Cancer Care Ontario

Ontario Cancer Profiles
User Help File
Updated January 2018

Contents

Ontario
Cancer Care Ontario

Introduction

Ontario Cancer Profiles is a self-serve, interactive dashboard tool, providing access to Ontario cancer statistics. It provides instant access to recent, customizable provincial and regional statistics on select cancer burden, risk factor and screening indicators.

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

Use Ontario Cancer Profiles to:
- o generate customized Local Health Integration Network-level statistics, with comparable Ontario statistics, on cancer incidence and mortality, select modifiable risk factors and social determinants of health, and screening participation gaps for Ontario's three cancer screening programs;
- o examine statistics on two indicators of interest simultaneously using the double map feature; and
- o produce downloadable maps or graphs, or export the data for further analysis.

This guide is organized into seven modules and provides step-by-step instructions on using different aspects of the tool.
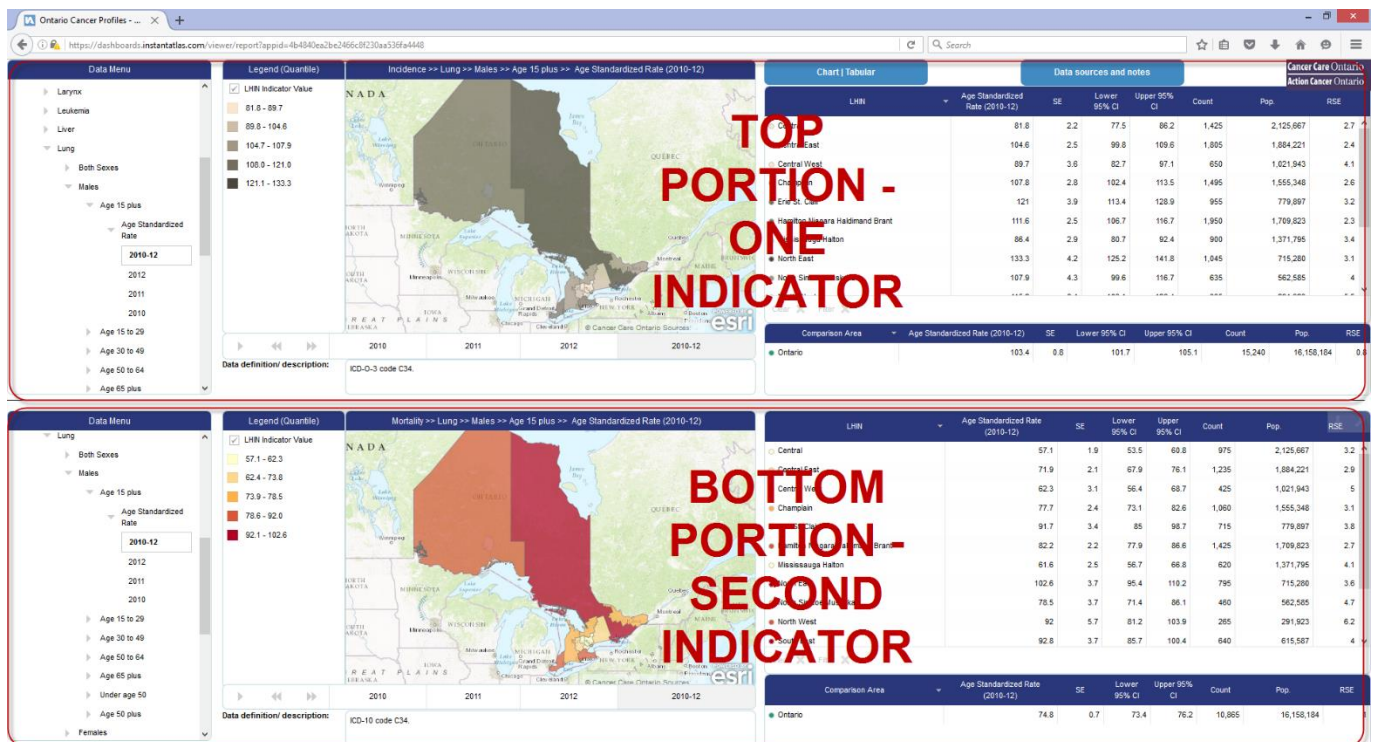
Note: Ontario Cancer Profiles is compatible with touch-screen devices, including desktop computers. To generalize the instructions, we have referred to "click/touch" actions where the "click" is for a mouse and "touch" is for touch-screen devices. Refer to your device's help for instructions on performing left-click type actions and right-click type actions.

