

CMU Bridges to Healthcare Technology EDA Project: Hospital Ratings

Jessica Lambert, Urvi Chaubal, Dennis Campoverde Lema

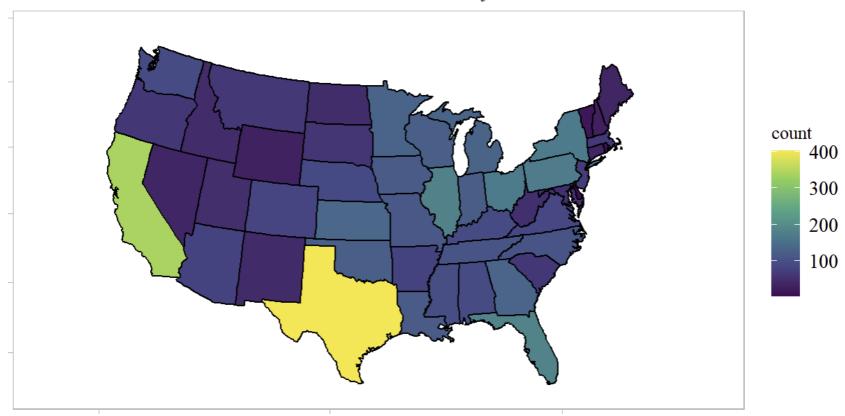
CORGIS Dataset Project

- Sourced from the Center for Medicare Services
- Contains information on hospital ratings
- Goal: to allow consumers to directly compare hospital performance measures

Total Number of Hospitals Vary by State

Hospital Counts by State

Data from CORGIS Dataset Project

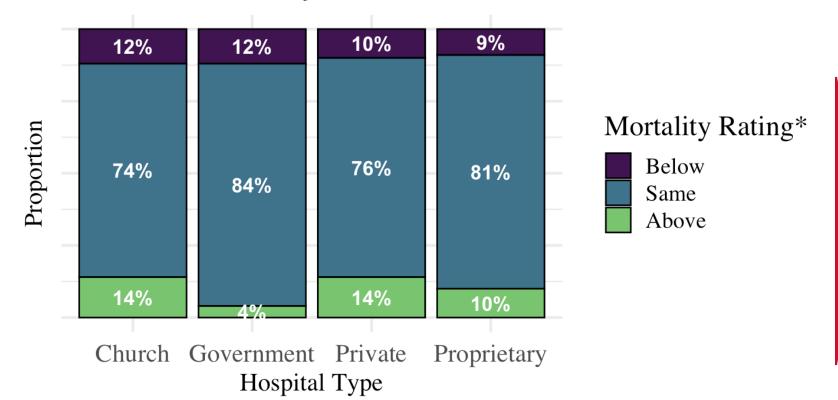


*Hospitals that accept Medicare & Medicaid

Hospital Type Influences Mortality Rate

Proportion of Mortality Ratings by Hospital Type

Data from CORGIS Dataset Project



*All ratings are compared to the national average

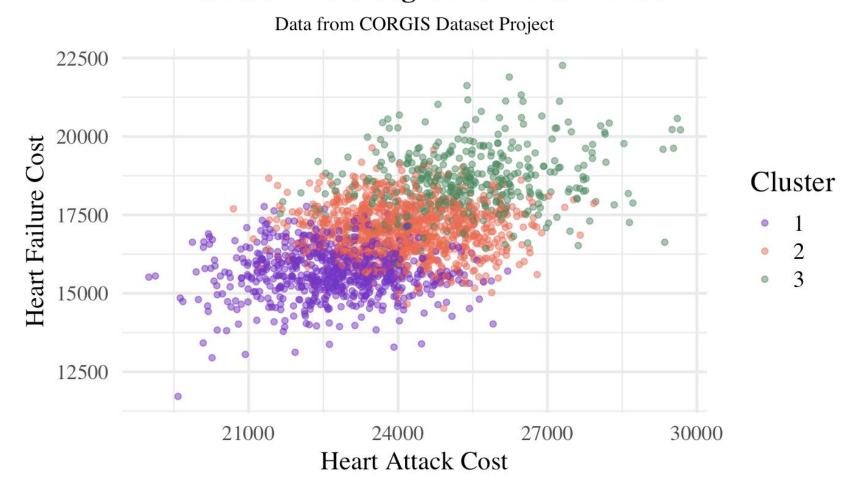
Government hospitals appear to perform better on mortality ratings

More private and church hospitals have mortality ratings above the national average than proprietary and government hospitals

Cost v Quality

Similar Costs of Procedures Within Hospitals

K-Means Clustering on Procedure Costs

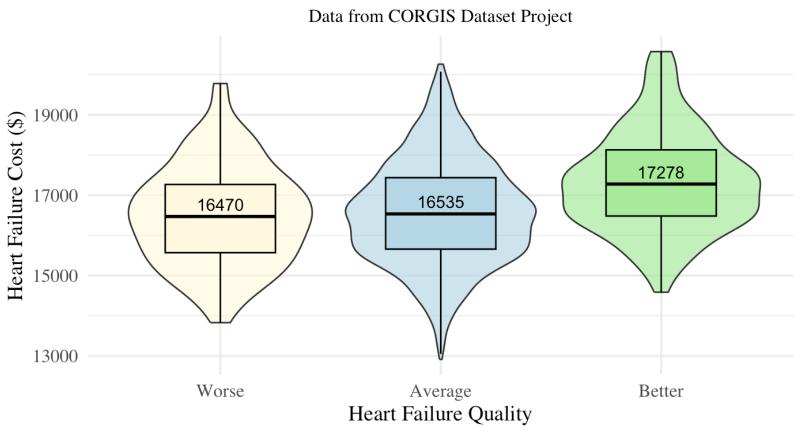


Hospitals with lower heart failure procedure costs also have lower heart attack procedure costs

The Dataset Hospitals by State Mortality By Type Procedure Costs Cost v Quality Conclusions Next Steps

Cost of Heart Failure Procedure Significantly Affects Quality

Heart Failure Cost by Quality



Procedures with
"better" quality rating
are significantly more
expensive than
procedures with
"worse" or "average"
ratings

*All ratings are compared to the national average

The Dataset Hospitals by State

Cost v Quality

Conclusions

The data includes hospitals that accepts Medicare and Medicaid in every state.

Patients should consider government hospitals over others due to better mortality ratings.

Patients should be aware of the linear relationship between heart failure and heart attack procedure costs.

Patients should be aware that the quality of the procedure they receive will impact the cost.

Limitations

Next Steps

- Mostly qualitative data provided
- Lack of clarity surrounding variables
- Limited hospitals provided

- Analysis of hospital count by county
- Influence of private hospital procedure costs and quality on mortality rate
- Quantitative data analysis
- Analysis of more recent data