British Columbia (BC) COVID-19 Situation Report

Week 10: March 06- March 12, 2022

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Hospital admissions and deaths are decreasing; provincial COVID-19 incidence continues to decrease.

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 decreased from 47 per 100K (2,452 cases) in week 9 to 33 per 100K (1,723 cases) in week 10.

Incidence by Health Authority decreased from week 9 to week 10:

- Fraser Health incidence decreased from 29 to 20 per 100K
- Interior Health incidence decreased from 90 to 65 per 100K
- Vancouver Island Health incidence decreased from 60 to 40 per 100K
- Northern Health incidence decreased from 91 to 60 per 100K
- Vancouver Coastal Health incidence decreased from 26 to 21 per 100K

Testing of MSP-funded specimens decreased from ~14,700 in week 9 to ~12,800 in week 10. The positivity of MSP-funded specimens decreased from 17.5% in week 9 to 15.1% in week 10.

The per capita testing rates and percent positivity for MSP-funded specimens decreased in all HAs from week 9 to week 10. Testing rates and percent positivity decreased or remained stable in all age groups from week 9 to week 10.

Age-specific incidence rates decreased across all age groups from week 9 to week 10. Incidence rate decreased the most in the 80+ age group from week 9 to week 10.

The number of hospital admissions decreased from 309 in week 9 to 252 in week 10. In week 10, 80+ year-olds had the highest number of hospital admissions (96 hospitalizations).

The weekly number of deaths decreased from 33 in week 9 to 19 in week 10. In week 10, 80+ year-olds had the highest number of deaths (12 deaths).

In week 10, no new care facility outbreaks were declared, based on earliest case onset date. 1 of the 19 deaths (5.3%) reported in week 10 was associated with a care facility outbreak.

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= 5,147,772 for BC overall) and for year 2021 are based on PEOPLE 2021 estimates (n= 5,194,137 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, and hospital data (PHSA Provincial COVID19 Monitoring Solution (PCMS)).
- Case data were extracted on March 21, 2022, laboratory data on March 18, 2022, and PCMS hospitalization data on March 21, 2022.

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 10, there have been 352,682 cases for a cumulative incidence of 6,693 per 100K (**Table 1, Figure 1**). The provincial incidence by episode date was 33 per 100K (1,723 cases) in week 10, which has decreased from the most recent peak of 407 per 100K in week 52. Incidence by episode date may increase as data become more complete in recent weeks.

As shown in **Figure 2**, incidence has decreased in all HAs from week 9 to week 10. From week 9 to week 10, incidence rates decreased the most in Northern Health (NH) and Interior Health (IH) from 91 to 60 per 100K and from 90 to 65 per 100K, respectively. In week 10, the highest incidence rate was in IH at 65 per 100K.

Table 1. Episode-based case tallies by Health Authority, BC, Jan 15, 2020 (week 3) – Mar 12, 2022 (week 10) (N= 352,682)

Case tallies by episode date	Health Authority of Residence					Outside Canada	Total
	FH	IH	VIHA	NH	VCH		
Week 10, case counts	389	538	349	185	262	0	1,723
Cumulative case counts	**157,937**	**61,384**	**32,478**	**29,018**	**71,476**	**389**	**352,682**
Week 10, cases per 100K population	20	65	40	60	21	NA	33
Cumulative cases per 100K population	**7,948**	**7,410**	**3,690**	**9,480**	**5,664**	**NA**	**6,693**

Figure 1. Episode-based epidemic curve (bars), surveillance date (line) and Health Authority (HA), BC Sept 13, 2020 (week 38) – Mar 12, 2022 (week 10) (N= 344,835)

