

Ontario Cancer Profiles

User Guide

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Introduction

Ontario Cancer Profiles is a set of self-serve, interactive dashboards that provides instant access to recent, customizable statistics on several cancer burden, risk factor and screening indicators at different levels of geography for Ontario.

Ontario Cancer Profiles was created to give the public health community, health care providers, researchers and other stakeholders instant access to Ontario cancer surveillance, population health and screening data that can inform planning, design and delivery of local cancer prevention and control efforts.

Ontario Cancer Profiles can be used to generate customized sub-region-level and public health unit-level statistics, as well as comparable Ontario statistics, on:

- Cancer incidence;
- Cancer mortality;
- Cancer prevalence;
- Cancer survival;
- Cancer incidence projections;
- Modifiable cancer risk factors;
- Cancer screening for 3 of Ontario's cancer screening programs (the Ontario Breast Screening Program, the Ontario Cervical Screening Program and ColonCancerCheck); and
- Socio-demographic factors.

Ontario Cancer Profiles is compatible with touch-screen devices, including desktop computers. The instructions refer to “click” and “touch” actions: “click” is for people using a mouse and “touch” is for people using touch-screen devices. Refer to your device's help resources for instructions on performing left-click type actions and right-click type actions. The dashboards also provide the ability to download maps or graphs or export the data for further analysis.

This guide is organized into 8 modules and provides step-by-step instructions on using different aspects of the tool.

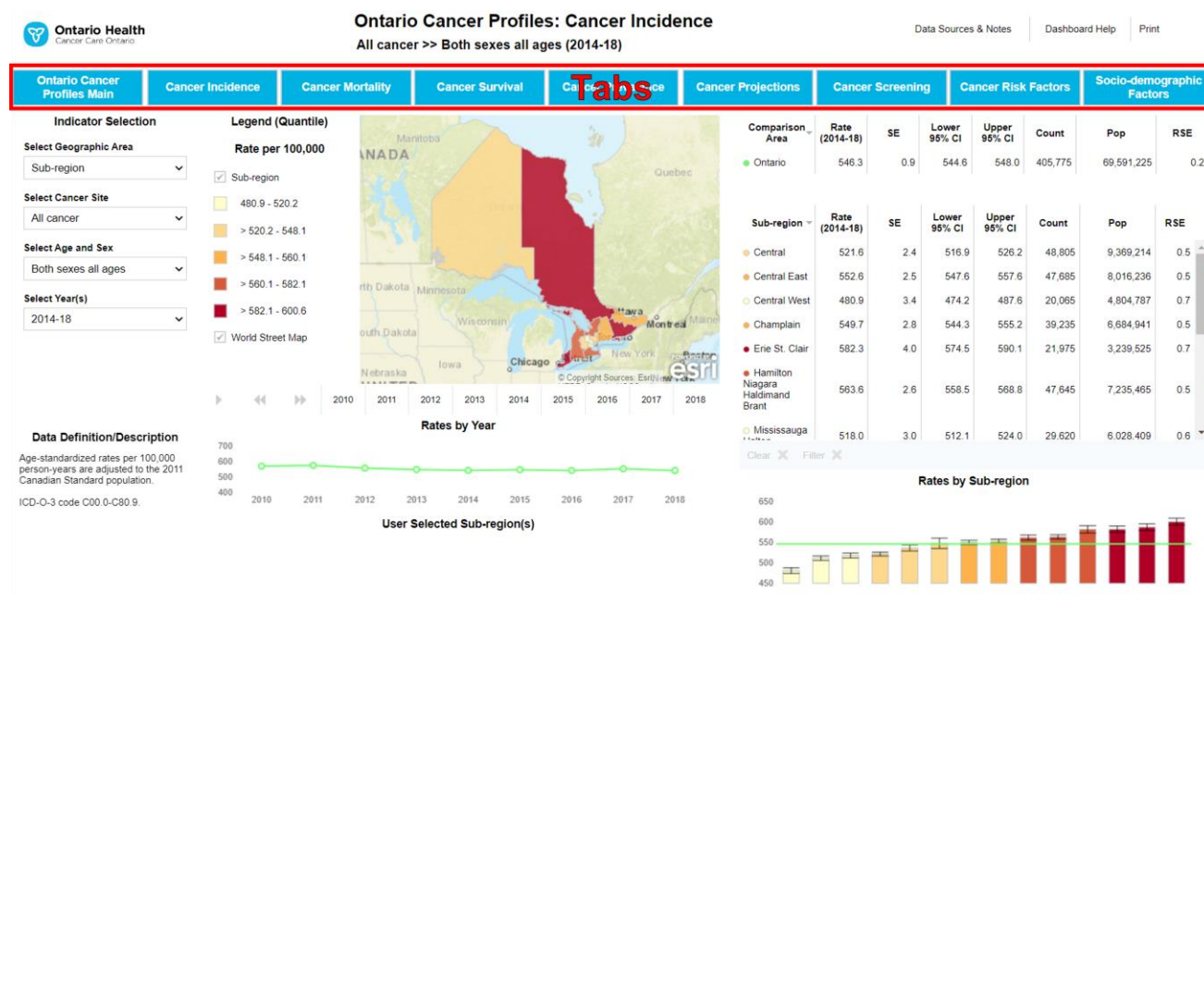
If you have any questions or need more support, refer to the Frequently Asked Questions document on the [Ontario Cancer Profiles homepage](#) or email cancerprofiles@ontariohealth.ca.

