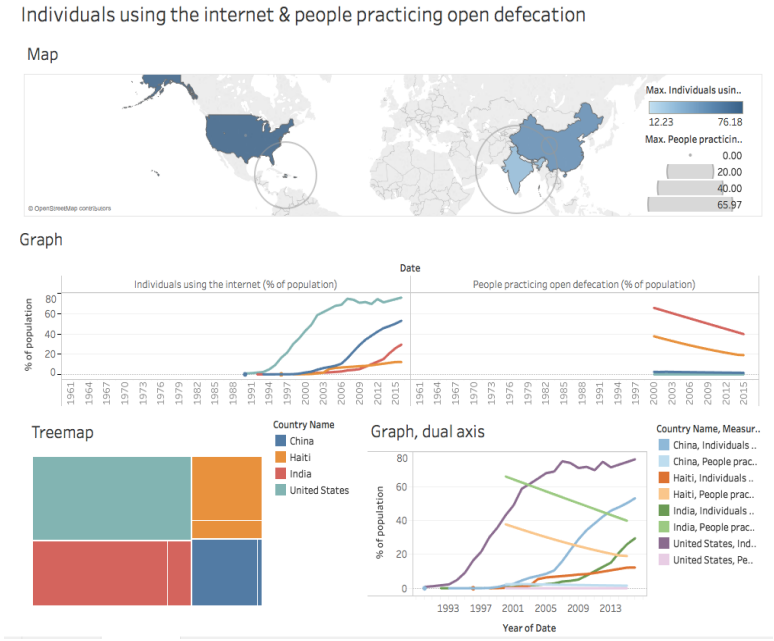
Brienna Herold – Assignment 4



Four Countries:
1. Low-income – Haiti
2. Lower-middle-income – India
3. Upper-middle-income – China
4. High-income economies – United States

Selected Indicators:
1. Individuals using the Internet (% of population).
2. People practicing open defecation (% of population).

Comparison Analysis: For the first indicator (individuals using the internet), there is no data prior to the late 1980s, since the Internet appeared around then (European Organization for Nuclear Research, n.d.). For the second indicator (people practicing open defecation), data collection was only begun in the 1990s, due to growing interest in improving sanitation (WHO/UNICEF, 2017).

Of the four countries analyzed, India has the largest percentage of open defecation, regardless of year, along with the lowest percentage of individuals using the internet, until 2011, when it began to surpass Haiti. The United States has the lowest percentage of open defecation, and the highest percentage of individuals using the internet, both from the beginning of the time frame.

Tableau interactive capabilities reflection: I've only scratched the surface of what Tableau can do, but it seems to be a very useful software for visual analytics. The shelves (columns, rows, colors, details, size, etc.) make many different representations possible. The Dashboard Actions allow you to link multiple visualizations that share some data, making it easier to analyze different representations of that data. For example, if you set a highlighter to run on the select action for all fields, and then select "Haiti" from the legend, all of the data in the graphs, treemap, and map that is related to Haiti gets highlighted.

Some visualizations are better than others at certain representations. It doesn't seem like the treemap or map can display data across a period of time, just an aggregated point of data, so for these visualizations I used the "maximum" measure of each indicator. The treemap shows clearly the difference in proportions of percentages for each indicator and country, but you can't view the indicators' labels unless you hover over the visualization. Moreover, there is no representation of zero, as with the United States' percentage of open defecation. I made two graphs, because the dual-axis graph, despite being more concise, was more cluttered than the single-axis graph. However, with the dual-axis graph, you can better compare the two indicators for a specific country.

References

European Organization for Nuclear Research (CERN). (n.d.). *The birth of the web* [Fact sheet]. Retrieved February 12, 2018, from https://home.cern/topics/birth-web

WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. (2017). *Sanitation* [Fact sheet]. Retrieved February 12, 2018, from https://washdata.org/monitoring/sanitation