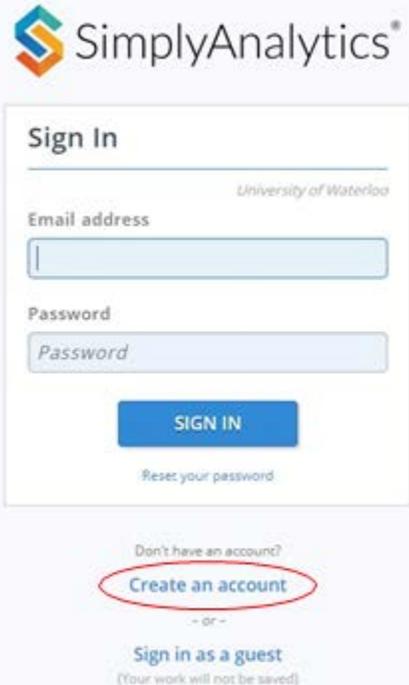**SimplyAnalytics Canada Tutorial**

SimplyAnalytics Canada is a web mapping application developed by Geographic Research Inc. The application enables users to create thematic maps and reports using demographic, business, and marketing data on-line. In this tutorial, you are going to create a few thematic maps and reports for the City of London, Ontario.

- o Get started with SimplyAnalytics Canada
- o Create and export a thematic map
- o Create and map a filter
- o Create and map a point variable
- o Produce a regular report
- o Export shapefile with variable data

Getting Started

1. Go to the University of Waterloo Library Homepage (http://www.lib.uwaterloo.ca/), on the top left side, click **Find & Use Resources**, select **Research & journal databases**, select **S** in the **Browse Research Databases by Title** section**.** Scroll down to find **SimplyAnalytics Canada**. Double click the link. This will bring you to the website.

2. The welcome page looks like the following. If you are a returning user, you can directly login in with your e-mail address and password.

3. If you are a first time user, you will need to set up an account. Click **Create an account,** this will open a new window. Fill in all the required information and click **Register** to finish the registration process. (Note: a personal e-mail is all right).
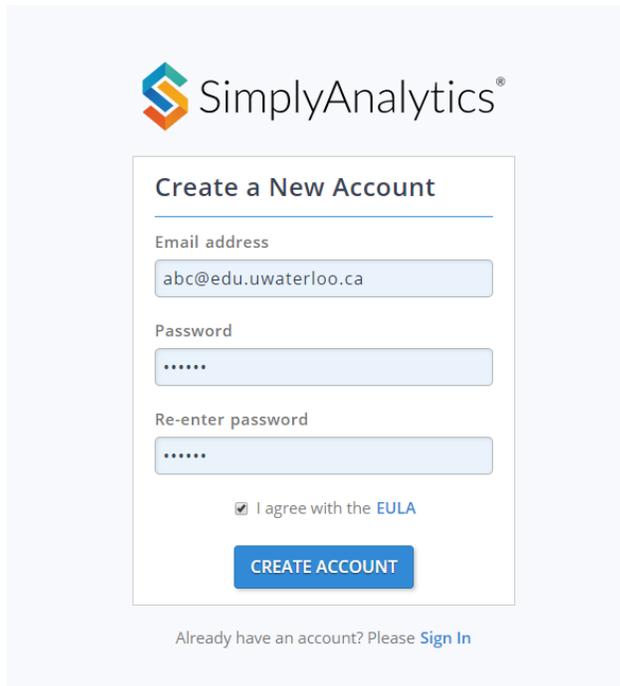
4. A confirmation e-mail will be sent to your e-mail address and you will need to check your e-mail and activate your account.

5. When you log in, you will be automatically navigated to the SimplyAnalytics workspace screen. The workspace screen is displayed below.

Create and export a thematic map

Now we are interested in creating and exporting a thematic map showing the average household expenditure on dental services in the City of London by dissemination area (DA) in 2016. You will need to follow a few steps:

1. Start a new project
   Click **New Project**, found at the top of the page, type in the desired location, and select the appropriate location. Select the Census Metro Area for London.
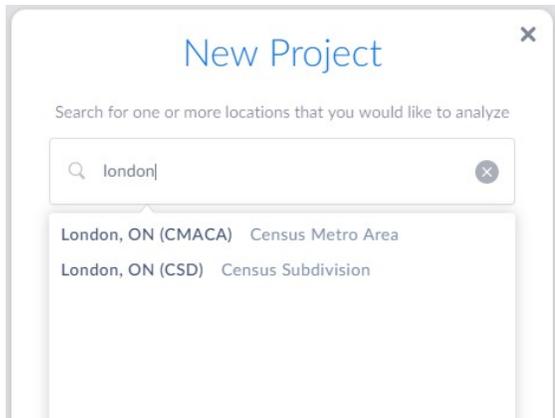

