

# Health care-associated infections (HAI) Query

## Reference Guide

## Public Health Ontario

Public Health Ontario is a Crown corporation dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, frontline health workers and researchers to the best scientific intelligence and knowledge from around the world.

Public Health Ontario provides expert scientific and technical support to government, local public health units and health care providers relating to the following:

- communicable and infectious diseases
- infection prevention and control
- environmental and occupational health
- emergency preparedness
- health promotion, chronic disease and injury prevention
- public health laboratory services

Public Health Ontario's work also includes surveillance, epidemiology, research, and professional development and knowledge services. For more information, visit [www.publichealthontario.ca](http://www.publichealthontario.ca)

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# Introduction

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HAI Query is an innovative way of providing ongoing monitoring of three health care-associated infections in Ontario. It is a dynamic data exploration tool that allows you to drill down and explore data. Content focuses on aggregated health care-associated infections extracted from the Self Reporting Initiative (SRI) database. 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 Integrated Network (LHIN).

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

## Getting Started

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A user must have the following in order to access HAI Query:

- Windows based PC (unsupported using Mac)
- Microsoft Internet Explorer 8 or higher (Silver Light plug-in required)

**Note:** Browsers such as Chrome, Firefox, or Safari may be compatible with Query but are not supported.


## HOW TO ACCESS QUERY REPORTS

All registered PHO website users have access to HAI Query. To gain access, please register on the PHO website.

## WEBSITE LOGIN

1. Navigate to the Public Health Ontario main webpage: <http://www.publichealthontario.ca/>
2. Select the **LOGIN** button located in the upper right hand corner of the screen.


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**Probing the biological secrets of a clever adversary**

"While incidence and death rates for TB are declining worldwide, cases of multidrug-resistant TB are actually going up every year in many countries."



Read about Dr. Carolina Mehaffy's research on tuberculosis.

**FIND IT FAST**

- Careers
- Data Reports
- Just Clean Your Hands
- Laboratories
- PIDAC
- Regional Infection Control Networks
- Research & Education Support
- President's Message

**NEWS**


- PHO Connections**  
May 2014
- PIDAC**  
Updated Tools for Preparedness: Triage, Screening and Patient Management for MERS-CoV Infections
- Ontario Health Profile**  
Infographics
- Vaccine Safety**  
Ontario's 2012 Report
- Analytics**  
New cancer incidence and mortality snapshots

**HOT TOPICS**


- MERS-CoV
- Measles
- Avian Influenza A (H7N9)
- Viral Hemorrhagic Fever (VHF)
- April Infectious Disease Surveillance Report – Focus on Malaria
- Ontario Respiratory Virus Bulletin

**UPCOMING EVENTS**

View and register for events



TOPHC 2014 Highlights



3. Enter the **User Name** and **Password** and select **Log On**.

Log On

User name:

Password:

Language: English (en-US) ▼

[Log On](#)

