

GUIDELINES FOR ESTABLISHING A COMMUNITY-BASED Meal Kit Program





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Introduction

Pilot

In 2018, the University of Florida (UF) piloted a meal kit¹ program, Slice and Spice, in Alachua County, Florida, to address food security and access issues. The meal kits were prepared by a partner public high school's Institute of Culinary Arts (CA), a Career and Technical Education (CTE) program to keep costs low and serve families with low income in the local community. This CA-CTE partnership helped with logistics and costs for the intervention through ingredients procurement, kit preparation, and local pick-up site identification as labor and delivery costs contribute significantly to the overall costs of a commercial meal kit.

Participants were African-American adults with low income, at least one child etc. They received meal kits weekly for six weeks, each meal kit contained three recipes that served four people. Recipes and intervention details were selected based on input from focus groups with the target audience.

¹Meal kits consist of pre-portioned fresh and non-perishable ingredients designed for preparing one or more meals, accompanied by detailed cooking instructions for preparing these meals at home (Waxman, 2017).

All recipes met study-specific nutrition guidelines developed based on the 2015-2020 Dietary Guideline for Americans. Participants received, at no cost, all ingredients to cook the meals, waterproof recipe cards, cooking tools, and a waterproof nutrition handout each week.

The data suggested that the meal kit program had a positive impact on dietary behaviors and positively improved social/emotional outcomes like perceived stress (Zeldman et al., 2020). Data also suggested that families with low income are receptive to alternative options for procuring healthy meals, such as pre-packaged meal kits (Carman et al., 2021).

Expansion

In 2020, the same researchers who completed the pilot received a grant from the Walmart Foundation to expand this important work and improve the health and well-being of families in Alachua, Putnam, and Orange Counties. The Slice and Spice meal kit program was modified based on feedback from the pilot program, local steering committees, and members of the intended audience. Steering committees consisted of leaders involved in schools, food security organizations, food and nutrition education programs, local government, and religious organizations serving the target communities.

The meal kits were prepared by partner public high schools' CA-CTE programs (in Alachua and Putnam County) or a nonprofit (in Orange County) to continue to keep costs low and serve families with low income in the local community. In addition, nutrition education was provided to students in the CA-CTE classes. COVID-19 and the food shortages that followed significantly impacted the cost and availability of some ingredients.

Participants were adults with low income and at least one child in the home. They received meal kits weekly for six weeks. Each meal kit contained three recipes that served four people. Participants received, at no cost, all ingredients to cook healthy meals, waterproof recipe cards, cooking tools, and a waterproof nutrition handout each week. received, at no cost, all ingredients to cook healthy meals, waterproof recipe cards, cooking tools, and a waterproof nutrition handout each week.

The purpose of this tool kit is to provide comprehensive guidance for establishing a community-based, meal kit program.



Budget

A partnership with a local public high school's CA-CTE program or a nonprofit can keep costs low and provide service to local families with low income. These partnerships can provide access to resources such as kitchen facilities, staff or volunteers, supplier relationships, and storage space, which can reduce the costs associated with ingredient procurement, kit preparation, and pick-up site identification. In addition, these partnerships can also help to build community support for the program including raising awareness about the program through outreach and marketing efforts, as well as leveraging existing networks to identify and serve families in need. By leveraging existing resources and community support, the program can be more effective and sustainable over time.

Funding Sources

The funds required to develop and implement a meal kit program can be obtained through a variety of sources, including:

Federal and State grants

Federal agencies such as the US Department of Agriculture (USDA) and State agencies such as the Department of Health or Department of Health and Human Services offer grants to organizations to ensure food safety and security and enhance human nutrition.

Private donations

Private individuals and organizations can donate funds to support meal kit programs. This can be done through fundraising campaigns or direct donations to the organization providing the meal kits. Charitable contributions can be considered as an itemized deduction on annual tax returns. Private donors can verify any applicable limitations.

Corporate sponsorships

Companies may sponsor meal kit programs as part of their corporate social responsibility initiatives. This can include providing financial support, as well as in-kind donations such as packaging or ingredients. This iteration of the meal kit program was funded by Walmart Foundation.