For any questions or further support, refer to the Frequently Asked Questions document on CCO's website or email us at surveillance@cancercare.on.ca.
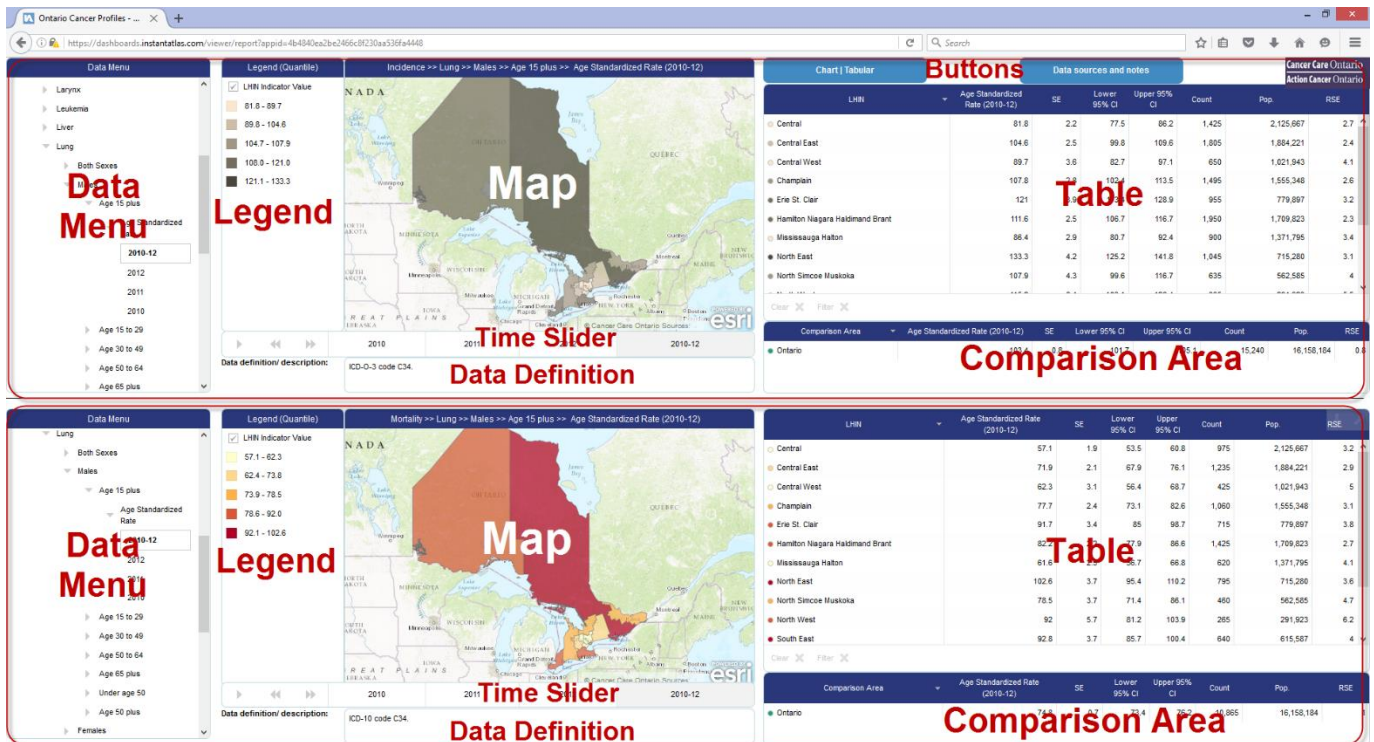
Module 1—Tool Overview and Layout

Overview of the tool

Once the tool is loaded, the layout, as shown below, is a double panel configuration to facilitate comparisons. For example, you may want to compare the incidence of lung cancer among men to mortality from lung cancer among men. This can be done by selecting incidence in the top-portion of the application and mortality in the bottom half of the application, or vice-versa.

All components of the tool are linked to the indicator that you choose. For example, if male lung cancer incidence is selected in the data menu in the top portion of the tool, the map, table, comparison area and bar charts in the top portion of the tool are set to display male lung cancer incidence.

We refer to each component of the tool as "**widgets.**" These include the following: "data menu", "legend", "map", "time slider", "data definition", "table", "chart", and "comparison area." In the top right of the tool are two "**buttons:**" one to toggle between the table or bar chart; and one to view detailed data sources and notes. The default visible widgets and buttons are labeled on the screen capture below. More information on each widget, including functionality, is outlined in the tables below.

Widget	Description
Data Menu	Provides the ability to select a variety of indicators. Selecting an indicator in this widget is the first step to interacting with the tool. Indicators include: cancer incidence, cancer mortality, select modifiable risk factors (e.g. tobacco smoking), social determinants of health (e.g. household income) and cancer screening participation gaps. Use of the data menu is described in **Module 2**.
Legend	Linked to how the data are displayed on the map. There are a variety of methods to classify the data and these are described in **Module 3.**
Map	Displays or visualizes the selected data across Ontario. The data are coloured according to the values, classification method and colour scheme selected on the legend. These are described in **Module 3.** Each region displayed on the map is a "Local Health Integration Network", or LHIN.
Table	Organizes data for the selected indicator into columns and rows. Each row contains the values for a geographic region named a "Local Health Integration Network", or LHIN. Tables are described in **Module 4.**
Comparison Area	Displays the Ontario value for the selected indicator. This allows for comparison of indicator values for each geographic region to the value for the entire province. Comparison areas are described in **Module 4.**