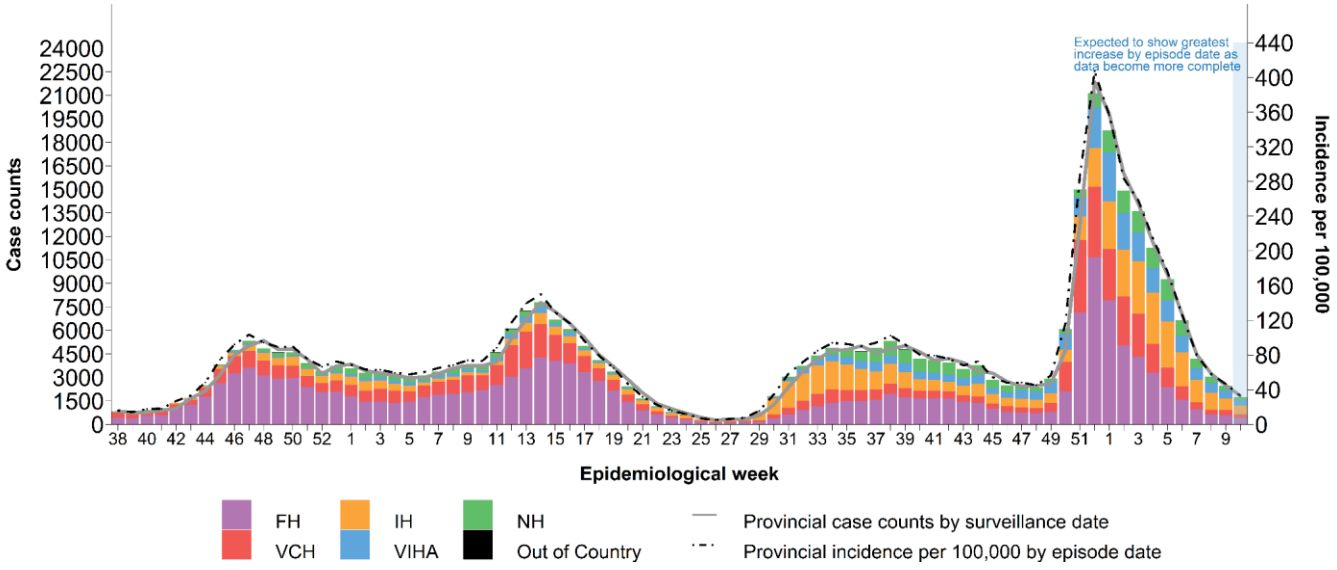
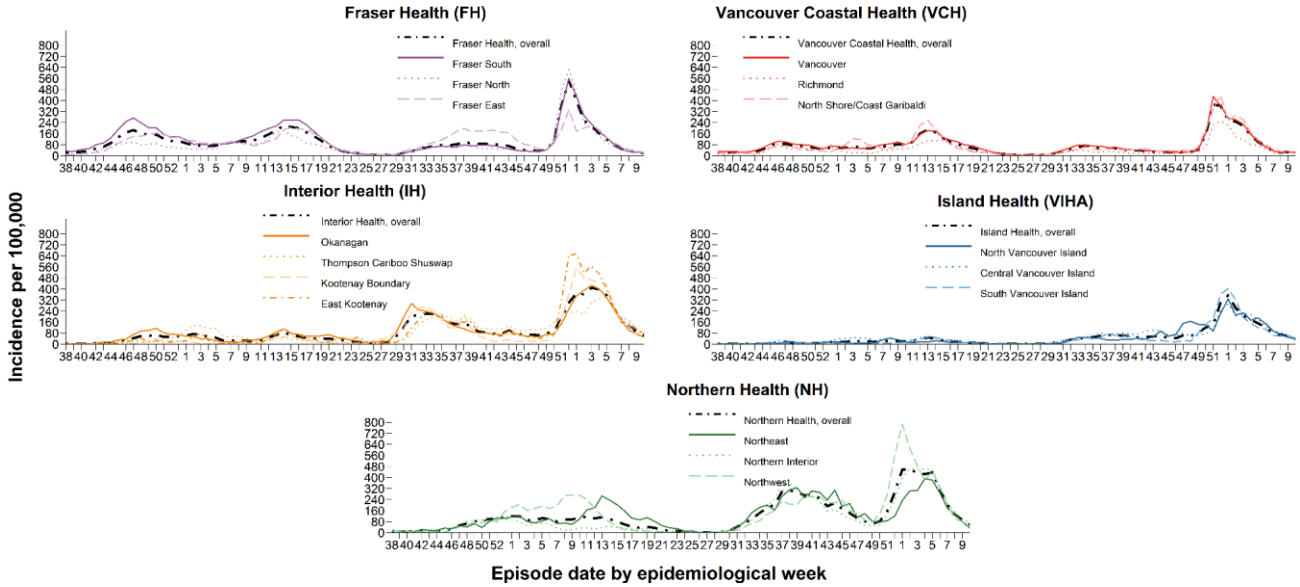


Figure 2. Weekly episode-based incidence rates by HA and health service delivery area (HSDA), BC Sept 13, 2020 (week 38) – Mar 12, 2022 (week 10) (N= 344,835)



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 and dotted line in **Figure 3**, the number of MSP-funded specimens and the percent positivity of MSP-funded specimens have continued to decrease from the peak of ~88,900 in week 51 and the peak of 35.4% in week 4, respectively. Between week 9 and week 10, the number of MSP-funded specimens decreased from ~14,700 to ~12,800 and the percent positivity of MSP-funded specimens decreased from 17.5% to 15.1%.

