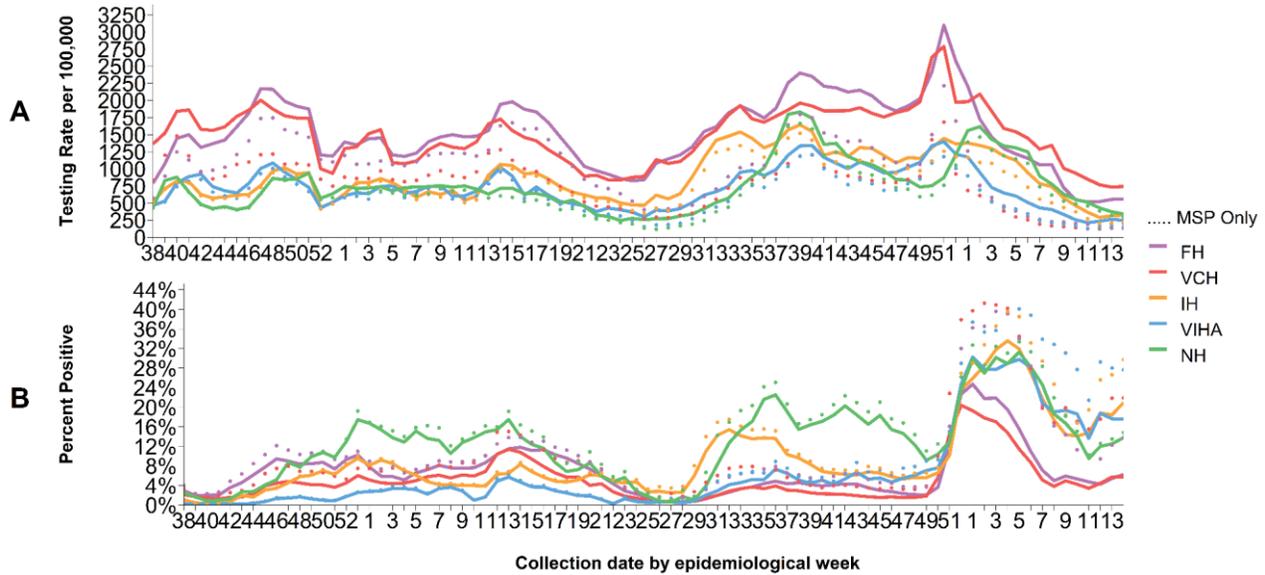


Figure 4. Testing rates and percent SARS-CoV-2 positive by Health Authority and collection week, BC Sept 13, 2020 (week 38) – Apr 09, 2022 (week 14)



Data source: Laboratory PLOVER data

C. Age profile – Testing and cases

Testing rates and percent positivity by age group

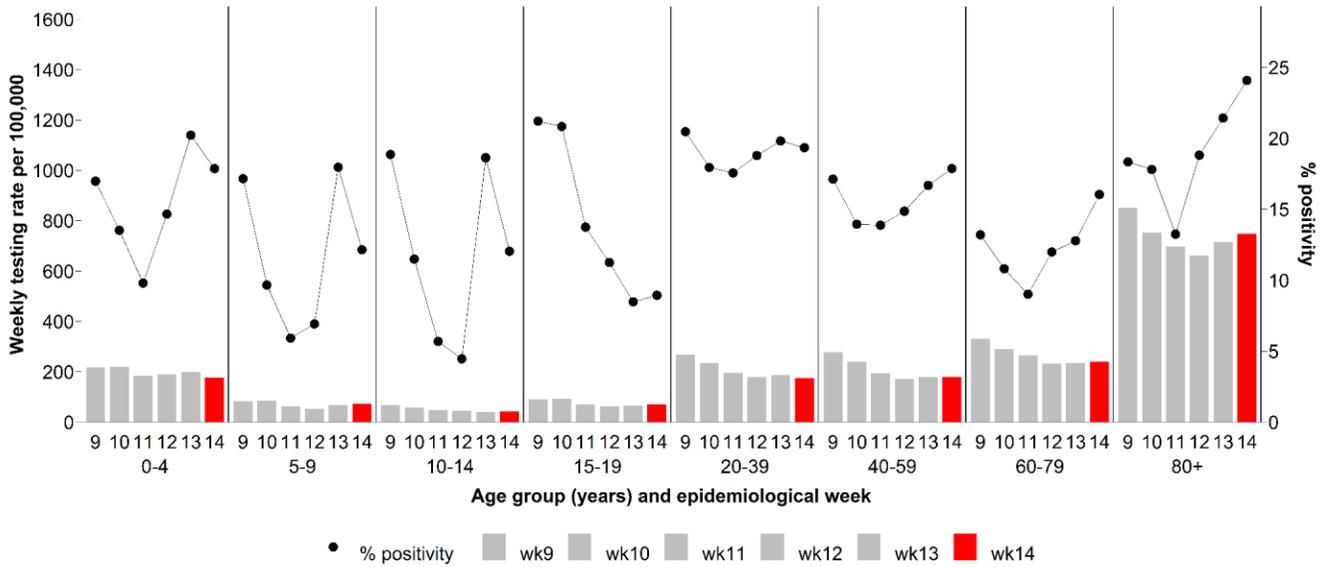
As shown by the bars in [Figure 5](#), testing rates increased or stabilized in all age groups from week 13 to week 14. In week 14, testing rate was highest in those aged 80+ at 748 per 100K, which likely reflected the age group prioritized for testing.

