Assignment 4-2

Investigate women who are literate and HIV prevalence by country

Education and awareness about HIV is important in the prevention of this disease. Organizations such as USAID, the World Health Organization, and the Centers for Disease Control and Prevention (CDC) have comprehensive strategies that include effective, sustained health education and health promotion programs. The goal of these programs is to reduce the risk of individuals becoming infected with HIV or, if already infected, infecting others. PEPFAR’s Spatial Data Repository is part of the effort to provide data for decision-making and improve knowledge and understanding of the impact of HIV worldwide. In this assignment, you will compare women who are literate and HIV prevalence of females in Sub-Saharan Africa using data from the DHS Program’s STATcompiler.

Start with this data

**Downloaded a shapefile and metadata from STATcompiler**

- From the DHS Program STATcompiler website [http://statcompiler.com/](http://statcompiler.com/) click CHOOSE COUNTRY.
- Under Step 1, filter by Sub-Saharan Africa.
- Click Select All to choose all countries and click Next.
- Click the check boxes beside HIV prevalence among women and Women who are literate and click Next.

  Note that some countries do not have data. You will next download an Esri shapefile of Sub-Saharan Africa countries with data.
- From the top left panel, click the Thematic Map button.
- Click Export > Export Map Data and check **Shapefile, Download Now, Current Indicator List (Multiple)**, and Submit.
- Download the folder to your local drive. The shapefile with the data will be in a subfolder called “shps”.

**Countries of the world**

\EsriPress\GISTHealth\Data\World.gdb\Countries: polygon features of world countries.
Create a file geodatabase

In MyAssignments\Chapter4, create a file geodatabase called Assignment4-2YourName.gdb and save it to your Chapter4 folder in MyAssignments. Import the shapefile you downloaded into your file geodatabase. Name the newly imported feature class SubSaharanCountries. Import Countries from the World.gdb into your Assignment4-2 file geodatabase called Countries. Add both layers to your map document from your file geodatabase (not their original locations).

Create a map comparing female literacy and HIV prevalence

Create a map document called Assignment4-2YourName.mxd and save it to your Chapter4 folder in MyAssignments, using relative paths. Include a landscape layout that map includes the following in two data frames:

- A choropleth map layer showing the women who are literate.
- A choropleth map layer showing the HIV prevalence among women.
- Use 5 quantile classes for each map.
- Label the SubSaharan countries with data using a small font with a white halo.
- Add the Countries layer as a hollow fill and light gray outline.
- Use your judgment as to colors, size, title(s), projection, and so forth.
- In your layout, include the proper data citation as defined in files provided as well as the map projection used.

HINT: Use the Excel spreadsheet called “field_names” to identify the fields HIV prevalence among women and Women who are literate. Browse the other files downloaded including the citation, data availability, and meta data.

Export the map to a TIFF image file with 150dpi called Assignment4-2YourName.TIFF and save it to your Chapter4 folder in MyAssignments.

What to turn in:

- If instructed to do so, turn in your MyAssignments\Chapter4 folder that will include your file geodatabases, map document, and .TIFF file.