As shown in **Figure 4**, the per capita testing rates for MSP-funded specimens (Panel A) decreased in all HAs from week 9 to week 10. From week 9 to week 10, testing rates decreased the most in NH, from 471 to 392 per 100K. In week 10, NH had the highest testing rate at 392 per 100K.

Percent positivity (Panel B) for MSP-funded specimens decreased in all HAs from week 9 to week 10. Percent positivity in week 10 ranged from 11.3% in FH to 27.8% in VIHA.

Figure 3. Number of specimens tested and percent SARS-CoV-2 positive, by collection week, BC Sept 13, 2020 (week 38) – Mar 12, 2022 (week 10)

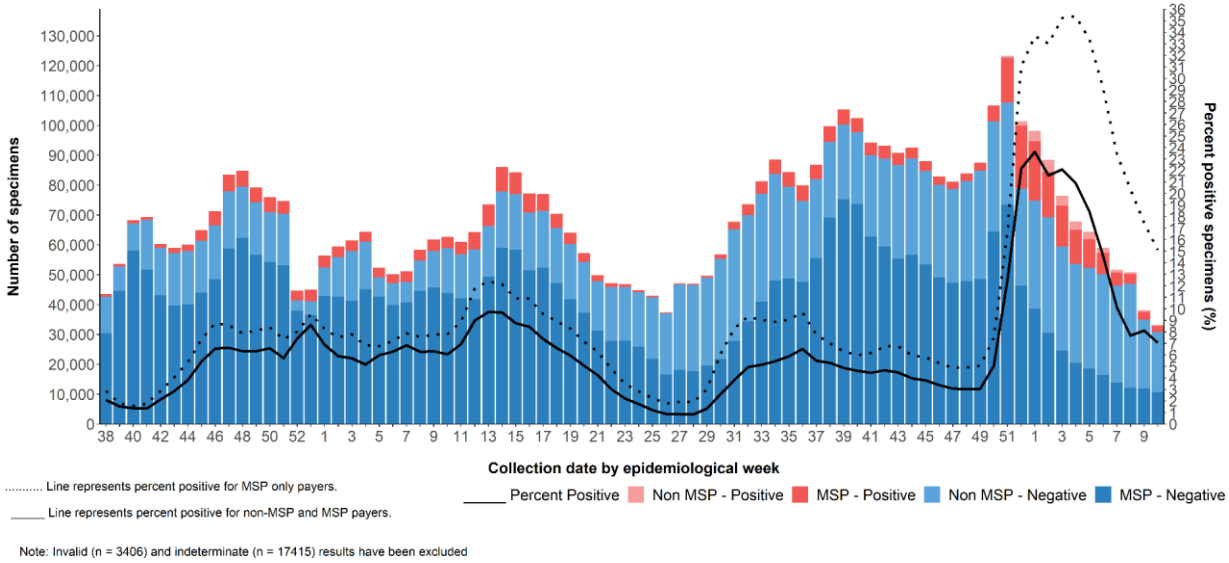
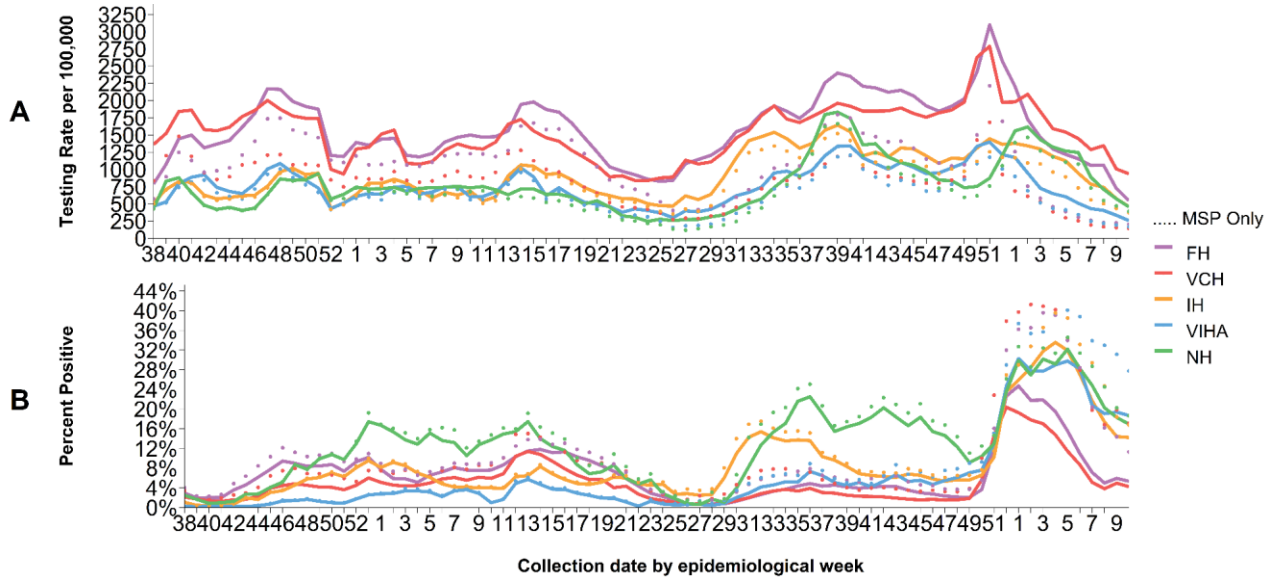


