

## **CHANGING EATING HABITS APP PROBLEM AND MINIMAL VIABLE PRODUCT**

### **Problem Description**

Children in low-income and minority neighborhoods are less likely to have access to healthy food options compared to children from more affluent, White neighborhoods (Wang, 2007, as cited in Elbel et al., 2015). Although poor nutrition affects children across all social-economic classes, it affects children from low-income households the most (Caprio et al., 2008). While wealthier neighborhoods are more likely to have chain supermarkets that offer fresh, affordable produce, low-income neighborhoods are more likely to have fast food restaurants and small groceries that sell nutrient-poor foods and beverages (Elbel et al., 2015). Furthermore, studies show that the prices of low energy, but high nutrient foods, such as fruits and vegetables, have increased more compared to the price of poor nutritional foods (Drewnowski & Darmon, 2005). Since low nutrient foods are less expensive compared to fruits and vegetables, they are more prevalent in the diets of people from low-income families (Darmon & Drewnowski, 2008).

The effects of these nutrition disparities in children from low-income households include the rise in obesity, which increases the risk of diabetes and cardiovascular disease. To address poor nutrition of children in low-income neighborhoods, many solutions have been designed and implemented, ranging from informational campaigns<sup>1</sup> to subsidized supermarkets. A 2015 study found that the introduction of a government-subsidized supermarket into an underserved Bronx neighborhood only led to small, inconsistent changes over time, and no appreciable difference in the availability of healthy foods at home, or in children's dietary intake as a result of the supermarket, leading to the possibility that proximity to healthy foods alone does not solve the problem of poor nutrition of children in low-income neighborhoods (Elbel et al., 2015). COVID-

---

<sup>1</sup> One example of this is Youth Food Educators Program, an initiative from the CUNY Urban Food Policy Institute.

19 has likely exacerbated these nutritional challenges (Dunn, Kenney, Fleischhacker, & Bleich, 2020).

The problem this project is tackling is poor nutrition in children from low-income families and the target market is parents with children from low-income families in the Bronx since they are responsible for the nutritional needs of their children.

The primary purpose of this project is to address multiple pain points of poor nutrition in children from low-income households. The pain points that my project is trying to solve are budgeting for nutritional meals by finding healthier, affordable ingredients; planning for healthier food options throughout a week; and connecting users to supermarkets and farmers markets for access to better quality foods. Through my application, the secondary purpose is to provide information and resources that users can take to solve the problem themselves.

The underlying source of poor nutrition among children from low-income families is poverty because it decreases the accessibility to resources that can help people from low-income families have healthy food options. If proximity to healthy foods alone cannot improve children's nutrition, could a behaviorally informed nutrition application for parents help?

### **Minimal Viable Product**

This project's Minimal Viable Product is a smartphone application with three features – all aimed at providing healthy and affordable recipes to users and their families, from books and other websites, both in English and Spanish. These recipes will provide healthier alternatives to prepare popular cultural dishes. Users will be able to select recipes and add them to **weekly calendars** so

they can prep for the week ahead of time<sup>2</sup>. The calendar will be broken down by breakfast, lunch, and dinner sections where users will add their chosen recipes for the week. In addition to this, there will be a **groceries cost calculator** dedicated to calculating users' grocery costs and the number of products needed for each recipe according to family size and the number of meals they would like to make with each recipe. This cost of groceries will be calculated using local supermarket prices and products, so my app will work with local supermarkets to get access to their item prices and brands. In the breakdown of the cost of items from each recipe, there will be options to select more affordable fruits and veggies from farmers markets and to remove items that users already have at home, cutting down on the cost of food. It is important for children from low-income families to have access to fresh, high-nutrient foods. Therefore, my app will work with farmers markets and **show the closest farmers markets** to users in their neighborhoods. It will also inform users of the produce being sold by each farmer and vendor, and educate them on how they can use food assistance programs, such as Supplemental Nutrition Assistance Program (SNAP), The Emergency Food Assistance Program (TEFAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), to purchase food at farmers markets.

To learn more about the lean business model canvas for the Changing Eating Habits app, click [here](#).

---

<sup>2</sup> Behavioral research shows that people are more likely to follow through on an action if they plan for it (Rogers, Milkman, John, & Norton, 2015).