Crowdfunding

Meal kit programs can also be funded through crowdfunding campaigns, where individuals contribute money to support the program.

Non-profit organizations

Non-profit organizations that focus on food security or hunger relief may provide funding to support meal kit programs. This program partnered with 4Roots (a non-profit in Orange County) to prepare the kits, which reduced the labor costs.

Partnerships with grocery stores or food suppliers

These partnerships can provide access to discounted or donated ingredients, which can help reduce costs and make the program more sustainable.

Partnerships with educational programs

A partnership with a local public high school's CA-CTE program or a nonprofit can keep costs low and provide service to local families with low income by decreasing the costs for the intervention through ingredients procurement, kit preparation and serving as a pick-up site.

It may be necessary to partner with multiple entities to secure the resources required to sustain the program long term.

Evaluation

During the developmental phase it is important to establish benchmarks or goals for the program and determine the best ways to assess the program efficacy in these areas. This helps to define the expected outcomes and provides a framework for assessing the program's efficacy. Below are tips for setting benchmarks or goals and assessing program efficacy:

Identify specific, measurable goals

Goals should be specific and measurable, so that progress can be tracked and evaluated over time. For example, a goal might be to increase fruit and vegetable intake by 50% among program participants.

Establish a baseline

Before implementing the program, establish a baseline measurement for each goal. This provides a starting point for evaluating progress and assessing the program's impact.

Use evidence-based measures

Use evidence-based measures to evaluate the program's impact. For example, if the goal is to increase food security, use a validated survey or measurement tool to assess the change in food security status among program participants from baseline to post intervention.

Monitor progress

Regularly monitor progress towards the established goals and adjust the program as needed to ensure that the program stays on track and achieves the desired outcomes.

Evaluate the program's impact

Conduct a formal evaluation of the program's impact using the established measures. This can help to determine the program's efficacy and identify areas for improvement.



Personnel

Personnel roles varied and were aligned with the two implementation models (CA-CTE and nonprofit) mentioned above. Additional positions supplemented changes in the non-profit implementation model.

Community Stakeholders

Steering committees were comprised of 5-7 community and/or school stakeholders. School stakeholders were made up of school staff (principal, chef, and agriscience teacher). One way to choose community stakeholders was by identifying individuals who were already active and influential within the community, typically referred to by school staff. These may be recognized leaders or representatives of local organizations. Community stakeholders should represent the diversity of the community. It should aim to include a diverse range of perspectives and ensure that individuals are representative of the community's interests and needs. Transparent and inclusive processes are essential to building trust and fostering meaningful community engagement. Responsibilities of the community stakeholders included:

- Connecting the research team to the community to recruit a diverse group of participants for the focus groups and intervention
- Planning and reviewing components of the intervention

- Helping the research team overcome barriers to implementation
- Receiving reports tailored to their counties on the effectiveness of the intervention and future plans
- Producing, gathering, portioning, and packaging weekly meal kit ingredients, recipes, and nutrition cards

For the non-profit implementation model, as a stand-in for the school stakeholders, 4Roots stakeholders were comprised the Director of Program Partnership, Director, 4Roots Farm Campus and the Community Engagement Manager. They had the same responsibilities as the community stakeholders in the traditional implementation model.

Program Staff

Program staff roles were primarily filled by the University of Florida research staff members attached to the Shelnuttt Lab. Staff members were paid UF staff employees. Each program site had a primary staff member that coordinated intervention dinners and weekly meal kit pickups. This primary staff member was actively engaged with community stakeholders ensuring that data collection dinners were successfully implemented, kit supplies were purchased, and participants received their weekly meal kits.