As shown by the black dots in [Figure 5](#), the percent positivity decreased or stabilized in those between 0 and 39 years old, while it increased in those 40+ from week 13 to week 14. Between week 13 and week 14, percent positivity increased the most in the 60-79 year-olds from 12.8% to 16%. In week 14, 80+ year-olds had the highest percent positivity at 24.1%.

Case distribution and weekly incidence by age group

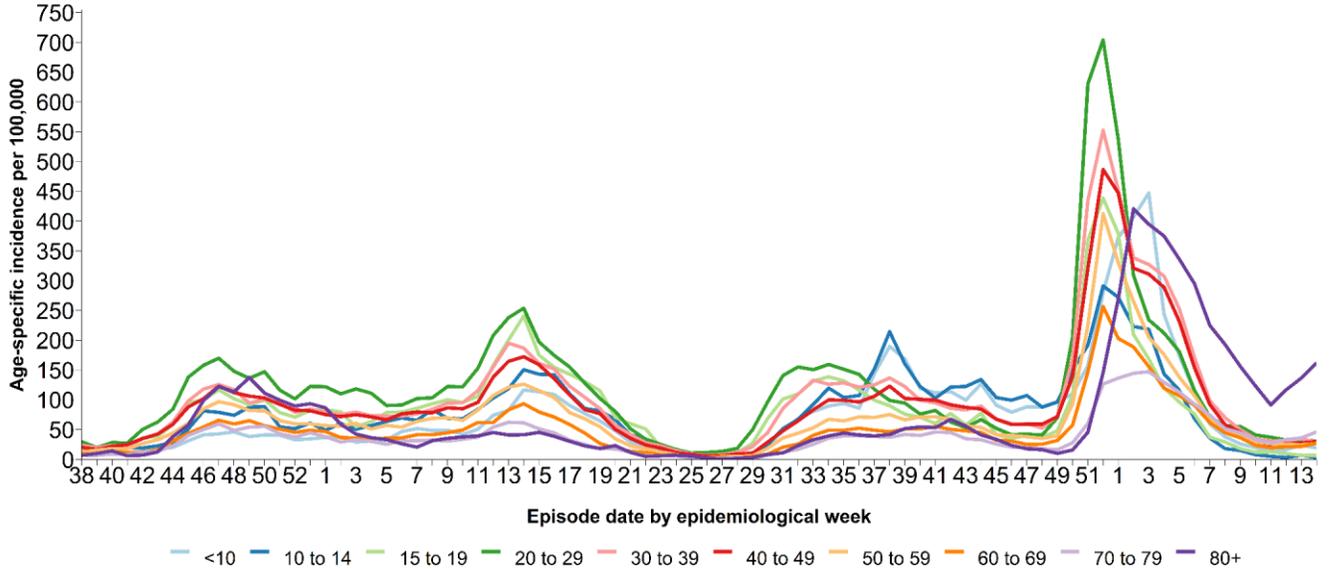
As shown in [Figure 6](#), age-specific incidence rates decreased or stabilized in those between 0 and 39 years old, while incidence rates increased in the 40+ age groups from week 13 to week 14. Incidence rate increased the most in the 80+ year-olds from 137 per 100K in week 13 to 162 per 100K in week 14. 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 05, 2022 (week 9) – Apr 09, 2022 (week 14)