Module 1 – Dashboard Overview and Layout

Overview of the dashboards

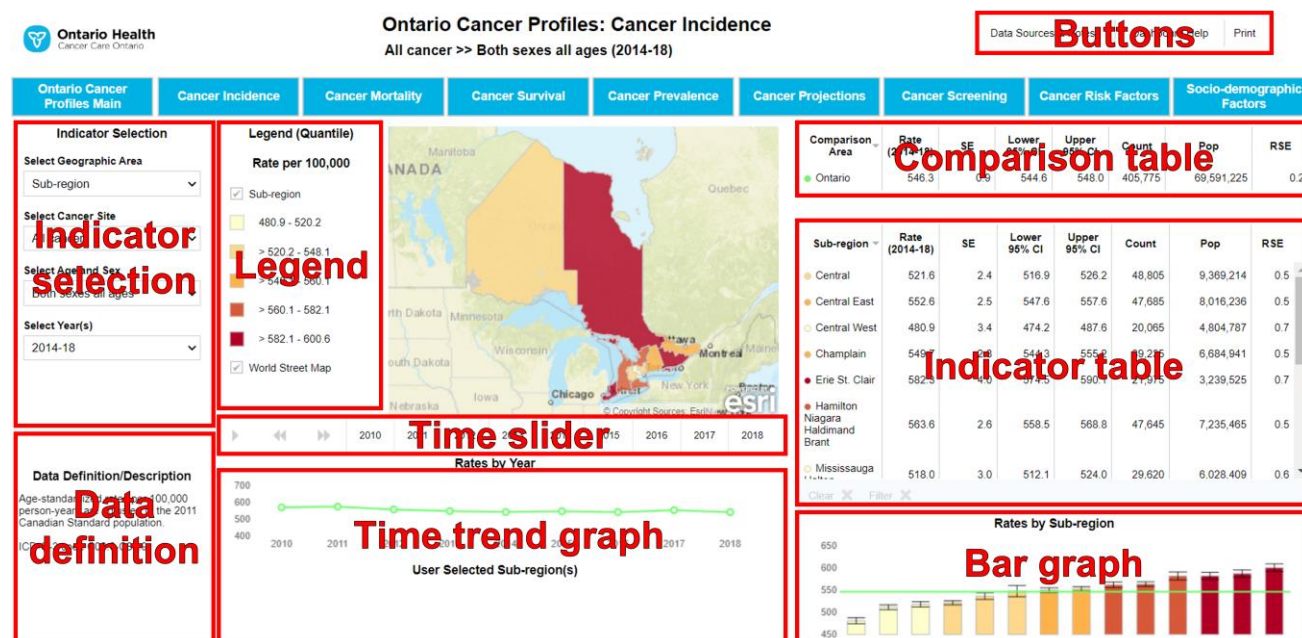
The homepage for Ontario Cancer Profiles is <https://cancercareontario.ca/ontariocancerprofiles>. The dashboards are organized by type of indicator (e.g., screening, prevalence, mortality). As shown in the image below, each dashboard gives the option to navigate to other dashboards using the tabs at the top. Each dashboard will open in a new tab in your web browser.

In each dashboard, you can select an indicator of interest. All parts of the dashboard are linked and are refreshed based on the indicators you select. For example, if male lung cancer incidence is selected using the drop-down menus on the left, the map, line graph, bar graphs, table and comparison area will display the data on male lung cancer incidence.



Overview of the widgets

Each component of a dashboard is called a “**widget**.” The widgets in each dashboard are “indicator selection,” “legend,” “map,” “time slider,” “tables,” “data definition,” “time trend graph” and “bar graph.” In the top right area of the tool, there are 3 “**buttons**” that allow you to view data sources and notes, as well as access dashboard help and the print feature. The default widgets and buttons are labelled on the image below. More information on each widget, including functionality, is outlined in the following sections.



Indicator selection

Provides the ability to select a variety of customizable indicators. Selecting an indicator in this widget is the first step to interacting with a dashboard. Instructions on how to use the indicator selection widget are in [Module 2](#).

Legend

Shows how the indicator values are displayed on the map. There are a variety of ways to classify the values, which are described in [Module 3](#).

Map

Displays the selected indicator across Ontario. The distribution of indicator values is colour coded according to the classification method and colour scheme selected on the legend. Each area displayed on the map is a sub-region or public health unit. See [Module 3](#) for instructions on how to use the map widget.

Comparison table

Displays the Ontario value for the selected indicator. This table allows indicator values for each geographic area of interest to be compared to the value for the entire province. See [Module 4](#) for instructions on how to use the comparison table.

Indicator table

Organizes data for the selected indicator into columns and rows. Each row contains the values for a geographic area (sub-region or public health unit). See [Module 4](#) for instructions on how to use the indicator table.

Data definition or description

Provides a definition for the selected indicator or a description of the indicator. For incidence, survival and prevalence, the definitions for each type of cancer are based on the International Classification of Diseases for Oncology (ICD-O-3). For cancer mortality, the definitions are based on the International Classification of Disease (ICD-10). Indicator descriptions are provided for cancer risk factor, cancer screening ~~or~~and socio-demographic data.

