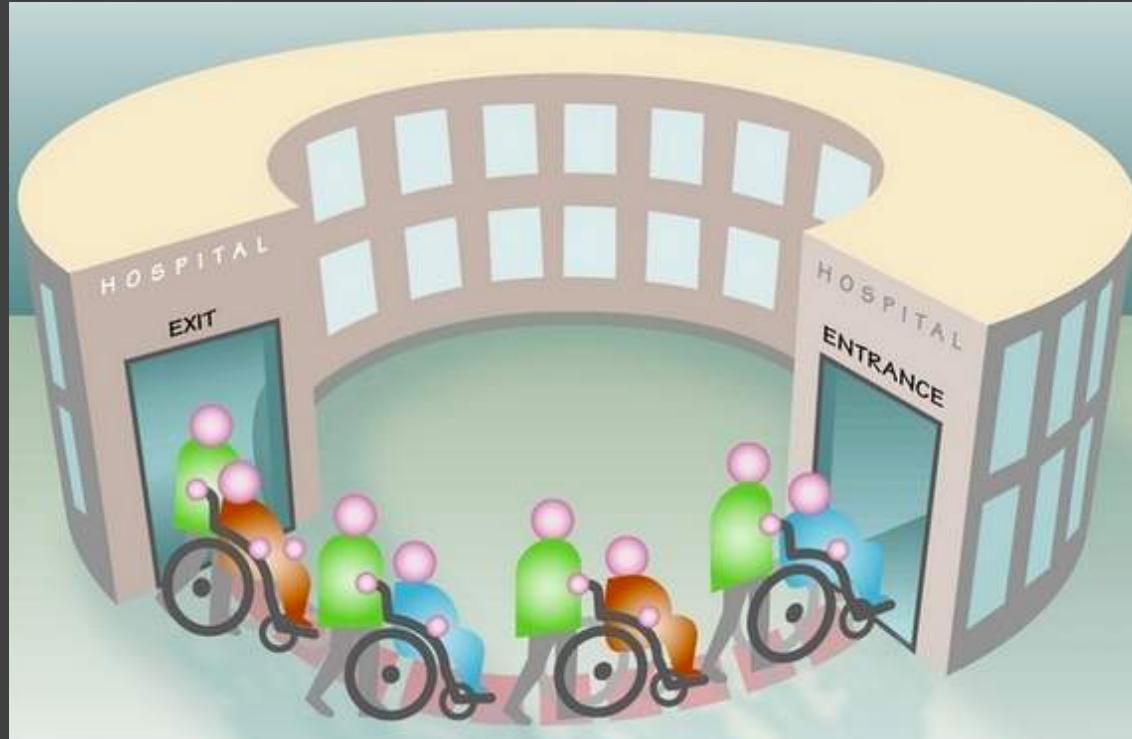


# Predicting Hospital Readmissions After Heart Failure



Sheena Sharma

## A tool to inform Medicare advantage insurance companies target their next market

Readmissions are **very** costly:

Government estimates put medicare readmissions to be \$26 billion per year with **\$17 billion of that considered avoidable.**



