Public Health Ontario | Santé publique Ontario

USER GUIDE

Easy Maps v2.0

Introduction

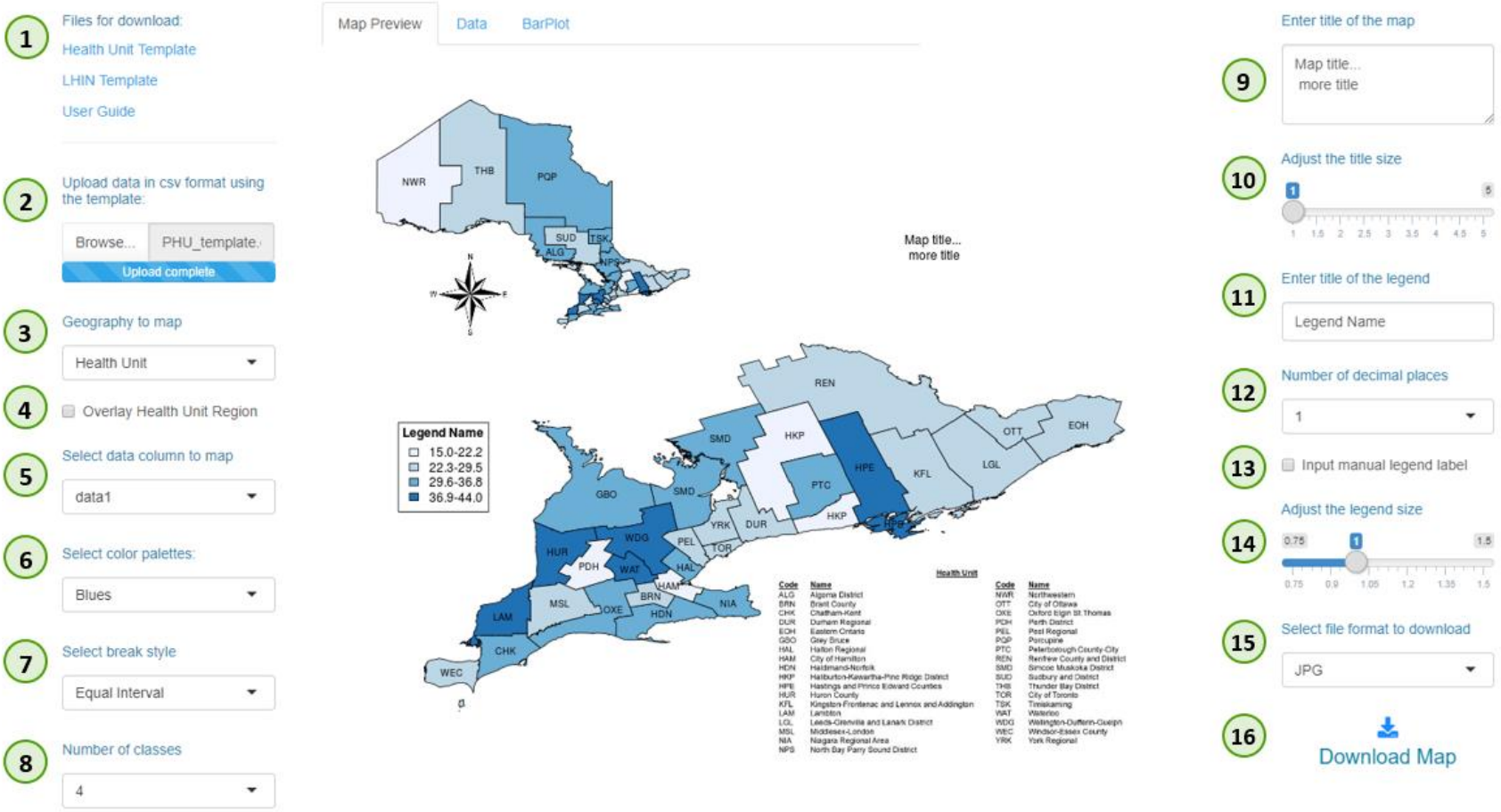
This document is intended to provide guidance on the use of the Easy Maps v2.0 tool to generate a map by either a public health unit (PHU) or Local Health Integration Network (LHIN). The guide is laid out in the order of the tabs that are found within the application: Map Preview, Data and BarPlot.

