Food Insecurity and Community-Based Food Resources among Caregivers of Hospitalized Children: Baseline Data from the CommunityRx-Hunger RCT

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Problem

Food Insecurity (FI) is associated with poorer overall child health and increased risk for child hospitalization. In turn, child hospitalization can precipitate or exacerbate FI, compromising the health and wellbeing of the hospitalized child and their family. In 2015, nearly 25% of families of children hospitalized at Comer Children's Hospital (CCH) experienced household food insecurity (FI) in the prior year. Community-based food resources, such as food pantries and community meals, can help mitigate FI; however, only one-third of families of Comer patients experiencing FI reported using such resources in 2015.

Goal

The ongoing CommunityRx-Hunger (CRx-H) RCT is evaluating the impact of a food resource referral intervention delivered to caregivers of children hospitalized at CCH. This analysis of CRx-H baseline data describes the prevalence of FI and rates of knowledge, use, and need related to community-based food resources among CCH caregivers in the wake of the COVID-19 pandemic. This goal of this analysis is to inform approaches to community resource referral in the pediatric inpatient setting.
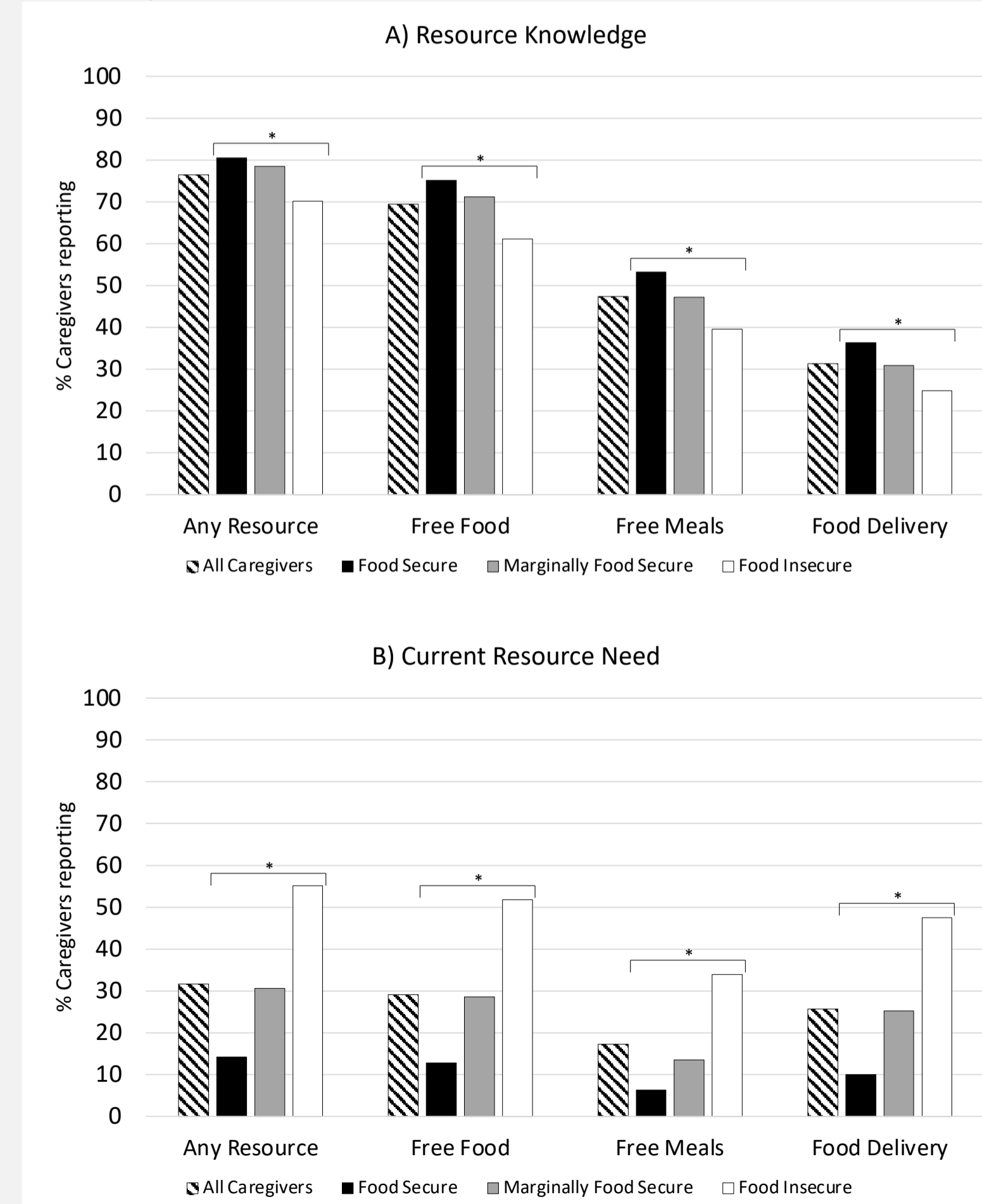
Design

