The Effects of Perceived Quality and Satisfaction on Hospital Rating

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ABSTRACT

There is complexity in evaluating the efficacy of a health care system due to a combination of scientific, technological, economic, and epidemiological imperatives. [1] As such, the common proxy for quality of hospital care is the patients' ratings of their hospital.[2] The perceived quality and satisfaction of patients is of particular importance as it can be an salient indicator used to draw detailed contextual descriptions of hospital's different components to identify patterns that may have an impact on other outcomes of a health care system. In addition, the findings of these comparative analyses can recommend policies that are aimed at system-level improvements. I will evaluate the official hospital compare datasets [3] provided by Center for Medicare and Medicaid (CMS) for hospital quality comparison. Classification methods will be used to predict the overall hospital rating and identify the characteristics of hospitals. For predictive modelling, three classification algorithms will be explored: (1) decision tree, (2) Naïve Bayes, and (3) logistic regression. These methods will be implemented using a combination of Weka and R.

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[1] Mechanic, D., & Rochefort, D. A. (1996). Comparative medical systems. Annual Review of Sociology, 22(1), 242.

[2] Young, G. J., Meterko, M., & Desai, K. R. (2000). Patient satisfaction with hospital care: effects of demographic and institutional characteristics. Medical care, 325-334.

[3] Data.Medicare.gov. (2018, July 25). Hospital Compare datasets. Retrieved from https://data.medicare.gov/data/hospital-compare