2. SimplyAnalytics automatically adds certain variables into your project. These variables include: Total Population, Median Household Income, and Percentage of Household Population 25-64 Years by Educational Attainment. These variables can be changed through the drop down menu at the top of the page
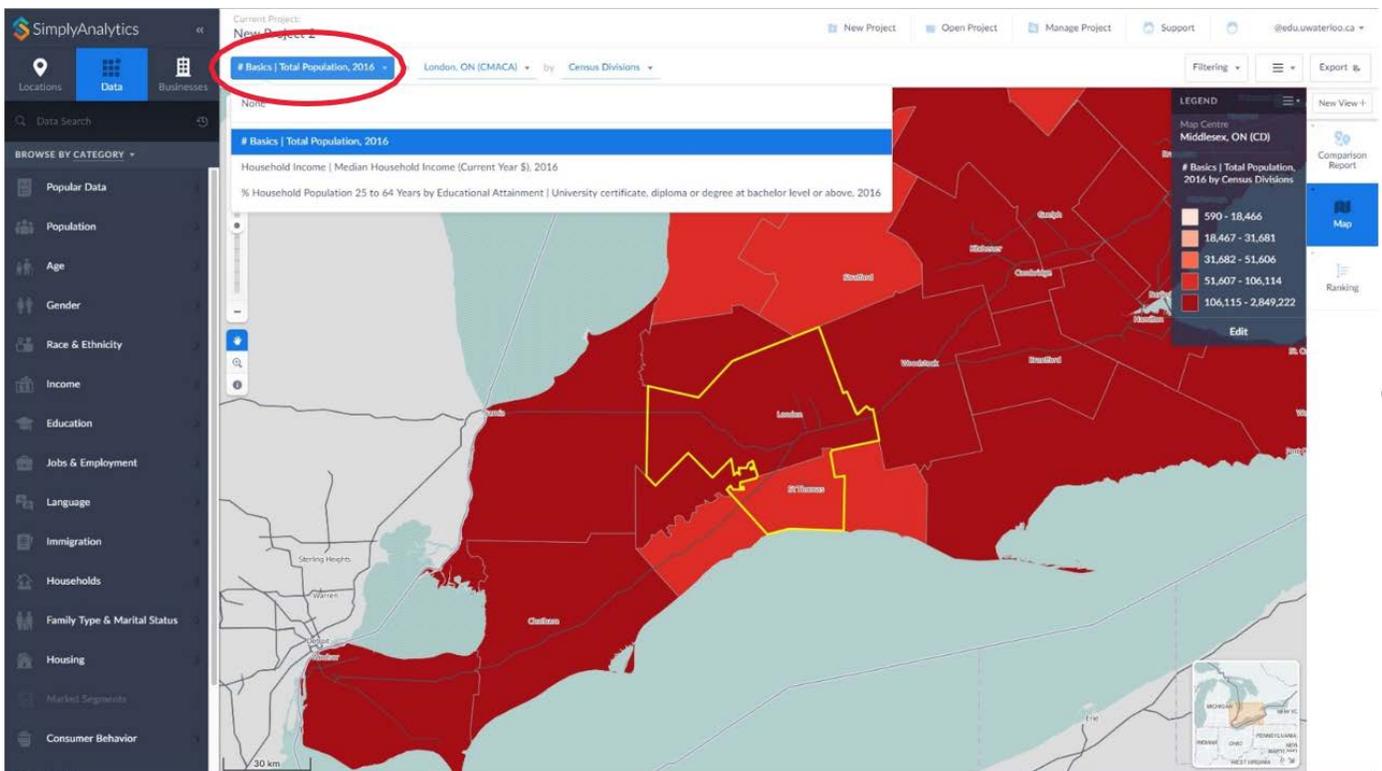
3. To zoom the map to view to the City of London. You are going to select the Zoom icon by bounding box ![zoom icon] to draw a box around the city of London.
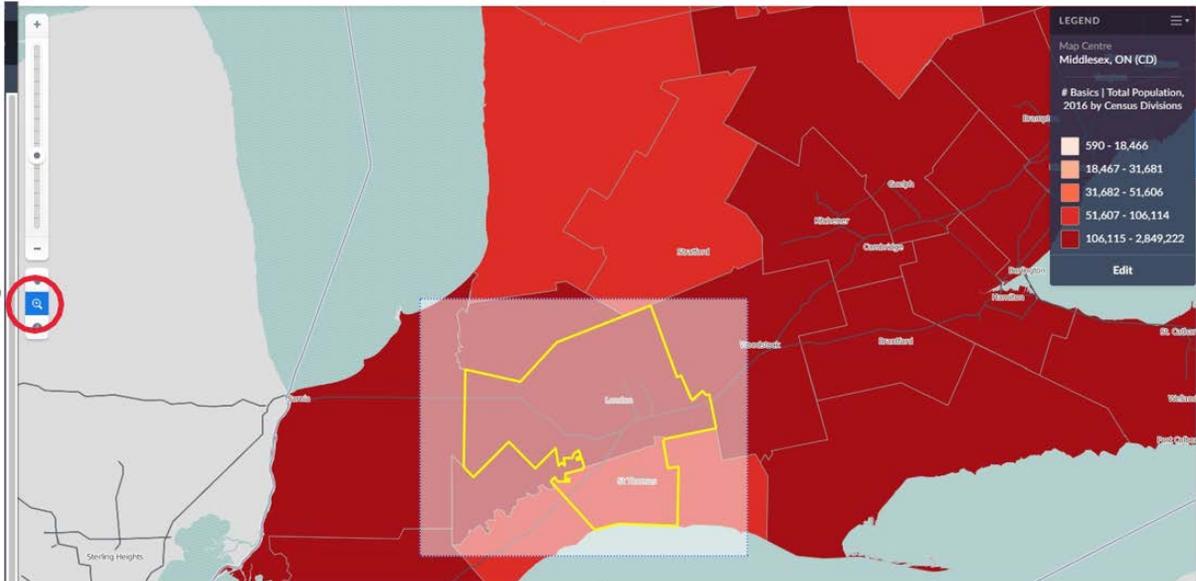
4. **Now you are going to add a variable showing the average household expenditure on dental services. Click on the Data