



I INTRODUCTION

- The increased rate of emergency department (ED) usage and admissions among pediatric SB patients may be influenced by social determinants of health (SDoH).
- The Childhood Opportunity Index (COI) is a validated measure of SDoH that has been previously associated with increased usage of acute care services in children with complex medical conditions¹.

II OBJECTIVE

To determine the **association between COI level and ED admission** among children with SB presenting at our institution's ED between 2016-2020 and determine **clinical and non-clinical factors associated with ED admissions**.

III METHODS

Design	Single institution, retrospective review
Sample	SB-related ED encounters of children with spina bifida (age < 18 years)
Study period	2016 – 2020
1° exposure	COI level
1° outcome	Hospital admission from the ED
Covariables	Age, sex, race/ethnicity, primary language, insurance, state, distance from CNMC, spina bifida lesion type/level, ambulatory status, ventricular shunt status
Analysis	Descriptive statistics, random intercept mixed effects multivariable logistic regression (to adjust for patient clustering)

IV RESULTS

Figure 1. Proportion of ED encounters resulting in hospital admission, stratified by COI level

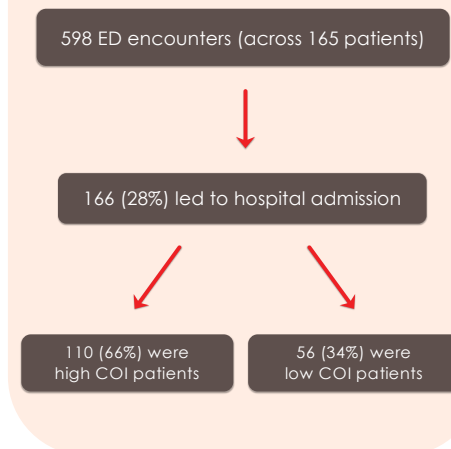


Table 1. Multivariable logistic regression

Variables	Levels	Multivariable (adjusted)	
		aOR (95% CI)	P value
COI Total	High	Ref	Ref
	Low	0.90 (0.52-1.57)	0.713

No association between COI and admission

Variables	Levels	Multivariable (adjusted)	
		aOR (95% CI)	P value
State	DC	Ref	Ref
	MD	1.86 (0.94-3.68)	0.077
	VA	3.71 (1.67-8.27)	0.001
	WVA/PA/NJ/Military	9.61 (1.01-91.04)	0.049

V CONCLUSIONS

At our institution, approximately **one-third of ED visits led to hospital admissions**.

COI level was not associated with hospital admissions.

Only **location of residence was significantly associated with hospital admission** from the ED. This finding may suggest the **need for better access to local care and community partnerships with the Spina Bifida program**.

References: 1. Fritz CD, Hall M, Bettenhausen JL, et al. Child Opportunity Index 2.0 and acute care utilization among children with medical complexity. J Hosp Med. 2022;17(6):243-251. doi:10.1002/jhm.12810