- **Map Preview Tab:** The contents of this tab allow the user to upload numeric data by PHU or LHIN geographies, customize the map settings and download a map.
- **Data Tab:** This tab displays the table of the data that are uploaded to the tool. The data can be viewed, searched and sorted.
- **BarPlot Tab:** The contents of this tab show a simple bar plot of the data field that has been chosen for mapping. The plot can be viewed and sorted by the chosen data field.

The guide is best used by starting with "1. Download a Data Template" and proceeding sequentially through the document. Following each step in the written order will prevent errors when using the tool.

In addition, the guide is a useful quick reference aid to look up information about the Easy Maps v2.0 tool. Readers can refer to the appropriate tab and look-up number (shown in the screen shots) in the document where specific details are described. The 'General Use Notes' section at the end of the document provides additional information.

Map Preview Tab



1. Download a Data Template

Click the link to the geography of interest (e.g., 'Health Unit', 'LHIN') under 'Files for download' on the top left of the screen. A Comma Separated Value (CSV) file will be downloaded locally to the user's computer so data can be populated for use in the map.

The downloaded CSV file should be modified to contain the numeric data that will be represented on the map using the Easy Maps v2.0 tool. By default, data1 and data2 fields are populated with sample numeric data.

Either the 'data1' and/or 'data2' fields and contents (shown below in the example health unit template file) should be modified OR a new field and contents can be added.

	A	B	C	D	E
1	HUID	NAME	data1	data2	
2	2226	THE DISTRICT OF ALGOMA HEALTH UNIT	36	57.6	
3	2227	BRANT COUNTY HEALTH UNIT	29	46.4	
4	2240	CHATHAM-KENT HEALTH UNIT	34	54.4	
5	2237	CITY OF HAMILTON HEALTH UNIT	20	32	

Note: The HUID and NAME fields should not be modified in any way, as they are critical for the application to load, join the data and generate the map.

2. Browse Button

Click this button to launch a dialog box that will allow you to choose the file containing your data for display in the map.

Reminder: It is recommended to download the appropriate CSV template, modify the data fields and use this modified file for mapping. By default, CSV values are filtered in the upload list to ensure the proper file format is uploaded into the application.

3. Geography to Map Box

Based on the uploaded template file, this box shows the geography used within the map. This value will automatically be set to the applicable geography aligning with the template used.

4. Overlay Health Unit Region Layer

Click this check box to turn on the health unit regions layer. The health unit region layer is an unofficial grouping of health units (i.e., North West, North East, Eastern, Central East, Toronto, Central West, South West), which is often used by Public Health Ontario (PHO) for contextual purposes. Turning on this layer will only show the boundaries of the regions and add additional labels to the map and will not affect the colors of the health units. This option is only available when choosing to map by PHUs.

5. Select Data Column to Map Dropdown

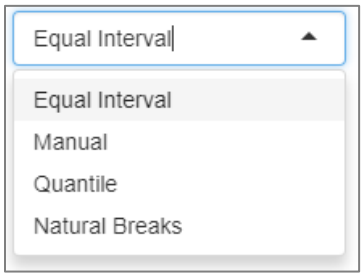
Use this dropdown to choose the field of data to map (within your uploaded file). Any fields that contain non-numeric values will be excluded from this dropdown list, as they are invalid for use in this tool.

6. Select Colour Palette Dropdown

Use this dropdown to choose the colour of the map. Available colours are single hue graduated colours (with the exception of 'Spectral').

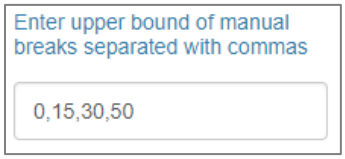
7. Select Break Style Dropdown

Use this dropdown to choose the data classification method by which to organize the data. The options are shown below:



Equal Interval: Classification method, which splits the data into equal ranges based on the number of classes (selected in Step 8) and the upper and lower data ranges in the uploaded data file.

Manual: Manual method of classifying the data ranges shown in the map. When this option is chosen, a new box will appear (shown below) where the user can specify the **upper** values for each class. Choose the upper values for each class, separated by a comma. Example: '1,5,10,20'.



Although the legend will show an overlap with the upper limits of one class and the lower limit of the next class (e.g., 0-30, 30-50), it is important to note that the class includes values up to and including the chosen UPPER cut-off value – so the beginning of the next class does not actually include the lower cut off value (i.e., only higher values). To make this clearer in the legend, manual legend values can be used to change the labels to show there is no overlap between the classes (e.g., 0.0-30.0, 30.1 – 50.0).

