

PHPM 631 Assignment 6: Data to Decision
Due date: Submit on E-campus by 11:59pm Sunday 3/26 & 4/2

Submission. Submit on E-campus. See Requirements Section Below for details

- Week 1 (3/26): Progress Report. Remember Lab 6 is also due at the same time.
- Week 2 (4/2): Final Report

Late Assignments: Each student will be allowed one late assignment, due 7 days from the due date. NO other late assignments or make up will be accepted.

Guideline for assignment grading (8%)

- 70% (70 points): Bad (√ --) Did NOT follow all instructions
- 80% (80 points): Reasonable (√ -) Followed all instructions
- 90% (90 points): Good (√) Followed all instructions, and did good work
- 100% (100 points): Great (√ +) Followed all instructions and did great work

Objective

By the end of this assignment, you should be able to

- develop stories using relevant data, the evidence, to support a decision

Assignment 6: Data to Decision

It's now time to look at data. If the data were in a large database, such as in an EHR, you can write SQL queries you learned in the previous assignment to extract the data you need from the large database. For this assignment, you can use excel to manipulate the data.

You are encouraged to work in a team of 3 for this assignment. If you do, all of you will receive the same grade for this part of the assignment. Submit one assignment for the whole team. BUT at the very top, clearly label that you worked as a team and the name of the team members. You may choose to work alone, but you will be expected to do the same amount of work as a team.

Privacy note, I will share good reports in class.

Potential Data Sources

Here are a few data sources that will be useful for this assignment. You are **NOT** required to use any particular data set. These are provided only to help you. The requirements are listed in the "Required Submission" section.

1. Texas Center for Health Statistics: <http://www.dshs.state.tx.us/chs/datalist.shtm>
2. Texas Population Data: <http://www.dshs.state.tx.us/chs/popdat/default.shtm>
3. Texas Health Professionals: <http://www.dshs.state.tx.us/chs/hprc/health.shtm>
4. Texas Health Regions Look-up Table: <http://www.dshs.state.tx.us/chs/brfss/pages/counties.shtm>
5. Price Point: <http://www.txpricepoint.org/>
6. County Health Rankings and Roadmaps: <http://www.countyhealthrankings.org/>
7. Texas AHA/THA/DSHS annual survey: Both the data and the survey is available on the class website. *If you plan to use data from this survey, use excel to first subset the columns and rows you need from the large excel file. In addition, if you need to calculate new variables from these columns, you can also do this in excel. Finally, if you need to calculate new summary rows, you can also do this in excel. If this data were in a database, you would use SQL statements to subset the columns and rows from this database as well as calculate new columns and summarize rows (Group By).*

Big Picture: The goal is to use relevant data to address a specific question. The question is:

Where would you recommend starting a new health services facility (e.g. hospital, physician office, FQHC, etc.)? What type of facility? Why?



Recommended Action Plan

1. [Build a Team] Form a group of 3 to work together.
2. [Problem Statement] Understand the question: Where would you recommend starting a new health services facility (e.g. hospital, physician office, FQHC, etc.)? What type of facility? Why?
3. [Understand the Decision Maker] Assume you are writing the report to a board who will make the final determination about the new facility. You can make any assumptions about the makeup, characteristics, or nature of the board (e.g., they are a board for a hospital system with certain characteristics or they are a board for a local government unit with certain regional characteristics, etc.). When any assumption is made, you are required to state these assumptions in an appendix (which will not be part of the official report to the board) that will be submitted to me. So if there is any part of the assumptions that you need to convince the board of your proposal, remember to include these data/facts in the main report.
4. [Feature selection] Figure out what data you need to answer the question
5. [Data Analysis] Find the data you need, and analyze the data to answer the question based on evidence.
6. [Develop a Story] Using the data you analyzed to arrive at your answer, develop a story in the form of a report. Use effective graphs and visualizations to convince the board to make the decision you are proposing. Make sure to review the requirements sections.

Required Submissions

1. Write a report to answer the following question: Where would you recommend starting a new health services facility (e.g. hospital, physician office, FQHC, etc.)? What type of facility? Why?
2. Progress Report
 - a. This is an informal memo to me. Submit a word document.
 - b. It needs to include information about
 - i. Team members
 - ii. The tentative list of data (features) you plan to analyze. Include the source of the data. If you have a URL for the data, include it. If not, explain where you got the data, or plan to get the data.
 - iii. [Optional] any plans on the data analysis you have
3. Final Report
 - a. The report should include an executive summary of no more than 350 words
 - b. The report must include at least 5 figures
 - c. The full report should be no more than 5 pages (not including the appendix)
 - d. [Appendix 1] Include an excel file, one sheet per figure that has the data that generated the figure
 - e. [Appendix 2] For each sheet (table in the excel file in appendix 1), write a SQL query that would generate the table, the data, needed for the report. You are not required to actually run the real SQL statements. But instead, write out the following for each SQL statement. You may do this either in word or excel.
 - i. Name the table (source of the data): then list the variables in the table (you do not need to list ALL the variables if the table is large. Just list the variables you need, plus a few more).
 - ii. Include 1 row of data. The purpose is to demonstrate what kind of data each column holds.
 - iii. Write the SQL query that would generate the data you needed for your report, the tables you included in the excel file (appendix 1), assuming you have the table in a database
 - iv. List the name of the sheet in the excel file submitted in appendix 1, that holds the table you will generate with the SQL query
 - v. *NOTE: if you used a website to generate what you needed, it is very likely that your point and click resulted in a similar SQL query statement that was run behind the website.*
 - f. [Appendix 3] Remember to include the assumptions you made about the decision making board