UC San Diego SCHOOL OF MEDICINE

Center for Community Health

SOUTHERN CALIFORNIA NUTRITION INCENTIVE PROGRAM PROGRESS REPORT June 1, 2018 to May 31, 2019

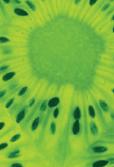












Lead Author

University of California San Diego School of Medicine Center for Community Health

Acknowledgements

This report, like the ¡Mas Fresco! More Fresh Program itself is a collaborative effort. We are indebted to our many partners who have made this report and the ¡Mas Fresco! More Fresh Program possible. Special thanks to the United States Department of Agriculture National Institute of Food and Agriculture; Northgate Gonzalez Market; California Department of Social Services CalFresh Program and the local CalFresh Programs in Los Angeles, Orange and San Diego Counties; Ecology Center; Latino Health Access, Vision y Compromiso; The California Endowment; Univision; California Department of Public Health Nutrition Education Obesity Prevention (NEOP) Branch and the local health departments in Los Angeles, Orange and San Diego Counties; our NEOP community-based partners across Southern California; Center for Good Food Purchasing; and a very special thanks to the CalFresh recipients who are participating in this study and who are providing us with the key data that comprises this report, with which we will ultimately be able to inform the USDA and others about the impact of financial incentives on the purchase and consumption of fruits and vegetables.

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Program Overview

During our third year of operation, June 1, 2018 to May 31, 2019, the Southern California Nutrition Incentive Program, also known as the ¡Más Fresco! More Fresh Program has continued the development implementation and evaluation a Food Insecurity Nutrition Incentive program for CalFresh recipients living in Los Angeles, Orange and San Diego Counties. During this time frame the ¡Más Fresco! More Fresh Program conducted 30 ¡Más Fresco! More Fresh Program enrollment events at six Northgate Gonzalez Markets in Los Angeles, Orange and San Diego Counties (2 markets per county). These recruitment events resulted in the enrollment of the program's third cohort of 1,093 randomized control trial study participants. As of May 31, 2019, we have enrolled a total of 3,476 program participants. This includes 1,153 program participants enrolled in FFY 2017 (Cohort 1), 1,230 program participants enrolled in FFY 2018 (Cohort 2) and 1,093 program participants enrolled in FFY 2019 (Cohort 3). Like our first two cohorts, Cohort 3 participants have been randomized to receive either \$10, \$20, or \$40 a month for 12-months in financial incentives. This report presents survey characteristics and in-store transaction data for program participants through May 31, 2019.

In addition to the baseline surveys collected during the enrollment of our Year 3 program participants (Cohort 3), during this last federal fiscal year (FFY), we also collected 188 12-month surveys and 166 18-month surveys from our Year 1 (Cohort 1) program participants, as well as 267 6-month surveys and 244 12-month surveys from our Year 2 (Cohort 2) program participants.

The Southern California Nutrition Incentive Program



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Department of Agriculture National Institute of Food and Agriculture



An innovative nutrition incentive program utilizing point-of-sale technologies in a large-scale retail setting

Kyung Rhee, MD, MSc, MA^{1,2}, Joe Prickitt, MS, RD², Sarah Hiller-Venegas, MPIA¹, Blanca Melendrez, MA², Kate Edra, MPH, CHES², Todd Gilmer, PhD¹ and Michelle Murphy Zive, PhD, MS, RD²

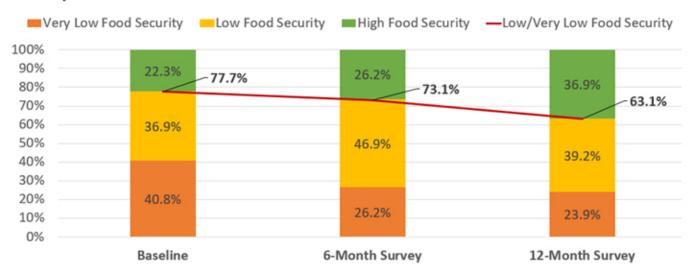
> ¹UC San Diego School of Medicine ²UC San Diego Center for Community Health



