Public Health Ontario | Santé publique Ontario

USER GUIDE

Ontario Respiratory Virus Tool

Updated: October 2025

Introduction

The Ontario Respiratory Virus Tool integrates a number of different data sources to provide a comprehensive view of respiratory virus infection activity in the province. This user guide describes the contents of this interactive report, how it is organized, and the functionalities for visualizing the content.

This interactive report includes case data for COVID-19 and influenza, lab testing and outbreak data for COVID-19, influenza, RSV, and other respiratory viruses within Ontario. Data for COVID-19 starts from January 2020, while for other viruses, additional historical data is available. The ORVT will always contain data for ten surveillance periods: nine years of historical data, plus data for the current surveillance period, where available.

The tool is organized into five tabs based on the content type included:

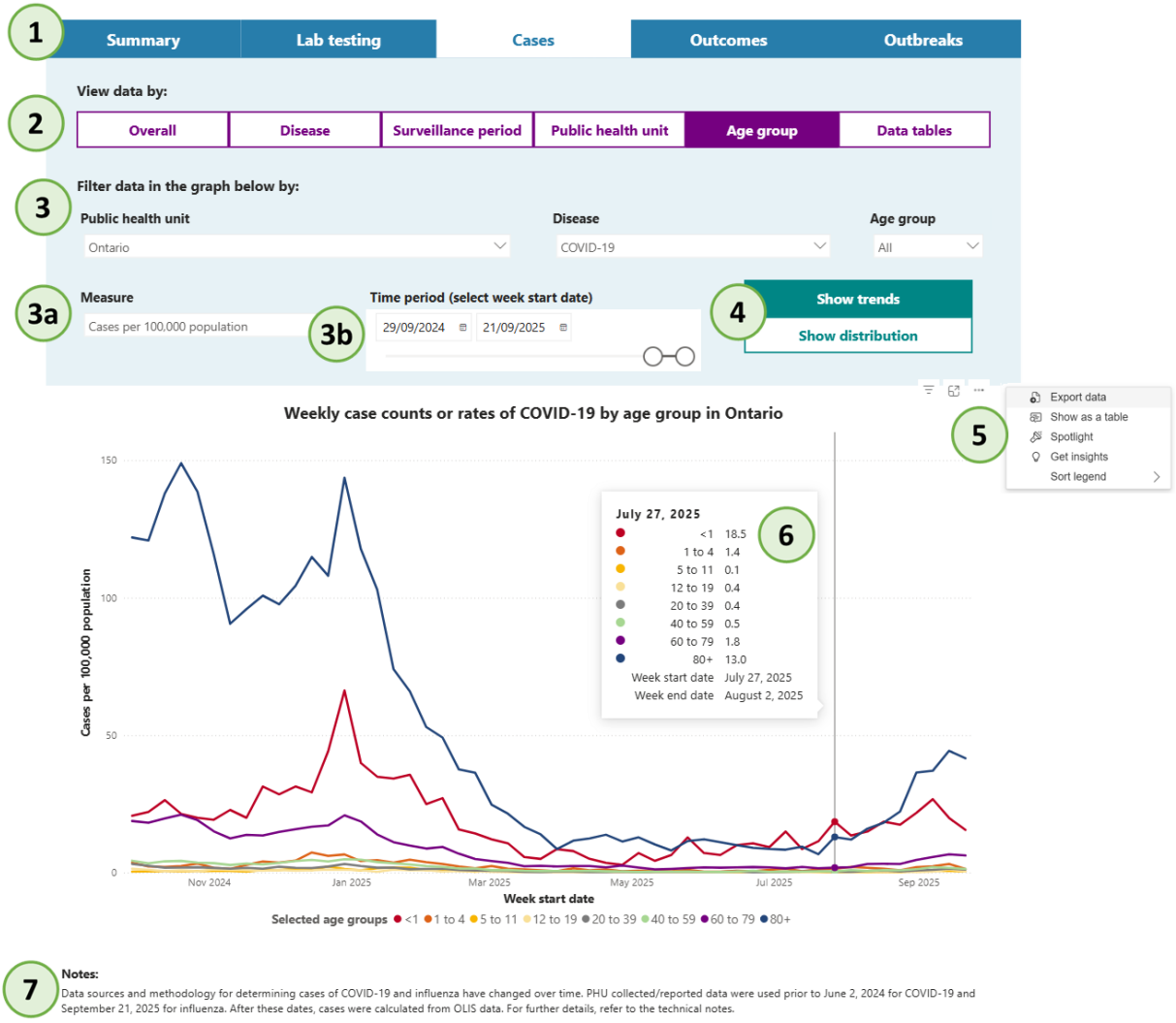
- **Summary tab:** contains high level summary information on recent activity and positivity levels for COVID-19, influenza, RSV, and other respiratory viruses including a map displaying indicator data by public health unit
- **Lab testing tab:** contains information on laboratory test results for COVID-19, influenza, RSV, and other respiratory viruses
- **Cases tab:** contains information on cases of COVID-19 and influenza
- **Outcomes tab:** contains information on COVID-19, influenza, and RSV hospital admissions, bed occupancy and COVID-19 deaths
- **Outbreaks tab:** contains information on outbreaks of COVID-19, influenza, RSV, and other respiratory viruses

Each tab contains different selection criteria for users to view the data by several stratifiers, enabling them to make comparisons. Some of the options available include selecting by virus, surveillance period, public health unit, age group, and setting. Specific details on what is contained in all the tabs and sections is outlined throughout this document.

Using the Ontario Respiratory Virus Tool

Overview

Generally the functionality is similar across the different tabs in the tool. The available selection areas are numbered and summarized below.



1. **Navigation bar:** This top navigation bar is used to move between the different tabs (Summary, Lab testing, Cases, Outcomes, Outbreaks. The tab being viewed is indicated in white, while the others remain blue.
2. **Stratifiers (View data by):** The buttons in the ‘View data by’ navigation bar are used to change the stratifier used in the graph. Selecting a stratifer organizes the larger data sets and allows users to view the data by subsets with similar characteristics (e.g., disease, public health unit, age group). The stratifiers for this tool vary depending on the tab users have selected. The current selection is indicated in purple, while the others remain white.

3. **Filters:** Filters are used to break down the data within each section by selecting the drop down arrow. The filter will either allow for a single selection or multi-selection depending on the stratifier selected. The Age group filters are multi-select throughout all of the tabs. Further details on filters in specific tabs are available in the 'Report overview' section below.
    - The 'Measure' filter appears within all of tabs and stratification views except when 'Overall' is selected on the 'View data by' navigation bar. Selecting 'Overall' changes the measure being used to plot the data on the graph.
    - The 'Time period' filter is used to adjust the time period used to plot the data on the x-axis of the graph by either selecting a start and end date in the top boxes or by dragging the slider below the date selection. The weekly data in the graph will always start on the Sunday of that week. If a different day of the week is selected then the graph will default to the following Sunday. If 'Surveillance period' is selected in the 'View data by' navigation bar, the 'Time period' filter will be replaced by one where only the entire surveillance period can be selected.
4. **Changing views:** In some tabs there are two views available for the stratifier. You can view the data in the graph by selecting either the Showing trends view or the Show distribution view for that specific stratifier (e.g., by age group or by setting). These buttons will appear on the right side of the time selector when the Changing views functionality is available.
5. **Download data from the graph:** When hovering over a graph, a context menu (denoted by three dots) will appear at the top right. Once selected, users can choose to export the data in the graph or view the data in the graph as a table. To capture an image of the graph, users can use the Snipping tool built into Microsoft Windows (Windows logo key + Shift + S) or macOS (Command + Shift + 5).
6. **Tooltips:** When hovering over any data point on a graph, a tooltip will appear with related information about that data point.
7. **Notes:** Beneath the visualization in each tab are brief notes describing important considerations for data interpretation. Further details can be found in the technical notes.

