

## **Intersecting Burdens: Exploring Social Drivers of Food Insecurity in Congestive Heart Failure Patients in Northwest Indiana**

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**Introduction:** Congestive heart failure (CHF) affects 6.7 million Americans, costing over \$30 billion annually. CHF is targeted by the Hospital Readmissions Reduction Program due to 30-day readmission rates of 20-25%. Food insecurity disproportionately affects those below the poverty line and is associated with increased CHF morbidity and mortality. In Northwest Indiana (NWI), nearly 100,000 individuals experience food insecurity. There is limited research on intersections between food insecurity and other Social Determinants of Health (SDOH) in CHF patients. This study investigated SDOH and clinical factors associated with food insecurity in CHF patients.

**Methods:** This retrospective cross-sectional study analyzed data from CHF patients screened for food insecurity through EPIC-based SDOH screenings at 3 urban hospitals in NWI between January 2021 and March 2025. Descriptive, bivariate (Chi-Square and Mann-Whitney U,  $p < 0.05$ ), and multivariate (logistic regression;  $p < 0.05$ ) analyses were conducted using IBM SPSS V. 31.0. The study was exempted by Indiana University (IRB #14040).

**Results:** The sample consisted of 11,874 CHF patients, with 5.1% experiencing food insecurity. Among patients with food insecurity, 35.4% were Black, 59% had high housing risk, and 71.2% reported stress. Bivariate analysis revealed significant associations ( $p < 0.05$ ) between food insecurity and age, ethnicity, race, language, veteran status, insurance type, family income, financial resource risk, housing risk, intimate partner violence risk, stress, transportation needs, cumulative social risk, hospital, smoking, suicide risk, and BMI. In multivariate analysis, medium (OR= 4.61) and high (OR= 5.05) financial resource risk, high housing risk (OR = 3.24), stress (OR = 6.54), and unmet transportation needs (OR = 3.22) were associated with higher odds of food insecurity.

**Conclusion:** This study highlights the intersection of food insecurity and other SDOH among CHF patients. Findings will inform an ongoing community-health system-academic partnership to explore lived experiences of food insecurity and connect hospitalized CHF patients with medically tailored community food sources.