



United Way of
Southwestern Pennsylvania
Pittsburgh, PA, USA

- Non-profit organization with over 50,000 annual donors, volunteer, and team members
- FitUnited--initiative established to create a community of healthier children
- Program designed to deliver 10,000 healthy meals to local food deserts
- Over 5,000 healthy snacks provided to low-income Pittsburgh neighborhoods

Understanding and Managing Costs: Prototyping and Scaling Healthy Meal Home Delivery in Food Deserts to Create a National Model

FitUnited, in partnership with the Hillman Foundation, the YMCA, the United Way, and the Greater Pittsburgh Community Food Bank, prototyped a program to locate, engage and deliver healthy, fresh food to in-home child care providers in food deserts in and around the City of Pittsburgh.

The aim of the program was to design and implement a pathway from start to finish, to break through the existing silos to identify a comprehensive list of stakeholders and the role that they play in food sourcing, repack, delivery and use. Another aspect of the process to take into consideration was that the budget relative to the scale of the program was extremely limited; end users needed to sign up to use a food subsidy to purchase, repack and deliver the fresh fruits and vegetables, meats and nutritious shelf-stable goods. Providers were asked to give up their food subsidy in exchange for the food boxes delivered weekly by FitUnited. At the conclusion of the pilot, the United States Department of Agriculture (USDA) considered promoting the FitUnited pilot to be a national model given the prototype, process-mapping, end-user engagement, and results that were achieved in six months on an extremely limited budget.

“ It was discovered that using the same amount of grant funding and by implementing the goShadow recommended opportunities for improvement, more than double the number of children could be fed within the constraints of the current pilot. Undergoing a thorough examination of programmatic redundancies and increasing delivery efficiency made the pilot available to more children with a higher return on the initial investment for the grantors. ”

Kristi Burry
Director, FitUnited
United Way of Southwestern PA



Challenges

Challenge 1: Repack

How and when should fresh/frozen/shelf stable food be repacked to maximize food storage space and quality? Along with shadowing the food delivery into homes, end-users reported that they had very limited shelf, refrigerator, and freezer space to store food for sometimes tens of children for even a week. The team wanted to ensure that food was not wasted due to spoilage or lack of space.

Given that many of the repack personnel are retired and volunteer at the Food Bank, how are they most efficiently used to pack the shelf stable, frozen and refrigerated food by household size that varied? The Greater Pittsburgh Community Food Bank repack team needed to determine the best way to pack each box to suit the requirements of each household while maximizing space while making the boxes portable enough to carry up multiple flights of stairs.

Challenge 2: Delivery

What is the most efficient and cost-effective way to deliver the boxes of fresh food to the in-home daycare providers? The size and type of trucks that is best suited to navigate the aging urban neighborhoods, which are often congested and fraught with barriers such as low bridges and unpassable hills, needed to be determined.

After determining the type of truck, the most direct delivery route needed to be determined to ensure that food did not spoil and that the end-users could receive their food within the 30-minute timeframe that was given to them. During summer months, the additional consideration and expense of a refrigerated truck had to be mapped to determine if it was more efficient to divide the larger deliveries into two or to hire a refrigerated truck, Either option impacted the repack of the food and the established blueprint for delivery.

Challenge 3: Scalability

Is it possible for this model be scaled to larger markets beyond the 250 children and providers that are a part of the pilot in the Greater Pittsburgh Area? Other cities with diverse population density, food access, and topography would have to determine how to fund and adapt the FitUnited process map to their own environment and end-user needs.

Ultimately, it was the goal of the FitUnited and goShadow team to show proof of concept and to continuously establish a more ideal pathway for this process. The unique needs of the many stakeholders needed to be continuously shadowed and integrated in order to deliver the most nutritious food to the maximum number of children given the same resources.

goShadow Process

Using goShadow's quantitative timers for people and place, and qualitative notes used to collect end-user feedback and observations about the process, each process was detailed real-time. The complete pathway was shadowed six times over the course of the 12-week program to integrate and measure process improvement ideas and to establish a data-driven prototype that could be adapted and scaled. Alongside FitUnited and Greater Pittsburgh Community Food Bank staff, goShadow mapped the repacking of food boxes, recorded impressions of Food Bank staff and volunteers, and timed the repack of small, medium and large orders.

The goShadow team rode with the drivers to time delivery to each neighborhood and home. Everything from the process of food handoff to feedback from drivers and the end-users was collected. Challenges with food storage within each home were documented and ideas for improvement were collected from the end-users' perspectives.

Once all shadowing data was collected, time studies, experience flow maps, and accolade and improvement reports were generated. These reports were combined with the impressions of delivery drivers, Food Bank staff and volunteers to create a comprehensive programmatic view of the Healthy Meals Home Delivery process for review by FitUnited and the United Way, Mission Logistics, the Greater Pittsburgh Community Food Bank, other funders, and stakeholders. All stakeholders were able to align their goals and operational plan around the data sets and reports, allowing for essential cooperation among multiple organizations who were previously siloed from one another.



Results

Using timers for locations, processes and stakeholders, alongside user insights and aggregated goShadow reports, FitUnited was able to make actionable changes to decrease both the total delivery and repack time. Due to the topography of Pittsburgh neighborhoods and the amount of food delivered daily, a 16-foot box truck was functionally unnecessary and delayed timely delivery of food. For the remainder of the program, a 12-foot truck was used, reducing delivery time by more than 2 hours. It was further noted that, due to rising seasonal temperatures, a refrigerated box truck would be needed to accommodate the safe delivery of refrigerated foods during the summer.

Additional recommendations were made to the FitUnited team relating to scalability, including consideration of the type of vessel used to transport the food, wait time for the food to be located within the Food Bank in preparation for re-pack, factors affecting delivery time such as time of day and traffic, as well as valuable qualitative insights from each stakeholder group. It was discovered that, by using the same amount of grant funding and by implementing the goShadow recommended opportunities for improvement, more than double the number of children could be fed throughout urban neighborhoods and within the constraints of the pilot. Undergoing a thorough examination of programmatic redundancies and increasing operational efficiency made healthy meals and fresh food available to more children with a higher return on the initial investment for the grantors.



The number of children fed was doubled while using the same amount of funding after goShadow's recommendations were implemented



Scaling the project was made possible with greater understanding of the bottlenecks in the current delivery methods



Re-packing and delivery times were both decreased significantly improving program efficiency and sustainability