Notes: The number of values (separated by commas) will determine the number of classes shown in the map. By default, all data values are represented in the map and the map legend text. The highest default value shown in the text box will include the maximum value found in the chosen field in the uploaded CSV data file.

Since the data classes are essentially determining intervals, to isolate a specific value (e.g., 0) creative upper boundaries (e.g., 0.5) may need to be chosen to ensure the map turns out as expected.

Careful attention should be paid to ensure the classifications in the map align with the data breaks for the geographies and all map details are properly reflected in the legend – often through the use of a manual legend choice (covered in Step 13).

Quantile: Attempts to organize the data into groupings with the same number of geographies within each class. The resulting visualization will depend on the number of geographies and the distribution of

the data. Sometimes it will not work as a true quantile if there are many identical data values or if there are a number of geographies that are not equally divisible by the chosen number of classes. For example, if 20 of the 35 PHUs have the same value of '0', a true quantile cannot be performed, as the data do not allow it.

Natural Breaks: Examines data distribution (i.e., histogram) and makes the cutoffs in natural break locations.

8. Number of Classes Dropdown

Use this dropdown to choose the number of classes to use for data classification.

Note: The larger the number of classes, the harder it will be to distinguish between the colours for each class. It is not recommended to select greater than '5' for graduated colours.

9. Enter the Title of the Map

Use this text box to enter the title that will be shown in the top-right corner of the map.

10. Adjust the Title Size

Use this slider to modify the size of the title in the map. Slide it to the right to increase the size and to the left to decrease the size. The change will appear in near real-time so it is easy to see what size works best.

11. Enter the Title of the Legend

Use this text box to change the name of the legend to the preferred text.

12. Number of Decimal Places

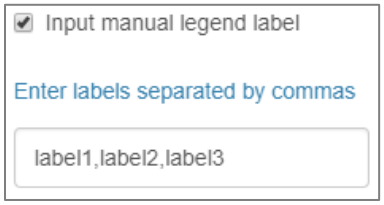
Use this drop down box to select the number of decimals to include in the legend.

Note: When the decimal places are changed, the way the data are classified and the values in the legend also change.

13. Input Manual Legend Label

Check this option to allow custom legend labelling. The legend labels are separated by commas. Example: 'No Data,Minor,Major,Extreme'.

When this option is chosen, a new box will appear (shown below) where the user can specify a label for each of the data classes. It is best to not include a space after the comma to ensure the best formatting in the legend. If a space is included after the comma, it will also appear as an extra space in the legend. Be sure the text order aligns with the data classification order to ensure there are no errors in the map.



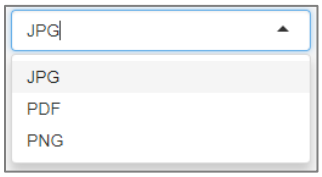
By default, when the box is checked, the number of classes defined by any of the methods described in Step 7 will be matched to the number of labels in the text box. For example, if 3 classes are set in Step 8, the default labels will be 'label 1,label 2,label 3'. This is to help ensure that the number of classes each have their own label. These default values should be changed to something more meaningful. Be sure to keep the text within a reasonable length to avoid the legend box extending into the geography boundaries and to preserve the look of the map.

14. Adjust the Legend Size

Use this slider to modify the size of the legend. Slide it to the right to increase the size and to the left to decrease the size. The change will appear in near real-time so it is easy to see what size works best.

15. Select File Format to Download

Use the dropdown to choose the format of the map file to download.