Responsibilities of the Program Staff included:

- Marketing
- Community outreach and recruitment
- Data entry
- Administrative Work
- Event planning (logistics, setup, and coordination)
- Story Submission reminders
- Weekly communication with participants
- Administration of evaluation tools and story submissions

Volunteers

The volunteer staff was comprised of education (high school culinary and UF research students) and non-profit (4Roots) personnel. They were identified by their specific skills, interests and motivations surrounding nutrition and dietetics. UF students were assigned to the “Nutrition In a Box” research project by joining the Shelnuttt Lab and then were assigned to the project via Institutional Review Board acceptance. High school culinary students were identified by the presiding chef and 4Roots volunteers were supplied by their organization internally. Volunteers were provided detailed information about the project, trained on evaluation tools, and assembled meal kits. Responsibilities of the volunteer staff included:

- Gathering, portioning, and packaging weekly meal kit ingredients, recipes, and nutrition cards
- Labeling Meal Kit packages
- Ensuring proper food storage
- Performing quality control of meal kits

In addition to the responsibilities listed above, UF research students were also responsible for:

- Participant Registration
- Administration of evaluation tools
- Performing quality assurance and quality control on meal kits
- Data entry and analysis of evaluation tool results

Volunteers typically have limited ability due to other commitments. UF students were not able to dedicate as much time as needed for project implementation. To account for this, flexible long-term and short-term opportunities were used to accommodate individual schedules. This allowed for an increase in the number of volunteers available to support. Volunteers' levels of engagement and commitment varied. Managing expectations and having open communication addressed gaps in availability and project needs. There was constant contact between education and non-profit volunteers.



Market Research

Market research is critical for understanding the needs and preferences, identifying potential barriers to participation, and designing a program that meets the needs of community members. During the developmental phase of the project, we conducted surveys in each of the communities to gather information on how to best serve the community from the community. Alternatively, focus groups would be an effective means of gathering this information.

Barriers

Potential barriers to participation in a meal kit program, include lack of transportation, limited access to cooking equipment, or time constraints. Survey results indicated that in addition to these barriers, cost, knowledge/ability, grocery store access, and storage for fresh food at home played a role in prohibiting food preparation at home. Strategies devised during the development phase of the project to address these included:

Transportation

Some participants may not have access to reliable transportation to pick up meal kits from the designated location. To accommodate participants with transportation difficulties we, allocated funds for delivery and delivered to the participant's door, allowed participants to designate an alternate pick-up person, and provided a flexible pick-up window.

Limited access to cooking equipment

Access to basic cooking equipment such as a stove or oven, may be limited for some participants which can make it difficult for them to prepare the meals included in the meal kit. While this program did not have the funds to provide large kitchen equipment, participants were provided with small kitchen tools during enrollment such as a colander, grater, knife, oven mitt, measuring cups and spoons, cutting mats, and a pot set. These tools were selected based on what equipment was needed to prepare the recipes selected for the program.

Time constraints

Busy schedules and other time constraints can make it difficult for individuals or families to participate in a meal kit program, particularly if the program requires a significant time commitment for meal preparation or evaluation. The recipes adapted for the program were limited to one hour, including preparation and cooking time, to minimize the time commitment required for the program. Additionally, pick-up appointments were shortened by verifying meal kit contents before participant arrival, having a low staff-to-participant ratio, and providing the opportunity to complete evaluation tools at a more convenient time via phone or online.

Cost

Though the intervention was free to participants, the team recognized that funding, community partnerships, ingredient choices, labor, and distribution would play a sizeable role in reducing the cost of the program. Additionally, program developers should establish a budget for each recipe to ensure its affordability for participants who intend to reuse or supplement the recipes.

Knowledge/ability

Similar to the pilot program, nutrition education cards were developed to cover a variety of topics including cooking terms, kitchen conversions, food safety, diet quality, and family mealtime activities. The goal of these educational resources was to supplement and improve participants' knowledge and ability to use the ingredients provided in the meal kits.

Grocery store access

Though there is an overlap of households with low income and food deserts, those with access to transportation can travel outside of their community to find affordable nutritious options (U.S. Department of Agriculture, 2011). The meal kit program catered to families of four, but enrollment was open to households of any size. Smaller families could use extra portions for future meals, while larger families could complement the kit's ingredients with store-bought items. Locally sourced ingredients in the kits potentially benefited those who needed to supplement their meals with additional items from nearby stores.