Food Security

Based on the preliminary analysis of Cohort 1 and Cohort 2 data, including self-reported survey data and point-of-sale transaction data, the program appears to have had a statistically significant impact on decreasing the severity of food insecurity among program participants (Table 1). Furthermore, the transaction data for Cohort 1 and Cohort 2 indicates that the program has resulted in a statistically significant increase in the purchase of fresh fruits and vegetables among program participants (Table 2). The data indicates that the higher the financial incentive amount received per month (\$10, \$20, or \$40), the higher the dollar amount of fruits and vegetables purchased each month. For example, the Cohort 1 \$40 Study Group spent 43% more on average per month on fruits and vegetables than the \$10 Study Group and 24% more than the \$20 Study Group. The Cohort 2 \$40 Study Group spent 74% more on average per month on fruits and vegetables than the \$10 Study Group and 21% more than the \$20 Study Group.

Table 1: Survey Data - Preliminary Pre-Post Comparison: Cohrot 1 Changes in Food Security Level.



Food Security

Table 2: Mean Amount Spent/Month on Eligible Fresh Fruits and Vegetables by Study Group.



Similar to Cohort 1 and Cohort 2 program participants, Cohort 3 program participants report a high level of food insecurity (Table 3). Based on an analysis of survey responses to the United States Department of Agriculture (USDA) *U.S. Household Food Security Survey (Six-Item Short Form)*, the self-reported level of food security among Cohort 3 indicates that 74.60% of Cohort 3 program participants suffer from low to very low levels of food security. These findings are similar to the level of food insecurity reported by both Cohort 1 and Cohort 2 program participants with 80.80% of Cohort 1 program participants and 78.50% of Cohort 2 program participants respectively reporting low to very low levels of food security.

Table 3: Percentage of Program Participants Reporting High, Low and Very Low Levels of Food Security



FOOD SECURITY LEVEL

	High	Low	Very Low	
Cohort 1	19.20%	40.10%	40.70%	
Cohort 2	21.50%	43.70%	34.80%	
Cohort 3	25.40%	42.40%	32.20%	

The United States Department of Agriculture (USDA) defines food security as access by all people at all times to enough food for an active, healthy life, which is one of several conditions necessary for a population to be healthy and well-nourished. In contrast to food security, the USDA defines food insecurity as a condition in which consistent access to adequate food for all household members is limited by a lack of resources at times during the year.

In their September 2018 report entitled *Household Food Security in the United States in 2017*, the USDA reports that during 2017 some 15 million households (approximately 40 million people, including children) were food insecure and that these food-insecure households (those with low and very low food security) had difficulty at some time during the year providing enough food for all their members due to a lack of resources. The report notes that 5.8 million households suffered from very low food security and that in this more severe range of food insecurity, the food intake of some household members, including children, was reduced and normal eating patterns were disrupted at times during the year due to limited resources.

Fruit and Vegetable Consumption

The self-reported combined intake of 2.5 to 3.2 cup equivalent servings of fruits and vegetables a day among the ¡Más Fresco! More Fresh program participants (Table 4) falls well below the 2015-2020 Dietary Guidelines for Americans recommended healthy intake of 4.5 cup equivalent servings of fruits and vegetables a day at the referenced 2,000 calories per day level. Evidence shows that healthy eating patterns, as outlined in the 2015-2020 Dietary Guidelines are associated with positive health outcomes. Strong evidence shows that healthy eating patterns are associated with a reduced risk of cardiovascular disease. Moderate evidence indicates that healthy eating patterns also are associated with a reduced risk of type 2 diabetes, certain types of cancers (such as colorectal and postmenopausal breast cancers), overweight, and obesity. Emerging evidence also suggests that relationships may exist between eating patterns and some neurocognitive disorders and congenital anomalies. Within this body of evidence, higher intakes of vegetables and fruits consistently have been identified as characteristics of healthy eating patterns.