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 09, 2022 (week 14) (N= 351,194)



D. Severe outcome counts and epi-curve

The number of people in hospital with a positive COVID-19 test increased from 233 in week 13 to 245 in week 14. In week 14, 60+ year-olds had the highest number of people in hospital with a positive COVID-19 test, with 88 hospitalizations in 60-79 years-olds and 90 hospitalizations in 80+ year-olds. 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 weekly number of deaths from any cause among people testing positive for COVID-19 increased from 20 in week 13 to 34 in week 14. In week 14, 80+ year-olds had the highest number of deaths (23 deaths) (Table 2, Figure 8). Detailed information about outcomes by vaccination status can be accessed at [BCCDC COVID-19 Regional Surveillance Dashboard](#).

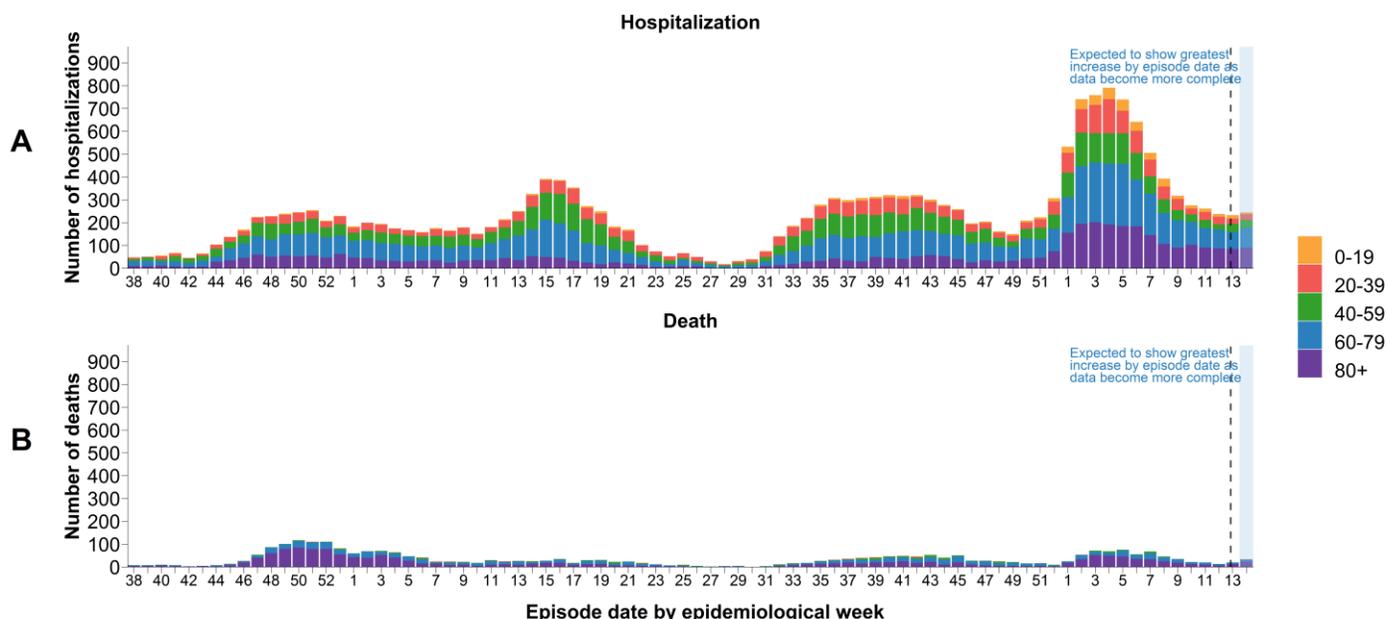
Cumulatively, there have been 29 confirmed cases of [Multi-system Inflammatory Syndrome in children and adolescents \(MIS-C\)](#) in BC since January 1, 2020. There have been no new confirmed cases of MIS-C since the last report. The median age of all cases is 9 years old (range from 1 to 16 years old).