Storage

Intervention participants did not express a concern with storage for fresh ingredients at home, however, some partner programs had limited cold storage for the kit ingredients. Cold storage solutions such as portable coolers, commercial refrigerators, and commercial freezers were contributed to the programs to help store these ingredients.

Other

Unforeseen circumstances such as illness, relocation, change in employment, and change in contact methods can occur during the participation window. Flexibility from the program personnel, especially the culinary and data collection teams were crucial to maintaining these relationships during these circumstances. Where possible, the data collection team dropped off the kit on a front porch for an asymptomatic participant with COVID-19, proposed an alternate pick-up site or window, and/or used an alternate contact method such as email.

Before implementation, program developers should evaluate community-specific barriers and work in conjunction with partners and the target audience to devise strategies for overcoming these barriers. Additionally, the effectiveness of the proposed strategies should be reevaluated regularly.

Preferences

Individual preferences play an important role in consumer satisfaction, program success, and the long-term viability of the program. Satisfied participants are more likely to share their positive experiences with friends and family, leading to word-of-mouth referrals and potential new participants for the program. Here are some meal preferences to consider:

Dietary Restrictions

Some individuals may have dietary restrictions or allergies, such as gluten-free, dairy-free, vegetarian, or vegan preferences. Offering meal options that cater to these dietary needs can expand the program's appeal. Each week, participants received a vegetarian, seafood, and meat or poultry recipe based on the Dietary Guidelines for Americans and [internal nutrition guidelines](#). Program participation was limited to those without any special health-related dietary restrictions.

Cultural Diversity and Cuisine Variety

People from different cultural backgrounds may have specific culinary preferences and ingredients they prefer. Incorporating a diverse range of recipes that reflect various cuisines can make the meal kit program more appealing to a broader audience. The program offered 18 unique recipes inspired by dishes from Southern, Traditional American, Mexican, Mediterranean, and Asian cuisines. These recipes featured a combination of familiar and new ingredients, encouraging participants to explore a variety of foods just beyond their comfort zone.

Cooking Skill Levels

Some participants might prefer quick and easy recipes, while others enjoy more elaborate cooking experiences. To support skill development and engage children in the cooking process, the meal kit program focused on offering recipes suitable for beginner and intermediate levels. This not only made cooking enjoyable and accessible for all participants but also minimized the time required to prepare deliciously nutritious meals.

Health-Conscious Choices

These recipes were carefully designed to meet nutrient guidelines from the Dietary Guidelines for Americans, ensuring that they provide essential nutrients. Moreover, the meal kit recipes were crafted to meet approximately one-third of the daily caloric needs based on a 2000-calorie diet, promoting healthier portion sizes, and limiting added sugars, sodium, and fat. Nutrition labels were conveniently placed on the front of the recipe cards, empowering participants to make informed choices about their meals. Participants could personalize their meals and report those changes on the weekly survey.

Ethical and Sustainable Choices

With the growing consumer interest in sustainable and ethically sourced ingredients, offering environmentally friendly and responsibly sourced meal options is essential. Nearly half of the program participants expressed that locally sourced ingredients were important when making food purchasing decisions, showcasing a strong preference for sustainable and community-focused sourcing practices. By prioritizing ethical and sustainable choices, the meal kit program aligns with consumer values and fosters a positive impact on the environment while supporting local communities.

Meal kit programs can attract a larger customer base by considering these various meal preferences, and provide a more personalized and enjoyable culinary experience for participants.

Recipes



Recipe development and selection are vital components of a meal kit program, as they directly influence customer satisfaction, meal variety, nutritional value, and sourcing practices. Thoughtfully crafted and diverse recipes cater to different tastes and dietary preferences, ensuring an inclusive experience for participants. Well-balanced meals with clear instructions enhance the user-friendly nature of the program, making it accessible to individuals with varying cooking skills. Here are the key factors to consider:

Sourcing

Utilize seasonal ingredients to promote freshness, reduce costs, and support local producers. Partner with a local culinary arts program or nonprofit to access existing distributor networks. Whenever feasible, prioritize reputable and sustainable sources that uphold ethical practices, consider environmental impact, and maintain high-quality standards.