Time slider

This widget is only available for the cancer incidence, cancer mortality and cancer incidence projections dashboards. It allows you to view your selected indicator value (cancer incidence or mortality rate) on the map over time. **The time slider will only display annual rates but not rates for combined years.**

TIP! This widget also allows you to select indicator results by your time period of interest. See [Module 5](#) for instructions on how to use the time slider.

Time trend graph

This widget is only available for the cancer incidence, cancer mortality and cancer incidence projections dashboards, and displays annual values over the selected time period for an indicator. Depending on your selection, annual data may not be provided, such as when counts are small or rates are suppressed due to reliability. In these cases, the time trend graph will not contain values (i.e., the graph will be empty). One example of an indicator with no values in its time trend graph is lung cancer incidence among females ages 15 to 29 by public health unit. This widget is described in more detail in [Module 6](#).

Bar graph

Visualizes the numeric value of an indicator for each sub-region or public health unit. The bar graph widget is described in more detail in [Module 7](#).

Widget functionality

Different functionalities are available across the widgets. All widgets include full-screen or pop-out mode. For maps, legends, tables, comparison areas and graphs, the functionalities for downloading the data and downloading images of the data visualizations are described in [Module 8](#). The functionalities of the widgets are described below.

Full-screen or pop-out widget mode



To use this function, hover your cursor over the top right corner of a widget and the icon shown above will become visible. Click or touch the icon to expand that widget to full-screen or pop-out mode.

Pop-in widget mode



This functionality only displays when a widget is in full-screen or pop-out mode. To use this function, hover your cursor over the top right corner of a full-screen widget and the icon shown above will become visible. Click or touch the icon to pop-in the widget back to the default size.

Download



To use this function, hover your cursor over the top right corner of a widget. The icon shown above will become visible. Click or touch the icon to view the download options. These options include downloading .PNG files for the legend, maps and bar graphs, or downloading the data for the tables in comma separated values (CSV) format. See [Module 8](#) for more information on downloading.

Legend settings



To use this function, hover your cursor over the top right corner of the legend widget and the icon shown above will become visible. You can use the settings to change colours for the maps and bar graphs, change the data classification method, or add and remove categories for the data classification.

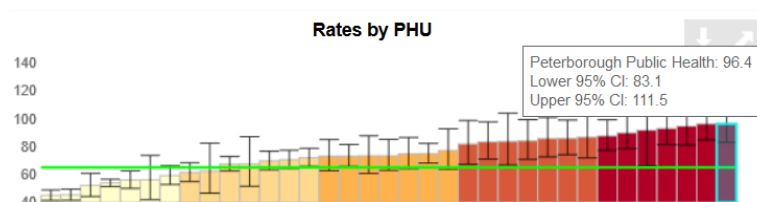
Close



Click or touch the “X” to close the “Data Sources and Notes,” “Dashboard Help” or “Legend” windows.

Tooltips

The map, tables, and time trend and bar graphs provide tooltips for additional information about an indicator. Hover your cursor over a map area or data point on a graph to see additional information. Below is an example of the tooltip from a bar graph, which displays the public health unit’s name, age-standardized rate, and lower and upper 95% confidence intervals (CIs):



Highlights vs. selections

When you hover your cursor over an area on a map, row on a table or category on a legend, the corresponding area or category will be **highlighted**.

Click or touch to **select** an area on a map, row on a table or category on a legend. Selecting features provides additional options, such as filtering regions on the map (see [Module 3](#)) or zooming the map into the areas selected in the indicator table (see [Module 4](#)).

Different colours are used to distinguish between highlights and selections.

Data suppression or unreliable estimates

Data suppression was sometimes used to protect personal health information or when the indicators were considered unreliable. Data suppression is noted in the data table as “Insuff data.” On the map, suppressed or unreliable estimates are displayed in grey and are noted as a category in the legend.

Module 2 – Using the Indicator Selection

The indicator selection allows you to select the indicators of interest and includes drop-down menus for various combinations:

- Geographic area (sub-region or public health unit);
- Cancer type or theme (e.g., lung cancer);
- Sex and age (e.g., females all ages); and
- Years (e.g., 2010, or 2014 to 2018).

Module 3 – Using the Map

The map widget displays data for the selected indicator by sub-region or public health unit, which allows you to visualize how the indicator varies across Ontario.

Navigating the map

Panning

Click or touch anywhere on the map, hold and drag in the direction you want to pan (move) the map. For example, to pan the map to the north, click or touch near the centre of the map, hold and drag to the south and release. During this action on a desktop computer, your pointing icon will display 4 arrows indicating the pan mode, as shown below:



Other map navigation tools

When you hover your cursor over a map widget, the following toolbar will appear:



The tools in this toolbar allow you to navigate the map. These tools are described below.

Original extent of map tool

Icon:



Click or touch this icon to set the map back to the default view of Ontario. The geographic extent of Ontario is designed to fit as best as possible on your device's screen.

Zoom-out tool

Icon:



Click or touch this icon to zoom-out from the current centre of the displayed map.

Zoom-in tool

Icon:



Click or touch this icon to zoom-in to the current centre of the displayed map.