Table 2. COVID-19 severe outcomes by episode date, Health Authority of residence, BC Jan 15, 2020 (week 3) – Apr 09, 2022 (week 14)

Severe outcomes by episode date	Health Authority of residence					Residing outside of Canada	Total n/N ^a (%)
	FH	IH	VIHA	NH	VCH		
Week 14, hospitalizations	112	36	34	14	49	0	245
Cumulative hospitalizations	9,357	3,540	1,626	1,866	3,918	17	20,324/359,135 (6)
Week 14, critical care admissions ^b	13	7	3	4	2	0	29
Cumulative critical care admissions^b	2,080	868	341	732	970	4	4,995/359,135 (1)
Week 14, deaths	9	9	10	1	5	0	34
Cumulative deaths	1,359	380	253	331	724	0	3,047/359,135 (1)

- a. Cases with unknown outcome are included in the denominators (i.e. assumed not to have the specified severe outcome).
- b. 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.

Figure 8. Weekly COVID-19 hospital admissions (A) and deaths (B) by age groups, BC, Sept 13, 2020 (week 38) – Apr 09, 2022 (week 14)^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 14, median age of hospital admissions, critical care admissions and deaths was 63 years, 62 years and 82 years, respectively.

In the past four weeks (from week 11 to week 14), there has been a weekly average of <1 death in those <50 years of age, 3 deaths in 60-69 year-olds, 5 deaths in 70-79 year-olds and 54 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 09, 2022 (week 14) (N= 359,020)^a

Age group (years)	Cases n (%)	Hospitalizations n (%)	Critical care admissions ^b n (%)	Deaths n (%)
<10	29,719	417 (1)	51 (<1)	2 (<1)
10-19	35,418	304 (1)	42 (<1)	0 (<1)
20-29	71,657	1,204 (2)	169 (<1)	6 (<1)
30-39	68,138	2,075 (3)	386 (1)	32 (<1)
40-49	52,712	2,035 (4)	539 (1)	65 (<1)
50-59	42,250	2,753 (7)	944 (2)	166 (<1)
60-69	28,460	3,560 (13)	1,260 (4)	358 (1)
70-79	15,140	3,717 (25)	1,101 (7)	662 (4)
80-89	10,223	3,052 (30)	441 (4)	1,003 (10)
90+	5,303	1,197 (23)	61 (1)	752 (14)
Total	359,020	20,314	4,994	3,046
Median age	36	63	62	82

- a. Among those with available age information only.
- b. 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.

