



### Overview

During influenza season in the United States, people in vulnerable populations are more likely to be hospitalised due to medical complications cause by the flu. The medical staffing agency will provide temporary staff during this period to assist hospitals and clinics in each state to treat the influx of patients.

# Goal

Assist the medical staffing agency in providing temporary workers to hospitals and clinics during the upcoming influenza season.

### Stakeholders





### Medical Agency Frontline Staff

Physician assistants, nurses, and doctors from the staffing agency



#### Hospitals and Clinics

All health centres receiving medical personnel from the staffing agency



#### Influenza Patients

Individuals who will receive medical services across the United States

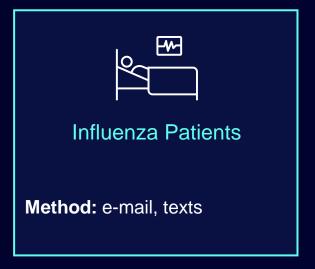


### Staffing Agency Administrators

Workers from the staffing agency responsible for providing medical staff to hospitals and clinics

### Stakeholder Communications









### Up to 1 month before influenza season:

- Staffing agency administrators briefed in meetings regarding forecasted patient influx during flu season in each state.
- Medical agency frontline staff reached out to, and hospitals/clinics briefed at the beginning of flu season regarding staffing.
- The public will be e-mailed and messaged regarding the upcoming flu season and flu shot reminders.

### Throughout influenza season:

- Weekly or bi-weekly meetings should be held for staffing agency administrators and hospitals/clinics to receive updates regarding patient numbers and current staffing situations (to gather data through the project and identify potential issues)
- Frontline staff should be liaised with throughout flu season. Short and optional weekly surveys can be implemented to gauge the overall work situation and identify problems. Frontline staff should also be e-mailed and called regarding relocations by the staffing agency.

# Project Schedule, Milestones, and Deliverables

Timeline	Milestone Description	Project Deliverables	CF link
Maak 4 Maak 9	<ul> <li>Completion of data sourcing, cleaning, and integration.</li> <li>Research hypothesis made.</li> </ul>	<ul> <li>Project update delivered to relevant stakeholders</li> </ul>	Ex 1.4 to Ex 1.7
Week 3 - Week 4	<ul> <li>Finalised statistical analysis and hypothesis testing.</li> </ul>	<ul> <li>Interim report e-mailed to relevant stakeholders         <ul> <li>Highlights key findings from statistical analysis and hypothesis testing</li> </ul> </li> </ul>	Ex 1.8 to Ex 1.10
Week 5 - Week 7	Preparation of all Tableau visualisations.	<ul> <li>Published Tableau Storyboard shared to relevant stakeholders</li> </ul>	Ex 2.1 to Ex 2.9
Week 8	Final Presentation for Stakeholders.	Video Presentation for stakeholders	Ex 2.10



# Hypotheses

1. If a citizen is 65 years of age or older, then they are more at risk of developing serious complications, including death, from the flu.

2. If a state has more citizens who are part of a vulnerable population, then that state will have a higher proportion of its citizens being hospitalised from the flu.

3. If a state has a high proportion of citizens who are vaccinated, then that state will have a comparably lower mortality rate from influenza.

4. If a state has more people, then that state will have a greater number of hospitalisations during flu season.



# Data Wishlist

**Note -** The data wish list present here is focused on all variables that might impact testing of the hypothesis:

If a citizen is 65 years of age or older, then they are more at risk of developing serious complications, including death, from the flu. 1. Influenza hospitalisation and mortality rates by age

2. Influenza hospitalisation and mortality rates by state

3. Influenza hospitalisation and mortality rates by socioeconomic status

4. Demographic population by state – including total count of population by age categories, socioeconomic status categories, and vulnerable populations

5. Flu shot rates by state