Format of Recipes

Create clear and easy-to-follow recipe cards with step-by-step instructions, ingredient lists, and cooking times. Visual aids can enhance comprehension. Set limits for the number of steps, ingredients, and preparation time required for each recipe.

Additional Resources

Consider providing recipe videos or online tutorials to support participants with varying cooking skill levels and learning preferences. Limit the duration of the videos to two to three minutes and maintain the same order used in the recipe cards to avoid confusion and provide a seamless learning experience.

Schedule of Recipes

Plan a diverse and balanced menu that rotates regularly, keeping customers engaged and eager to try new dishes. Ensure the weekly schedules strike a balance, offering a diverse array of recipes, protein sources, and cuisines to avoid polarizing responses. Limit the number of weekly recipes to match the production team's capacity.

Types of Recipes

Offer a variety of recipes, such as vegetarian, vegan, gluten-free, and family-friendly recipes, to suit different dietary preferences. Include a range of protein sources like meat, poultry, fish, legumes, and tofu, and integrate recipes inspired by different cuisines to add cultural appreciation and menu diversity.

Nutritional Value

Prioritize nutritionally balanced recipes, incorporating a mix of micro- and macronutrients. Establish clear guidelines that all recipes must meet before being included in the program, to ensure that participants receive wholesome and well-rounded meals.

Cost

Strive to offer affordable options by considering the overall cost, and balancing premium ingredients with budget-friendly choices. Pair recipes with similar ingredients to leverage bulk discounts and minimize food waste whenever feasible. Establish a budget for each recipe to ensure affordability and ensure continued program feasibility; this allows participants to reuse or supplement the recipes as needed while considering the program's budget and reach targets.

Participant Feedback

Prior to program implementation, collect feedback on recipe acceptability through a focus group. Throughout the program, consistently gather and analyze customer feedback to enhance recipe selections and adapt to evolving preferences.

By carefully considering these factors, a meal kit program can curate a well-rounded selection of recipes that meet the needs and preferences of a diverse customer base, while also ensuring nutritional value, seasonal variety, and cost-effectiveness.

Slice and Spice Program Recipes

The meal kit program included three recipe types (vegetarian, seafood, and meat/poultry) per week. Each recipe had a recipe card and a corresponding video tutorial and met [study-specific nutrition guidelines](#) developed based on the 2020-2025 Dietary Guidelines for Americans.

Recipe Card	Type	Video
Stir Fry Vegetables and Beef	Meat	https://bit.ly/SSVideoBeefStirFry
Tilapia Creole	Seafood	https://bit.ly/SSVideoTilapiaCreole
Black Bean Quesadilla with Corn, Avocado, and Tomato Salad	Vegetarian	https://bit.ly/SSVideoBlackBeanQuesadilla
Summer Salmon	Seafood	https://bit.ly/SSVideoSummerSalmon
BBQ Chicken Pizza with Garden Salad	Poultry	https://bit.ly/SSVideoBBQPizza
Roasted Veggie Farro Bowl	Vegetarian	https://bit.ly/SSVideoFarroBowl
Hearty Spinach Salad	Poultry	https://bit.ly/SSVideoSpinachSalad
Blackened Catfish with Cheddar Cheese Grits & Collard Greens	Seafood	https://bit.ly/SSVideoBlackenedCatfish
Bangin' Burrito Bowl	Vegetarian	https://bit.ly/SSVideoBurritoBowl
Vegetable and Shrimp Stir Fry	Seafood	https://bit.ly/SSVideoShrimpStirFry
Honey Mustard Turkey Burger with Seasoned Fries	Poultry	https://bit.ly/SSVideoTurkeyBurger
Baked Caprese Tortellini with Arugula Salad	Vegetarian	https://bit.ly/SSVideoBakedCaprese
Easy Spanish Chicken with Tomato Sofrito Sauce	Poultry	https://bit.ly/SSVideoChickenSofrito
Chimichurri Cod with Roasted Carrots & Garlic Herb Couscous	Seafood	https://bit.ly/SSVideoChimichurriCod
Lentil Tacos with Mexican Salad	Vegetarian	https://bit.ly/SSVideoLentilTacos
Baked Pork Chops with Vegetables	Meat	https://bit.ly/SSVideoBakedPorkChops
Shrimp Scampi	Seafood	https://bit.ly/SSVideoShrimpScampi
Chickpea-Powered Mediterranean Couscous	Vegetarian	https://bit.ly/SSVideoChickpeaCouscous

