

Title: Social Determinants of Health among families seeking emergency care

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Introduction: Social determinants of health (SDOH) have a significant impact on health risks and outcomes. Inequities in SDOH such as the lack of reliable transportation or housing often lead patients and families to seek care through the Emergency Medical Services (EMS). EMS clinicians may be well-positioned to identify families with service needs not evident to hospital or clinic-based providers as they respond directly to households. The nature and prevalence of service needs reported by families seeking care by EMS and the recognition of these family service needs by EMS clinicians are not known.

Objective: To compare self-reported service needs and elements of SDOH among families seeking emergency care either by EMS or private vehicle to an emergency department.

Methods: In August 2023, we initiated a cross-sectional survey of a convenience sample of caregivers who seek emergency care on behalf of a child aged 0-5 years through an EMS activation to their location or by presenting directly to an emergency department (ED) of a large urban free-standing quaternary children's hospital or two affiliated facilities. Caregivers were eligible to participate if they are a legal guardian of the patient, speak English or Spanish, and the patient is not actively being resuscitated or has a chief complaint of maltreatment. The survey assesses 19 items across multiple domains of social service needs including mental health, substance use, food insecurity, housing or utility insecurity, access to childcare, and access to transportation. To capture dyads of caregivers and EMS clinicians, EMS clinicians are approached on arrival and asked to complete a complementary survey indicating the perceived service needs of the family. Outcomes will be measured using descriptive statistics stratified by arrival type. Intragroup comparisons will be conducted to evaluate for differences in self-reported service needs by caregivers and those identified and reported by EMS clinicians within caregiver-EMS clinician dyads. T-tests and chi-squared tests will assess the difference between the groups. Inferential statistics will be used to assess service needs based on caregiver demographics.

Results: To date, we have approached 15 families and successfully enrolled 12 (80%), 11 arriving by private vehicle and 1 by EMS. The median age of patients to date is 22 months. Average household size is 3 persons with an average caregiver age of 33.3 years.

Conclusion: Study enrollment is ongoing. Preliminary data indicated that caregivers are willing to provide information on service needs in an online confidential survey conducted in the Emergency Department. More data is needed among a larger population of caregivers and EMS clinicians who respond to their emergencies to conclude on differences in service needs by arrival type and assess the degree of accurate social needs detection by EMS.