Capstone 2 - Flu Shot Prediction

- **Problem statement formation**

  Based on information taken from the “swine” flu pandemic, how can stakeholders most effectively increase vaccination rates.

- **Context**

  In 2009 the world experienced an outbreak of the H1N1 virus, known as the “swine” flu. Shortly after a vaccine was provided, the U.S. performed a phone survey and asked respondents whether they received the H1N1 or seasonal flu vaccine. In addition, questions related to their health, household, socioeconomic background, opinions and behaviors were asked. The responses to these questions will be used to predict an individual’s likelihood of getting vaccinated, consequently providing insight into what stakeholders can focus on in order to improve vaccination rates.

- **Criteria for success**

  A predictive model will be generated for an individual’s likelihood of getting vaccinated and define what factors contribute the greatest to that outcome.

- **Scope of solution space**

  The data is from the H1N1 pandemic of 2009 with the intention that it will provide guidance in managing the current COVID-19 pandemic.

- **Constraints**

  The dataset is from the H1N1 pandemic. The COVID-19 pandemic is more widespread and has affected the U.S. much more greatly than

H1N1 and may not provide the same predictive results when applied to COVID.

- **Stakeholders**

    - U.S. Government
    - Health Care Professionals
    - CDC
    - Vaccine Manufacturers

- **Data sources**

    CDC National Center for Health Statistics