South Jersey Longitudinal Data Project to Advance Health Equity: Preliminary Results

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Camden Coalition
of Healthcare Providers

Introduction to overall project

- Collaboration between Camden Coalition Community Advisory Committee, Rutgers-Camden University, Rowan University, South Jersey Institute for Population Health, and Camden Coalition data team
- Combine health, social needs, social determinants, and social services data to assess evidence for multiple hypotheses about the measurement and impact of structural racism
- Engage community members and various other stakeholders throughout the project for input into hypotheses, findings, implications, recommendations/strategies, and dissemination

Accountable Health Communities hub

- Camden Coalition was one of 28 hubs across the U.S. to launch and test the Centers for Medicare & Medicaid Services Accountable Health Communities model
  - Screenings took place 2017-2022 in emergency departments and ambulatory care settings across three South New Jersey communities
  - 35,000 Medicare and Medicaid beneficiaries were screened and 7,200 were eligible for social needs navigation services
- We are evaluating navigation outcomes as part of the South Jersey Longitudinal Data Project
- Evaluation data set is not yet full constructed; only preliminary data will be discussed today

Preliminary data for hypotheses

- Focus today is on preliminary data for three of the project's hypotheses regarding place-based manifestations of structural racism:
  - Unmet health-related social needs are more prevalent in places shaped by structural racism
    - Brown and Homans (2022) defines structural racism as a "multifaceted, interconnected, and institutionalized system of relational subordination for people of color and superordination for whites that is observable as manifest, concrete racial inequalities in life chances."
  - Social needs are less likely to be resolved for residents of places shaped by structural racism
  - In places shaped by structural racism, differential outcomes are evident for Black residents compared to White residents

"Housing discrimination and zip codes have been used to impose bad schools, policing, and healthcare. A few miles can cost [B]lack people more than 20 years of life expectancy. Place matters…Racist policies strongly influenced the concentration of [B]lacks in cities and towns, and we should strive to eliminate those inherent biases and structural inequities. But we should not assume that racism is the main ingredient in the social glue that bonds [B]lack folk."

-Andre M. Perry , 2017

Socio-economic measures and population density within zip code group*

Share of Black residents within zip code	Median home value	Median household income	Average people per square mile
Low	$217,185	$69,370	3,147
Mid	$128,919	$39,686	7,093
High	$89,269	$27,874	7,074

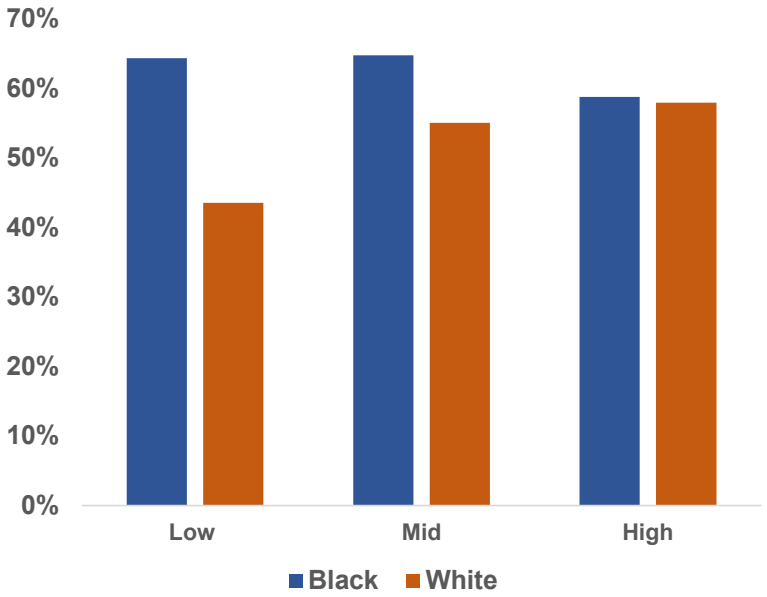
*Relative groupings based on percentage share of Black residents: Low (<= 25%) Mid (25%-40%) High (> 40%)

Screening location by Beneficiary race and zip code group*

		Low (n=7917)		Mid (n=5165)		High (n=5149)	
	All	Bl.	Wh.	Bl.	Wh.	Bl.	Wh.
ED (n=8149)	45%	50%	33%	52%	45%	50%	46%
Outpatient (n=10082)	55%	50%	67%	48%	55%	54%	50%