Figure 4. Testing rates and percent SARS-CoV-2 positive by Health Authority and collection week, BC Sept 13, 2020 (week 38) – Mar 12, 2022 (week 10)



Data source: laboratory PLOVER data

C. Age profile – Testing and cases

Testing rates and percent positivity by age group

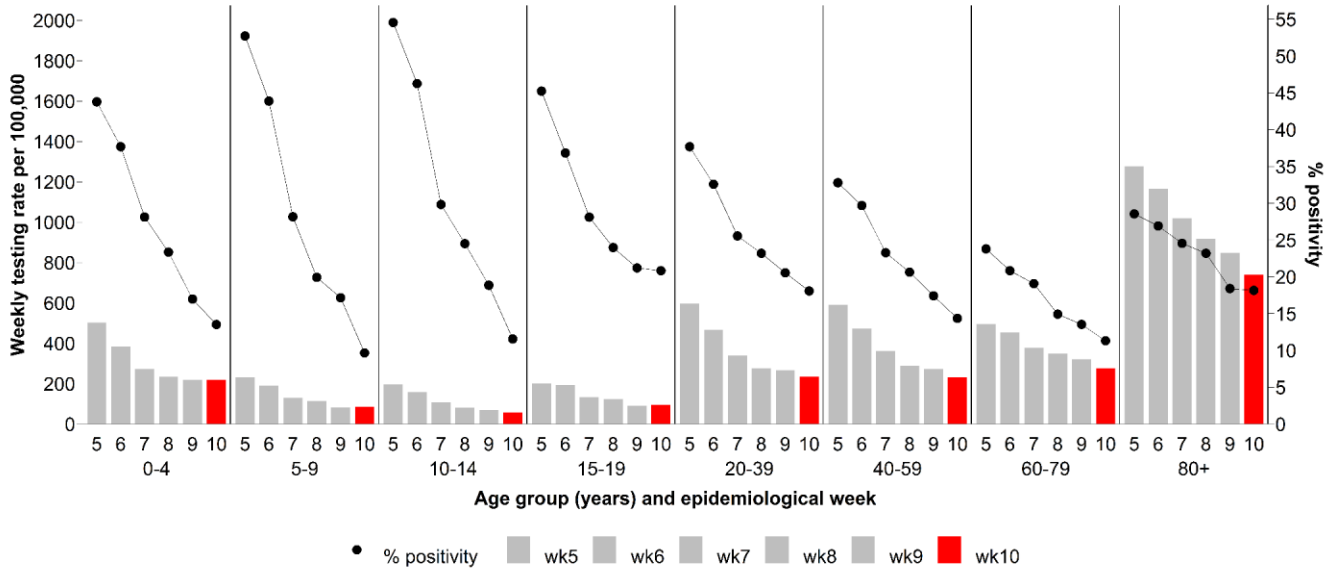
As shown by the bars in **Figure 5**, testing rates decreased or remained stable in all age groups from week 9 to week 10. Testing rates in week 10 was highest in those aged 80+ at 740 per 100K, which likely reflected the age group prioritized for testing.

As shown by the black dots in **Figure 5**, the percent positivity decreased or remained stable in all age groups from week 9 to week 10. The highest percent positivity in week 10 was in the 15-19 year-olds at 20.8%.