Table 4: Median Servings of Fruits and Vegetables Consumed Per Day Among Program Participants



FRUIT & VEGETABLE CONSUMPTION

Cohort 1 2.6 Servings of FV/Day

Cohort 2 2.7 Servings of FV/Day

Cohort 3 3.2 Servings of FV/Day

Healthy Food Access

As noted by the USDA, consumer choices about food spending and diet are likely to be influenced by the accessibility and affordability of food retailers, including travel time to shopping, availability of healthy foods, and food prices. Some people, especially those with low income, may face greater barriers in accessing healthy and affordable food retailers, which may negatively affect diet and food security. Similar to Cohort 1 and Cohort 2, Cohort 3 program participants report that the single greatest barrier to consuming more fruits and vegetables is the cost of fruits and vegetables (Table 5). The cost of fruits and vegetables was indicated as the number one barrier to consuming more fruits and vegetables by 70.7% of all program participants.

Table 5: Barriers to Eating Fruits and Vegetables:

Percent of program participants who responded, "strongly agree", "agree", or "neither agree nor disagree", at enrollment to the following question:

I don't eat fruits and vegetables as much as I like to because they cost too much.

72.0%
69.6%
70.7%

Addressing this specific barrier is a key objective of the ¡Más Fresco! More Fresh Program. The primary goal of this program is to increase the purchase and consumption of fruits and vegetables by low-income consumers participating in Supplemental Nutrition Assistance Program (SNAP) by providing financial incentives at the point of purchase. Specifically, the Mas Fresco! More Fresh Program aims to test strategies that contribute to an understanding of how best to increase the purchase and consumption of fruits and vegetables by SNAP participants. The program aims to do this by incentivizing fruit and vegetable purchases, thereby increasing fruit and vegetable affordability and consumption, helping to ensure the availability of affordable, nutritious food, resulting in the improved nutrition and health status of participating households.

Baseline Enrollment Characteristics

Based on an analysis of Cohort 1, 2 and 3 baseline enrollment survey data (Table 6) including the self-reported survey responses to household food security level, fruit and vegetable consumption, barriers to fruit and vegetable consumption, and other baseline enrollment survey information provided, we see that all three cohorts share very similar characteristics.



Table: 6 PROGRAM PARTICIPANT BASELINE SURVEY DATA

	Cohort 1	Cohort 2	Cohort 3	
Gender	Mostly (93%) female	Mostly (88%) female	Mostly (88%) female	
Age (mean)	39.7 years	41.6 years	42.5 years	
Age (range)	18-95 years	18-90 years	20-91 years	
Race/Ethnicity	90% Latino(of these 90% Mexican origin), 5% White, 3% Black/ African American, 1% Asian, 1% Other	can origin), 88% Mexican origin), 89% Mo , 3% Black/ 3% White, 3% Black/ 4% Whi merican, African American, African		
Marital Status	56% Married/Living with Partner	47% Married/Living with Partner	48% Married/Living	
	22% Single	31% Single	34% Single	
	22% Widowed, Divorced, Seperated	22% Widowed, Divorced, Seperated	18% Widowed, Divorced, Seperated	
Household Size	Mean of 5.5 household members 87% have children	Mean of 4.2 household members 79% have children	Mean of 4.1 household members 76% have children	
Education	High School Incomplete: 67%	High School Incomplete: 63%	High School Incomplete: 58%	
	High School Graduate/GED: 19%	High School Graduate/GED: 17%	High School Graduate/GED: 20%	
	Any College: 15%	Any College: 20%	Any College: 22%	