tab, and select Browse by Category. Expand the Consumer Behavior option. Type "dental" in the search bar and select Average Total Expenditure|Health care|Direct costs to household | Dental services.**
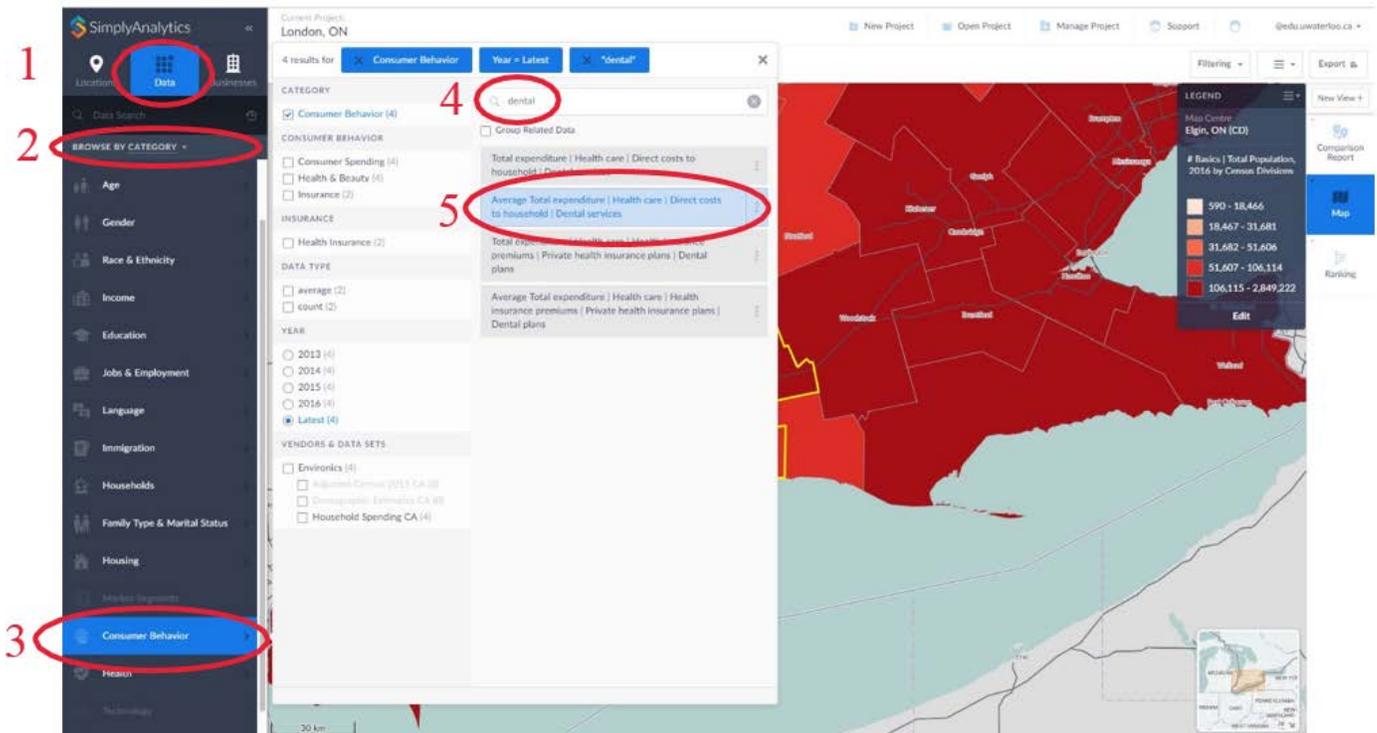
5. **The Average Total Expenditure|Health care|Direct costs to household | Dental services** should now be displayed on the map.
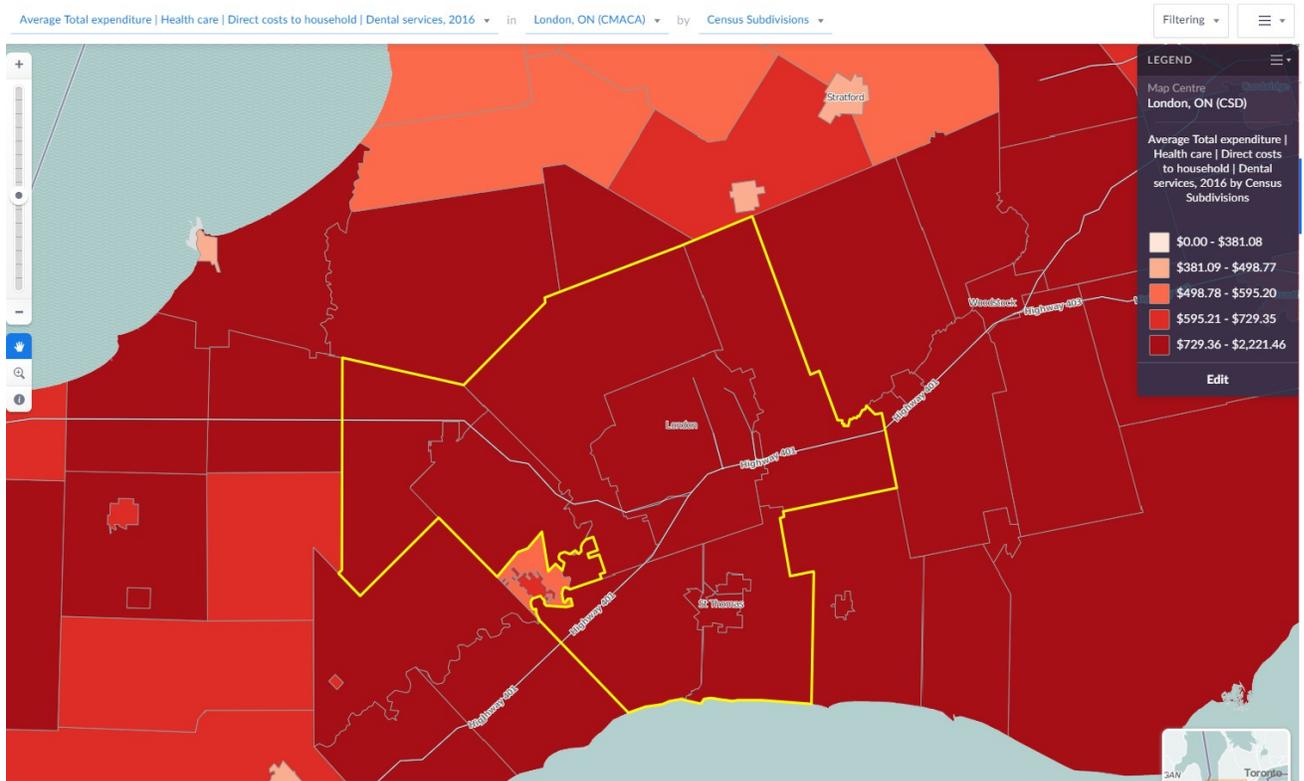
6. You are going to set Geographic Unit as Dissemination Areas (DA). To do this, zoom into the city of London and click the drop down menu at the top to select Dissemination Areas. If you do not see Dissemination Areas as an option in the drop down menu, simply zoom in more.