Case distribution and weekly incidence by age group

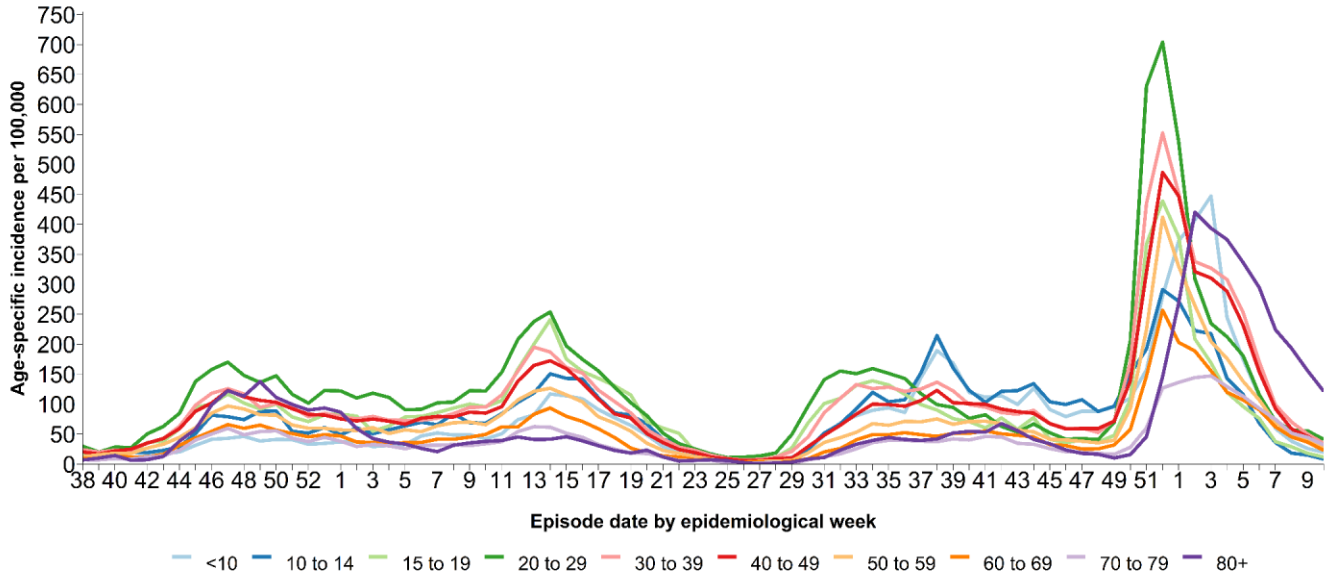
As shown in **Figure 6**, age-specific incidence rates decreased across all age groups from week 9 to week 10. From week 9 to week 10, incidence rate decreased the most in the 80+ age group from 156 to 121 per 100K. Age-specific incidences may increase as data become more complete. Detailed information 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 Feb 05, 2022 (week 5) – Mar 12, 2022 (week 10)



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) – Mar 12, 2022 (week 10) (N= 344,746)



D. Severe outcome counts and epi-curve

The number of hospital admissions decreased from 309 in week 9 to 252 in week 10. In week 10, 80+ year-olds had the highest number of hospital admissions (96 hospitalizations). 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 decreased from 33 in week 9 to 19 in week 10 (**Table 2**, **Figure 8**). In week 10, 80+ year-olds had the highest number of deaths (12 deaths). Detailed information about outcomes by vaccination status can be accessed at BCCDC COVID-19 Regional Surveillance Dashboard.

