

# Neighborhood poverty across pregnancies: Are people moving or neighborhoods changing?

**Chantel L. Martin<sup>1</sup>, Lynne C. Messer<sup>2</sup>, Lisa Bodnar<sup>3</sup>**

*<sup>1</sup>University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA*

*<sup>2</sup>OHSU-PSU School of Public Health, Portland, Oregon, USA*

*<sup>3</sup>University of Pittsburgh, Pittsburgh, Pennsylvania, USA*

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# Background

- Residing in neighborhoods with high poverty levels associated with adverse pregnancy and birth outcomes and disproportionately burdens racialized (i.e., Black) communities in the U.S.
- Perinatal and postpartum residential mobility common in the U.S.
  - 12-30% move during pregnancy
  - ~50% move within the first year postpartum
- Research on residential mobility primarily focused on changes in neighborhood poverty among people who move; unable to distinguish
  - Is the neighborhood composition changing (people moving), or
  - Is the neighborhood context changing (people not moving, but neighborhood is changing)?
- Black individuals less likely to experience mobility from high poverty neighborhoods to low poverty neighborhoods than White individuals

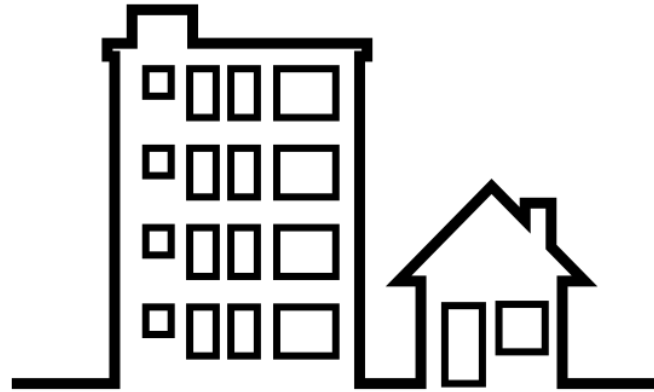
# Research Questions

1



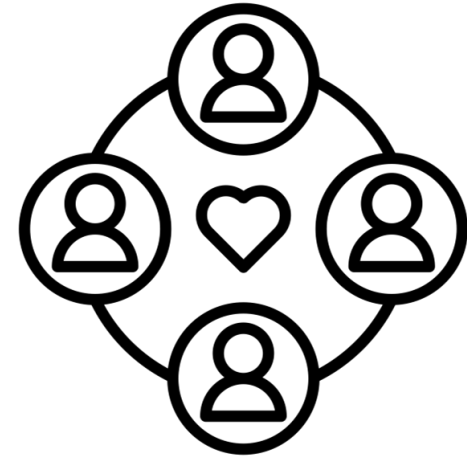
What are the patterns of interpregnancy mobility?

2



What are the patterns of neighborhood context changes?

3



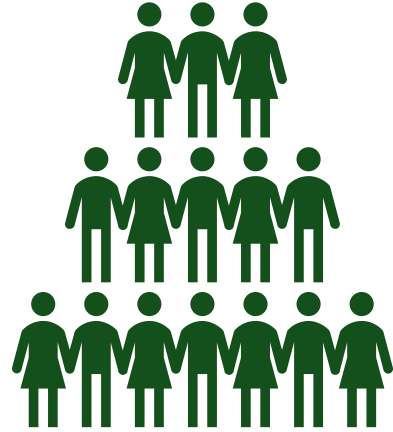
What individual-level factors predict neighborhood changes in movers and non-movers?

**Do patterns and associations differ by race?**

# Approach

- Pennsylvania birth-infant death records from 2003-2020 with linked successive pregnancies for same individual
- Included Non-Hispanic Black and Non-Hispanic White primiparous individuals with  $\geq 2$  consecutive singleton live births in Pennsylvania from 2003-2020
- Addresses at delivery geocoded and merged with 2000 (deliveries 2003–2009) or 2010 (deliveries 2010 or later) U.S. Census boundaries
- Analytic Sample: N=390,118

# Characteristics at first pregnancy by race



**390,118**

Pregnant people

**14%**

NH Black

**82%**

NH White

Age differs by race

**41%** vs. **11%**

for Black vs. White <20 years

Educational attainment

**30%** vs. **11%**

for Black vs. White with <High school

Marital Status

**86%** vs. **32%**

for Black vs. White not married

Medicaid use

**58%** vs. **20%**

for Black vs. White use

Nutrition Assistance

**74%** vs. **26%**

for Black vs. White use

Nativity

**8%** vs. **3%**

for Black vs. White born outside the U.S.