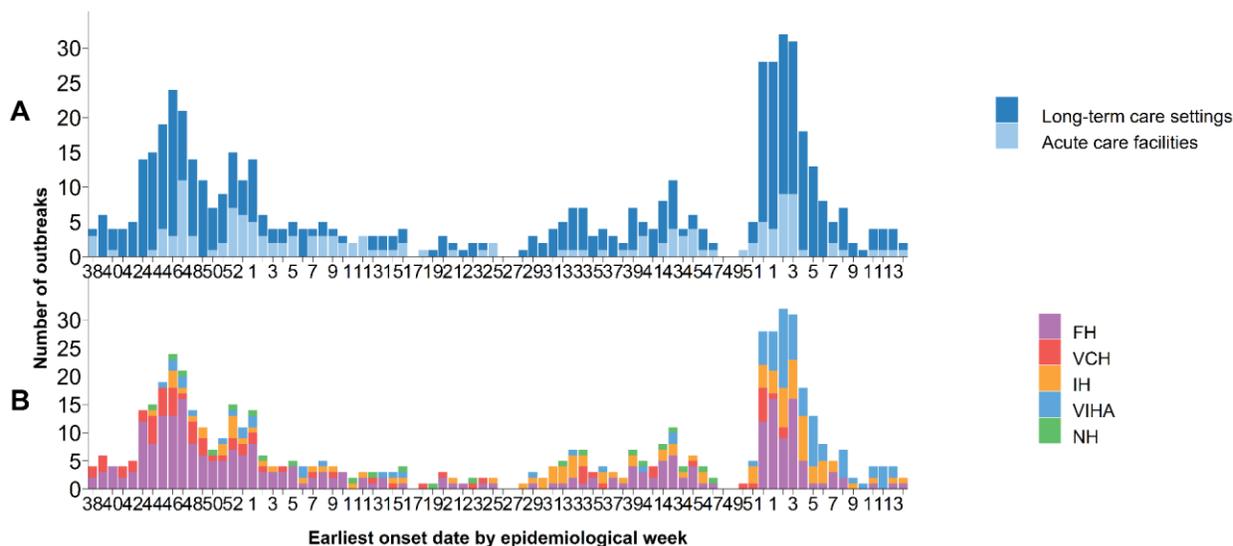
F. Care facility outbreaks

As shown in **Table 4** and **Figure 9**, 621 care facility (acute care and long-term care settings) outbreaks were reported in total in BC to the end of week 14. In week 14, based on earliest case onset date (if unavailable, then outbreak declared date), 2 new outbreaks were declared. Since week 1 of 2022, the number of new outbreaks have generally been declining and the majority of outbreaks have been in long-term care settings. 1 death was associated with the new care facility outbreaks in week 14.

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 09, 2022 (week 14) (N=621)^{d,e}

Care facility outbreaks and cases by episode date	Outbreaks	Cases			Deaths		
		Residents	Staff/other	Total	Residents	Staff/other	Total
Week 14, Care Facility Outbreaks	2	44	0	44	1	0	1
Cumulative, Care Facility Outbreaks	621	8,201	3,713	11,914	1,402	0	1,402

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 09, 2022 (week 14) (N=553)^{d,e}



Earliest onset date by epidemiological week

- 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 16, 2022:

- SARS-CoV-2 viral loads show an increasing trend in Annacis Island wastewater over the past 5 weeks.
- SARS-CoV-2 viral loads show an increasing trend in Northwest Langley wastewater over the past 4 weeks.
- SARS-CoV-2 viral loads show an increasing trend in Iona Island and Lulu Island wastewater over the past 5 weeks.
- SARS-CoV-2 viral loads remain elevated in Lions Gate wastewater but viral loads have been variable over recent weeks and do not show a clear trend.
- Levels of SARS-CoV-2 viral loads in wastewater are increasing more quickly than reported cases of COVID-19. This suggests increasing numbers of unreported cases of COVID-19 in the setting of reduced community diagnostic testing.