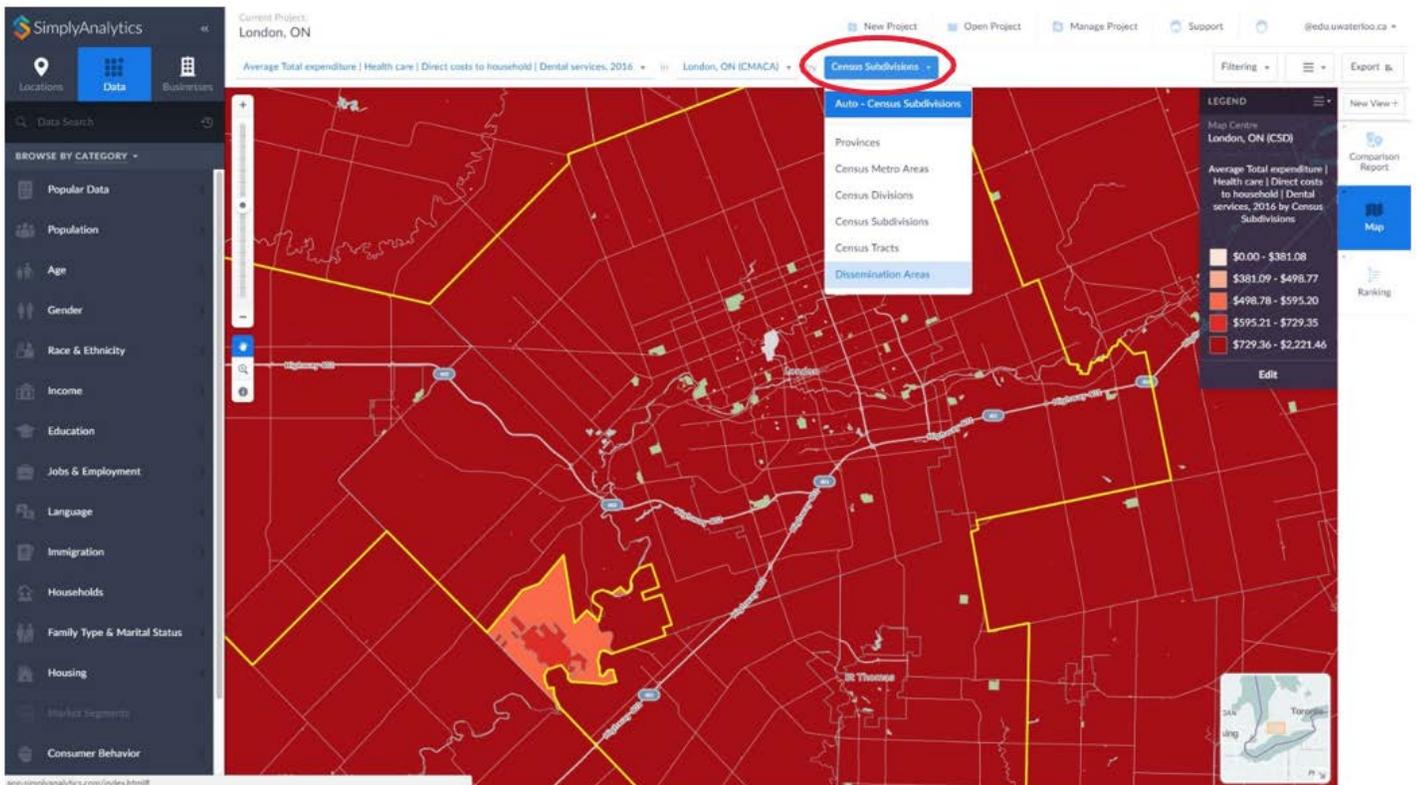
7. Now you are interested in modifying the legend. The legend is found on the right corner of the map. Click **Edit** found at the bottom of the legend.
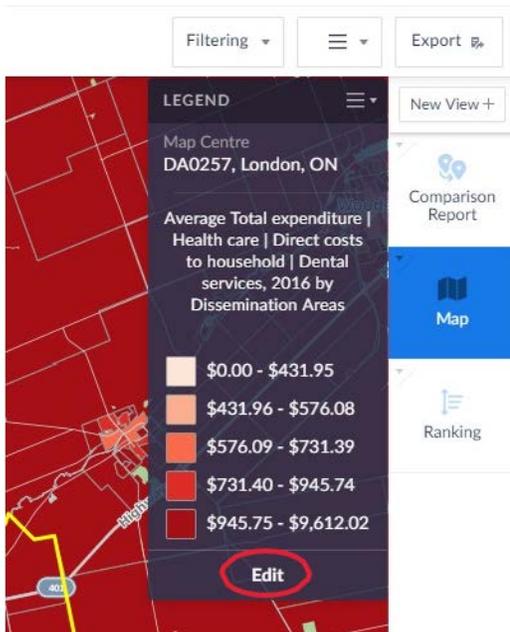
8. The default classification breakpoints are calculated using locations across Canada but you are only interested in locations in the City of London. To make the changes, set the Classification Method as **Quantiles (Local**). Also change **Number of Categories** from 5 to 6**. This will change the number of categories. Click **Done** to finish making the changes.
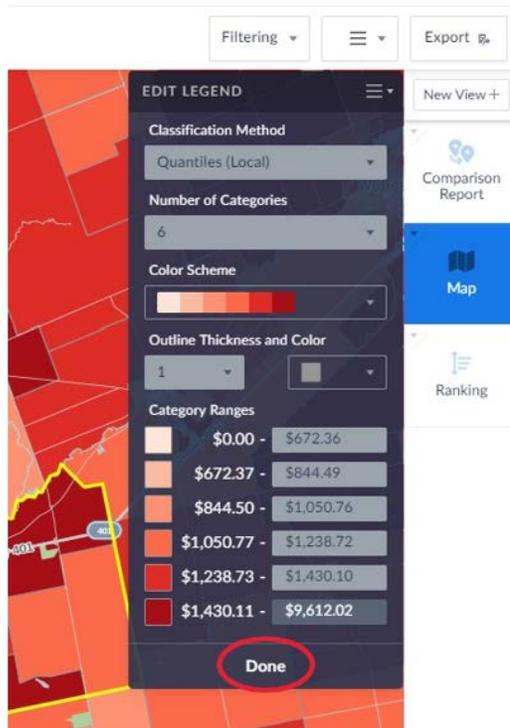

