Reinventing Urban Transportation and Mobility

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Problem Statement

The Reinventing Urban Transportation and Mobility (RITMO) project assembled a multidisciplinary team to examine and reinvent the current state of urban transportation, building on connected and automated vehicles with the tremendous data supporting design decisions.

In redesigning the transportation network, we hope to reduce challenges that inhibit access to healthcare.

By examining patients from the past 5 years at the UM Emergency Department, we aim to correlate patient’s location with other indicators like access to transportation and socioeconomic status.

Analysis

Number of Medicaid Patients by Quarter

Public Transportation Travel Time for All Patients

Discussion

Looking at the two pie charts above we can see that a majority of Medicaid patients live within 60 to 80 minutes away from the hospital using public transport. Compare this to the non-Medicaid patients which a majority live within 60 minutes using public transportation. Not being on Medicaid also suggests they have a higher probability of owning a car and do not need to use public transportation. This supports the idea that Medicaid patients who can only access to healthcare through public transportation face a significant barrier in accessing care.

Future Work

We plan to join patient visits with their socioeconomic status from census data of their area. Using this, we hope to correlate ED visits with socioeconomic factors.

Acknowledgements

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- MIDAS Foundation
- Seth Bonder Foundation

We also thank the many CHEPS students who contributed to the project.

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