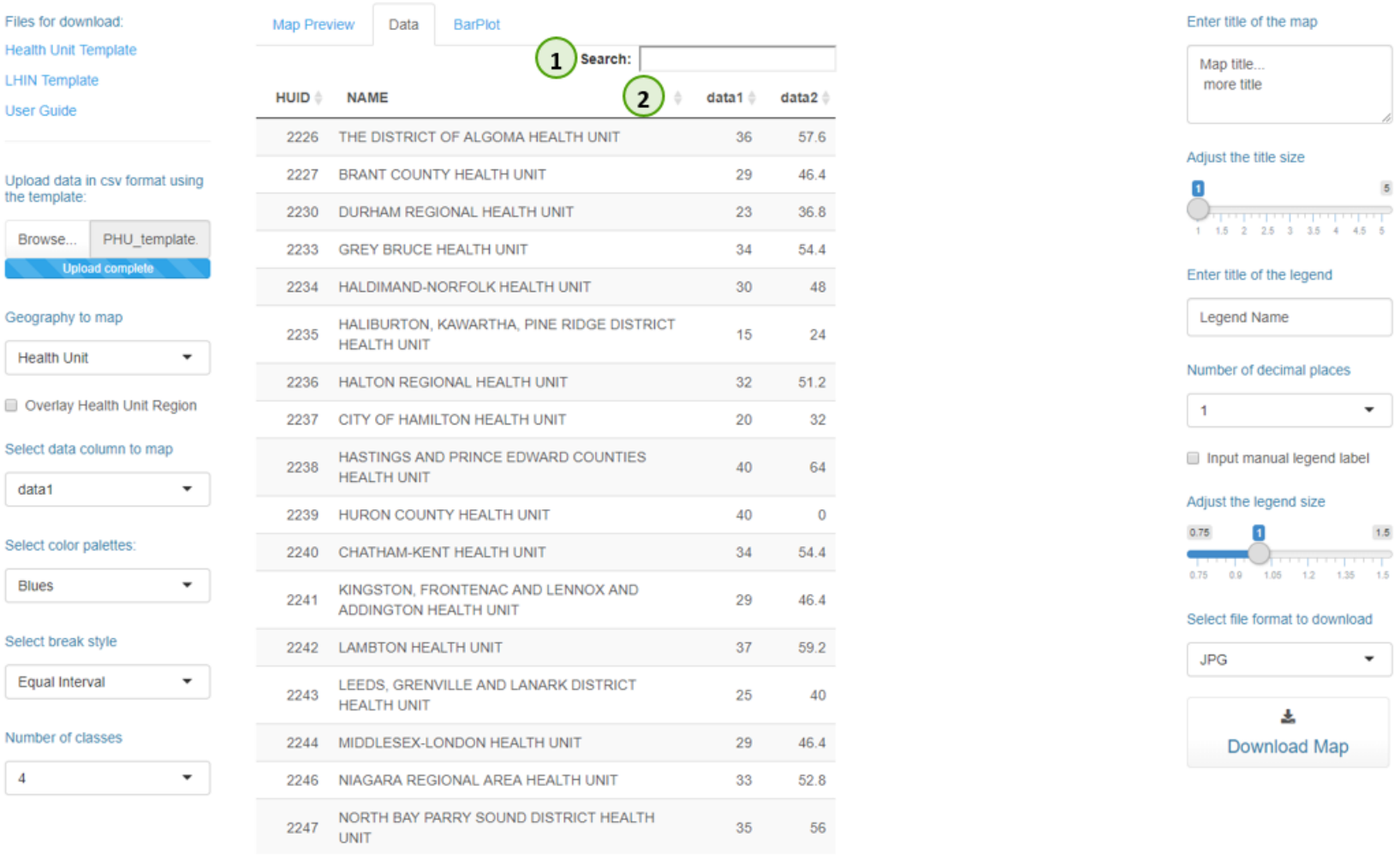


16. Download Map Button

Once clicked, the map will be exported in the chosen file format and downloaded to the local computer to a destination set by the internet browser. From here, the file can be opened or easily imported into other documents. The name of the file will follow the 'MyMap_DD-MMM-YYYY' format.

Note: Only the map will be downloaded. The contents of the Data or BarPlot tabs will not be downloaded. If those views are desired, screen shots should be taken.

Data Tab


Files for download:
Health Unit Template
LHIN Template
User Guide
Upload data in csv format using the template:
Browse...
PHU_template.
Upload complete
Geography to map
Health Unit
Overlay Health Unit Region
Select data column to map
data1
Select color palettes:
Blues
Select break style
Equal Interval
Number of classes
4
Map Preview
Data
BarPlot
1
Search:
2
HUID
NAME
data1
data2
2226 THE DISTRICT OF ALGOMA HEALTH UNIT 36 57.6
2227 BRANT COUNTY HEALTH UNIT 29 46.4
2230 DURHAM REGIONAL HEALTH UNIT 23 36.8
2233 GREY BRUCE HEALTH UNIT 34 54.4
2234 HALDIMAND-NORFOLK HEALTH UNIT 30 48
2235 HALIBURTON, KAWARTHA, PINE RIDGE DISTRICT HEALTH UNIT 15 24
2236 HALTON REGIONAL HEALTH UNIT 32 51.2
2237 CITY OF HAMILTON HEALTH UNIT 20 32
2238 HASTINGS AND PRINCE EDWARD COUNTIES HEALTH UNIT 40 64
2239 HURON COUNTY HEALTH UNIT 40 0
2240 CHATHAM-KENT HEALTH UNIT 34 54.4
2241 KINGSTON, FRONTENAC AND LENNOX AND ADDINGTON HEALTH UNIT 29 46.4
2242 LAMBTON HEALTH UNIT 37 59.2
2243 LEEDS, GRENVILLE AND LANARK DISTRICT HEALTH UNIT 25 40
2244 MIDDLESEX-LONDON HEALTH UNIT 29 46.4
2246 NIAGARA REGIONAL AREA HEALTH UNIT 33 52.8
2247 NORTH BAY PARRY SOUND DISTRICT HEALTH UNIT 35 56
Enter title of the map
Map title...
more title
Adjust the title size
Enter title of the legend
Legend Name
Number of decimal places
1
Input manual legend label
Adjust the legend size
Select file format to download
JPG
Download Map

