**Goal:** To help a medical staffing agency that provides temporary workers to clinics and hospitals on an as-needed basis. The analysis will help plan for influenza season, a time when additional staff are in high demand. The final results will examine trends in influenza and how they can be used to proactively plan for staffing needs across the country.

**Motivation**: The United States has an influenza season where more people than usual suffer from the flu. Some people, particularly those in vulnerable populations, develop serious complications and end up in the hospital. Hospitals and clinics need additional staff to adequately treat these extra patients. The medical staffing agency provides this temporary staff.

**Objective:** Determine when to send staff, and how many, to each state.

**Scope:** The agency covers all hospitals in each of the 50 states of the United States, and the project will plan for the upcoming influenza season.

**STAKEHOLDER IDENTIFICATION**

* Doctors, Nurses, Physician, Assistants
* Hospitals and clinics using the staffing agency’s services
* Influenza patients
* Staffing agency administrators

**STAKEHOLDER COMMUNICATION**

**Meetings:**

In this meeting, we have all stakeholders listed on the requirement documents and during meeting all requirements will be discussed and clarifying, funnelling , adjoining, elevating, and privacy- and ethics-related questions are sorted out.

**Calls:**

We have weekly once call with all stakeholders to update analyses information and get questions from they if they have anything to clarify.

**Written Communications:**

We will email them about updates on every week from 6th week of analyses until before flu season.

**Emergency/contingency Plan:**

If any urgent email received from stakeholders that will be sorted within 2 days.

**SCHEDULE AND MILESTONES**

Week 2: Data Collections, Cleaning and Preparation of data.

Week 4: Completion of Statistical Analysis.

Week 6: Presentation to Stakeholders visually.

Week 8: Scheduling meeting to discuss about analyses with all stakeholders.

Week 9: Implementing solution after meeting with all stakeholders and have all information and insights in order with final plan of action.

Week 10: Presenting findings to all stakeholders (Before a month of Flu season).

**DELIVERABLES**

Presenting findings to all stakeholders and communicate them about research findings and insights in relation to our research goals.

**AUDIENCE DEFINITION**

**Medical agency frontline staff:**

When considering frontline staff as audience then they require understanding of how staffing plans will impact their workload and patient care responsibilities during influenza season.

**Staffing agency administrators:**

When considering staffing agency administrators as audience then they require detailed analysis findings and recommendations to inform staffing decisions and resource allocation strategies.

**CONTEXT**

We are preparing for the upcoming influenza season by finding data on influenza deaths, vulnerable populations, and flu-shot rates to determine medical staffing needs throughout the U.S and prepare this medical staffing agency adequately.

* Whether all people injected with Flu Shots this year?
* How many days in average this influenza lasts?
* What are common symptoms at initial stage for this influenza?
* What are age factor to do Flu shots?

Reference: https://www.cdc.gov/flu/vaccines-work/vaccineeffect.htm

**HYPOTHESIS**

If all vulnerable population peoples injected with flu shots before flu season, then patients admitting for influenza will be decreased.

If high priority vulnerable populations (which includes 65+ age people) has more staffs, then patients death rate will be reduced.

If minimising instances of understaffing and overstaffing across states, then staff shortage during flu season will be reduced.

**DATA WISHLIST**

Find out states with more vulnerable populations.

Find out understaffing and overstaffing across all states.

Find out high, medium, low priority vulnerable population states.

Find out relationship between age and influenza death rates.