

USER GUIDE

Health Care-Associated Infection Query

Published: September 2025

Introduction

Health Care-Associated Infection (HAI) Query is an interactive report providing ongoing monitoring of three health care-associated infections in Ontario. Content focuses on aggregated health care-associated infections extracted from the Self Reporting Initiative (SRI) and Health Data Collection System (HDCS) databases. These reports include data for *Clostridium difficile* infection (CDI), methicillin resistant *Staphylococcus aureus* (MRSA) bacteremias and vancomycin resistant *enterococcus* (VRE) bacteremias.

The data are refreshed monthly (CDI) or quarterly (MRSA and VRE bacteremias) and they include summarized counts of newly reported nosocomial cases from September 1, 2008 by hospital, Public Health Unit (PHU), and Local Health Integration Network (LHIN).

The purpose of this document is to introduce users to HAI Query, outline how to use the tool, and describe report features available to explore the data.

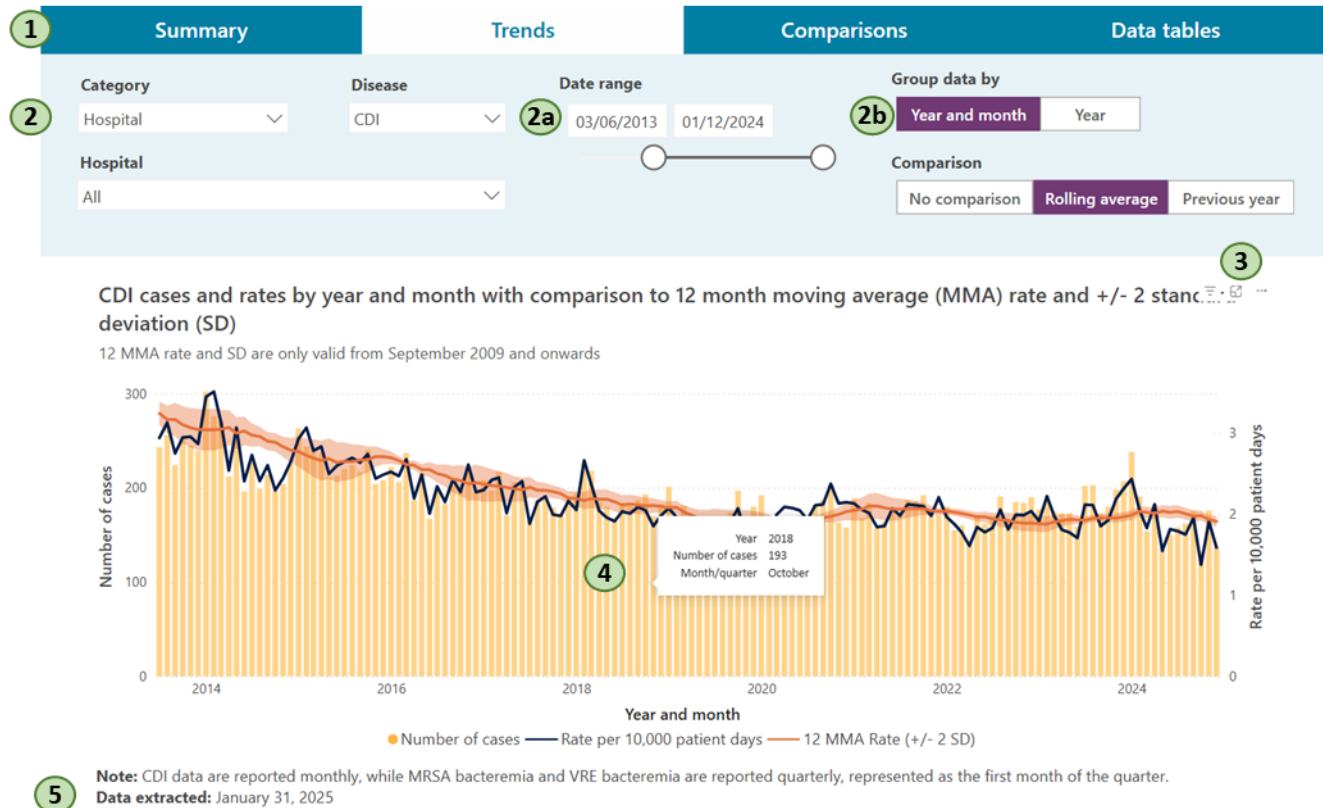
HAI Query is organized into four separate tabs:

- Summary tab: Contains trend over time and year-to-date information on case counts and rate per 10,000 patient days for selected hospitals and Ontario overall.
- Trends tab: Contains trend over time information, including comparisons to the 12-month moving average and previous calendar year's rate.
- Comparisons tab: Contains comparisons of all hospitals and geographic areas for a given time period.
- Data tables tab: Contains a customizable table allowing users to view and export data at the hospital level.

Using HAI Query

Overview

Generally, the functionality is similar across the different tabs along the navigation bar, in blue. The available selection areas of the tool are numbered and summarized below.

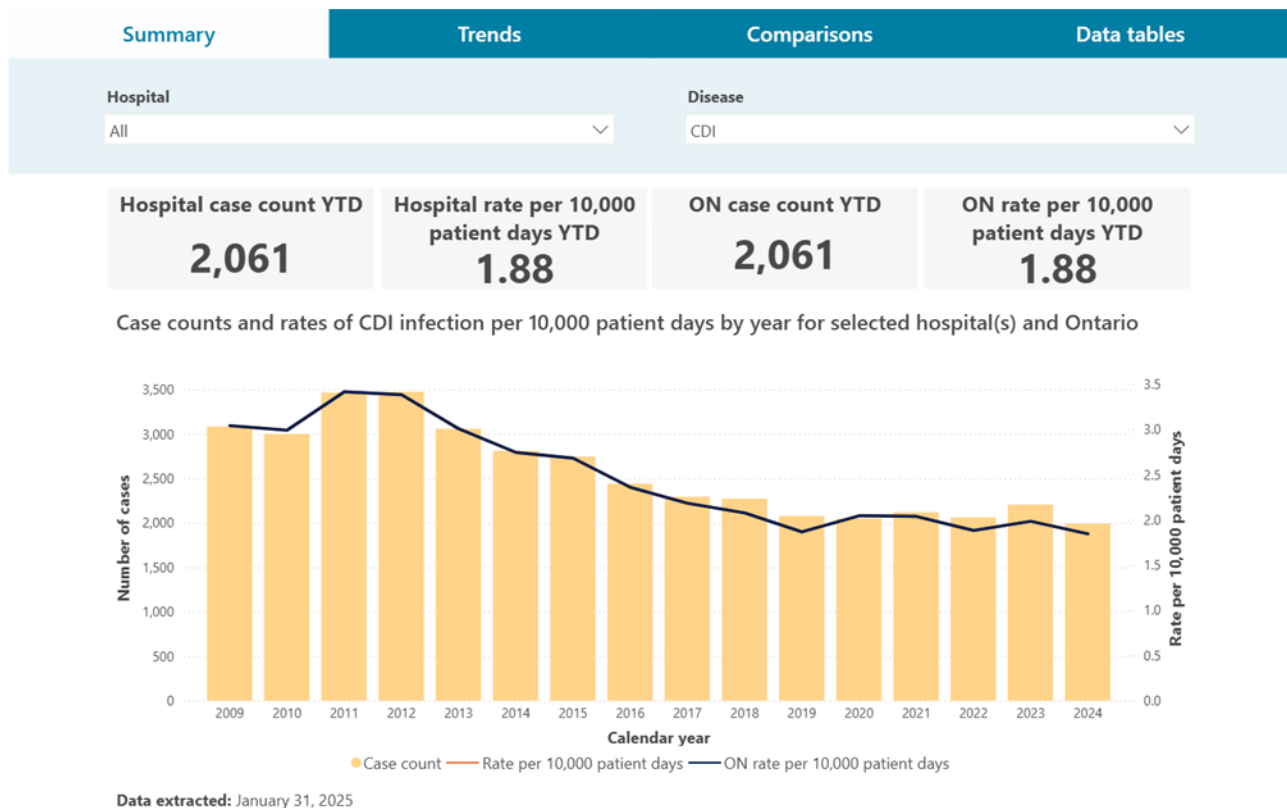


1. **Navigation bar:** The top navigation bar is used to move between different tabs (Summary, Trends, Comparisons, and Data tables). The tab being viewed is indicated in white, while the others remain blue.
2. **Filters, toggle buttons, and sliders:** Filters are used to break down the data within each tab by selecting the drop-down arrow. The filter will either allow for a single selection or multi-selection depending on the chosen filter.
 - a. The 'date range' slider available in some tabs is used to select the time period of interest, or aggregate several years of data together by dragging the slider below the date selection. Users can also type the desired time period in the date range boxes.