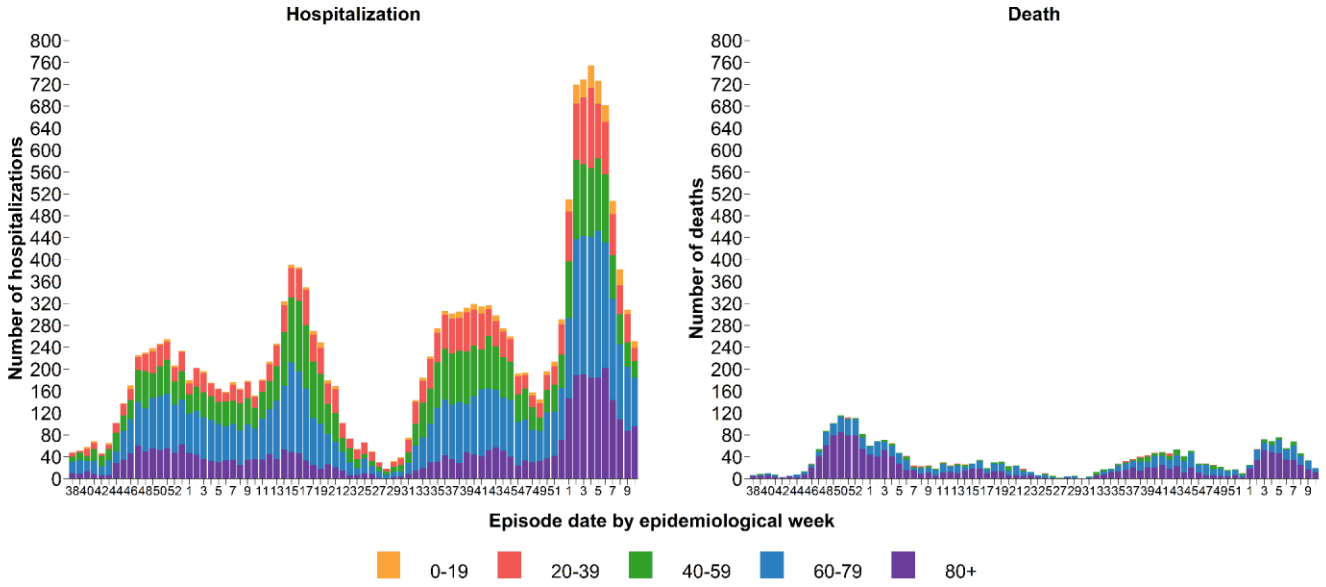
Cumulatively, there have been 28 confirmed cases of Multi-system Inflammatory Syndrome in children and adolescents (MIS-C) in BC since January 1, 2020. There have been two new confirmed cases of MIS-C since the last report. The median age of all cases is 9 years old (range from 1 to 16 years old).

Table 2. COVID-19 severe outcomes by episode date, Health Authority of residence, BC Jan 15, 2020 (week 3) – Mar 12, 2022 (week 10)

Severe outcomes by episode date	Health Authority of residence					Residing outside of Canada	Total n/N[a] (%)
	FH	IH	VIHA	NH	VCH		
Week 10, hospitalizations	99	67	30	28	28	0	252
Cumulative hospitalizations[b]	**8,846**	**3,312**	**1,463**	**1,778**	**3,696**	**17**	**19,112/352,682 (5)**
Week 10, ICU admissions	4	8	2	4	5	0	23
Cumulative ICU admissions[b]	**1,426**	**809**	**329**	**405**	**820**	**2**	**3,791/352,682 (1)**
Week 10, deaths	9	1	1	2	6	0	19
Cumulative deaths	**1,334**	**364**	**227**	**320**	**710**	**0**	**2,955/352,682 (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 8. Weekly COVID-19 hospital admissions and deaths by age groups, BC, Sept 13, 2020 (week 38) – Mar 12, 2022 (week 10)



a. Among those with available age information only.
b. Data source: Health Authority case line lists only. Data may be incomplete and subject to change.

E. Age profile, severe outcomes

Table 3 displays the distribution of cases and severe outcomes. In week 10, median age of hospital admissions, ICU admissions and deaths was 63 years, 62 years and 82 years, respectively, based on Health Authority case line lists only (data not shown).

From week 7 to week 10, there has been a weekly average of 1 death in those <50 years of age, 2 deaths in 50-59 year-olds, 6 deaths in 60-69 year-olds, 11 deaths in the 70-79 year-olds, and 22 deaths in the 80+ year-olds (data not shown). 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) – Mar 12, 2022 (week 10) (N= 352,574)[a]

Age group (years)	Cases n (%)	Hospitalizations n (%) [b]	ICU n (%)	Deaths n (%)
<10	29,382	365 (1)	29 (<1)	2 (<1)
10-19	35,274	283 (1)	35 (<1)	0 (<1)
20-29	70,742	1,150 (2)	127 (<1)	6 (<1)
30-39	67,157	1,984 (3)	311 (<1)	31 (<1)
40-49	51,992	1,964 (4)	410 (1)	64 (<1)
50-59	41,512	2,670 (6)	743 (2)	165 (<1)
60-69	27,833	3,400 (12)	950 (3)	347 (1)
70-79	14,455	3,497 (24)	840 (6)	642 (4)
80-89	9,408	2,772 (29)	322 (3)	974 (10)
90+	4,819	1,076 (22)	37 (1)	724 (15)
Total	**352,574**	**19,161**	**3,804**	**2,955**
Median age [c]	**35**	**63**	**62**	**82**

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.

