



Respiratory Epidemiology Summary

October 20th, 2022

Summary

This report presents information from laboratory testing, community healthcare practitioner visits, and wastewater surveillance indicators used to monitor the activity of seasonal respiratory viruses circulating in British Columbia (BC).

Our data suggest that respiratory illnesses are continuing to increase in BC. This is expected, as many viruses that cause respiratory illnesses circulate more in the fall and winter. SARS-CoV-2, the virus that causes COVID-19, continues to spread, its rate of increase is not as quick as other respiratory viruses. The data suggest that most of the observed relative increase is related to viruses that cause upper respiratory tract infections (enterovirus/rhinovirus, parainfluenza, adenovirus, human metapneumovirus, and seasonal coronavirus).

One key indicator is the share of visits to community healthcare practitioners that are because of symptoms of a new respiratory illness, such as a cough or fever. This indicator has been increasing, with the biggest increase in visits for acute respiratory infections seen among children and youth, which is typical of seasonal respiratory infections. Because presenting symptoms may overlap for various respiratory conditions, there is potential for misclassification. Clinical visit data should be interpreted along with pathogen characterization data.

Other important indicators are laboratory test results of submitted respiratory specimens. Only some people visiting a healthcare practitioner or people who are part of an identified outbreak are sent for further testing to identify the virus causing their illness. There has been an increase in positive enterovirus/rhinovirus (ERV) results. Although SARS-CoV-2 is the predominant virus detected among these tests, the percent positivity is relatively stable.

Finally, wastewater tests from water treatment plants suggest relatively stable SARS-CoV-2 detection overall, with slow increases in SARS-CoV-2 detection at certain plants over the past two months.

Pathogen Characterization

The number of respiratory viruses detected continues to be stable and expected during the month of October.

Currently, SARS-COV-2 is the most commonly tested and detected virus in the province. ERVs are the second most commonly detected viruses in B.C. However, after accounting for testing volumes, test positivity for SARS-CoV-2 is lower than that of ERV. There was a small increase in RSV positivity in the past week that remains comparable with previous seasons. Furthermore, a mix of Influenza A and B have been detected so far.



Community Visits for Respiratory Illness

Overall, community visit rates to health care practitioners for respiratory symptoms have been increasing since mid-September. The trend of increase continues for community visit rates for acute respiratory infection-related symptoms and for pneumonia and influenza related symptoms (see Supplementary Information for more details). Higher visit rates are observed among younger children, which is a typical pattern for seasonal respiratory viruses. COVID-19-related visits have been relatively stable across regions and age groups.

Since mid-September, community visits (based on physician billing codes) for:

- Acute respiratory symptoms increased in all regions and particularly among the 0-19 age group.
- COVID-19-related symptoms have remained generally stable across regions and age groups.
- Note that community visit numbers are based on physician billing codes which are assigned based on clinical suspicion. Presenting symptoms may overlap for various respiratory conditions, and there is potential for misclassification. Trends presented here should be interpreted along with pathogen characterization data. Please refer to the limitations section of the data notes in the Supplementary Information section for further information.

Wastewater

SARS-CoV-2 viral loads measured in most wastewater plants in Metro Vancouver are relatively stable for the past two months, with slow increases in SARS-CoV-2 detection at certain plants over the past two months.

- Data from Lion's Gate plant are excluded from trend analysis, as data from this plant is more variable than expected. This may be due to unique features of the plant's operation, though the exact cause is under review. Though not included in our analysis, these data are included in our figure and identified as excluded.



COVID-19 Weekly Summary

In the most recent week (October 9–October 15, 2022), the number of reported COVID-19 cases among individuals eligible for PCR testing was lower compared to the previous week (October 2–October 8, 2022). Trends in severe outcomes (hospitalizations, critical care admissions, and deaths) are relatively stable overall based on reported information so far.

Within the last four weeks (September 18–October 15, 2022):

- The average number of cases remained stable.
- The number of new hospital admissions has generally remained stable.
- The number of critical care admissions remained stable. Numbers, ranged from 1 and 10 counts daily.
- The number of deaths within 30 days of a first positive COVID-19 test remained stable. Numbers, ranged from 1 and 10 daily.

Within the last week (October 9–October 15, 2022):

- There were 628 cases reported this week.
- There were 174 new hospital admissions reported.
- There were 31 new critical care admissions reported.
- There were 32 deaths within 30 days of a first positive COVID-19 test reported.
- We operate in a live database environment and it is expected that the number of hospitalizations admissions, critical care admissions and deaths in the current report week will increase over time with further updates of data feeds to BC Centre for Disease Control.