

STP Worksheet

S- Situation T- Target P- Plan

Team 1

Attempts at delegation and action planning often fail because there is a lack of alignment on the definition of the situation. Furthermore, rarely do people clearly agree on the target state prior to formulating an Action Plan. Attaining agreement on **what** the situation and the ideal target state are, **before attempting to discuss how to get to the target state will ensure solid Action Plans.** When Action Plans are also developed by the people responsible for the results, the commitment to the plans will be higher and the opportunity for success significantly increased. If the endeavor is delegated, it's important to check that there is agreement on the situation and the target with key interested parties, before implementing the Action Plan. This ensures that the Action Plan will be supported and deliver the results desired.

Hurdle or Barrier we are addressing (Kikzely):

We would like to study the effect crime has on hospitals in the Greater Seattle area and compare them to other neighborhoods in the area. We will be focusing on analyzing the relationship between criminal activities and what kind of healthcare it requires. Specifically, analyzing the frequency of crimes and comparing it to the intake numbers of hospitals nearby, eventually identifying which crime(s) leads to the highest intake number. Once we see these patterns, we can discover the impact of crime on hospitals and its resources.

Data sources:

<https://doh.wa.gov/data-statistical-reports/healthcare-washington/hospital-and-patient-data/hospital-discharge-data-charts> (Public Use files)

https://data.seattle.gov/Public-Safety/SPD-Crime-Data-2008-Present/tazs-3rd5/about_data

S - Defining the Situation (Matti):

Ask questions beginning with what, when, where, why, who and how. For example: How is it affecting our customers, employees, financial results, competitive position, teamwork, communications and the quality of our products/services? Include facts, opinions, beliefs, feelings, hunches, and assumptions. Feelings and beliefs are valid, just because someone feels them. Only facts can be debated and tested. If there is disagreement on facts or significant facts are unknown, the action plan can include an information-gathering step.

What: Are crimes in Seattle impacting hospital admissions?

Where: Seattle, WA

Why: We want to understand if crime in Seattle neighborhoods is impacting hospitals. If crime rates are proven to impact hospital admission rates, hospitals can prepare for more patients and prevent being short staffed. If crime does have an impact on hospitalization, it is also useful information for public safety measures – we are assuming that if crimes are causing higher admission rates than those crimes must be dangerous. Crime may also be correlated with other factors, such as mental health and poverty, which we will need to understand and analyze. If crime significantly impacts hospitals, we can use our model to help hospitals to prepare for future spikes and allocate resources.

Who: Hospitals & citizens

How: To understand crime, we will also need to analyze factors that may have multicollinearity with crime such as mental health and poverty. If we control these factors we can make better predictions about future crime. We will do an analysis of crime by location, analyzing crime by neighborhood and admissions to nearby hospitals by location and date.

T- Identifying the Target: (David)

What is the ideal state? It's the end of the assignment and we've done a great job, what does that look like? What outcomes or results are we looking for? **Check that for every point under the situation, there is a point under the target that addresses the issue.**

The outcome of our project would be that it will show a clear understanding of which specific crimes end up with the highest number of hospital intakes in the Seattle area over a significant time span. It will also state how specific crimes affect hospitals.

Additionally, the results of the final state would provide useful information for hospitals to better allocate resources according to the crimes that most affect them. For law enforcement officials, this could allow them to delegate patrols while tourists can use our data to see which areas are more suited for them. Our results can also help other community officials create prevention programs for the neighborhoods with the highest crime rates.

We would have accomplished this by building an interactive web app that presents our results on the subject. It would be interactive and feature our methods and summaries that explain the most dangerous crimes in Seattle, the most dangerous neighborhoods and the nearby hospitals. The web app will be comprehensive by including the data that provides the safest neighborhoods in the Seattle area.

P- Plan

Action Planning Worksheet

Date: 9/11/2024

Champion: Mariah Bergquist

Team: Group 1

Given the Situation and Target, our goal is

To determine how crime in certain areas of Seattle affects each hospital in the Greater Seattle area.

Why this goal is important OR (CSF(s) it addresses: OBJ

This is important because it allows people to see which hospitals in Seattle are more impacted by crime. This could lead to officers understanding more about different parts of Seattle and tourists to be able to see which parts of Seattle to stay away from.

Measurable Result (How we'll know it's successfully completed)

When we can portray the effect of crime on hospitals in the Seattle area. We will be able to distinguish the effects that each type of crime has on each hospital in Seattle.

Action Steps:

What	By When	Who
Data Collection & information gathering - Collect data on crime and hospitals in Seattle by neighborhood. This includes crime, type of crime, hospital admissions, type of admission, date and location.	9/13/2024	Everybody
Handle confounding variables. Understand what factors are driving crime through literature research so we can control these factors in our analysis. (e.g. if both crime and hospitalization are caused by poor mental health, we don't want to exaggerate the impact of crime when the cause is mental health.) Assess if we need to gather more data & repeat step 1.	9/20/24	Everybody
Data Cleaning - Clean the data to fix any outliers or dispose of any data not used in our data analysis.	9/27/24	Everybody
Exploratory Data Analysis - To be able to visualize the connections and patterns in our datasets, as a team, we will start by creating heatmaps, scatterplots, and hexagon plots. These will help us identify the best way to visualize any connections and patterns in the datasets.	10/3/24	Everybody
Visualize trends, explore correlations further	10/10/24	Everybody
Test Hypothesis - Correlation analysis will allow me to test the relationship between crime and hospital admission rates and how strong the relationship between the two.	10/17/24	Everybody
In depth Time Series Analysis for crime – I will analyze the effects of crime on hospitals over time in different areas of Seattle.	10/24/24	Everybody
Location Analysis to determine if crime in one neighborhood impacts hospitals in nearby neighborhoods	10/31/24	Everybody
Determine hospital with worst crime admission	11/7/24	Everybody
Summary – Summarize all our findings into a presentation	11/14/24	Everybody
Shiney Web App – Create an interactive hexagon plot and scatterplots that shows the effects of crime on hospitals in different areas of Seattle.	12/08/24	Everybody
Final Presentation – Present the project and what we have discovered.	12/11/24	Everybody

Questions:

Are the Actions ordered to provide the most significant impact as early as possible? Is there a significant benefit to the company if a partial solution is implemented first, and refinements added later?

% Chance of Success _____ **Or** _____ **foot toss**

Possible Major Barriers to Success: Our data as of right now looks good, but I am nervous that we might not have all of the data we need to answer our questions.

Help Required: I will need help from my team and from instructors.
