



INTRODUCTION

- •Strokes are serious medical conditions with lasting impacts.
- •Effective prevention and treatment depend on understanding risk factors and healthcare interactions.
- •This project analyzes healthcare networks to optimize care for stroke patients.

OBJECTIVE

- •We built a network of healthcare facilities based on patient data.
- •Focused on key risk factors like hypertension, heart disease, and age.
- •Aimed to identify critical facilities and patient demographics for improved stroke management.





NETWORK ANALYSIS

- •Analyzed patient data to create a network of healthcare facilities.
- •Identified key nodes (facilities) and connections based on patient flow.
- •Used network metrics to find important facilities and patient groups.

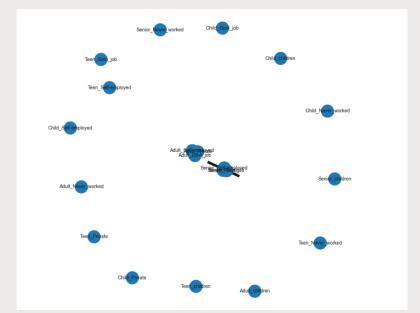
KEY FINDINGS

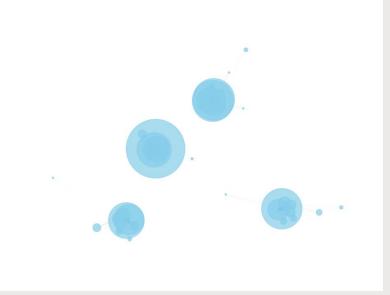
- •Network structure reveals highly connected hubs and isolated areas.
- •Certain facilities play crucial roles in patient care pathways.
- •Age is a strong predictor of stroke risk, especially for children and seniors.



PREDICTIVE MODELING

- •Developed a model to predict stroke risk based on patient data and network metrics.
- •Achieved high overall accuracy but faced challenges due to data imbalance.
- •Need for further model refinement and feature selection.





RECOMMENDATIONS

- •Utilize advanced modeling techniques for better stroke risk prediction.
- •Integrate additional data like socioeconomic factors and detailed health history.
- •Conduct longitudinal studies to track network changes over time.





CONCLUSION

- This project provides valuable insights into healthcare network utilization for stroke care.
- We identified key areas for improvement in healthcare delivery.
- Continued research can optimize stroke prevention and treatment strategies.