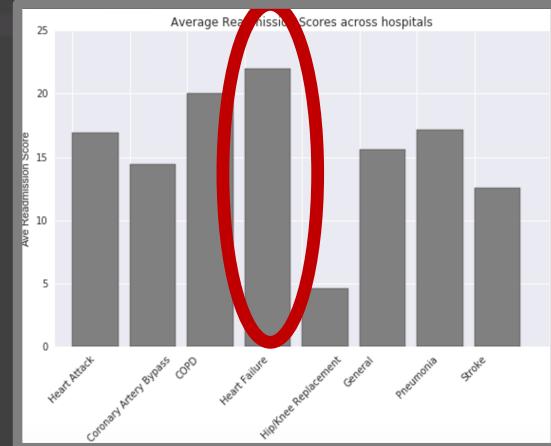
# Pipeline

## Data Wrangling/ Cleaning

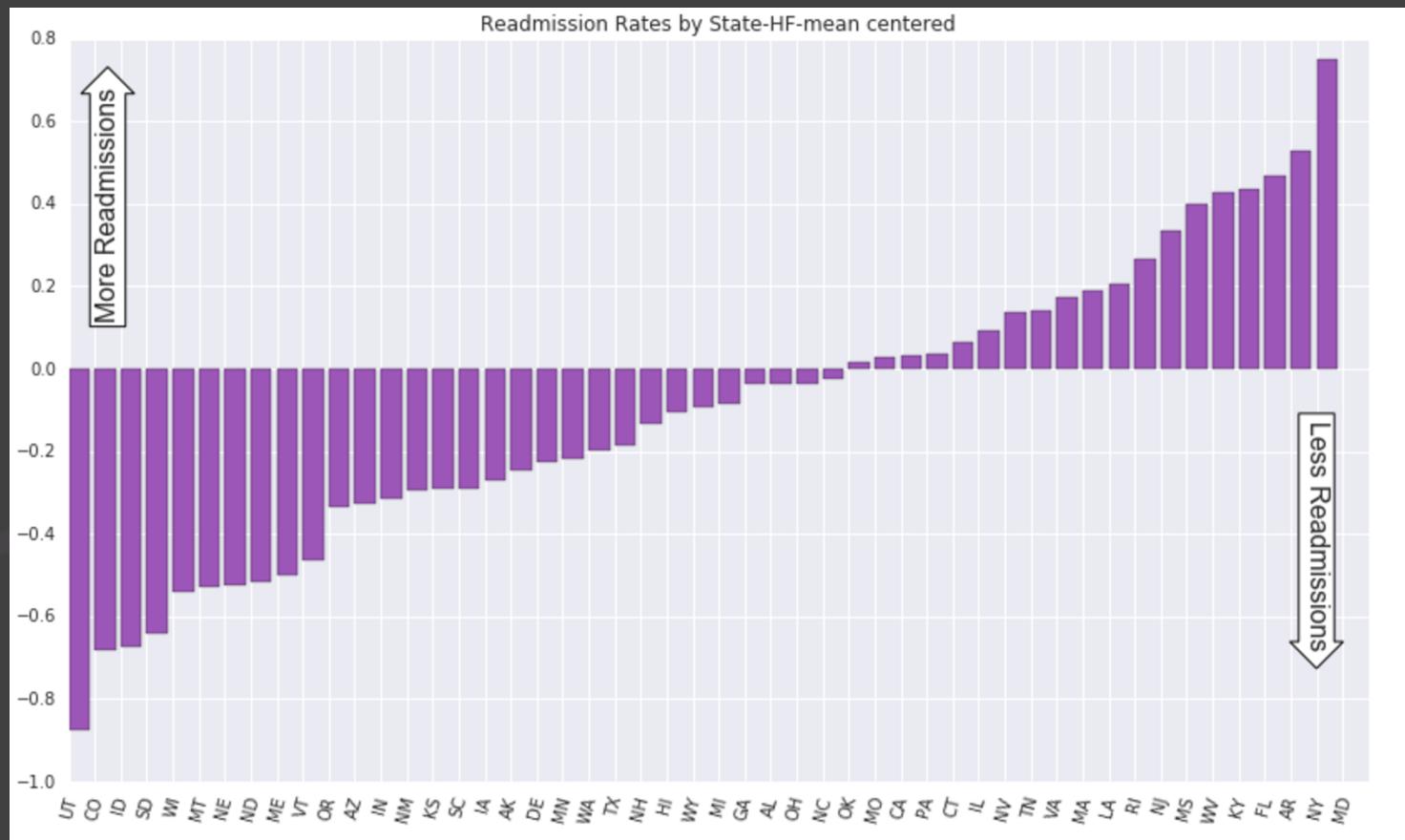
6 unique Medicare data sets including information on spendings per claim, infection rates, and patient satisfaction surveys

Mean imputation of missing values  
Removed data points where target (readmission rate) was missing

