Food Insecurity and Community Needs in Diverse and Under-Resourced Populations in Howard County, Maryland

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Background: Howard County, Maryland is a racially and ethnically diverse county of 325,000 residents, yet, despite its affluence, nearly one in six residents in 2021 reported being food insecure. This study further explores food insecurity among under-resourced populations.

Objective: The objective of this study is to assess food insecurity rates and needs among Howard County residents to better inform interventions to reduce food insecurity.

Study Design, Settings, Participants: A survey was created using the Hunger Vital Sign™ screening tool and questions by providers of food pantries. The survey was available in five languages and community partners assisted with data collection. A total of 404 participants completed the survey between October 2022 and February 2023 with 91% completion rate. Participants recruited for the study include families of the Head Start and Women, Infant, and Children programs, and those accessing food from food banks and pantries.

Measurable Outcome/Analysis: Preliminary analysis was done using R to estimate the proportion of food insecurity with 95% confidence interval (CI). Participants were “food insecure” if they selected ‘sometimes’ or ‘always’ on at least one of the two Hunger Vital Sign™ questions. The study also reported the three most common needs of participants to access healthy food.

Results: Among participants surveyed (n=404), 75.25% (95% CI: 70.68%, 79.32%) are food insecure. The proportion of Whites (n=59) who are food insecure is 49.15% (95% CI: 36.05%, 62.36%) while the proportion for Asians (n=41) is 68.29% (95% CI: 51.78%, 81.42%), Blacks (n=80) is 82.50% (95% CI: 72.04%, 89.77%), and Hispanics (n=148) is 90.54% (95% CI: 84.35%, 95.44%). English speakers (n=201) proportion is 69.65% (95% CI: 62.72%, 75.82%), Spanish speakers (n=148) is 91.22% (95% CI: 85.15%, 95.05%). Participants expressed interest in having farmers’ markets (38.66%), community gardens (34.19%) and mobile food pantries (33.55%) in their communities.

Conclusion: The study’s preliminary findings show the populations that are most food insecure (Blacks, Hispanics, and Spanish-speakers) and their needs for more long-term community-level interventions to reduce food insecurity.

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Frequent Family Meals Reduce Obesity Among African American Adolescents

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Background: The prevalence of obesity is higher among African American adolescents than it is among Caucasian adolescents. The weight of adolescents can be impacted by the frequency of family meals at home.

Objective: This study aims to investigate the relationship between different parental strategies and the obesity status of African American adolescents.

Study Design, Setting, and Participants: The study design is cross-sectional. A total of 211 African American parents with their adolescents aged 10–17 years old participated in the research. Qualtrics is used to conduct an online survey. Four PSs, namely, authoritative, authoritarian, setting rules, and neglecting, and four FPPs, namely, monitoring, reasoning, copying, and modeling, are studied based on questions answered by parents and were identified based on factor analysis. Parents report their weights and heights as well as those of their adolescents. Body mass index (BMI) percentile and BMI are calculated to assess the obesity of adolescents and parents, respectively. Spearman’s correlation coefficient and Wilcoxon rank-sum test were used to finding the relationship between variables.

Measurable Outcome/Analysis: Proper parenting (ie, PSs, FPPs, and family meal frequency) that influences the prevention of obesity among African American adolescents is identified.

Results: Results reveal that although there is a significant correlation between the BMI percentile of adolescents and the BMI of their parents, there is no correlation between the obesity of adolescents and PSs and FPPs. However, a high number of family meals decreases the BMI percentile of African American adolescents. The BMI percentile score is 87.06 for those adolescents with two or fewer family meals per week and 62.45 for adolescents with more than seven family meals per week (p = 0.03).

Conclusion: The results show that family meal frequency helps ensure healthy weight status among African American adolescents. The findings of this study can be used in the development of parental education workshops and facilitate the consideration of cultural differences and the adoption of best parenting strategies to promote healthy weight of adolescents.

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