Module 1 – Tableau Exercise

Introduction
This is a first attempt at using Tableau to answer a health informatics related question. We will use a dataset delivered with the Tableau software called "World Indicators". Our goal is to pose an interesting question that can be answered by juxtaposing two measures of health related data, and verifying whether or not they appear to be correlated.

Motivation
Much is said about the high cost of health care in the United States and whether the value delivered by our health care system is commensurate with its cost. In this exercise I looked for measures that I could use to assess cost and benefit of health care.

Analysis
Upon looking at the measures available in the "World Indicators" dataset I identified Health Expenditure per Capita as a good candidate to account for health care costs. There were a couple options to assess the impact of health care: Infant Mortality Rate and Life Expectancy. I chose Life Expectancy. In order to make the analysis more focused I chose countries in the G7, which are normally considered among the topmost developed nations in the world.

Below is the visualization from Tableau:
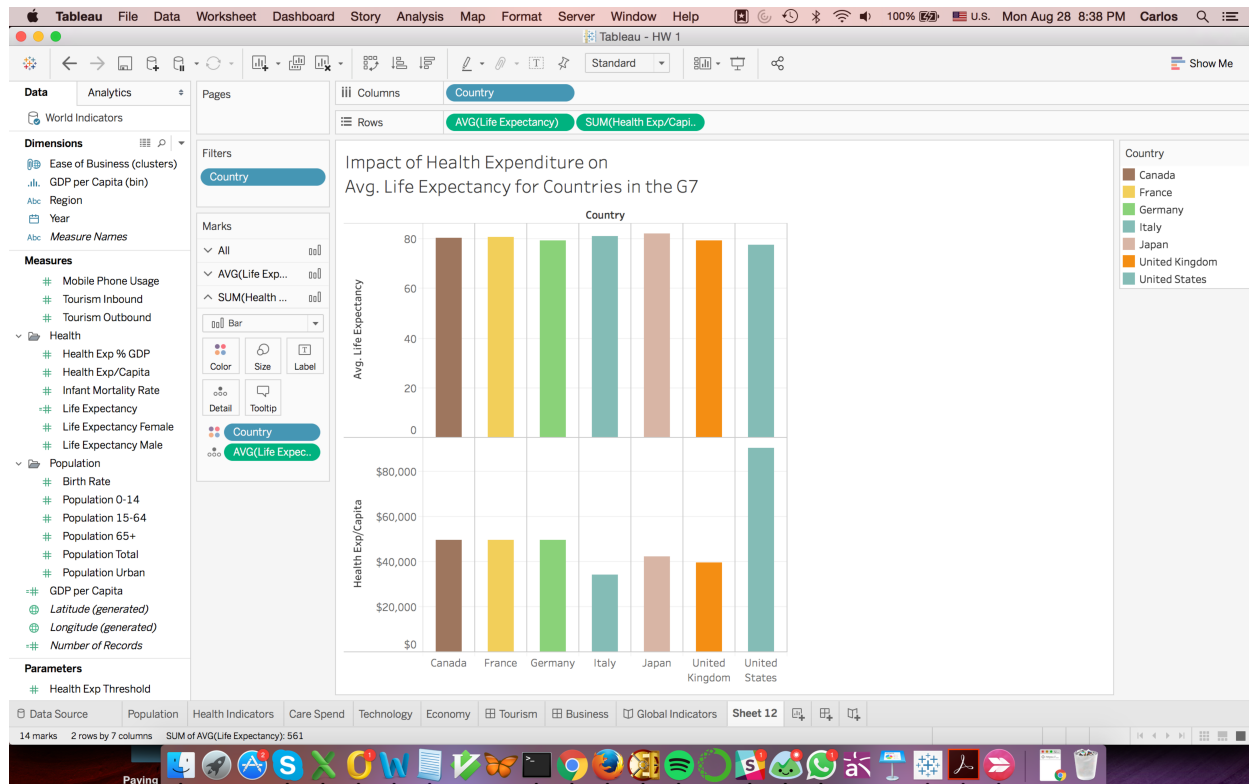
Conclusion
At least in the G7 health care costs do not seem to have a significant impact on life expectancy. While all countries in the G7 have very similar life expectancy around 80 years of age, the variation of heal expenditure is noticeable among countries and does not impact life expectancy. For example, Italy shows the lowest cost and still has an average life expectancy over 80 years of age. Most notably, the United States have health care costs that are roughly twice as high as most other countries (in some cases more than double) but the life expectancy in the US is the lowest in the G7.