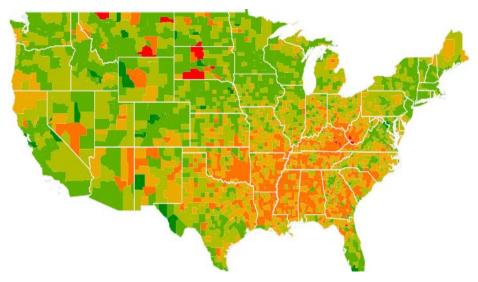
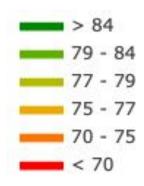
Life Expectancy in the US

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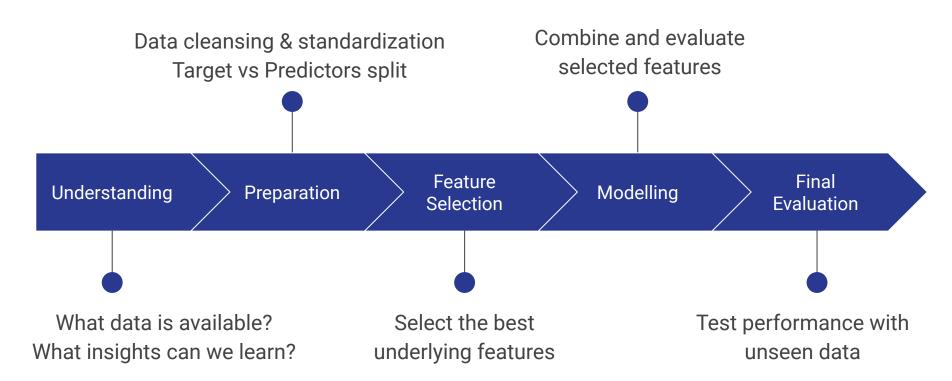
Life expectancy by county



Introduction

- Problem: Big differences in life expectancy (20+ yrs) between counties
- Mission: to support govt to formulate healthcare policy and budget allocation
- Objective: to find the most significant contributing factors to life expectancy

Methodology



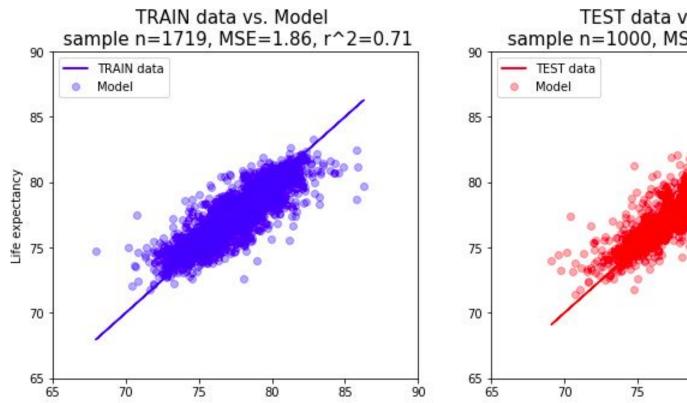
Feature selection techniques Interactions Polynomial Multicollinearity improving model results Correlation P-values Baseline & Lasso

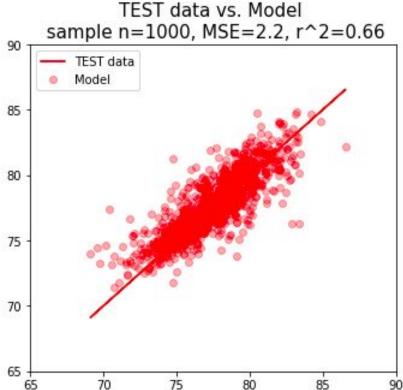
Top factors that reduce life expectancy

High teenage births High adult smoking rate High diabetes prevalence High food insecurity Lack of mental Low household income health service Low mammography Low physical inactivity screening Life expectancy



Model result and validation





Recommendations to US Federal Agencies

Sex education in school

Improvement in sex education curriculum in schools to be prioritized to reduce teen pregnancy, which came out as top factor in lowering life expectancy.

Food stamps program

Extending food stamps program to more vulnerable population to improve affordable access to food and to combat diabetes via healthier food options.

Focus on the South

Southern states particularly Mississippi, Alabama and Louisiana are the key areas of focus where life expectancy is the lowest.

Q & A