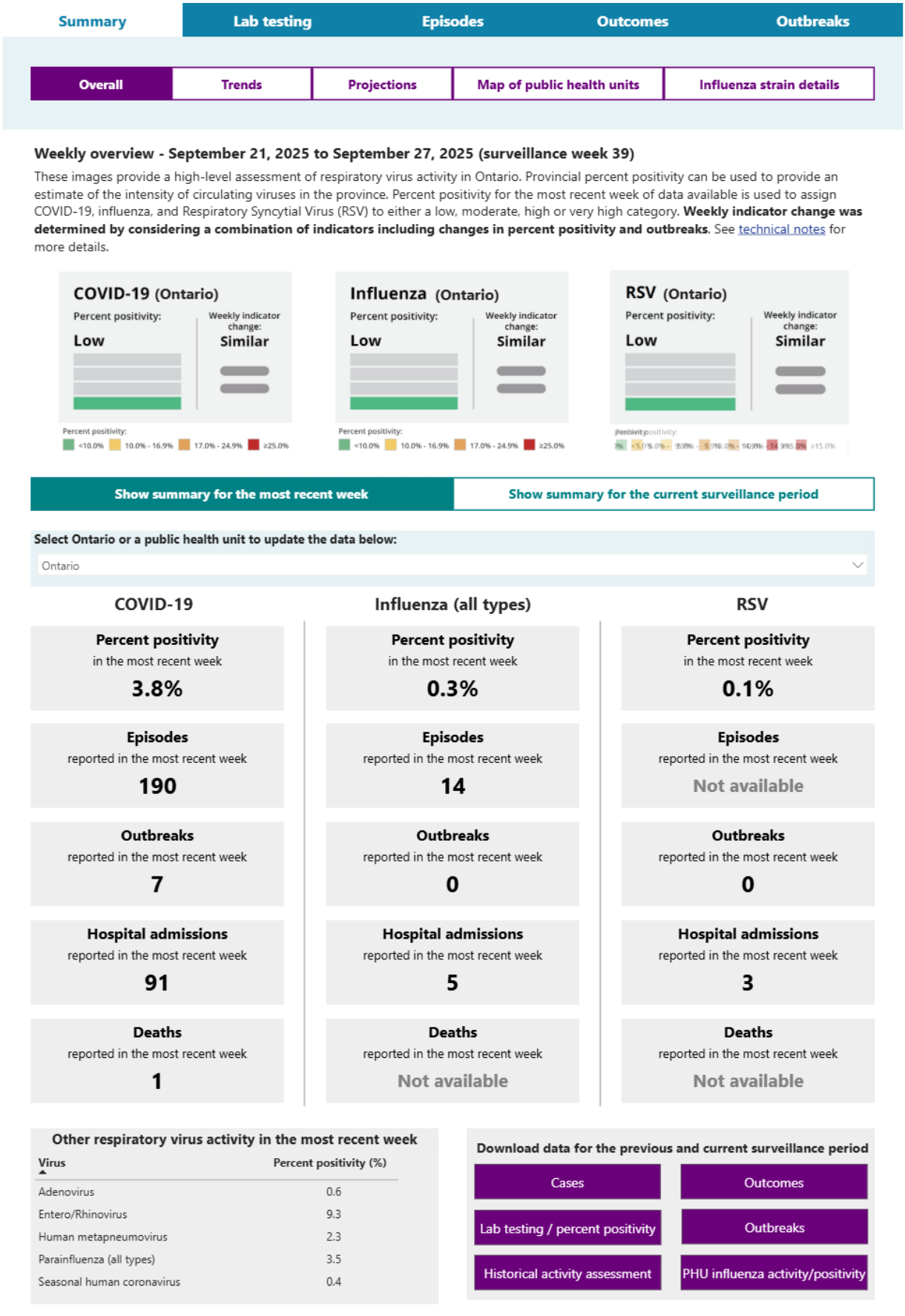
Summary Tab

This tab contains high level summary information on recent activity and positivity levels for COVID-19, influenza, RSV, and other respiratory viruses in the province. The tab contains five sections:

Weekly Summary

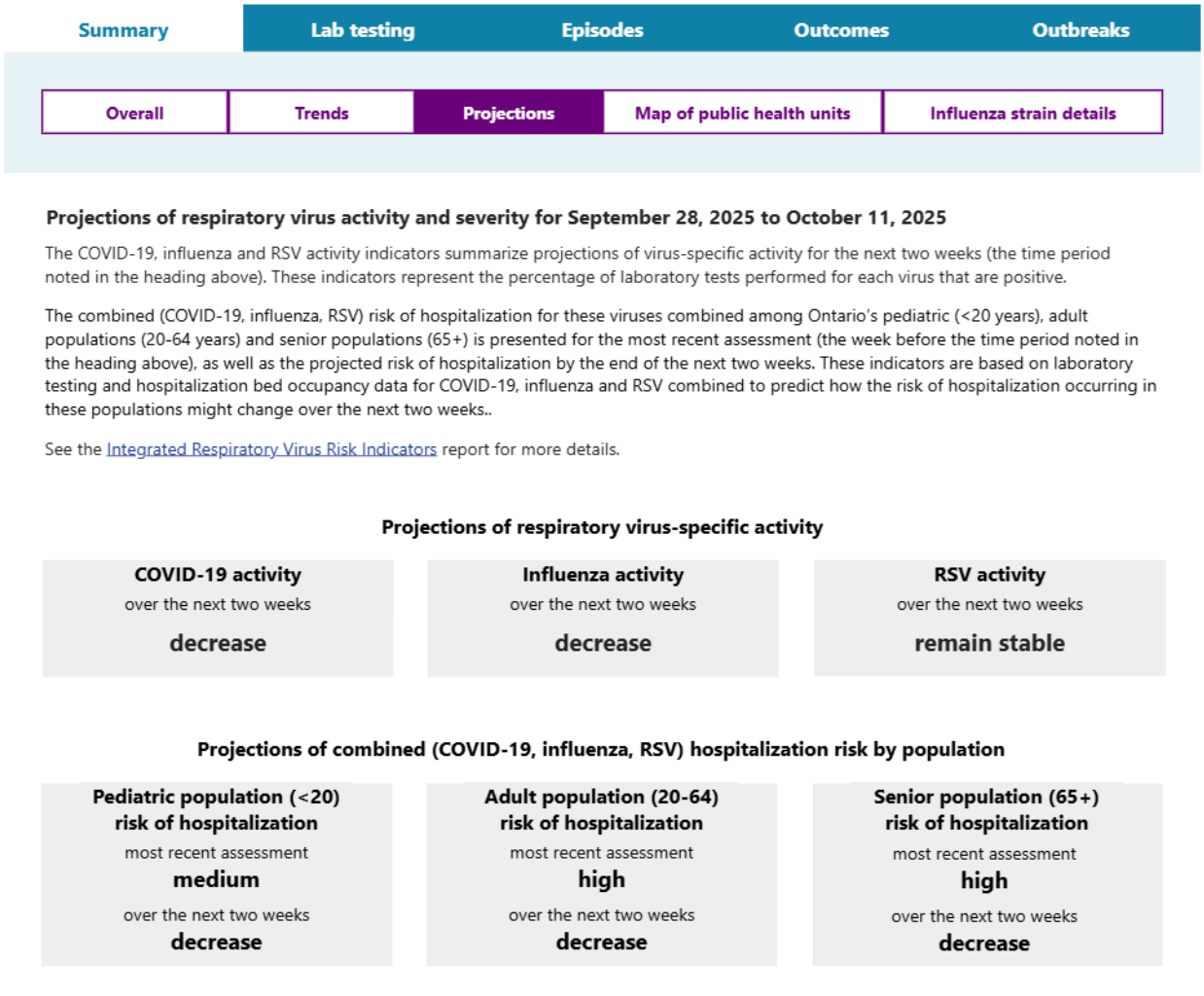
This section provides at-a-glance information for key respiratory virus indicators in the most recent week for which data are available, along with surveillance period-to-date totals. At the top of the page are three pictograms showing COVID-19, influenza, and RSV percent positivity (percent of persons tested who tested positive for the virus) and the change in activity from the previous week based on a combination of indicators including percent positivity and outbreaks. Below that are provincial or public health unit level indicators for COVID-19, influenza, and RSV including percent positivity, cases (COVID-19 and influenza only), outbreaks, hospital admissions, and deaths (COVID-19 only). The two buttons under the pictograms are used to switch between the previous week's results and the surveillance period totals. At the bottom left of the page is a table with positivity levels in the most recent week for all other respiratory viruses. Lastly, at the bottom right of the page are buttons which can be used to download CSV files containing data for the previous and current surveillance periods. Users can also connect directly to these datasets from the following links:

- Cases
- Lab testing/percent positivity
- Outcomes
- Outbreaks
- Historical activity assessment
- PHU influenza activity/positivity


Summary
Lab testing
Episodes
Outcomes
Outbreaks
Overall
Trends
Projections
Map of public health units
Influenza strain details
Weekly overview - September 21, 2025 to September 27, 2025 (surveillance week 39)
These images provide a high-level assessment of respiratory virus activity in Ontario. Provincial percent positivity can be used to provide an estimate of the intensity of circulating viruses in the province. Percent positivity for the most recent week of data available is used to assign COVID-19, influenza, and Respiratory Syncytial Virus (RSV) to either a low, moderate, high or very high category. Weekly indicator change was determined by considering a combination of indicators including changes in percent positivity and outbreaks. See technical notes for more details.
COVID-19 (Ontario)
Percent positivity:
Low
Weekly indicator change:
Similar
Influenza (Ontario)
Percent positivity:
Low
Weekly indicator change:
Similar
RSV (Ontario)
Percent positivity:
Low
Weekly indicator change:
Similar
Show summary for the most recent week
Show summary for the current surveillance period
Select Ontario or a public health unit to update the data below:
Ontario
COVID-19
Percent positivity
in the most recent week
3.8%
Episodes
reported in the most recent week
190
Outbreaks
reported in the most recent week
7
Hospital admissions
reported in the most recent week
91
Deaths
reported in the most recent week
1
Influenza (all types)
Percent positivity
in the most recent week
0.3%
Episodes
reported in the most recent week
14
Outbreaks
reported in the most recent week
0
Hospital admissions
reported in the most recent week
5
Deaths
reported in the most recent week
Not available
RSV
Percent positivity
in the most recent week
0.1%
Episodes
reported in the most recent week
Not available
Outbreaks
reported in the most recent week
0
Hospital admissions
reported in the most recent week
3
Deaths
reported in the most recent week
Not available
Other respiratory virus activity in the most recent week
Virus
Percent positivity (%)
Adenovirus 0.6
Entero/Rhinovirus 9.3
Human metapneumovirus 2.3
Parainfluenza (all types) 3.5
Seasonal human coronavirus 0.4
Download data for the previous and current surveillance period
Cases
Outcomes
Lab testing / percent positivity
Outbreaks
Historical activity assessment
PHU influenza activity/positivity