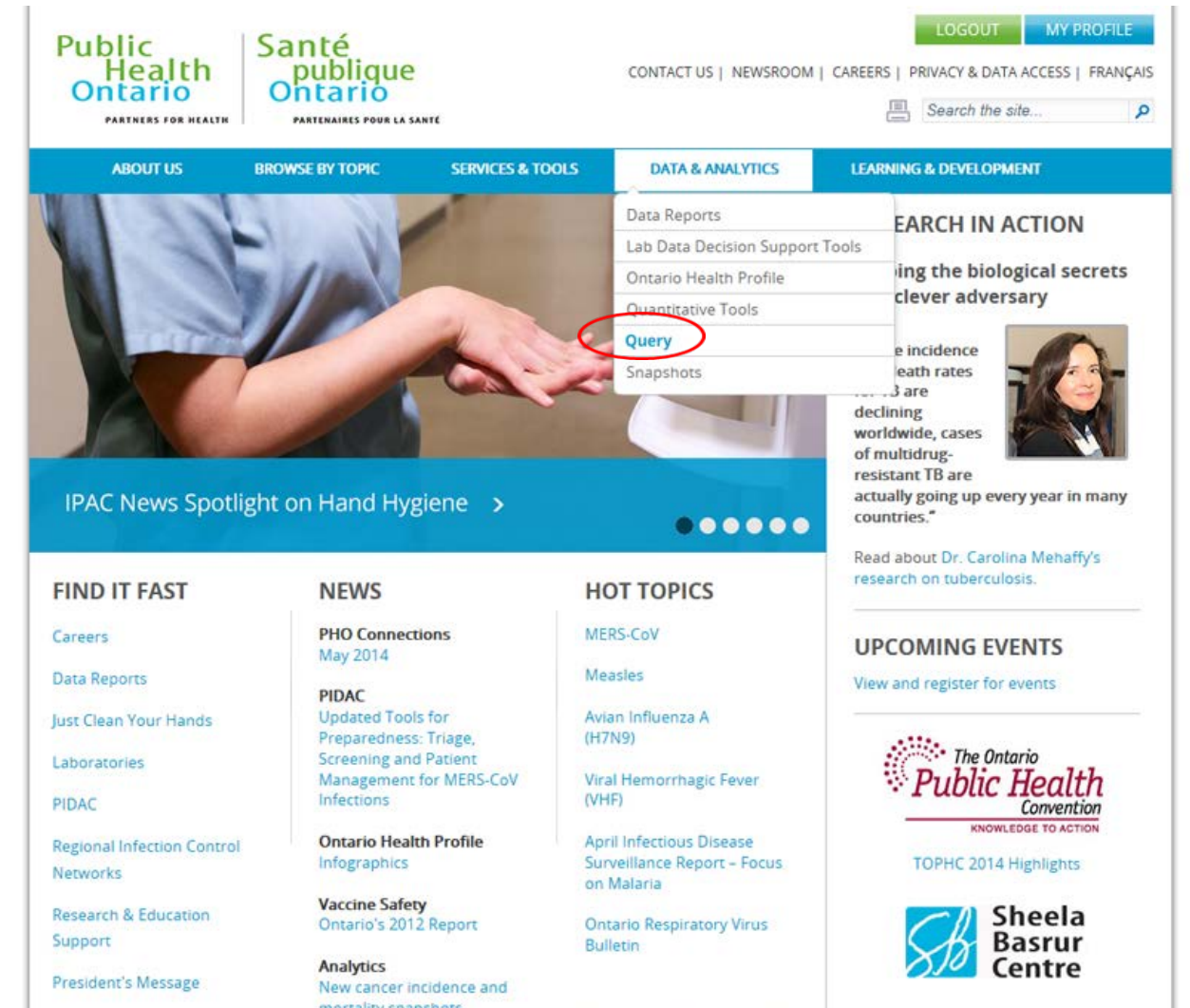
You are accessing this site from a device running Windows Server 2008 R2.

This site is intended for authorized users only. If you experience access problems contact the [site administrator](#).

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# Query Tool

1. Once logged in, select Query from the Data & Analytics navigation bar:



2. From the Query webpage, select the 'Access HAI Query' hyperlink to the secured site.

Public Health Ontario | Santé publique Ontario

LOGOUT | MY PROFILE

CONTACT US | NEWSROOM | CAREERS | PRIVACY | DATA | FRANÇAIS

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INDEX | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Status: Checked in and viewable by authorized users.

Home > Data & Analytics SHARE

### Query

Query is a dynamic tool that allows public health professionals to instantly explore, manipulate and analyze health data using pre-defined reports and variables. Access to Query is limited to authorized public health professionals.

#### Access

These tools may contain confidential and sensitive information, and are restricted to public health professionals who take part in public health decision-making and have relevant skills and knowledge to interpret this data.

To gain access, please ensure you meet the criteria above and are [registered on our website](#). Once registered, send an e-mail to [webmaster@oanpp.ca](mailto:webmaster@oanpp.ca) using the subject line "Registered User – Request Query Access – (Your PHU or organization's name)".

If approved, a confirmation will be sent to your account email.

