JOUR 7800 Final Project Methods

Editing County Health Rankings

1. Downloaded "2014 County Health Rankings National Data" from http://www.countyhealthrankings.org/rankings/data.
2. Opened file in Microsoft Excel. Opened "Ranked Measure Data" sheet in the Excel file.
3. Created a Pivot table. Set row label as State and value as MHP rate. Copied and pasted table into a new Excel file. Multiplied MHP rate column in new file by 10 to get number of mental health professionals per 100,000 people.

Importing data for map in TileMill

1. Started a New Project in TileMill. Named it Final Project, and left everything else blank, but checked option for "Default data."
2. Found nation-based cartographic boundary file (shapefile) with state boundaries from U.S. Census data downloaded here: http://www.census.gov/geo/maps-data/data/tiger-cart-boundary.html.
3. Used QGIS to join shapefile with data. Opened shapefile in QGIS by using the "Add Vector Layer" button. Next, I meged the County Health Rankings data with the shapefile.
4. Created "key," a field or column in both data and shapefile sharing common values. The shapefile used a Geo_code file and I copied that column into the Excel file to allow the Excel file to be merged to the shapefile.
5. Downloaded LibreOffice and opened the Excel data file in this program. Saved Excel data file as a .dbf file, choosing UTF-8 format.
6. Used "Add Vector Layer" to open the .dbf file in QGIS. Opened the shapefile's Properties by double-clicking on the layer name.
7. Clicked the "Joins" tab and clicked the "+" button to merge files. Selected .dbf data layer for the "Join layer" and "Geo_Code" for the key field to be joined on the .dbf data layer. Selected "Geo_Code" for target field to be joined on the shapefile.
8. Right-clicked the shapefile layer to save it with a new name. Saved in ESRI Shapefile format.
9. Opened TileMill window. Selected add layer and added new ESRI shapefile as layer to add.

Styling the TileMill visualization

1. Set polygon-fill for countries as #9AB0BB.
2. Set a color scheme for the gradient to make colors become darker as rate of mental health professionals increased. Used format @shade0: ##fff5f0; @shade1: #fee0d2; etc.
3. Recalled MHP rate from shapefile layer using the following template:
    a. [JOUR7800_M > 0][JOUR7800_M < 600] { polygon-fill: @shade0; }
    b. Used this format to set colors for intervals of MHP Rate.
4. Developed legend for map.
    a. Selected Templates icon and went to Teaser tab. Entered content in box as "Mental Health Professionals Per 100,000 People in {{{NAME}}}:
 {{{JOUR7800_M}}}" to allow legend to alter state name and MHP rate as you hover over each state.
    b. Went to legend tab. Created div tag with class "legend." Titled legend, "Mental Health Professionals Per 100,000 People." Created div tag with class "legend-scale". Created unordered list with list items that gave the shade for each interval in the stylesheet.
    c. Created div tag with class "legend-source" and used "a href" code to provide a link to the County Health Rankings data.
    d. Created a stylesheet in the legends tab to customize each tab.

Exporting data from TileMill

1. Saved code and exported file as MBTiles. Set the zoom levels to 3-6, and cropped it to include just the United States.
2. Logged into Mapbox, clicked on “Data” tab, and uploaded exported MBtiles file. After file processed, clicked on “Share”. After this window opened, clicked on “Share” logo in bottom left corner and copied HTML code that was generated for the image.
3. Pasted code into Notedpad file and uploaded changes to Github.

Displaying visualization on portfolio site