Search tool

Icon:



Click or touch this icon to display an input box. Type in the name of a town, village, city or a postal code. As you enter text, search results will be populated. Select the result you want by clicking on it. The map will zoom-in to the area. Click or touch this icon again to clear the search.

Clear selection tool

Icon: 

To use this tool, click or touch this icon to clear any areas (e.g., sub-region) selected. This icon is greyed-out when no areas are selected. When areas are selected, the “X” in the icon will be red.

Filter tool

Icon: 

Click or touch this icon to filter the data for the selected areas (e.g., sub-region).

This icon is by default greyed-out. Once the Filter tool is active, the “X” in the icon will be red. To clear the filter, click or touch the red “X” button.

Legend

The legend displays how the indicator values are categorized and displayed in the maps, bar graphs and tables.

Selecting areas in a legend category

Hover your cursor overtop a legend category to highlight it. Click or touch the category to select it (see “Highlights vs. selections” in [Module 1](#)). All areas (i.e., sub-region or public health units) that have indicator values in that legend category will be selected on the map, table and bar graph. This method provides a rapid way to select the highest or lowest values in Ontario for an indicator.

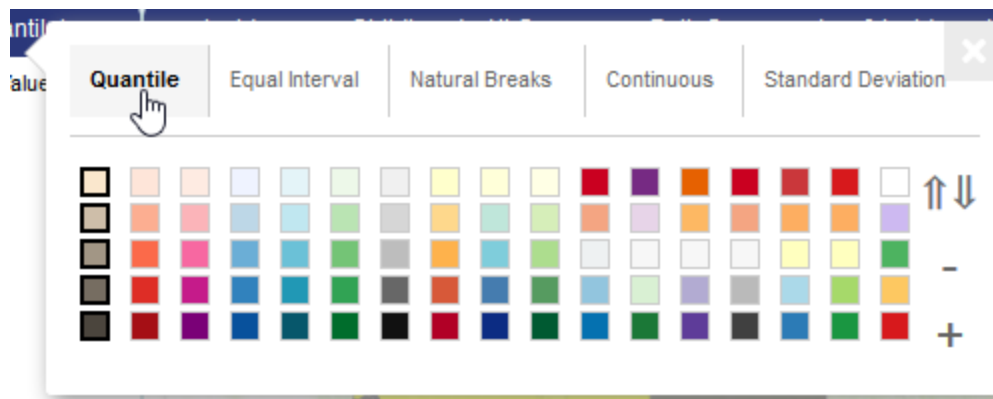
Legend toolbar

Hover your cursor in the upper right corner of a legend widget to display the legend settings tool shown below.

Settings tool

Icon: 

The settings tool is the first icon in the legend toolbar ([Module 1](#)) and is a gear symbol. Click or touch it to open the legend settings and a colour scheme with options will appear as shown below:



Along the top row, you can alter the method of data classification. The classification methods are described below.

Quantile classification

Creates data classes with an equal number of areas (or as equal as possible) in each class. For example, 5 classifications provide quintiles that divide the indicator values into the following percent ranges: 0% to 20% (bottom 20%), 21% to 40%, 41% to 60%, 61% to 80% and 81% to 100% (top 20%). This classification method typically provides a value in every data class.

Equal interval classification

Divides the range of indicator values to provide an equal range of values across the classifications. There may not be a value in every data class.

Natural breaks classification

Examines the statistical distribution of the data and an algorithm attempts to locate natural groupings in the data by reducing within-group variation. Data classes may be quite unequal in terms of their numeric ranges.

Continuous classification

Provides a continuous range of colour values. When using this option, it may be difficult to relate values on the map to actual numeric values.


Standard deviation classification

Examines the statistical distribution of the data and creates classes based on standard deviations. Diverging colour schemes work well with this classification method.

Additional legend functionality

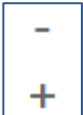
In the legend settings and below the data classification methods are the available colour schemes for shading classes. Hover your cursor over a colour scheme and click or touch to select it. On the right margin of the legend settings, there are additional icons that provide added functionality, which are described below.

Order of hues functionality

Icon: 

To use this function, click or touch the arrows to change the order of the colours. For example, if you want to display lower values with darker shades, click or touch the arrows. To reverse that change, click or touch the arrows again.

Add or remove a data category functionality














Icon: 

Click or touch the plus sign to add a data category. Click or touch the minus sign to remove a data category. For example, 5 quantile classes are the default. To display the data by 4 quantile classes, click or touch the minus sign with the quantiles classification type selected.

Closing the legend settings

When you are finished with the legend settings, hover your mouse on the legend settings pop-up and click or touch the “X” in the top right corner.

Module 4 – Using the Indicator and Comparison Tables

Sub-region 	Rate (2014-18)	SE	Lower 95% CI	Upper 95% CI	Count	Pop	RSE
 Central	521.6	2.4	516.9	526.2	48,805	9,369,214	0.5
 Central East	552.6	2.5	547.6	557.6	47,685	8,016,236	0.5
 Central West	480.9	3.4	474.2	487.6	20,065	4,804,787	0.7
 Champlain	549.7	2.8	544.3	555.2	39,235	6,684,941	0.5
 Erie St. Clair	582.3	4.0	574.5	590.1	21,975	3,239,525	0.7
 Hamilton  Niagara  Haldimand  Brant	563.6	2.6	558.5	568.8	47,645	7,235,465	0.5
 Mississauga	518.0	3.0	512.1	524.0	29,620	6,028,409	0.6
<div> Clear  Filter  </div>							

There are 2 types of tables provided in the tool: 1 for the area(s) of interest indicators (i.e., sub-regions or public health units) and 1 for Ontario (the comparison area). The indicator tables (as shown above) allow you to view, sort, filter and export the statistics (a sub-region table is used in the example above).