9. You are going to export the map out as an image. The map shows average expenditure on dental services in 2016 by dissemination area in the city of London, Ontario. Click Export (at the top right of the page). This will bring out an **Export Map window**. Crop the map

appropriately and click **Continue to Layout.**

10. Now you are going to add a title to the map. Click **Add Text Label** located at the bottom left corner. Type "Average total expenditure on dental service in 2016" and move the title to an appropriate area. Check the boxes for a North arrow, scale bar and inset map, if desired.
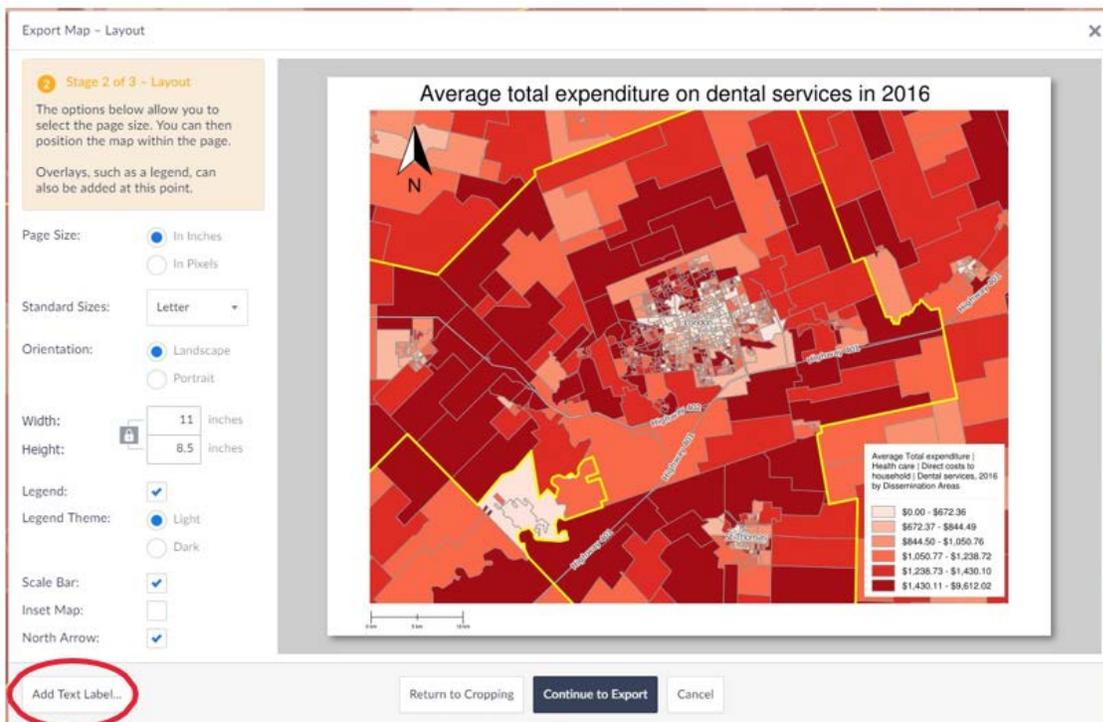
11. Export the map in the desired format and e-mail or save it to your computer.

Filtering

You are going to filter the data to show the DAs with average household expenditures larger than $500. The result is a new variable that can be mapped, used in reports, and used to create new custom variables.

1. Click on the **Filtering** tab, which is located at the top right corner. The **Filtering Window** will appear. Your filter can contain one to four conditions.

2. Use the **Filtering** tab to select and build a filter **showing DAs average household expenditure on dental services larger than $500 in 2016** by following these steps.

   A) Select the Data Variable that is Average Total Expenditure for dental services

   B) Select the condition "is greater than"

   C) Enter the value "500"

   D) Click **Apply.** An "ON" icon should display at the corner of the **Filtering** button.

