Springboard Project 8.3 (Reduce Hospital Readmissions)

Using CMS Hospital Readmissions data

A. Do you agree with the above analysis and recommendations? Why or why not?

After my own analysis, I found mostly agreement with the statistics calculated in the original report. However, I don't agree with a few other parts, including the handling of missing values and the recommendations made based on the results.

B. Provide support for your arguments and your own recommendations with a statistically sound analysis.

The support for my arguments comes from the limitations of a hypothesis test – mainly that concluding a correlation is significant does not mean that a causal relationship exists. Rather, we only know that the relationship is not due to chance alone. There are also other elements that need to be addressed, such as hospital capacity (for which data is not available).

Moreover, despite the hypothesis test's indication of a significant correlation, that correlation is fairly weak. In practical terms, a weak relationship like this means that there may be other variables with more explanatory value. Such variables should be explored, and more robust analyses like controlled studies should be performed before recommending action steps for hospital administrators.