A Cost-Benefit Analysis of EFNEP Utilizing Biomarkers of Chronic Disease Risk: Year One
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Objective: The overall purpose of this study is to assess whether the Expanded Food and Nutrition Education Program (EFNEP) is a cost-effective nutrition education intervention that generates sustained improvement in chronic disease biomarkers.

Description: This study utilizes a paired longitudinal quasi-experimental design with two parallel arms (untreated control versus EFNEP) and four waves of data collection (baseline pre-test, immediate post-test, six-months-post-test, 12-months-post-test). Chronic disease biomarkers (BMI, blood pressure, HbA1c) will be measured for 500 adults (250 control; 250 EFNEP) across four state EFNEP programs (Colorado, Florida, Maryland, Washington). Difference-in-differences analysis will be used to identify the impact of adult EFNEP on chronic disease biomarkers. The estimated impacts will then be incorporated into a biomarker cost-benefit analysis to assess the economic value generated by adult EFNEP through chronic disease risk reduction.

Evaluation: Protocol finalization was a primary focus during Year One. This included creation of standard operating procedures, data collection and entry protocols, biometric data collection forms and handouts, health questionnaire data entry forms, demographic forms, data collection scripts, participant and partner recruitment flyers and scripts, data collection reminder postcards, Spanish translation and backtranslation of project documents, and IRB approval. Data collection training videos were developed and a two-part data collection training sequence was held for data collectors. Project personnel also published a pilot study introducing the biomarker cost-benefit analysis methodology to be used in this project. Partner site and participant recruitment began in Fall 2022 and is ongoing. To date, 12 sites have been enrolled in the study with pre-test data collection completed for 64 participants. Assessment of outcome measures, including biomarkers, food behaviors and intake, and demographics, will begin following completion of the 6-month-post data collection.

Conclusions and Implications: Project results will provide objective estimates of the economic value generated by EFNEP through chronic disease risk reduction and provide insight to support coordinators’ efforts to enhance programming and accurately demonstrate the economic value generated by the program to policymakers and stakeholders.

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A Research/Engagement Study Maximizing Nutrition Education to Meet Child and Parent Dietary Quality and Food Security Needs
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Objective: The objectives of this study are twofold. For objective one, the effect of adult-focused direct Supplemental Nutrition Assistance Program Education (SNAP-Ed) on child dietary quality and household food security are determined using a longitudinal (one-year) randomized, waitlist controlled, SNAP-Ed intervention comprising four core lessons to fulfill SNAP-Ed Plan Guidance with the recruitment expectation of 275 parent/child pairs from Indiana. For objective two, supplementary on-demand SNAP-Ed material to improve healthful diets for households experiencing food insecurity are created.

Description: SNAP-Ed is aimed to improve diet quality and support food security among limited resource families who experience related chronic disease and poor health. Yet, potential changes in food security and dietary quality among adults receiving the SNAP-Ed program and their children are unknown as are focused SNAP-Ed content to households with children.

Evaluation: For objective 1, dietary measures, repeated 24-hour dietary recalls for usual intake and dietary quality using the Healthy Eating Index, and food security measures, U.S. Household Food Security Survey Module, from before the SNAP-Ed intervention and 1 year later are collected. Linear mixed models evaluate potential change in the intervention and control group over time. For objective 2, a scoping review of the literature determines factors contributing to diet and food insecurity in low-resource households that are combined with the experimental study results to inform the creation of new SNAP-Ed material which will then be delivered and evaluated (pre-post-intervention design).

Conclusions and Implications: Study recruitment and intervention delivery is underway. The scoping review was completed and showed that education on parent/child behaviors is linked to food procurement/preparation and that organization and planning in the household holds promise for diet and food security improvement. Future nutrition policy and programming will be informed by results of the SNAP-Ed intervention study among adults and children and the creation of SNAP-Ed programming which will foster healthful dietary behavior and food security in households with children.

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