Widget	Description
Chart (not visible by default)	Visualizes the selected data on a bar chart, where each column displays the numeric value of an indicator for each "Local Health Integration Network", or LHIN. Use of the chart widget is described in **Module 5.**
Time Slider	Displays the selected indicator data for different time periods. The periods change according to the selected indicator and the data that are available. Single years of data are provided for cancer incidence (and in some cases mortality). In addition, three years of combined data are provided in situations where estimates by single years of data were unreliable or suppressed. **TIP!** This feature also provides a shortcut to the data menu to select different time periods. Use of this widget is described in **Module 6**.
Data Definition	Provides a definition for the selected indicator, or a description of the indicator. For cancer incidence or mortality, the definitions for the type of cancer are according to the International Classification for Disease Oncology or Mortality (ICD-O-3 or ICD-10), respectively. For cancer risk factor, cancer screening or demographic data, a description of the indicator is provided.

Several aspects of functionality are common across each widget. These functions include full-screen or pop-out mode. For maps, legends, tables, comparison areas and charts only, the functionality to download the data or images of the data visualizations (see **Module 7**) are provided too. Functionality of the widgets include:

Icon	Function	Description
	Full-screen, or pop-out widget mode	Position your cursor on the top-right corner of a widget. This icon will become visible. Click/touch on the tool to expand that widget to full-screen mode.
	Pop-in widget mode (only displays when a widget is in full-screen or pop-out mode)	Position your cursor on the top-right corner of a full-screen widget. This icon will become visible. Click/touch on the icon to pop-in the widget back to the default size.
	Download	Position your cursor on the top-right corner of a widget. This icon will become visible. Click/touch on the tool to view the download options. These options include downloading PNG files for the legend, maps and bar charts, or the data in comma separated values (CSV) format for the tables. See **Module 7** for more information on downloading.

Icon	Function	Description
at⊙ al	Settings (for legend only)	Position your cursor on the top-right corner of the legend widget and this icon will become visible. You can use the settings to change the colours for the maps and bar charts, change the data classification method, or add/remove categories for the data classification.
✕	Close (for "Data Sources and Notes" and "Legend" widgets only)	Click/touch on the "✕" to close the "Data Sources and Notes" or "Legend" window.

Highlights vs. selections

Positioning your cursor overtop a region on a map, a row on a table or a category on a legend will **highlight** the corresponding region or category.

Click/touch to **select** a region on a map, a row on a table, or a category on a legend. Selecting features provide additional options such as filtering features on the map (see **Module 3**) or setting the map extent to the selected row(s) in the table (see **Module 4**).

Different colours are used to distinguish between "highlights" vs. "selections" as shown below:

Highlights

Selections

Data suppression or unreliable estimates

In some situations, data suppression was used to protect personal health information or when the estimates were considered unreliable. These situations are demarked in the data table using an asterisk ("*****"). On the map, suppressed or unreliable estimates are displayed in bright yellow as shown below:

Suppressed or Unreliable Estimates

Module 2—Using the Data Menu

Data menu

The data menu allows you to select the indicator(s) of interest. The menu is organized into "nodes" according to a hierarchy:

➢ Indicator (e.g. incidence)
    ➢ Theme (e.g. lung cancer)
        ➢ Sex (e.g. Female)
            ➢ Measure/quantity (e.g. Age-standardized rate)
                ➢ Time period (e.g. 2010-12)

A node is distinguished by use of an arrow (➤). Nodes can be collapsed or expanded. For example, by default, the "incidence" node will be expanded; to collapse it, click/touch on the arrow next to this indicator. For a collapsed node, click/touch to expand it to see the options available. Clicking/touching on the lowest-level of the hierarchy, which is currently the time period, will display the data accordingly to your selections in the data menu.

There are currently five indicators in Ontario Cancer Profiles:
- Cancer Incidence
- Cancer Mortality
- Cancer Screening
- Chronic Disease Risk Factors
- Socio-demographic Variables

Module 3—Using the Map

Map widget

The map widget displays data for the selected indicator by Local Health Integration Network (LHIN). This allows you to visualize how the data vary across Ontario. The two map widgets display the same geographic area to better facilitate comparisons.
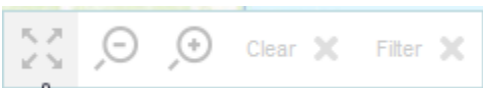
Navigating the map

Panning

Click/touch anywhere on the map, hold and drag in the direction you want to "pan" the map. For example, to pan the map to the North, click/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 four arrows indicating pan mode as shown below:

Other Map Navigation Tools

When you position your cursor onto a map widget, the following toolbar will appear:

The tools in this toolbar allow you to navigate the map.

Icon	Tool	Description
	Original extent of map	Click/touch on this icon to set the map back to Ontario, as best fit on your device's screen dimensions.
	Zoom-out	Click/touch on this icon to zoom-out from the current centre of the map displayed.
	Zoom-in	Click/touch on this icon to zoom-in from the current centre of the map displayed.
	Clear	Click/touch on this icon to clear any region(s) (i.e. LHINs) selected. This icon is "greyed-out" when no regions are selected. When regions are selected, the " ✕ " will be red.