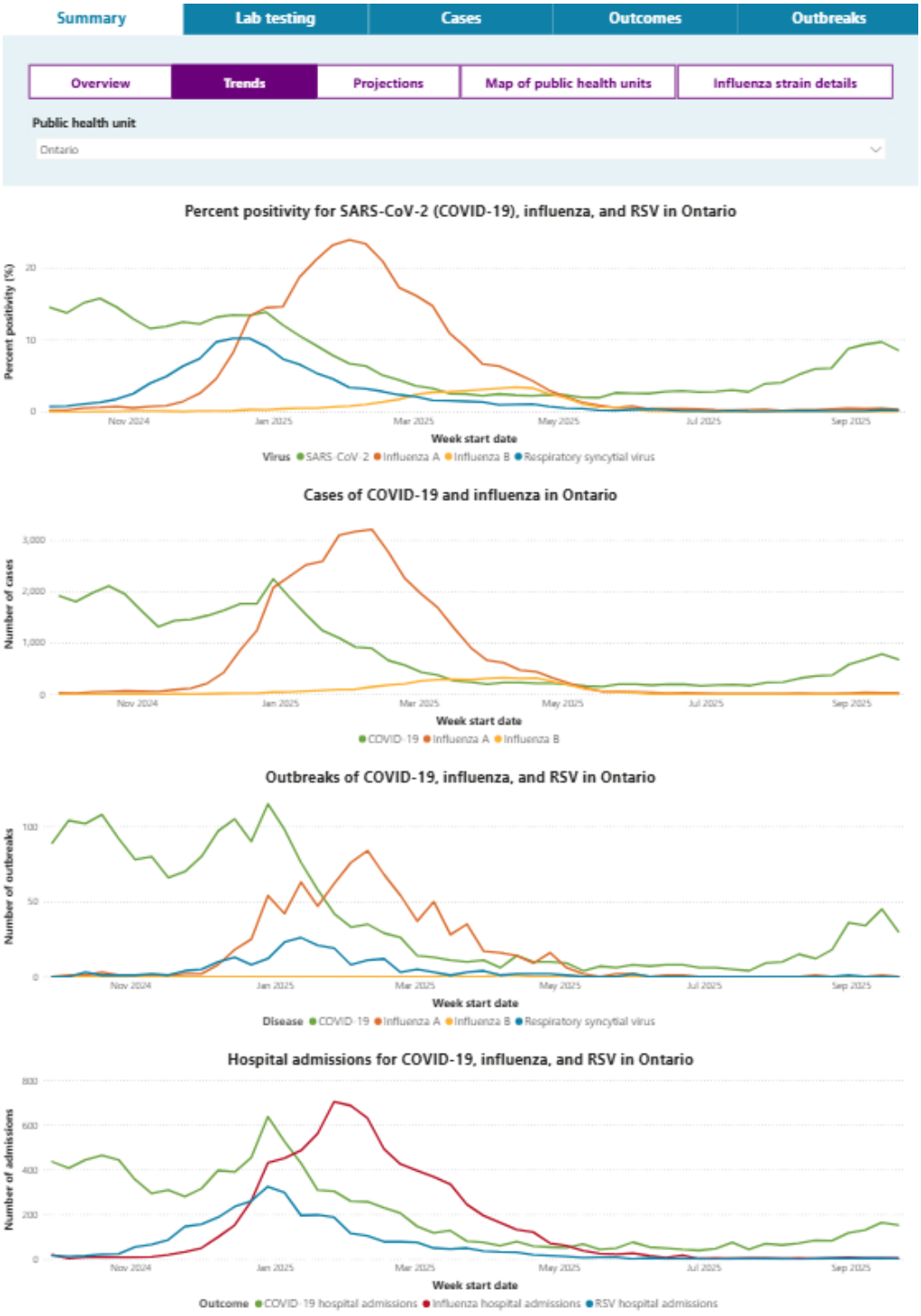
Projections

This section shows projections of respiratory virus activity for COVID-19, influenza, and RSV over the next two weeks, risk of hospitalization for the three viruses combined in the most recent assessment period, and the change predicted for that risk over the next two weeks.



Trends

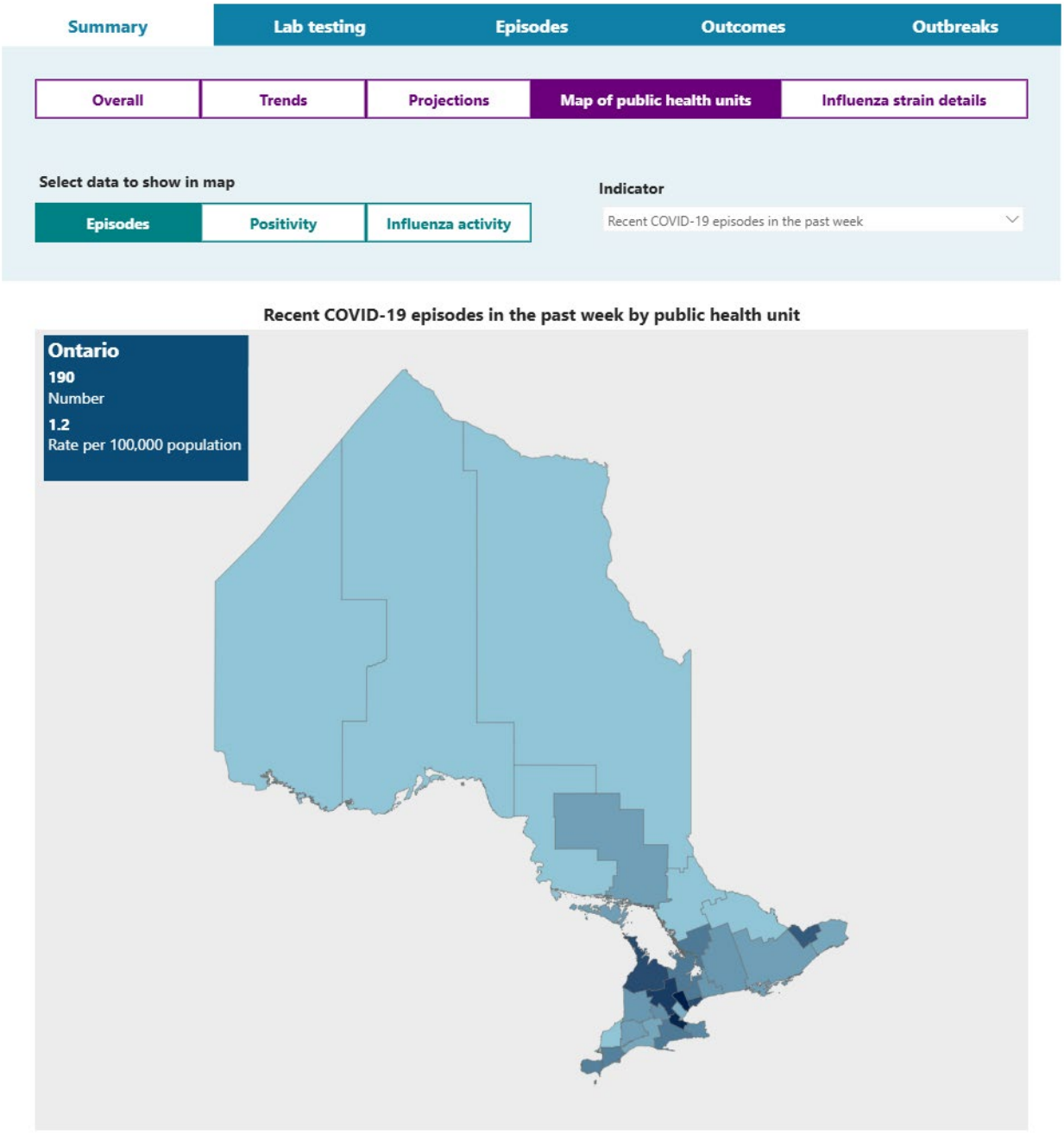
This section shows provincial trends of key indicators over the past 52 weeks for COVID-19, influenza, and RSV at the provincial or public health unit level.



Map of Public Health Units

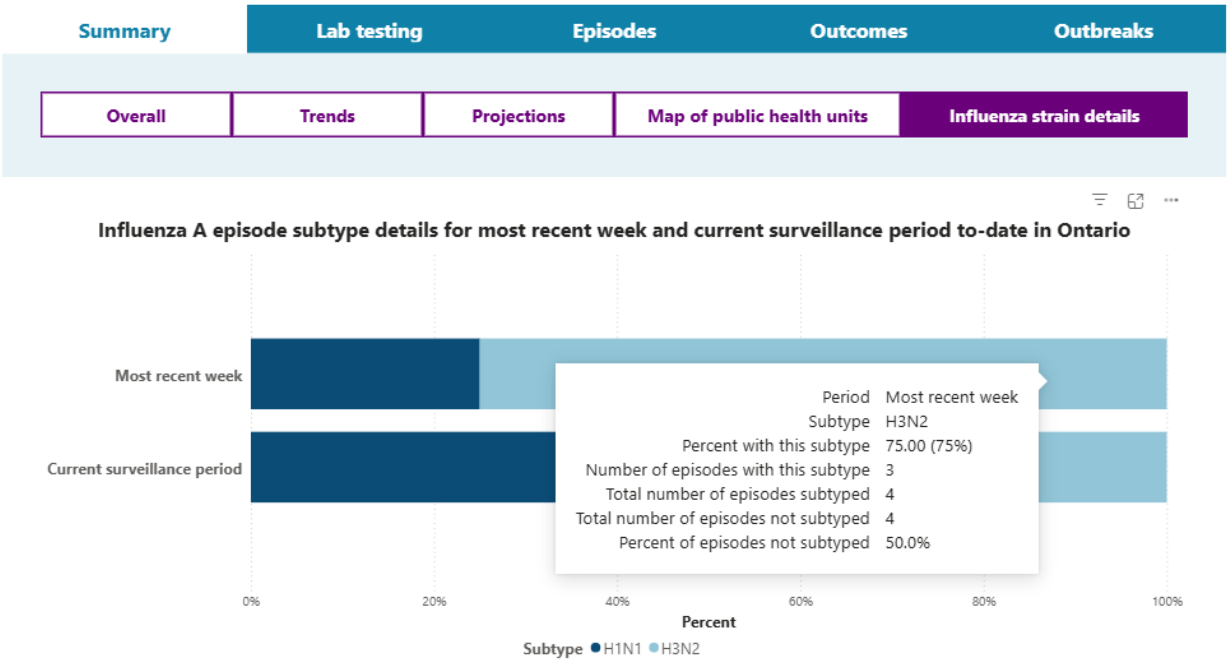
Contains a shaded map of the information selected by public health unit. The information shown in the map can be changed by selecting:

- **Cases**: Previous week and surveillance period-to-date (most recent data available) COVID-19 and influenza cases, previous week and surveillance period-to-date (most recent data available) COVID-19 deaths, and COVID-19, influenza, and RSV hospital admission data.
- **Positivity**: COVID-19, influenza, and RSV percent positivity levels, including historical data.
- **Influenza activity**: Influenza activity levels, including historical data.



Influenza Strain Details

This section shows further detail on circulating strains of influenza including case subtype details, strain characterization, and antiviral susceptibility.



Strain characterization completed on influenza positive isolates at the National Microbiology Laboratory, Ontario and Canada, September 1, 2024 to July 24, 2025

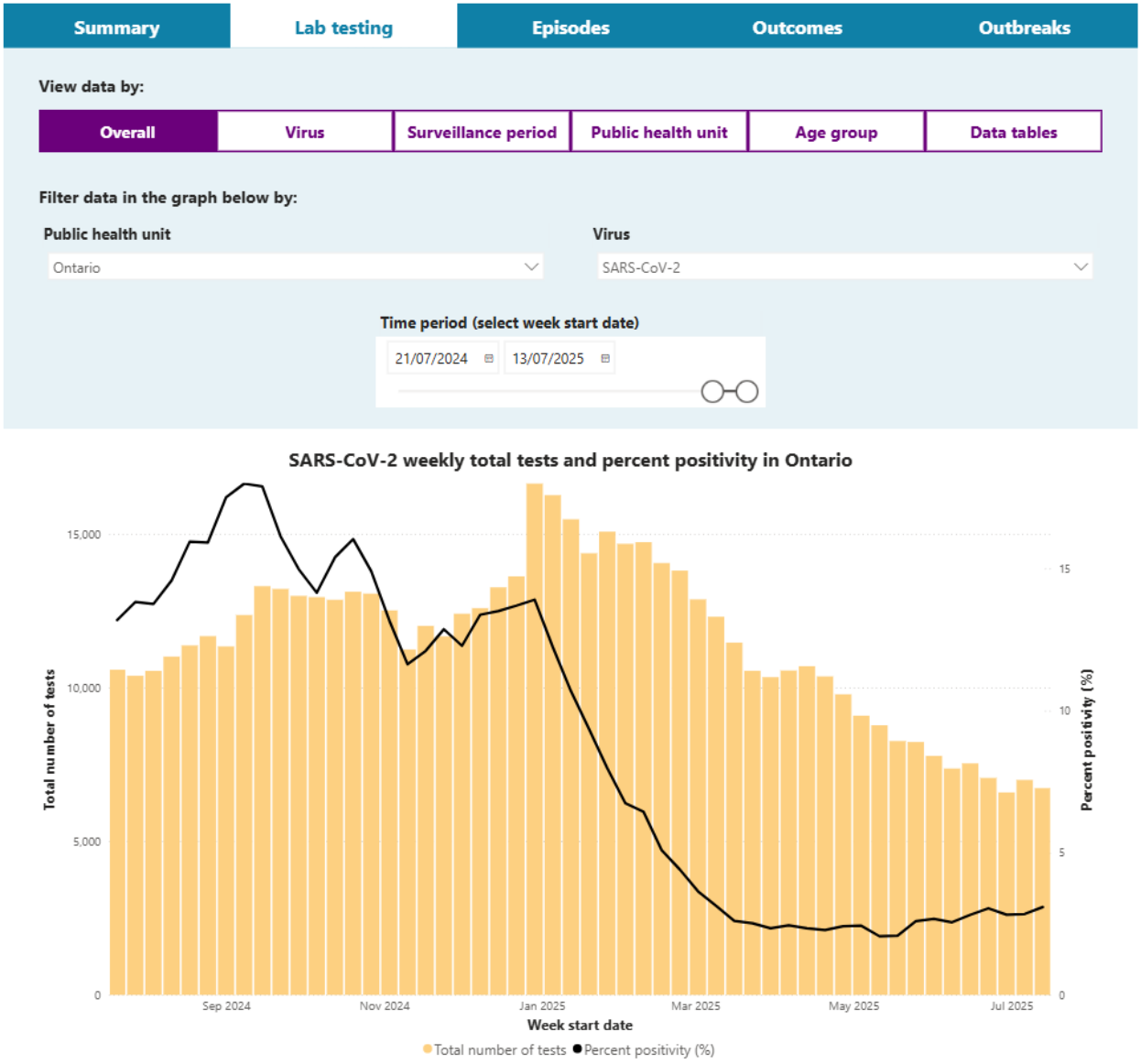
Subtype	Strain	Ontario (#)	Canada (#)
Influenza A (H1N1)	A/Wisconsin/67/2022-like	117	940
Influenza A (H3N2)	A/Massachusetts/18/2022-like	64	462
Influenza B	B/Austria/1359417/2021-like	41	203

Antiviral susceptibility assay completed on influenza positive isolates at the National Microbiology Laboratory, Ontario and Canada, September 1, 2024 to July 24, 2025

Subtype	Drug type	Susceptibility	Ontario (#)	Canada (#)
Influenza A (H1N1)pdm09	Oseltamivir	Resistant	2	9
Influenza A (H1N1)pdm09	Oseltamivir	Susceptible	108	902
Influenza A (H1N1)pdm09	Zanamivir	Resistant	0	2
Influenza A (H1N1)pdm09	Zanamivir	Susceptible	110	909
Influenza A (H3N2)	Oseltamivir	Resistant	0	0
Influenza A (H3N2)	Oseltamivir	Susceptible	60	441
Influenza A (H3N2)	Zanamivir	Resistant	0	0
Influenza A (H3N2)	Zanamivir	Susceptible	60	441
Influenza B	Oseltamivir	Resistant	0	0
Influenza B	Oseltamivir	Susceptible	41	194
Influenza B	Zanamivir	Resistant	0	0
Influenza B	Zanamivir	Susceptible	41	194

Lab Testing Tab

This tab contains information on laboratory test results for respiratory viruses in the province, with the ability to filter and view data by key stratifiers.