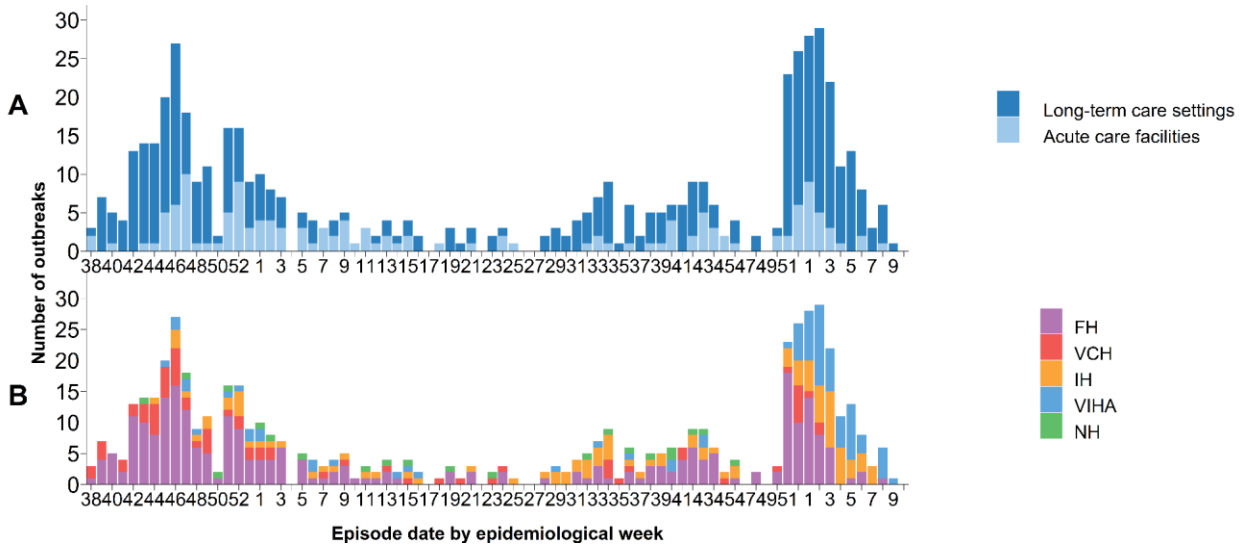
F. Care facility outbreaks

As shown in **Table 4** and **Figure 9**, 602 care facility (acute care and long-term care settings) outbreaks were reported in total in BC to the end of week 10. In week 10, based on earliest case onset date, no 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 of the 19 deaths (5.3%) reported in week 10 was associated with a care facility outbreak. The number of deaths may increase over time as data becomes more complete.

Table 4. 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) – Mar 12, 2022 (week 10) (N=602)

Care facility outbreaks and cases by episode date	Outbreaks	Cases				Deaths			
		Residents	Staff/ other	Unknown	Total	Residents	Staff/ other	Unknown	Total
Week 10, Care Facility Outbreaks	0	27	4	0	31	1	0	0	1
Cumulative, Care Facility Outbreaks	**602**	**7,735**	**3,604**	**7**	**11,346**	**1,372**	**0**	**0**	**1,372**

Figure 9. 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) – Mar 12, 2022 (week 10) (N=534)



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.
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. 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 March 19:

- SARS-CoV-2 viral loads in Annacis Island wastewater plant are slightly higher compared values detected during the prior week.
- SARS-CoV-2 viral loads remain low in Northwest Langley wastewater plant.

- SARS-CoV-2 viral loads in wastewater, for all three wastewater plants within VCH region tested are slightly higher compared values detected during the prior week.
- Routine sampling will help to determine whether these increases observed represent sustained trends or possible variability.