Viewing

Use the scroll bar to the right of the table to view data for all areas. To view an area of interest on the map, click or touch the row of the area you are interested in and it will automatically highlight on the map.

Sorting

Each column in the table can be sorted by clicking or touching the downward pointing arrow to the right of the column heading (circled above). **Note:** Only 1 column can be sorted at a time.

Filtering

To filter **the view to 1 area**, click or touch the row of the area you are interested in and click or touch the “Filter X” button (circled above). Only the area for that selection will be visible on the map.

To filter **by more than 1 area**, click or touch all of the areas you are interested in and then click or touch the “Filter X” button. Only the selected areas will be visible on the map.

Click or touch the “Filter X” button again to undo your filter and return to the default view.

At any point to clear the selections you have made, click or touch the “Clear X” button to the left of the “Filter X” button.

Exporting


To download the data, use the download button at the top right of the table (see [Module 1](#) for more information).

More information on how to export data from graphs and maps is provided in [Module 7](#).

Module 5 – Using the Time Slider

The cancer incidence and cancer mortality dashboards include a time slider widget that provides time animation. The purpose of the time slider is to show how an indicator may have changed over time.



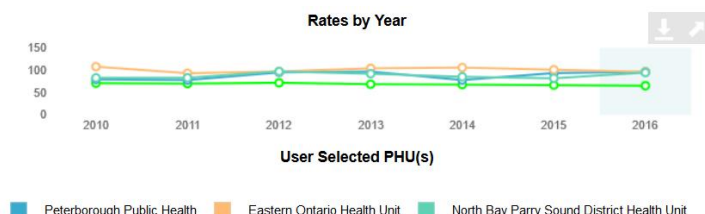
- Click or touch the play button  to view how the data have changed over time across the map, tables and bar graph. The title of the map will update to reflect the year being viewed during the animation.
- To manually navigate through the available years in the time animation, use the forward and back buttons shown below.



Note: Regardless of your selection in the indicator selection menu, the time slider will show you the change in data over time. For example, if you selected the year 2010, the time slider will still show you the change in data over time for all available years of the selected indicator (e.g., 2010 to 2016).

Module 6 – Using the Time Trend Graph

Only the cancer incidence, mortality and projections dashboards include a time trend graph. The time trend graph displays how an indicator may have changed over time at yearly intervals. If indicator values could not be provided annually due to [data suppression](#), the time trend graph will appear empty. If you select multiple areas on the map or table, they are added to the time trend graph and automatically colour coded as shown below in the “User Selected PHU(s)” legend:



Module 7 – Using the Bar Graphs

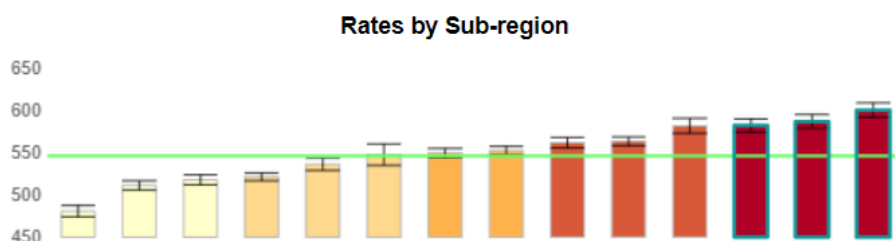
Data layers in bar graphs

- Ontario-level data are displayed as a green line (i.e., the indicator for the comparison area) (see the bar graph below in the “Navigating bar graphs” section). This comparator is not shown by default on the cancer screening dashboard bar graph. Instead, it is displayed when you click or touch the value for Ontario in the comparison area.
- Sub-region-level or public health unit-level indicator values are displayed as vertical bars. The 95% confidence intervals are displayed as error bars for most indicators. If a filter has been applied, only the sub-regions and public health units selected will be displayed. The bar graphs displayed are **based on your selection in the indicator selection widget and any filters you may have applied to the table**. For example, if you filtered your data table by 1 sub-region or public health unit, the bar graph will only display the data for that sub-region or public health unit.

Navigating bar graphs

TIP! The bar graphs and maps are linked. Any selection in 1 will automatically update the other.

- To **highlight areas of interest in the bar graph or map**, hover over the bar graph or area of interest in the graph or map. The area of interest will be highlighted on the graph and map.
- To **select areas of interest in the bar graph or map**, click or touch the bar graph or area of interest in the graph or map. You can click or touch more than 1 area. The selected area(s) will be highlighted in colours that contrast the default colour schemes on the graph and map (see image below).



