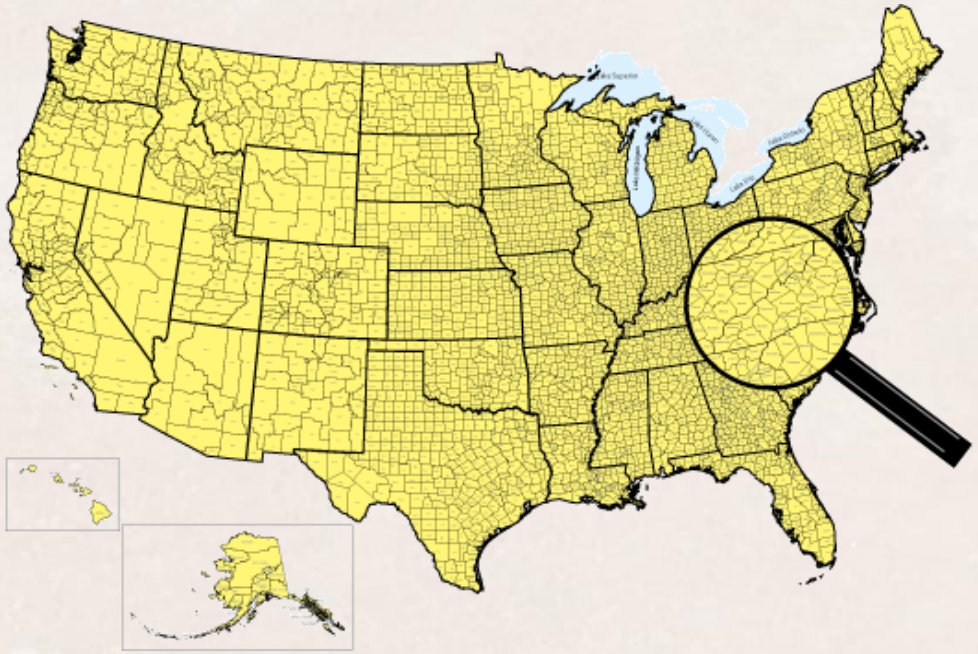
From Urban to Rural: How Disability Rates Shift by Region



Najla Muhammad | June 16, 2025 | ASRI 2025

Master of Health Informatics | Wake Forest University

START HERE

Introduction

Prevalence

- Rural counties: Higher disability rates (all ages)
- Urban counties: Lower disability rates

Causes & Types

- Types: Developmental, mobility, sensory, cognitive, self-care
- Causes: Isolation, less healthcare/education, poverty, transport

Implications

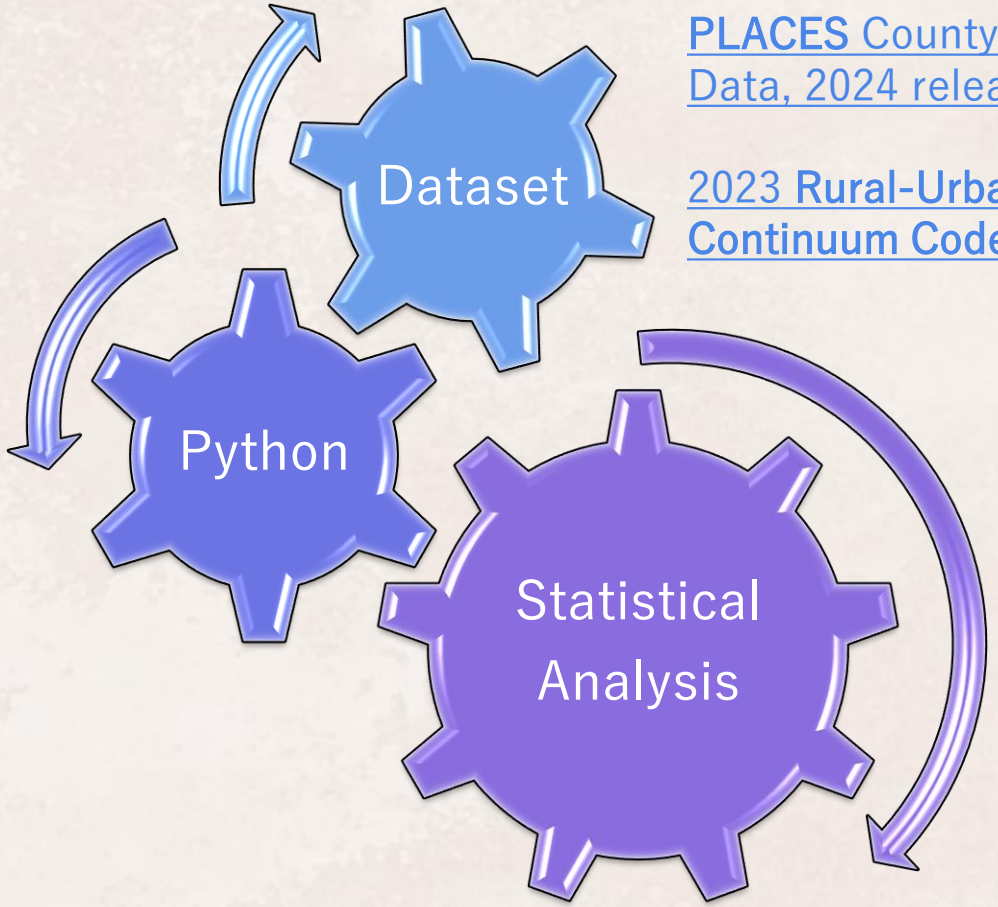
- Trends: Disparity across ages
- Needs: Better health, education, and support in rural areas

Hypothesis

Are counties classified as more rural more likely to have higher disability prevalence rates than urban counties?