- Cross-sectional analysis of baseline data from CRx-H (R01MD012630, PI ST Lindau)
- Household food security status assessed using 18-item US Household Food Security Survey [Score of 0, "food secure" (FS); Score of 1-2, "marginally food secure" (MFS); Score of ≥3, "food insecure" (FI)]
- Knowledge about, use of, and need for community-based food resources (e.g., food pantries, soup kitchens, etc.) assessed by self-report and described by food security status. Associations examined using Cochran-Armitage test for trend.
- Multivariable logistic regression used to examine relationship between use of and need for food supports ("use-need" status; predictor) and food security status (outcome; FS vs. MFS/FI); covariates included relevant sociodemographic and household characteristics
    - "Use-Need" Status Included the Following Categories:
        - Never Use/Current Need (Reference group)
        - Never Use/No Current Need
        - Ever Use/No Current Need
        - Ever Use/Current Need

Results to Date

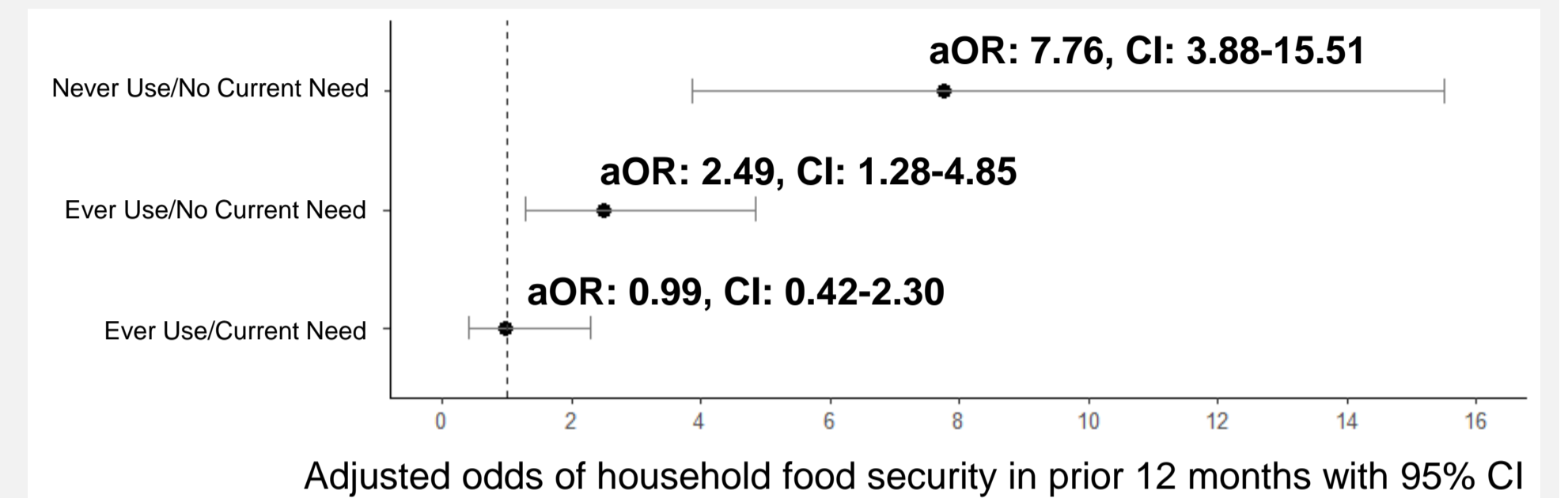**Figure 1**. Food Security Status among CRx-H Caregivers (N=637)

