foodsmart | CDPHP | Independent Health

Case Study
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Foodsmart's Impact on Nutrition and Food Insecurity in the Medicaid & Medicare population: A Case Study

BACKGROUND

As Medicaid and Medicare together cover 1 in 3 US citizens, it is important that low-income and vulnerable individuals and families have access to quality and affordable food to meet their health needs. The impact of providing subsidies and better access to healthy foods has been estimated to prevent 3.28 million cardiovascular disease (CVD) events and 120,000 diabetes cases, and save $100.2 billion in formal healthcare costs over the lifetime of current Medicaid and Medicare participants.[1] Furthermore, national estimates of food insecurity more than tripled to 38% as of March and April 2020, compared to 11-12% over the past five years prior to the COVID-19 pandemic.[2] Adults who are food insecure have an estimated $1,834 higher annual healthcare expenditures than those who are food secure, due largely to food insecurity being associated with numerous chronic diseases, including diabetes, coronary heart disease, hypertension, and chronic kidney disease.[3]

HOW FOODSMART BENEFITS MEDICAID & MEDICARE MEMBERS

- With Foodsmart's Foodsecure platform, members can receive healthy food subsidies, subsidized delivery fees for people in rural areas or in food deserts, or medically tailored frozen meals for those disabled and who can't cook easily
- Members can compare grocery list prices nearly instantaneously across retailers
- Foodsmart RDs deliver personalized guidance to members, including helping with technology and SNAP enrollment, and meal plans customized to chronic conditions. RDs can meet with members or caretakers via video, phone, or text, and the Foodsmart platform can be accessed through web, mobile, or print/offline
- Members are guided to healthy meal options that can be paid for with SNAP/EBT through online grocers
- With thousands of recipes, Foodsmart gives members the option to find SNAP-friendly recipes and can let them know what healthy ingredients are on sale where they live
- Foodsmart is clinically proven to change eating behaviors that are sustained over the long-term, leading to key biometric improvements including weight, A1C, cholesterol, and blood pressure

IMPACT

50%
Of food insecure users improved nutrition by 5% or more[4]

2.8x
Greater improvement in nutrition for food insecure members compared to all Medicaid/Medicare members

[1] Cost-effectiveness of financial incentives for improving diet and health through Medicare and Medicaid: A microsimulation study: https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002761; average simulated lifetime years = 18.3
[2] Food Insecurity During COVID-19: An Acute Crisis With Long-Term Health Implications: https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2020.305953
[3] State-Level and County-Level Estimates of Health Care Costs Associated with Food Insecurity: https://www.cdc.gov/pcd/issues/2019/18_0549.htm
[4] As indicated by Nutriquiz, nutrition assessment based on National Institute of Health

OBJECTIVES

We investigated Foodsmart's impact on dietary behavior and food insecurity status in the Medicaid/Medicare population among CDPHP and Independent Health (IH) members.

METHODS

Overall, 2,306 Medicaid and Medicare members enrolled into Foodsmart. Of those members, 686 took Foodsmart's nutrition assessment (Nutriquiz), a 53-item questionnaire based off of the National Cancer Institute's Diet History Questionnaire, hat ascertains users' usual dietary intake, food insecurity status, and meal planning habits. Each time a user takes the Nutriquiz, a Nutriscore is calculated that is a marker of overall dietary quality with 0 being the worst diet quality and 70 being the best diet quality. Food insecurity status is also ascertained through several questions, including "In the last 12 months, how often were you worried that money would run out before getting more food?" from the USDA's food insecurity screener questionnaire. We described baseline characteristics and diet quality change in the total Medicaid/ Medicare population and examined differences by food insecurity status.

RESULTS

Table 1: Baseline Characteristics of CDPHP+IH's Foodsmart Medicaid/Medicare Users

	Total
Age Category	
<40 years old	17%
40-59 years old	17%
60+ years old	66%
Conditions	
Overweight	72%
Obese	45%
Diabetes	23%
Prediabetes	11%
High Blood Pressure	37%
High Cholesterol	32%
High Triglycerides	10%

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Table 1: Continued

	Total
Diet Quality	
Members who improved nutrition by 5% or more	40%
Think cooking is too expensive	65%
Food Insecurity	
Members who are food insecure	20%
Members who are food insecure w/ EBT Card	44%
Members who are food insecure who thought healthy food was too expensive	100%

Baseline characteristics of the total study sample are shown in **Table 1**. In assessing the CDPHP+IH Medicaid/Medicare population, 72% of users were deemed overweight, 45% were obese, 37% had hypertension, and 32% had high cholesterol. Among users who responded that they did not cook frequently, 65% of them said that they thought cooking was too expensive. Generally, Medicaid/Medicare users had improved their nutrition substantially, with 4 in 10 users improving by 5% or more.

Furthermore, 20% of users identified as being food insecure, which is higher than the national statistic of 10.5% in 2019.[5] 100% of food insecure users responded that they thought healthy food was too expensive. However, only 44% of those who were food insecure responded that they had an EBT card.

