# **U.S. Health Insurance**

The U.S. Department of Health and Human Resources uses the Health Insurance Marketplace as a resource where individuals, families, and small businesses can compare health insurance plans for coverage and affordability. The overall project objective is to analyze U.S. health insurance marketplace plans between 2014 and 2016, from the Centers for Medicare and Medicaid Services (CMS). I will present my findings to the CMS Office of Minority Health, Research and Data Division on the various attributes collected on insurance premium rates by state, metal level performance, coverage variations of dental/child/adult plans, and present any patterns to understand customer premium selection in our continuous pursuit of improving health equity.

* How do plan rates and benefits vary across states?
* How do plan benefits relate to plan rates?
* How do plan rates vary by age?
* How do plans vary across insurance network providers?

To conduct the analysis, I selected seven comma separated values (.csv) files from Kaggle (web scrapped from Data Society). Two files, “Crosswalk2015 and Crosswalk2016” were joined to combine the business years, state, and network data. The remaining files are the premium characteristics.

* Crosswalk2015 - Business Rules - Plan Attributes
* Crosswalk2016 - Network - Rate
* Service Area

In 2017, the National Association of Insurance Commissioners formed the Innovation and Technology Task Force to monitor technology, data collection, and cybersecurity developments in the insurance industry. Insurance Technology, or InsurTech, is described as the innovative use of technology in the insurance industry, a subset of financial technology (FinTech).

The availability of open datasets, emerging technologies, expansion of artificial intelligence, and growth in the field of Data Analytics, can all have a significant impact in transforming the insurance sector to better serve customers in accessing information in selecting insurance premiums, forecasting, oversight, and accountability through performance measurements.

Disclaimer: I have no experience or knowledge in health care insurance which required significant research in understanding the data in each column. I selected this topic because it appeared to have sufficient data to analyze, and although the topic may be of little to no interest to anyone, I wanted to challenge myself in analyzing data in an area I have no prior experience.