



## Respiratory Epidemiology Summary

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October 13<sup>th</sup>, 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 beginning to increase in BC. This is expected, as many viruses that cause respiratory illnesses circulate more in the fall and winter. While 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 number of people visiting a community healthcare practitioner 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.

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 stable.

Finally, wastewater tests from water treatment plants suggest relatively stable SARS-CoV-2 detection overall, but increases in SARS-CoV-2 detection at certain plants.

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### Pathogen Characterization

*Since mid-September, the number of positive tests for entero and/or rhinoviruses have been increasing; percent positivity is similar to that observed historically for this season. The number of positive tests for all other respiratory illnesses remain stable with a recent modest increase in Influenza A.*

Currently, SARS-CoV-2 is the most commonly detected virus in the province, and also the most commonly tested virus in the province. Entero and/or rhinoviruses are the second most commonly detected virus in B.C. However, after accounting for testing volumes, test positivity for SARS-CoV-2 is lower than that of entero and/or rhinoviruses.



## Community Visits for Respiratory Illness

*Overall, community visit rates to health care practitioners for respiratory symptoms have been increasing since mid-September. The greatest increase was for community visit rates for acute respiratory infection-related symptoms (see Supplementary Information for more details). 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.
- Symptoms of pneumonia and influenza illness increased among the 0-9 year 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. Presenting symptoms may overlap for various 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 stable. Northwest Langley, which historically has had more variable viral loads than other plants, has seen a more sustained increase in viral loads.*

- Viral loads at Annacis Island WWTP (Fraser North and South), have increased slightly over the past two weeks.
- Viral loads at Northwest Langley WWTP (Northwest Langley), have increased over the past five weeks.
- Viral loads at Iona Island WWTP (Vancouver), have increased slightly over the past three weeks.
- Viral loads at Lulu Island WWTP (Richmond), has decreased slightly over the past five weeks.
- Data from the Lion's Gate plant are excluded. Please refer to data notes section of Supplementary Information for more information.



## COVID-19 Weekly Summary

*In the most recent week (October 2-October 8, 2022), the number of reported COVID-19 cases among individuals eligible for PCR testing was stable compared to the previous week (September 25-October 1, 2022). Trends in severe outcomes (hospitalizations, critical care admissions, and deaths) are relatively stable overall based on reported information so far. From October 2-October 8, 2022:*

- There were 697 cases reported.
- There were 181 new hospital admissions reported.
- There were 36 new critical care admissions reported.
- There were 25 deaths within 30 days of a 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.