3. Once applied the map should be automatically updated to incorporate the new filter. The map will display the DAs that are filtered out (have less than $500 as an average total expenditure for dental services) as white and gray diagonal stripes.
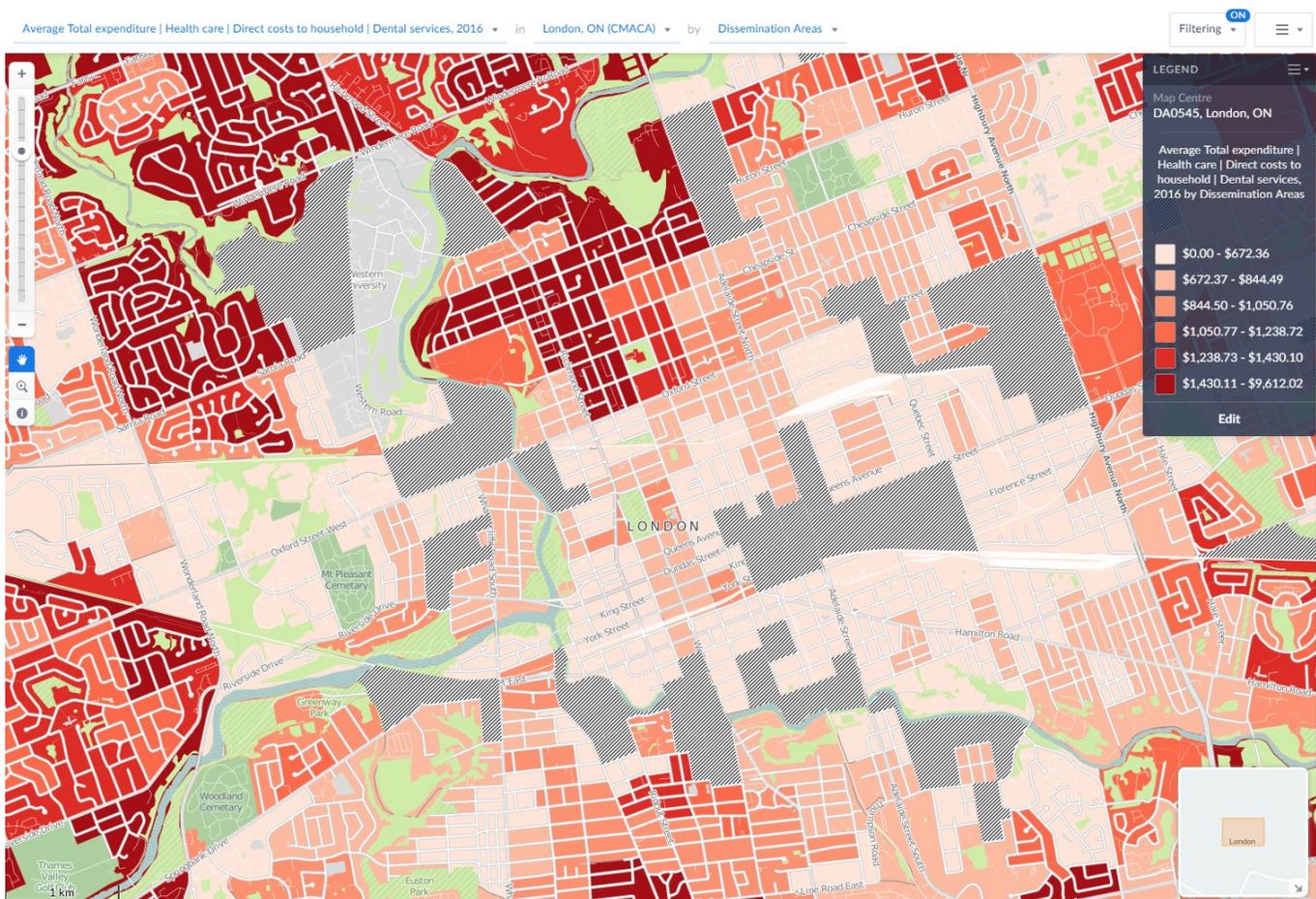
Create point variable

You are going to create a new layer showing dental office locations in the City of London.

1. Click on the **Businesses** tab found on the left, (beside the data tab). The Points Side Tab will appear.

2. You can use the Advanced Search, Browse business categories or the search bar to determine the dental office locations. We will be using the browse business categories option.