 - b. Toggle buttons are single-selection switches to control the figure. The current toggle button selection is indicated in purple.
3. **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).

4. **Tooltips:** When hovering over any data point on a graph, a tooltip will appear with related information about that data point.
5. **Notes:** Notes appear beneath the figures describing important considerations for data interpretation and the date that data was extracted.

Summary

This tab contains a figure showing annual number of cases and rate per 10,000 patient days for a selected hospital and disease. Boxes display the year-to-date information on case counts and rates for hospitals and Ontario overall.

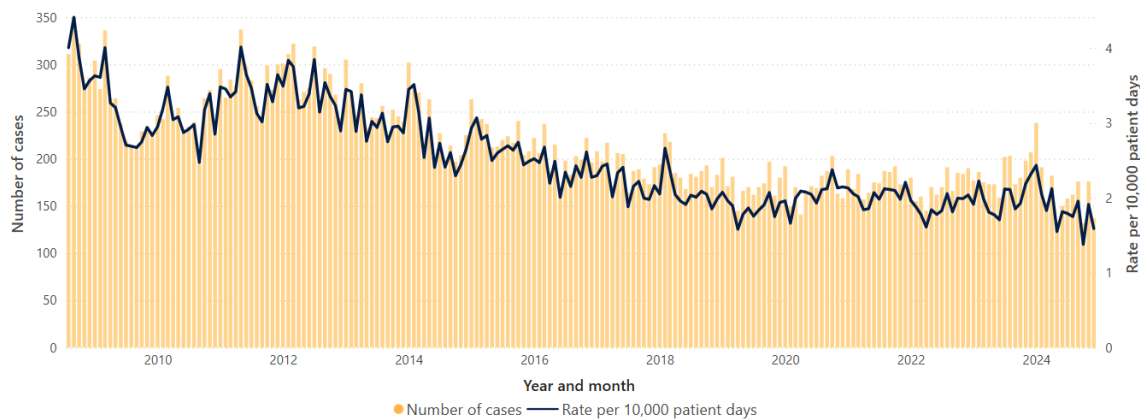


Trends Tab

This tab contains a figure showing cases and rates over time for a selected disease. Users can filter the data by reporting category (hospital, Local Health Integration Network, and public health unit), and specific hospitals and areas within that category. Toggle buttons enable users to switch between viewing data by both year and month (for CDI) or year and quarter (MRSA and VRE bacteremia), or annually. Another toggle button enables users to display 12 month moving average rate, or the previous year's average rate.

Summary	Trends	Comparisons	Data tables
Category Hospital ▾	Disease CDI ▾	Date range 01/08/2008 01/12/2024 End date	Group data by Year and month Year
Hospital All ▾			Comparison No comparison Rolling average Previous year