Table: 6 PROGRAM PARTICIPANT BASELINE SURVEY DATA

Cohort 1		Cohort 2	Cohort 3	
Monthly CalFresh/ SNAP	Mean: \$329/month	Mean: \$302/month	Mean: \$296/month	
Distance to	65% live within 2 miles	68% live within 2	60% live within 2	
Participating Market		miles	miles	
	22% live within	23% live within	29% live within	
	3-4 miles away	3-4 miles away	3-4 miles away	
	8% live further than	9% live further than	9% live further than	
	5 miles away	5 miles away	5 miles away	

Enhanced Program Utilization

In an effort to enable program participants to better utilize the financial incentives that are available to them, for FFY 2019, program participants received their special ¡Más Fresco! More Fresh Program Mi Familia cards at the time of enrollment. This process enabled program participants to immediately start earning and redeeming financial incentives on the day of enrollment. Previously, the Mi Famila cards were mailed to program participants after the enrollment events, resulting in a delay between enrollment and utilization of financial incentives. To facilitate this new and improved process, UCSD worked with Northgate Gonzalez Market to "pre-set" the Mi Famila cards to either a \$10, \$20, or \$40 a month financial incentive and to then enter the unique identification number associated with each Mi Famila card into the Northgate Gonzalez Market point-of-sale system in advance of the enrollment events. During the enrollment events, UCSD and the promotoras distributed the Mi Famila cards to the program participants in accordance with the financial incentive level (\$10, \$20, or \$40) they were randomly assigned to. Each Mi Famila card and its unique identification number, associated with each program participant, was then logged into the ¡Más Fresco! More Fresh Program database via the Qualtrics cloud-based enrollment program. By enabling program participants to immediately start earning and redeeming financial incentives upon enrollment, we have significantly increased the level of utilization of the financial incentives among program participants, while also increasing overall program participant satisfaction. From January 2019 to May 2019 (Table 7), we have seen an increase in the total amount of incentives earned and redeemed as well as an increase in the total amount spent by program participants, including an increase in the total amount of CalFresh EBT dollars spent by program participants.

Table 7: ¡Más Fresco! More Fresh Program Transactions

		Jan-19	Feb-19	Mar-19	Apr-19	May-19
Group: 1	Incentive Earned	\$2,909	\$1,841	\$2,559	\$2,917	\$2,722
1143	Incentive Redeemed	\$3,945	\$2,289	\$2,669	\$3,030	\$2,864
	Total Spent	\$23,059	\$13,018	\$17,866	\$19,638	\$19,590
	Total EBT Spent	\$19,682	\$9,432	\$14,490	\$15,723	\$16,228
	Total Transactions	484	348	406	447	471
Group: 2	Incentive Earned	\$4,563	\$2,337	\$2,717	\$2,782	\$2,595
1230	Incentive Redeemed	\$5,117	\$3,118	\$5,203	\$5,493	\$5,228
	Total Spent	\$41,670	\$20,650	\$29,476	\$28,487	\$28,213
	Total EBT Spent	\$36,884	\$15,534	\$23,039	\$21,696	\$21,634
	Total Transactions	790	506	673	696	691
Group: 3	Incentive Earned	\$2,525	\$3,129	\$6,806	\$6,166	\$5,041
1095	Incentive Redeemed	\$777	\$2,034	\$4,112	\$5,253	\$5,119
	Total Spent	12,846	\$19,453	\$43,259	\$43,637	\$40,243
	Total EBT Spent	11,688	\$15,486	\$36,410	\$35,871	\$33,515
	Total Transactions	282	440	906	937	883
All Groups						
3478	Incentive Earned	\$9,999	\$7,308	\$12,084	\$11,867	\$10,359
	Incentive	\$9,840	\$7,442	\$11,985	\$13,777	\$13,212
	Redeemed					
	Total Spent	\$77,576	\$53,123	\$90,601	\$91,763	\$88,047
	Total EBT Spent	\$68,254	\$40,453	\$73,939	\$73,290	\$71,378
	Total Transactions	1556	1294	1985	2080	2045