- **Hypothesis:** Counties with lower populations are more likely to have higher disability rates.
- **Null hypothesis (H_0):** There is no difference in the mean disability rates among the county types.

Methods



[PLACES County Data, 2024 release]

[2023 Rural-Urban Continuum Codes]

Pandas: EDA & data cleaning

Seaborn & Matplotlib: Data visualization

ANOVA

Data & Variables: Rural-Urban Continuum Codes

RUCC	Description
1	Metro - Counties in metro areas of 1 million+ population
2	Metro - Counties in metro areas of 250,000 to 1 million
3	Metro - Counties in metro areas of fewer than 250,000
4	Nonmetro - Urban population of 20,000+, adjacent to metro
5	Nonmetro - Urban population of 20,000+, not adjacent to metro
6	Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro
7	Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro
8	Nonmetro - Completely rural or <2,500 urban, adjacent to metro
9	Nonmetro - Completely rural or <2,500 urban, not adjacent to metro

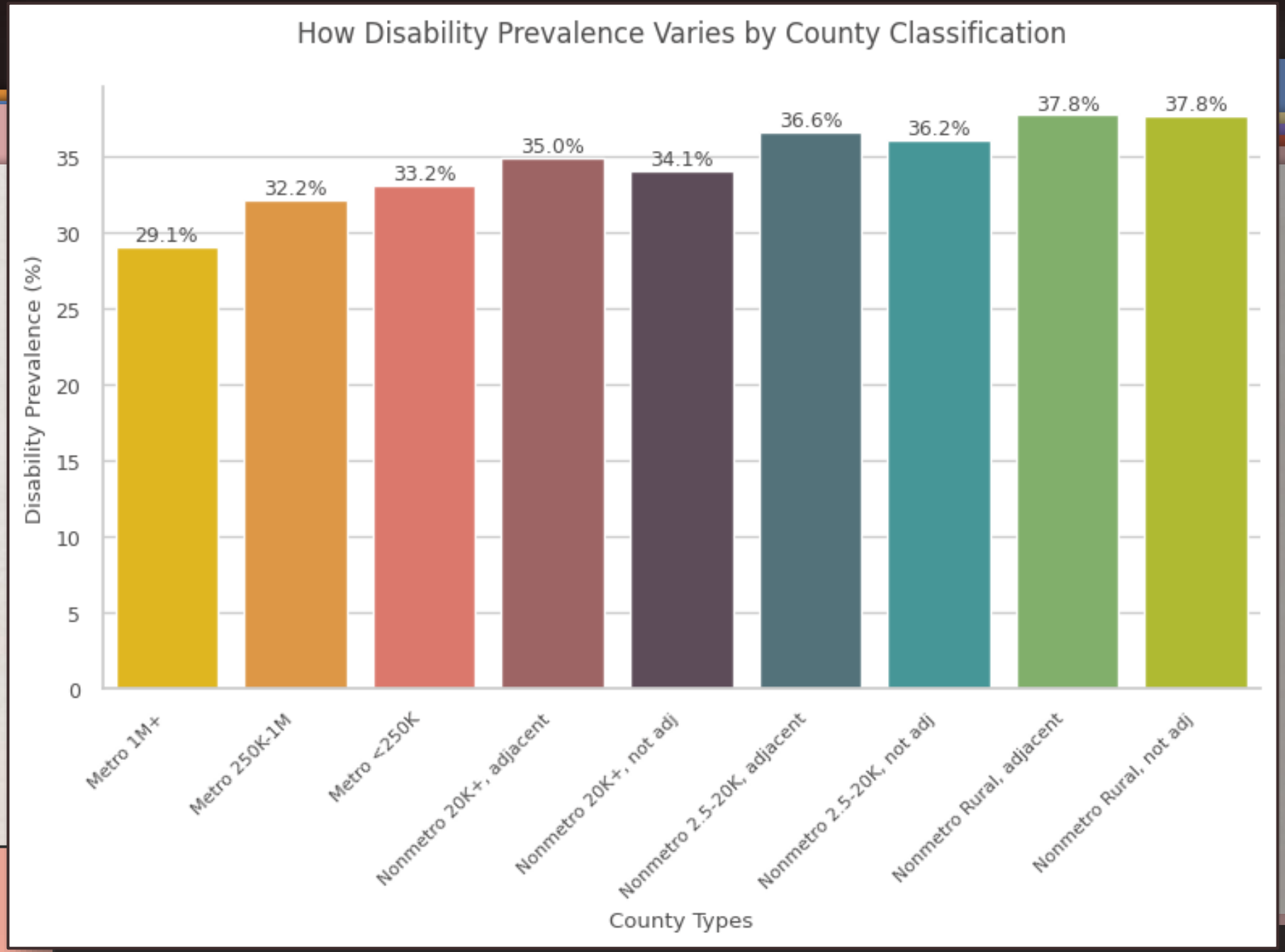
Data & Variables: Variables

- Independent Variable (x): County Type
  - Categorical > represents rural or urban counties.
- Dependent Variable (y): Disability Prevalence
  - Continuous > represents prevalence of individuals with disabilities (as a percentage or rate).

Results: ANOVA

Source	df	SS	F	p-value
RUCC (or County Types)	1.779257e +08	8.0	75.369488	1.566072e-124 **or** < 0.001
Residual	2.464378e +10	83513.0		

#1



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Conclusion

Higher disability prevalence in rural areas

Implications: Greater health burdens in rural communities

Recommendations:

Increase funding

Expand telehealth

Address poverty

Monitor rates

THANK YOU

Presentation Template: SlidesMania

LinkedIn | Email

References

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