

Project Management Plan

Stakeholder Communication

Meetings:

- At project outset in August, we meet with staffing agency administrators to make plan for the assembly of delegates from hospitals and clinics using the agency's services, including frontline staff and hospital/clinic executives. We also discuss business requirements, go over initial questions, and share our communication plan.

Calls:

Video conferences will be recorded so that all stakeholders are able to watch, even if they are unable to attend live.

- Midway through, in September, we present our interim report to the staffing agency administrators and previously assembled delegates.
- We hold our final video call in October with the staffing agency administrators and delegates, presenting our Tableau Storyboard.

Written Communication:

- We will send an email to assembled delegates to open a line of communication.

Emergency/Contingency Plan:

- Any urgent issues are communicated via email. We will schedule a follow-up call with, at least, the staffing agency administrators. A synopsis of the call will be sent to delegates if they are not on the call. If they are to be on the call, then we will share a recording of the call.

Schedule and Milestones

- Assess data limitations that may prevent us from conducting our desired analyses [by week 2]
- Determine whether influenza occurs seasonally or throughout the year [by week 4]
 - If seasonal, determine the start and end months for each state
- Categorize each state as low-, medium-, or high-need based on vulnerable population count [by week 6]
- Provide information to support a staffing plan, detailing what data can help inform the timing and spatial distribution of medical personnel throughout the United States [after week 9]

Project Deliverables

- Interim report consolidating the findings of our analysis
- Tableau Storyboard
- Video presentation for all stakeholders (recorded)

Audience Definition

The presentations will be accessible to the public, as potential influenza patients are important stakeholders. To accommodate all viewers, we will assume a lower level of data-proficiency and familiarity with jargon.

Answers to Questions

Adjoining Questions:

- How does the flu relate to the other hospital admissions or deaths?
I could not find a quick answer to this question. Extensive research synthesizing sources is necessary.
- Are there ways to decrease flu admissions or deaths (e.g.: flu shots)?
Aside from receiving an annual flu vaccination, the public can practice regular handwashing, covering of mouth when sneezing/coughing, wearing of face coverings such as surgical masks, and staying home when sick. These practices reduce the spread of the virus.

Elevating Questions:

- Can the government (or workplaces, schools, health departments, etc.) do something to help prepare for the flu nationally (hand washing public health campaigns, flu shots, etc.)?
- How does the flu impact the community, for instance, school and work attendance?

Clarifying and Funneling Questions:

- How much temporary staff is available to disperse?
This information is not provided in the project brief and cannot be found elsewhere, as the staffing agency is hypothetical.
 - How many of the staff members are nurses, physicians' assistants, or doctors?
 - What staff members are necessary to treat those hospitalized due to the flu?
- Which states have been over- or understaffed multiple in the past?
This information is not provided in the project brief and cannot be found elsewhere, as the staffing agency is hypothetical.
 - Which have been over- or understaffed a significant number of times?
 - For states that are more likely to encounter staffing issues, are they consistently overstaffed or understaffed, or is it more likely to fluctuate between over and under?
- What is each state's vulnerable population count?
Analysis is necessary to properly answer these questions.
 - Vulnerable populations are to be considered low-, medium-, and or high-need based on vulnerable population count. Where should these lines be drawn?
- When is/are flu season(s)?
The virus circulates year-round, but peaks are typically between December and February. The flu season is considered to begin in October and end in May (The Flu Season).
 - Is/are flu season(s) the same in every state?
"The flu virus survives better in cool, dry temperatures", so states with longer winters theoretically have correspondingly longer flu seasons (Larson). However, there are other factors at play. For instance, Alaska—a relatively cold state—has the least amount of per-100,000 flu deaths at 14 deaths per 100,000 people (Santora).

- Is/are flu season(s) the same length every year?
Short answer—no. Analysis is necessary to determine the lengths of each past season.

Questions Concerning Privacy and Ethics:

- Should different members of vulnerable populations be prioritized differently? For example, should children under 5 years be weighted in priority over adults aged 65 years and older?

After a first pass, search results indicate that a triage plan has not been formed until the COVID-19 pandemic started overwhelming hospitals. The following triage information is related to COVID-19 and only applies in emergency situations when hospitals are overwhelmed with admissions.

Triage plans vary from state to state. Generally, hospitals first determine whether incoming patients are likely to survive with ICU care. If the answer is no, they will be denied ICU care and (if available) be redirected to end-of-life care. If the answer is yes, then the hospital will give the patient a Sequential Organ Failure Assessment (SOFA) score—the higher a patient's score, the lower their priority (Baker).

This means that priority is not as cut and dry as prioritizing younger patients when it comes to COVID-19. I would imagine that a similar approach would be employed by hospitals in the event of an influenza event that overwhelmed hospitals. As such, I do not intend to assign weighted priority to each vulnerable population group.

- Can a certain level of analysis identify a group of individuals enough to warrant privacy concerns? Would it be problematic to disclose, for example, that over 90% of adults 20-30 in a specific state went without the flu vaccine last year?
“Under the Privacy Rule, health information that does not identify an individual and for which there is no reasonable basis for a covered entity to believe that it can be used to identify an individual is not protected health information under HIPAA.” (Big Data under HIPAA) In other words, if no one is individually identified, then the analysis would not be in violation of HIPAA.

Hypothesis

If a state has a larger vulnerable population, then it will more influenza deaths.

The population data set only contains total population, male and female population, and population for different age ranges. Vulnerable populations, then, will be the sum of children under 5 years, and adults over 65 years.

Data Wishlist

- Vulnerable population by state
 - Gross and proportional, multiple years
- Influenza deaths by state
 - Gross and proportional, multiple years

Works Cited

Baker, Mike, and Sheri Fink. "At the Top of the Covid-19 Curve, How Do Hospitals Decide Who Gets Treatment?" *The New York Times*, The New York Times, 31 Mar. 2020, www.nytimes.com/2020/03/31/us/coronavirus-covid-triage-rationing-ventilators.html.

"Big Data Analytics under HIPAA: News & Insights." *Arnall Golden Gregory LLP*, www.agg.com/news-insights/publications/big-data-analytics-under-hipaa-03-17-2016/.

Larson, Jennifer. "When Is Flu Season and Why There Is a Flu Season in the First Place." *Insider*, Insider, 2 Nov. 2020, www.insider.com/when-is-flu-season.

Santora, Tara. "States with the Most Flu and Pneumonia Deaths." *Stacker*, 28 Oct. 2020, stacker.com/stories/4792/states-most-flu-and-pneumonia-deaths.

"The Flu Season." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 6 May 2021, www.cdc.gov/flu/about/season/flu-season.htm#anchor_1531424547919.