Module 8 – Downloading Data, Graphs and Maps

Each widget will allow you to download its information so you can create your own reports using Ontario Cancer Profiles. The download function appears in the top right corner of a widget when you hover your cursor over it. Recall from [Module 1](#) that the download function has an underlined down arrow icon as shown below:



Downloading data from tables

You can download all data from the tables to use in your own spreadsheet or database software:

1. Hover your cursor over the table you want to download data from and click or touch the download icon. This action displays a pop-up with the data in comma separated values (CSV) format as shown below:

Sub-region	Rate (2016)	SE	Lower 95% CI	Upper 95% CI	Count	Pop	RSE
● South East	607.8	9.9					
● Erie St. Clair	586.0	8.9					
● North East	578.1	9.2					
● North Simcoe Muskoka	562.4	10.0					
● Central East	556.7	5.7					
● Hamilton Niagara Haldimand Brant	555.7	5.8					

"Sub-region";"Rate (2016)";"SE";"Lower 95% CI";"Upper 95% CI";"Count";"Pop";"RSE"

"Erie St. Clair";586;8.9;568.7;603.7;4425;646185;1.5

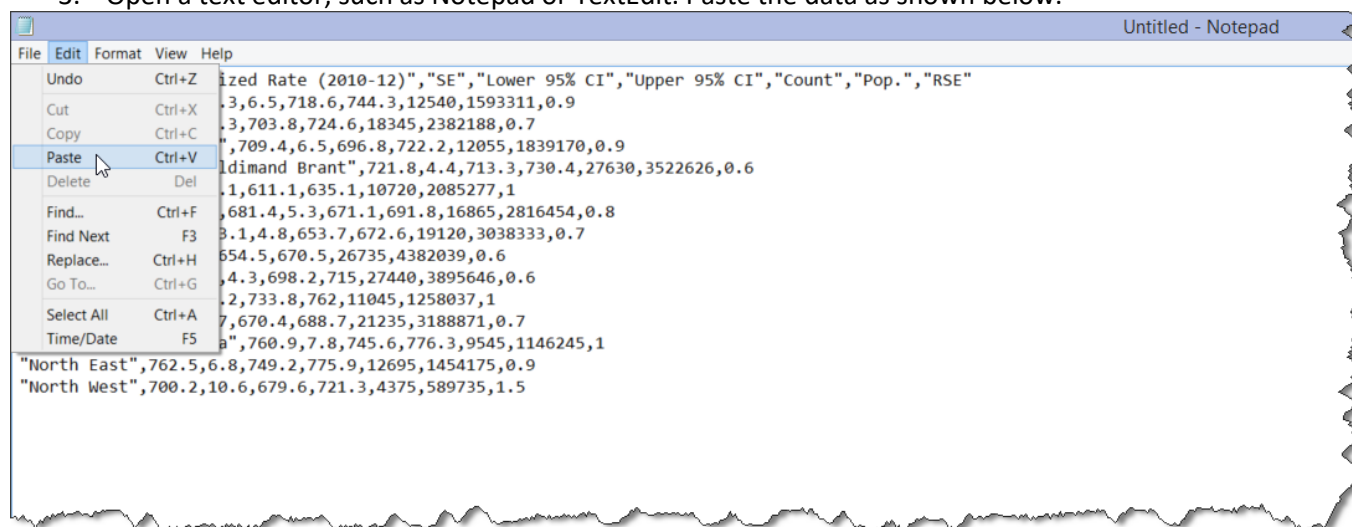
"South West";552.5;7;538.8;566.5;6285;982581;1.3