- 47% Food Secure
- 18% Marginally Food Secure
- 35% Food Insecure
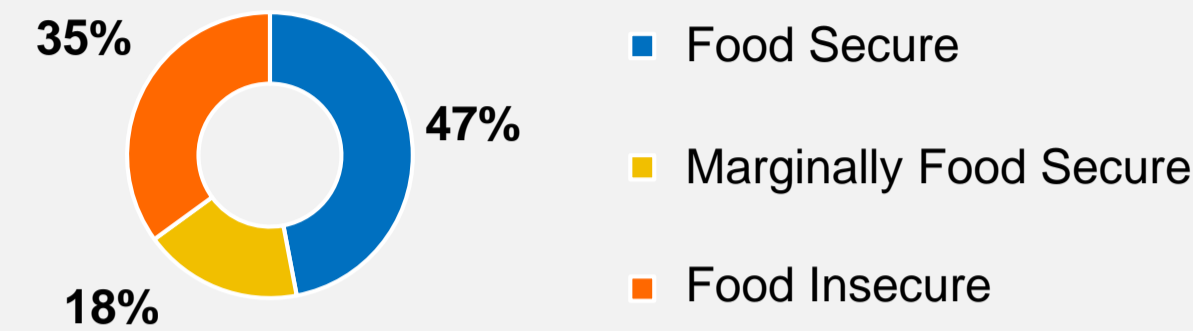
Figure 2. CRx-H Caregivers' baseline self-reported food resource knowledge and need, stratified by food security status.

A) Resource Knowledge
(% Caregivers reporting — Any Resource, Free Food, Free Meals, Food Delivery)
All Caregivers, Food Secure, Marginally Food Secure, Food Insecure

B) Current Resource Need
(% Caregivers reporting — Any Resource, Free Food, Free Meals, Food Delivery)
All Caregivers, Food Secure, Marginally Food Secure, Food Insecure

*Indicates statistically significant trend at $P < 0.05$

Figure 3. Adjusted odds[a] of household food security in the prior 12 months by food resource use-need status[b]

- Never Use/No Current Need — aOR: 7.76, CI: 3.88-15.51
- Ever Use/No Current Need — aOR: 2.49, CI: 1.28-4.85
- Ever Use/Current Need — aOR: 0.99, CI: 0.42-2.30

Adjusted odds of household food security in prior 12 months with 95% CI

NOTE: reference category for model was "Never Use/Current Need." Model adjusted for income, race/ethnicity, gender, partnership status, household size, SNAP/WIC receipt

Compared to caregivers who reported no food support use but had needs:
- Those who reported no food support use and no needs were **8x as likely** to be food secure (FS)
- Those who reported food support use and no needs were **>2x as likely** to be FS
- Those who reported food support use but had needs were **no more likely** to be FS

Key Findings & Next Steps

- Prevalence of FI among CCH caregivers markedly increased from 2015 (**25% → 35%**), likely due primarily to pandemic effects.
- Most caregivers (**>75%**) knew of at least one type of food resource in the community. Resource knowledge was associated with greater food security.
- Community-based food resource use was associated with increased odds of being food secure, provided the resources used adequately fulfilled household needs.
- Next Steps:
    - Evaluate changes in resource knowledge/use/need vs. food security status over time following resource referral intervention
    - Incorporate resource navigator function into CRx-H program to provide ongoing support after discharge and ensure resource needs are adequately addressed

Acknowledgements