Figure 10. Wastewater surveillance, FH

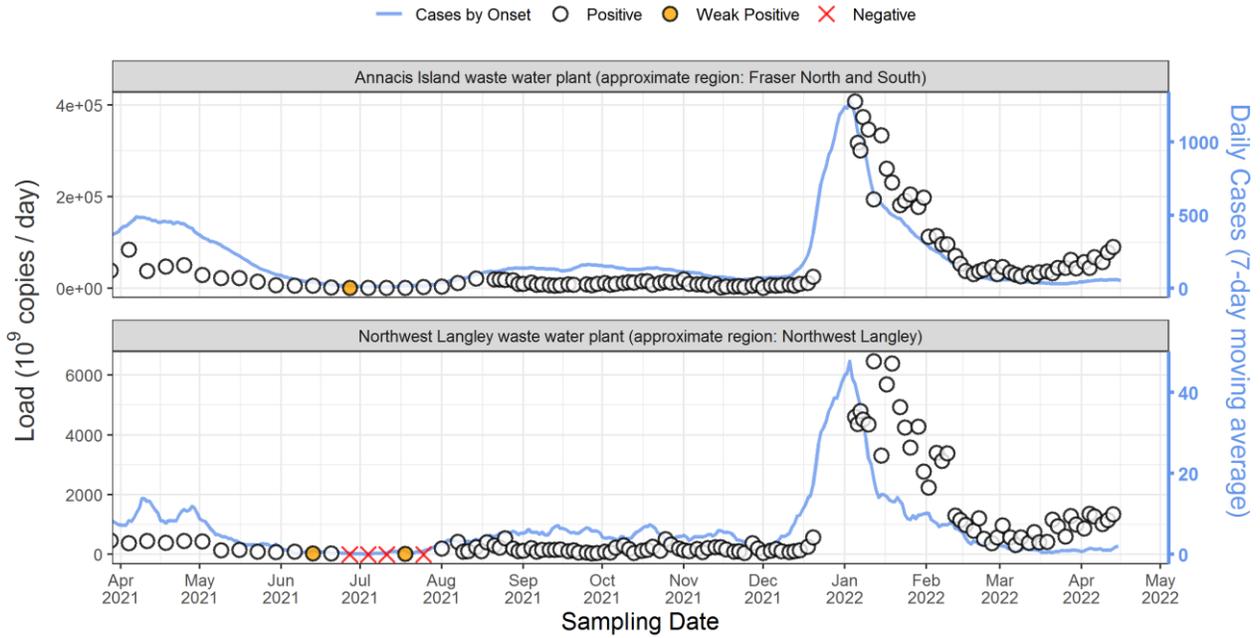
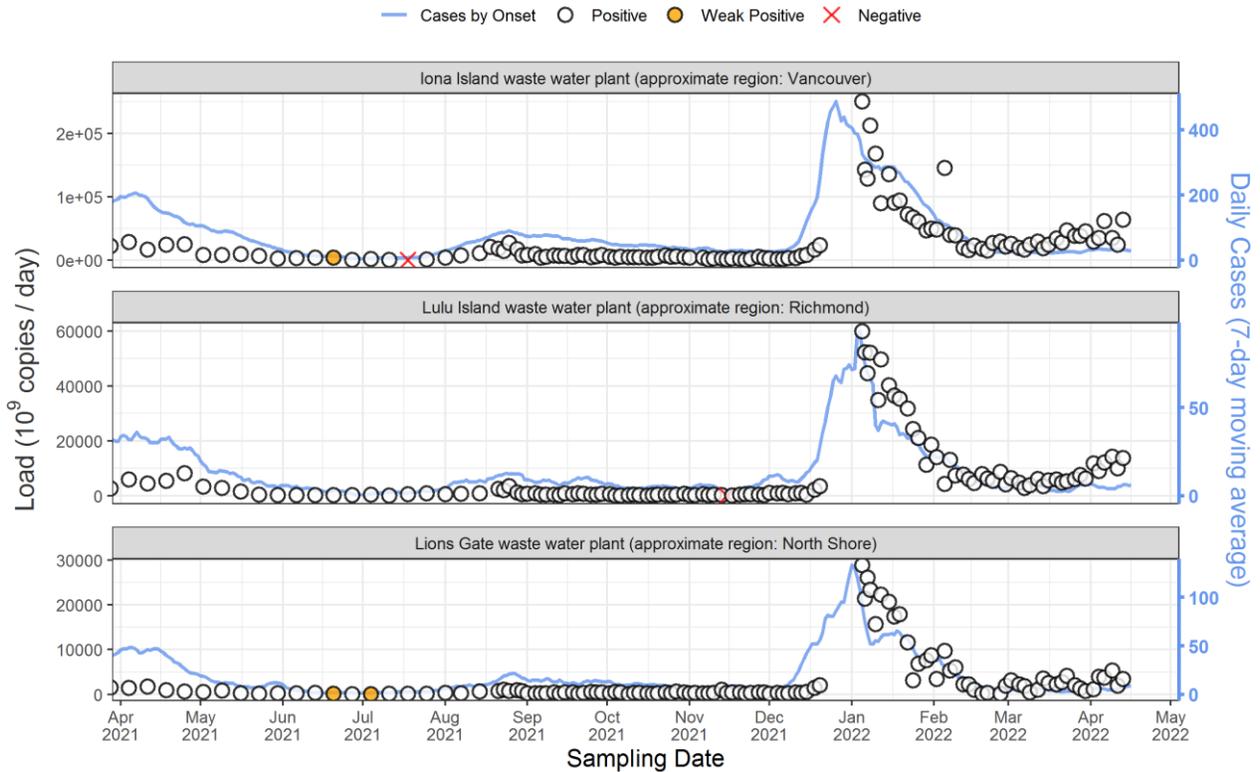


Figure 11. Wastewater surveillance, VCH



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.