**Relationship Between Socioeconomic Indicators and Public Health in Chicago**

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**1. Motivation and Research Question**

Disparities in cancer care and health outcomes across Chicago reveal the profound impact of socioeconomic factors on public health. The CBS Chicago article highlights significant barriers to healthcare access, particularly in Chicago's West and South Side communities, where socioeconomic challenges such as lower income, higher unemployment, and poverty levels are prevalent. These areas also exhibit higher rates of cancer and diabetes-related mortality, underscoring a potential correlation between social determinants and health outcomes.

This study seeks to explore this relationship further, using quantitative analysis and visualization to investigate how socioeconomic indicators influence public health disparities across Chicago’s 77 neighborhoods.

2. Data Resource

In this research, three data sources are used as below:

1) CBS News Article[[1]](#footnote-1)

2) Chicago Public Health Statistics[[2]](#footnote-2)

3) Chicago Public Health Service Map[[3]](#footnote-3)

3. Basic descriptive statistics (variables ranked by community area)

To explore overall socioeconomic factors and health outcomes in Chicago,

4. Linear regression (socioeconomic factors - health outcome)

5. Visualization adding maps

6. Shiny app

7. Conclusion

\* limitation

- single-year >>> analyze with multiple year dataset

- use more articles for text analysis

1. Chicago's South, West Sides have many more cancer patients, lessa ccess to care, [CBS News](https://www.cbsnews.com/chicago/news/cancer-care-disparities-1/) [↑](#footnote-ref-1)
2. Chicago Public Health Statistics, [Chicago Data Portal](https://data.cityofchicago.org/Health-Human-Services/Public-Health-Statistics-Selected-public-health-in/iqnk-2tcu/about_data) [↑](#footnote-ref-2)
3. Chicago Public Health Service Map, [Chicago Data Portal](https://data.cityofchicago.org/Health-Human-Services/Map-Public-Health-Services-Chicago-Primary-Care-Co/2usn-w2nz) [↑](#footnote-ref-3)