BCCDC Data Summary

10 June 2021
Purpose

The weekly surveillance deck is a summary of COVID-19 related indicators that can help inform the pandemic response in British Columbia. This surveillance monitoring constitutes the medical chart for population health assessment that guides the public health community of practice. As such this is a working document that reflects a snapshot in time and may differ from other published reports.

Data Sources

The collection, use and disclosure of case data is subject to the Public Health Act. COVID-19 cases are reported under the Public Health Act to the health authority of residence. Public health case notification, clinical management, contact tracing and follow-up contributes surveillance data for regional and provincial COVID-19 monitoring. Each regional health authority have their own workflows and information systems for capture of relevant data. This data foremost serves the public health and clinical management of the case and their contacts.

Disclaimer

• Data and key messages within these documents are not finalized and considered to be work in progress that is subject to retroactive changes as more data and information become available.

• Accurate interpretation of figures may be difficult with the limited inclusion of data notes and methodology descriptions in this document.
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Overall Summary

• Case rates are declining in all HAs, and provincially cases are at the lowest count since October 2020; test positivity is declining, ~5% provincially for publicly funded tests and 3.6% for all tests.
  • Percent positivity <10% in all HAs and age groups

• New hospitalizations continue to decline; hospital/critical care census is declining or stable across BC; new deaths are stable and low.
  • Majority of hospitalizations continue to be among individuals aged >40 years

• The share of VOCs among all positive tests in BC is ~78% in epi week 22 (May 30 to June 5). Among sequenced samples provincially based on information for epi week 22, P.1(Gamma) (~46%) and B.1.1.7 (Alpha) (~45%) remain two dominant VOCs, with B.1.617.2 (Delta) representing ~9% of VOCs.

• BC, as of June 9: ~72% of those 12+ have received at least 1 dose; 8% have received 2 doses.
Jun 03 to Jun 09: BC COVID-19 Profile

- **Total cases**: 145,843 (1,176 new this week)
- **Total deaths**: 1,725 (18 new this week)
- **Ever hospitalized**: 7,807 (81 new this week)
- **Removed from isolation**: 142,106 (1,868 new this week)

New daily COVID-19 cases, hospitalizations and deaths, Aug 01 2020 - Jun 08 2021

*Data are by surveillance date for cases and deaths, and admission date for hospitalizations.
Data source: PHRDW Jun-09-2021*
Case rates are declining in all HAs; new hospitalizations are declining or stable in all HAs; new deaths are stable and low.

For latest version of a graph similar to this one (difference: hospital census, not new hospitalizations), see the Epi App.
Hospital and critical care census is declining or stable in all regions.

Current COVID-19 hospitalizations, Apr 01 2020 - Jun 08 2021

* Data are by census date for hospitalizations
Data source: PHSA Provincial COVID19 Monitoring Solution (PCMS) Jun-09-2021
Number of hospitalizations continues to decrease. The number of hospitalizations among individuals <40 years is low. Deaths are low and mostly among individuals ≥ 60 years.

Data extracted on 2021-06-10; hospitalization and death data from health authority case line list data
COVID-19 Recent 7-Day Case Incidence Rates by CHSA (June 2 to 8, 2021)

For latest version of this map, see the new (note: change symbols not included) COVID-19 Surveillance Dashboard.
Total cases by local health area, Jun 02 - Jun 08, 2021

<table>
<thead>
<tr>
<th>Fraser</th>
<th>Interior</th>
<th>Northern</th>
<th>Vancouver Coastal</th>
<th>Vancouver Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surrey</td>
<td></td>
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<tr>
<td>Abbotsford</td>
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<td>Tri-Cities</td>
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<tr>
<td>Burnaby</td>
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<td>Maple Ridge/Pitt Meadows</td>
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<td>Langley</td>
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<td>New Westminster</td>
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<tr>
<td>South Surrey/White Rock</td>
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<tr>
<td>Hope</td>
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<tr>
<td>Central Okanagan</td>
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</tbody>
</table>

Percent of total cases:
- □ < 1%
- □ 1.0% - 2.9%
- □ 3.0% - 4.9%
- □ 5.0% - 9.9%
- □ 10% +

For latest version of this map, see the new COVID-19 Surveillance Dashboard
Case incidence decreasing or stable in all HAs. Percent positivity <10% in all HAs.