## References

- Caprio, S., Daniels, S. R., Drewnowski, A., Kaufman, F. R., Palinkas, L. A., Rosenbloom, A. L., & Schwimmer, J. B. (2008). Influence of race, ethnicity, and culture on childhood obesity: implications for prevention and treatment: a consensus statement of Shaping America's Health and the Obesity Society. *Diabetes care*, 31(11), 2211-2221.
- Darmon, N., & Drewnowski, A. (2008). Does social class predict diet quality? *The American journal of clinical nutrition*, 87(5), 1107-1117.
- Drewnowski, A., & Darmon, N. (2005). The economics of obesity: dietary energy density and energy cost. *The American journal of clinical nutrition*, 82(1), 265S-273S.
- Dunn, C. G., Kenney, E., Fleischhacker, S. E., & Bleich, S. N. (2020). Feeding low-income children during the Covid-19 pandemic. *New England Journal of Medicine*, 382(18), e40.
- Elbel, B., Moran, A., Dixon, L. B., Kiszko, K., Cantor, J., Abrams, C., & Mijanovich, T. (2015). Assessment of a government-subsidized supermarket in a high-need area on household food availability and children's dietary intakes. *Public health nutrition*, 18(15), 2881-2890.
- Rogers, T., Milkman, K. L., John, L. K., & Norton, M. I. (2015). Beyond good intentions: Prompting people to make plans improves follow-through on important tasks. *Behavioral Science & Policy*, 1(2), 33-41.

**Exhibit 1**  
**Changing Eating Habits Application**  
**Minimal Viable Product (MVP) Theory of Change**

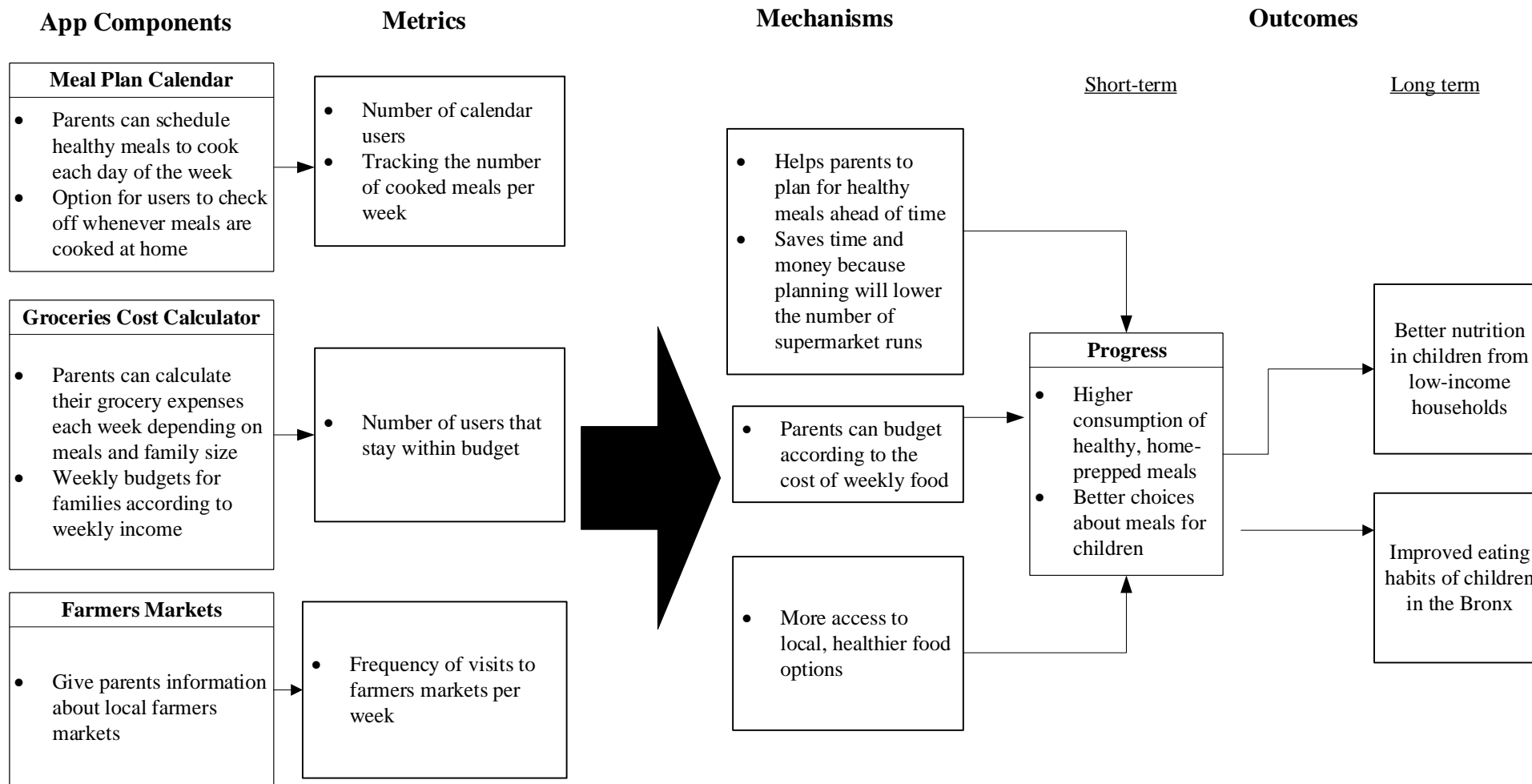
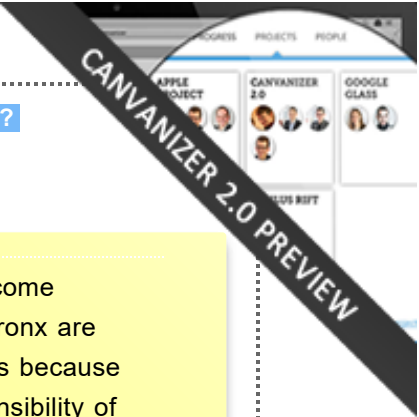