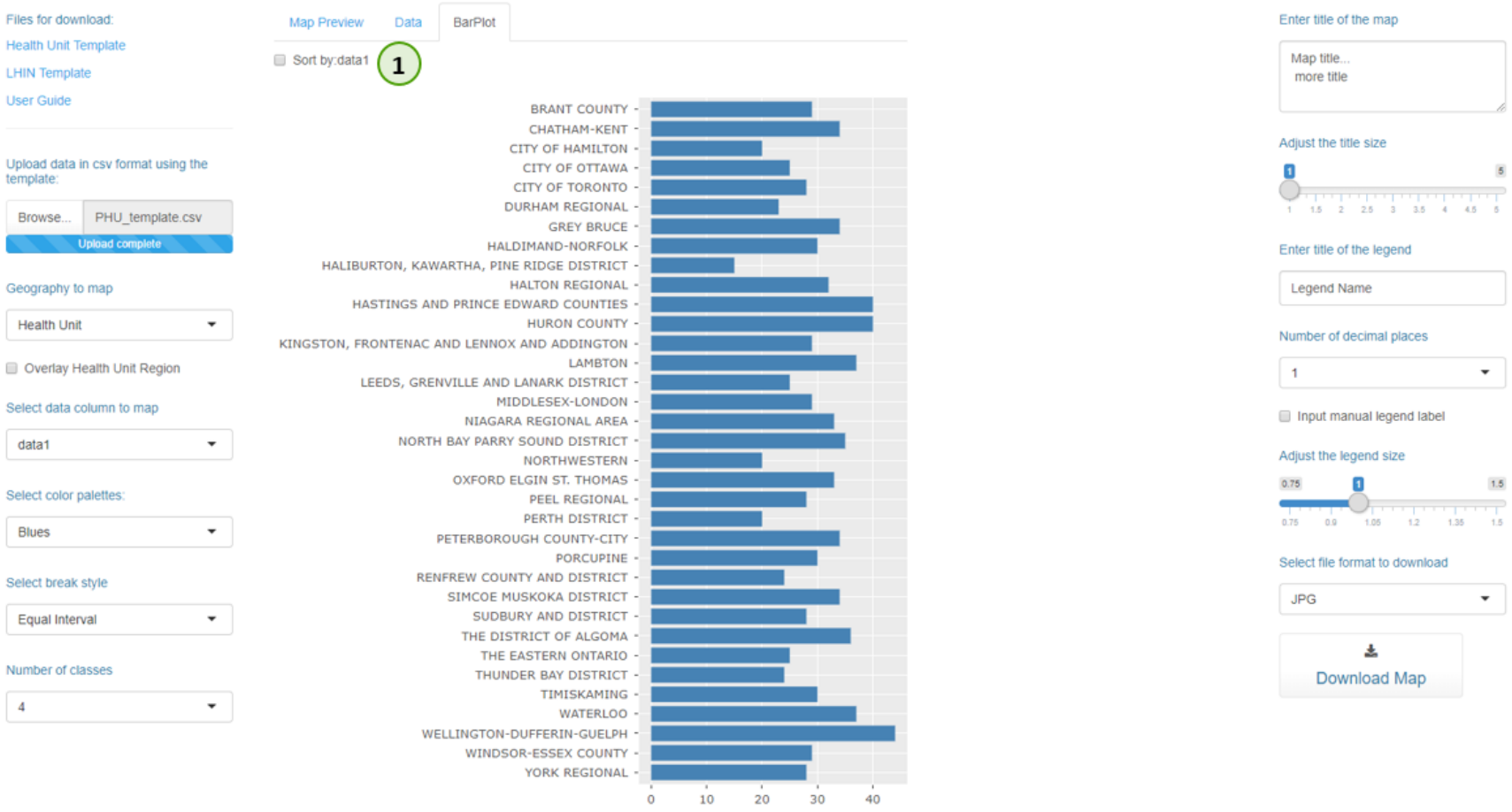
1. Search Box

Use this text box to search for any value (in any field) in the data file, either text or numbers. As values are entered into this box, the table is shortlisted in real-time to contain only those records that match the search criteria.