Data source: PLOVER 08-Jun-2021
For latest version of this map, see the new COVID-19 Surveillance Dashboard.
COVID-19 Vaccination Coverage by CHSA: Ages 12+ 1st Dose (up to June 7, 2021)

For latest version of this map, see the new COVID-19 Surveillance Dashboard

Vaccination coverage rate (%) of persons 12+

- ≤ 50 %
- 51 - 60 %
- 61 - 70 %
- 71 - 80 %
- > 80 %

Change from prior week (absolute change)

△ highest decile (increase >7%)

Notes: Vaccine coverage data from Health Canada population 12+ data from Client Record.

*Please note that the data class breaks have been adjusted to better fit the current data distribution.*
For latest version of this map, see the new COVID-19 Surveillance Dashboard.
For latest version of this map, see the new COVID-19 Surveillance Dashboard.

COVID-19 Vaccination Coverage by CHSA: Ages 50+ 1st Dose (up to June 7, 2021)
Vaccination progress in BC by age group up to June 9, 2021

This figure can also be found in the weekly data summary.
Nationally, BC’s vaccination rate is very close to Canadian average; internationally, Canada is one of the countries with the highest proportion of the population with at least one dose.

Data source: Open Data
Visualization: BCCDC

Data source: Our World in Data
Visualization: BCCDC
Lab - Key Messages

1. **Percent positivity** among publicly funded tests is 6% and among all tests, it is 5%.
   - Testing rates decreased 6% this week (~39,000 total tests May 30 to June 5)
2. There are regional differences in percent positivity, ranging from 1.2% in VIHA to 6.5% in NH.
3. Incidence continues to decline in all age groups; percent positivity is <10% in all age groups.
4. The provincial weekly median **turnaround time** (time from specimen collection to lab result) is 13 hours, indicating good testing capacity; only 1 in 4 tests took ≥24 hours to result.
5. The share of **VOCs** among all positive tests in BC is ~78% in epi week 22 (May 30-June 5).
6. Sequencing-based VOC prevalence for epi week 22 shows distribution of lineages: P.1 (Gamma)~46%, B.1.1.7 (Alpha)~45% and B.1.617.2 (Delta) ~9%.
<table>
<thead>
<tr>
<th>Summary</th>
<th>Total Specimens</th>
<th>New This Epi Week</th>
<th>(\downarrow 6%) Relative to Last Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Lab Tests</td>
<td>2,784,932</td>
<td>39,420</td>
<td>(\downarrow 6%) Relative to Last Week</td>
</tr>
<tr>
<td></td>
<td>153,173</td>
<td>1,419</td>
<td>(\downarrow 1.4%) Absolute Change from Last Week</td>
</tr>
<tr>
<td></td>
<td>15 hr</td>
<td>8 [8-24]</td>
<td>(\uparrow 8%) TAT Relative to Last Week</td>
</tr>
</tbody>
</table>

**Data source:** PLOVER extract at 10:30am on June 9, 2021.
Epi week 22 (May 30 – June 5)
For latest version of this map, see the new (note: change symbols not included) COVID-19 Surveillance Dashboard.
COVID-19 Recent 7-Day Test Positivity by CHSA (June 2 to 8, 2021)

Includes all tests

For latest version of this map, see the new (note: change symbols not included) COVID-19 Surveillance Dashboard

Recent 7-day testing positivity:
- 0.0%
- 0.1 - 1.0%
- 1.1 - 2.0%
- 2.1 - 3.0%
- 3.1 - 5.0%
- 5.1 - 10.0%
- 10.1 - 20.0%
- > 20.0%

Change from prior week (test positivity absolute change >3%):
- ▼ decrease
- ▲ increase

BC Centre for Disease Control
Incidence is stable or decreasing across regions; positivity is >10% in Northeast HSDA.
Incidence continues to decline in all age groups; percent positivity is <10% in all age groups.
Of all COVID-19 positive test samples in epi week 22 (May 30 – June 5) in BC, ~78% were confirmed VOCs.