Exhibit 2  
Changing Eating Habits Application  
Lean Business Canvas



Problem ?

1. Top 3 Problems you face

Poor nutrition in children from low-income households in the Bronx

- High nutrient foods can be expensive and, therefore, out of parents' budgets
- Due to busy working schedules, parents may not have enough time to plan for healthy meals
- Limited availability of healthy food options in low-income areas

Alternative solution:

YOUTH FOOD EDUCATORS PROGRAM (YOFE)This program is aimed to train young people ages 13-18 to develop and deliver counter-marketing campaigns against unhealthy foods to their peers, families, and neighbors in their community

Solution ?

1. Top 3 Solutions to your Problems

Application that gives parents from low-income households tools to provide healthier food options for their children and families

- Meal plan calendar will allow parents to plan ahead of time
- App helps parents budget for healthy meals
- Parents will have better access and knowledge of farmers market and local supermarkets

Key Metrics ?

1. Activity that drives retention/revenue

- Number of registered users per week
- Number of downloads
- Social media metrics: number of views on Youtube
- Invited/referred family members and friends
- See user-level metrics in MVP flowchart

Unique Value Proposition ?

1. Single, clear, compelling message that states why you are different and worth buying

There will be no fee associated with the app for users and this app will help parents provide healthier meals at affordable prices. My app will work with farmers markets that accept food assistance programs

Unfair Advantage ?

1. Can't be easily copied or bought

Relationships with community-based food suppliers, including farmers markets, restaurants, local supermarkets and local vendors

Channels ?

1. Path to customers

- Free download on smart phones
- Social media
- Word of mouth
- Flyers in neighborhoods
- How-to videos on Youtube

Customer Segments ?

1. Target customers

Parents from low-income households in the Bronx are the target consumers because they have the responsibility of providing their children's nutritional needs

Cost Structure ?

1. Customer acquisition costs, distribution costs, hosting...

- Application Costs
- Hosting fee (\$15)
- Added users and related costs

Revenue Stream ?

1. Revenue model, Life time value revenue...

- Advertisement from restaurants, supermarkets, farmers market (suppliers)

-Programmer

Business Costs

-Business developer

-Marketing

-Compliance and legal assistance

-Commission from culturally responsive cooking book sales (through in-app purchases)

-Grants, when necessary or where there is strong alignment with the mission of the app

[Try out Canvanizer 2.0](#)