[Learn about our data access levels.](#)

#### Infectious Diseases (ID) Query

ID Query focuses on aggregated Infectious disease data extracted from the Integrated Public Health Information System (IPHIS). The data are refreshed weekly and includes summarized counts of reportable disease cases from January 1, 2005. No personal health information is included.

[Access ID Query »](#)




#### Health care-associated Infection (HAI) Query

HAI Query focuses on aggregated health care-associated Infections extracted from the Hospital Self Reporting Initiative (SRI) database. 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). No personal health information is included.

[Access HAI Query »](#)

3. The HAI Query site lists the available reports and supporting documents.

## How to navigate the HAI query tool

1. Select the  button to the right of the report's name. Additional information about the report will appear. Users can access the report by clicking on the  button. Users can minimize the report information by selecting the  button.

Data & Analytics > Query + SHARE

### Health care-associated infection (HAI) Query

Health care-associated infection (HAI) Query is a dynamic data exploration tool that allows users to drill down and explore data. Content focuses on aggregated health care-associated infections extracted from the Hospital Self Reporting Initiative (SRI) database. These reports include data for *Clostridium difficile* infection (CDI), methicillin-resistant *Staphylococcus aureus* (MRSA) bacteremias and vancomycin-resistant enterococcus (VRE) bacteremias.

CDI has been reported on a monthly basis since September 2008, while both MRSA and VRE have been reported on a quarterly basis since December 2008. The data are refreshed monthly (CDI) or quarterly (MRSA and VRE). The reports focus on results at the Public Health Unit (PHU), Local Health Integration Network (LHIN) and hospital level.

Available reports:

**CDI**

- CDI cases and rates by hospital (table only) ▼
- CDI cases and rates by year and month ▼
- CDI rates by hospital ▼
- CDI rates by Public Health Unit (PHU) ▼
- CDI rates by Local Health Integration Network (LHIN) ▼
- CDI comparison with previous year ▼
- CDI comparison with previous 12 month moving average ▼

**MRSA**

- MRSA bacteremia cases and rates by hospital (table only) ▼
- MRSA bacteremia cases and rates by year and quarter ▼
- MRSA bacteremia rates by hospital ▼
- MRSA bacteremia rates by Public Health Unit (PHU) ▼
- MRSA bacteremia rates by Local Health Integration Network (LHIN) ▼


**VRE**

- VRE bacteremia cases and rates by hospital (table only) ▼
- VRE bacteremia cases and rates by year and quarter ▼
- VRE bacteremia rates by hospital ▼
- VRE bacteremia rates by Public Health Unit (PHU) ▼
- VRE bacteremia rates by Local Health Integration Network (LHIN) ▼

**CDI**


CDI counts and rates by hospital (table only) ▼

CDI counts and rates by month ▲




- View results by public health unit, LHIN or hospital by month
- Apply slicers such as months or years to further explore the data

[More >>](#)

2. The report will open in a new window within the browser.
3. HAI Query will display the interactive report. Please refer to the [Report Features](#) section of this document for more information on how to manipulate reports.
4. To exit from the report, select the  button located in the top right hand corner of the browser window.



5. Select the  button located in the top right hand corner of the window to end the session.

## Report Features

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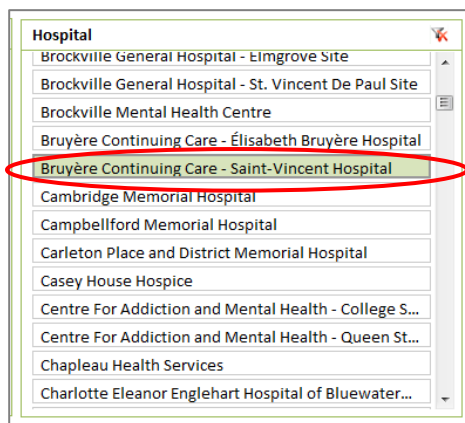
The HAI Query report features allow users to dynamically manipulate and explore data. The report features are described in the sections below, including brief instructions on how to use slicers and filters.