Icon	Tool	Description
Filter ✕	Filter	Clicking/touching on this icon allows you to filter the data for the selected region(s) (i.e. LHINs). This icon is by default "greyed-out." Once the Filter tool is active, the " ✕ " will be red. To clear the filter, click/touch on the red " ✕ " button.

Legend

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

TIP! These types of maps are called "choropleth" maps. For more information, visit the Choropleth Maps—A Guide to Data Classification website.

Selecting Regions in a Legend Category
Position your cursor overtop of a legend category to highlight that category. Click/touch on the category to select it (see Highlights vs. selections in **Module 1**). All region(s) (i.e. Local Health Integration Networks) that have data values within that data classification in the legend will be selected on the map and table or bar chart. This allows a rapid method to select the highest or lowest values in Ontario for an indicator.
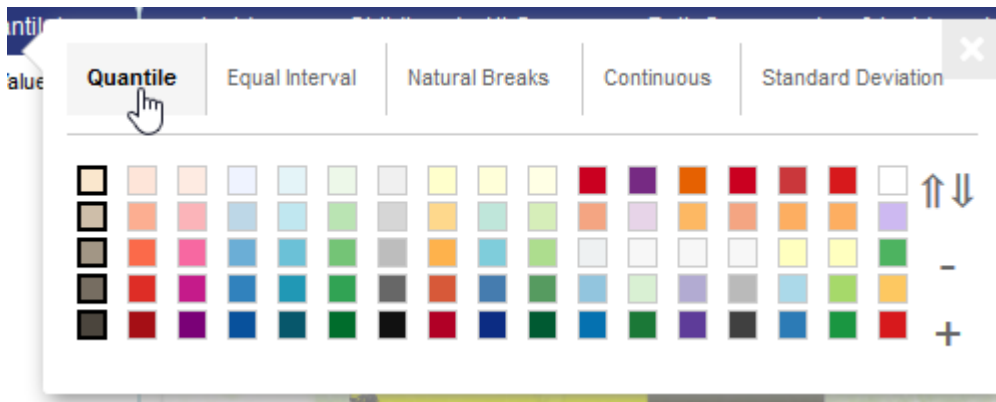
Legend Toolbar
Positioning your cursor in the upper right corner of a legend widget will display the toolbar shown below. The tools are described above in **Module 1**. For more information on the "Settings" icon see below.

Settings Icon
The settings tool is the first icon in the toolbar with a gear symbol. Click/touch to open the legend settings and a colour palette with options will appear as shown below:
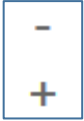
Along the top row, you can alter the method of data classification:

Data Classification	Description
Quantile	Creates data classes with an equal number of regions (or as equal as possible) within each class. For example, five classifications provide quintiles, where the data are classed into the 0%−20% (bottom 20%), 21%−40%, 41%−60%, 61%−80% and 81%−100% (top 20%) values. This method provides a value in every data class.
Equal Intervals	Divides the range of the data to provide an equal range of values across the classifications. There may not be a value in every data class.
Natural Breaks	Examines the statistical distribution of the data and an algorithm attempts to locate natural groupings within the data by reducing within-group variation. Data classes may be quite unequal in terms of their numeric ranges.
Continuous	Provides a continuous range of colour values. This option may be difficult for people to relate values on the map to actual numeric values.
Standard Deviation	Examines the statistical distribution of the data and creates classes based on standard deviations. Diverging colour schemes work well with this method (see below).

Below the data classification methods are the available colour palettes for shading the classes. Position your mouse over a colour palette and click/touch to select it.

On the right margin of the legend settings, there are additional icons that provide added functionality:

Icon	Function	Description
⇑ ⇓	Order of hues	Click/touch on these arrows to change the order of the colours. For example, if you want to display lower values with darker shades, click/touch on these arrows. To reverse that change, click/touch on the arrows again.

Icon	Function	Description
− +	Add or remove a data category	Click/touch on the plus sign to add a data category. Click/touch on the minus sign to remove a data category. For example, 5 quantile classes (quintiles) are used by default. To display the data by quartiles, click/touch the minus sign (with the quantiles classification type selected).

When finished, position your mouse on the legend settings pop-up and click/touch the "X" in the top-right corner.

TIP! You can set separate colours and data classification methods for each map or data visualization. However, it may not be meaningful to compare indicators across classification methods. For example, comparison of male lung cancer incidence rates in 2013 classed by quintiles with male cancer mortality rates in 2013 classed by equal intervals makes for difficult comparison. **Do not assume the colours in the two maps display the same values**. Always read the legend.

TIP! When examining the cancer screening data on the map, it is recommended to adjust the legend to show three data classes (the default is five) due to the narrow data range. For more information see the "Data Notes" in the "Data Sources and Notes" document on CCO's website.