2. Sort by Column

Click any of the column names in the table to sort by that column. The first click will sort the column in descending order. The second click will sort the column in ascending order. The current method of sorting (i.e., descending or ascending) is shown by the direction of the blue arrow, found to the right of the selected column.

BarPlot Tab


Files for download:
Health Unit Template
LHIN Template
User Guide
Upload data in csv format using the template:
Browse...
PHU_template.csv
Upload complete
Geography to map
Health Unit
Overlay Health Unit Region
Select data column to map
data1
Select color palettes:
Blues
Select break style
Equal Interval
Number of classes
4
Map Preview
Data
BarPlot
Sort by:data1
1
BRANT COUNTY
CHATHAM-KENT
CITY OF HAMILTON
CITY OF OTTAWA
CITY OF TORONTO
DURHAM REGIONAL
GREY BRUCE
HALDIMAND-NORFOLK
HALIBURTON, KAWARTHA, PINE RIDGE DISTRICT
HALTON REGIONAL
HASTINGS AND PRINCE EDWARD COUNTIES
HURON COUNTY
KINGSTON, FRONTENAC AND LENNOX AND ADDINGTON
LAMBTON
LEEDS, GRENVILLE AND LANARK DISTRICT
MIDDLESEX-LONDON
NIAGARA REGIONAL AREA
NORTH BAY PARRY SOUND DISTRICT
NORTHWESTERN
OXFORD ELGIN ST. THOMAS
PEEL REGIONAL
PERTH DISTRICT
PETERBOROUGH COUNTY-CITY
PORCUPINE
RENFREW COUNTY AND DISTRICT
SIMCOE MUSKOKA DISTRICT
SUDBURY AND DISTRICT
THE DISTRICT OF ALGOMA
THE EASTERN ONTARIO
THUNDER BAY DISTRICT
TIMISKAMING
WATERLOO
WELLINGTON-DUFFERIN-GUELPH
WINDSOR-ESSEX COUNTY
YORK REGIONAL
0
10
20
30
40
Enter title of the map
Map title...
more title
Adjust the title size
Enter title of the legend
Legend Name
Number of decimal places
1
Input manual legend label
Adjust the legend size
Select file format to download
JPG
Download Map

1. Sort by Check Box

Use this check box to sort the bar plot in descending order of the numeric data values in the chosen data field. By default, the records in the bar plot are sorted by geography name in ascending alphabetical order (i.e., A to Z) by either the health unit name or LHIN name, depending on the CSV data file uploaded. When the check box is selected, the numeric data values from the field are then sorted in descending order (e.g., 100 to 1).

Note: If the 'Select data column to map' field is changed, the Bar Plot will update to show the new data and the 'Sort by:' check box text will change to include the name of the selected data field. The map in the Map Preview tab will also change to align with the new data column selected. Changing the 'Select data column to map' value should be used with caution and awareness of the resulting change to the map.

General Use Notes

- The Easy Map v2.0 tool stores its application code in the hosted cloud service. Data used within the application (i.e., aggregate data by LHIN or PHU) are imported by the user, read into the application and used for visualization. When the application is closed, if the web page is refreshed or if the tool times out and needs to reload (i.e., after 5 minutes of inactivity) the data are expunged from the application and are not retrievable by any user of the application, including development/technical staff at PHO.

- Technical measures have been put into place to ensure that only data by PHU or LHIN will be mapped. Any uploaded data not conforming to the template file format will result in application errors.

- Easy Maps v2.0 is primarily a mapping tool and is configured within the Map Preview tab. The Data and BarPlot tabs are considered data validation components and are designed to complement the map. Any changes made to the map specifications (e.g., drop downs, text fields, etc.) that are still shown when visiting the Data and BarPlot tabs will only be reflected in the map shown in the Map Preview tab. Although the options and settings are still available on the left and right sides of the tool, the changes that are made will only be reflected in the map preview tab. One exception is found in the BarPlot tab and the 'Select data column to map' field dropdown, which will change the Bar Plot view.