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D210

This presentation compares patient hospital ratings for timely treatment and hospital readmission rates for Both WGU and CMS data sets.

Part 1: Interactive Data Dashboard

A1. Provide *both* data sets that serve as the data source for the dashboard.

I am using the medial data provided by WGU, the same data set I have used in my previous courses.

I found the U.S. Hospital Customer Satisfaction dataset for the years 2016 to 2020 on Kaggle. This dataset includes data indicating that each year, all hospitals in the United States that accept Medicare and Medicaid payments are mandated to provide information on the quality of care they deliver to the Centers for Medicare and Medicaid Services (CMS). Through its Hospital Compare program, CMS manages a consumer-focused website aimed at providing insights into hospital care quality. CMS releases this quality data to encourage hospitals to improve their standards and to aid consumers in making informed decisions about their healthcare providers.

A2. Provide step-by-step instructions to guide users through the dashboard installation.

No need to install anything. The Datashboard can be accessed in this link.

<https://public.tableau.com/app/profile/nefisa.hassen/viz/d210stat-2/Story1?publish=yes>

A3. Provide instructions to help users navigate the dashboard.

This Tableau presentation comprises five sections. The initial section provides an introduction to both datasets and outlines the questions that will be addressed through visualization. The second section includes four distinct representations of both datasets, highlighting trends. In the third section, the overall hospital rating for the external dataset is displayed. The fourth section presents the hospital rating for the WGU dataset. Finally, the fifth section offers conclusions and key takeaways.

Part 2: Storytelling with Data

Part 3: Reflection Paper

C1. Explain how the purpose and function of your dashboard align with the needs outlined in the data dictionary associated with your chosen data set.

The purpose of the visualization is to compare hospital readmission rates in every state and show the survey ratings about patients' experiences. Although there are many survey questions in both the WGU and CMS datasets, I will only display the survey questions "Timely treatment" for both datasets. In addition, "Overall hospital rating" From the CMS data set, and "courteous staff" from the WGU data set.

The visualization includes a dashboard with hospital rating for both datasets and the survey results showing timely treatment based on patients' experiences. Next, there are two visualizations showing hospital readmission for both dataset.

C2. Explain how the variables in the additional dataset enhance the insights that can be drawn from the dataset you chose from the provided options.

The overall hospital readmission rating from CMS data set provides insights into all states and their respective ratings. The consistency in results between the WGU and CMS datasets allows executives to use external data to validate the findings from the WGU dataset, facilitating informed decision-making.

When considering the overall hospital rating, both Texas and California have high ratings in both CMS and WGU datasets. Upon further analysis of hospital readmission rates from the WGU medical data, California, Texas, and Pennsylvania exhibit higher readmission rates. The CMS data corroborates this, providing readmission rates and national comparisons for each state. California's and Texas's readmission rates surpass the national average.

Moving on to patient survey responses regarding timely treatment, the WGU data reveals that patients rate the importance of timely treatment on a scale from 1 to 7, with 1 indicating high importance and 7 indicating low importance. Texas, California, and Pennsylvania emerge as the top three states where patients rate timely treatment as important. Furthermore, according to CMS data, Texas, California, and Florida have ratings for timely treatment above the national average.

The aim of this visualization is to examine US hospital readmission rates alongside patient satisfaction rates. States with higher readmission rates and patients' ratings of hospitals are highlighted. Stakeholders can utilize this information to implement changes in hospitals with higher readmission rates and lower patient satisfaction. This data is crucial for addressing any issues patients may have regarding the timeliness of treatment.

1. Explain two different data representations from your dashboard and how executive leaders can use them to support decision-making.

The patients' response to timely treatment is crucial information for executives to examine. The dashboard shows which state has the highest rating and states that have much lower ratings. This is crucial information for making changes in hospitals to address any issues patients have regarding not receiving timely treatment.

In addition, the overall hospital readmission rating gives insights into all the states and their ratings. The ratings show comparable results between the WGU and CMS datasets so that executives can use the external data to confirm the WGU dataset.

2. Explain two interactive controls in your dashboard and how each enables the user to modify the presentation of the data.

The visualization is interactive, allowing an evaluator to click on each state to see each state's survey rating or hospital readmission numbers. In addition, there are filters for each visualization and stockholders can filter out the data they want to see closely.

3. Describe how you built your dashboard to be accessible for individuals with colorblindness.

I have created a calculated field connected to a colorblind parameter allowing users to choose to see colorblind friendly view.

4. I Explain how two data representations in your presentation support the story you wanted to tell.

My goal for this presentation is to create a visualization that enhances understanding of the WGU medical dataset in comparison to a national dataset. I have developed visualizations illustrating the readmission rates of hospitals in the WGU medical dataset compared to national readmission data. Additionally, I have included visualizations depicting patient satisfaction with timely treatment in hospitals and overall hospital ratings nationwide

5. Explain how you used audience analysis to adapt the message in your presentation.

Based on the instructions on this course this assignment is intended to support leaders in their executive decision making and they will be able to understand it Easily.

6. Describe how you designed your presentation for universal access by all audiences.

I used tableau public for this presentation and anyone with the link can access the presentation for free. The paper and the recorded video are also available to increase understanding for any question and further explanation.

D. Kaggle. (n.d.). US Hospital Customer Satisfaction (2016-2020). Retrieved from <https://www.kaggle.com/datasets/abrambeyer/us-hospital-customer-satisfaction-20162020?resource=download>

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