3. Click Browse business categories and find the "Health Care and Social Assistance" category.

4. Then, find and click "Offices of Dentists". Click the category again in order to display it on the map. The dental offices should then be displayed as orange circles on your map.
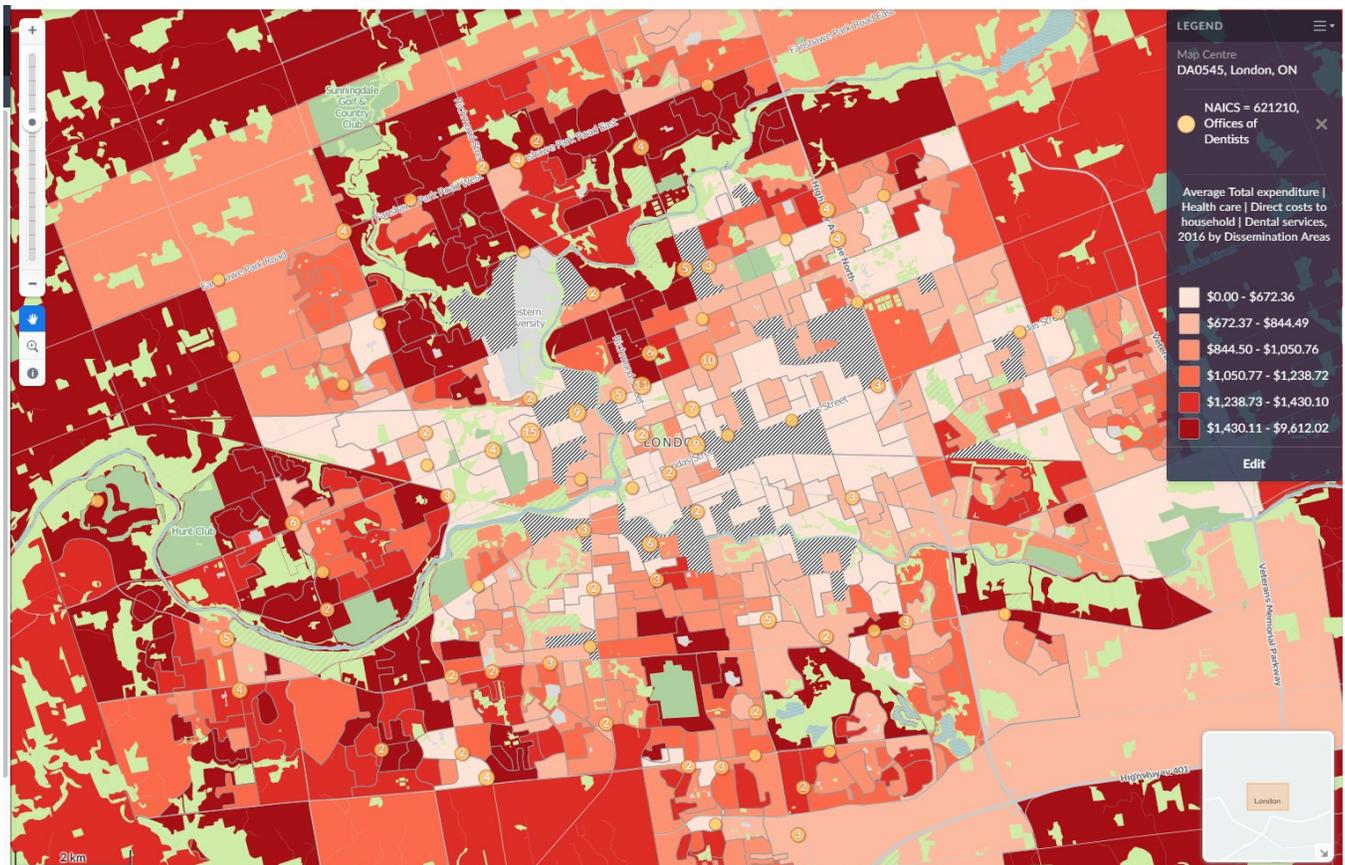
**5.** To change the name of the points on the legend, click the current name on the legend. Then type an appropriate name, "Dental Offices" and press enter.
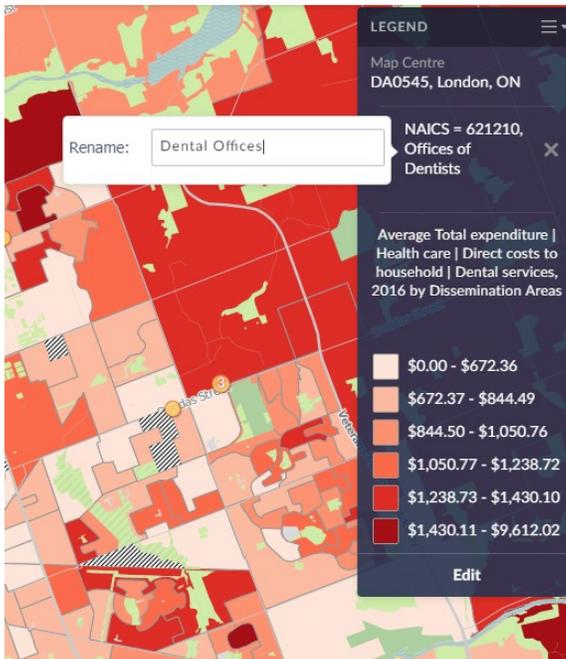

Produce a regular report

You are going to create a regular report comparing selected variables among different locations.

1. You are going to add three more locations in the map by using the **location** tab found on the left**.** In the **Location Search** bar, search each new location one by one: Guelph, Owen Sound and Windsor. Select the Census Metro Area for each location; this will add the locations to your locations list.

2. Now you are going to add a new dataset into the map. Click on the **Data** tab, found next to the **Locations** tab. Expand the **Income** tab, and select **Household Income|Average Household Income (Constant Year 2005 $)**. This will display the average household income for 2016 in 2005 dollars on your map and the data will also be added as a variable.

3. To generate a comparison report, comparing the average income and average total expenditure on dental services between the four locations, click **Comparison Report** found on the right.