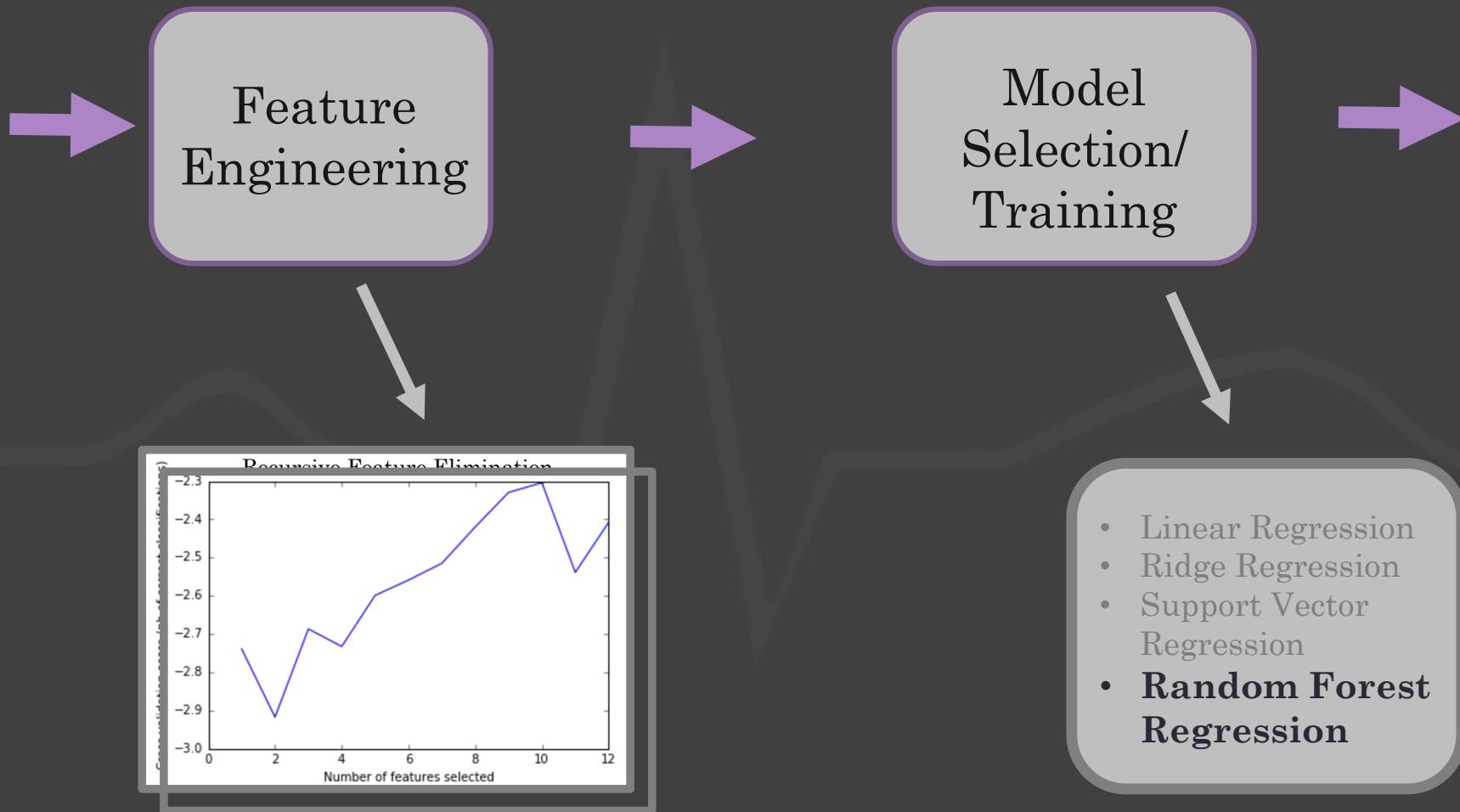
## Data Exploration



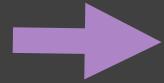
# Datasets and Exploration



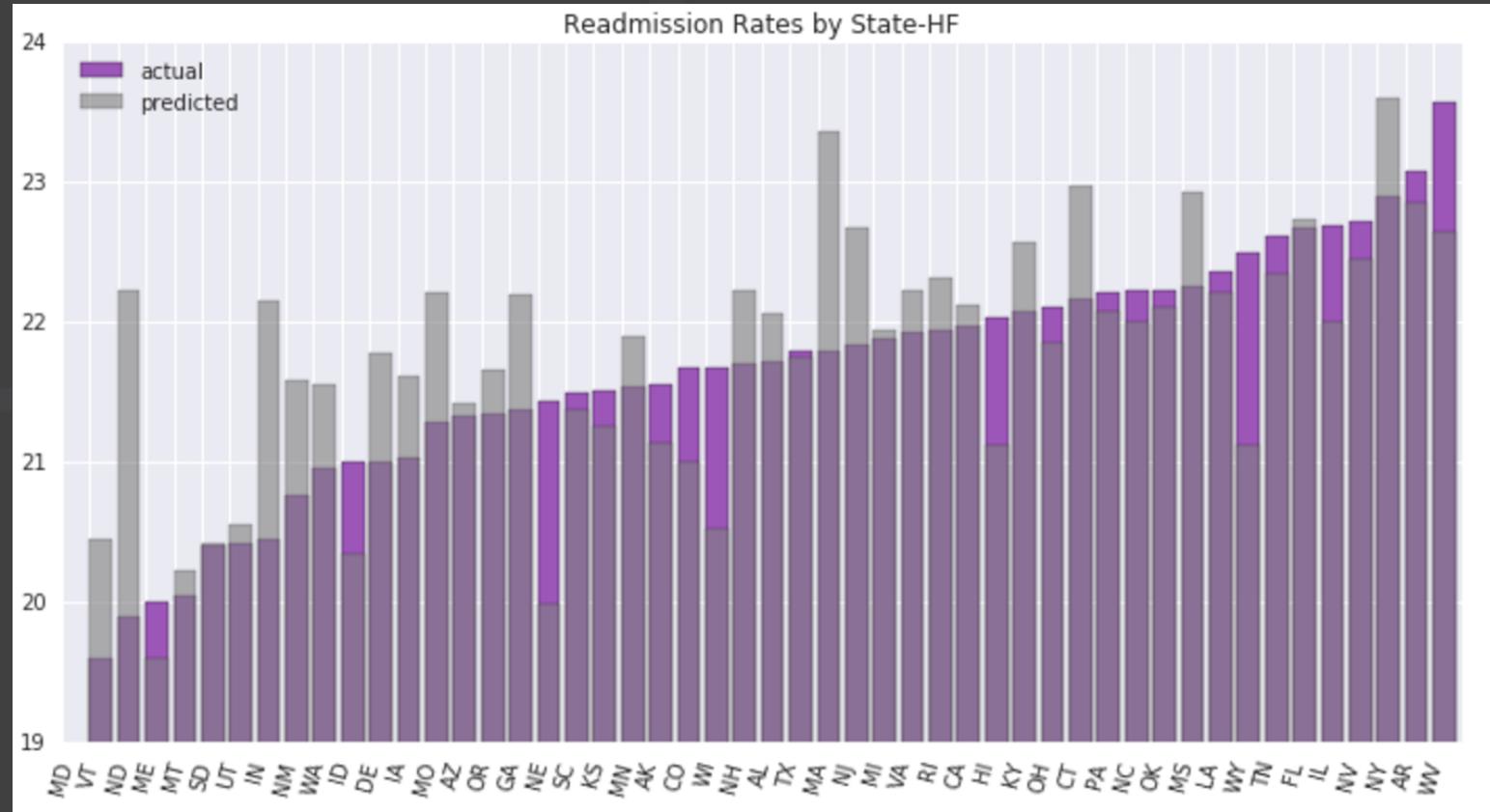
# Model Story



# Model Story

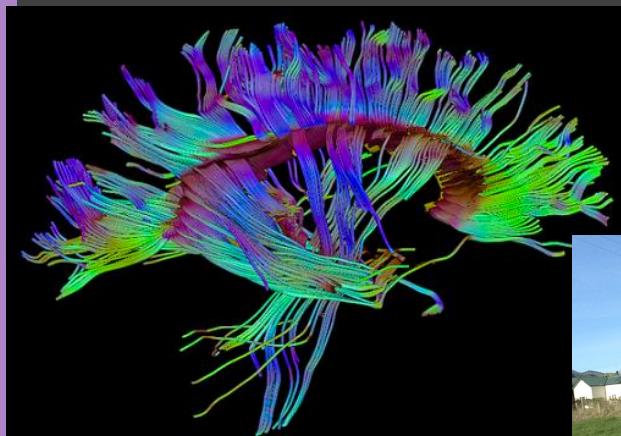


## Testing and Validation





Not sure how to get down...



Northwestern  
University



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**CHICAGO**