

Capstone Project Proposal

Adverse Food Effects

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Predicting Serious Health Issues or Injuries by age group due to Adverse Food effects

Problem Statement:

There are many food, dietary supplements and cosmetics causing adverse effects on the human body on a variety of age groups. The analysis on this will help below

- Helps consumers to make an informed decision to buy the product
- Food industry to make more research on their defective products and rectify that issue. And helps start up food industries to avoid such issues in their new products. It will also provide competitive edge in the market for the Startup Food Industries
- The regulatory agencies like FDA and CFSAN become aware of the breadth and depth of the serious side effects of certain food products across different age groups

Client: FDA and CFSAN

Data and How I acquired:

The database I am using is CFSAN Adverse Event Reporting System (CAERS) that contains information on adverse event and product complaint reports submitted to FDA for foods, dietary supplements, and cosmetics.

This dataset contains:

- Demographic and Administrative information and the CAERS Report ID number
- Product information from the Case reports
- Symptom information from the reports
- Patient Outcome information from the reports

Data Source: US Food and Drug Administration

Approach to Solve the Problem:

- The dataset is raw, proper cleaning and massaging before it can be used to solve the problem.
- Prepare the data for Visualization and Analysis
- Use the Data Visualization techniques like Exploratory Data Analysis to compare the issues reported with several attributes like age, food industry and Outcome
- Predictive Model on Serious and Non Serious Issues

Deliverables:

- Clean data set
- Data Visualization
- Source Code
- Slide deck