Module 4—Using the Tables and Comparison Areas

There are two types of data tables provided in the tool: one for the Local Health Integration Network (LHIN)-level data and one for Ontario-level data (the "Comparison Area"). A total of four tables are provided to enable comparisons. The data tables (as shown below) allow you to view, sort, filter, and export the data and statistics:

LHIN		Age Standardized Rate (2012)	SE	Lower 95% CI	Upper 95% CI	Count	Pop.	RSE
Central	▼	643	6.8	629.8	656.5	8,960	1,489,928	1.1
Central East		694	7.2	679.9	708.3	9,220	1,315,269	1
Central West		615.5	10.3	595.5	636	3,665	708,971	1.7
Champlain		679.6	8	664.1	695.4	7,275	1,076,605	1.2
Erie St. Clair		725	11.2	703.2	747.3	4,220	532,496	1.5

Clear ✕   Filter ✕

Comparison Area	▼	Age Standardized Rate (2012)	SE	Lower 95% CI	Upper 95% CI	Count	Pop.	RSE
Ontario		683.2	2.5	678.4	688	77,005	11,213,214	0.4

- **Viewing:** use the scroll bar to the right of the LHIN table to view data for all fourteen LHINs. To view a region of interest on the map, simply click/touch on the row of your LHIN of interest and it will automatically be highlighted in the map.
- **Sorting:** each column in the table can be sorted by clicking/touching on the downward pointing arrow to the left (circled above). **Note:** only one column can be sorted at a time.
- **Filtering:**
  - To "filter" **the view to one LHIN**, simply click/touch on the row for your LHIN of interest and click/touch the "Filter X" button (circled above). Only the region for the selected LHIN(s) will be visible on the map.
  - To filter **by more than one LHIN**, simply click/touch on all regions of interest and then click/touch the "Filter X" button. Only the region for the selected LHIN(s) will be visible on the map.
  - Simply click/touch on the "Filter X" button again to undo your filter and return to the default view.
  - At any point to clear any selections you may have made, click/touch on the "Clear X."
- **Exporting:**
  - To download the data, use the download button on the top right of the table (see **Module 1—Overview of the tool** for more information).
  - More information on how to export data from charts and maps is provided in **Module 7.**

Module 5—Using the Charts

The default view of the tool once loaded is the tabular format of the data (see **Module 4**-**Using the Tables and Comparison Areas** for more information on the tables).

Viewing the Bar Graph

Click/touch on the [Chart | Tabular] button on the top-right of the tool. Both Local Health Integration Network (LHIN)-level tables will be replaced by two bar graphs. The two "Comparison Area" (Ontario-level) tables will still be visible in this view. **Note,** you can only view the data tables or bar graphs; you cannot view both options simultaneously.
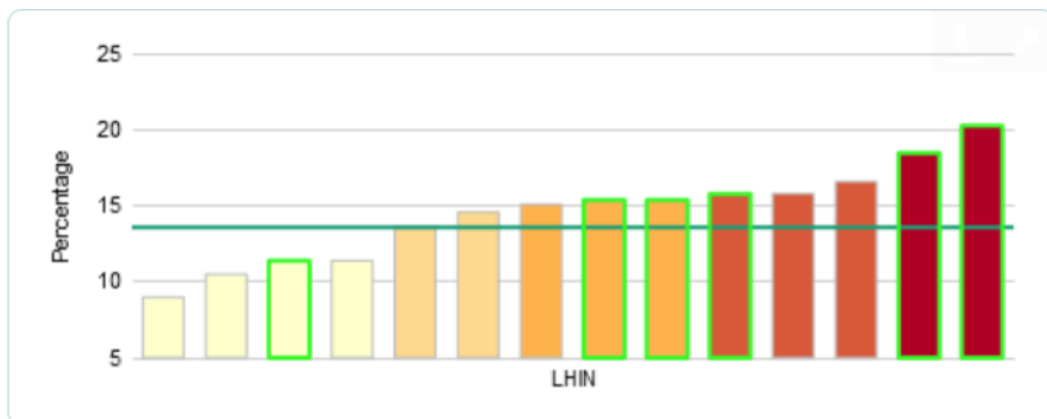
The bar charts display **two layers of data:**
- Ontario-level data is displayed as a line (i.e., the indicator for the "Comparison Area") (see below).
- LHIN-level data is displayed as bars. Only the LHIN(s) selected will be displayed. The bar graphs displayed are **based on both your selection in the Data Menus and any filters you may have applied to the table**. For example, if you filtered your data table by one LHIN then the bar chart will only display the data for that LHIN.

Navigating through the Bar Graph
- To **highlight any area in the map or bar graph**, hover over the bar/area for the region of interest in the graph/map. The region of interest on the map and bar graph will be highlighted in bright blue.
- To **select a region in the map or bar graph**, click/touch on the bar/area for the region of interest in the graph/map. You can click/touch on more than one region. The selected region(s) will be indicated with a bright green border on the bar graph and map (see image below).

    TIP! The map and bar graph are linked, any selection in one will automatically update in the other.

Downloading
- To download the bar graph, use the download button on the top-right of the table (see **Module 1—Overview of the tool**).

  TIP! Any selected regions (with a green highlight) in the map or bar graph will be visible on the downloaded image.

Module 6—Using the Time Slider

Ontario Cancer Profiles includes a time-animation feature: a time slider provided for each map (for a total of two). The purpose of the time-slider shown below is to present how the data changes over time across the map, data tables and chart.

