SOCIAL DETERMINANTS OF HEALTH AND EMERGENCY DEPARTMENT USE AMONG CHILDREN WITH SICKLE CELL DISEASE

Lindsay Cortright, MA; Cierra Buckman, MHS; Dmitry Tumin, PhD; Sarah Leonard, MD, MPH
Department of Pediatrics, Brody School of Medicine, East Carolina University
Disclosures

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WHAT IS SICKLE CELL DISEASE?
WHAT ARE SOCIAL DETERMINANTS OF HEALTH?
Layers of Disadvantage

- SCD disproportionally affects African Americans.
- African Americans are more vulnerable to chronic health conditions, greater illness severity, and death

African Americans with SCD are more likely to be...

- disabled,
- unemployed or underemployed,
- attain lower levels of education

disease complications +

racial health disparities
Why use a National Database?

- Most studies of SCD use clinical populations

- The CDC administers the National Health Interview Survey (NHIS) each year, designed to represent the non-institutionalized children in the US
2011-2017 NHIS data

96 African American children with SCD (81,000 US children with SCD) with a mean age 8±5 years, 52% female

• **Primary outcome**: ED use in the last 12 months
• **Secondary outcome**: hospital admission from most recent ED visit
HOW DO SOCIAL FACTORS INFLUENCE ACUTE CARE VISITS?
Children with SCD vs Children without SCD

African American children with SCD are more likely to:

• visit the ED
• live in poverty,
• be in fair/poor health,
• and have a diagnosis of comorbid asthma

Meanwhile, they are less likely to have private insurance.
Results

50% of children with SCD visited the ED (CI: 36-64%; p=<0.001) and 44% were admitted to the hospital (CI: 27-63%)

ED utilization was associated with single-mother household structure (73%; CI: 55-86%; p=0.034)

ED users tended to be younger in age (6.45 vs 9.43; p=0.022)

Children more likely to be admitted at last ED visit:
- Comorbid asthma (47% vs 20%; p=0.120)
- Fair or poor health (36% vs 12%; p=0.115)
Discussion

Could the lack of association between SDH and ED use be related to the overall high level of social disadvantage?

Compared to clinical populations, does the population-based sample give us a more accurate view?

Current clinical interventions are limited by:

- distance to treatment center,
- lack of transportation,
- inadequate insurance coverage.
- caregivers’ education, health literacy, and trust
Future Research Directions

- How do mental health conditions impact ED utilization?

- How do previous ED visits impact providers decision to admit?

- How do more granular measures of social disadvantage impact outcomes?
QUESTIONS?

Thank you!
References