Prevalence of Presumptive and Sequenced VOCs, by epi week in BC and Health Authorities Jan 3 – May 30, 2021

Data from the Plover system at the BCCDC Public Health Lab

Shaded Area reflects partial data and is subject to change

This figure can also be found in the weekly VOC report
Among sequenced samples provincially based on information for epi week 22, P.1 (~46%) and B.1.1.7 (~45%) remain two dominant VOCs. B.1.617 increasing, currently represents ~9% of VOCs.

* the B.1.1.7 and P.1 VoC lineages are captured either by qPCR SNP screen or WGS for randomly selected samples up to epiweek 22; all other circulating VoCs are WGS confirmed and exclude samples sequenced for cluster and/outbreak investigation. In week 12, we used a qPCR SNP that is comprised of a dual N501Y and E484K assay
Across Canada, cases are declining everywhere. Hospital census declining or stable in all provinces. Death rates are low and stable.

New daily rates per 100K population
(7-day moving average)

Data up to 2021-06-09
For latest version of this graph and data notes, see the Epi App
Compared with other large provinces, BC has the lowest case rate similar to QC, and one of lowest hospitalization census, similar to ON and QC.
BC’s case rate and hospitalization census is similar to what is observed in the Nordic countries.

For latest version of this graph and data notes, see the Epi App.
Dynamic compartmental modeling: recent trends

Our model shows that Rt remains below 1 and is trending downward in all regions in BC.

**BC (0.63 → 0.57)**

**Fraser (0.57 ≈ 0.53)**

**Vancouver (0.66 → 0.55)**

**Coastal**

**Interior (0.90 → 0.79)**

**Vancouver (0.61 → 0.56)**

**Island**

**Northern (0.72 → 0.51)**

Solid black line: median $R_t$, modeled using all reported cases up to June 7, 2021. Grey band: 5%-95% credible interval; Purple bars: all reported cases. Due to lag from symptom onset to reporting, most recent case counts and Rt are not shown. Recent trend shown comparing 7 day average $R_t$ from (last week → this week). Data source: BCCDC HA linelet.
Dynamic Compartmental Modelling: recent trends

- Higher vaccine uptake; 70% contact rate
- Lower vaccine uptake; 70% contact rate
- Higher vaccine uptake; 80% contact rate
- Lower vaccine uptake; 80% contact rate

The graph shows the reported cases from January to August 2021, fitting from March 1, 2020, to June 6, 2021.
Model notes and assumptions

- $R_t$ modelling: a dynamic compartmental model was fit to COVID-19 data for BC using a Bayesian framework (Anderson et al. 2020. PLoS Comp. Biol. 16(12): e1008274). Results are presented as provincial and regional time-varying estimates of average daily transmission rate ($R_t$).
  - the model does not consider importation of cases, hence all transmission is assumed to arise from local cases
  - the model does not distinguish cases arising from variants of concern (VoCs) versus ‘wild-type’ COVID-19, hence model estimates represent average rates of transmission
Additional Resources

• BCCDC COVID-19 Surveillance Dashboard showing maps, vertical plots, and trends by LHA can be found [here](#)

• More BC COVID-19 data, including the latest Situation Report, maps, and BC COVID-19 public dashboard, can be found [here](#)

• For more information on variants of concern and whole genome sequencing, the latest report is posted [here](#)

• To put BC provincial, Health Authority, and HSDA trajectories into national and international context, see [BCCDC COVID-19 Epidemiology app](#)

• [COVID SPEAK 2020 Round 1 Survey results](#)

• Slides for previous public and modelling briefings by Dr. Bonnie Henry can be found [here](#)

• PHAC’s COVID-19 Epidemiology update can be found [here](#)