This tab contains six sections:

Overall

This section contains a bar and line graph displaying total number of tests and percent positivity by week. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), virus (SARS-CoV-2, influenza by subtype, adenovirus, entero/rhinovirus, human metapneumovirus, parainfluenza, respiratory syncytial virus, seasonal coronavirus), and time period.

Virus

This section contains a multi-line graph displaying weekly trends for the selected measure (number of total tests, number of positive tests, or percent positivity), allowing users to compare trends for the selected viruses. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), virus (SARS-CoV-2, influenza by subtype, adenovirus, entero/rhinovirus, human metapneumovirus, parainfluenza, respiratory syncytial virus, seasonal coronavirus), and time period. Filtering by more than one virus will add lines to the graph for the selected viruses.

Surveillance Period

This section contains a multi-line graph displaying weekly trends for the selected measure (number of total tests, number of positive tests, or percent positivity) over different surveillance periods, allowing users to compare seasonal differences in the data. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), virus (SARS-CoV-2, influenza by subtype, adenovirus, entero/rhinovirus, human metapneumovirus, parainfluenza, respiratory syncytial virus, seasonal coronavirus), and time period. Filtering by more than one surveillance period will add lines to the graph for the selected surveillance periods. This section also has a button which will switch the view to display a bar graph showing the distribution by surveillance period for the selected time period.

Public Health Unit

This section contains a multi-line graph displaying weekly trends for the selected measure (number of total tests, number of positive tests, or percent positivity), allowing users to compare trends by public health unit. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), virus (SARS-CoV-2, influenza by subtype, adenovirus, entero/rhinovirus, human metapneumovirus, parainfluenza, respiratory syncytial virus, seasonal coronavirus), and time period. Filtering by more than one public health unit will add lines to the graph for the selected public health units (by default, only the provincial line is selected). This section also has a button which will switch the view to display a bar graph showing the distribution by public health unit for the selected time period.

Age Group

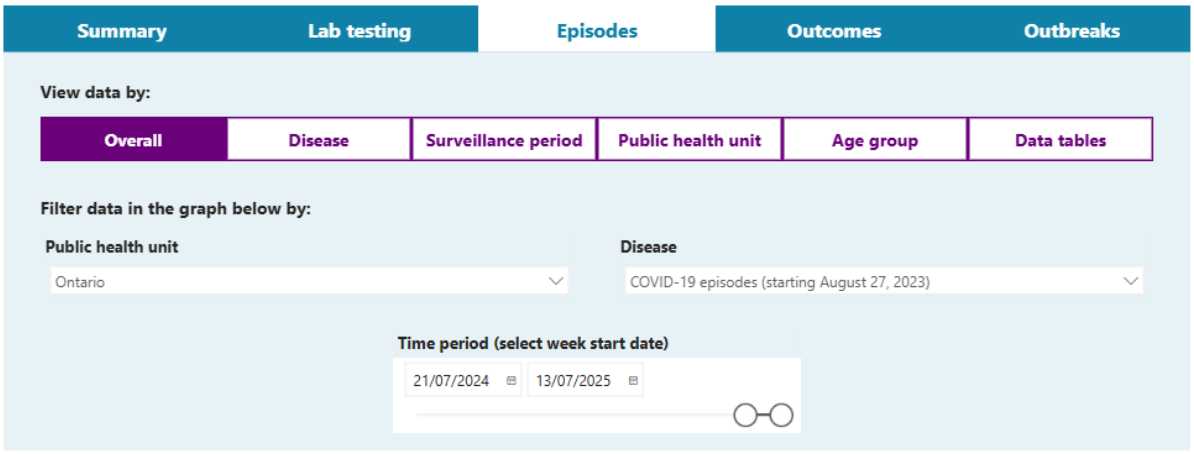
This section contains a multi-line graph displaying weekly trends for the selected measure (number of total tests, number of positive tests, or percent positivity), allowing users to compare trends by age group. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), virus (SARS-CoV-2, influenza by subtype, adenovirus, entero/rhinovirus, human metapneumovirus, parainfluenza, respiratory syncytial virus, seasonal coronavirus), age group, and time period. Filtering by more than one age group will add lines to the graph for the selected age groups. This section also has a button which will switch the view to display a bar graph showing the distribution by age group for the selected time period.

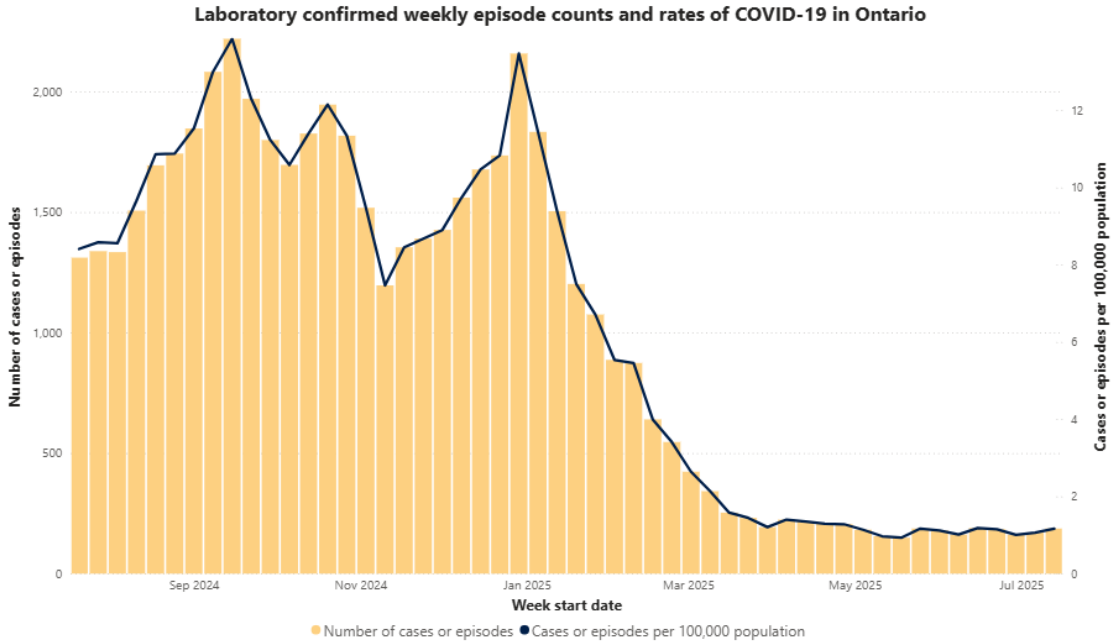
Data Tables

This section allows the user to build a table with lab testing data which can be exported. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), virus (SARS-CoV-2, influenza by subtype, adenovirus, entero/rhinovirus, human metapneumovirus, parainfluenza, respiratory syncytial virus, seasonal coronavirus), and time period. This section has a filter which allows the user to add surveillance week and age group to the table.

Cases Tab

This tab contains information on cases of COVID-19 and influenza in the province, and provides users with the ability to view data by key stratifiers with options to further filter the data.





This tab contains six sections:

Overall

This section contains a bar and line graph displaying cases and rates by week. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19 or influenza by subtype (all types, influenza A, influenza A H1, influenza A H3, influenza B)), and time period.