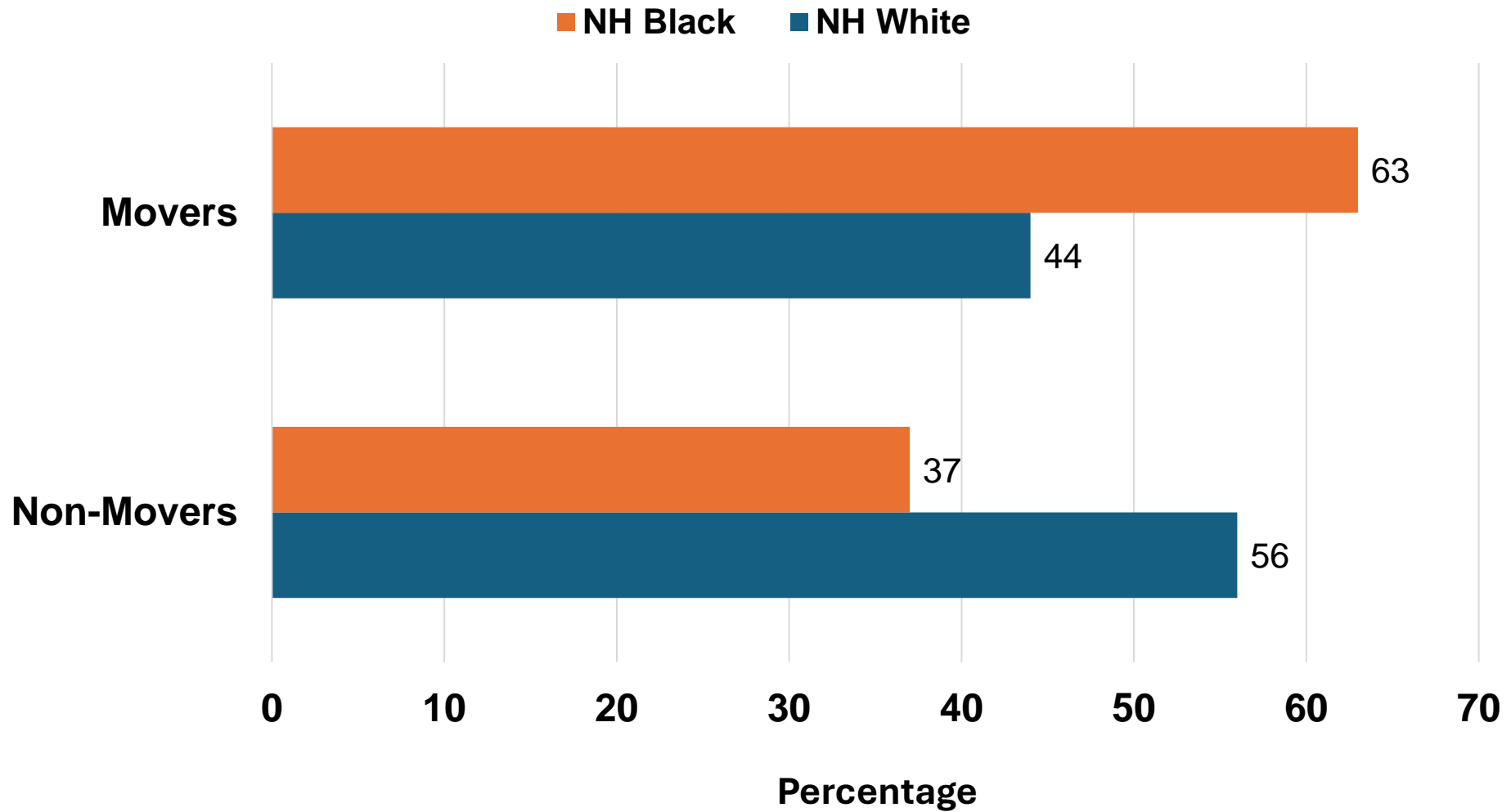
# Approach

- Neighborhood poverty: percent of residents living below poverty level
  - Measured at census-tract using 2000 or 2010 U.S. Census Bureau
  - Categorized as high poverty ( $\geq 20\%$  neighborhood poverty) vs. low poverty ( $< 20\%$  neighborhood poverty)
  - Derived 4 neighborhood mobility groups across two pregnancies:

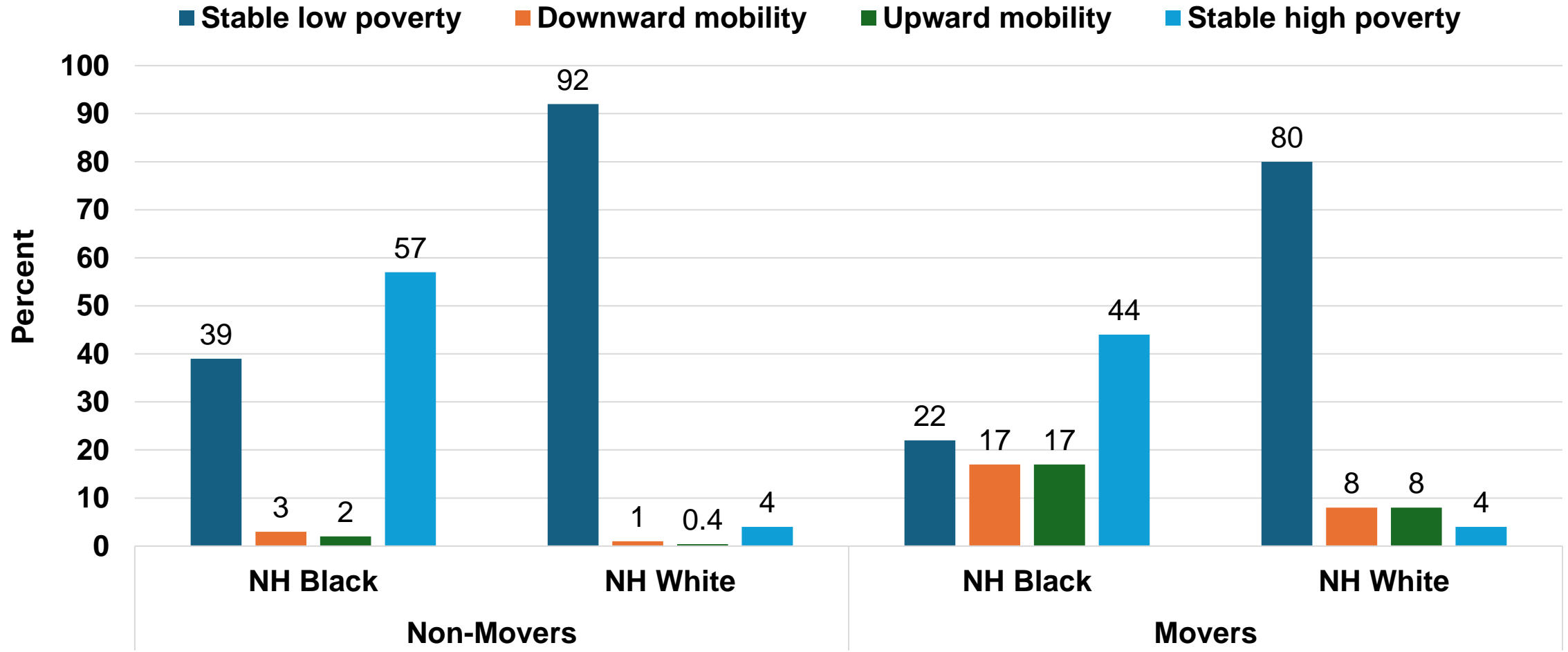
1 <sup>st</sup> pregnancy	2 <sup>nd</sup> pregnancy	Mobility Group
Low poverty	Low poverty	Stable low poverty
Low poverty	High poverty	Downward mobility
High poverty	Low poverty	Upward mobility
High poverty	High poverty	Stable high poverty

- Assessed individual mobility and neighborhood change across pregnancies stratified by race
- Estimated predicted probabilities of individual-level characteristics associated with neighborhood poverty across pregnancies among movers and non-movers stratified by race

# Who's moving...



# To where...





# Characteristics in 1<sup>st</sup> pregnancy associated with changes in neighborhood poverty by mobility and race

➤ Among movers

	NH Black				NH White			
	Stayed Low	Downward Mobility	Upward Mobility	Stayed High	Stayed Low	Downward Mobility	Upward Mobility	Stayed High
<b>Age</b>	✓ Older	✓ Younger		✓ Younger	✓ Older			✓ Younger
<b>Education</b>	✓ Higher		✓ Higher	✓ Lower	✓ Higher			✓ Lower
<b>Marital status</b>	✓ Married			✓ Unmarried	✓ Married			✓ Unmarried
<b>Medicaid Insurance</b>				✓ Use	✓ No Use			✓ Use
<b>Nutrition Assistance</b>				✓ Recipient	✓ Non-Recipient			✓ Recipient
<b>Nativity Status</b>	✓ Born outside US				✓ Born in US			✓ Born in US

➤ Among non-movers

- No characteristics associated with neighborhood context changing

# Key Takeaways



## **What are the patterns of interpregnancy mobility?**

- ✓ Mobility is common across pregnancies
- ✓ Moving disproportionately experienced by NH Black individuals



## **What are the patterns of neighborhood context changes?**

- ✓ NH Black individuals tend to stay in neighborhoods of similar poverty level
- ✓ Among non-movers, context largely remains unchanged.



## **What individual-level characteristics are associated with neighborhood changes in movers and non-movers?**

- ✓ Movers: age, education, marital status, nativity status
- ✓ Non-movers: none

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## Co-Authors



Lynne C Messer



Lisa Bodnar

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