

## Food Insecurity in an Urban Pregnancy Cohort

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### Introduction

Food insecurity is a prominent problem in the United States and has been implicated in adverse maternal and neonatal outcomes. This study aims to describe the food insecure population in an urban academic health center perinatal cohort.

### Methods

This is a descriptive analytic study designed to identify social determinants of health in pregnancy. We enrolled 451 postpartum inpatients at the University of Cincinnati Medical Center who completed a detailed questionnaire about the mother and pregnancy outcomes. Participants were categorized as food insecure if they answered “sometimes” or “often” to at least two of the following three USDA standardized survey questions: “How often do you feel that the food you buy doesn’t last and you cannot afford to get more?”, “How often do you feel that you cannot afford to eat balanced meals?”, and “How often do you cut the size of your meals or skip meals because there isn’t enough money?”. Regression analysis estimated the relative influence of maternal characteristics on food insecurity.

### Results

Among the study population (n=426), 18.6% (95% CI:15.2-22.4%) were classified as food insecure, which is higher than both the national (11%) and Ohio prevalence (16.9%). Factors associated with food insecurity in this cohort include (RR,CI) annual household income <\$40,000 (3.67, 1.54-8.77), Medicaid (2.27, 1.28-4.04), cigarette smoking (2.07, 1.25-3.45), illicit drug use (1.90, 1.03-3.50), food stamp utilization (1.70, 1.03-2.80), and pre-pregnancy obesity (1.68, 1.02-2.76). Food insecure women rated lower levels of love (9.4, 3.41-25.90), satisfaction (7.20, 3.10-16.69), and joy (6.77, 3.35-13.69), and higher levels of despair (2.23, 1.37-3.63) during pregnancy. Race and education were not associated with food insecurity.

### Conclusions

Nearly 1 in 5 women in our cohort were food insecure during their pregnancy. Food insecure pregnant women were more likely to be obese, have psychosocial stressors, and have other risk factors for adverse health outcomes. Food insecurity may go widely unrecognized, and we recommend the use of a validated screening tool to identify pregnant women who need assistance with food.

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