Enhanced Program Evaluation

During FFY 2019, the Más Fresco! More Fresh Program and evaluation staff received advanced training in Qualtrics survey software design, development, and implementation. Qualtrics is the tool used by the Más Fresco! More Fresh Program and evaluation team to design, send and analyze surveys for the thousands of program participants. Qualtrics cloud-based survey technology provides the Más Fresco! More Fresh program and evaluation teams the ability to both input and retrieve data in real-time from a large number of respondents and to carry out sophisticated research, including advanced survey functionality and analytics. This advanced training has now strengthened the program's capacity and capability to apply survey logic and custom follow-up survey collection for the Más Fresco! More Fresh Program and to facilitate data navigation to quickly assess and determine key program insights, including ways to enhance overall program utilization and satisfaction among program participants. This training proved to be particularly important for the 2019 program enrollments, where program participants were added to the program and to the Northgate Gonzalez Market point-of-sale system in real-time, upon enrollment enabling program participants to instantly utilize the nutrition incentives upon enrollment. Furthermore, this advance training significantly enhanced the program's follow up survey collection. The program manager was able to respond to survey link requests in real time during data collection time periods. This resulted in a 29% increase in the effective collection of 12-month survey responses among Cohort 2 program participants versus Cohort 1 program participants.

Enhanced Program Outreach and Awareness

In FFY 2019, the Southern California Nutrition Incentive Program continued to promote the ¡Mas Fresco! More Fresh Program, both among SNAP and SNAP eligible community members, as well as with community-based organizations, local, state and federal agencies, the media and other key stakeholders. This program outreach and promotion has resulted in the following key outcomes:

International Fruit and Vegetable Access Conference

The University of California San Diego, School of Medicine Center for Community Health received an invitation from the Chilean Ministry of Health and the United Nations Food and Agriculture Organization to present on the ¡Mas Fresco! More Fresh Program at an international conference in Chile on programs and policies to increase the purchase, consumption and production for fruits and vegetables. In January of 2019, Joe Prickitt, MS, RD, UC San Diego Center for Community Health Senior Director of the Southern California Nutrition Incentive Program presented on the ¡Más Fresco! More Fresh Program, as well as the broader Food Insecurity Nutrition Incentive work being conducted in the United States to increase the purchase and consumption of fruits and vegetables. This conference included government health officials, and produce industry members from Chile, Mexico and from Central and South America. The key focus of this conference was to discuss programs and policies to increase the purchase, consumption and production of fruits and vegetables so as to address the obesity epidemic that is negatively impacting the lives of community members and economies in Chile, Mexico and Central and South America. As such, this conference provided the opportunity to share information to an international audience on food insecurity nutrition incentive programs that addresses barriers to access of fruits and vegetables, and which provide proven strategies to increase access to and availability of fruits and vegetables for community members.

CalFresh EBT Nutrition Incentive Pilot Project

Another key outcome of outreach and promotion of the ¡Mas Fresco! More Fresh Program and other food insecurity nutrition incentive programs is that organizations across the country are viewing nutrition incentive programs as a viable means to increase the health and well-being of community members, while simultaneously providing economic stimulus for local economies. This is evidenced by the interest of Kaiser Permanente and Palomar Health in implementing their own nutrition incentive programs, leveraging the ¡Mas Fresco! More Fresh Program's financial incentive point-of-sale system at Northgate Gonzalez Market. Furthermore, based on the successful outcomes of nutrition incentive programs nationwide, the California Department of Social Services is looking to test a CalFresh EBT Pilot Program that will add nutrition incentives directly to the CalFresh EBT card of CalFresh recipients. The California Department of Social Services has reached out to the ¡Mas Fresco! More Fresh Program to serve as a technical advisor to support the development and implementation of this new CalFresh EBT Pilot Program.