CDI cases and rates by year and month



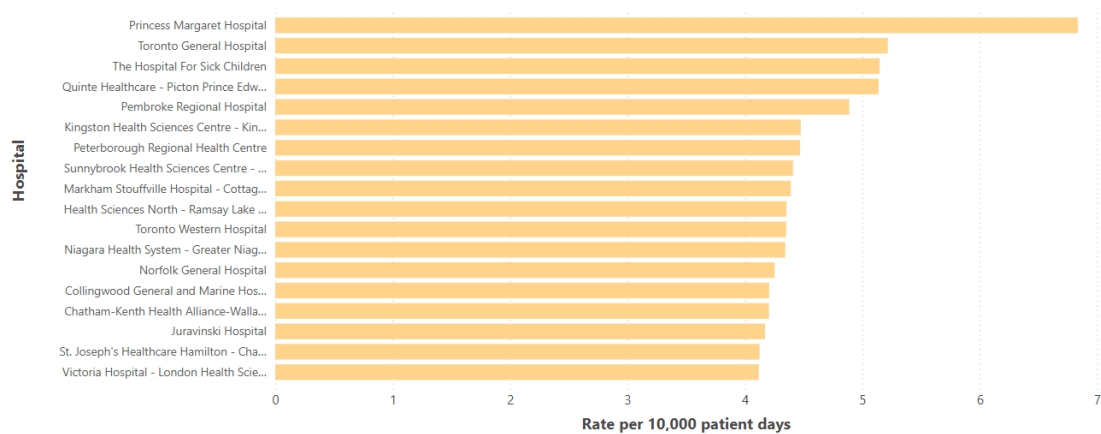
Note: CDI data are reported monthly, while MRSA bacteremia and VRE bacteremia are reported quarterly, represented as the first month of the quarter.
Data extracted: January 31, 2025

Comparisons Tab

This tab contains a figure showing rates per 10,000 patient days across all hospitals or geographic areas. Users can filter the data by reporting category (hospital, Local Health Integration Network, and public health unit), hospital type, hospital by proportion of patients over 65 years of age, and disease. A time slider can be used to aggregate the data across a number of years.

Summary	Trends	Comparisons	Data tables
Category Hospital	Disease CDI	Hospital bed count All	Calendar year 2008 2024
Hospital type All	Hospital by % patients over 65 years All	<input type="range"/>	

CDI infection rate by hospital, 2008 – 2024



Data extracted: January 31, 2025

Data Tables Tab

This tab produces a data table containing case and rate data for each hospital by year and month. Users can filter the data by disease, public health unit, hospital, hospital type, hospital bed count, hospital proportion of patients over age 65, disease, and date range using the dropdown menus and time slider.

Users can also export table data by opening the context menu (denoted by three dots) appearing at the top right of the table and selecting “Export data”.

Summary				Trends		Comparisons		Data tables	
Disease		Public Health Unit		Hospital		Date range			
CDI		All		All		01/08/2008 01/12/2024			
Hospital type		Hospital bed count		Hospital by % patients over 65 years					
All		All		All					

Hospital	Disease	Calendar year	Month	Cases	Patient days	Rate per 10,000 patient days	ON rate per 10,000 patient days
Alexandra Hospital	CDI	2009	January	0	1,008	0.00	3.53
Alexandra Hospital	CDI	2010	January	0	1,034	0.00	2.88
Alexandra Hospital	CDI	2011	January	0	937	0.00	3.43
Alexandra Hospital	CDI	2012	January	0	1,034	0.00	3.47
Alexandra Hospital	CDI	2013	January	0	845	0.00	3.42
Alexandra Hospital	CDI	2014	January	0	932	0.00	3.41
Alexandra Hospital	CDI	2015	January	0	782	0.00	2.89
Alexandra Hospital	CDI	2016	January	0	686	0.00	2.50
Alexandra Hospital	CDI	2017	January	0	794	0.00	2.28
Alexandra Hospital	CDI	2018	January	1	778	12.85	2.04
Alexandra Hospital	CDI	2019	January	0	577	0.00	2.07
Alexandra Hospital	CDI	2020	January	0	702	0.00	1.96
Alexandra Hospital	CDI	2021	January	1	729	13.72	2.13
Alexandra Hospital	CDI	2022	January	0	610	0.00	1.96
Alexandra Hospital	CDI	2023	January	0	769	0.00	1.91
Alexandra Hospital	CDI	2024	January	0	896	0.00	2.43
Total				42,366	169,353,262	2.50	2.49

Data extracted: January 31, 2025

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). User guide: health care-associated infection query. Toronto, ON: King's Printer for Ontario; 2025.

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