### Slicers

Slicers are interactive filters that can narrow results and control the data that appear in the table and/or graph. Each report in HAI Query may include one or more slicers such as disease, public health unit, year and local health integration network. When a user first accesses a report, all slicer options are selected (i.e., all data appear in the table and/or graph).


*To specify slicer values:*

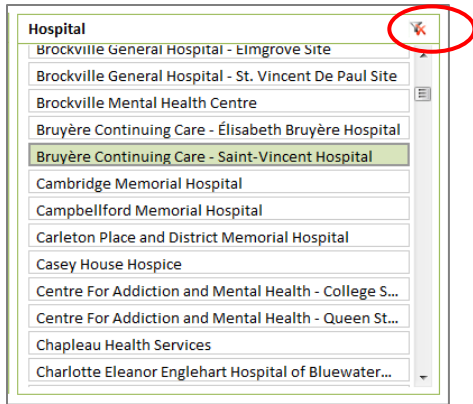
1. In each slicer menu, select the value of interest. The background appears green for selected values; it appears white for values not selected. Selections on other slicers (e.g public health unit) will be greyed out as well if they do not apply.



2. Hold down the Ctrl key to select or deselect additional values within the same slicer menu. Releasing the Ctrl key will generate the updated data table and/or graph.

***To clear the slicer selections (i.e., reset the menu so all items is selected):***


1. Select  located in the upper right corner of the menu. This will clear all of the selections previously made by the user. This symbol is only available if there are one or more values not selected in the slicer menu.



## Filters

The filters feature of the reports is another way for users to manipulate what data appears in the table. If there is a graph in the report, the graph will also update by filtering the data table.

*For quick filtering:*

1. Select  in the table header of the column.

Year	Rate per 1,000,000 patient days	Number of cases
≡ 2008	382.7	1615
August	389.9	319
September	435.1	363
October	389.9	341
November	347.3	295
December	352.1	297
≡ 2009	304.0	3098
January	355.4	313
February	350.6	280
March	390.5	344
April	320.5	272
May	315.6	273
June	287.0	243
July	266.9	227
August	261.6	219
September	262.5	219
October	266.6	233
November	289.4	242
December	278.2	233

2. Select Filter in the drop list.

Year	Rate per 1,000,000 patient days	Number of cases
2008	382.7	1615
August	389.9	319
September	435.1	363
October		
November		
December		
2009		
January		
February		
March		
April	320.5	272
May	315.6	273

3. Deselect the **(Select All)** checkbox at the top of the list. This will deselect all of the checkboxes.

Select item:

- (Select All)
- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

4. Select the items to include in the table.

Year	Rate per 1,000,000 patient days	Number of cases
2014	274.5	2811
January	341.3	305
February	346.8	278
March	312.3	274
April	249.0	212
May	305.5	267
June	239.7	199
July	269.1	228
August	237.8	200
September	259.2	217
October	226.6	198
November	242.8	206
December	262.4	227
2015	268.2	2743
January	289.2	264
February	304.2	246
March	278.3	246
April	284.9	242
May	247.3	213
June	256.9	214
July	261.9	221
August	269.1	227
September	260.5	217
October	272.3	241
November	245.2	204
December	247.1	208


Filter

Select item:



- (Select All)
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015

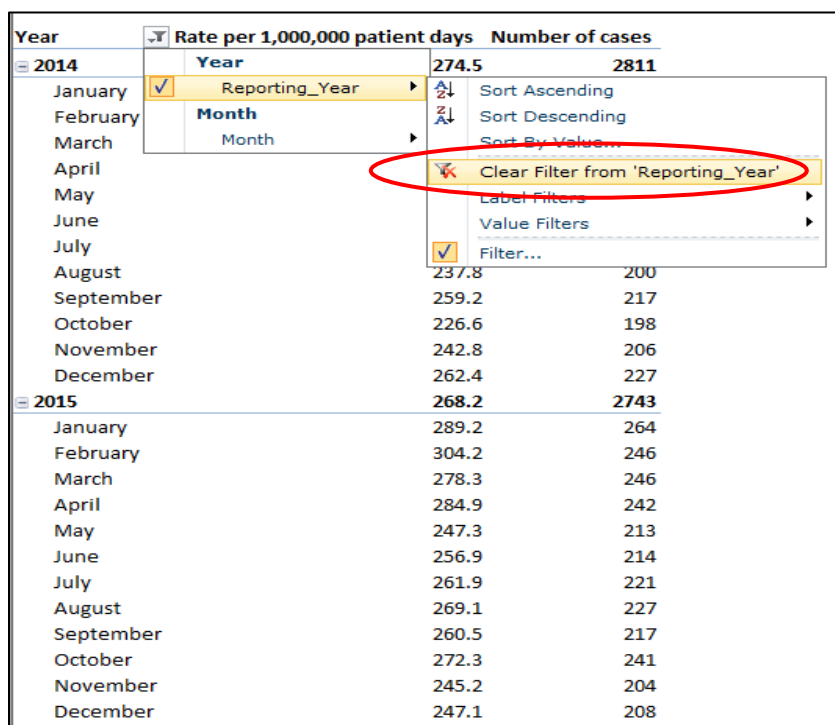
OK Cancel

5. Click on **OK**.

6. The arrow button in the table header will now appear as , which indicates a filter is applied.

#### Removing a filter:

1. Select the  button in the table header of the column.
2. Select  to clear the filter or select the **(Select All)** checkbox.



Year	Rate per 1,000,000 patient days	Number of cases
2014	274.5	2811
January		
February		
March		
April		
May		
June		
July		
August	237.8	200
September	259.2	217
October	226.6	198
November	242.8	206
December	262.4	227
2015	268.2	2743
January	289.2	264
February	304.2	246
March	278.3	246
April	284.9	242
May	247.3	213
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August	269.1	227
September	260.5	217
October	272.3	241
November	245.2	204
December	247.1	208

Users can also change the order in which the items appear in the table by using the sort functions located at the top of the filter menu, including **Sort A-Z**, **Sort Z-A** and **Other Sort Options**. Users can also specify filters using the options under **Label Filters** and **Value Filters** on the filter menu (e.g., filter by month).

## Tables and Graphs

Each report contains a data table that users can manipulate using the predefined slicers and/or filters. Some reports contain a graph which will also update based on the slicer and/or filter selections. At this time, users cannot download tables or graphs directly from HAI Query; however, they can copy and paste data from within the tables to an Excel file. This will allow users to generate and manipulate graphs locally. Alternatively, users can use the print screen function to copy an image of the graph to include in reports.

# Data Notes

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At this time, content for HAI Query is limited to aggregated data extracted from the Self Reporting Initiative (SRI) database. For additional information about the data included in these reports, please refer to the Technical Notes for HAI Query document.

HAI Query 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.

Your access to and use of HAI Query is governed by the terms and conditions set out below and the [Terms of Use](#) governing the "publichealthontario.ca" website. Public Health Ontario may immediately and at any time, with or without notice, suspend or terminate your use of HAI Query if, in Public Health Ontario's sole discretion you breach any of these terms and conditions or the Terms of Use.

As a user of HAI Query, you understand and respect the confidential and sensitive nature of the information provided in this tool.

HAI Query is intended as a data exploration tool. The data in HAI Query are refreshed monthly (CDI) or quarterly (MRSA and VRE bacteremias). PHO may revise, remove or otherwise alter data as required for quality assurance and other purposes. As a result, data represent a snapshot at the time of extraction and may differ from previous or subsequent reports. Public Health Ontario makes no representation or warranties of any kind whatsoever respecting the accuracy or timeliness of the information generated by HAI Query, or the content, use or application of HAI Query, and disclaims any responsibility for its application or use in any way. For questions and/or feedback, please email us at

[ipac.surveillance@oahpp.ca](mailto:ipac.surveillance@oahpp.ca)

## Support

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For further questions or comments related to the HAI Query website, please email

[ipac.surveillance@oahpp.ca](mailto:ipac.surveillance@oahpp.ca).

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