▶ ◀◀ ▶▶	2011	2012	2013	2011-13

To use the time slider:

- Click/touch on the play button "▶" to view how the data changes over time across the map and data tables. The title of the map will update to reflect the year being viewed during the animation.
- To slow down the time-animation and view changes over time for each year (or years) of interest, use the forward and back buttons shown below to move through the available years of data.

◀◀   ▶▶

Note: regardless of your selection in the data menu, the time slider will show you the change in data over time. For example if you choose "2013" only, the time slider will still show you the change in data over time for all available years of data (2011, 2012, 2013) for your indicator of choice.

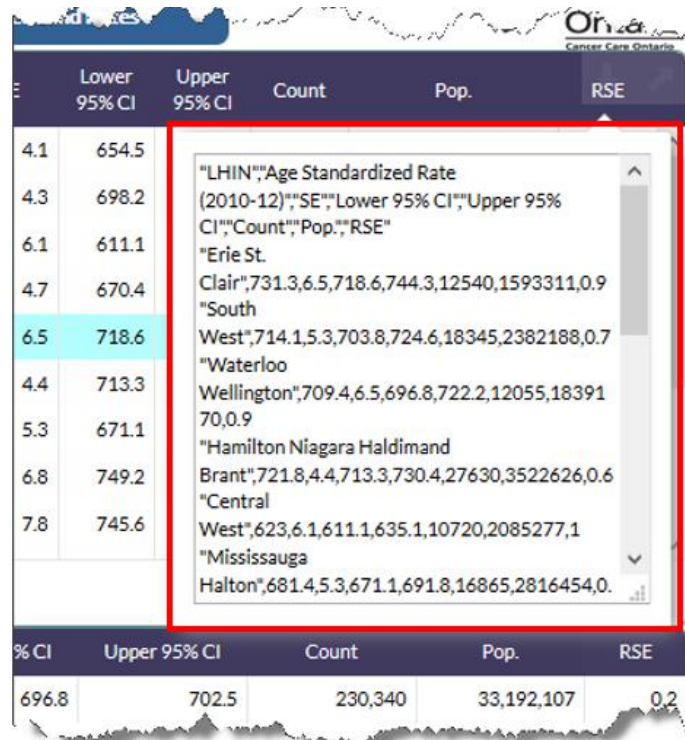## Module 7—Downloading Data, Charts and Maps

Each widget provides the ability to download its information so that you can create your own reports using Ontario Cancer Profiles. The download function appears in the top-right corner of a widget when you move your cursor over a widget. Recall from **Module 1** that it has an underlined down-arrow icon as shown below:

