

Proposal for STATS 506 Final Project

Objective:

The aim of this study is to investigate the distribution of diseases across different districts in relation to zip codes, examining clinical capacity, economic factors, and disease types. Specifically, we aim to measure how district-level characteristics impact the prevalence of poverty-related and non-poverty-related diseases and whether these associations vary by location.

Methodology:

To assess clinical capacity in each district, we will analyze a range of healthcare and facility-related indicators, including: Number of Hospice Beds (indicator of long-term care facility characteristics), Number of Hospitals Skilled Nursing Facilities (utilizing Skilled Nursing Facility Change of Ownership - Owner Information data). These variables will help gauge the healthcare resources and long-term care capabilities available within each zip code. In addition to these healthcare indicators, we will include economic variables to control for potential endogeneity and year variables to account for fixed effects, ensuring that temporal factors and economic conditions influencing healthcare are addressed.

Disease Focus:

We will compare the distribution of two primary types of diseases: Poverty-Related Diseases (e.g., malnutrition), which are often influenced by socioeconomic factors. Non-Poverty-Related Diseases (e.g., End-Stage Renal

Disease), which may be less directly impacted by poverty but are still relevant to assess in terms of healthcare resource allocation. The study will also consider differences in drug usage patterns across districts, specifically examining Medicare Part D Opioid Prescribing Rates to determine if opioid prescribing practices vary significantly across zip codes.

Expected Outcomes:

By analyzing these variables, this study seeks to uncover how geographic and socioeconomic factors impact disease distribution and healthcare service allocation. Additionally, we aim to determine if poverty-related diseases and drug usage rates are significantly influenced by district characteristics, providing valuable insights into the equitable distribution of healthcare resources.