

Emergency Room Use and Unmet Healthcare Needs among Children in the United States

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Background

- When used for non-urgent health issues, emergency room (ER) visits can be costly and contribute to lack of care coordination ¹
- Pediatric patients use the ER for non-urgent reasons such as difficulty accessing their primary care office due to appointment scheduling or doctor's office not being open ^{2, 3}



Study Purpose

Explore the association between emergency room use and the presence of an unmet need for healthcare among children 0-17 years old

Methods

- **Secondary data analysis:** 2016 National Survey on Children's Health (NSCH)
- **Weighted multivariable logistic regression** using SAS 9.4 program
- **Sample:** Children ages 0-17 years old (n=50,212)
- **Independent variables:** Unmet healthcare needs
 - Not eligible for services
 - Services not available
 - Difficulty getting appointment
 - Trouble getting transportation
 - Office not open
 - Issues with cost
- **Dependent/outcome variable:** Emergency room visit in the past 12 months
- **Covariates:** Household income, family structure, race/ethnicity, age of child, sex of child, and health insurance status

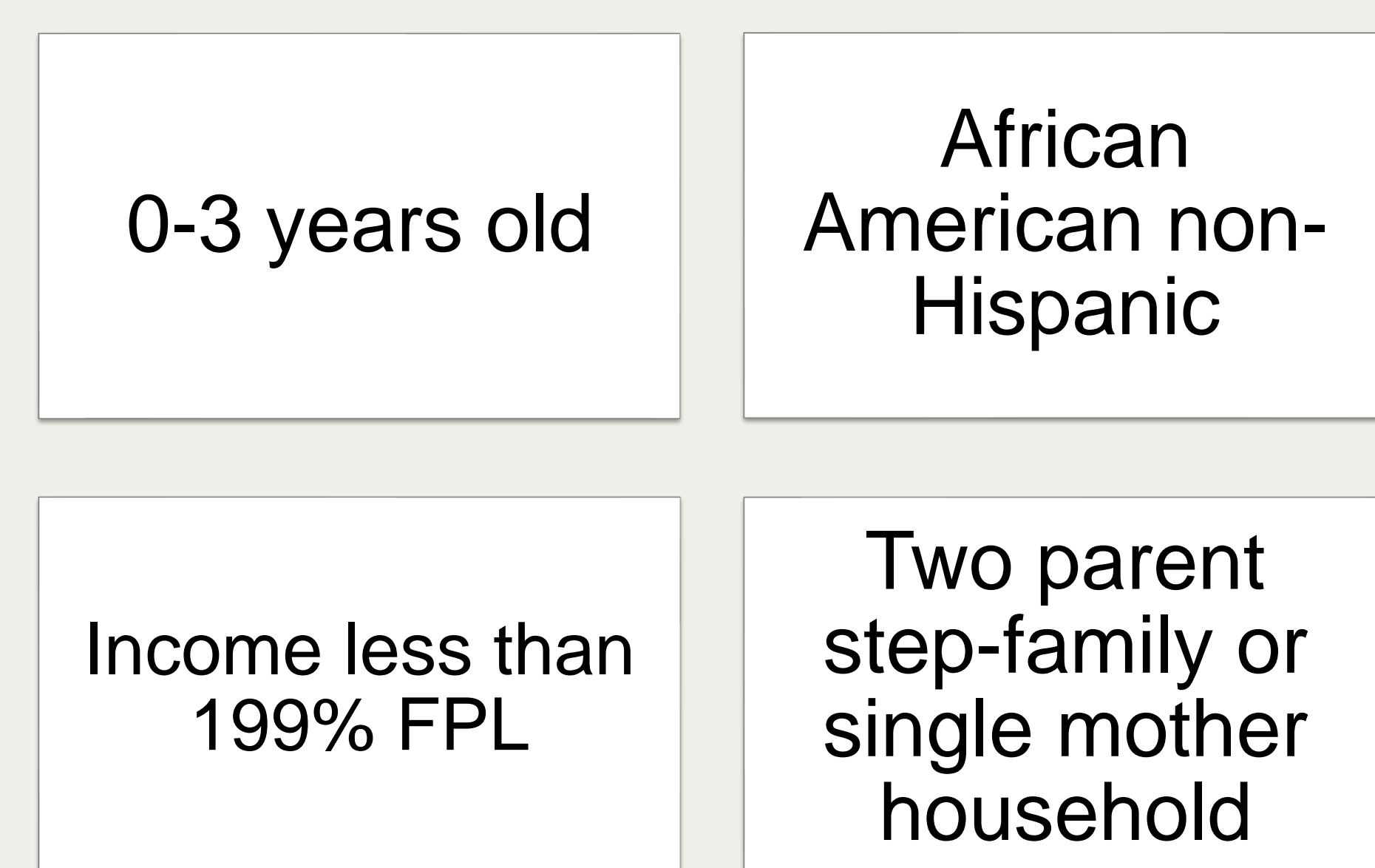
Results

Independent Variables	Weighted Crude Odds OR (95% CI)	Full Model Adjusted Odds OR (95% CI)
Age of child		
0-3 vs 15-17 years old	1.51 (1.29-1.76) **	1.65 (1.40-1.95) **
12-14 vs 15-17 years old	0.76 (0.64-0.91) **	0.76 (0.64-0.91) **
Race/Ethnicity		
African American non-Hispanic vs. White non-Hispanic	1.73 (1.49-2.00) **	1.26 (1.07-1.48) **
Household income		
<100% FPL vs >400% FPL	2.49 (2.16-2.87) **	2.12 (1.81-2.49) **
100-199% FPL vs >400% FPL	1.66 (1.45-1.91) **	1.48 (1.28-1.71) **
Family structure		
Two parent-step family vs. two parent-biological or adopted	1.27 (1.02-1.58) **	1.41 (1.13-1.77) **
Single mother vs. two parent-biological or adopted	1.78 (1.56-2.04) **	1.43 (1.22-1.67) **
Other family type vs. two parent-biological or adopted	1.55 (1.3-1.84) **	1.34 (1.12-1.62) **
Unmet healthcare need		
Services not available	3.41 (2.03-5.74) **	2.15 (1.18-3.95) **
Difficulty getting appointment	2.91 (1.91-4.44) **	1.74 (1.04-2.92) **