Reach

Personnel Recruitment

Personnel recruitment was spearheaded by the Shelnett lab to identify, retain, and develop existing talent to build the program staff and educational volunteers. University of Florida (undergraduate and graduate) students were employed as research assistants and facilitated the implementation of the program. The internal recruitment strategy utilized job boards and encouraged referrals from current research assistants. Educational volunteers were discovered through teaching nutrition classes or guest lecturing, utilizing listservs and the UF Center for Undergraduate Research, job boards, and providing class credit to students.

- Stakeholders: Made up of school staff (principal, agriscience teacher, and chef) and community members who regularly interact with members of the target audience. Community stakeholders are usually referred by school staff. Community stakeholders included but were not limited to IFAS extension agents in the supported county, city council members, non-profit
- Program Staff: Primarily filled by the University of Florida research staff members attached to the Shelnett Lab. Staff members were paid UF staff employees.
- Volunteers: The volunteer staff was comprised of education and non-profit personnel.

Community Stakeholder Recruitment Strategies

- Stakeholder Referrals
- Researched community organizations
- Leveraged existing relationships (IFAS extension agents, partners from previous projects)

Target Audience Participant Recruitment

Participant recruitment was required to identify suitable candidates for program implementation. The recruitment strategy centered around the assistance of Community and School Stakeholders to provide various opportunities and locations. Recruitment events, personal referrals, campus recruitment, and other opportunities were established by the stakeholders. Community members assisted with targeted outreach identifying specific organizations and groups that aligned with the purpose of the program. Additional schools in the surrounding area were surveyed when recruitment numbers were low. Screening meal kit participants consisted of measuring them against eligibility criteria. Participants must be the main food preparer, SNAP-eligible, 18 years of age, speak English, and have at least 1 child in the household.

- Focus groups: Stakeholders connect study staff with these participants. They should be adults over the age of 18 who qualify for food assistance programs and are the main preparers of meals in their household. They must also have at least one child under the age of 18.
- Meal Kit Participants: They should be adults over the age of 18 who qualify for food assistance programs and are the main preparers of meals in their household. They must also have at least one child under the age of 18. Stakeholders connect study staff with these participants. They may also be contacted through advertising with social media, flyers, or other means.
- Students: These are children enrolled in the culinary and/or agriscience program at the school.

Advertising

Recruitment was a concerted effort, accomplished by program staff, volunteers, stakeholders (community and school) as well as potential participants. Successful recruitment hinged on eligibility screening and widespread advertising in the targeted areas. Advertising methods are listed below:

- Flyers: Created and distributed to local schools, churches, food banks, and community events in the targeted area
- Social Media: Flyers were posted digitally on community member's sites increasing the radius and reaching more in the targeted area

- Community Events (in-person advertising/recruiting): Program staff participated in community events such as food pantries and giveaways, health events recommended by community stakeholders to distribute flyers and indicate interested people for further screening
- School Pickups: Program staff joined the student pickup lines at various educational facilities and distributed flyers to the parents/guardians
- Referrals: Potential participants, program staff, volunteers and stakeholders provided names and phone numbers of other interested parties



Implementation

Stakeholders

Approximately one year before the intervention, 8 to 10 local stakeholders (school-based personnel and community members) were recruited to contribute feedback through quarterly Zoom meetings. These meetings were recorded, transcribed, and thematically analyzed. Immediate actionable items were documented during the meetings for prompt follow-up. The first meeting used semi-structured prompts and questions to initiate conversations, describe the intervention, and understand the community's nuances and needs. Subsequent meetings facilitated troubleshooting and decision-making for program components. Stakeholders actively aided in recruiting the target audience for focus groups and the intervention and led the meal kit production process. Stakeholders were compensated for their time.