Downloading data from tables

You can download all data from the tables for use in your own spreadsheet or database software:
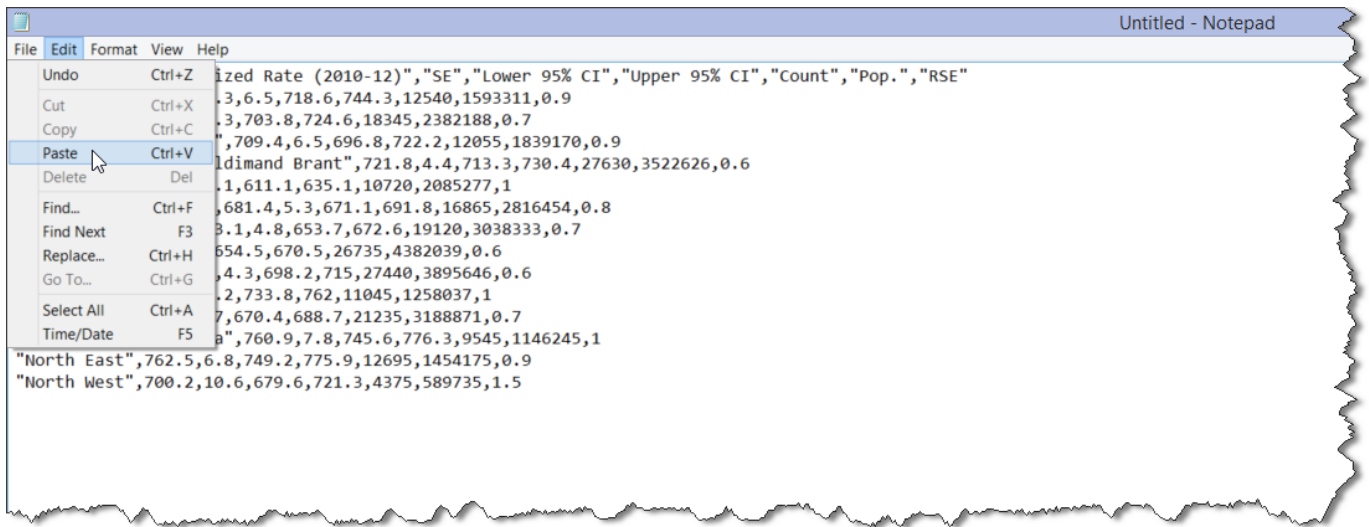
1. Move the cursor onto the table for which you want to download data and click/touch on the download icon. This displays a pop-up with the data formatted in Comma Separated Values (CSV) format as shown below:
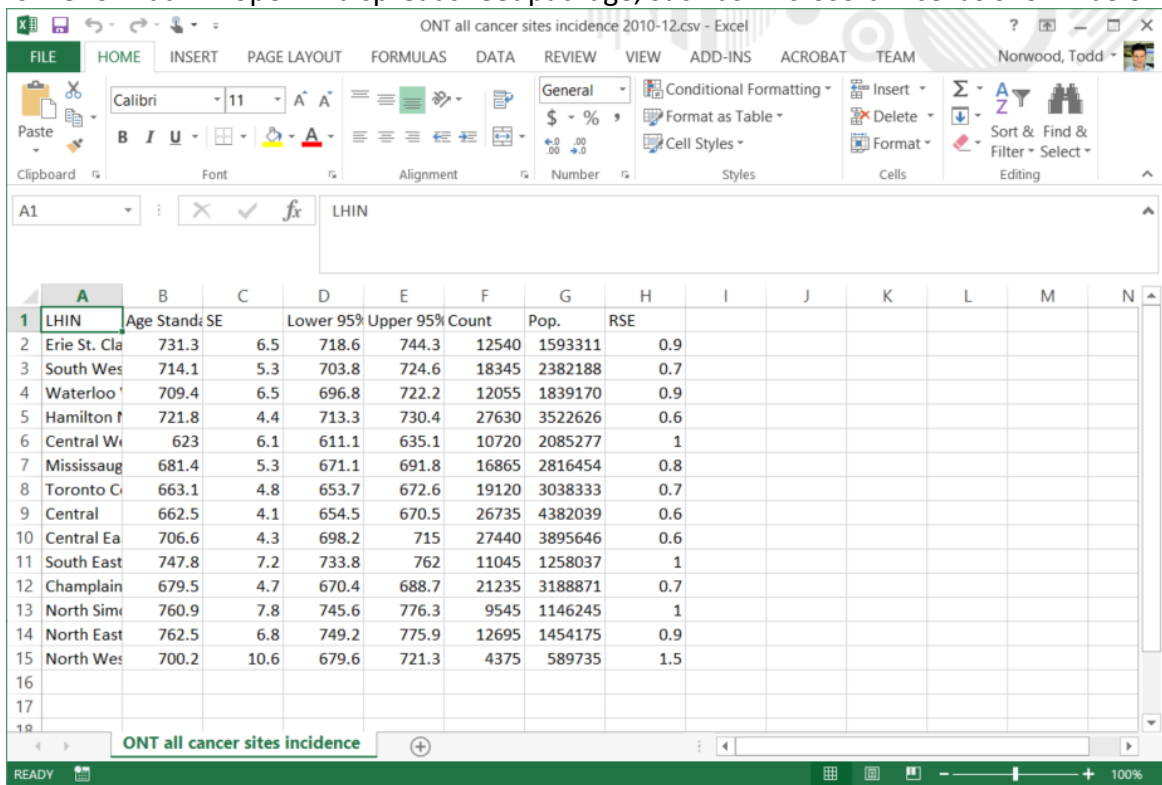

2. Select and copy all the text in this pop-up window.
3. Next, open a text editor such as Notepad or TextEdit. Paste the data as shown below.

Untitled - Notepad

File Edit Format View Help

ized Rate (2010-12)","SE","Lower 95% CI","Upper 95% CI","Count","Pop.","RSE"
3,6.5,718.6,744.3,12540,1593311,0.9
3,703.8,724.6,18345,2382188,0.7
,709.4,6.5,696.8,722.2,12055,1839170,0.9
ldimand Brant",721.8,4.4,713.3,730.4,27630,3522626,0.6
1,611.1,635.1,10720,2085277,1
,681.4,5.3,671.1,691.8,16865,2816454,0.8
3.1,4.8,653.7,672.6,19120,3038333,0.7
654.5,670.5,26735,4382039,0.6
4.3,698.2,715,27440,3895646,0.6
2,733.8,762,11045,1258037,1
7,670.4,688.7,21235,3188871,0.7
",760.9,7.8,745.6,776.3,9545,1146245,1
"North East",762.5,6.8,749.2,775.9,12695,1454175,0.9
"North West",700.2,10.6,679.6,721.3,4375,589735,1.5

4. Within the text editor, save the file with a name of your choosing **with a ".CSV" extension**.
5. This file format will open in a spreadsheet package, such as Microsoft Excel as shown below:
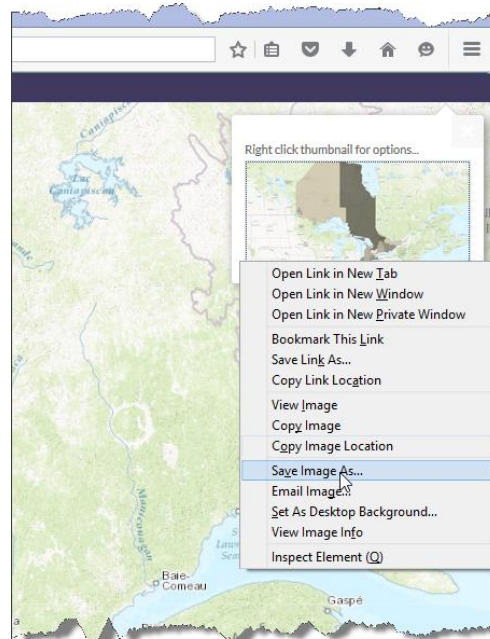
Downloading maps

To download maps with higher image quality, we suggest you first maximize/pop-out the map (tool icon:

) and then zoom the map to your area of interest. See **Module 3** for navigating the map.

