

Title Low-intensity social care reduces child emergency care and hospital utilization: a randomized trial

Background Social care could be sustained with cost savings from reduced acute healthcare utilization.

Objective Evaluate the impact of CommunityRx-Hunger, a low-intensity, highly scalable social care assistance intervention, on acute healthcare utilization.

Methods Double-blind RCT (11/20-8/23, n=320 usual care, n=320 usual care + CommunityRx-Hunger) at an urban children's hospital with 12-month follow-up. Initiated during the child's discharge, essential intervention components included education about common social conditions, personalized information about local resources and ongoing navigator support including automated, proactive text messages (3 months) and navigator availability for participant-initiated requests (12 months). Pre-planned analyses focused on food insecure (FI) subgroup outcomes (n=223): caregiver-reported child health and number of child emergency department (ED) and hospital admissions over 12 months. Regression models were fit with treatment group, outcomes at baseline and other covariates as predictors. Odds ratios (OR) or incidence rate ratios (IRR) and corresponding 95% CIs were calculated. *Post hoc* analysis examined these outcomes among the food secure (FS) subgroup (n=414).

Results Most FI participants identified as female (95%), Black (81%), had household income <\$50,000 per year (91%) and 44% had ≥ 3 children. FI intervention group participants rated child health significantly higher at 3 months (69% vs 45% reported excellent or very good health, aOR: 2.49, 95% CI: 1.06, 5.81, p=0.04), but not at other timepoints. During 12 months post-discharge, 41% of FI children had ≥ 1 ED visit (median=0, range=0-32, intervention=30%,

control=52%, aIRR=0.49, 95% CI 0.28-0.87) and 24% had ≥ 1 hospitalization (median=0, range=0-5, intervention=15%, control=34%, aIRR=0.40, 95% CI: 0.19 to 0.86). Among FS caregivers, the intervention did not significantly impact child health or healthcare utilization.

Conclusion A low-intensity, high scale social care assistance intervention beginning with pediatric hospitalization is effective and may be sustainable by improving child health and reducing acute healthcare utilization.

Trial Registration ClinicalTrials.gov Identifier: [NCT04171999](https://clinicaltrials.gov/ct2/show/study/NCT04171999)