Meal Kit Production Models

Both the high school culinary program and the nonprofit adopted similar models to produce the meal kits efficiently and effectively.

- High School Culinary Program: The culinary instructor in the high school program led the initiative and managed tasks such as storage, preparation logistics, and ingredient procurement. They also incorporated the associated tasks as practical applications of lesson plans for the students and coordinated their weekly tasks.

- Nonprofit Community Organization: Similarly, at the nonprofit, the community engagement manager and farm campus director were responsible for managing tasks such as storage, preparation logistics, and ingredient procurement. Volunteers provided support with the weekly tasks such as measuring ingredients.

Target Audience

During the COVID-19 pandemic, focus group scripts were adapted into surveys due to recruitment challenges. Each community provided approximately 15 one-time responses, sharing their perspectives on various factors influencing meal decisions and preparation, cooking habits, mealtime routines, barriers to preparing meals at home, and their willingness to try the Slice and Spice meal kit service, including the 18 recipes offered. The collected survey responses were carefully analyzed and integrated into the program implementation process. Participants were compensated for their time, and those who expressed interest were invited to participate in the meal kit program.

Eligible participants from all recruitment avenues were invited to an enrollment dinner hosted at a local community partner site, which also served as the pick-up location for future meal kits. Appointments were staggered by 30 minutes to ensure a smooth process. Upon arrival, participants checked in and went through the consent process. Depending on traffic, they were paired with a research assistant to begin surveys or health screenings. Participants could choose between paper surveys or digital surveys via mobile tablet for convenience. Health screenings were conducted in a private room to ensure confidentiality. All participant data, except for the informed consent, registration, and compensation forms, used a unique participant ID assigned after completing the consent process. After data collection, participants received a to-go meal for themselves and their RSVP'd guest(s), along with a welcome kit containing cooking tools, pots, and pans, and a recipe binder to store recipe cards and nutrition handouts. They also received their first meal kit, and compensation, and indicated their preferred pick-up window and contact method. Participants were allowed to withdraw from the program at any point and those who missed more than two meal kits were automatically withdrawn.

Delivery

Families received meal kits weekly for six weeks. Each meal kit contained all the ingredients to prepare three nutritious recipes (meat, seafood, or vegetarian) that served four people, recipe cards, and a nutrition handout. The week before pickup, participants were texted their weekly story submission prompts. While on-site, the meal kits were rechecked for accuracy against the weekly recipe cards before distribution. If there were discrepancies, they were immediately fixed on-site. Meals were delivered to a central location by program staff and kept in cold storage. Each site utilized that location for weekly meal kit pickups by the participants.

There were, at a minimum, two days each week, for 4 hours each day, in which participants were able to pick up their meals. In addition, weekly consumer choice surveys and verbal story submissions recorded via a mobile tablet were collected by program staff during meal pickup appointments.

If a participant was unable to retrieve their meal kit during the specified day or time, an alternative pickup person was eligible to pick it up in their stead. Before the program staff passed off the meal kit to the alternative pickup person, the primary participant had to complete the weekly consumer choice survey and story submission sent digitally via links by program staff. Study tools were housed in the REDCap data collection tool. In some cases, participants were unable to attend during their pick-up window or send an alternative person to retrieve their kit. In those instances, some kits were able to be held by the central site for an additional day, or program staff were able to drop the kit off at the participant's home. If dropping off a kit at a participant's home, personnel would pre-send the weekly consumer choice survey and use a recording device to capture the weekly verbal story submission.

An SMS application primarily facilitated communications between program staff and participants. Weekly pickup reminders and story submission prompts were communicated through the application as well as general communications. Secondary methods consisting of phone calls and emails were exercised if the primary contact method went unanswered.

The same process was repeated for the 6-month follow-up. Communication started 1-month before intervention with program staff sending story submission prompts and scheduling appointment times. Program staff kept in contact with participants until the actual intervention.