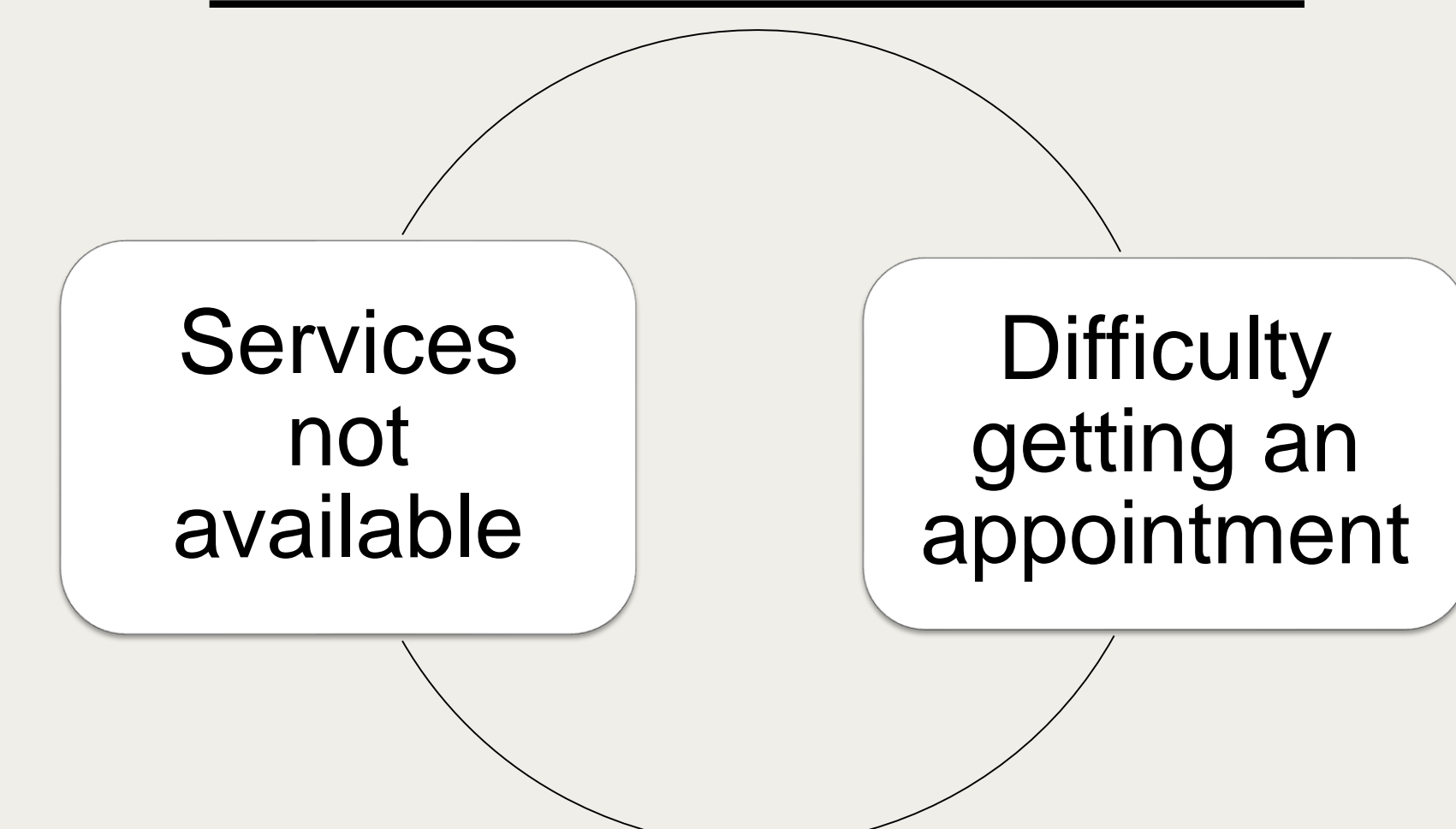
Note: ** indicates significant OR for 95% CI. Adjusted for all variables shown.

Children more likely to have an emergency room visit:

Demographics



Unmet healthcare needs



Implications

- Unmet healthcare needs can impact care coordination and quality of care
- These findings demonstrate the continued need to address unmet healthcare needs in children
- As medical costs continue to rise, additional clinical, economic, and policy initiatives must be put in place to improve the healthcare system for all children
- Ensuring children get effective care throughout their childhood can have a positive impact on their life course

References

1. Swavely, D., Baker, K., Bilger, K., Zimmerman, D., & Martin, A. (2015). Understanding Nonurgent Pediatric Emergency Department Visits. *Journal of Nursing Care Quality* 30(4), 366-372. doi: 10.1097/NCQ.0000000000000126
2. Berry, A., Brousseau, D., Brotanek, J. M., Tomany-Korman, S., & Flores, G. (2008). Why do parents bring children to the emergency department for nonurgent conditions? A qualitative study. *Ambulatory Pediatrics*, 8(6), 360. doi: 10.1016/j.ambp.2008.07.001
3. Gindi, R. & Jones, L. (2014). Reasons for emergency room use among U.S. children: National Health Interview Survey, 2012. Retrieved from <https://www.cdc.gov/nchs/data/databriefs/db160.pdf>