Disease

This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates), allowing users to compare trends by disease. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19 or influenza by subtype (all types, influenza A, influenza A H1, influenza A H3, influenza B)) , and time period. Selecting more than one disease in that filter will add the corresponding information to the graph.

Surveillance Period

This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates) over different annual surveillance periods, allowing users to compare seasonal differences in the data. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19 or influenza by subtype (all types, influenza A, influenza A H1, influenza A H3, influenza B)) , and surveillance period. Filtering by more than one surveillance period will add those lines to the graph. This section also has a button which will switch the view to display the data for surveillance period totals.

Public Health Unit

This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates), allowing users to compare trends by public health unit. Users can filter the data by public health unit
(province of Ontario or one of the 29 PHUs in the province), disease (COVID-19 or influenza by subtype (all types, influenza A, influenza A H1, influenza A H3, influenza B)), and time period. Filtering by more than one public health unit will add those PHUs to the graph (by default, only the provincial line is selected). This section also has a button which will switch the view to display a bar graph showing the distribution by public health unit for the selected time period.

Age Group

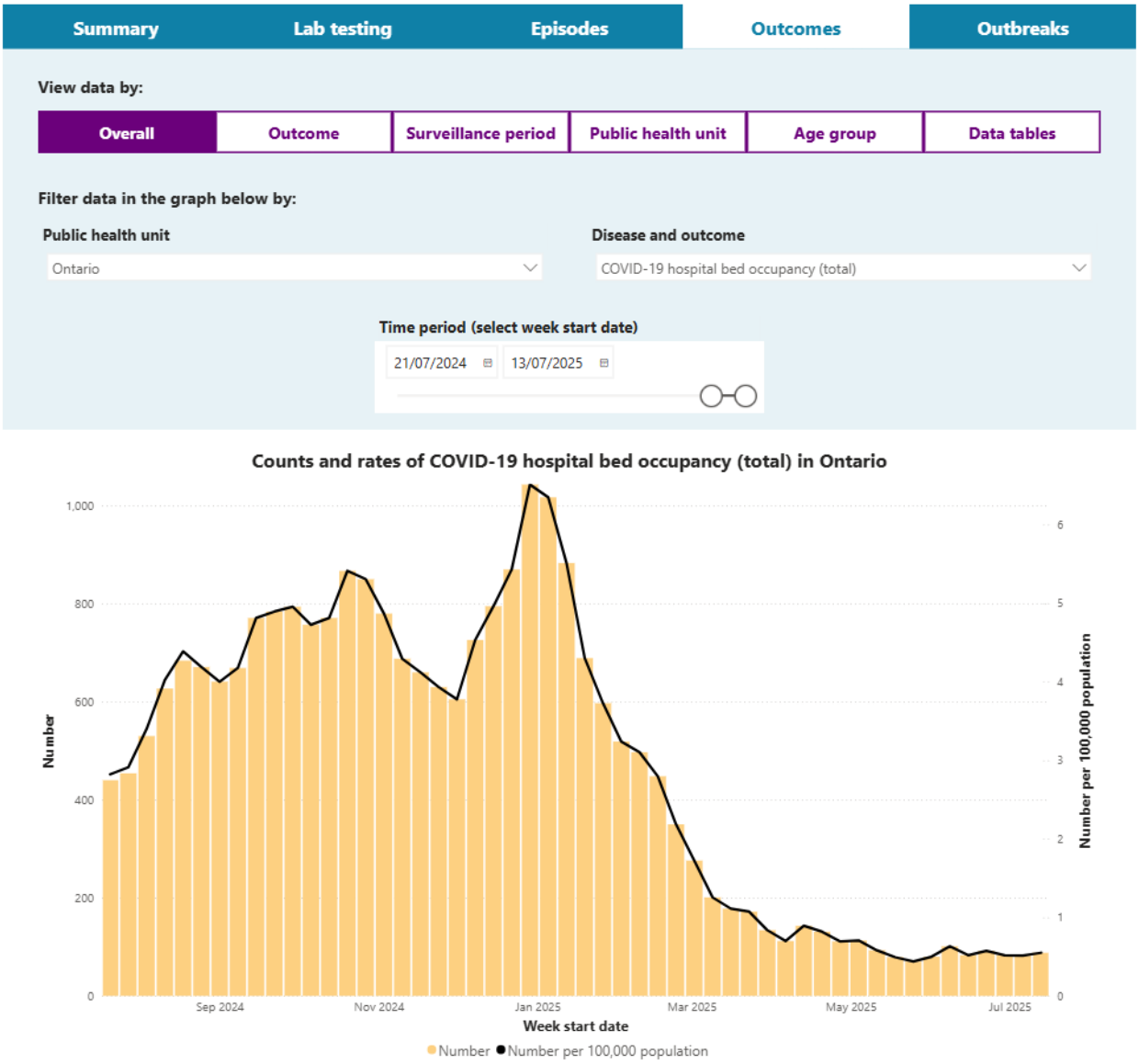
This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates), allowing users to compare trends by age group. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19 or influenza by subtype (all types, influenza A, influenza A H1, influenza A H3, influenza B)), age group, and time period. Filtering by more than one age group will add those age groups to the graph. This section also has a button which will switch the view to displaying a bar graph showing the distribution by age group for the selected time period. Age group data is not available for influenza cases beginning October 13, 2024.

Data Tables

This section allows the user to build a table with case data which can be exported. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19 or influenza by subtype (all types, influenza A, influenza A H1, influenza A H3, influenza B)), and time period. This section has a filter which allows the user to add surveillance week and age group to the table. Age group data is not available for influenza cases beginning October 13, 2024.

Outcomes Tab

This tab contains information on outcomes for COVID-19, influenza, and RSV in the province, and provides users with the ability to view data by key stratifiers with options to further filter the data.



This tab contains six sections:

Overall

This section contains a bar and line graph displaying the outcomes and rates by week. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), outcome (hospital admissions, bed occupancy and deaths (COVID-19 only)), and time period.

Outcome

This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates), allowing users to compare trends by outcome. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), outcome (hospital admissions, bed occupancy and deaths (COVID-19 only)), and time period. Selecting more than one outcome in that filter will add the corresponding information to the graph.

Surveillance Period

This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates) over different annual surveillance periods, allowing users to compare seasonal differences in the data. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), outcome (hospital admissions, bed occupancy and deaths (COVID-19 only)), and surveillance period. Filtering by more than one surveillance period will add those lines to the graph. This section also has a button which will switch the view to display the data for surveillance period totals (totals are available for COVID-19 hospital admissions and deaths only).

Public Health Unit

This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates), allowing users to compare trends by public health unit. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), outcome (hospital admissions, bed occupancy and deaths (COVID-19 only)), and time period. Filtering by more than one public health unit will add those public health units to the graph (by default, only the provincial line is selected). This section also has a button which will switch the view to display a bar graph showing the distribution by public health unit for the selected time period.