"Waterloo Wellington";532;8.3;515.9;548.5;4130;791634;1.6

"Hamilton Niagara Haldimand Brant";555.7;5.8;544.3;567.1;9380;1444324;1

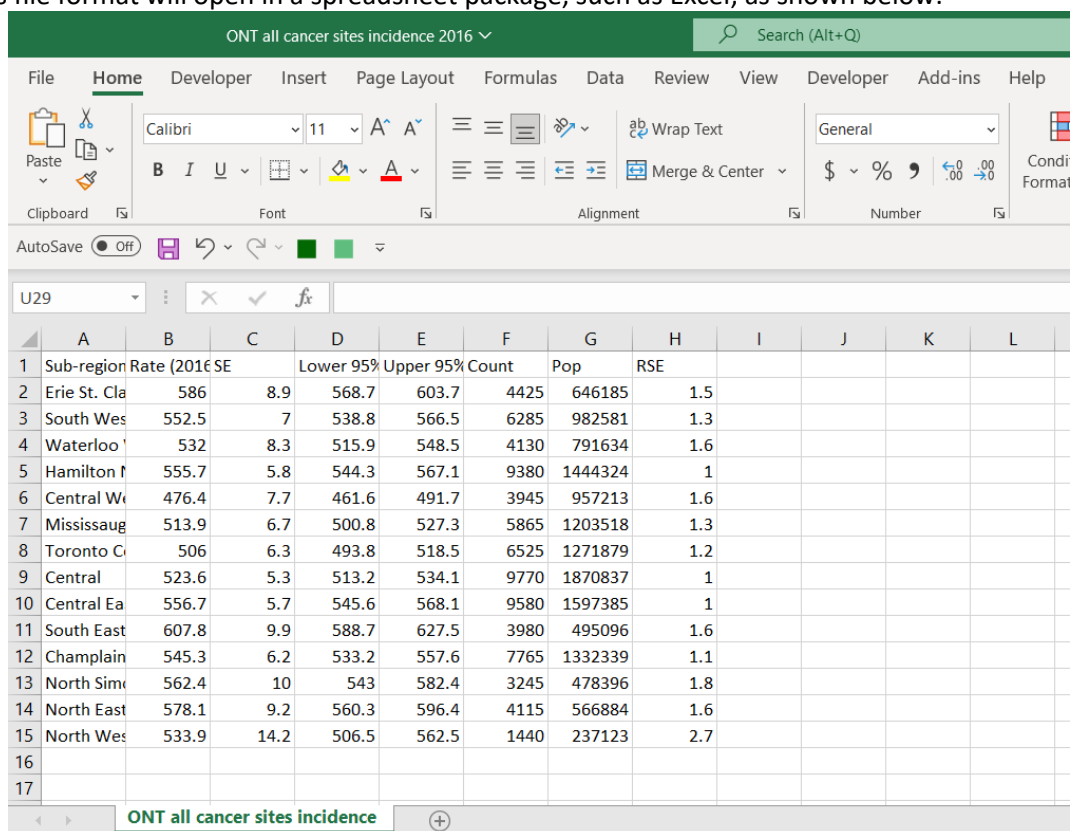
Clear ✕ Filter ✕

2. Select and copy all the text in this pop-up window.
3. Open a text editor, such as Notepad or TextEdit. Paste the data as shown below.




4. In the text editor, save the file with a name of your choosing as a **".CSV"** extension.

5. This file format will open in a spreadsheet package, such as Excel, as shown below:



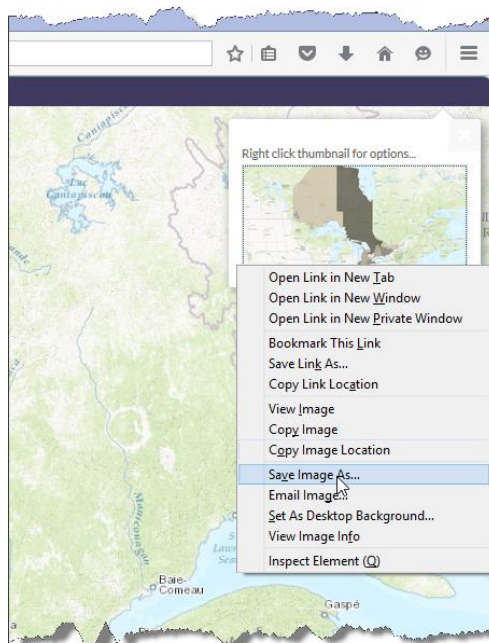
	A	B	C	D	E	F	G	H	I	J	K	L
1	Sub-region	Rate (2016 SE)		Lower 95%	Upper 95%	Count	Pop	RSE				
2	Erie St. Cla	586	8.9	568.7	603.7	4425	646185	1.5				
3	South Wes	552.5	7	538.8	566.5	6285	982581	1.3				
4	Waterloo	532	8.3	515.9	548.5	4130	791634	1.6				
5	Hamilton	555.7	5.8	544.3	567.1	9380	1444324	1				
6	Central W	476.4	7.7	461.6	491.7	3945	957213	1.6				
7	Mississaug	513.9	6.7	500.8	527.3	5865	1203518	1.3				
8	Toronto C	506	6.3	493.8	518.5	6525	1271879	1.2				
9	Central	523.6	5.3	513.2	534.1	9770	1870837	1				
10	Central Ea	556.7	5.7	545.6	568.1	9580	1597385	1				
11	South East	607.8	9.9	588.7	627.5	3980	495096	1.6				
12	Champlain	545.3	6.2	533.2	557.6	7765	1332339	1.1				
13	North Sim	562.4	10	543	582.4	3245	478396	1.8				
14	North East	578.1	9.2	560.3	596.4	4115	566884	1.6				
15	North Wes	533.9	14.2	506.5	562.5	1440	237123	2.7				
16												
17												

Downloading maps

To download maps with higher image quality, it is suggested that you first maximize or pop-out the map (tool icon: ) and then zoom-in on your area of interest. See [Module 3](#) for information on navigating maps.

TIP! If you download the image from the dashboard instead of the pop-out view, the size of the reference text may be larger than the map. Downloading the map from the pop-out view will ensure a higher quality image with appropriately sized reference text.

Hover your cursor over the top right corner of the map that you want to download and click or touch the download icon. This action will open a thumbnail image. Right click the thumbnail image and use the browser's menu to save the image to your computer as shown below:



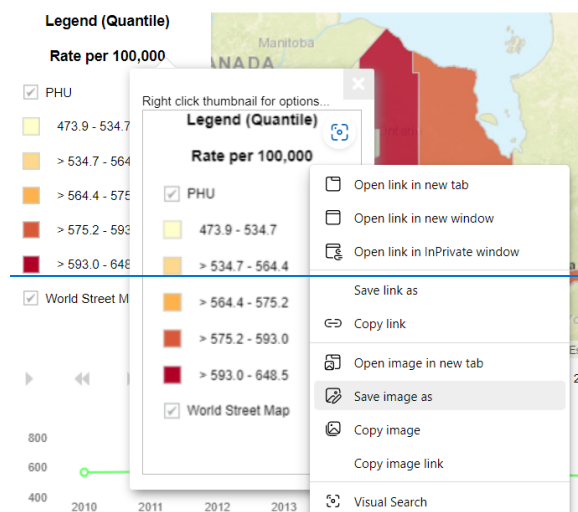
A portable network graphics (PNG) file will be saved onto your computer in the place and name of your choosing. Most computers have default software or applications for opening PNG files. If your device does not open the PNG file, see the help files for your device's software.