4. At the top left corner of the **Comparison Report** icon there is a small drop down menu with a triangle icon. Click that and select **Edit**.
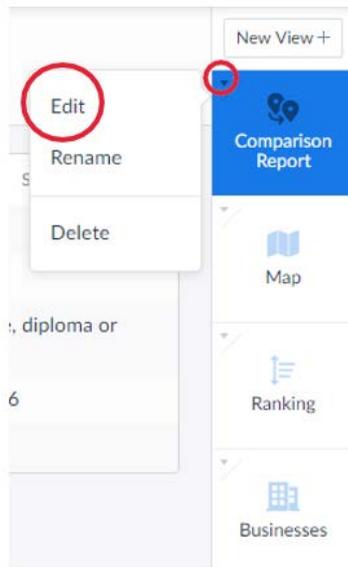
5. The **Edit Comparison Report Tab** will allow you to choose which locations and variables to include in the comparison report. Check all four locations, and check the boxes for **Average Total Expenditure** and **Household Income.** Click **Done** when finished.
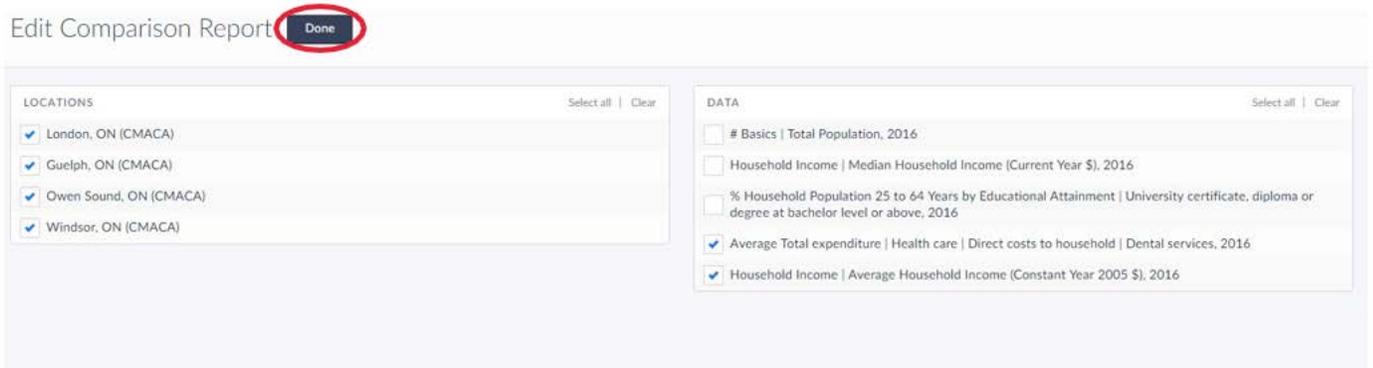

6. You can export the report as an Excel spreadsheet, CSV or DBF. Click **Export**, found at the top right of the page.
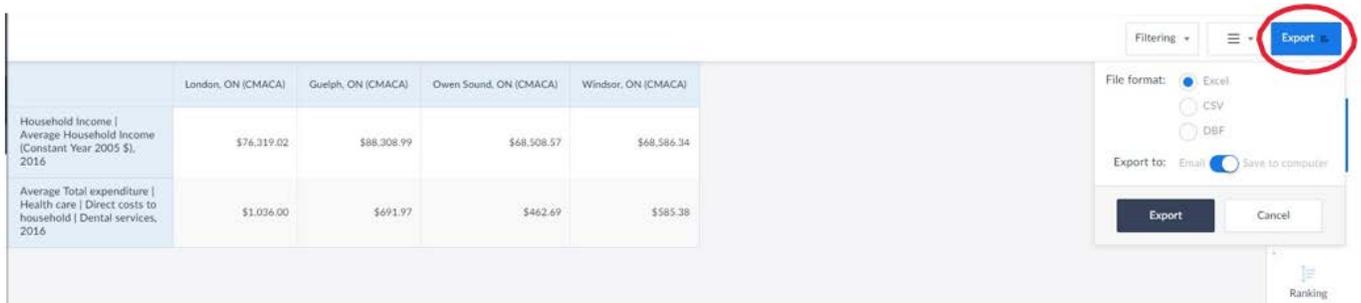
Shapefile Export

SimplyAnalytics has the ability to export shapefile data for use in GIS software (such as MapInfo or ArcGIS). You are going to export a shapefile in the geographical unit of DAs showing average household expenditure on dental services in the city of London. Go back to the **Map Tab.**

1. To export a shapefile, click the drop down menu between **Filtering** and **Export** found at the top right of the page. Then click **Export Shapefiles...**
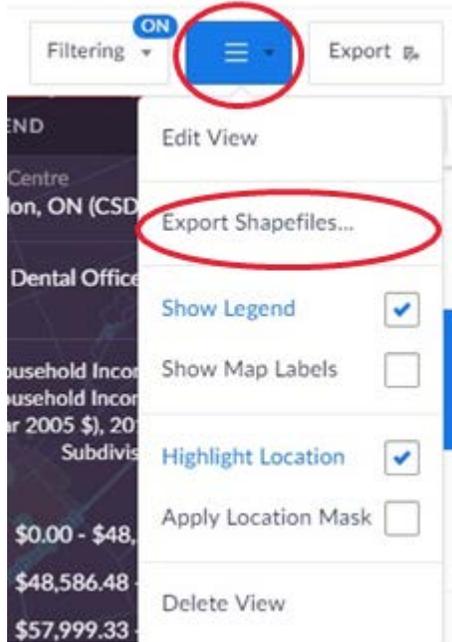
2. Once the **Export Shapefile Window** opens, select London, ON (CMACA) as the location, Dissemination Areas as the geographic unit and check Average Total Expenditure and Household Income for the data variables. Type the desired email and click send.
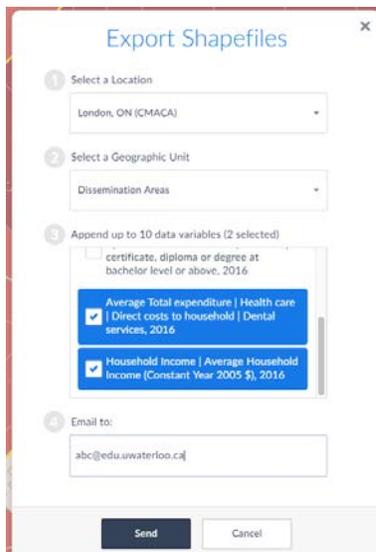
Congratulations. You now have learned how to use Simply Analytics Canada web mapping application.