The goal of the pilot project is to develop and refine a scalable model for increasing the purchase and consumption of California-grown fresh fruits and vegetables by delivering supplemental benefits to CalFresh recipients in a way that can be easily adopted by authorized retailers of various types, sizes, and locations in the future. This pilot project aims to develop a program that will achieve the following outcomes:

- Supplemental food benefits will be transferable across any authorized retailer.
- Supplemental food benefits can be accrued, tracked, and redeemed by EBT clients in a seamless, integrated process.
- Supplemental food benefits will be accrued by EBT clients through the purchase of California-grown fresh fruits and vegetables from an authorized retailer.
- Supplemental food benefits will be redeemed to make eligible food purchases from an authorized retailer.

American Public Health Association Nutrition Incentive Program Panel Presentation, Abstracts and Poster Session

The Southern California Nutrition Incentive Program was the lead on the development and implementation of a nutrition incentive panel presentation, abstracts and poster session for the 2018 American Public Health Association conference held in San Diego, CA in November of 2018. The panel and associated abstracts and poster session provided an overview of the national Gus Schumacher Nutrition Incentive Program breadth, reach and impact, including the program's overall impact on fruit and vegetable purchases and consumption, as well as the program's overall economic impact within local communities and economies. The panel also identified and discussed key lessons learned so as to better inform future nutrition incentive work moving forward. Furthermore, the panel, abstracts, and poster session shared key insights on innovative nutrition incentive programs, technologies, and practices, including loyalty-based nutrition incentive programs, fruit and vegetable prescription programs, and farmers' market-based nutrition incentive programs. The panel also provided insights on how nutrition incentive programs are:

- Bringing together stakeholders from the distinct parts of the food system to foster understanding of how they might improve the nutrition and health status of participating households receiving incentives to purchase fruits and vegetables.
- Resulting in enhanced coordination, integration and leveraging of resources between and among nutrition incentive programs and SNAP-Ed programs to enhance the health and well-being of SNAP participants nationwide.
- Promoting Healthy Diet and Physical Activity Behaviors.
- Strengthening established strategic partnerships and strengthening implementation practices to encourage healthy eating and physical activity at the individual and community levels, focusing on high-risk groups.
- Combating childhood obesity by ensuring the availability of affordable, nutritious food and providing individuals and families with science-based nutritional guidance.

Jane Clary Loveless, PhD, RN, MS, MCHES, National Institute of Food and Agriculture, USDA, Washington, DC
Joseph Prickitt, MS, RD, University of California San Diego School of Medicine, Center for Community Health, San Diego, CA



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Insight on the promise, realization, and potential of the Food Insecurity Nutrition Incentive Program

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This panel was especially timely because it showcased innovative nutrition incentive programs as well as provided a comprehensive overview of the reach and impact of nutrition incentive programs to date. Furthermore, the panel showcased the many opportunities that nutrition incentive program provide in terms of public-private sector collaboration.

This includes broad-based collaboration, program integration and resource leveraging between and among: nutrition incentive programs; SNAP-Ed Implementing Agencies; Nutrition Education and Obesity Prevention (NEOP) programs; retailers; health care providers and researchers; food system alliance partners; and health equity, social justice and food justice advocates.

Panel presentation speakers and topics included:

- Jane Clary Loveless, Ph.D., RN, USDA National Institute of Food and Agriculture
 The Promise, Realization and Potential of Nutrition Incentive Programs.
- Martin Bourque, Ecology Center
 SNAP Incentives at California's Farmers' Markets: Enhanced Health, Food Security, and Economic Development.
- Kay Rhee, MD, MSc, MA, UC San Diego School of Medicine Center for Community Health
 - An Innovative Nutrition Incentive Program Utilizing Point-of-Sale Technologies in a Large-Scale Retail Setting.
- Alyssa Auvinen, Washington State Department of Health
 Public Health Implications of a Large-Scale, Multi-Sector Produce Prescription Program
- Lauren Headrick, MS, RD, University of Florida IFAS Extension
 Utilizing the SNAP-Ed Evaluation Framework to Integrate and Maximize Results of SNAP-Ed and Nutrition Incentive Programming.