Students

Student Participation

Students were primarily recruited from the culinary arts and agriscience programs at four partner high schools. The study aimed to identify predictors of diet quality and evaluate the effectiveness of a multi-strategy approach nutrition education curriculum on the diet quality. Both objectives were assessed using the same evaluation tools, with aim 2 incorporating an intervention.

Curriculum Development

The curriculum development process involved several key steps starting with a review of the Sunshine State standards and identifying areas for supplemental curriculum by comparing them to class syllabi. Components were tailored to encourage increased fruit and vegetable intake; academic outcomes assessments were developed in consultation with teachers and nutrition experts.

Intervention

Throughout the curriculum students participated in four nutrition education lectures covering essential topics related to healthy eating and community engagement. The lectures were complimented by learning reinforcement tools such as healthy snacks, activities, and technology-based story submissions. The curriculum also featured a skin carotenoid status competition motivating students to vie for the highest individual and composite score by increasing their fruit and vegetable intake. Additionally, students were introduced to potential careers in the food system through a video showcased showcasing local food system professionals, who shared insight into their careers and the necessary steps to pursue them. The study also assessed students' satisfaction with their class and career plans before and after one year in an agriscience or culinary arts class. Survey data, height, weight, and skin carotenoid status were collected over two to three class periods while each lesson was covered in a single class period.

Reporting



Reporting utilizes a systematic approach to collect, analyze, and present data and information to communicate important aspects of the program to relevant stakeholders. It serves as a tool for transparency, accountability, decision-making, and communication. Annual reports and community impact reports communicate the same message in slightly different ways.

Annual Report

An annual report is a comprehensive document that summarizes the program's activities, achievements, and finances during a specific fiscal or calendar year. Subsections may include:

- Program Summary: A concise overview of the program's mission, objectives, and activities conducted during the year.
- Expenditures: A detailed breakdown of the budget and spending.
- Locations: A list of the geographic areas served by the program.
- Timeline: A chronological description of significant milestones and events that occurred during the year.
- Story Collection Process and Success Stories: A description of how narratives and qualitative data were gathered and sample quotes from participants that illustrate or describe the program's impact.

- Impact on the Individual and Community: An understanding of the program's strong effects on the targeted individuals and/or community.
- Program Evaluation (Outputs and Outcomes): A way to determine the effectiveness and impact of an intervention.
- Successes and Challenges: Key achievements and noteworthy accomplishments from the past year as well as any obstacles or difficulties encountered during program implementation and how they were or will be addressed.
- Partners: Acknowledgement of community partners that contributed to the program's development and/or implementation.
- Lessons Learned: Primary takeaways from the development and/or implementation process.
- Donor Recognition: Acknowledging and showing appreciation for organizations that have contributed to the program's success.

Community Impact Report

A community impact report highlights the outcomes and effects of the program within a community during a specific fiscal or calendar year or at the conclusion of the program. This document primarily presents the information graphically. Subsections may include:

- Program overview: A concise summary of the report's contents and purpose, offering a quick understanding of the key aspects of the program being analyzed.
- Program Priorities: Identifying and ranking the most important objectives, areas, or goals of a program.
- Community Partnerships: Relationships between organizations within the community to achieve common goals.
- Challenges: Any obstacles or difficulties encountered in the community during program implementation and how they were or will be addressed.
- Program Reach: The extent of the program's influence or exposure to the target population.
- Program Impacts: An understanding of the program's strong effects on the target community.
- Participant Stories: Personal accounts by those directly impacted by the intervention.

Conclusion

A community-based meal kit program can be a transformative and highly beneficial initiative for numerous reasons. By offering convenient, nutritious, and culturally diverse meal options, such programs address food access challenges, particularly in underserved communities, while promoting healthier eating habits and culinary exploration. The comprehensive toolkit presented here serves as a guide for program developers to navigate the intricacies of creating and implementing a successful meal kit program.

By following the steps in the [toolkit summary infographic](#) and leveraging the toolkit's insights, program developers can create a meal kit initiative that not only addresses food insecurity but also fosters community engagement, healthy eating habits, and sustainable practices, ultimately contributing to the well-being and empowerment of the communities they serve.

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