[5] https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics

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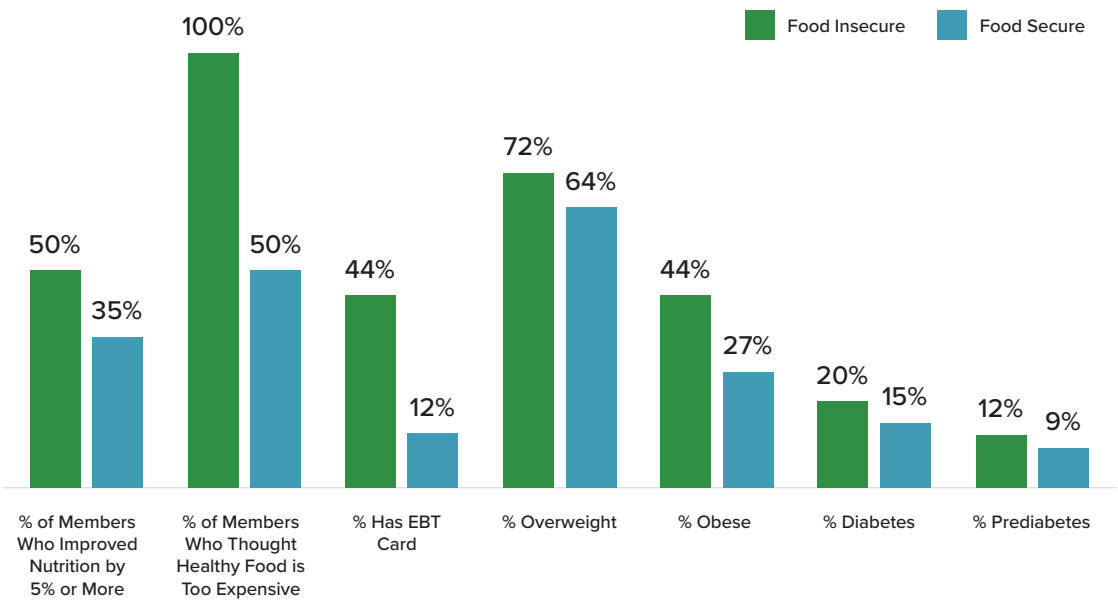
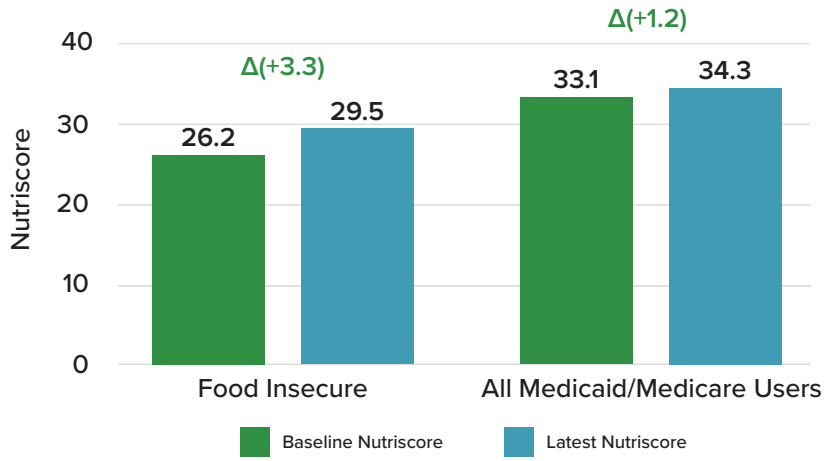
Figure 1: Baseline Characteristics of CDPHP+IH's Foodsmart Medicaid/Medicare Users by Food Security Status



Baseline characteristics of the total study sample stratified by food security status are shown in **Figure 1**. Generally, compared with food secure users, those who were food insecure were more likely to have improved nutrition over time, think that healthy food is too expensive, have an EBT card, and were more likely to be overweight, obese, have diabetes, and have prediabetes.

Figure 2: Change in Diet Quality Among Food Insecure vs. All Medicaid/Medicare Users



Note: Nutriscore ranges from 0 to 70, with 70 being the optimal diet quality.

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Figure 2 shows that food insecure users had higher improvements in diet quality (+3.3 in Nutriscore) versus all Medicaid/Medicare users (+1.2 in Nutriscore), almost a 3-fold increase. Food insecure users had a lower baseline diet quality compared with all users (26.2 vs. 33.1), emphasizing the need for improvement in this population. For comparison, the baseline Nutriscore for the overall Foodsmart population is 33.3.

CONCLUSIONS

Our preliminary findings suggest that users benefit from the platform through improved nutrition, especially those with food insecurity. As we attain more data with time, we expect even greater improvements in nutrition, as well as improvements with biometrics such as weight, blood pressure, cholesterol, and glucose. By offering a platform that is accessible by web, mobile, and offline, including Registered Dietitian visits available via text or phone, Foodsmart is able to meet Medicaid & Medicare members where they are today with technological limitations.

Considering that 56% of food insecure users didn't have an EBT card and their starting diet quality was worse, there is a considerable amount of room for improvement in terms of getting them EBT cards to help make healthier eating more affordable. Foodsmart, with its Foodsecure platform, is fit for addressing these gaps among vulnerable populations as its RDs can help food insecure members without EBT get enrolled in SNAP.

To learn more about this case study and our impact on food insecurity in the Medicaid/Medicare population, please reach out to us at **inquiries@foodsmart.com**.

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