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Feasibility Trial of Fresh Produce Delivery to Families in Home Visiting Programs

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Background

- 13 million children in the US live in food insecure households.
- Home delivery of produce may improve food security of low-income families.
- This study assessed feasibility and acceptability of leveraging a home visiting program to directly provide food to families with young children.

Objective

We completed an 8-week prospective feasibility trial of direct food provision using produce from our hospital's community garden and regional food bank using mixed methods evaluation.

Methods

- Twenty-five low-income families participating in an infant home visiting program were enrolled.
- Produce was harvested from the garden, combined with free food bank produce, delivered to home visitor program office weekly, and then delivered to the family's home by home visitor.
- Parents completed surveys to evaluate program satisfaction using Likert scales. Results were analyzed with descriptive statistics.
- Semi-structured interviews were conducted with 8 participants in English or Spanish. Transcripts were coded using deductive and inductive methods, and thematic analysis completed.

Table 1: Participant Demographics

		N(%)
Total		16 (100)
Number of Adults in Household		
	1	4 (25)
	2	8 (50)
	3	2 (12.5)
	4+	2 (12.5)
Number of Children in Household		
	1	5 (31.3)
	2-3	3 (18.8)
	4-5	3 (18.8)
	6+	4 (25)
Primary language		
	Burmese	1 (6.3)
	English	7 (43.8)
	Spanish	8 (50)
Race		
	Asian	2 (12.5)
	Black or African American	4 (25)
	Other race	3 (18.8)
	Two or more races	1 (6.3)
	White	3 (18.8)
	No response	3 (18.8)
Ethnicity		
	Hispanic	10 (62.5)
	Non Hispanic	5 (31.3)
	No response	1 (6.3)



Results

- Overall families were large and diverse in race, ethnicity, and language (Table 1)
- 286 bags (1900 lb) of produce were delivered (average bag: 6.8lb and 6 types of produce); total cost of \$48.08/family
- Most participants liked the program "very much" (94%) and would recommend it to others(100%). Participants reported higher intake of fruits and (50% "a lot more"; 44% "a little more") and 94% tried a new food.
- Thematic analysis of interviews identified (a) food variety and delivery by a familiar person as important, (b) the need for cooking instructions/recipes for the new foods that participants tried, and (c) the positive program impact on the family food purchasing, diet, and budget. (Table 2)

Discussion

- Produce delivery to families enrolled in a home visiting program was acceptable and led to increased fruit and vegetable intake and exposure to new foods.
- Supports a larger trial with comparison group to evaluate the impact on food security and fruit and vegetable intake.
- Partnerships between healthcare institutions and community organizations serving families with young children may make initiatives to address food insecurity and the consumption of fruits and vegetables more effective and feasible.

Qualitative Themes and Supporting Excerpts	
Theme 1: The food had good variety and it was convenient to have someone they know deliver the food to their house.	"Honestly, I loved the variety of the foods that we got, and we got to try some new stuff and find out what the boys do and don't like." "We've got the same lady [home visitor] for three years now. ... She would just come and just drop it off at our door and just text me that she had done that. So I liked that a lot because it was someone that I actually knew."
Theme 2: Participants liked trying new foods but sometimes could not identify the food or know how to cook it.	"There was a time when ... [there was] a little green weed, and I really didn't use them, because I didn't know how." "It was a good experience for everybody to see what they liked and what they didn't like" "Honestly, I feel like we ate pretty much everything. Even if we just tried it."
Theme 3: The program had impact on food purchasing, the family budget, and diet quality	"There was a day that I did not have [food] for that meal, and as soon as the [bag] arrived, from there I made the food, from the vegetables that I used." "It was already less worry and stress. Because ... since I was not getting stamps, then that was helping me not to worry about getting vegetables." "We weren't buying the produce so that definitely changed and [that] allotted for us to have more money...Of course, the healthier food is a little bit more expensive than the junk food, so that opened up money for us to be used on other bills..." "My husband has bought [okra] more frequently even though I don't care for it. But has had bought it ever since then, and he actually planted one!"