Age Group

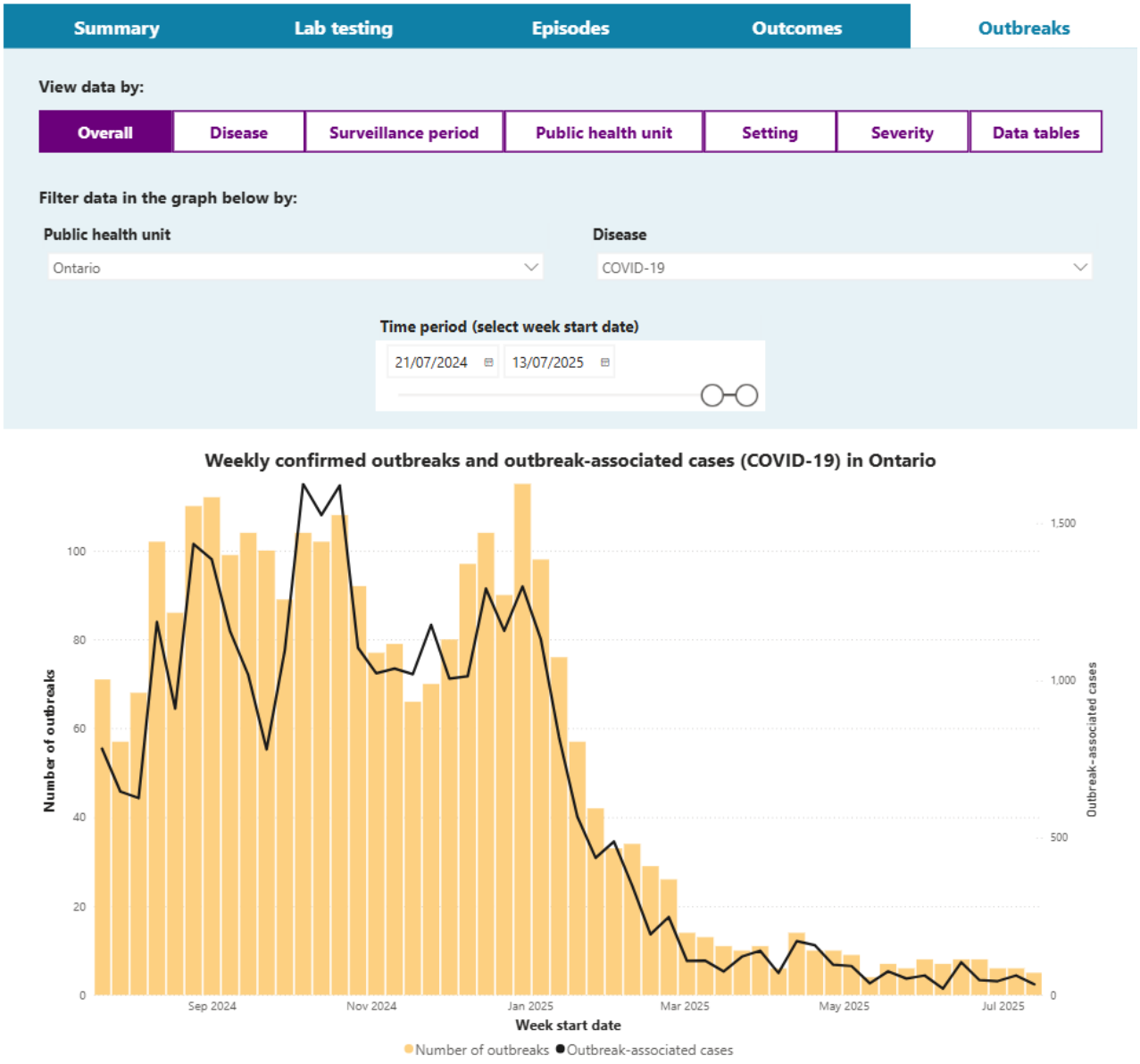
This section contains a multi-line graph displaying weekly trends for the selected measure (cases or rates) for hospital bed occupancy or a graph showing distribution by age group for COVID-19 hospital admissions and deaths. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), age group, and time period.

Data Tables

This section allows the user to build a table with outcome data which can be exported. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), outcome (hospital admissions, bed occupancy, and deaths (COVID-19 only)), and time period.

Outbreaks Tab

This tab contains information on outbreaks of respiratory viruses in the province, with the ability to view data by key stratifiers, as well as filter the data.



This tab contains seven sections:

Overall

This section contains a bar and line graph displaying the number of outbreaks and outbreak-associated cases by week. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), and time period.

Disease

This section contains a multi-line graph displaying weekly trends for the selected measure (outbreaks or outbreak-associated cases), allowing users to compare trends for the selected diseases. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), and time period. Filtering by more than one disease will add lines to the graph for the selected diseases.

Surveillance Period

This section contains a multi-line graph displaying weekly trends for the selected measure (outbreaks or outbreak-associated cases) over different surveillance periods, allowing users to compare seasonal differences in the data. Users can filter the data by public health unit (Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), and time period. Filtering by more than one surveillance period will add lines to the graph for the selected surveillance period. This section also has a button which will switch the view to display a bar graph showing the distribution by surveillance period for the selected time period.

Public Health Unit

This section contains a multi-line graph displaying weekly trends for the selected measure (outbreaks or outbreak-associated cases), allowing users to compare trends by public health unit. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), and time period. Filtering by more than one public health unit will add lines to the graph for the selected public health units (by default only the provincial line is selected). This section also has a button which will switch the view to display a bar graph showing the distribution by public health unit for the selected time period.

Setting

This section contains a stacked bar graph displaying weekly trends for the selected measure (outbreaks or outbreak-associated cases), allowing users to compare trends by setting. Users can filter the data by public health unit (Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), setting (congregate care [long-term care homes, hospitals, retirement homes], congregate living [group home/ supportive housing, correctional facility, shelter], other, unknown), and time period. Filtering by more than one setting will add bars to the graph for the selected settings. This section also has a button which will switch the view to display a bar graph showing the distribution setting for the selected time period.

Severity

This section contains both a stacked bar chart comparing counts of outbreak-associated severity measures (cases, hospitalizations, deaths) by disease and role (residents/patients or staff) as well as box plots displaying information on the distribution of the rates of outbreak-associated severity measures (cases, hospitalizations, deaths) by disease in a given surveillance period. Users can filter the data by public health unit (Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), setting (long-term care homes, hospitals, retirement homes), and role (residents/patients or staff). A table below the distribution figures displays the data being used for the box plot for the counts, number of outbreaks, minimum, 25th percentile, median, 75th percentile, and maximum values.

Data Tables

This section allows the user to build a table with outbreak data which can be exported. Users can filter the data by public health unit (province of Ontario or one of the 29 PHUs in the province), disease (COVID-19, influenza A, influenza B, entero/rhinovirus, parainfluenza, respiratory syncytial virus, other, more than one, none detected), and time period. This section has a filter which allows the user to add surveillance week, setting category (congregate care, congregate living, other/unknown), and setting (congregate care [long-term care homes, hospitals, retirement homes], congregate living [group home/supportive housing, correctional facility, shelter], other/unknown [other, unknown]) to the table.

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). User guide: Ontario respiratory virus tool. Toronto, ON: King's Printer for Ontario; 2025.

Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication. The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use. This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

Public Health Ontario

Public Health Ontario is an agency of the Government of Ontario dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

For more information about PHO, visit publichealthontario.ca.

Ontario