TIP! If you download the image from the dashboard, as opposed to the pop-out view, the size of the reference text may be large compared to the map. Downloading the map from the pop-out view will ensure a higher quality image with minimized reference text.

Move your device's cursor to the top-right corner of the map that you want to download, and click/touch on the download icon. This will open a thumbnail image. Follow the instructions and perform a right-click action on the thumbnail image to use the browser's menu to save the image to your computer as shown below:
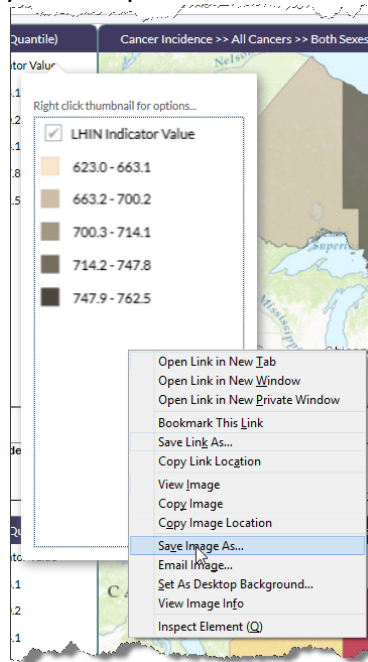

This will save a Portable Network Graphics (PNG) file onto your computer in the place and name of your choosing. Most computers have default software/applications to open PNG files. If your device does not open the resulting file, see the help files for your device's software.

TIP! PNG files have transparent backgrounds. On some software programs/applications, the transparent "colour" may be set to black. Within that software, change the background to white to display your saved map.

TIP! The legend that corresponds to your map needs to be downloaded separately. This is an important component to include since it tells the map reader what numeric value the map colours correspond to.
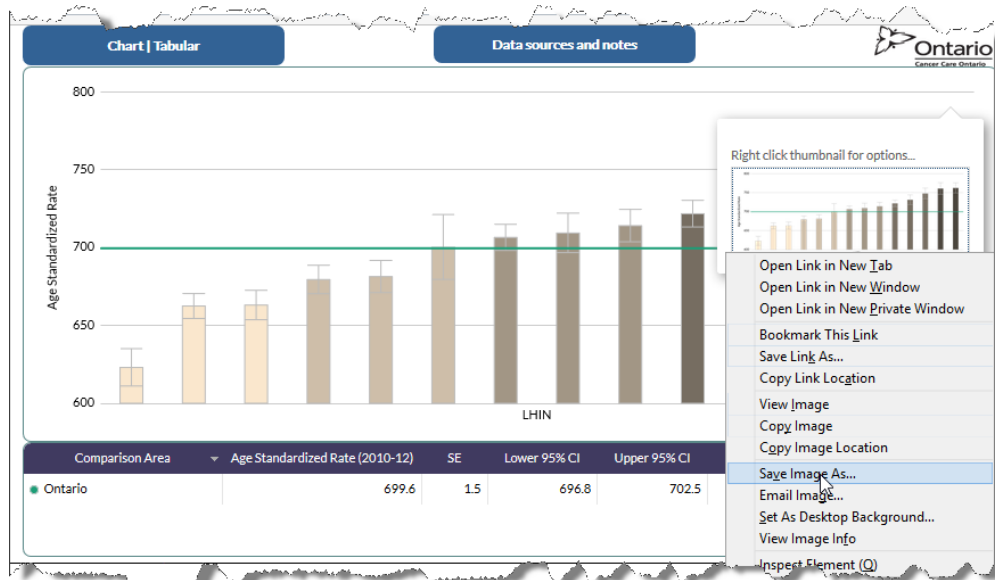
Downloading the legend

Click/touch on the download tool in the top-right of the map's corresponding legend. This will open a pop-up window. Follow the instructions and perform a right-click action on the image to use the browser's menu to save the image to your computer as shown below:

This will save a Portable Network Graphics (PNG) file onto your computer in the place and name of your choosing.

Downloading bar charts

Click/touch the **Chart | Tabular** button to view the bar charts if you are not already in that view. Next, move your device's cursor to the top-right corner of the bar chart that you want to download, and click/touch on the download icon. This will open a thumbnail image. Follow the instructions and perform a right-click action on the thumbnail image to use the browser's menu to save the image to your computer as shown below:

This will save a Portable Network Graphics (PNG) file onto your computer in the place and name of your choosing.

Putting it all together

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