DeNunzio (continued)

Conclusion: Non-metro areas are underserved by availability of online SNAP purchases and pickup locations. Expanded broadband connection may encourage retailers to increase coverage of their online systems into currently underserved areas. Future research should explore delivery coverage of online SNAP purchases and the feasibility of offering produce incentive programs online.

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Improved Health Outcomes in Low-Resource Diabetes Patients After Participation in a Home-Delivered Healthy Meal Program

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Objective: Demonstrate associations between improved health outcomes and a healthy food box home delivery program for lower-income adults diagnosed with diabetes.

Use of Theory or Research: Healthy food prescription programs can improve food security and diet quality for people with chronic conditions by increasing fruit and vegetable consumption and removing barriers to healthy eating such as transportation and access to fruits and vegetables. However, there is a lack of evidence about these programs in low-resource communities and minority populations and limited research including clinical metrics.

Target Audience: Adult patients of a Federally Qualified Health Center living in priority zip codes in Stockton, CA diagnosed with diabetes.

Program Description: Through community partnerships, the Healthy Food Rx program provided home delivery of a healthy food box, including recipe cards and links to cooking demonstrations every other week for 6 months to program participants.

Evaluation Methods: Interviewer-administered surveys at the beginning and end of the program collected information about food insecurity, fruit and vegetable consumption and diabetes self-management. Glycated hemoglobin A1C (A1C) measures were obtained from medical records. Paired bivariate analyses examined changes over time in outcome variables of interest. A1C and consumption variables were also modeled with demographic characteristics to identify differences in change over time by group.

Results: Participants were predominately Hispanic/Latino (80%) and two-thirds (67%) were considered food insecure at baseline. Among those with A1C levels outside of the target range at baseline (≥7.0%), mean A1C values decreased significantly, from 9.78 to 9.28 (p = 0.02) after participating in Healthy Food Rx. Food insecurity also decreased significantly in the sample from 67% to 56% (p = 0.001). Average fruit and vegetable consumption and two diabetes self-management behaviors, following a healthy meal plan and talking with others about diabetes, also improved significantly after program participation.

Conclusion: These results indicate that a program providing healthy meals delivery through community partnerships can play an important role in improving health outcomes and food security in low-resource individuals with diabetes.

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Informal Networks and Food Security

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Background: Food insecurity does not affect everyone in the population in the same way. Previous evidence shows that a larger proportion of woman-headed households experience food insecurity compared to man-headed households (Felker-Kantor & Wood, 2012).

Objective: Analyze the association between informal networks and food security gender disparities.

Study Design, Settings, Participants: We conducted a secondary data analysis of The National Socio-Economic Household Characterization Survey, known as CASEN Survey. The CASEN is representative at rural/urban, regional and national levels in Chile. Since 2017, the CASEN Survey has included the Food Security Experience Scale (FIES) questionnaire, which has a set of eight questions that are sorted in terms of food insecurity severity and includes a questionnaire with eleven types of informal networks. We analyzed the data from the sub-sample of low-income households with children, which is the population segment with the largest proportion of food insecurity households.

Measurable Outcome/Analysis: We converted the FIES questionnaire answers into parameters associated to the probability of experiencing moderate or severe food insecurity. Then, we used mediation analysis to explain the probability of experiencing moderate or severe food insecurity as a function of a set of explanatory variables. In this way, household-head gender is associated to food insecurity in direct and indirect ways.

Results: Out of the eleven types of informal networks, we found that help in home repairs is associated with the largest and significant gender difference among low-income households with children. Woman-headed households, especially single ones, have significantly less help in home repairs.

Conclusion: The fact that a larger proportion of woman-headed households experience food insecurity can be, in some extent, counter-intuitive considering their healthier food choices and their contribution to household food security. Most of food security research has focused on household characteristics (income, education, composition), while it is implicitly assumed that the household is an isolated unit. We, specifically, show how informal network mediates the effect between household head gender and the probability of experiencing food insecurity.

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