**The United States Nursing Home Epidemic**

Nursing homes across the United States play a critical role in caring for the elderly and vulnerable populations. However, there are significant concerns about the quality of care provided, particularly in relation to ownership type (for-profit, non-profit, government/state or federal), facility capacity, staff ratings, health inspection results, and the staffing-to-patient ratio.

The hypothesis driving this analysis is that nursing homes with higher costs often fail to provide adequate care to their residents, compounded by underreporting violations, abuse, and neglect.

In this capstone project, the following questions will be addressed:

* How does ownership type (for-profit, non-profit, or government/state) affect the quality of care provided?
* Is there a correlation between staff ratings and the frequency of health violations?
* How does the staffing-to-patient ratio impact patient outcomes, such as illness outbreaks or incidents of neglect?
* Which regions in the U.S. have the highest concentration of nursing homes with low inspection ratings?

Features Data-Driven Insights:

* Analyzes correlations between nursing home characteristics and quality indicators.
* Visualizations: Power BI dashboards including bar charts, maps and line graphs to present findings clearly.
* Comparative Analysis: Examines differences in care based on ownership type and staffing ratios.

Tech Stack Data Processing:

* Excel
* Python (pandas, matplotlib, seaborn)
* Visualization: Power BI

Data Sources:

* CMS Nursing Home Data
* Census Bureau Population Data 2024

Challenges & Considerations Data Bias:

* Ensuring objectivity by cross-referencing multiple sources.
* Scalability: Making insights applicable across different regions.
* The population data provided is for all ages in the U.S, not specific to those 65+

How to clone in the repository:

git clone <https://github.com/ebestford/Nursing_Homes_US>

Contributions are welcome! Feel free to submit issues or pull requests to improve the analysis and expand the dataset.