Figure 10. Wastewater surveillance, FH

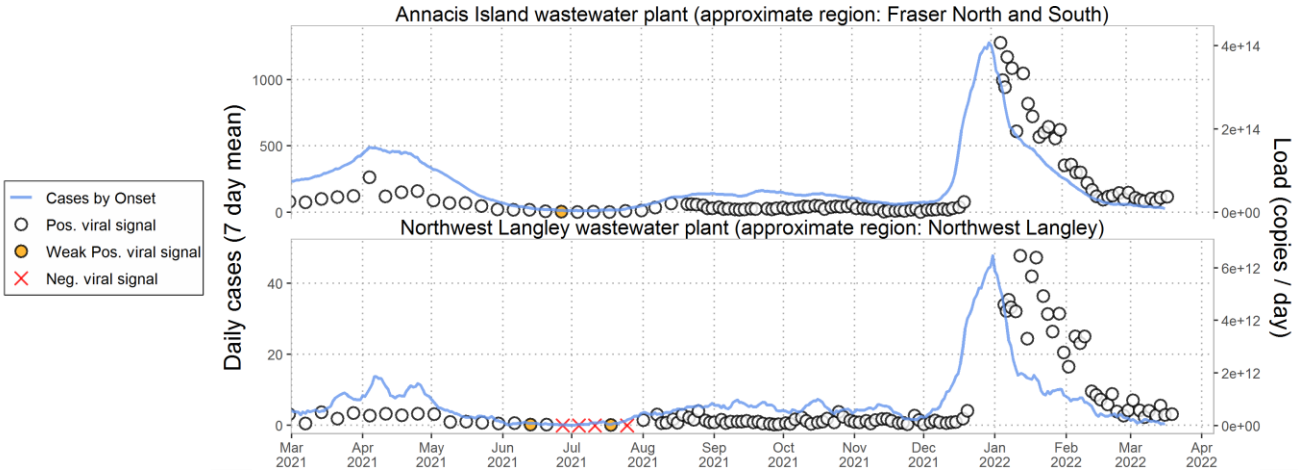
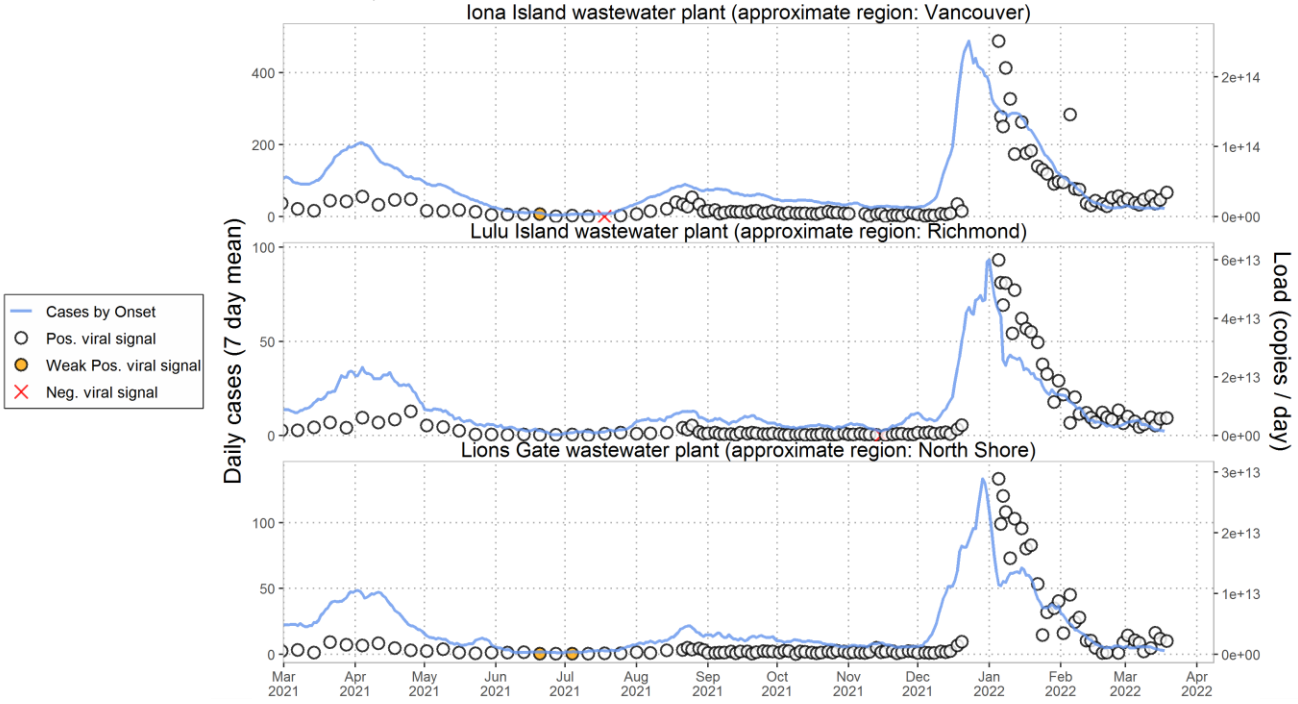


Figure 11. Wastewater surveillance, VCH



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 – 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.