TIP! PNG files have transparent backgrounds. In some software programs and applications, the transparent background may be set to black. If this is the case, change the background to white to display your saved map.

TIP! The legend that corresponds to your map needs to be downloaded separately (see instructions below for downloading a legend). It is important to download the legend because it tells the map reader which numeric values the map colours correspond to.

Downloading the legend

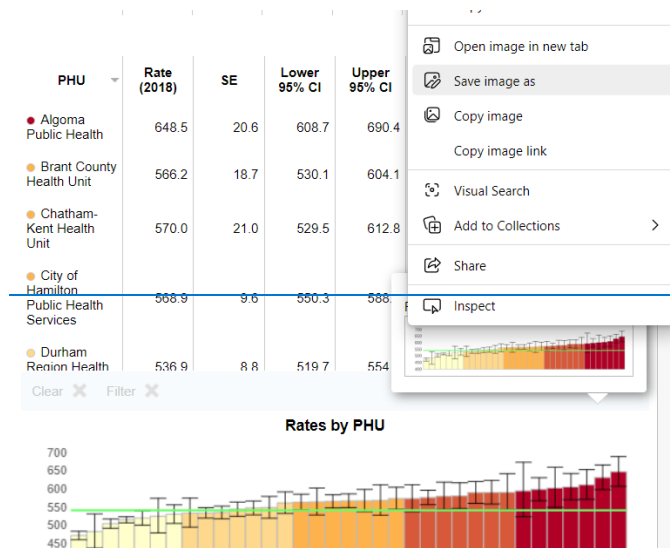
Click or touch the download tool in the top right of the map's legend, which will open a pop-up window. Right click the image and use the browser's menu to save the image to your computer as shown below:



A portable network graphics (PNG) file will be saved onto your computer in the place and name of your choosing.

Downloading bar graphs

To download a bar graph, hover your cursor over the top right corner of the bar graph that you want to download. Click or touch the download icon and a thumbnail image will open. Right click the thumbnail image and use the browser's menu to save the image to your computer as shown below:

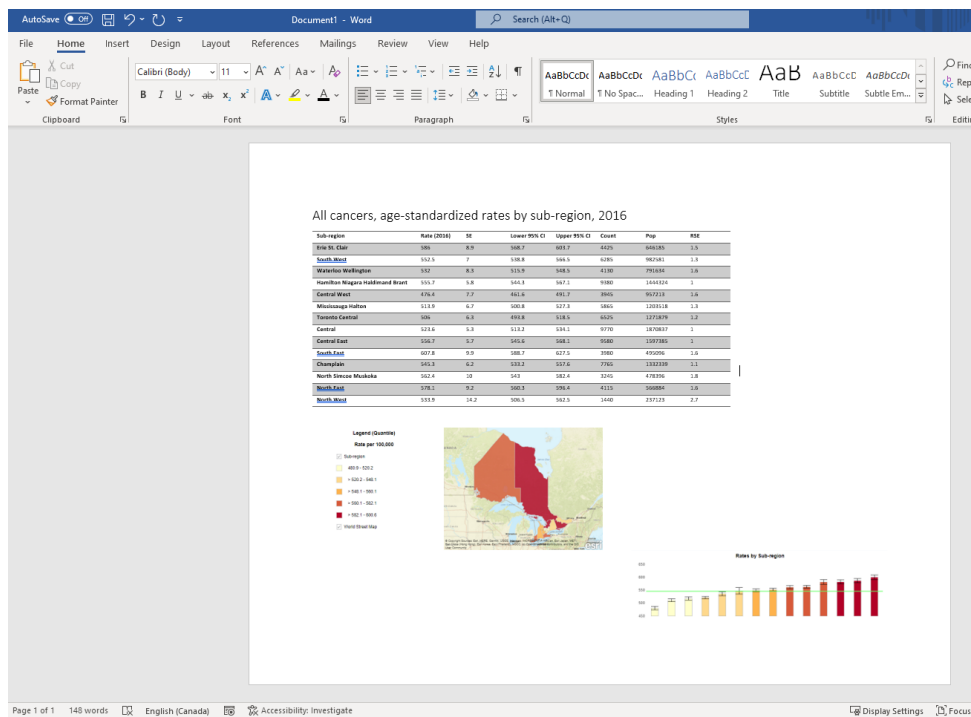


A portable network graphics (PNG) file will be saved onto your computer in the place and name of your choosing.

TIP! Any selected areas in the map or bar graph will be visible on the downloaded image.

Putting it all together

Using a software application such as Word, PowerPoint, Excel or CorelDraw, it is possible to use each of the downloaded components mentioned above to create your own report. An example in Word is shown below:



Using the print function to put it all together

The print function allows you to print or copy and paste the whole dashboard into a different software, such as PowerPoint. Each widget in the print function can be removed, resized or located to a different position to create a more customized report as shown in the image below.