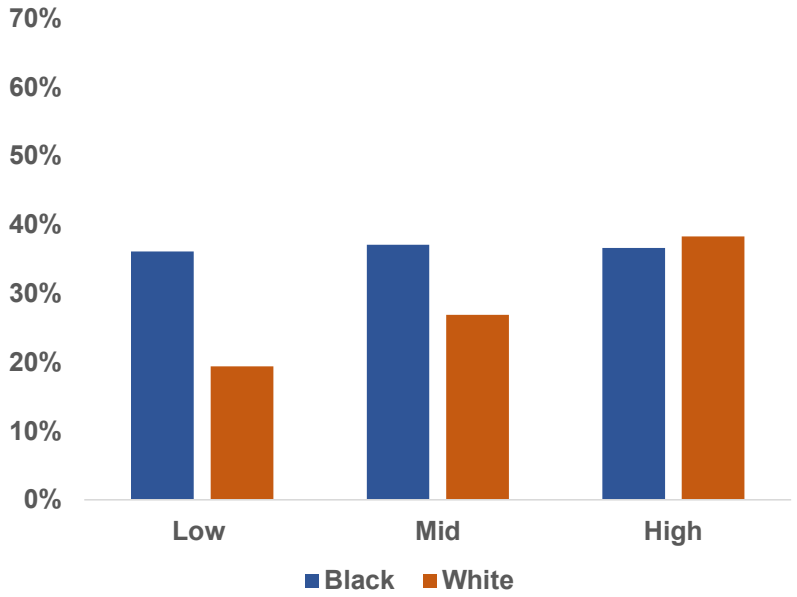
*Relative groupings based on percentage share of Black residents: Low (<= 25%) Mid (25%-40%) High (> 40%)
*Analysis includes 10632 Black residents and 7599 White residents (n=18231)
*Screenings took place at 8 hospital Eds and 32 ambulatory care settings (e.g., primary care offices, clinics)
*Interpretation example: Of the 7917 Beneficiaries screened for social needs who reside in zip codes where 25% of residents are Black, 50% of Black residents were screened in hospital emergency departments, compared to 33% of White residents screened in hospital emergency departments.

Percentage of residents reporting at least one social need by race and zip code group*



*Residents were screened for social needs related to housing, food, transportation, utilities, and interpersonal safety. 10127 Black and White residents screened positive for at least one social need (55%).

Percentage of residents eligible for navigation services by race and zip code group*

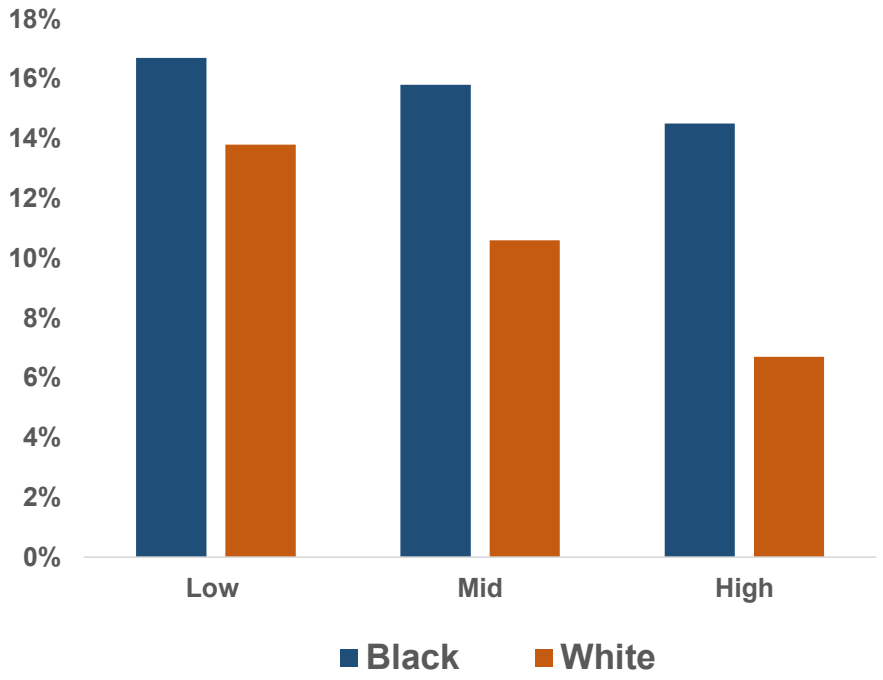


*Residents who screened positive for at least one social need and indicated they had visited an emergency department at least two times in the year prior to screening were eligible for navigation services to address their needs (n=5561; 55% of those screening positive for a social need).

2540 (48%) navigation-eligible Black and White residents initially opted into navigation services for a total of 7998 cases. Among these cases:

- **49%** of cases were not resolved because Beneficiary ultimately opted out or navigator was unable to make successful contact
- **36%** resulted in successful contact and referrals were made, but there was no evidence that social need was successfully addressed
- **14%** were resolved through telephonic navigation based on Beneficiary self-report

Navigation cases resolved



Wrap-up and next steps

- The proportion of Black residents with unmet, health-related social needs is higher compared to White residents, and the gap may be especially pronounced in strongly White-majority areas. The level of social need remains high, but the gap closes in areas with higher proportions of Black residents, corresponding to areas with lower objective socio-economic status, as measured by median home value and median household income.

- Overall, a very small percentage of social needs cases were resolved through navigation. For Black residents, the percentage of resolved cases was relatively stable across the three zip code categories, and higher than the percentage of resolved cases among White residents, suggesting the importance of robust social services and effective social services navigation for advancing equity in communities at least in the short-term.

- Measuring navigation "success" is challenging without a reliable closed-loop referral system.

Wrap-up and next steps

- So much left to untangle in the data! There are important variables to add to our analysis, including a composite measure of structural racism, to more directly assess evidence for our hypotheses, and qualitative data to help us interpret the quantitative results.

- We will use census tract-level data from the American Community Survey (ACS) to create a composite measure of structural racism (Lukachko et al., 2014):
  - Black-White differences in educational attainment, unemployment, poverty, and homeownership
  - Dissimilarity Index to measure residential segregation based on racial composition estimates in the ACS
- Multivariate models will test the effects of structural racism adjusting for individual-level demographic variables and test for potential confounding tract-level factors such as percentage of residents that are Black (as was assessed in this early analysis), income inequality, direct services availability, and labor force participation.

Discussion

Thank you. I look forward to your feedback and questions.

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